

Distribution of insects in North Dakota

Final Report

On the State Wildlife Grant:

“Distribution of grassland insects in Eastern North Dakota”

Prepared by

Brett Goodwin, Ph.D.

Department of Biology, University of North Dakota

June 2014

Table of Contents

Table of Contents.....	1
Introduction	8
Methods.....	9
<i>Field Sampling</i>	9
<i>Museum Search</i>	11
<i>Published Accounts</i>	11
Results.....	13
<i>Distribution maps</i>	13
Order: Ephemeroptera (Mayflies)	14
Family: Baetiscidae (Armored Mayflies)	14
Family: Leptophlebiidae (Pronggilled Mayflies).....	14
Family: Potamanthidae (Hacklegilled Burrower Mayflies)	16
Family: Ephemeridae (Common Burrower Mayflies)	17
Family: Polymitarciidae (Pale Burrower Mayflies).....	18
Family: Caenidae (Small Squaregill Mayflies)	19
Family: Leptohiphidae (Little Stout Crawler Mayflies).....	22
Family: Acanthametropodidae (Speed Minnows)	23
Family: Ametropodidae (Sand Minnow Mayflies)	24
Family: Baetidae (Small Minnow Mayflies).....	24
Family: Isonychiidae (Brushlegged Mayflies).....	35
Family: Oligoneuriidae (Bushlegged Mayflies).....	36
Family: Pseudironidae (Crabwalker Mayflies)	36
Family: Heptageniidae (Flatheaded Mayflies)	37
Order: Odonata (Dragonflies and Damselflies).....	42
Family: Calopterygidae (Broad-winged Damselflies or Demoiselles)	43
Family: Lestidae (Spreadwings, Spread-winged Damselflies).....	43
Family: Coenagrionidae (Narrow-winged Damselflies)	45
Family: Aeshnidae (Darners).....	51
Family: Gomphidae (Clubtails).....	53

Family: Corduliidae (Emeralds, Green-eyed Skimmers)	54
Family: Libellulidae (Skimmers)	56
Order: Plecoptera (Stoneflies)	62
Family: Taeniopterygidae (Winter Stoneflies)	62
Family: Chloroperlidae (Green Stoneflies).....	63
Family: Perlidae (Common Stoneflies).....	63
Family: Perlodidae (Perlodid Stoneflies).....	65
Family: Pteronarcyidae (Giant Stoneflies, Salmonflies).....	65
Order: Orthoptera (Grasshoppers, Crickets, and Katyids).....	66
Suborder: Ensifera (Crickets and Katyids).....	66
Family: Gryllacrididae (Wingless Long-horned Grasshoppers)	66
Family: Tettigoniidae (Katyids)	67
Family: Gryllidae (Crickets)	68
Suborder: Caelifera (Grasshoppers and Locusts).....	70
Family: Tetrigidae (Groundhoppers).....	70
Family: Romaleidae (Lubber Grasshoppers).....	71
Family: Acrididae (Grasshoppers)	71
Order: Hemiptera (Bugs).....	97
Sub-Order: Auchenorrhyncha (Hoppers and Cicadas).....	98
Family: Cercopidae (Froghoppers).....	98
Family: Cicadellidae (Leafhoppers)	99
Family: Membracidae (Treehoppers)	107
Family: Acanaloniidae (Acanaloniid Planthoppers)	114
Family: Dictyopharidae (Dictyopharid Planthoppers).....	115
Family: Flatidae (Flatid Planthoppers)	115
Sub-Order: Heteroptera (True Bugs)	116
Family: Gerridae (Water Striders).....	116
Family: Saldidae (Shore Bugs)	117
Family: Corixidae (Water Boatmen).....	118
Family: Belostomatidae (Giant Water Bugs).....	118
Family: Nepidae (Waterscorpions)	119

Family: Notonectidae (Backswimmers)	120
Family: Miridae (Plant Bugs, Leaf Bugs, Grass Bugs, Caspid Bugs)	121
Family: Nabidae (Damsel Bugs).....	123
Family: Acanthosomatidae (Shield Bugs).....	124
Family: Cydnidae (Burrowing Bugs)	124
Family: Pentatomidae (Stink Bugs)	126
Family: Scutelleridae (Jewel, Metallic Shield, or Shield-backed Bugs)	141
Family: Thyreocoridae (Ebony Bugs).....	143
Family: Alydidae (Broad-headed Bugs).....	145
Family: Lygaeidae (Milkweed Bugs, Seed Bugs).....	145
Order: Neuroptera (Lacewings and Relatives).....	146
Family: Chrysopidae (Green Lacewings)	146
Family: Hemerobiidae (Brown Lacewings).....	147
Family: Myrmeleontidae (Antlions)	148
Order: Coleoptera (Beetles).....	149
Family: Carabidae (Ground Beetles)	149
Family: Dytiscidae (Predaceous Diving Beetles)	159
Family: Gyrinidae (Whirligig Beetles).....	165
Family: Anobiidae (Furniture, Death Watch, and Spider Beetles).....	167
Family: Cerambycidae (Longhorn Beetles)	167
Family Chrysomelidae (Leaf Beetles)	195
Family: Cleridae (Checkered Beetles)	208
Family: Melyridae (Soft-wing Flower Beetles).....	210
Family: Coccinellidae (Ladybird or Ladybug Beetles).....	210
Family: Cucujidae (Flat Bark Beetles).....	214
Family: Endomychidae (Handsome Fungus Beetles)	214
Family: Erotylidae (Pleasing Fungus Beetles).....	215
Family: Curculionidae (True Weevils, Snout Beetles)	215
Family: Meloidae (Blister Beetles)	220
Family: Tenebrionidae (Darkling Beetles).....	222
Family: Elateridae (Click Beetles).....	224

Family: Lycidae (Net-winged Beetles).....	225
Family: Scarabaeidae (Scarab Beetles)	226
Family: Trogidae (Hide Beetles)	249
Family: Silphidae (Carrion Beetles, Burying Beetles)	250
Family: Staphylinidae (Rove Beetles).....	250
Order: Mecoptera (Scorpionflies)	251
Family: Bittacidae (Hanging Scorpionflies, Hangingflies).....	252
Order: Diptera (True Flies, Mosquitoes, and Gnats).....	252
Family: Limoniidae	252
Family: Tipulidae (Crane Flies)	253
Order: Trichoptera (Caddisflies).....	254
Order: Lepidoptera (Butterflies and Moths).....	254
Moths.....	255
Family: Hepialidae (Ghost Moths)	255
Family: Prodoxidae (Yucca Moths).....	255
Family: Tineidae (Cloths Moths)	256
Family: Acrolophidae (Burrowing Webworms).....	256
Family: Gracillariidae (Leaf-blotch Miners).....	257
Family: Yponomeutidae (Ermine Moths).....	257
Family: Plutellidae (Diamondbacked Moths).....	258
Family: Glyphipterygidae (Sedge Moths).....	258
Family: Elachistidae (Elachistids)	259
Family: Autostichidae (Autostichids)	260
Family: Coleophoridae (Case-bearers).....	260
Family: Cosmopterigidae (Cosmopterigids).....	261
Family: Gelechiidae (Cosmopterigids)	261
Family: Limacodidae (Slug Caterpillars)	262
Family: Sesiidae (Clearwing Moths)	262
Family: Cossidae (Carpenter Moths).....	263
Family: Tortricidae (Leaf Rollers, Bell Moths)	263
Family: Epermeniide (Epermenids).....	266

Family: Alucitidae (Many Plumed Moths).....	266
Family: Pterophoridae (Plume Moths).....	267
Family: Pyralidae (Pyralid Snout Moths).....	267
Family: Crambidae (Crambid Snout Moths).....	268
Family: Drepanidae (Hook-tipped Moths)	272
Family: Uraniidae (Uraniid Moths).....	273
Family: Geometridae (Geometrids or Inchworm Moths)	273
Family: Lasiocampidae (Tent Caterpillar and Lappet Moths)	280
Family: Saturniidae (Giant Silkworm and Royal Moths)	281
Family: Sphingidae (Hawk Moths, Sphinx Moths, and Hornworms)	283
Family: Notodontidae (Prominents)	295
Family: Noctuidae (Owlet Moths).....	307
Family: Nolidae (Tuft Moths)	366
Family: Arctiidae (Tigers, Footmen, Lichen Moths, Wasp Moths).....	366
Family: Lymantriidae (Tussock Moths)	381
Butterflies.....	382
Family: Hesperidae (Skippers).....	382
Family: Papilionidae (Swallowtails).....	396
Family: Pieridae (Whites and Sulphurs)	399
Family: Lycaenidae (Gossamer Winged Butterflies)	403
Family: Riodinidae (Metalmarks)	412
Family: Nymphalidae (Brush-footed Butterflies).....	412
Order: Hymenoptera (Ants, Bees and Wasps).....	429
Sub-Order: Symphyta (Sawflies)	430
Family: Argidae (Argid Sawflies).....	430
Family: Tenthredinidae (Common Sawflies).....	431
Sub-Order: Apocrita (Wasps, Bees, and Ants)	431
Family: Ichneumonidae (Ichneumon Wasps)	431
Family: Andrenidae (Mining Bees).....	434
Family: Apidae (Honey, Bumble, Carpenter and Cuckoo Bees).....	437
Family: Colletidae (Plasterer Bees)	442

Family: Halictidae (Sweat Bees)	444
Family: Megachilidae (Mason Bees, Leafcutter Bees)	451
Family: Crabronidae (Mud Daubers)	453
Family: Sphecidae (Thread-waisted Wasps)	462
Family: Chrysididae (Cuckoo Wasps)	470
Family: Pompilidae (Spider Wasps, Pompilid Wasps)	471
Family: Tiphidae (Tiphid Wasps, Flower Wasps)	472
Family: Vespidae (Paper and Potter Wasps, Yellowjackets, Hornets)	473
<i>Site Checklists</i>	475
Art Brazda WMA	475
Baron WMA	475
Beaver Lake State Park	476
Billings WMA	476
Buffalo Lake NWR	477
Clausen Springs WMA	478
Cottonwood Creek WMA	479
Dawson WMA	479
D.L. Thompson WMA	480
Ed Bry WMA	481
Fort Ransom WMA	481
Golden Lake WMA	482
Hamilton Wills WMA	482
Hooreart WMA	483
Horseshoe Lake WMA	484
Hyatt Slough WMA	485
Icelandic State Park	485
Johnson's Gulch WMA	486
Knox Slough WMA	487
Lake Washington WMA	488
Logan County WMA	488
Lehr WMA	488

Lone Tree WMA	489
McKenzie Slough WMA.....	489
Meszaros Slough WMA	490
Mirror Pool WMA.....	491
Mud Lake WMA	492
Oahe-Burleigh County WMA.....	492
Oakville Prairie (UND)	493
Sand Hill WMA	493
Silver Lake WMA	495
Sheyenne National Grassland	495
Stack Slough WMA	496
Sully's Hill NGP NWR	497
Turtle River State Park	497
Wells County WMA	498
References	500

Introduction

One of the 2010 State Wildlife Grant funding priorities was to support the development of background information on invertebrates in North Dakota to allow for the inclusion of invertebrates in upcoming revisions of the Wildlife Action plan. The results from this project help provide historical and current abundance information on insects in North Dakota, with a focus on grassland insects in the eastern half of the state. During this project insect distribution data were determined from 2 years of field sampling in grasslands of eastern North Dakota, searching the University of North Dakota Invertebrate Museum (UND Museum) collection, and compiling distribution data from published sources. Together these data provide a first look at insect distributions across North Dakota.

Methods

Field Sampling

In 2011 and 2012 insects were sampled at 36 field locations spread throughout the eastern half of North Dakota (Fig. 1). Sites were grasslands either in State Wildlife Management Areas, State Parks, National Wildlife Reserves, National Grasslands or University of North Dakota Field Stations (Table 1). Sites were sampled for a single year and most sites were sampled twice during the year with a few sites only sampled once due to access issues related to flooding. At each site insects were sampled via a number of techniques: 1) sweep net sampling, 2) Malaise flight intercept traps, 3) pitfall traps, and 4) butterfly walks. These various techniques were used to maximize the variety of insects captured.

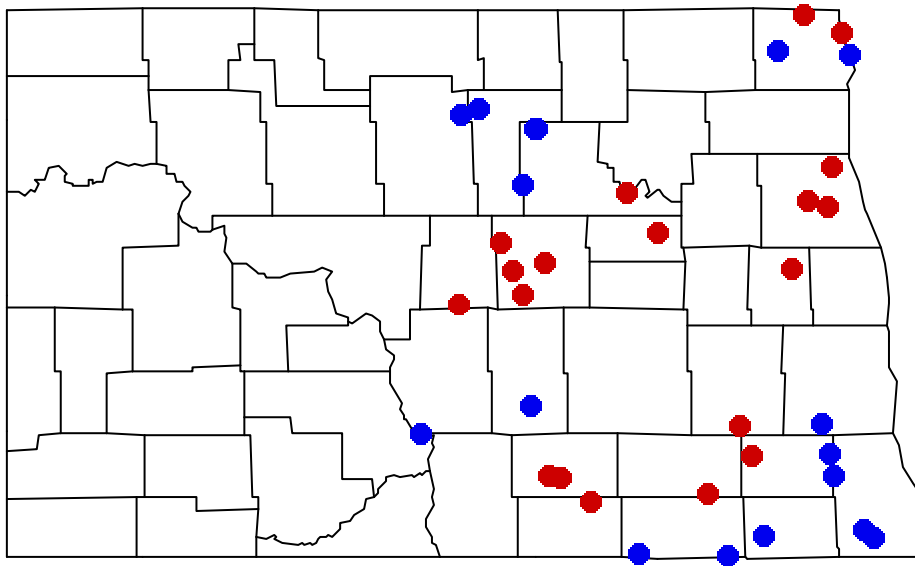


Figure 1: Sampling locations throughout North Dakota. Red dots indicated sites sampled in 2011 while blue dots indicate sites sampled in 2012

Sweep net samples were collected along five 5 m long transects by sweeping a net back forth at the top of the vegetation. At the end of each transect the bag of the net was emptied into a labeled Ziploc bag and the insects placed in ice in a cooler. Once back at the lab the sample was frozen until it could be processed.

Two Malaise traps were placed at each site and left open for two days to collect insects. Malaise traps work by intercepting flying insects and then using baffles to direct the insects up and into a collecting jar. The collecting jar is loaded with a poison incapacitating the insects until they could be collected. The sample collected by the Malaise trap was placed in a labeled Ziploc bag and placed on ice in a cooler. Once back at the lab the sample was frozen until it could be processed.

Table 1: Site names, year sampled and the number of sampling visits. Sites are either national wildlife refuges (NWR), wildlife management areas (WMA), State Parks, University of North Dakota Field Stations (UND), or National Grasslands.

Site Name	Year	Sampling visits
Art Brazda WMA	2011	1
Beaver Lake State Park	2011	2
Baron WMA	2011	2
Clausen Springs WMA	2011	2
Ed Bry WMA	2011	1
Fort Ransom WMA	2011	2
Golden Lake WMA	2011	2
Hooreart WMA	2011	2
Logan County WMA	2011	1
Cottonwood Creek WMA	2011	2
Lehr WMA	2011	1
Lone Tree WMA	2011	1
Lake Washington WMA	2011	1
D.L. Thompson WMA	2011	2
Oakville Prairie (UND)	2011	2
Sully's Hill NGP NWR	2011	2
Silver Lake WMA	2011	2
Turtle River State Park	2011	2
Wells County WMA	2011	2
Buffalo Lake NWR	2012	2
Dawson WMA	2012	2
Horseshoe Lake WMA	2012	2
Hamilton Wills WMA	2012	2
Hyatt Slough WMA	2012	2
Icelandic State Park	2012	2
Johnson's Gulch WMA	2012	2
Knox Slough WMA	2012	2
McKenzie Slough WMA	2012	2
Mud Lake WMA	2012	2
Mirror Pool WMA	2012	2
Billings WMA	2012	2
Meszaros Slough WMA	2012	2
Oahe-Burleigh County WMA	2012	2
Sand Hill WMA	2012	2
Stack Slough WMA	2012	2
Sheyenne National Grassland	2012	2

At each site two transects of pitfall traps were established. Each transect had five pitfall traps placed 10 m apart. Traps were buried flush to the soil, filled with water with a few drops of liquid soap to break the water tension, and covered with a tin flashing roof to keep out rain. Traps were left open for two days and then collected. Samples from the traps were placed in 70% ethanol and stored until they could be processed.

Butterfly walks involved a timed walk (30 minutes) that looped out from the collecting site and returned to the collecting site. During the walk butterflies, dragonflies, and damselflies were identified on the wing if possible or captured in a butterfly net for closer identification or collection if the specimen could not be identified in the field.

Samples returned to the lab were processed by reconstituting the specimen (either thawing or allowing the alcohol to evaporate) and then pinning. Specimens >0.5 cm in length (excluding antennae) were identified to order and then given a morphospecies identifier based on anatomical features. Morphospecies were then identified either based on comparisons to named specimens in the UND Museum collection or via keys suitable for non-specialists. Specimens that were immature, damaged, or just difficult to identify were either just identified to genus if possible or left unidentified.

Museum Search

We searched the entire UND Museum collection, over 500,000 specimens. Specimens that met the following criteria were used in this study: 1) specimens were adult insects >0.5 cm in body length (excluding antennae); 2) specimens were trapped in North Dakota; 3) capture location was recorded to at least the county level; 4) the specimen was identified to species or could be easily matched to an identified specimen found in close proximity in the storage cabinets. For specimens meeting these criteria we recorded taxonomic information and county of occurrence. Since specimens in the museum could be quite old (we observed the occasional specimen dating back to the 1920s with a bulk of specimens from the 1960s and 1970s), we checked all taxonomic information against taxonomic databases (e.g., Integrated Taxonomic Information System (ITIS) <http://www.itis.gov>; Catalog of Life <http://www.catalogueoflife.org/>). If a non-current species name was used in the UND invertebrate collection the species was reported with the current, correct name and the old name of the specimen(s) we considered in parentheses like so: *Current genus (=Old Genus) species*, *Genus current species (=old species)*, or *Current genus species (=Old Genus species)*. Museum records were included in the distribution mapping but not the site checklists.

Published Accounts

We searched the literature and the internet for published county occurrence records for groups of insects, usually orders or families. We did not search for individual reports on individual species due to time constraints. Again, reported taxonomic names were double-checked to

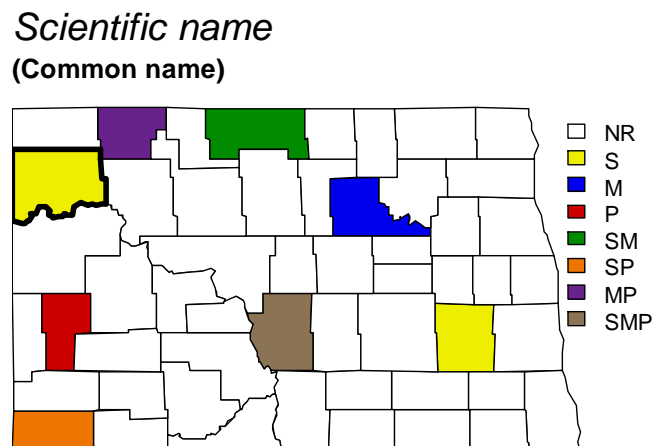
ensure the most current, accepted names were used. Published distribution data were used to create distribution maps but not site checklists.

Results

Distribution maps

Distribution maps for insect species in North Dakota are based on county level presence data derived from field sampling, specimens in the UND Museum collection with locality data, and county records from published sources. Maps are organized by Order, sub-Order if important, and Family, with all arranged in taxonomic order. Within Family maps are arranged in alphabetical order by binomial name, unless following the taxonomic order presented in a published source for a particular group of insects, which will be noted.

Each Order has a brief introduction that describes the order, clarifies which sorts of information were available, and clarifies which life-stages were included. Details on any species of conservation concern included in the order are also presented at the beginning of the section for that order. Distribution maps followed a set format (Figure 2).



Note: Particular information for the species mapped above will be included here.

Figure 2: Species distribution maps will follow this scheme throughout the report. The scientific name will be provided and, if there is one, the common name will be included in parenthesis beneath the scientific name. Counties without any record of the species (NR) will be shaded white, otherwise shaded counties will indicate the presence of the species with the color indicating the type of evidence: found in field sampling (S) in yellow, a museum record (M) in blue, a published record (P) in red, sample and museum (SM) in green, sample and published record (SP) in orange, museum and published record (MP) in purple, and all three (SMP) in brown. A county presence that might be questionable will have a thick outline and be explained in a note under the map.

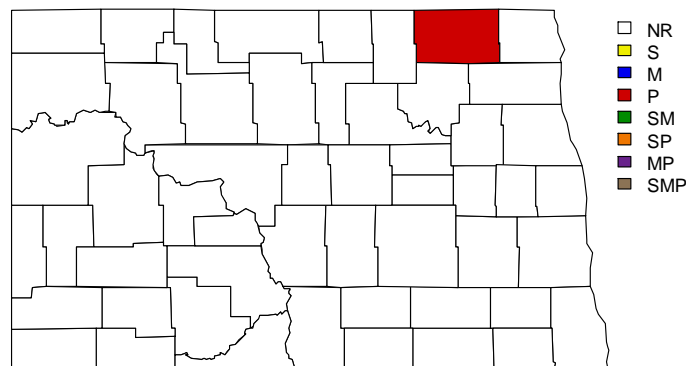
Order: Ephemeroptera (Mayflies)

Ephemeroptera, commonly known as mayflies, spend much of their life as aquatic larvae with a very brief adult stage. Published records are taken from Guenther and McCafferty (2005) and the Mayflies of North Dakota web page (Kondratieff 2000a). Published records are primarily based on sampling of aquatic larvae while sampled and museum specimens were entirely adult.

While many mayflies have common names these names are often applied to entire genera and not at the species level, so common names are not reported here.

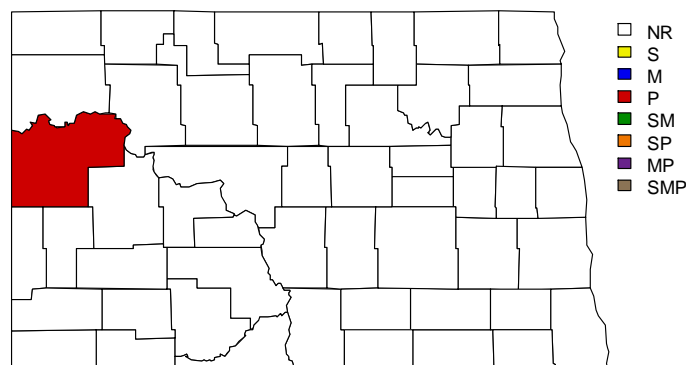
Family: Baetiscidae (Armored Mayflies)

Baetisca lacustris

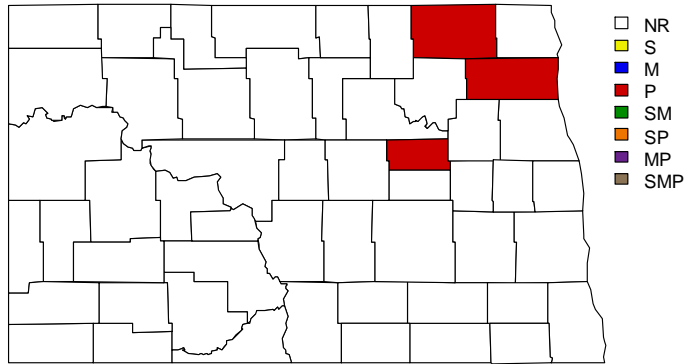


Family: Leptophlebiidae (Pronggilled Mayflies)

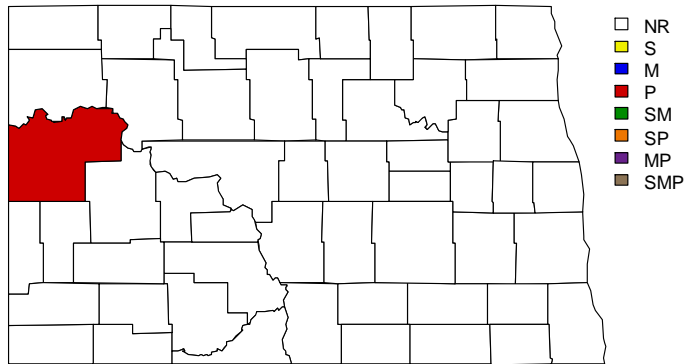
Choroiterpes albiannulata



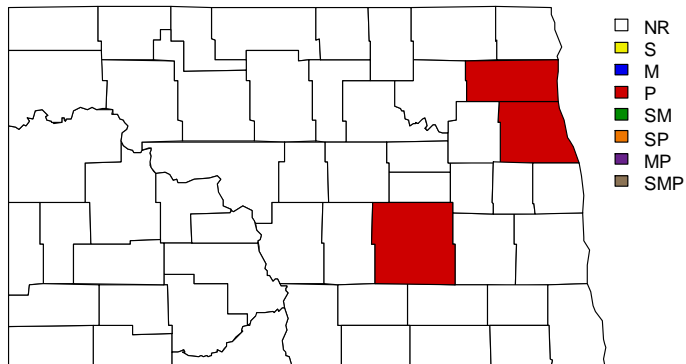
Leptophlebia nebulosa



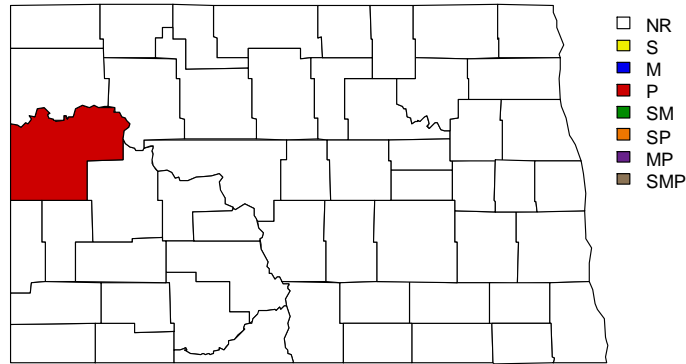
Neochoroterpes oklahoma



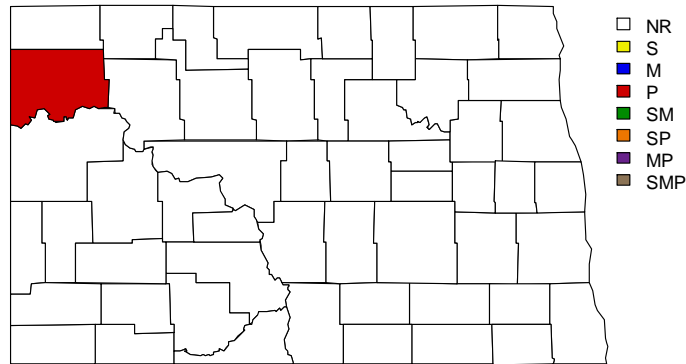
Paraleptophlebia debilis



Traverella albertana

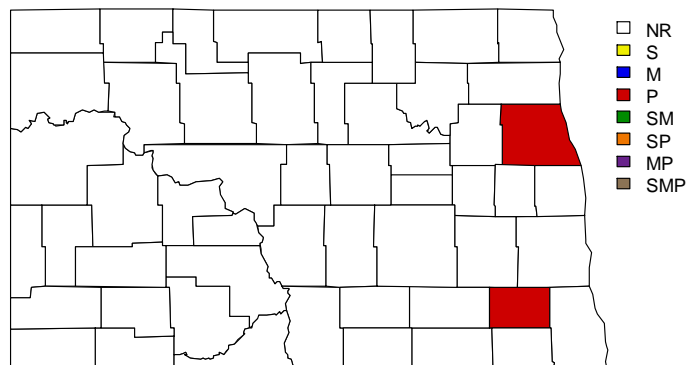


Traverella lewisi



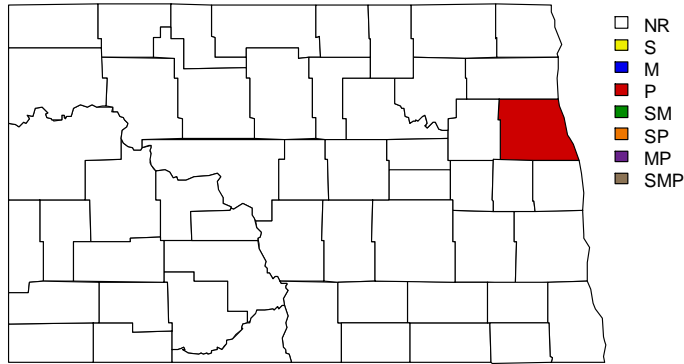
Family: Potamanthidae (Hacklegilled Burrower Mayflies)

Anthopotamus myops

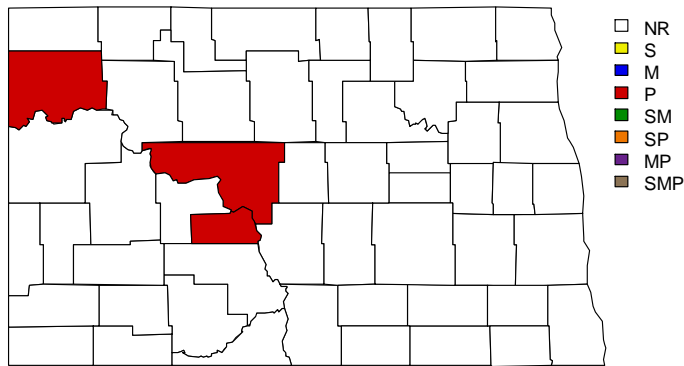


Family: Ephemeridae (Common Burrower Mayflies)

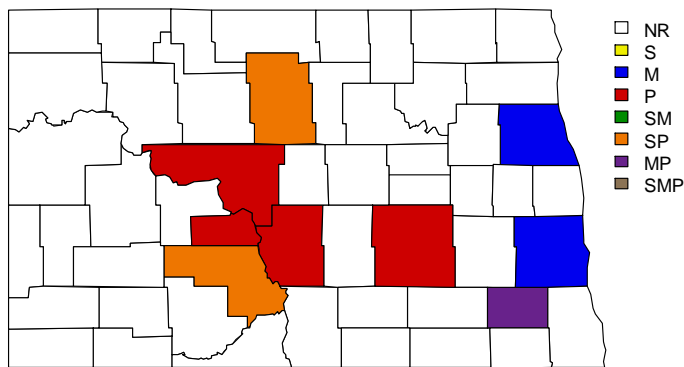
Ephemera simulans



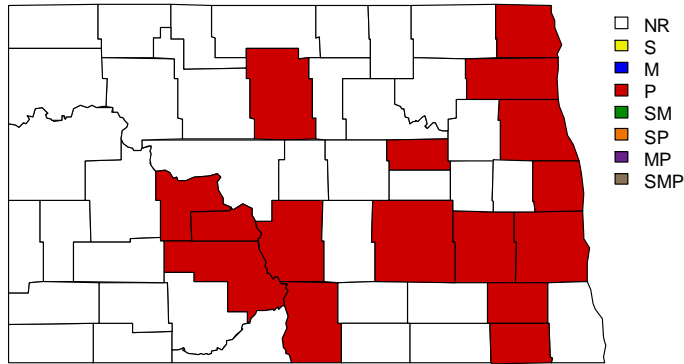
Hexagenia atrocaudata



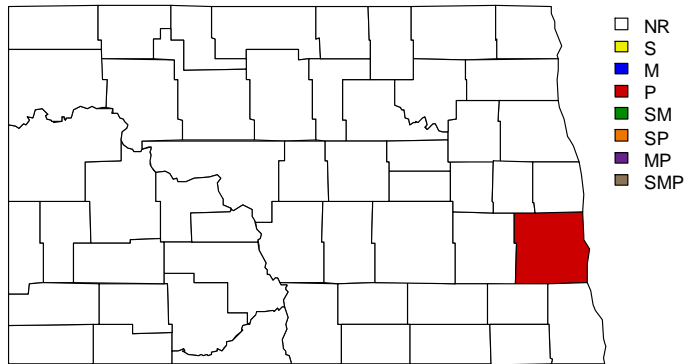
Hexagenia bilineata



Hexagenia limbata

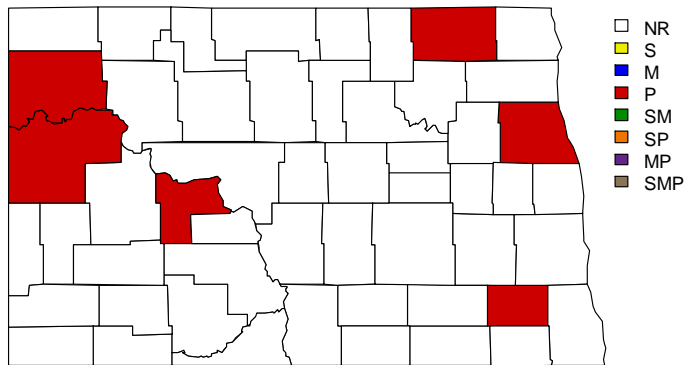


Hexagenia rigida

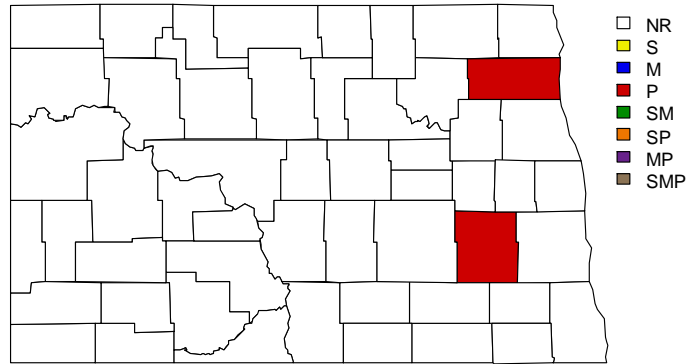


Family: Polymitarcyidae (Pale Burrower Mayflies)

Ephoron album

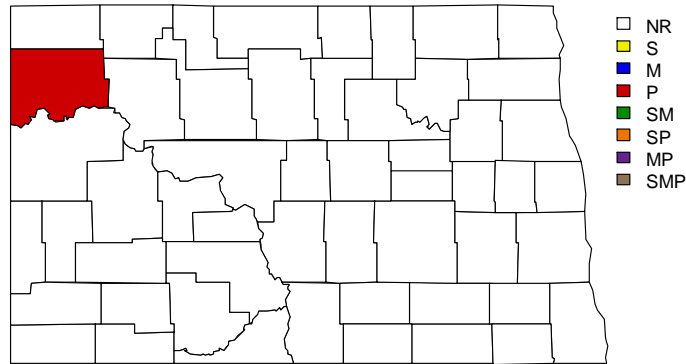


Ephoron leukon

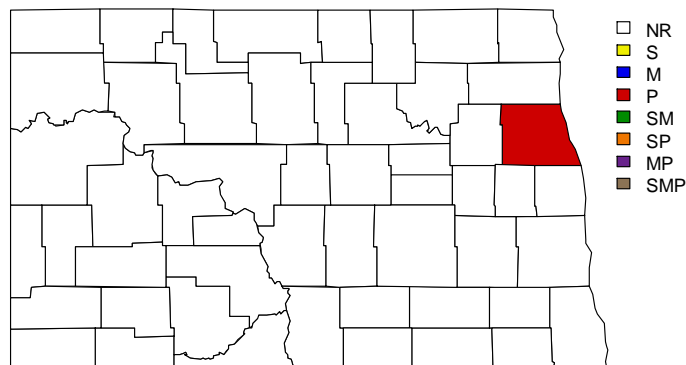


Family: Caenidae (Small Squaregill Mayflies)

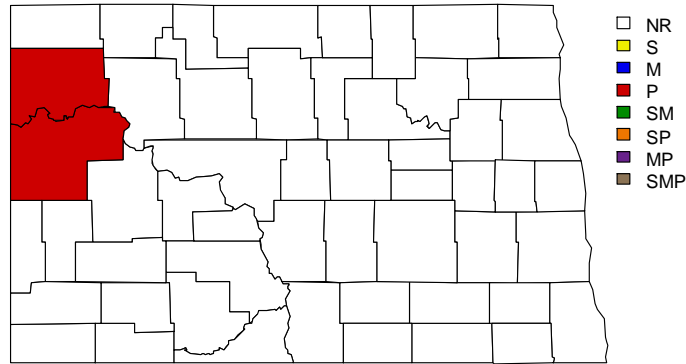
Amercaenis ridens



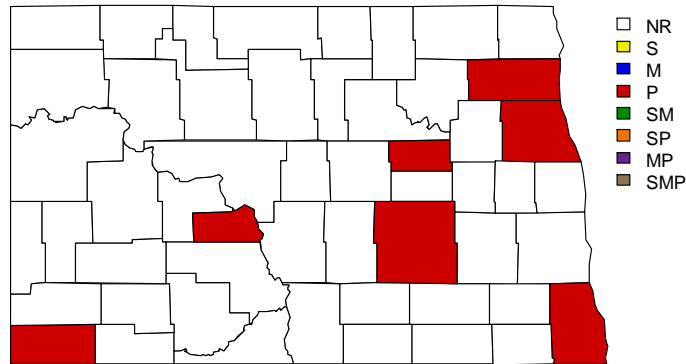
Sparbarus (=Brachycercus) lacustris



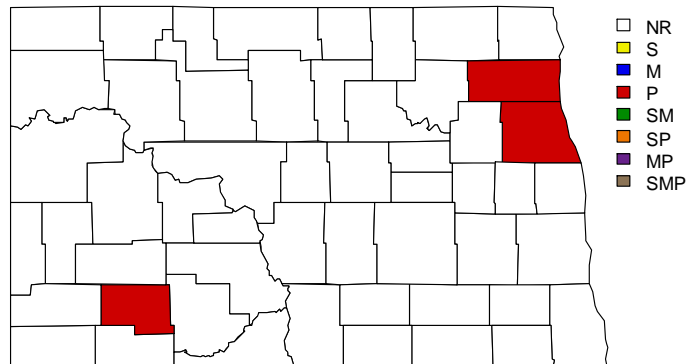
Susperatus (=Brachycercus) prudens



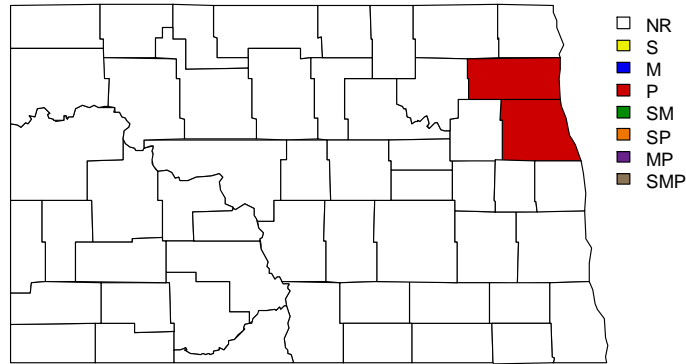
Caenis amica



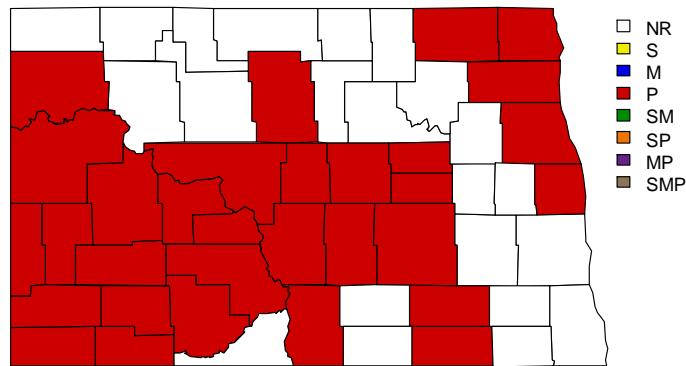
Caenis diminuta



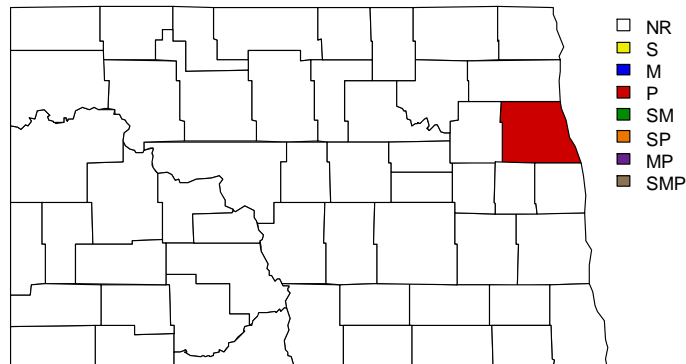
Caenis hilaris



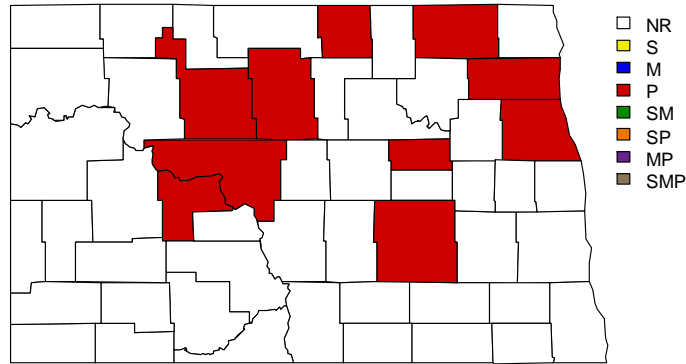
Caenis latipennis



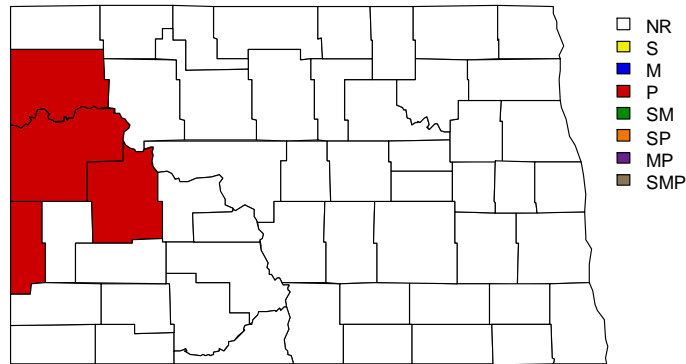
Caenis tardata



Caenis youngi

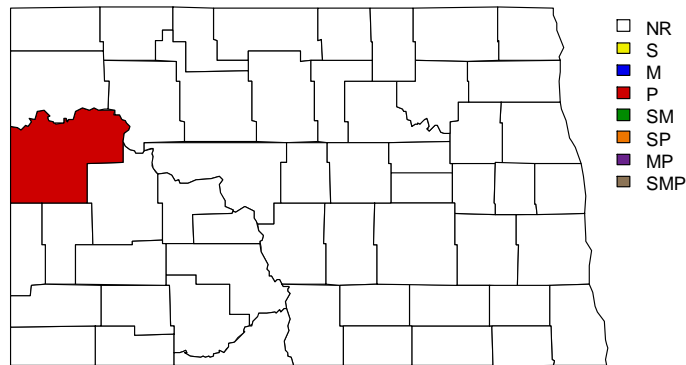


Cercobrachys cree

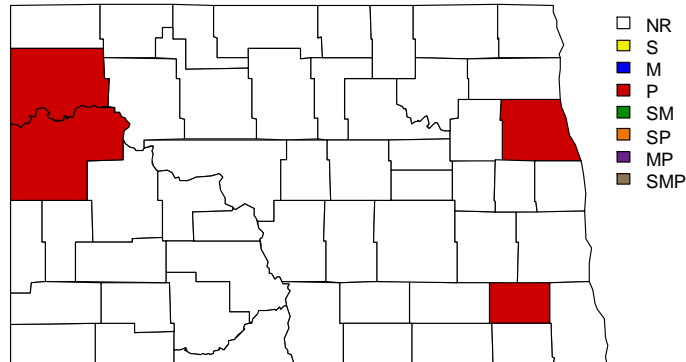


Family: Leptohipidae (Little Stout Crawler Mayflies)

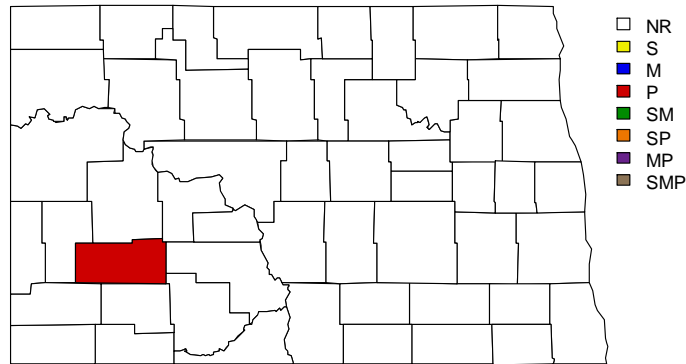
Tricorythodes allectus



Tricorythodes explicatus (=minutus)

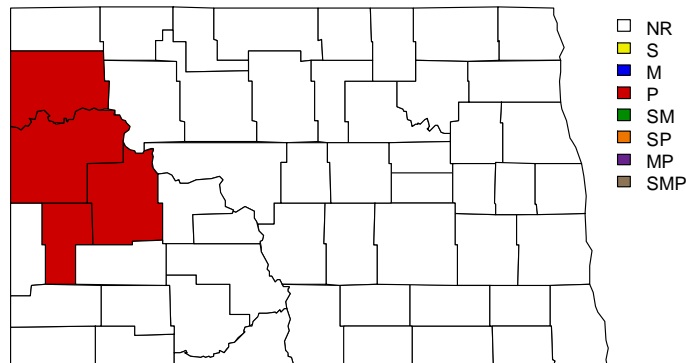


Tricorythodes stygiatus

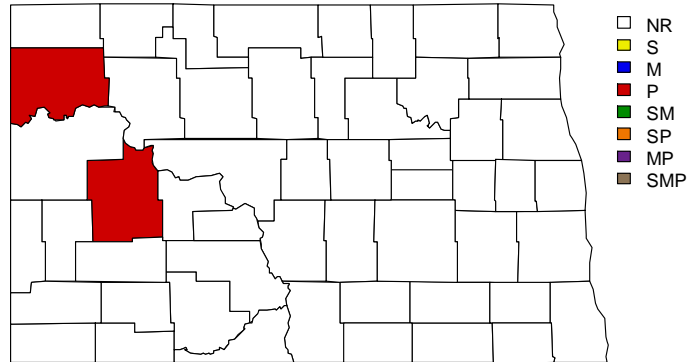


Family: Acanthametropodidae (Speed Minnows)

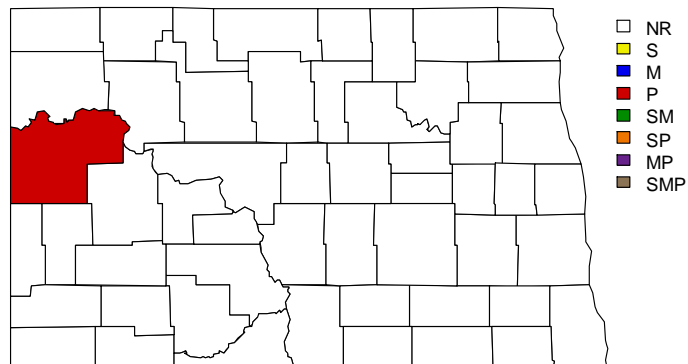
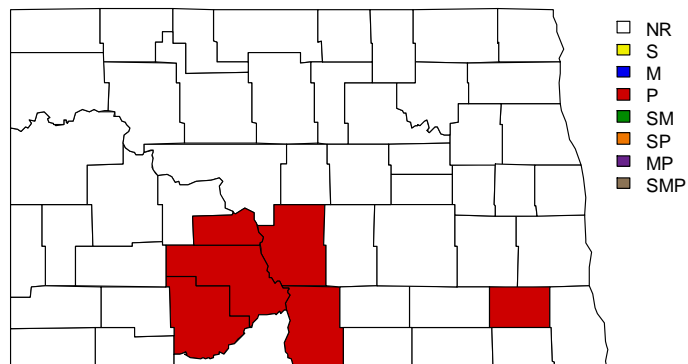
Analetris eximia



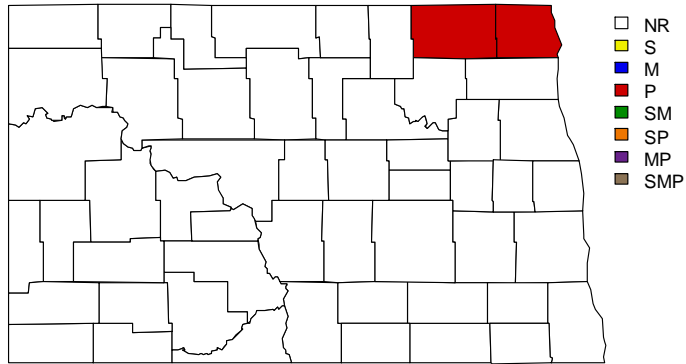
Family: Ametropodidae (Sand Minnow Mayflies)

Ametropus neavei

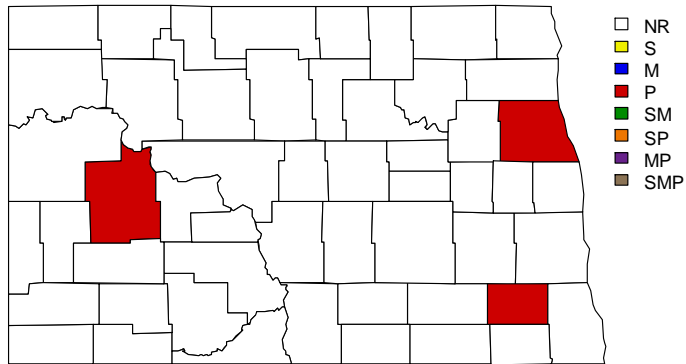
Family: Baetidae (Small Minnow Mayflies)

Acentrella insignificans*Acentrella parvula*

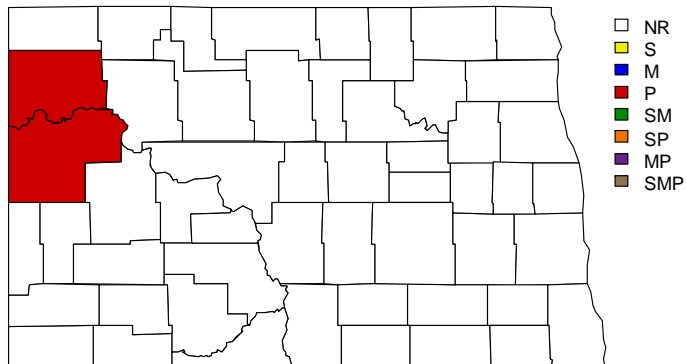
Acentrella turbida



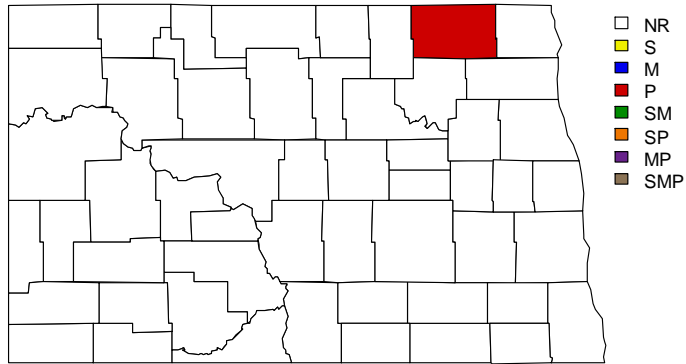
Acerpenna pygmaea



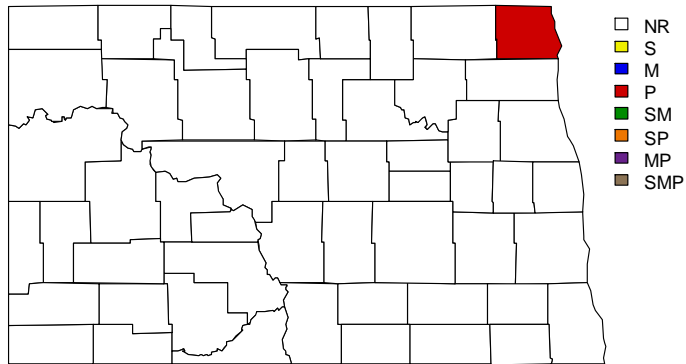
Apobaetis etowah



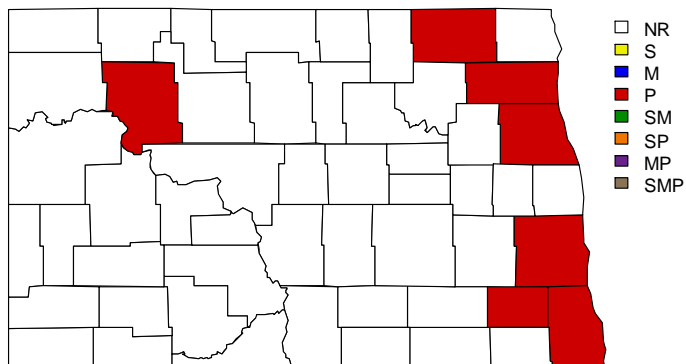
Apobaetis lakota



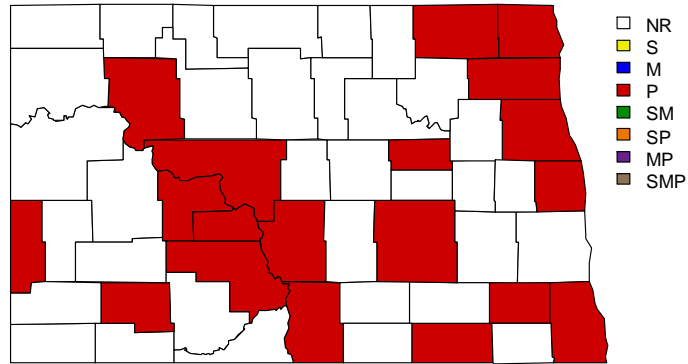
Baetis brunneicolor



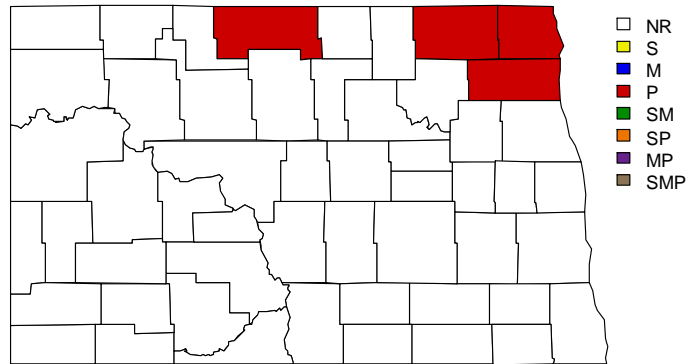
Baetis flavistriga



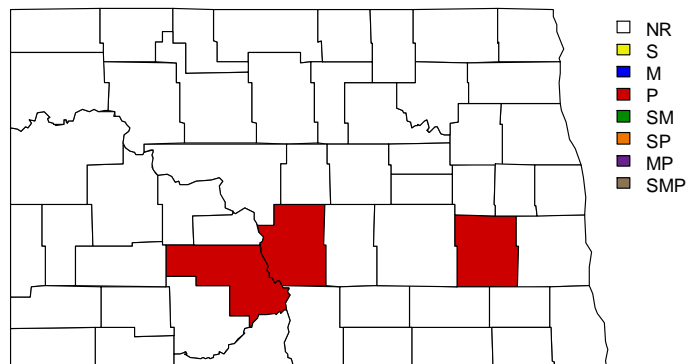
Baetis intercalaris



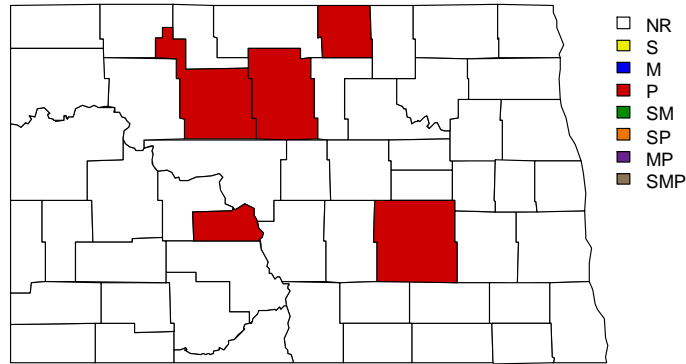
Baetis tricaudatus



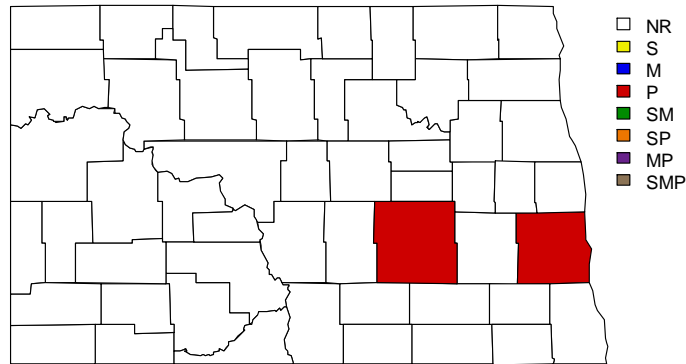
Callibaetis ferrugineus



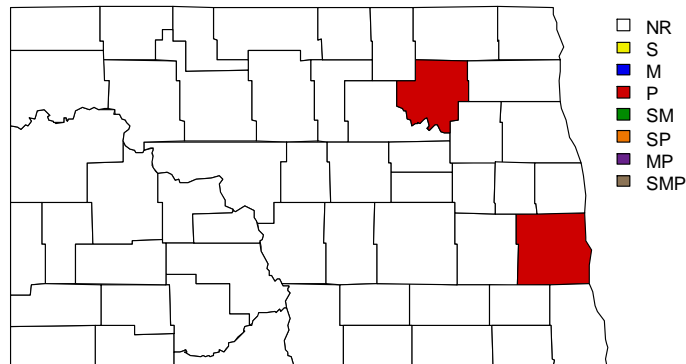
Callibaetis pallidus



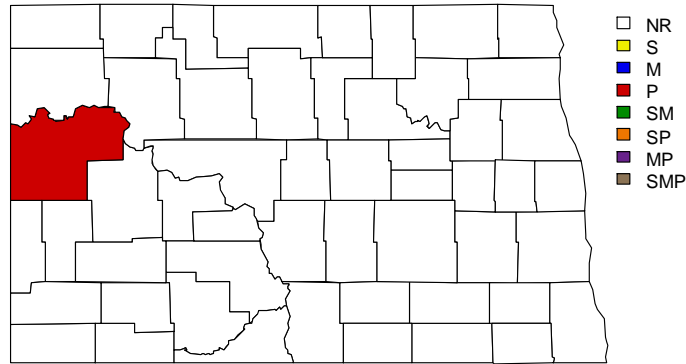
Callibaetis pictus



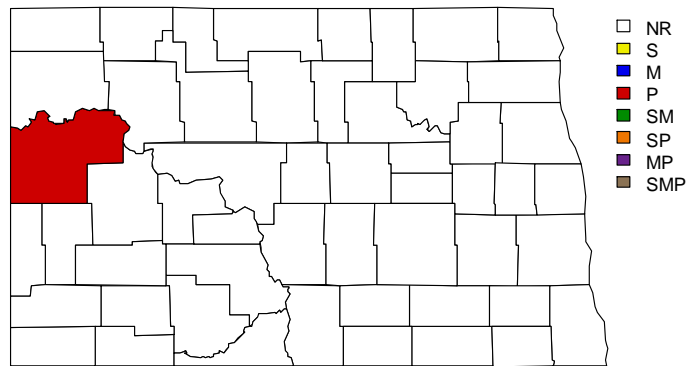
Callibaetis skokianus



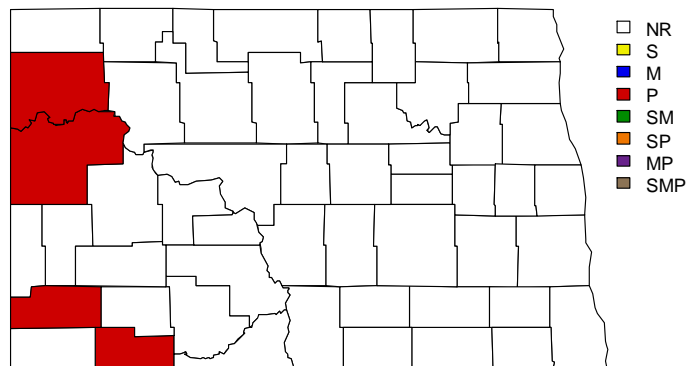
Camelobaetidius warreni



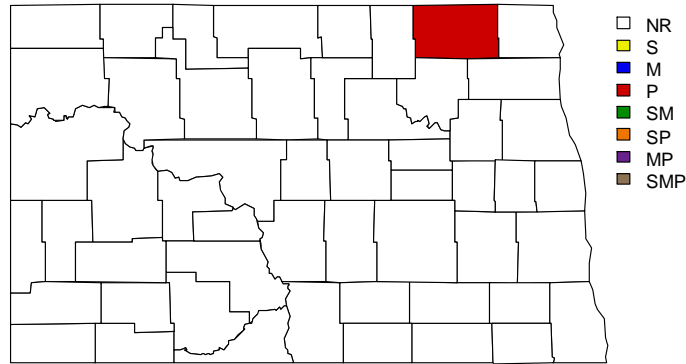
Centroptilum conturbatum



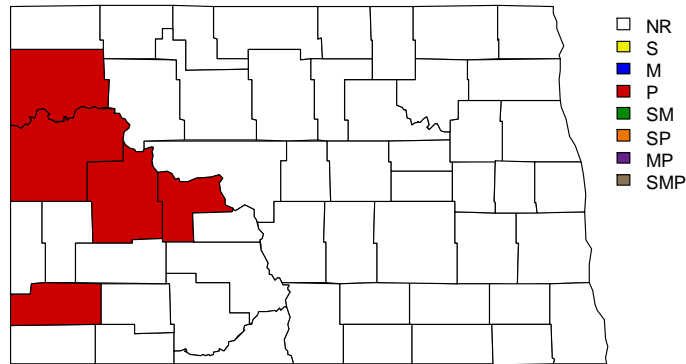
Fallceon quilleri



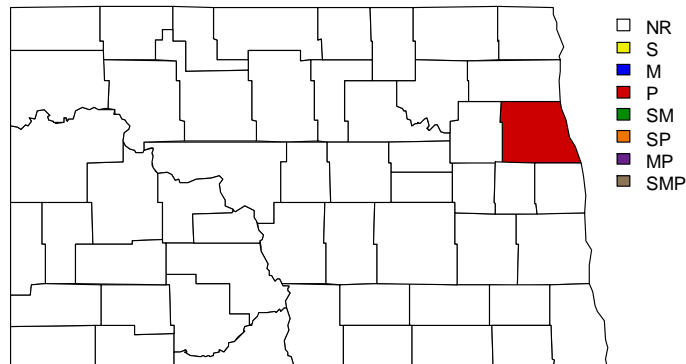
Iswaeon (=Heterocloeon) anoka



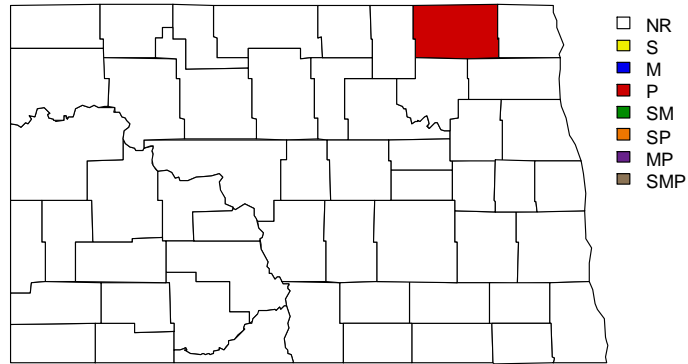
Paracloeodes minutus



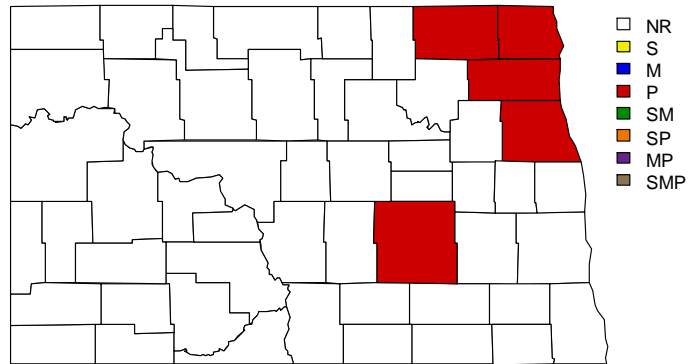
Plauditus cestus



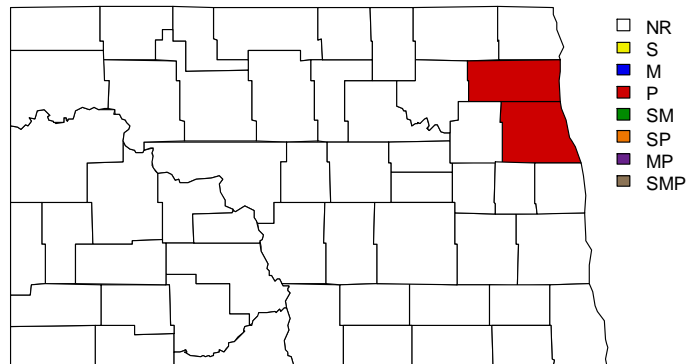
Plauditus dubius



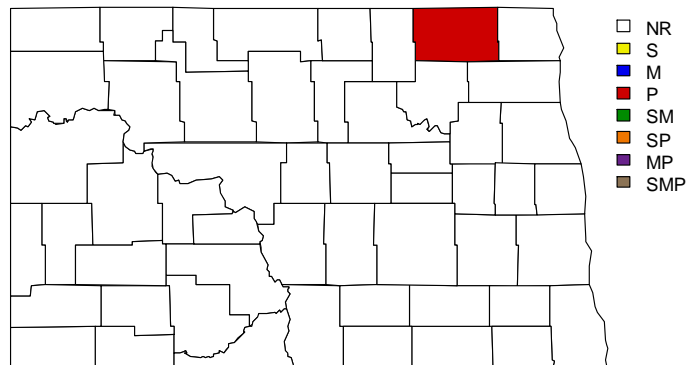
Plauditus gloveri



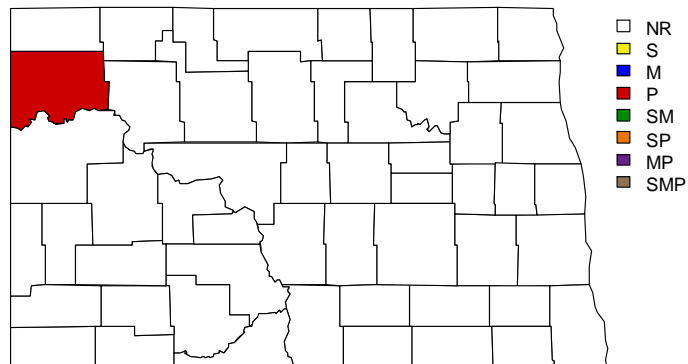
Plauditus punctiventris



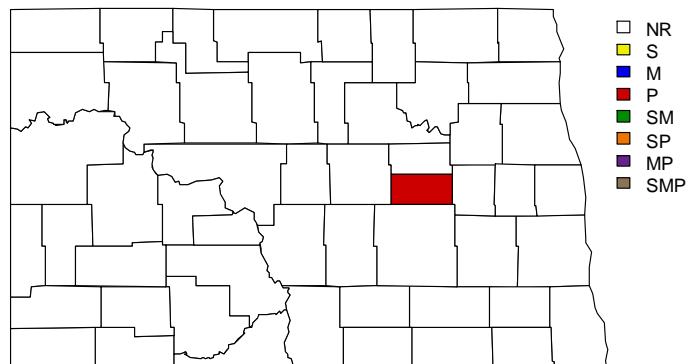
Plauditus virilis



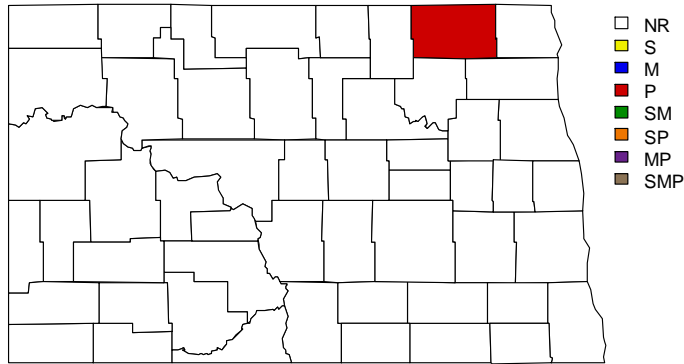
Procloeon pennulatum



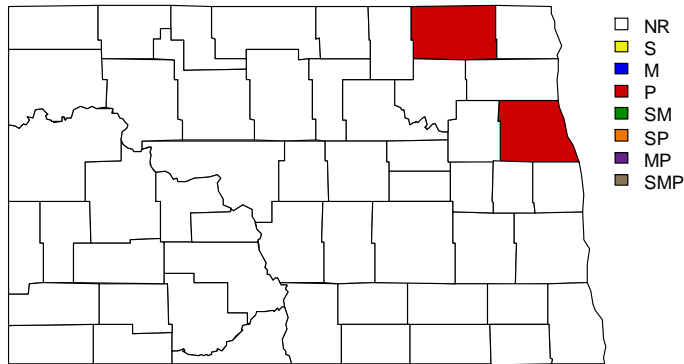
Procloeon quaesitum



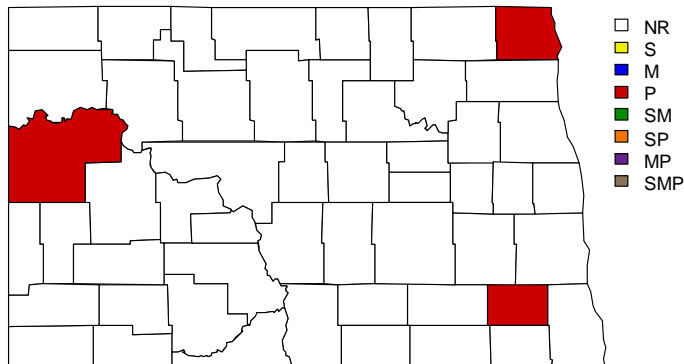
Proclleon rubropictum



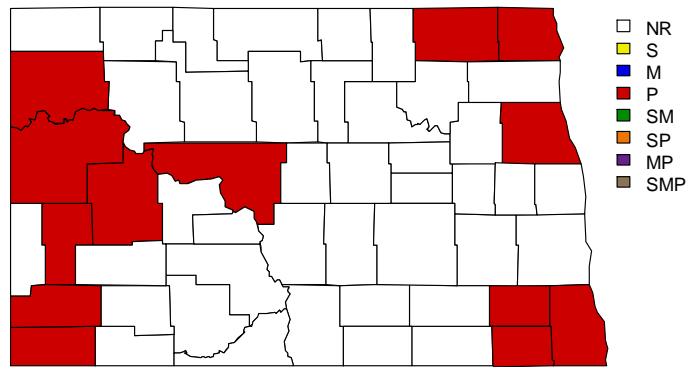
Proclleon rufostrigatum



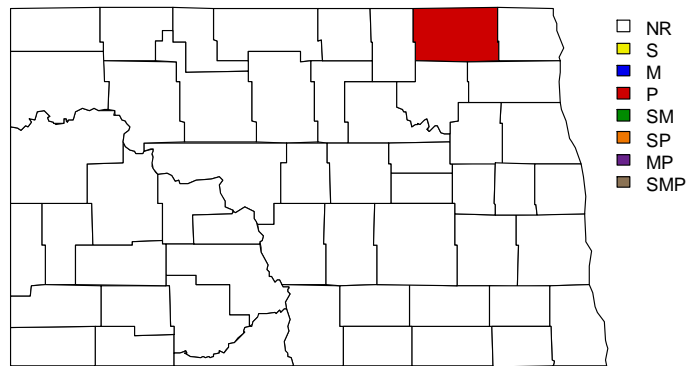
Proclleon viridoculare



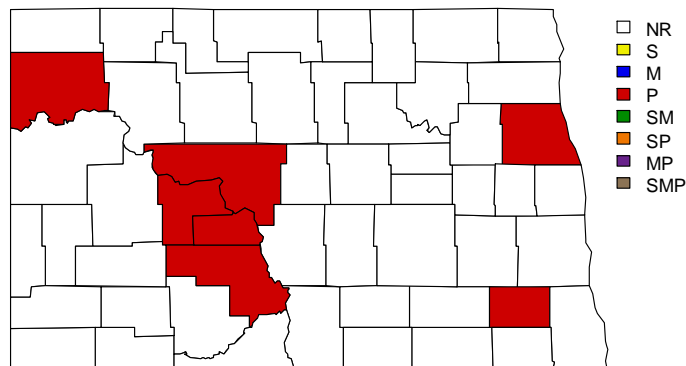
Pseudocloeon dardanum



Pseudocloeon ehippiatum

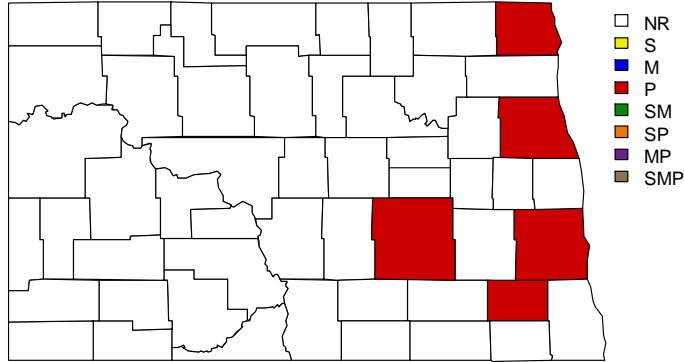


Pseudocloeon propinquum

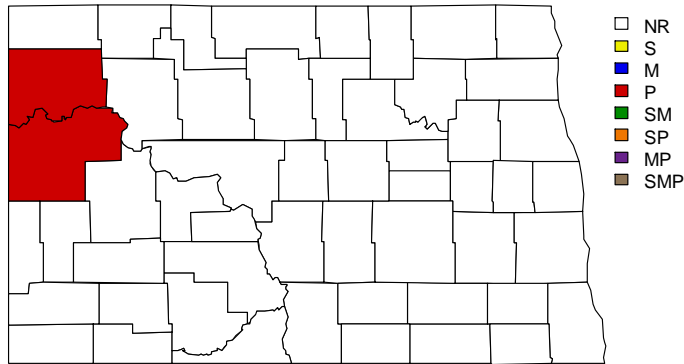


Family: Isonychiidae (Brushlegged Mayflies)

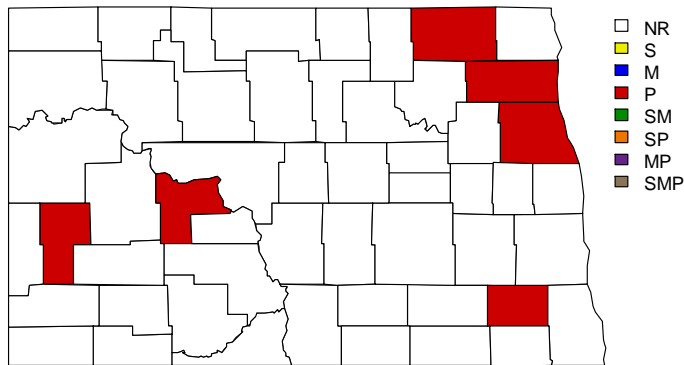
Isonychia bicolor



Isonychia campestris

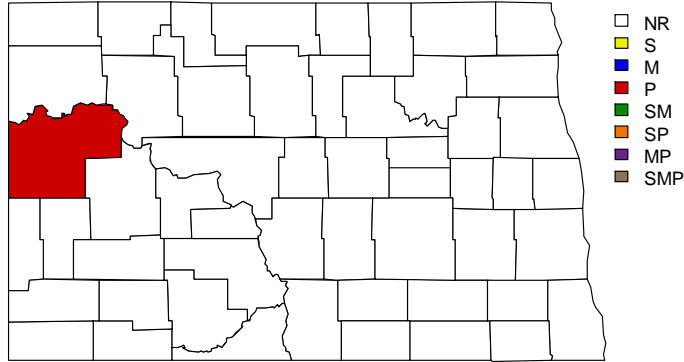


Isonychia rufa



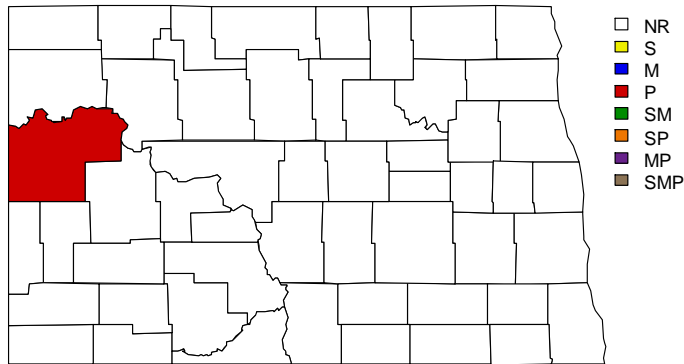
Family: Oligoneuriidae (Bushlegged Mayflies)

Lachlania saskatchewanensis

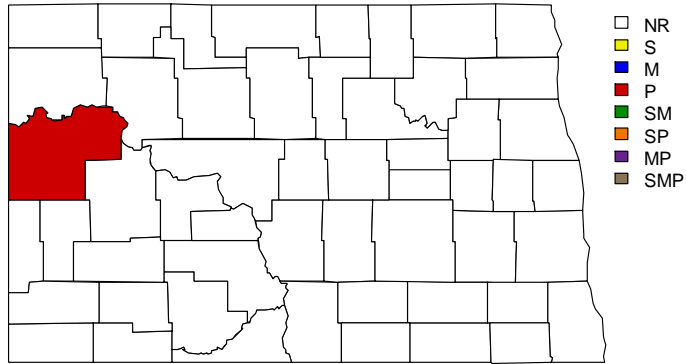
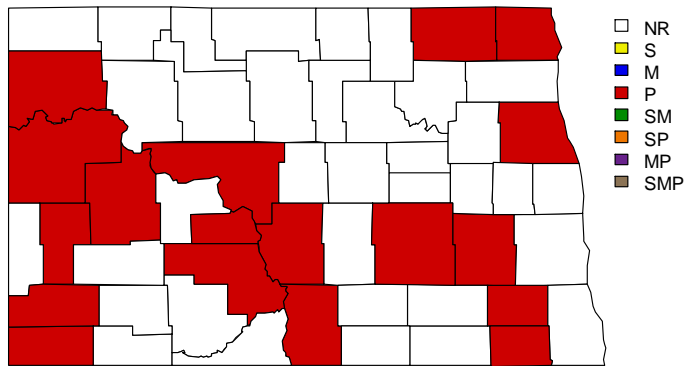
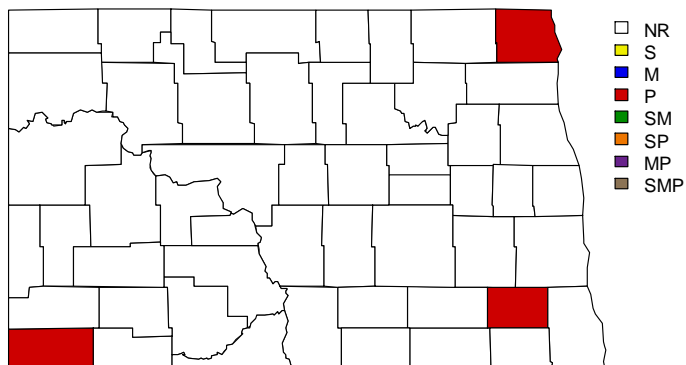


Family: Pseudironidae (Crabwalker Mayflies)

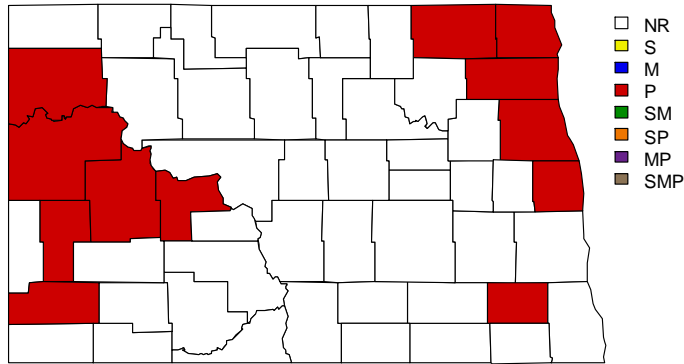
Pseudiron centralis



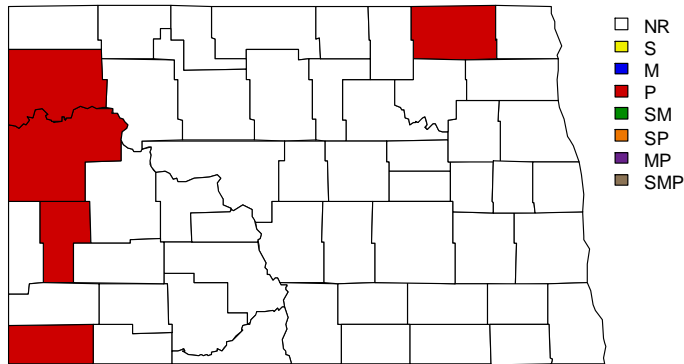
Family: Heptageniidae (Flatheaded Mayflies)

Heptagenia adaequata*Heptagenia elegantula**Heptagenia flavescens*

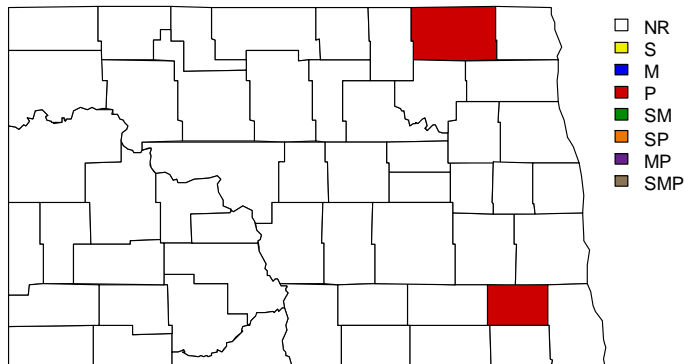
Leucrocuta hebe



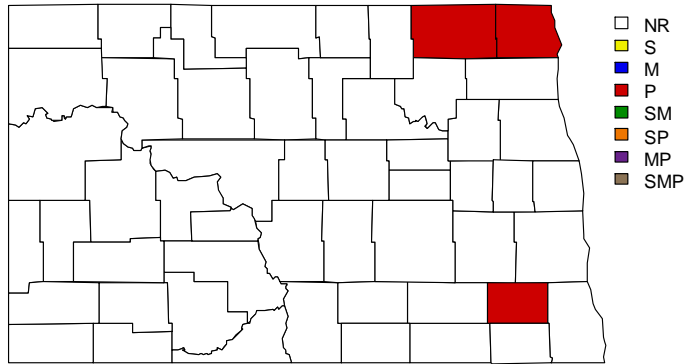
Leucrocuta maculipennis



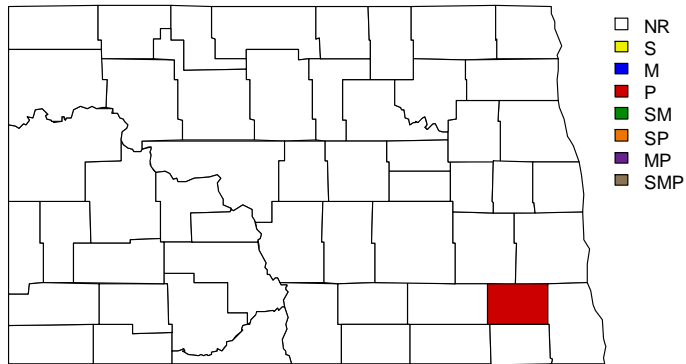
Maccaffertium exiguum



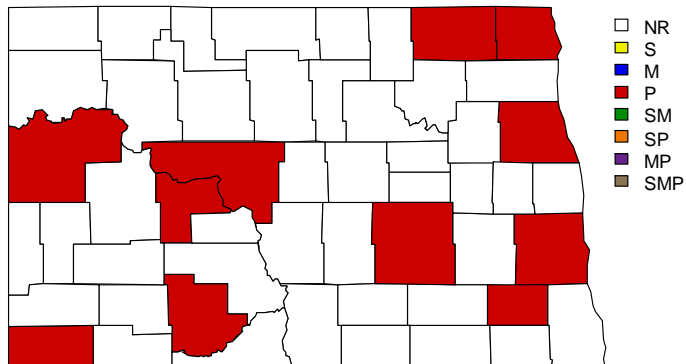
Maccaffertium mexicanum



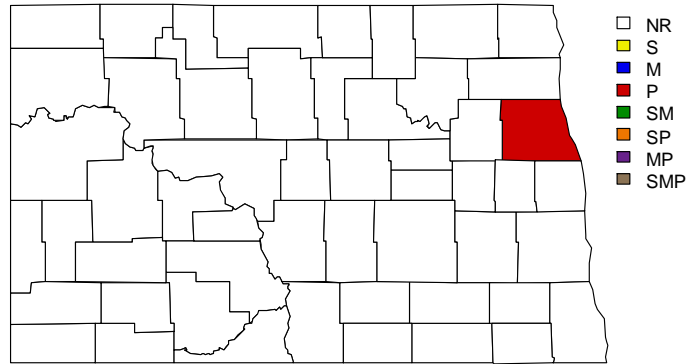
Maccaffertium pulchellum



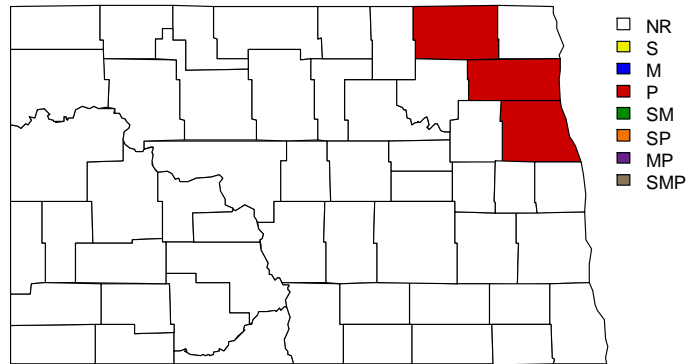
Maccaffertium terminatum



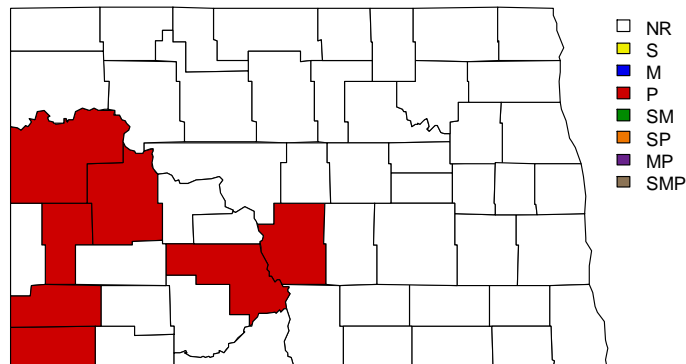
Nixe inconspicua



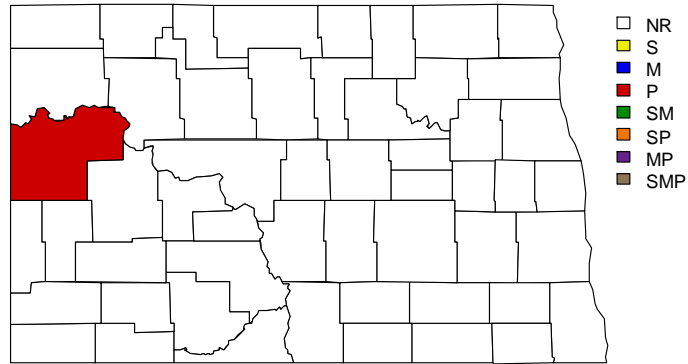
Nixe lucidipennis



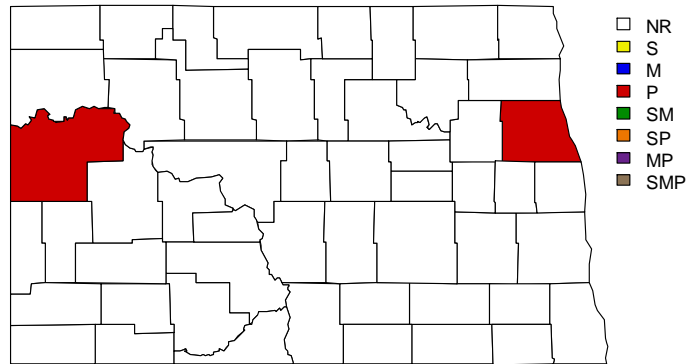
Raptoheptagenia cruentata



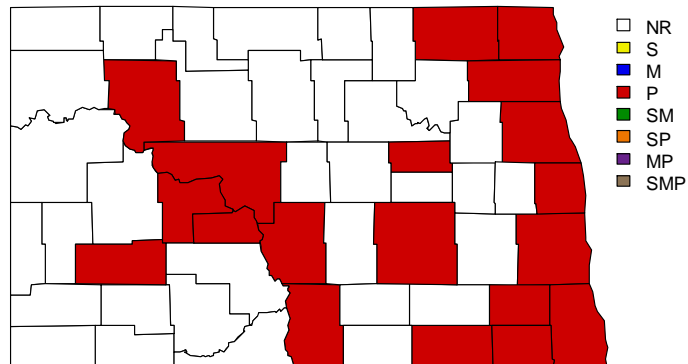
Rhithrogena jejuna

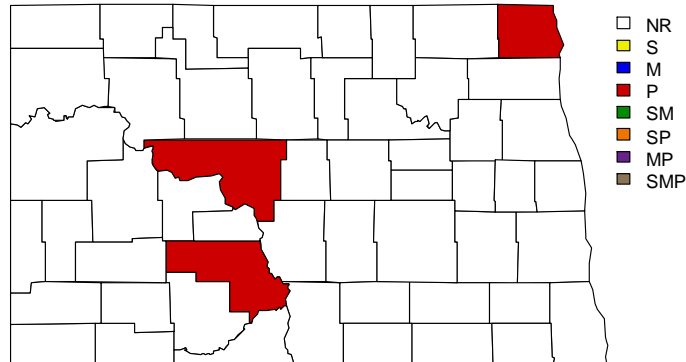
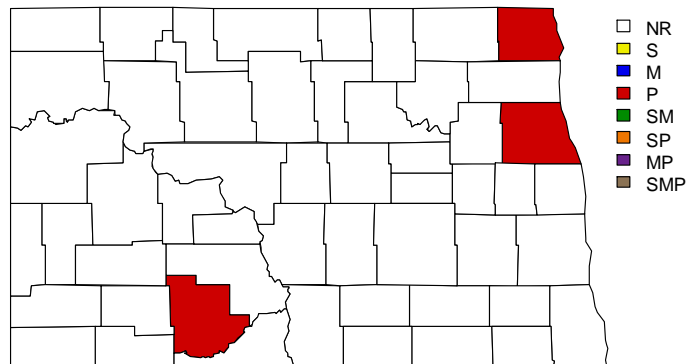


Rhithrogena manifesta



Stenacron interpunctatum

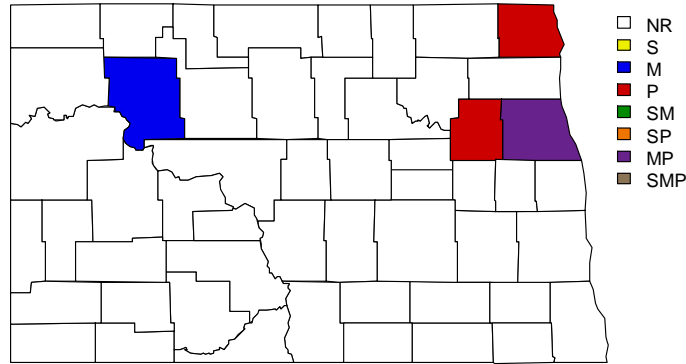


Stenacron minnetonka*Stenonema femoratum***Order: Odonata (Dragonflies and Damselflies)**

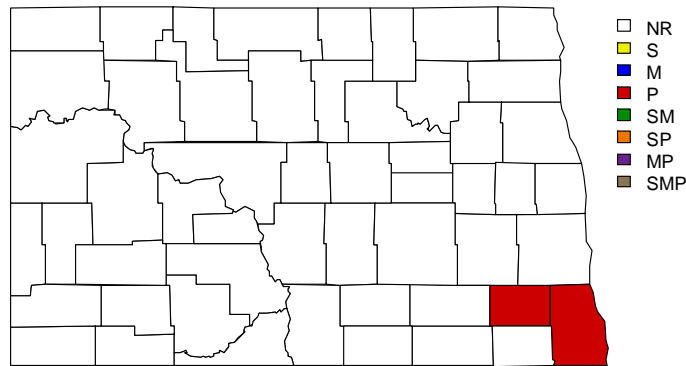
Odonata, the dragonflies and damselflies, have aquatic larvae with actively flying adults. Published records are from the Dragonflies and Damselflies (Odonata) of North Dakota web page (Kondratieff 2000b). Sample and museum results are based entirely on adult specimens.

Family: Calopterygidae (Broad-winged Damselflies or Demoiselles)

Calopteryx aequabilis
(River Jewelwing)

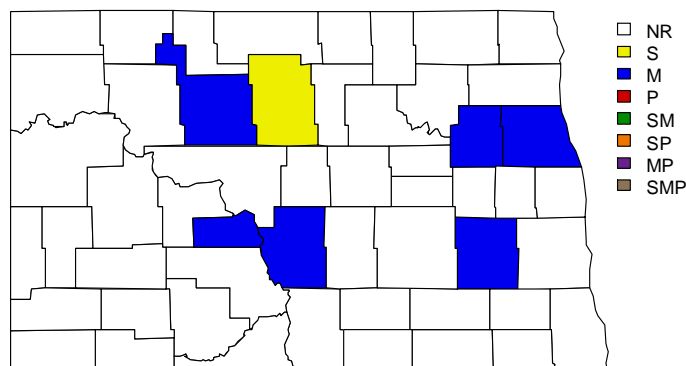


Hetaerina americana
(American Rubyspot)

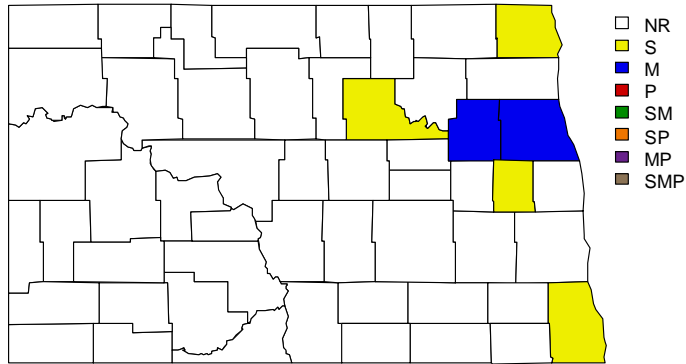


Family: Lestidae (Spreadwings, Spread-winged Damselflies)

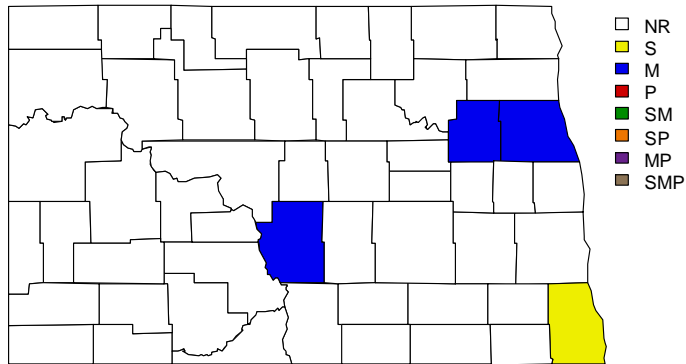
Lestes congener
(Spotted Spreadwing)



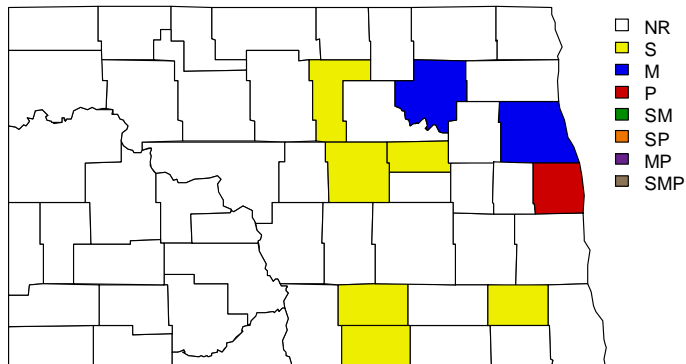
Lestes disjunctus
(Northern Spreadwing)



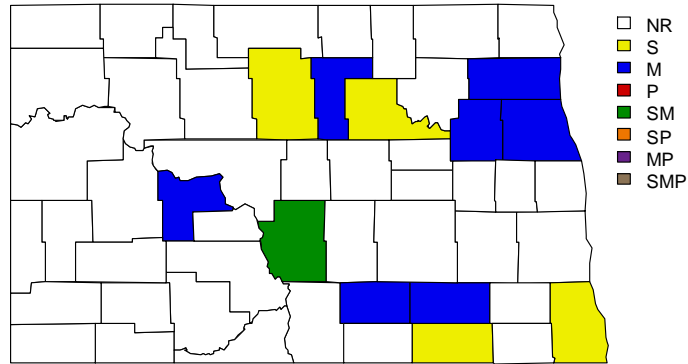
Lestes dryas
(Emerald Spreadwing)



Lestes rectangularis
(Slender Spreadwing)

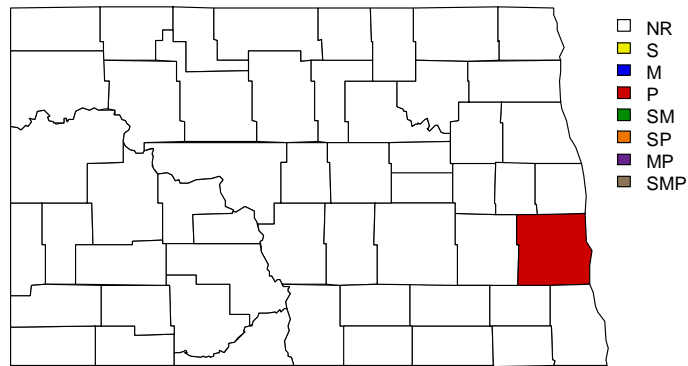


Lestes unguiculatus
(Lyre-tipped Spreadwing)

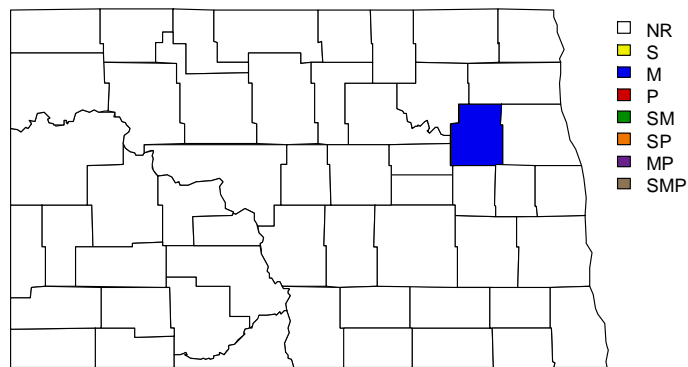


Family: Coenagrionidae (Narrow-winged Damselflies)

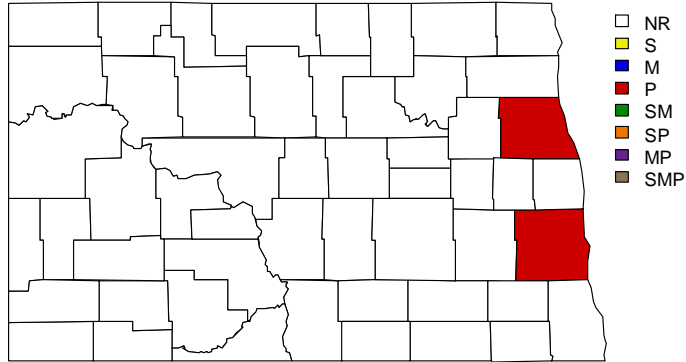
Amphiagrion abbreviatum
(Western Red Damsel)



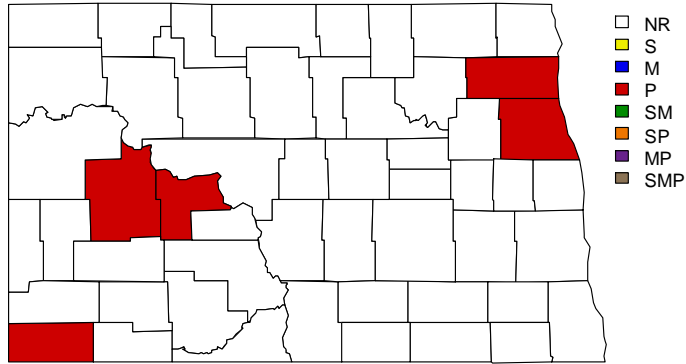
Amphiagrion saucium
(Eastern Red Damsel)



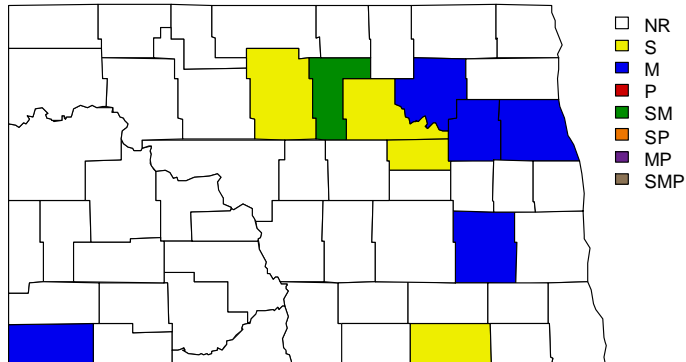
Argia apicalis
(Blue-fronted Dancer)



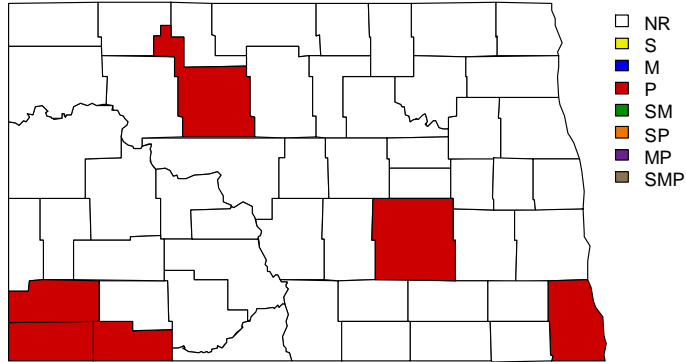
Enallagma antennatum
(Rainbow Bluet)



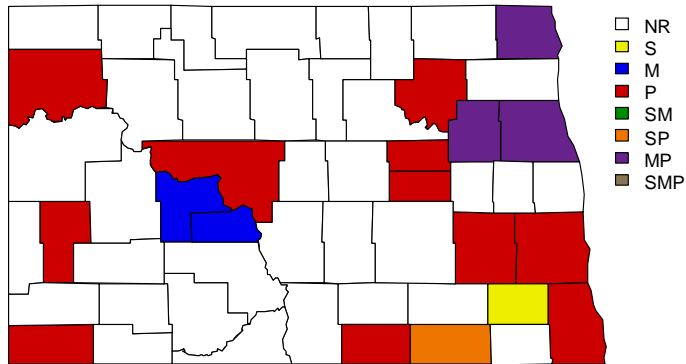
Enallagma boreale
(Boreal Bluet)



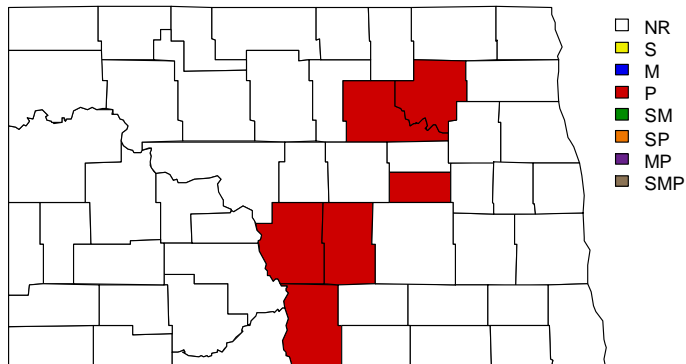
Enallagma carunculatum
(Tule Bluet)



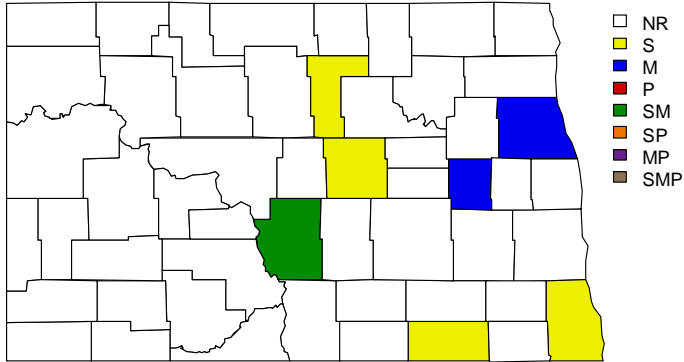
Enallagma civile
(Familiar Bluet)



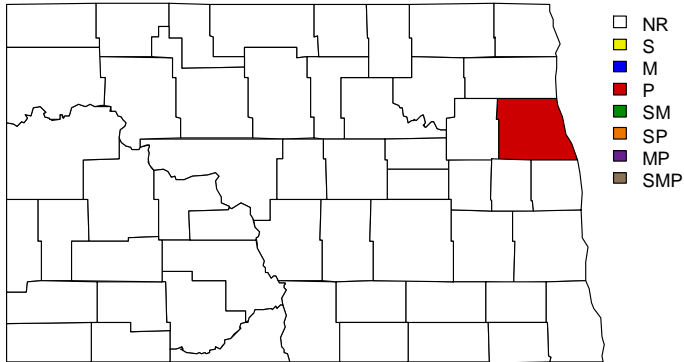
Enallagma clausum
(Alkali Bluet)



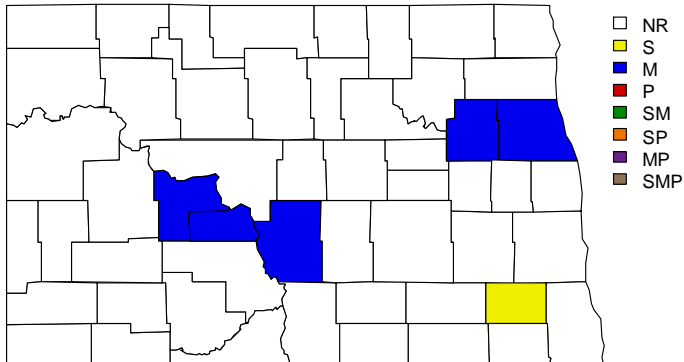
Enallagma ebrium
(Marsh Bluet)



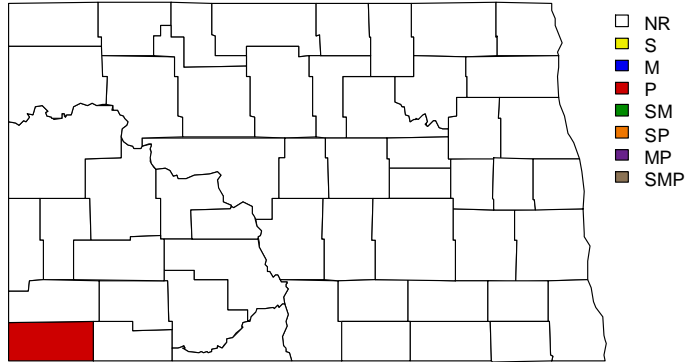
Enallagma exsulans
(Stream Bluet)



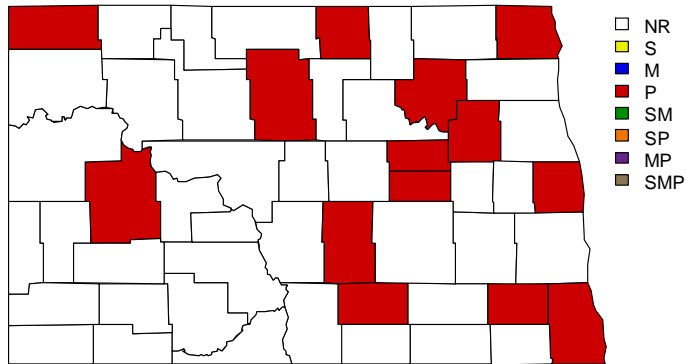
Enallagma hageni
(Hagen's Bluet)



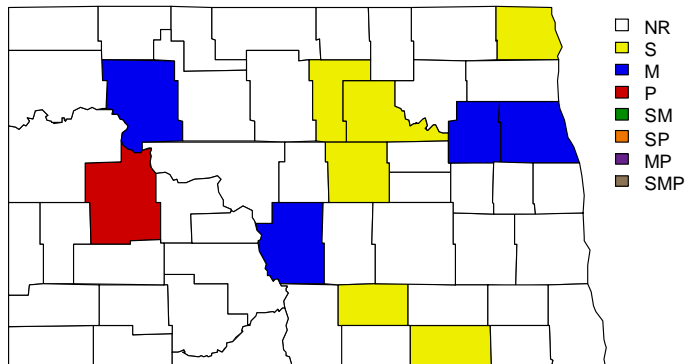
Enallagma praevarum
(Arroyo Bluet)



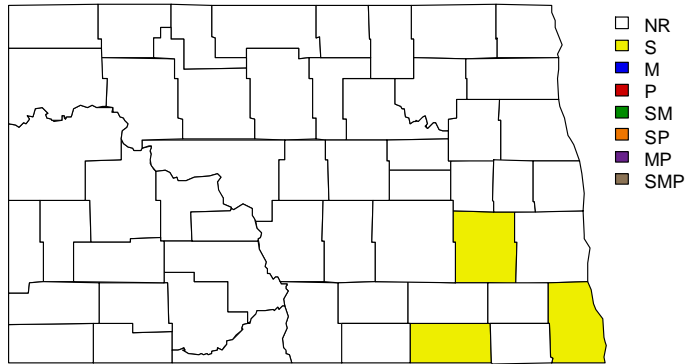
Ischnura damula
(Plains Forktail)



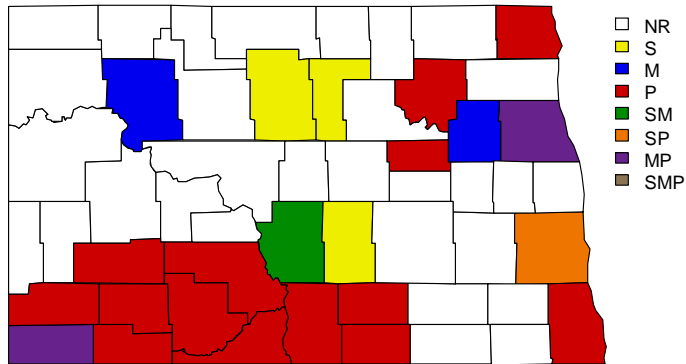
Ischnura perparva
(Western Forktail)



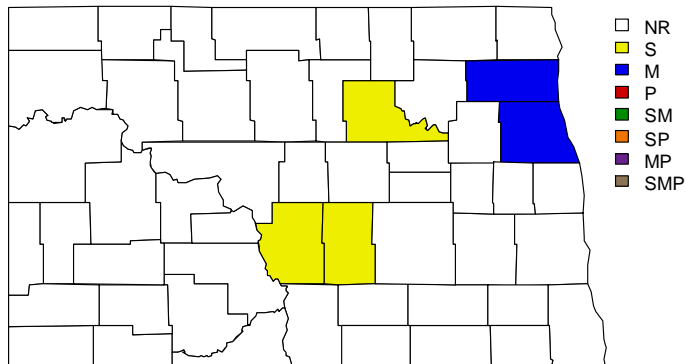
Ischnura posita
(Fragile Forktail)



Ischnura verticalis
(Eastern Forktail)

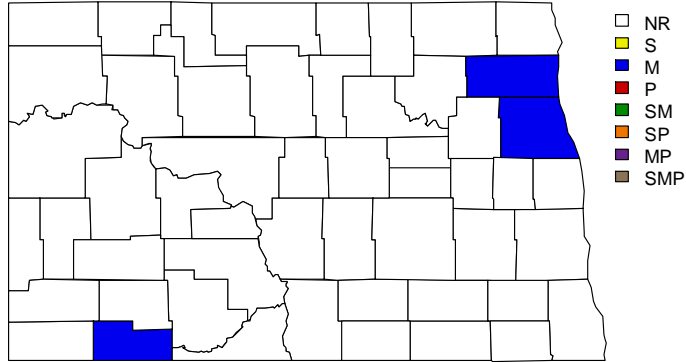


Nehalennia irene
(Sedge Sprite)

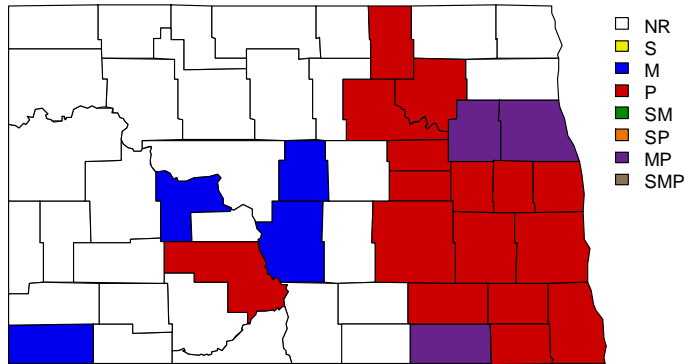


Family: Aeshnidae (Darners)

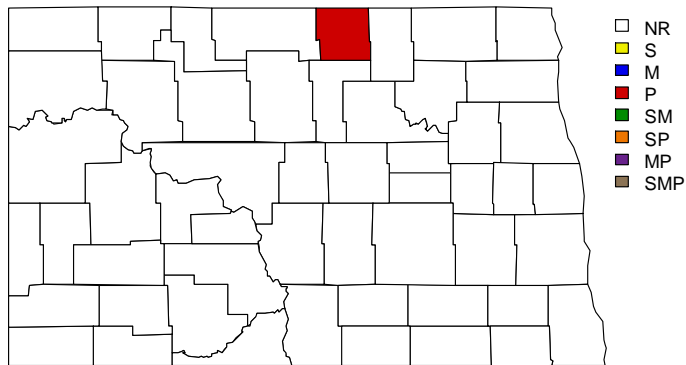
Aeshna canadensis
(Canada Darner)



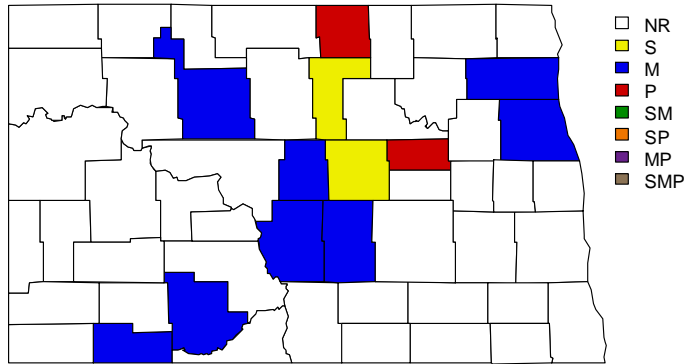
Aeshna constricta
(Lance-tipped Darner)



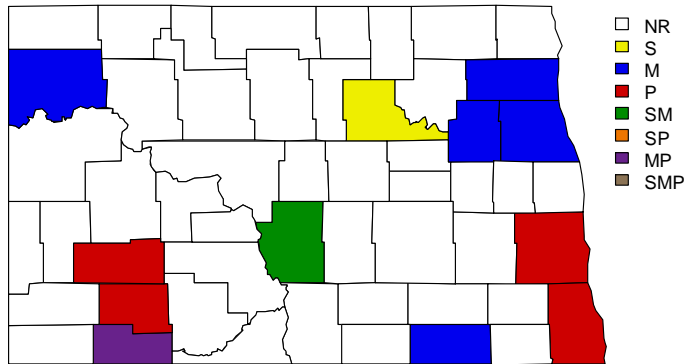
Aeshna eremita
(Lake Darner)



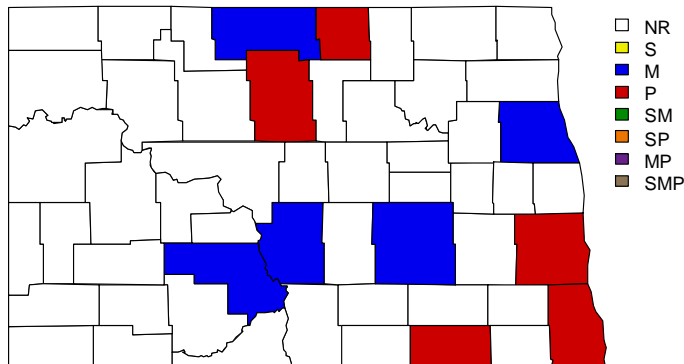
Aeshna interrupta
(Variable Darner)



Aeshna umbrosa
(Shadow Darner)

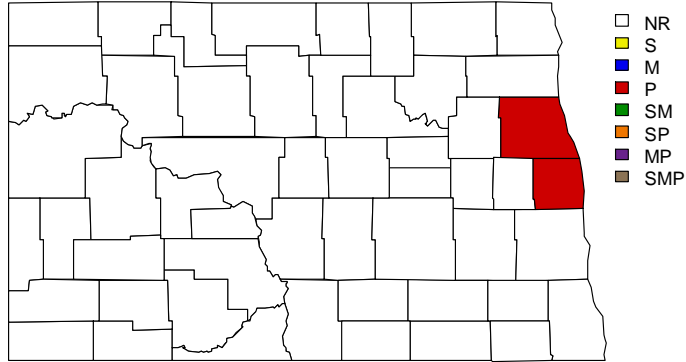


Anax junius
(Common Green Darner)

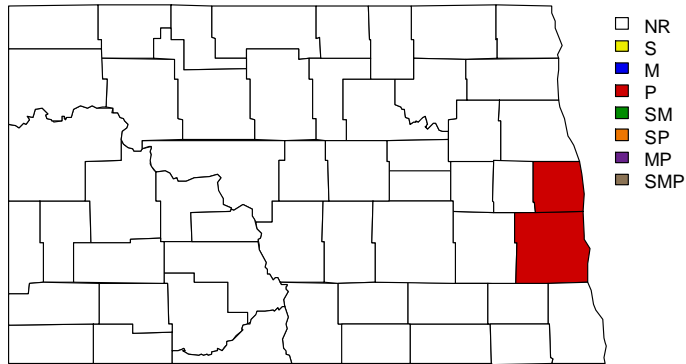


Family: Gomphidae (Clubtails)

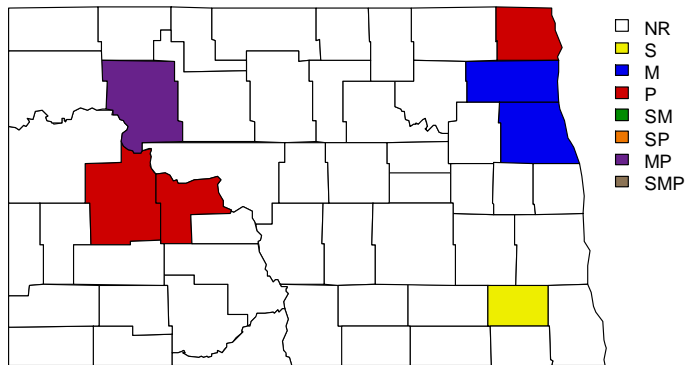
Arigomphus cornutus
(Horned Clubtail)



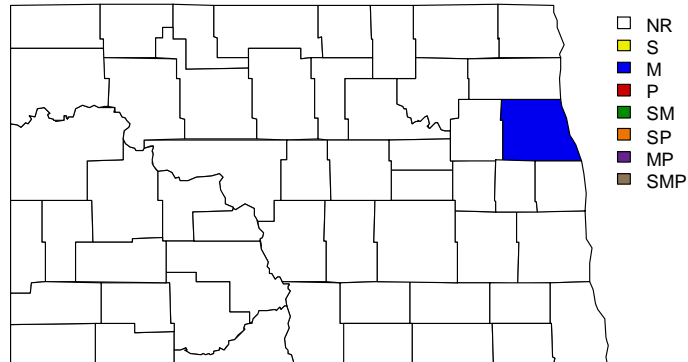
Gomphus externus
(Plains Clubtail)



Gomphus graslinellus
(Pronghorn Clubtail)

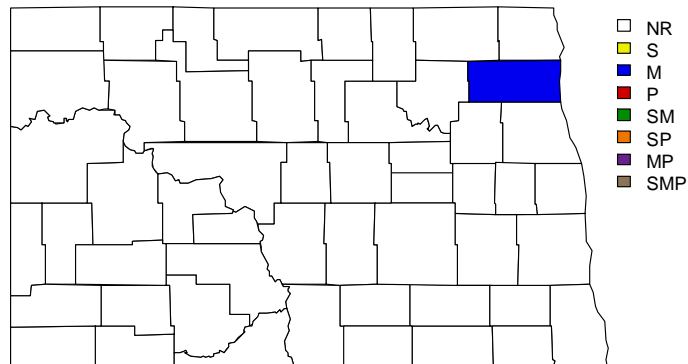


Stylurus intricatus
(Brimstone Clubtail)

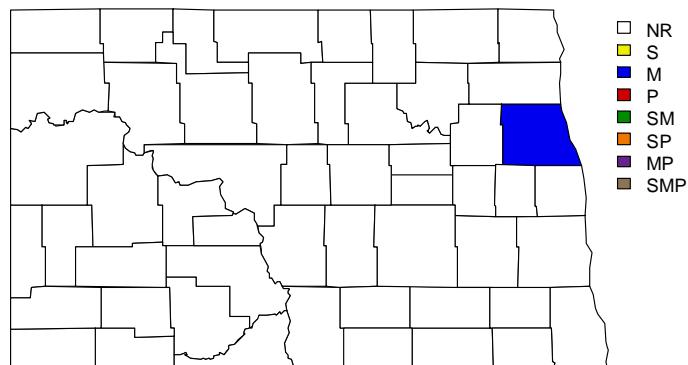


Family: Corduliidae (Emeralds, Green-eyed Skimmers)

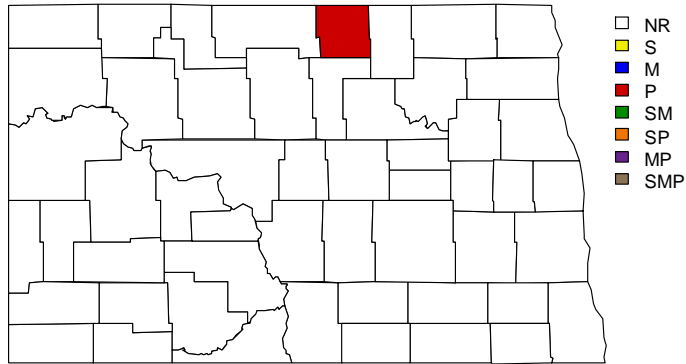
Cordulia shurtleffi
(American Emerald)



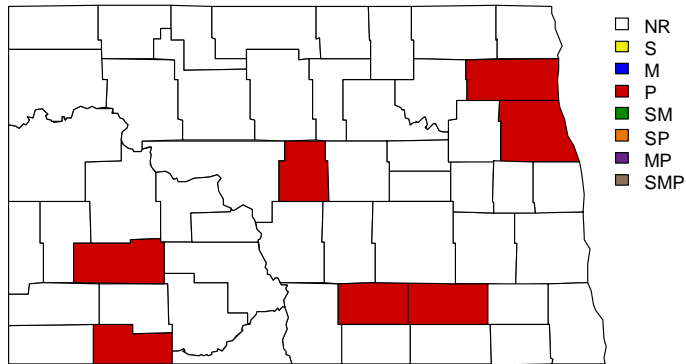
Epitheca princeps
(Prince Baskettail)



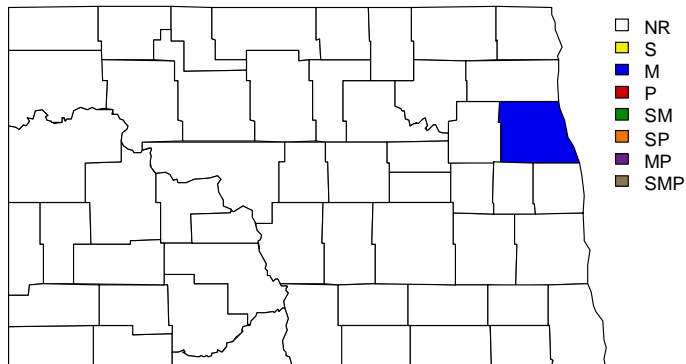
Epitheca spinigera
(Spiny Baskettail)



Somatochlora ensigera
(Plains Emerald)

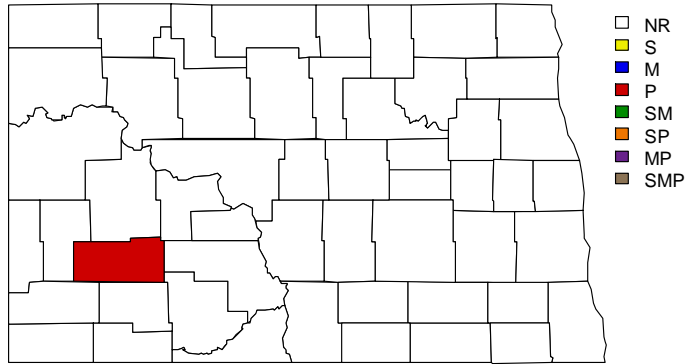


Williamsonia fletcheri
(Ebony Boghaunter, Fletcher's dragonfly)

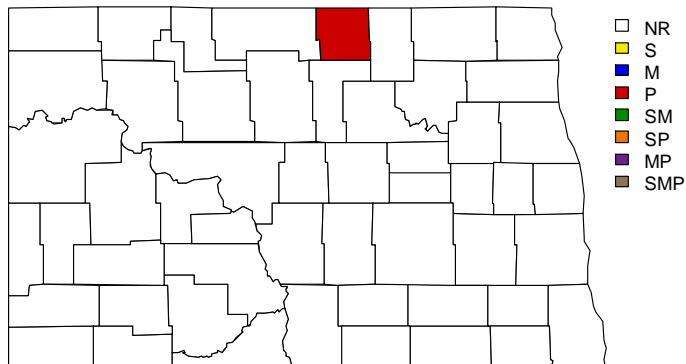


Family: Libellulidae (Skimmers)

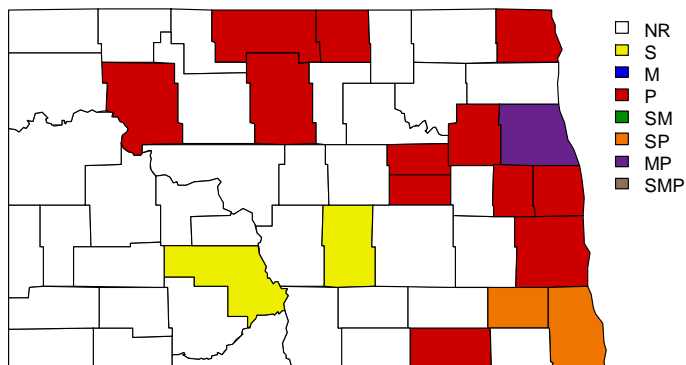
Erythemis simplicicollis
(Eastern Pondhawk)



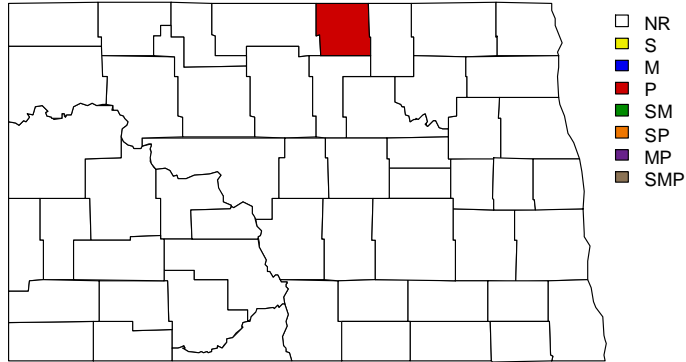
Leucorrhinia borealis
(Boreal Whiteface)



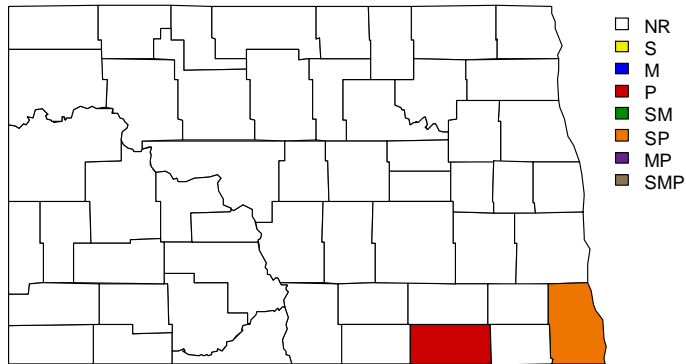
Leucorrhinia intacta
(Dot-tailed Whiteface)



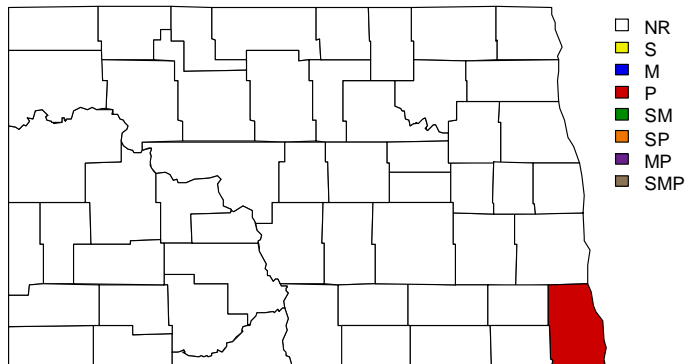
Leucorrhinia proxima
(Red-waisted Whiteface)



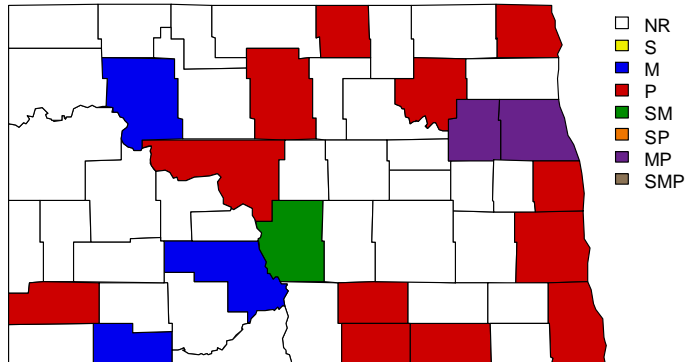
Libellula luctuosa
(Widow Skimmer)



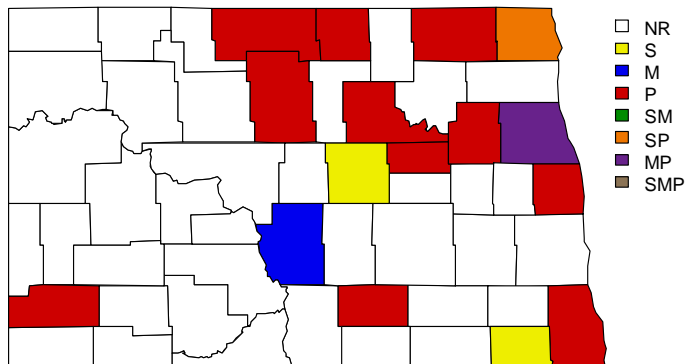
Libellula lydia
(Common Whitetail)



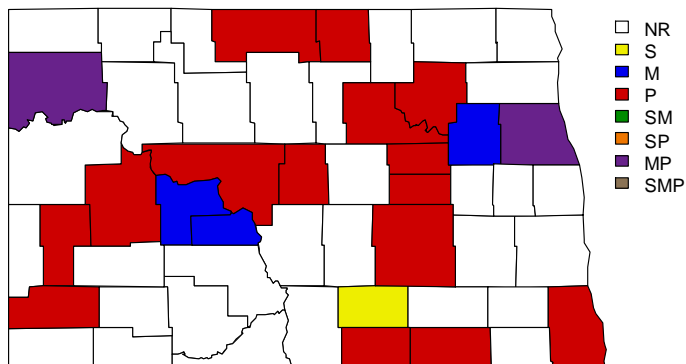
Libellula pulchella
(Twelve-spotted Skimmer)



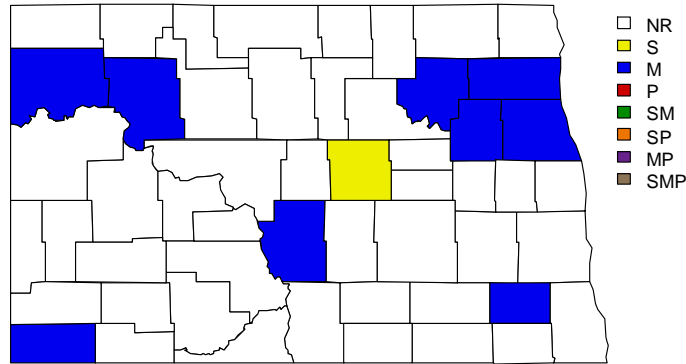
Libellula quadrimaculata
(Four-spotted Chaser)



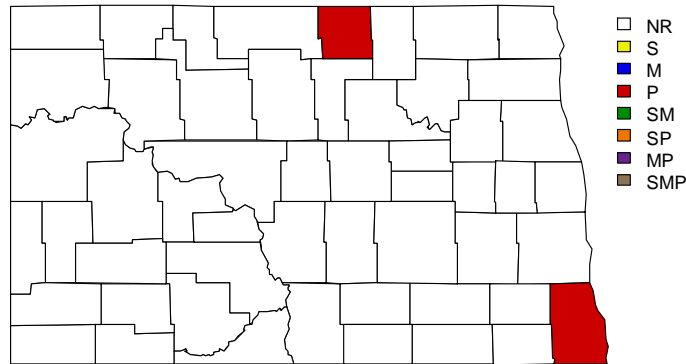
Sympetrum corruptum
(Variegated Meadowhawk)



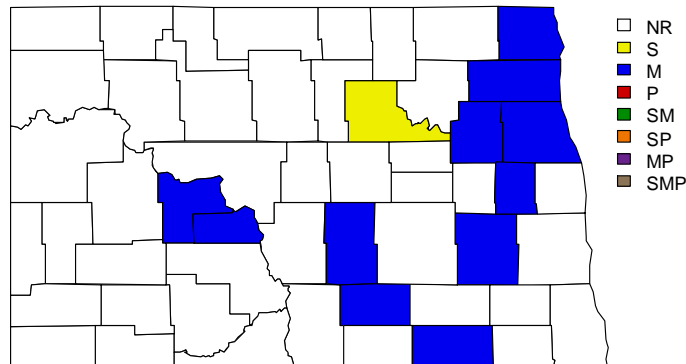
Sympetrum costiferum
(Saffron-winged Meadowhawk)



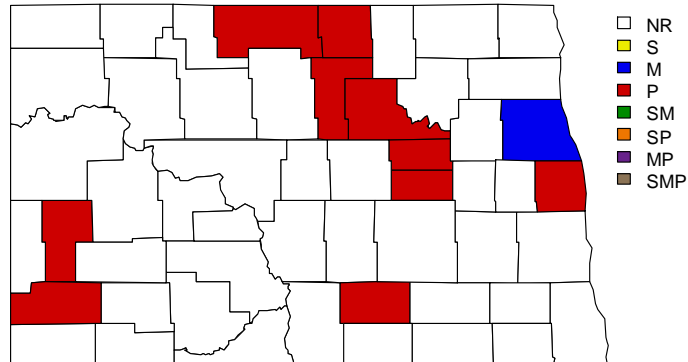
Sympetrum danae
(Black Meadowhawk)



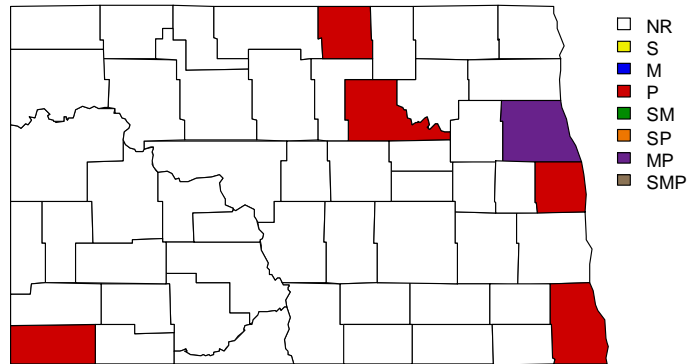
Sympetrum internum
(Cherry-faced Meadowhawk)



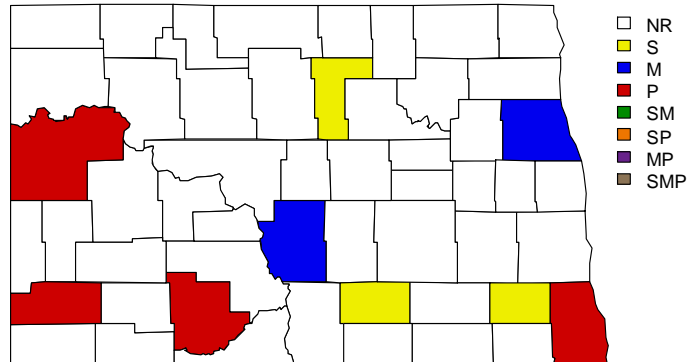
Sympetrum madidum
(Red-veined Meadowhawk)



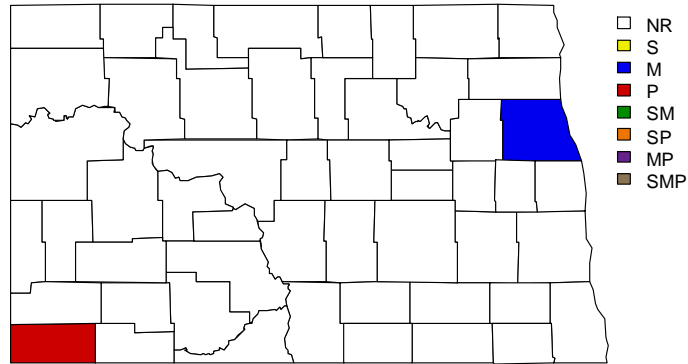
Sympetrum obtrusum
(White-faced Meadowhawk)



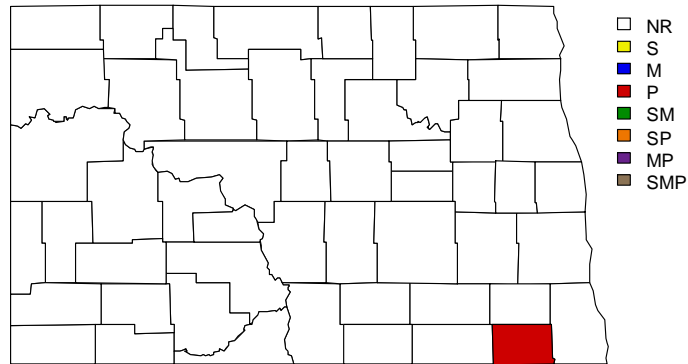
Sympetrum occidentale
(Western Meadowhawk)



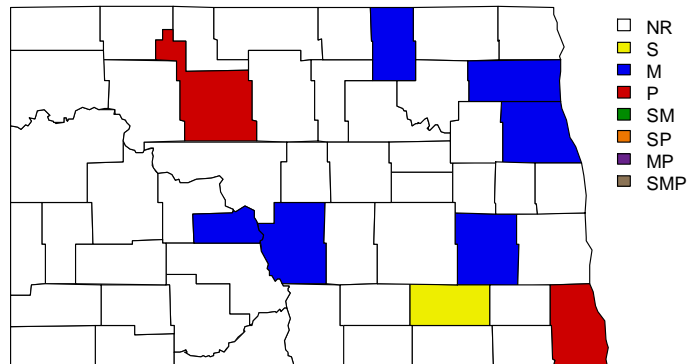
Sympetrum pallipes
(Stripped Meadowhawk)



Sympetrum rubicundulum
(Ruby Meadowhawk)



Sympetrum vicinum
(Yellow-legged Meadowhawk, Autumn Meadowhawk)



Order: Plecoptera (Stoneflies)

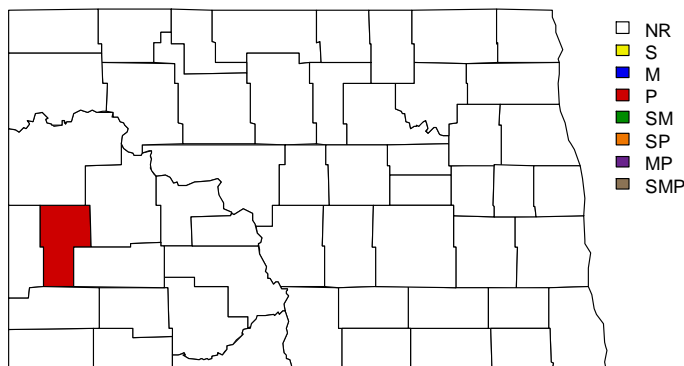
Plecoptera, the stoneflies, have aquatic larvae with terrestrial adults. Published records are taken from Kondratieff and Baumann (1999) and the Stoneflies of North Dakota web page (Kondratieff & Baumann 2000).

There may be one Plecoptera of management concern. *Perlesta dakota* was discovered in North Dakota recently (Kondratieff and Baumann 1999) and has so far only been reported from 2 counties in North Dakota and another county in South Dakota.

Family: Taeniopterygidae (Winter Stoneflies)

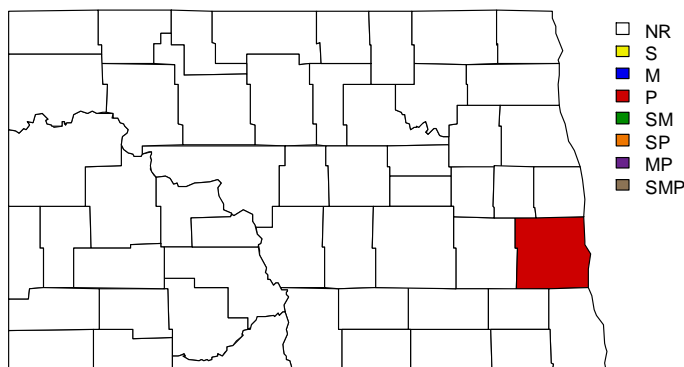
Oemopteryx fosketti

(Saskatoon Willowfly)



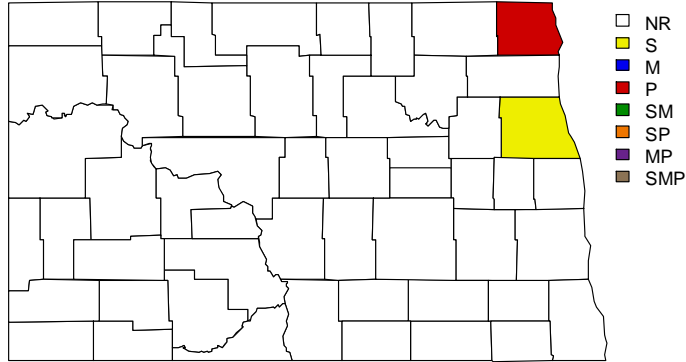
Strophopteryx fasciata

(Mottled Willowfly)



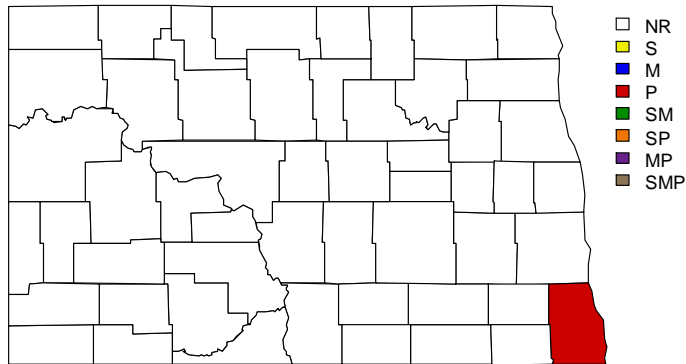
Family: Chloroperlidae (Green Stoneflies)

Haploperla orpha
(Quadrate Sallfly)

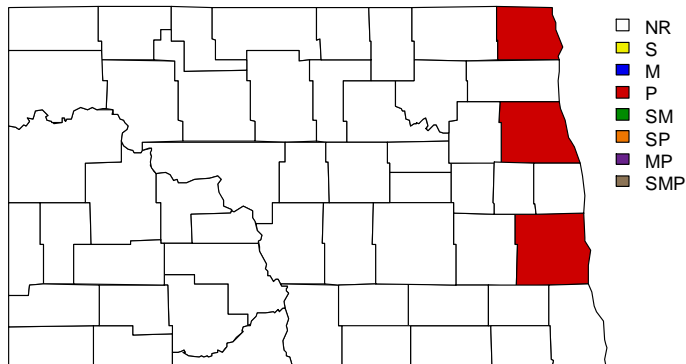


Family: Perlidae (Common Stoneflies)

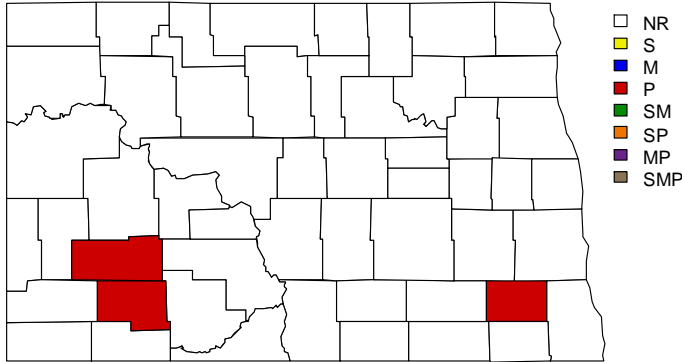
Acroneuria abnormis
(Common Stone)



Acroneuria lycorias
(Boreal Stone)

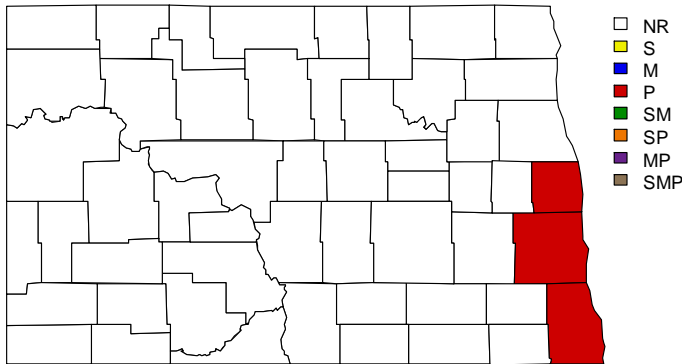


Perlesta dakota
(Dakota Stone)

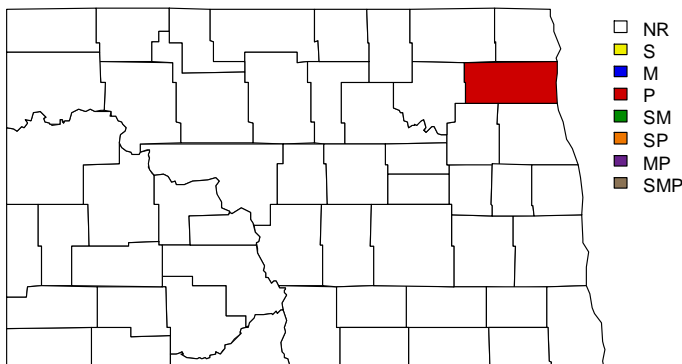


Note: *Perlesta dakota* was discovered in North Dakota in 1999 and currently is only known from North Dakota and a single county record in South Dakota.

Perlesta decipiens
(Widespread Stone)

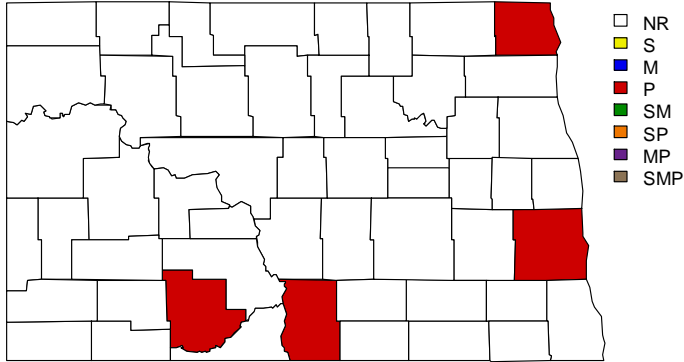


Perlesta xube
(Pawnee Stone)

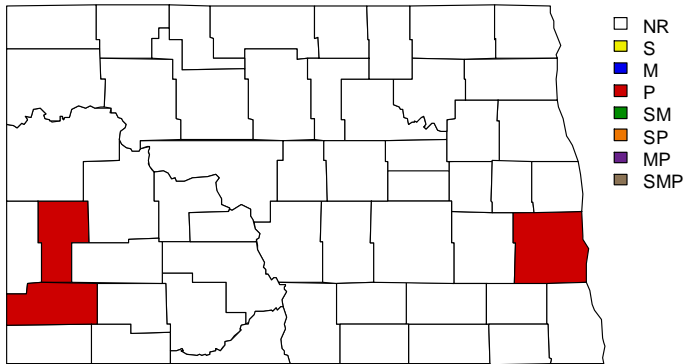


Family: Perlodidae (Perlodid Stoneflies)

Isoperla bilineata
(Two-lined Stripetail)

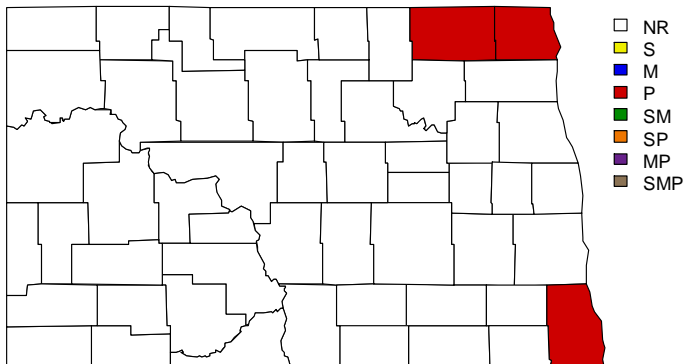


Isoperla longiseta
(Plains Stripetail)



Family: Pteronarcyidae (Giant Stoneflies, Salmonflies)

Pteronarcys pictetii
(Midwestern Salmonfly)



Order: Orthoptera (Grasshoppers, Crickets, and Katydid)

The Orthoptera can be divided into two suborders: 1) the Ensifera which includes crickets and katydids and are characterized by long antenna and visible sword-like ovipositors in the females; and 2) the Caelifera which include grasshoppers and are characterized by shorter antenna. The Orthoptera are entirely terrestrial and do not undergo a complete metamorphosis but have a nymphal stage that looks much like the adult stage but without developed wings. Identification of nymphs can be difficult; so much of what is reported here is based on adult specimens.

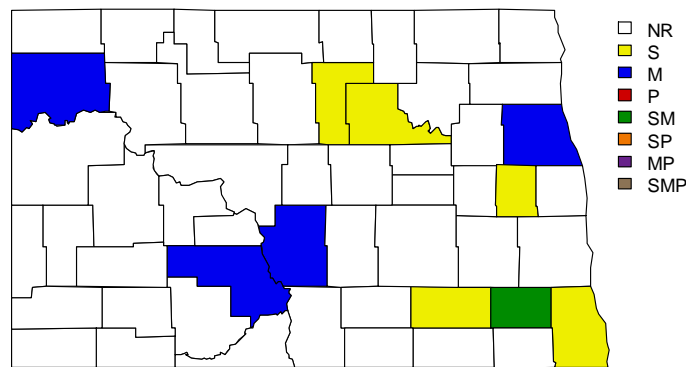
Published reports of species occurrences are taken from the website Orthoptera of the Northern Great Plains (Fasuke 1997). The site provides distribution data only for the Caelifera, minus two families (Tridactylidae and Tetrigidae), so distribution data is only available for part of the order. This is a work in progress but draws on collection data from the North Dakota State Insect Reference Collection at NDSU or published accounts.

Suborder: Ensifera (Crickets and Katydid)

Family: Gryllacrididae (Wingless Long-horned Grasshoppers)

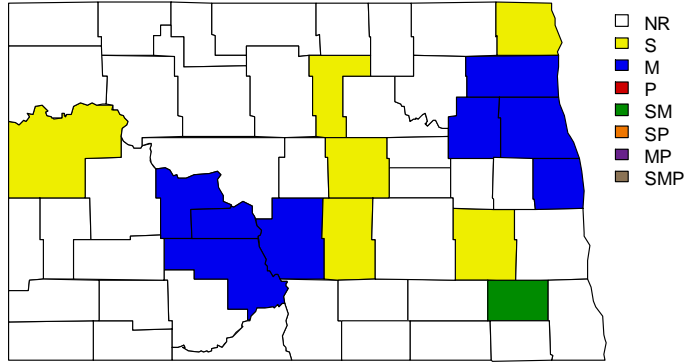
Camptonotus carolinensis

(Carolina Leaf-roller)

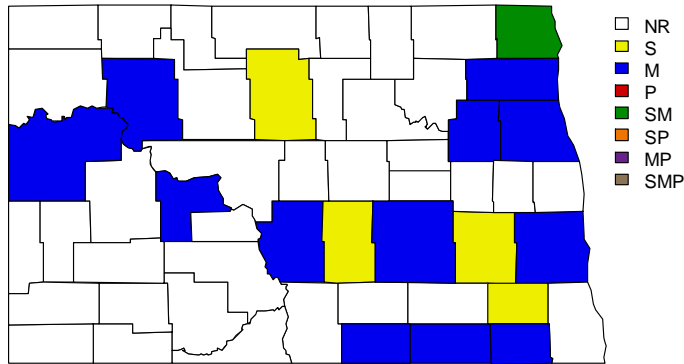


Family: Tettigoniidae (Katydids)

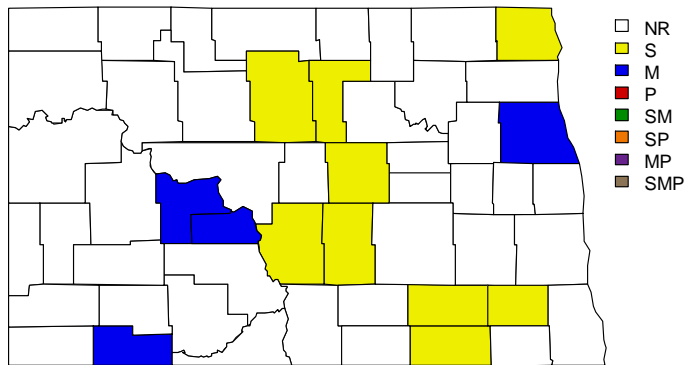
Scudderia furcata
(Fork-tailed Bush Katydid)



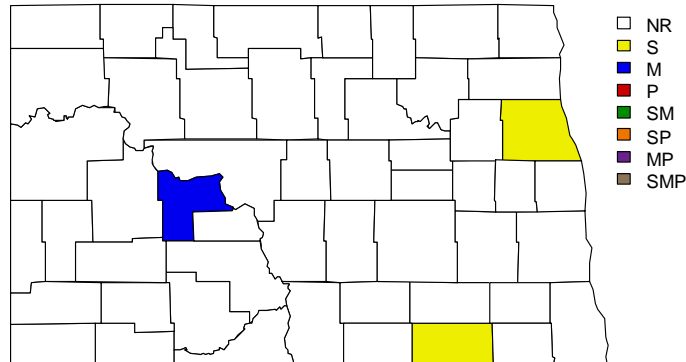
Orchelimum gladiator
(Gladiator Meadow Katydid)



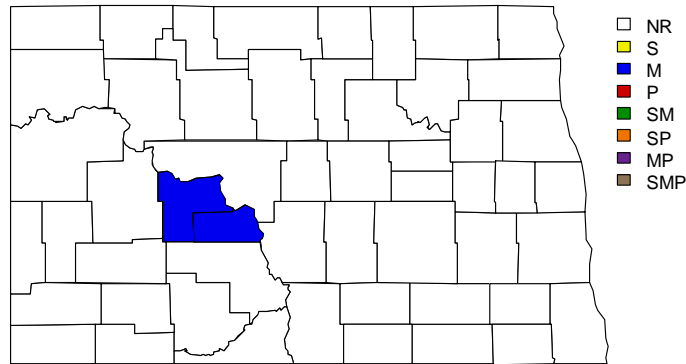
Conocephalus fasciatus
(Slender Meadow Katydid)



Conocephalus nigropleurum
(Black-sided Meadow Katydid)

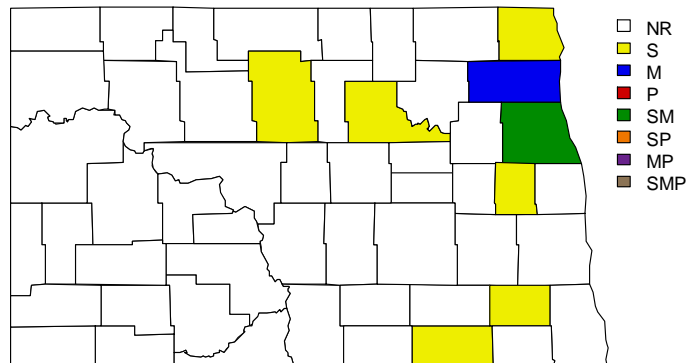


Conocephalus saltans
(Prairie Meadow Katydid)

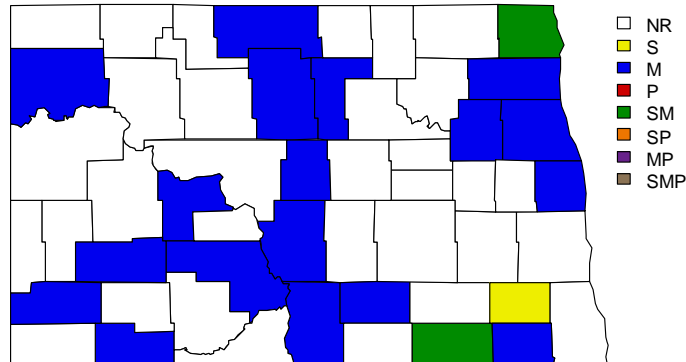


Family: Gryllidae (Crickets)

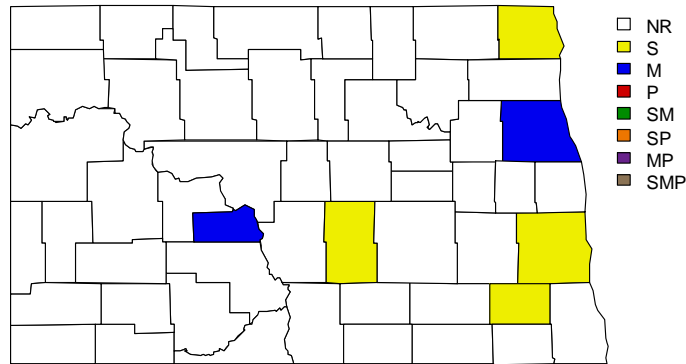
Gryllus pennsylvanicus
(Fall Field Cricket)



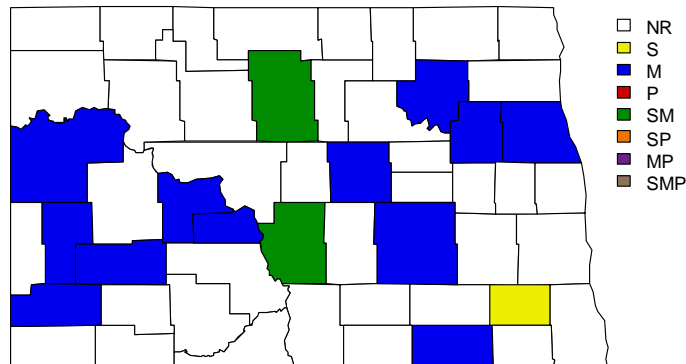
Gryllus veletis
(Spring Field Cricket)



Allonemobius (=Nemobius) allardi
(Allard's Ground Cricket)



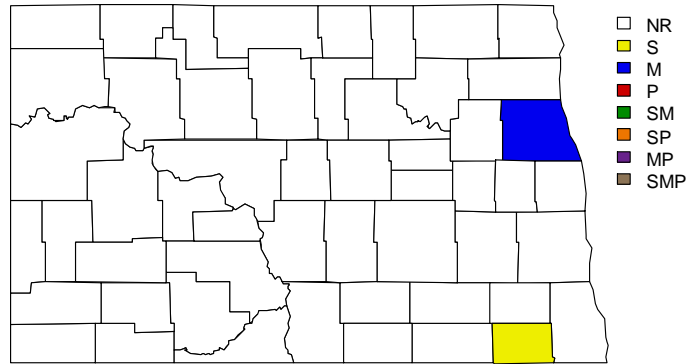
Oecanthus nigricornis
(Black-horned Tree Cricket)



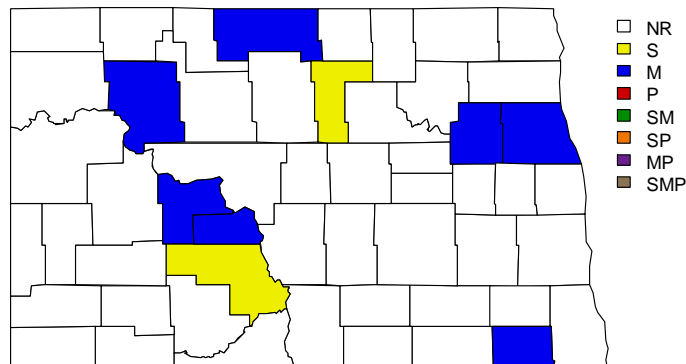
Suborder: Caelifera (Grasshoppers and Locusts)

Family: Tetrigidae (Groundhoppers)

Nomotettix cristatus
(Northern Crested Grouse Locust)



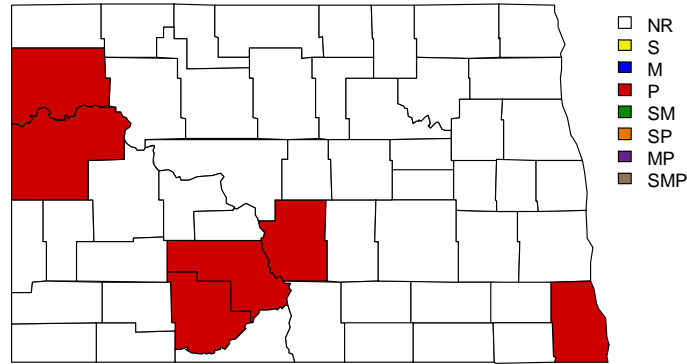
Tetrix subulata
(Granulated Pygmy Grasshopper, Slender Grouse Locust)



Family: Romaleidae (Lubber Grasshoppers)

Brachystola magna

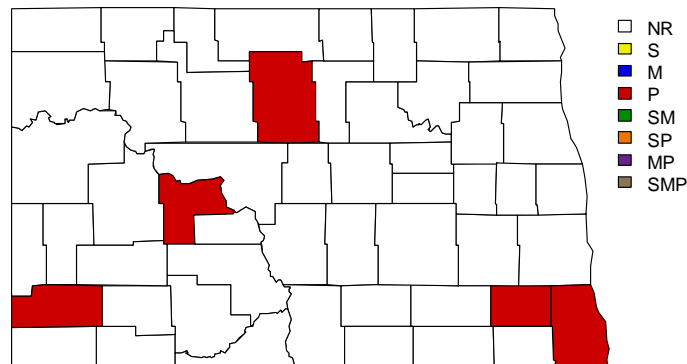
(Plains Lubber Grasshopper)



Family: Acrididae (Grasshoppers)

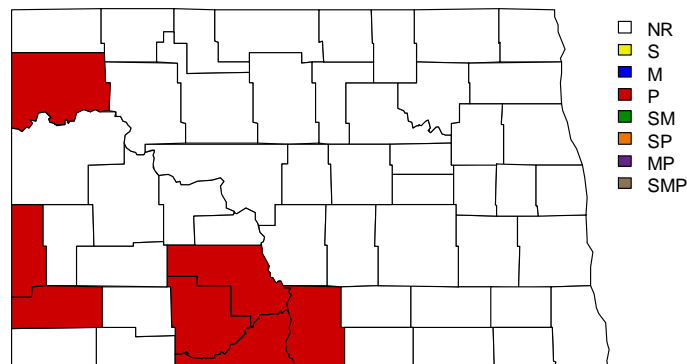
Schistocerca emarginata

(Spotted Bird Grasshopper, Prairie Bird-locust)

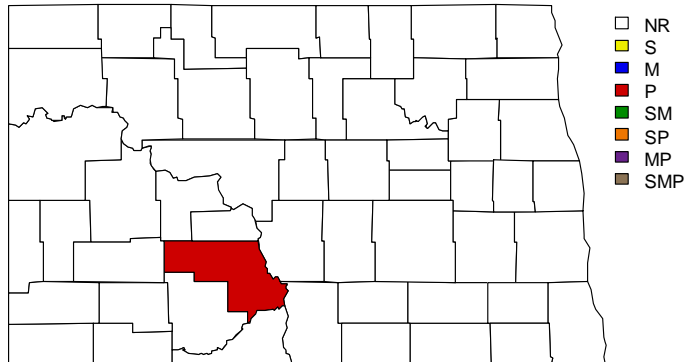


Dactylotum bicolora

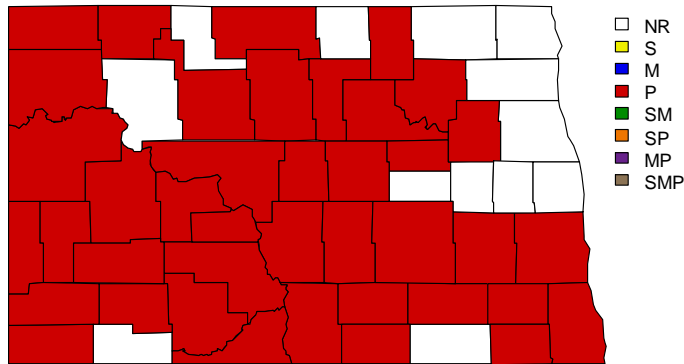
(Pictured Grasshopper, Rainbow Grasshopper)



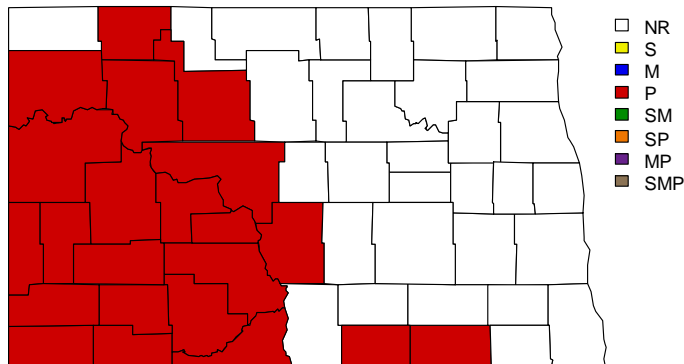
Hesperotettix speciosus
(Marshelder Grasshopper)



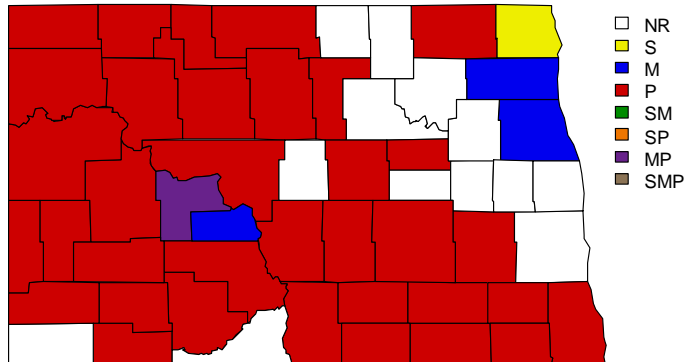
Hesperotettix viridis
(Meadow Purple-striped Grasshopper, Snakeweed Grasshopper)



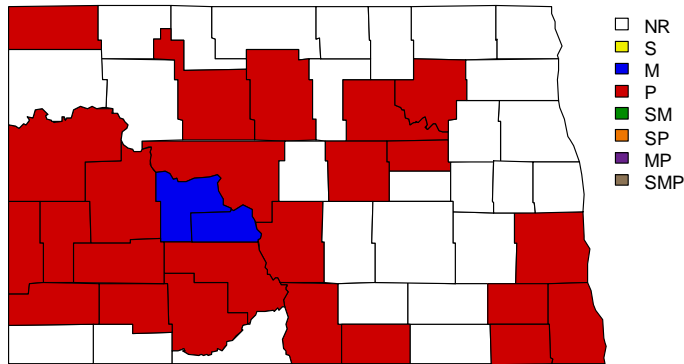
Aeoloplides turnbulli
(Russian-thistle Grasshopper)



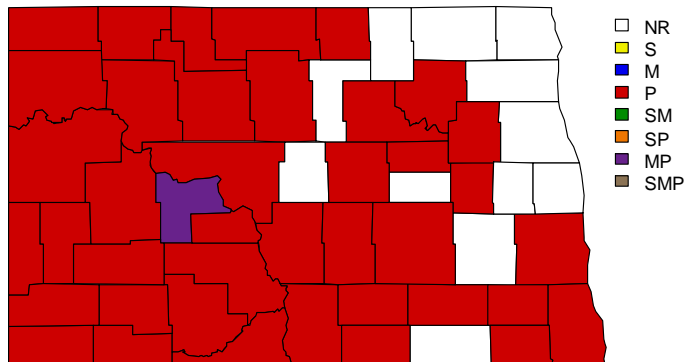
Hypochlora alba
(Sage Grasshopper, Cudweed Grasshopper)



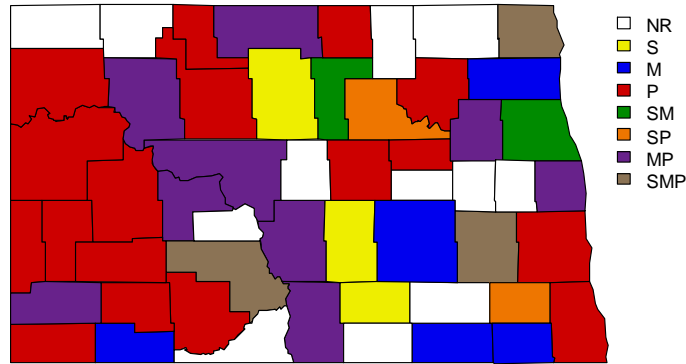
Phoetaliotes nebrascensis
(Largeheaded Grasshopper)



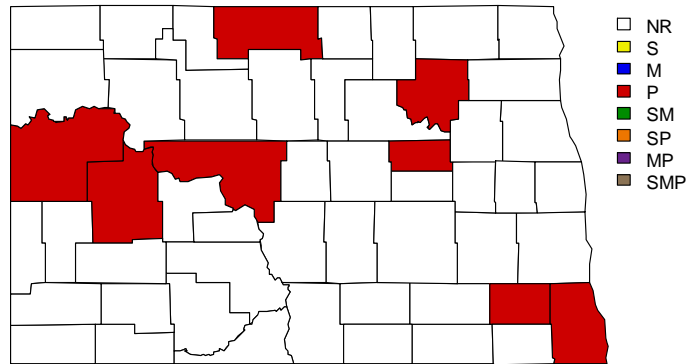
Melanoplus angustipennis
(Narrowwinged Sand Grasshopper)



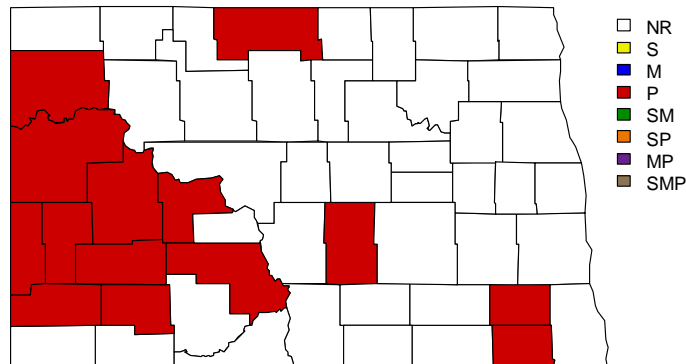
Melanoplus bivittatus
(Two-striped Grasshopper)



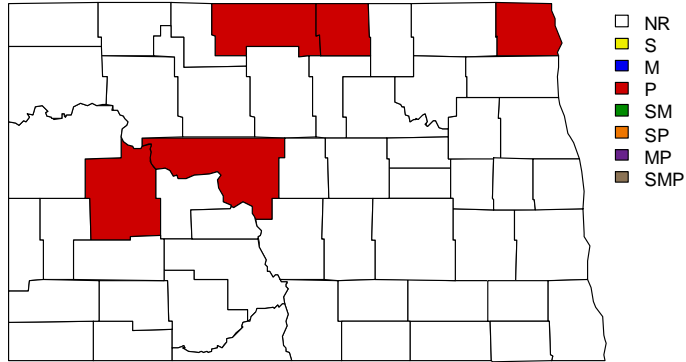
Melanoplus borealis
(Dawson Grasshopper)



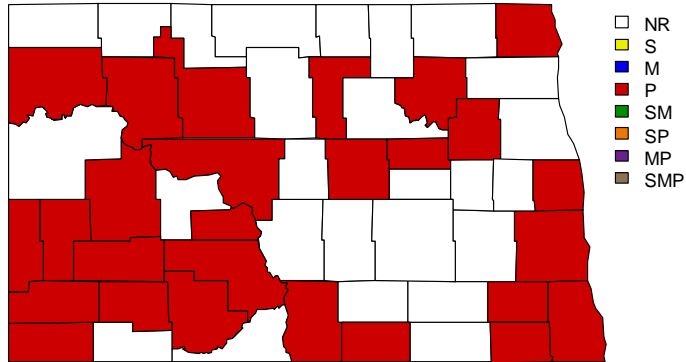
Melanoplus bowditchi
(Sagebrush Grasshopper)



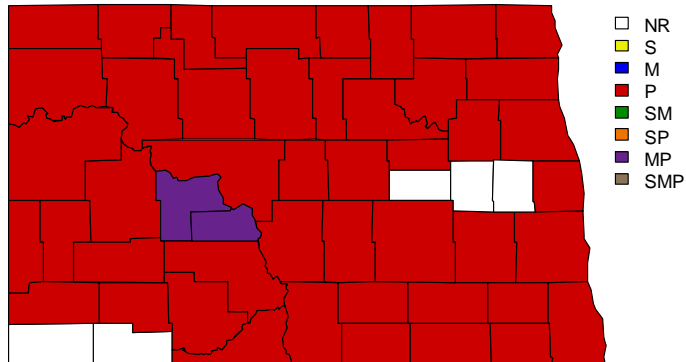
Melanoplus bruneri
(Brunner's Spur-throat Grasshopper)



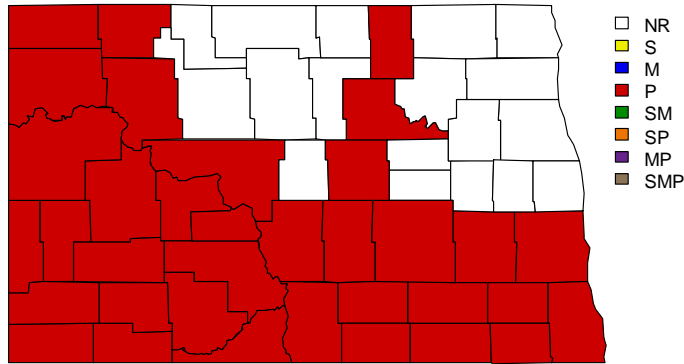
Melanoplus confusus
(Pasture Spur-throat Grasshopper)



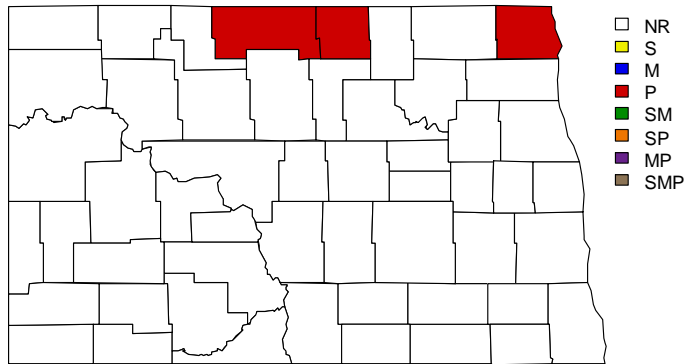
Melanoplus dawsoni
(Dawson Grasshopper)



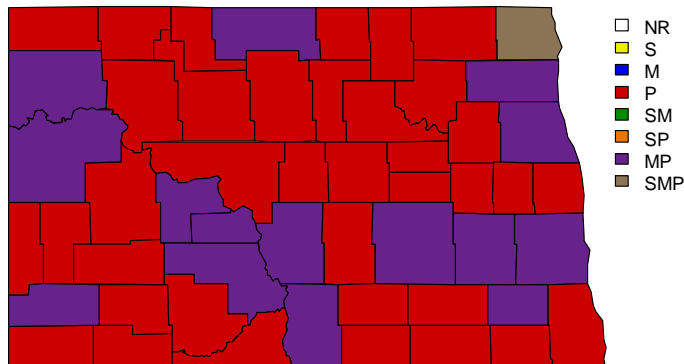
Melanoplus differentialis
(Differential Grasshopper)



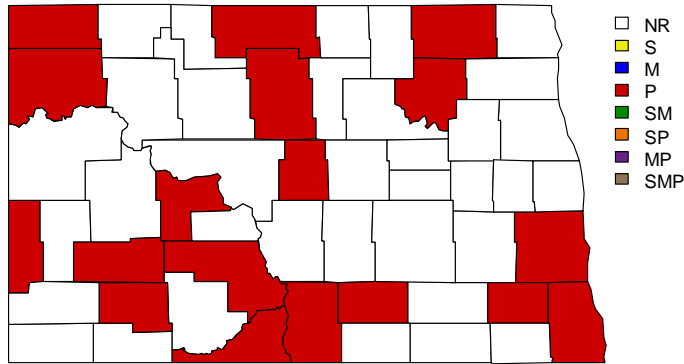
Melanoplus fasciatus
(Huckleberry Spur-throat Grasshopper)



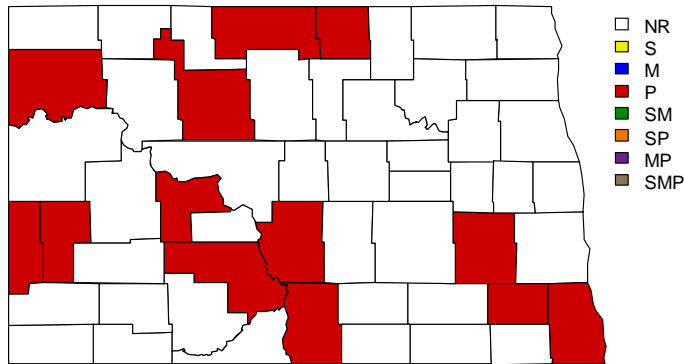
Melanoplus femurrubrum
(Red-legged Grasshopper)



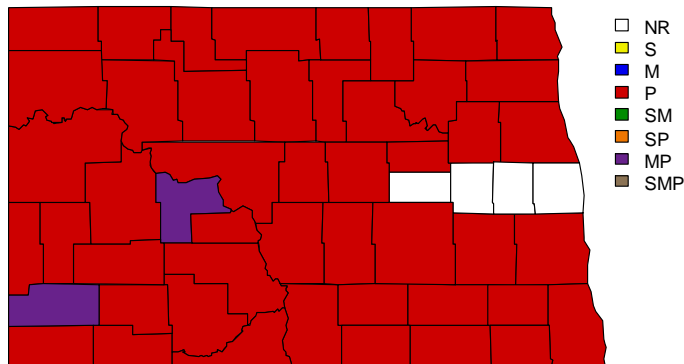
Melanoplus flavidus
(Yellowish Spur-throat Grasshopper)



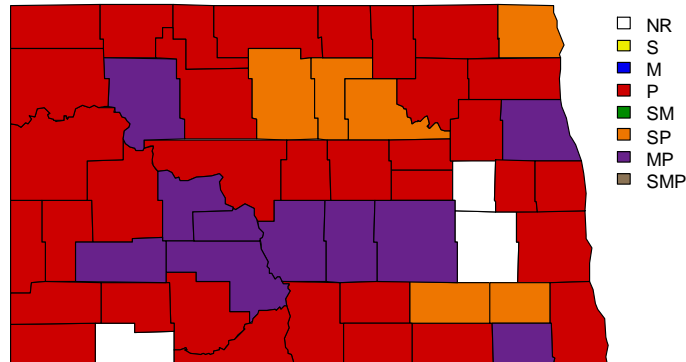
Melanoplus foedus
(Federal Grasshopper)



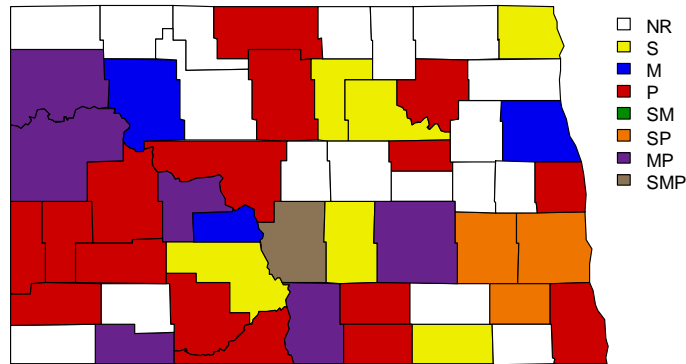
Melanoplus gladstoni
(Gladston Grasshopper)



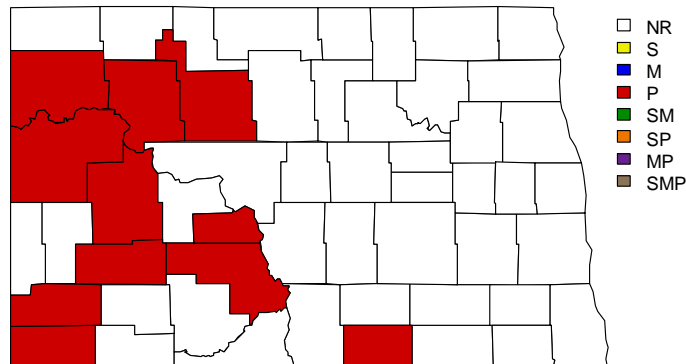
Melanoplus infantilis
(Tiny Spur-throat Grasshopper)



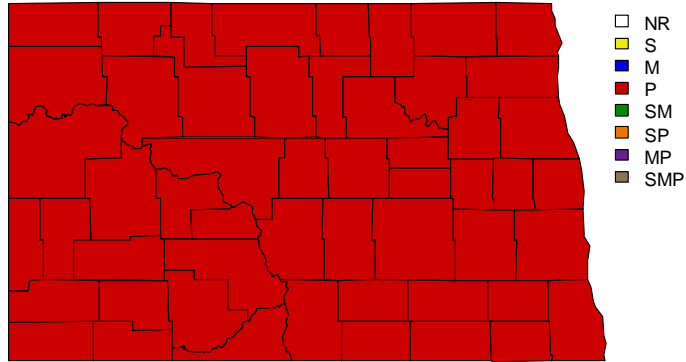
Melanoplus keeleri
(Keeler's Spur-throat Grasshopper)



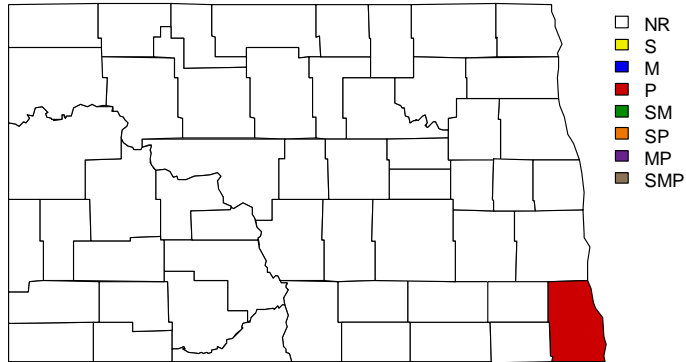
Melanoplus occidentalis
(Flabellate Grasshopper)



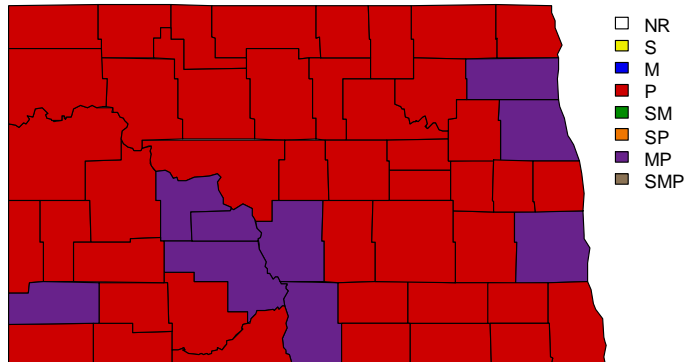
Melanoplus packardii
(Packard's Grasshopper)



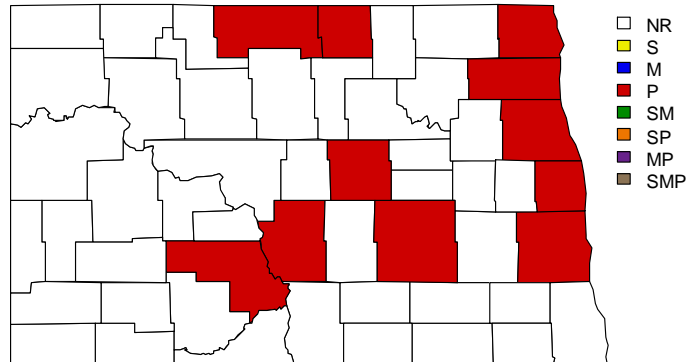
Melanoplus punctulatus
(Grizzled Grasshopper)



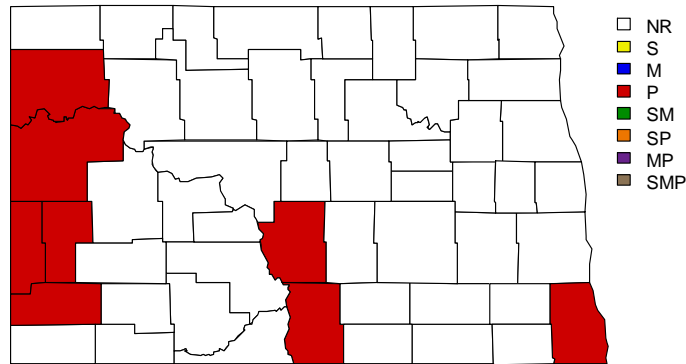
Melanoplus sanguinipes
(Migratory Grasshopper)



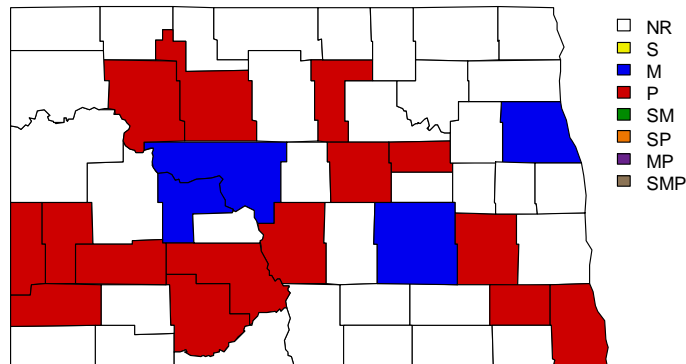
Melanoplus spretus
(Rocky Mountain Locust)



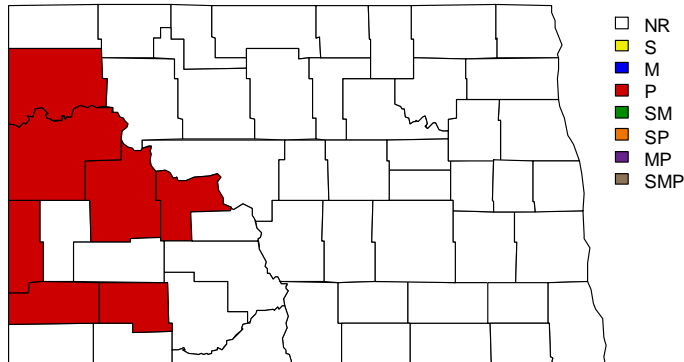
Mermiria bivittata
(Two-striped Toothpick Grasshopper, Two-striped Slant-face Grasshopper)



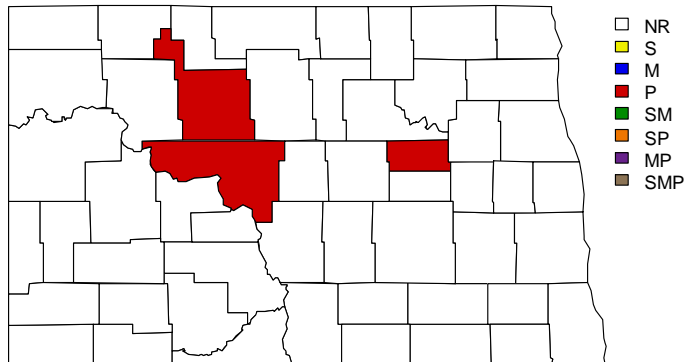
Pseudopomala brachyptera
(Bunch Grass Locust, Short-winged Toothpick Grasshopper)



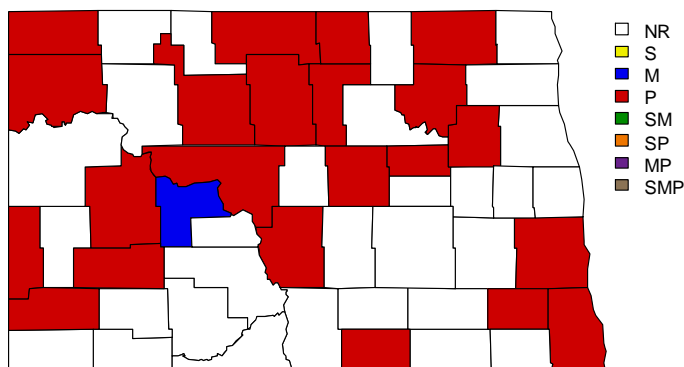
Acrolophitus hirtipes
(Green Fool Grasshopper)



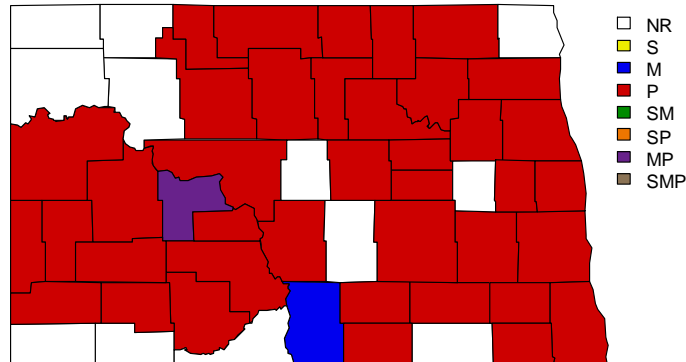
Chloealtis abdominalis
(Rocky Mountain Sprinkled Locust, Cow Grasshopper)



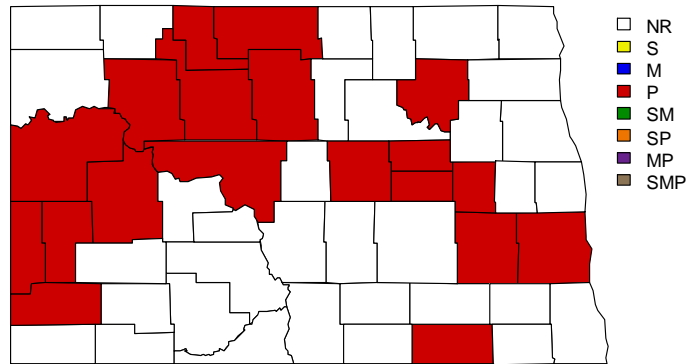
Chloealtis conspersa
(Sprinkled Locust, Sprinkled Grasshopper)



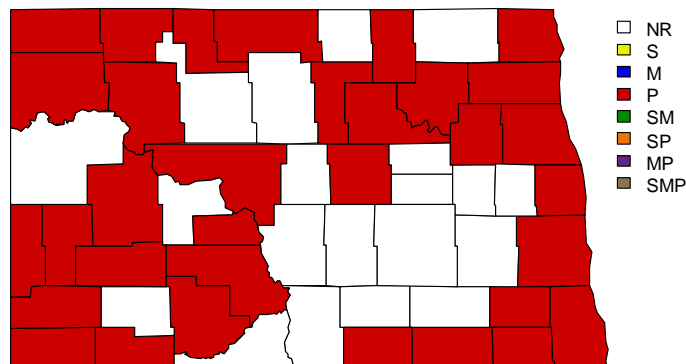
Chorthippus curtipennis
(Meadow Grasshopper)



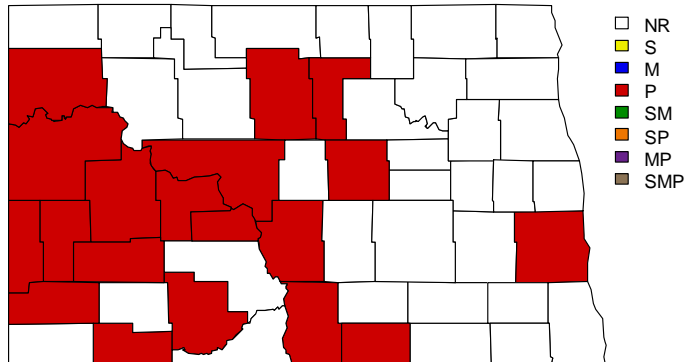
Stenobothrus brunneus
(Brunner's Grasshopper, Brunner Slant-faced Grasshopper)



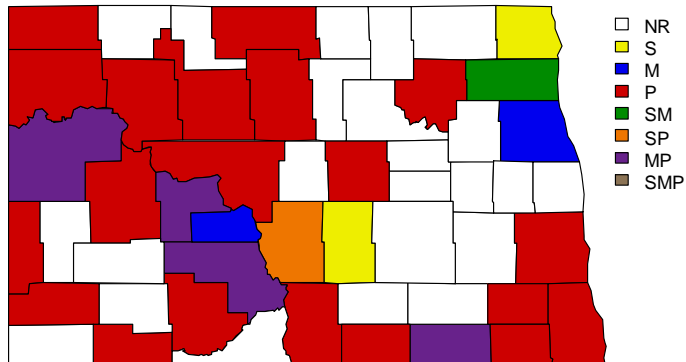
Aeropedellus clavatus
(Club-horned Grasshopper)



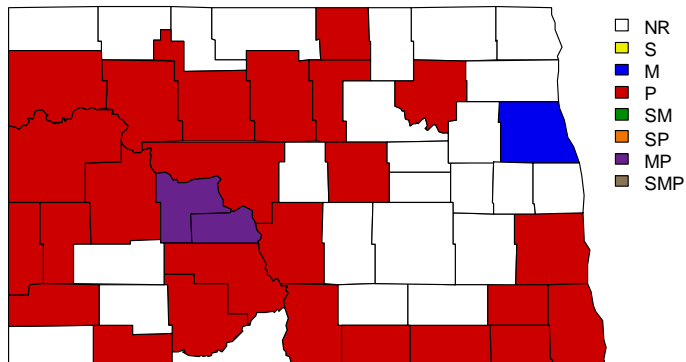
Phlibostroma quadrimaculatum
(Four-spotted Grasshopper)



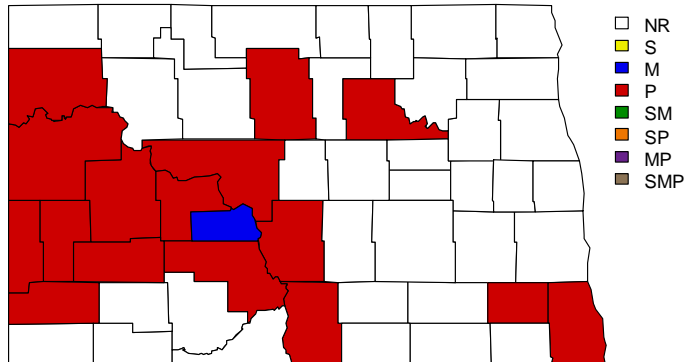
Eritettix simplex
(Velvetstriped Grasshopper)



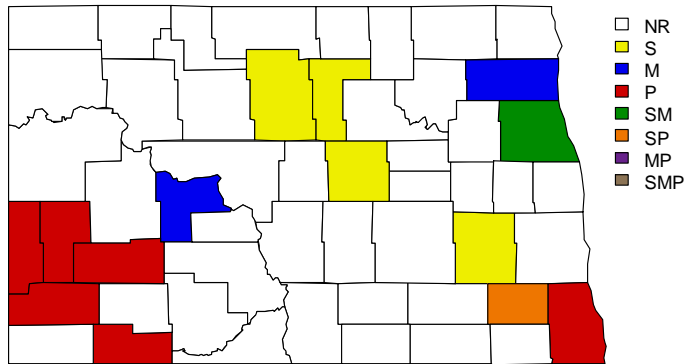
Opeia obscura
(Obscure Grasshopper)



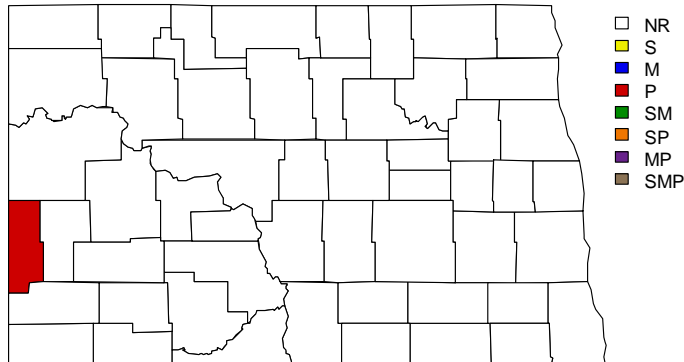
Amphitornus coloradus
(Striped Slant-faced Grasshopper)



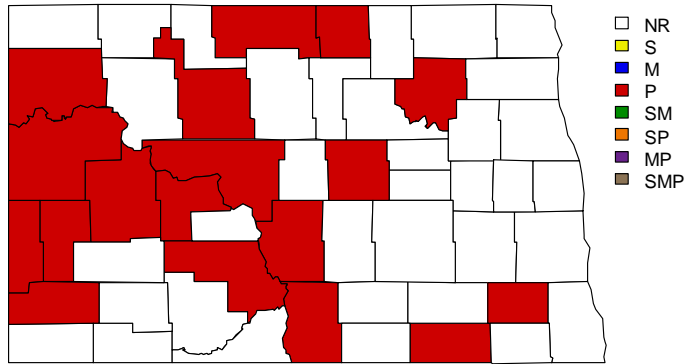
Cordillacris occipitalis
(Spotted Wing Grasshopper)



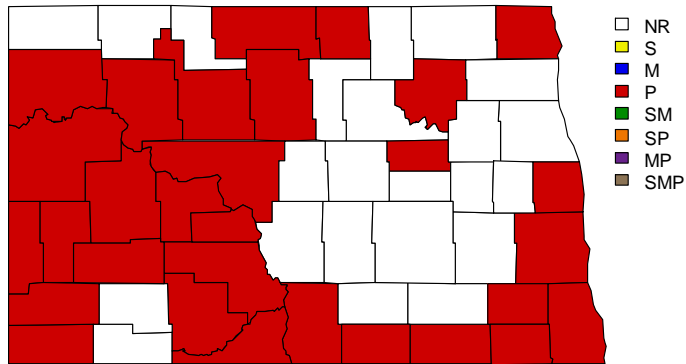
Cordillacris crenulata
(Crenulated Grasshopper)



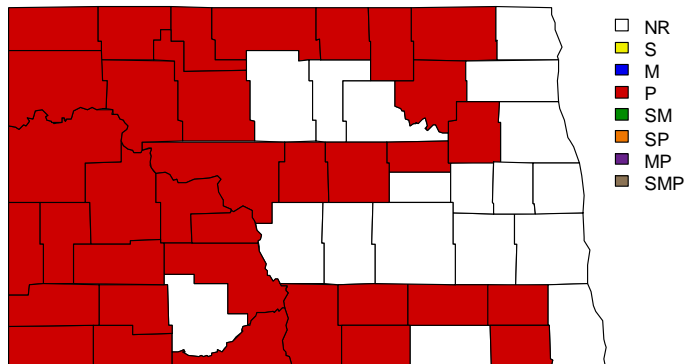
Psoloessa delicatula
(Brown-spotted Range Grasshopper)



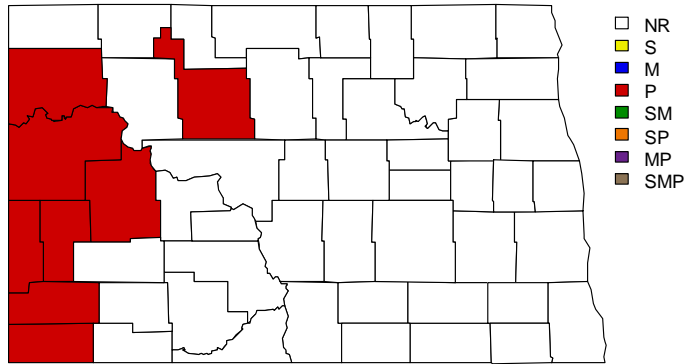
Ageneotettix deorum
(White-whiskered Grasshopper)



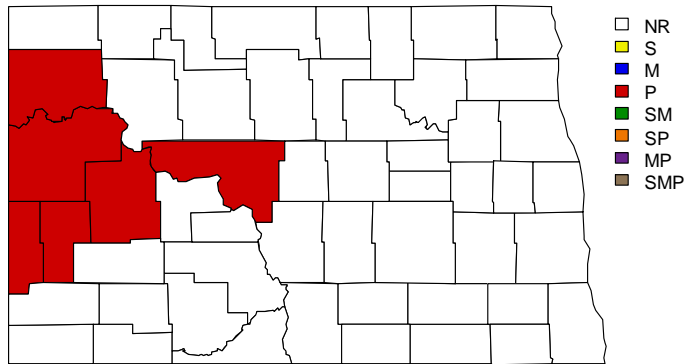
Aulocara elliotti
(Big-headed Grasshopper)



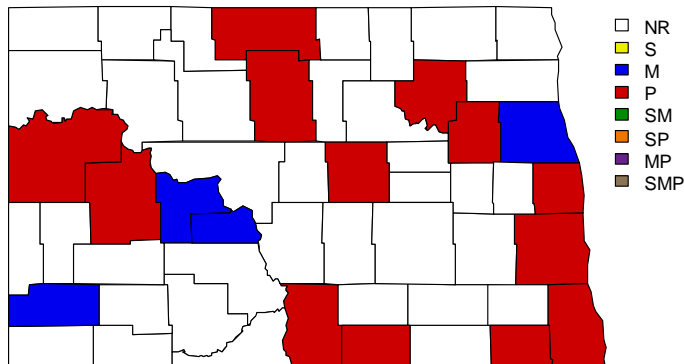
Aulocara femoratum
(Whitecrossed Grasshopper)



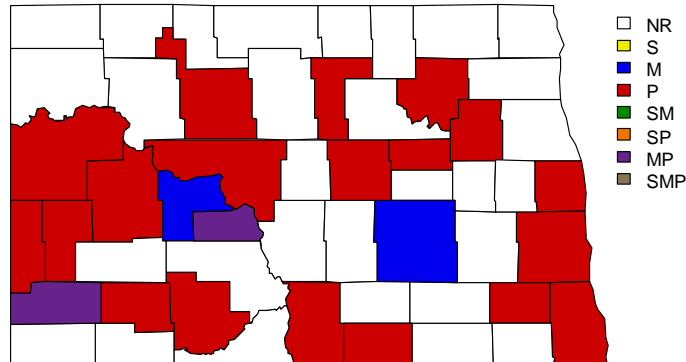
Boopedon nubilum
(Black-males Grasshopper, Ebony Grasshopper)



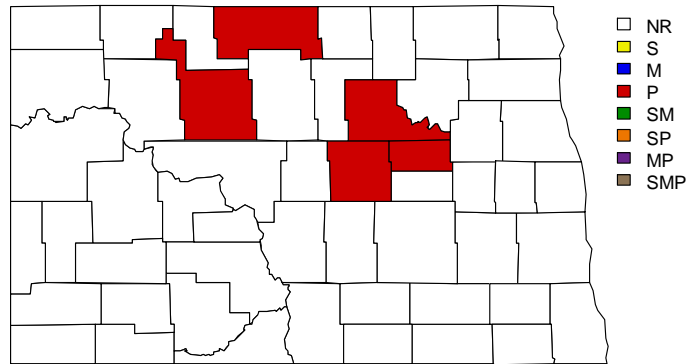
Orphulella pelidna
(Spotted-Winged Grasshopper)



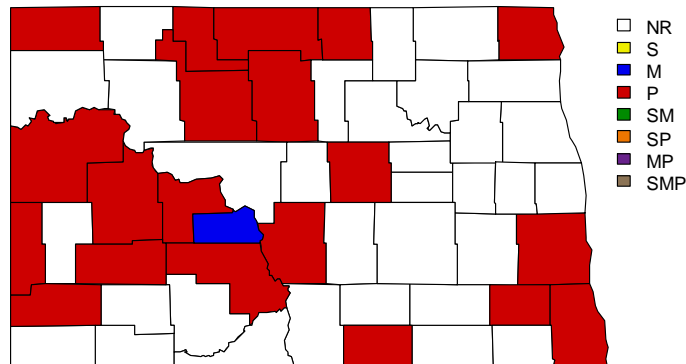
Orphulella speciosa
(Slantfaced Pasture Grasshopper, Pasture Locust)



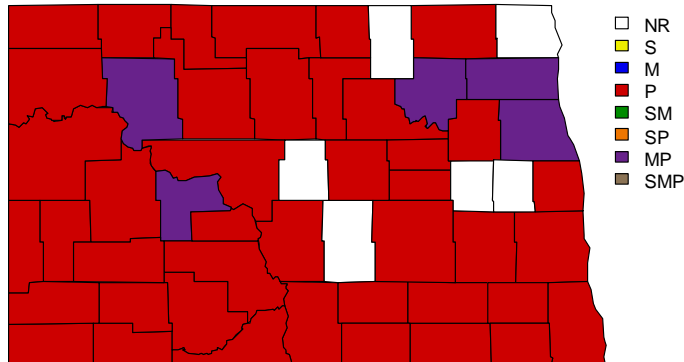
Stethophyma gracile
(Northern Sedge Locust)



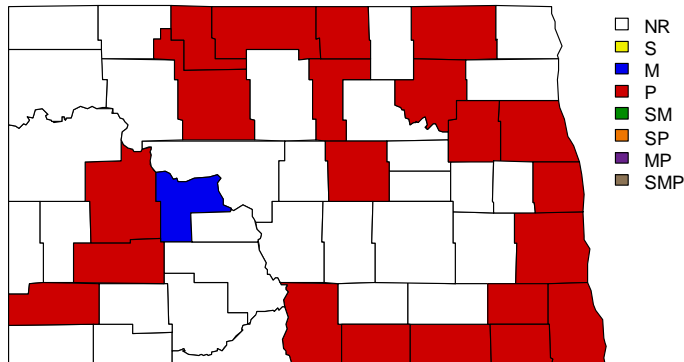
Arphia conspersa
(Speckled Rangeland Grasshopper, Speckle-winged Grasshopper)



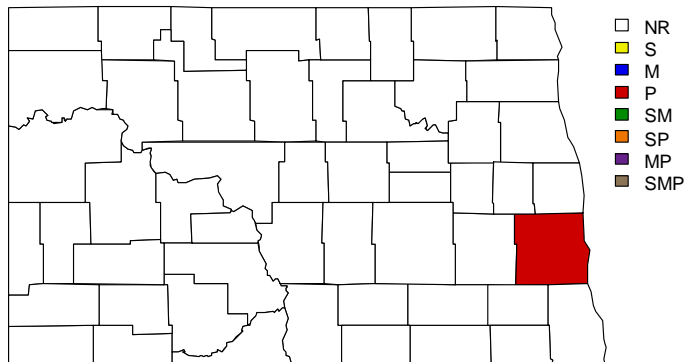
Arphia pseudonietana (=tenebrosa)
(Redwinged Grasshopper)



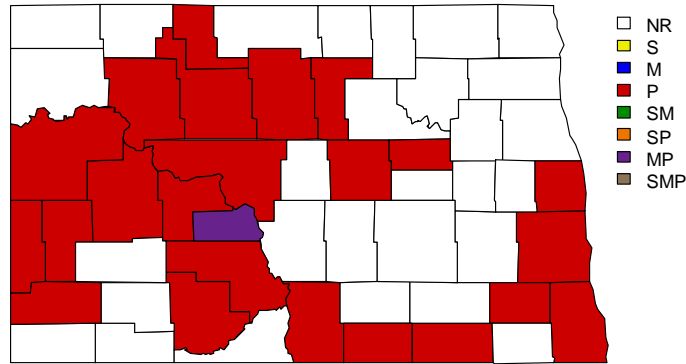
Chortophaga viridifasciata
(Northern Green-striped Grasshopper)



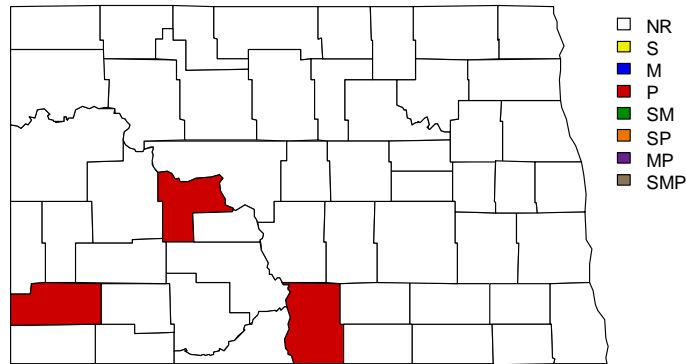
Encoptolophus sordidus
(Dusky Grasshopper, Eastern Clouded Grasshopper)



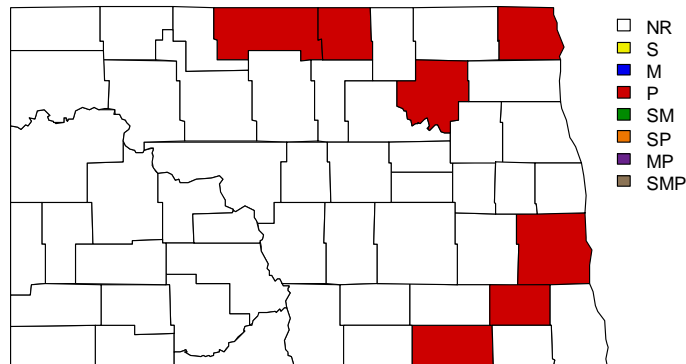
Encoptolophus costalis
(Western Clouded Grasshopper, Dusky Grasshopper)



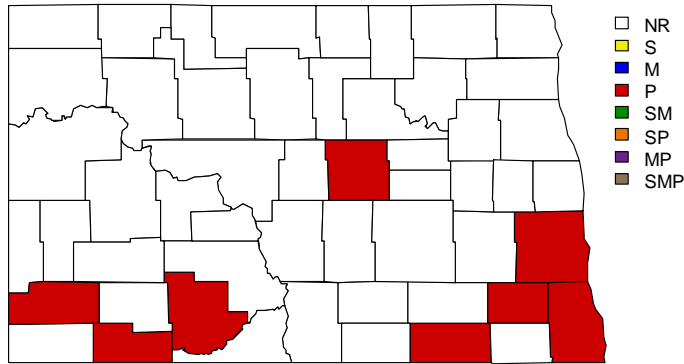
Hippiscus ocelote
(Wrinkled Grasshopper)



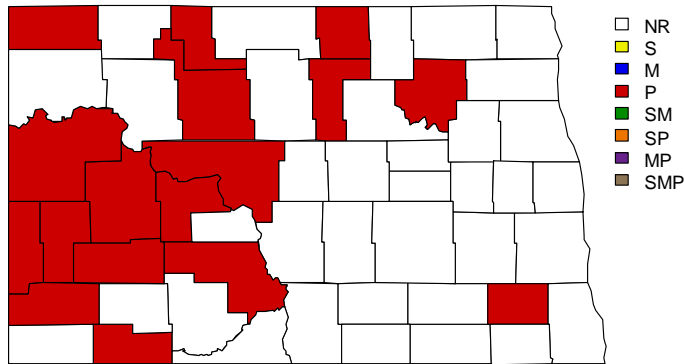
Pardalophora apiculata
(Coral-winged Grasshopper)



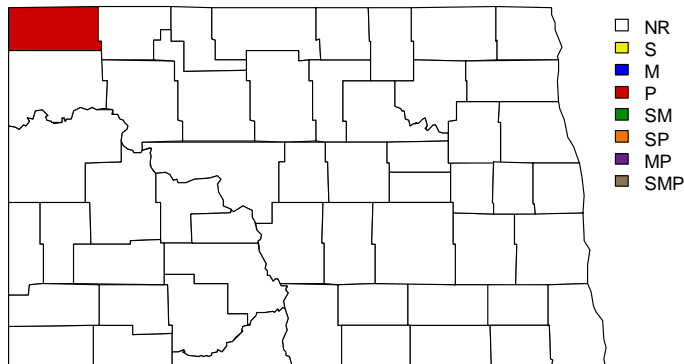
Pardalophora haldemani
(Haldeman's Grasshopper)



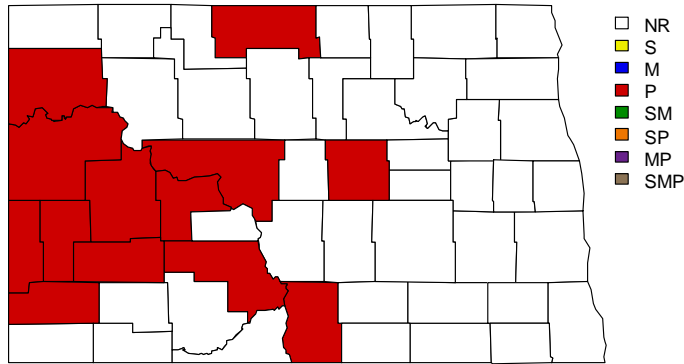
Xanthippus corallipes
(Red-shanked Grasshopper)



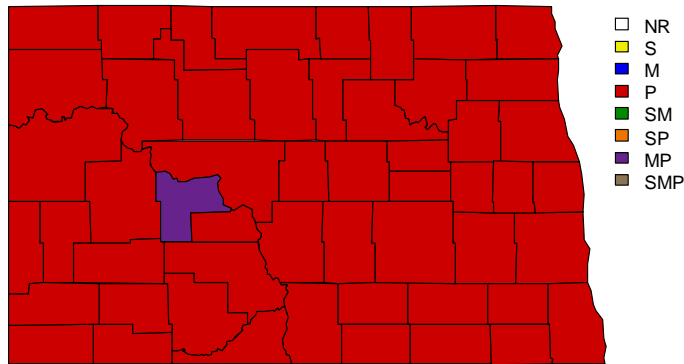
Cratypedes neglectus
(Pronotal Range Grasshopper, Powerful Range Grasshopper)



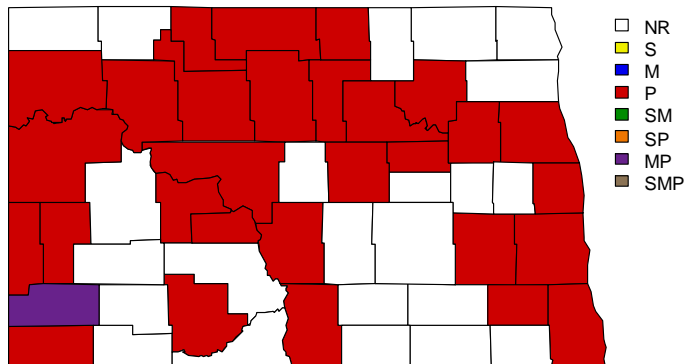
Hadrotettix trifasciatus
(Three-banded Range Grasshopper)



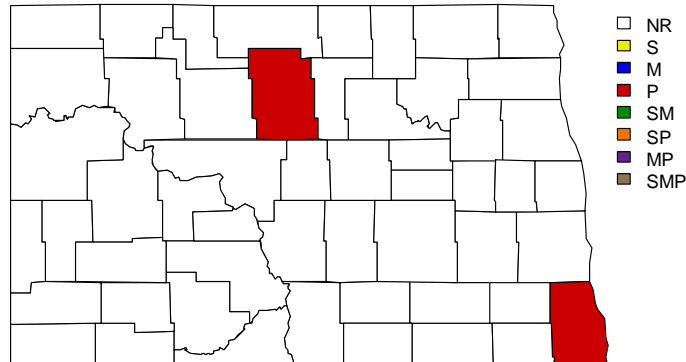
Camnula pellucida
(Clear-winged Grasshopper)



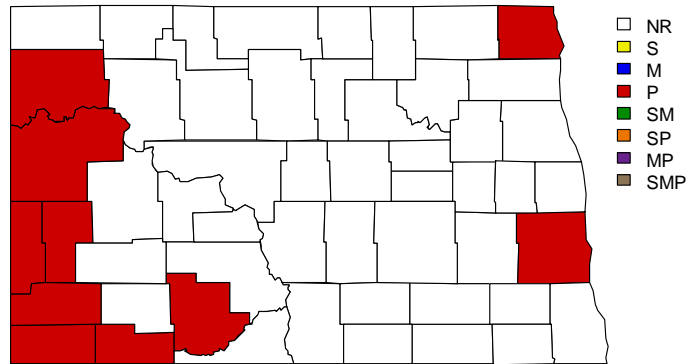
Spharagemon collare
(Mottled Sand Grasshopper)



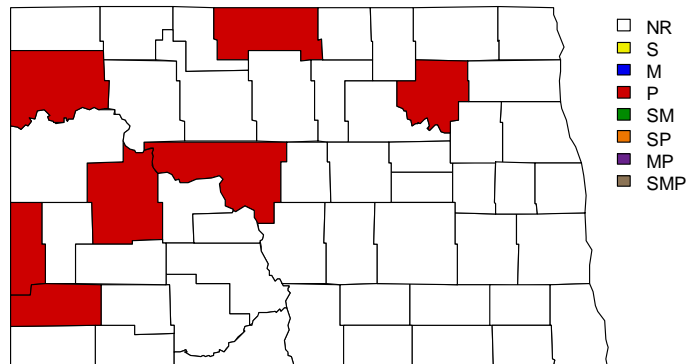
Spharagemon bolli
(Boll's Grasshopper)



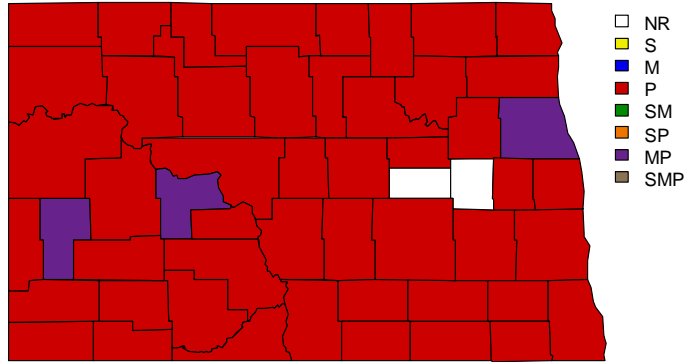
Spharagemon equale
(Say's Grasshopper, Orangelegged Grasshopper)



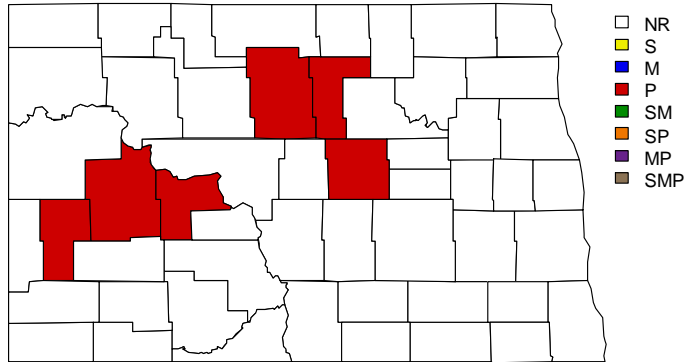
Spharagemon campestris
(Campestral Grasshopper)



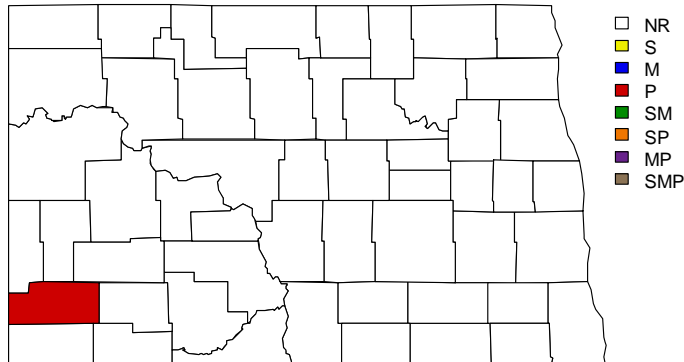
Dissosteira carolina
(Carolina Grasshopper, Carolina Locust)



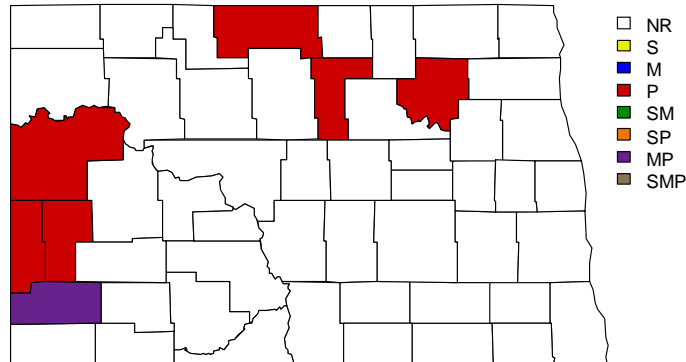
Trimerotropis agrestis
(Toothed Field Grasshopper)



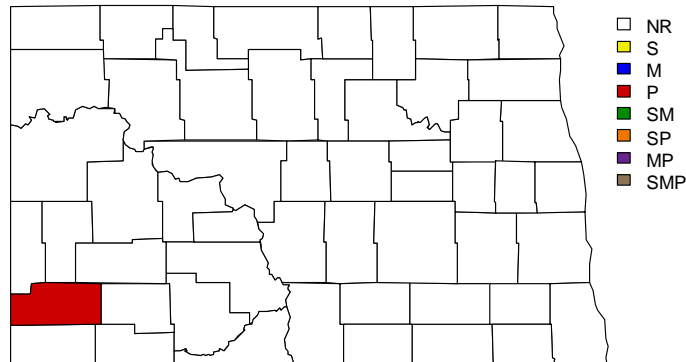
Trimerotropis latifasciata
(Broad-banded Grasshopper)



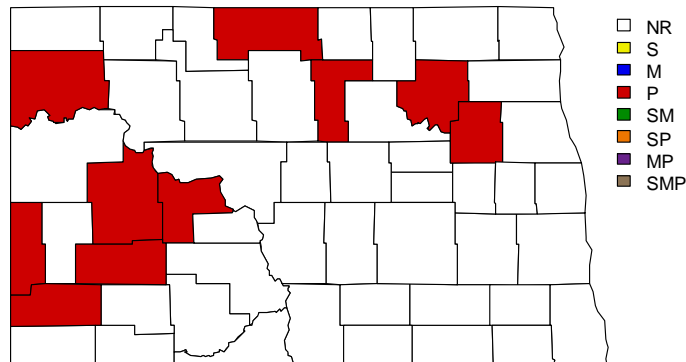
Trimerotropis pistrinaria
(Barren Land Grasshopper, Milk-vetch Grasshopper)



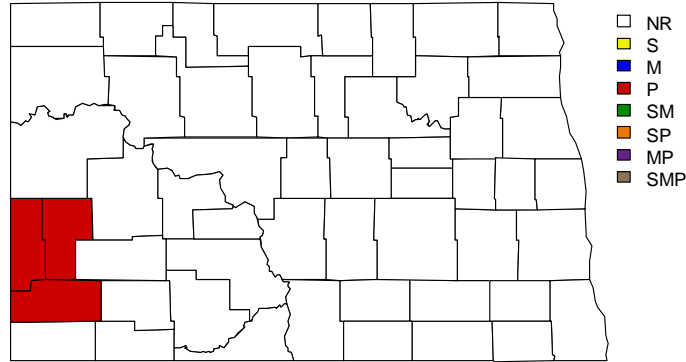
Trimerotropis cincta
(Masked Grasshopper, Band-faced Grasshopper)



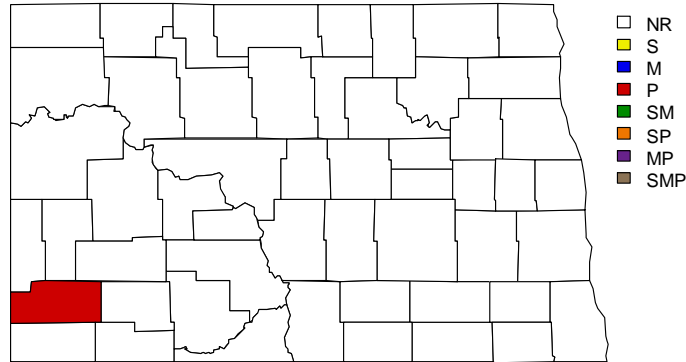
Trimerotropis diversellus
(Geyser Grasshopper)



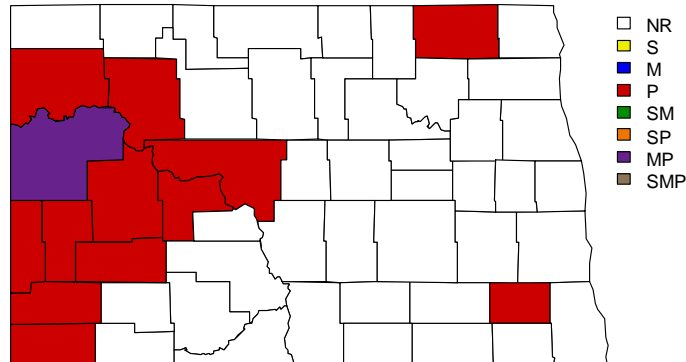
Trimerotropis sparsa
(Great Basin Grasshopper, Azure-winged Grasshopper)



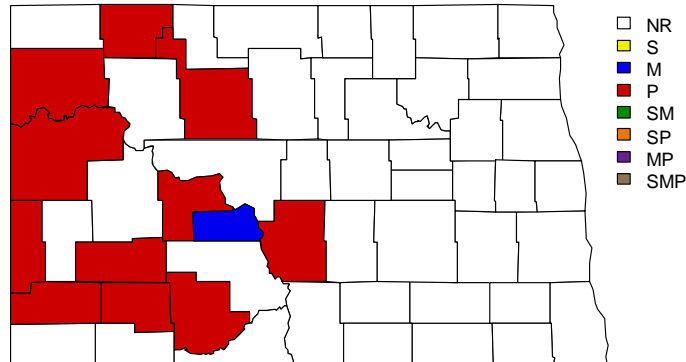
Trimerotropis gracilis
(Thomas' Slender Grasshopper)



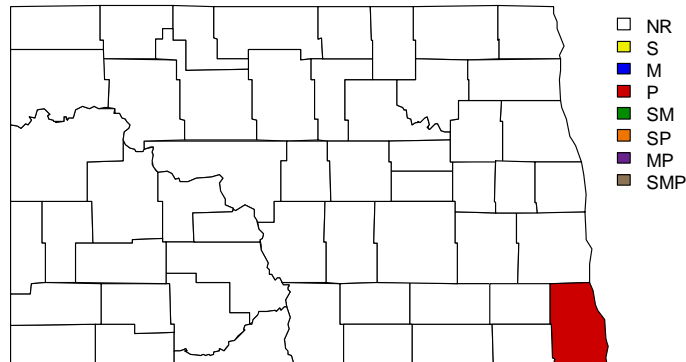
Circotettix rabula
(Wrangler Grasshopper)



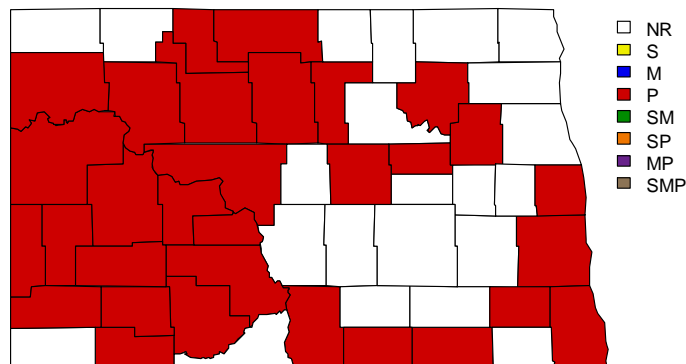
Circotettix (=Aerochoreutes) carlinianus
(Carlinian Snapper Grasshopper)



Psinidia fenestralis
(Longhorned Grasshopper, Flat-horned Grasshopper)

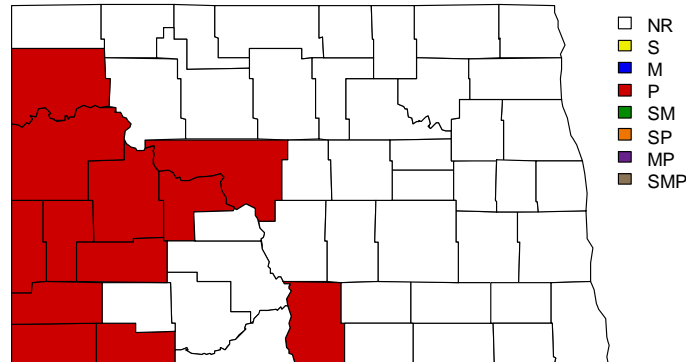


Trachyrachys kiowa
(Ash-brown Grasshopper, Kiowa Grasshopper)

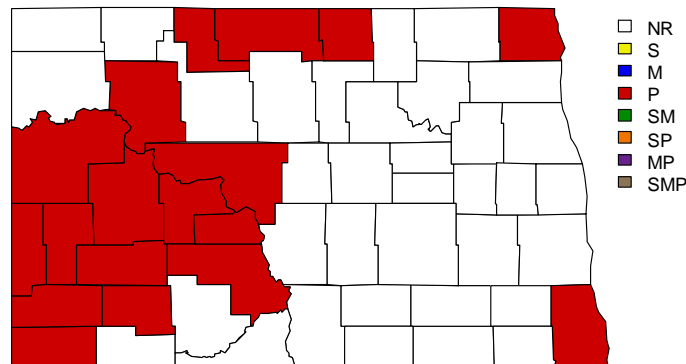


Metator pardalinus

(Pard Grasshopper, Bluelegged Grasshopper)

*Derotmema haydeni*

(Hayden's Grasshopper)



Order: Hemiptera (Bugs)

The Hemiptera are a diverse and large group of insects. Some species are hard to identify to species resulting in many unidentified specimens in the UND invertebrate museum. The order has not been well studied in North Dakota with the exception of work being done by David Rider at NDSU. He has published the first of a series of papers planned to document the Heteroptera (the suborder of the Hemiptera that contains the true bugs; Rider 2012). This paper covers the Pentatomoidea (the superfamily that includes the stink bugs and shield bugs) and provided county record data for those families. Some of the data reported in Rider's paper was based on burrowed material from the UND invertebrate museum which was not in the collection when it was searched for specimens, so a portion of the published county accounts for the Pentatomoidea would also be UND Museum collection accounts, but the two sources were not parsed out.

One Hemiptera species may be of management concern - *Chlorochroa belfragii* – as it was once a candidate for federal listing (U.S. Fish and Wildlife Service, 1995). It has been removed from

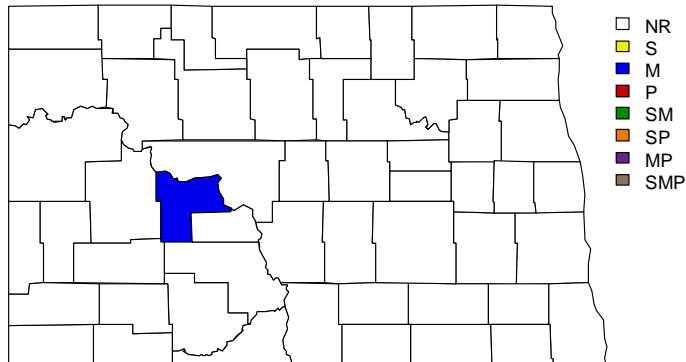
the list, primarily due to the discovery that it is difficult to capture using traditional techniques, but still records are sparse in ND.

Sub-Order: Auchenorrhyncha (Hoppers and Cicadas)

Family: Cercopidae (Froghoppers)

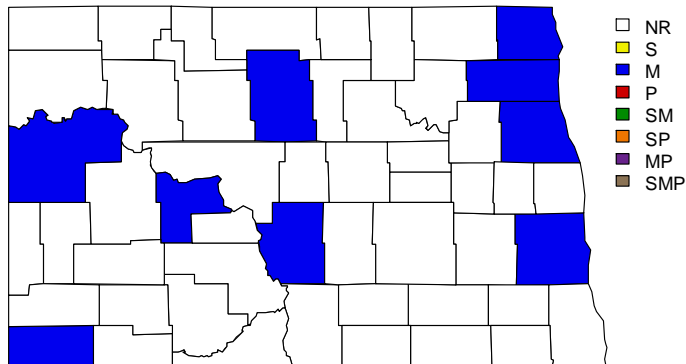
Aphrophora quadrinotata

(Four-spotted Spittle Bug)

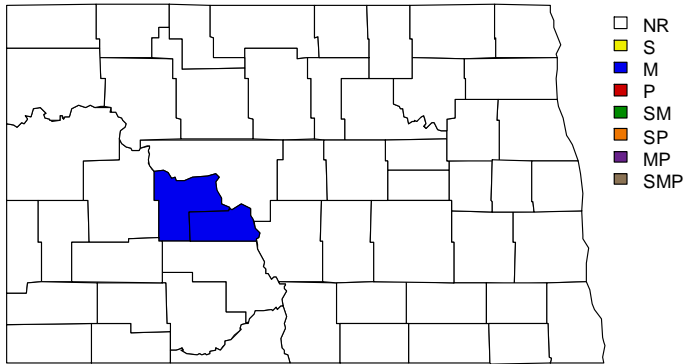


Lepyronia quadrangularis

(Diamondback Spittlebug)

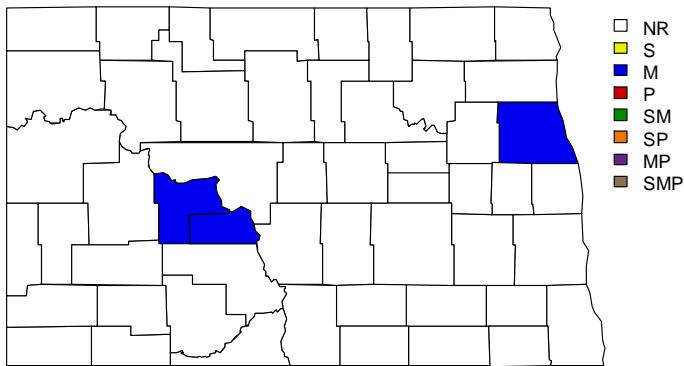


Philaenarcys bilineata
(Prairie Spittlebug)

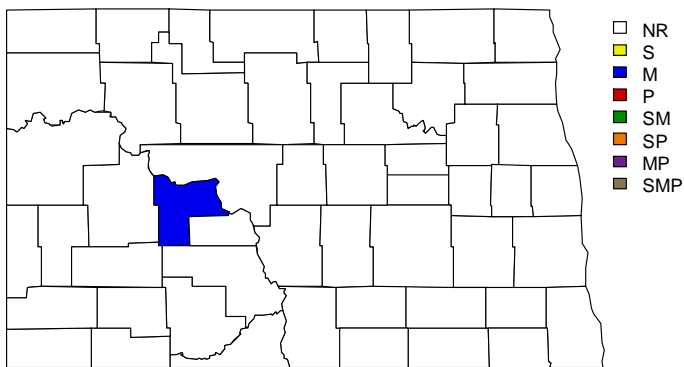


Family: Cicadellidae (Leafhoppers)

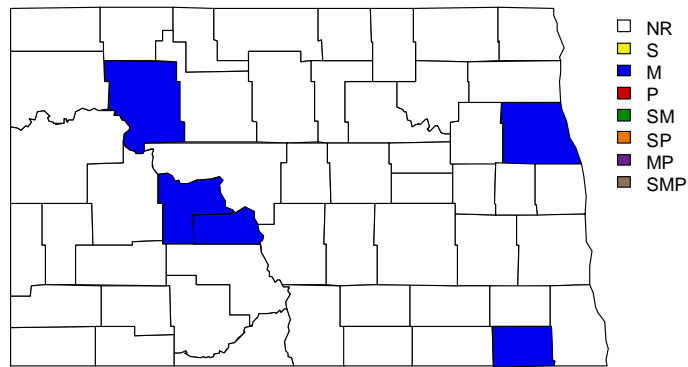
Chlorotettix unicolor



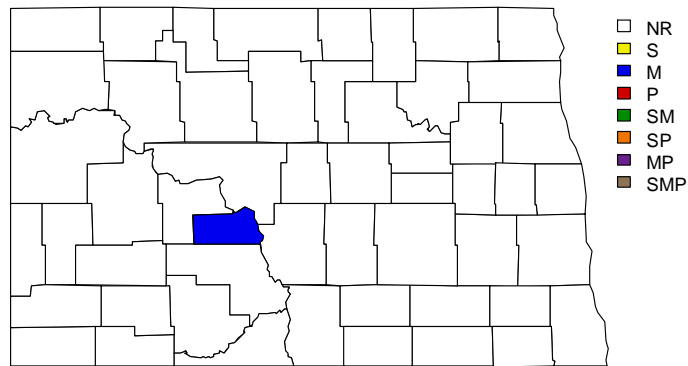
Cicadula ciliata



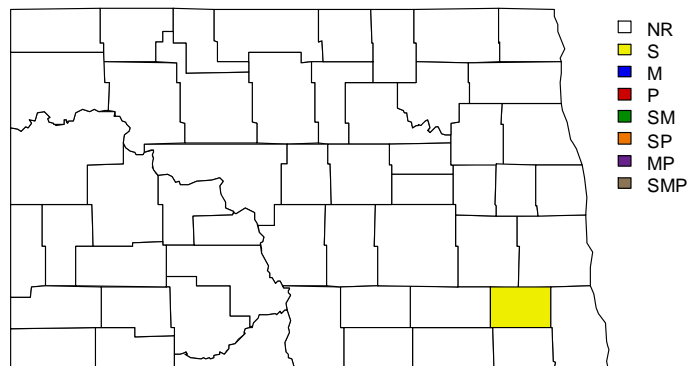
Cuerna striata



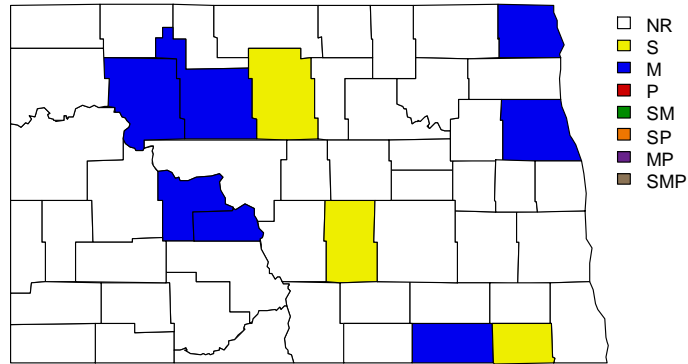
Dicyphonia ornata



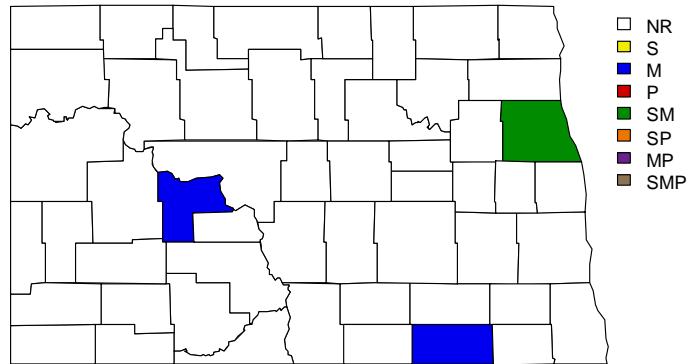
Draeculacephala antica



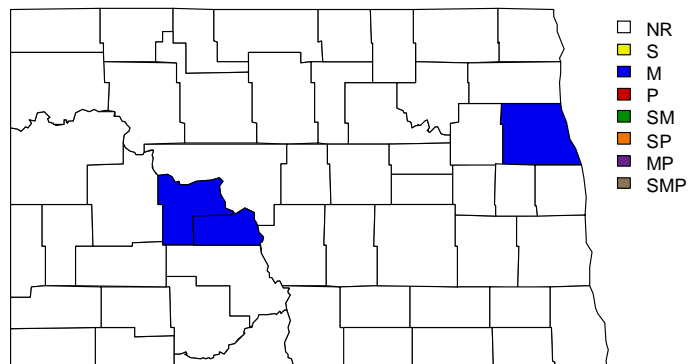
Draeculacephala noveboracensis



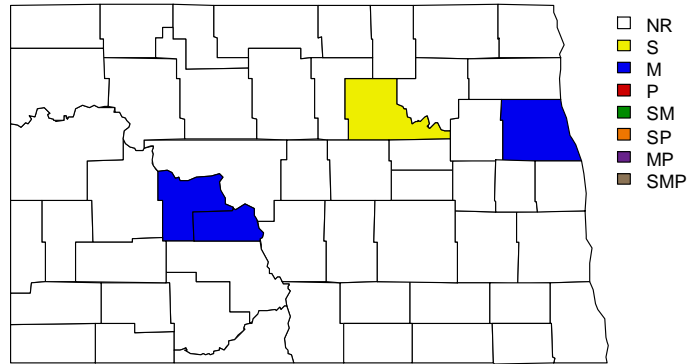
Graphocephala coccinea
(Red-banded Leafhopper)



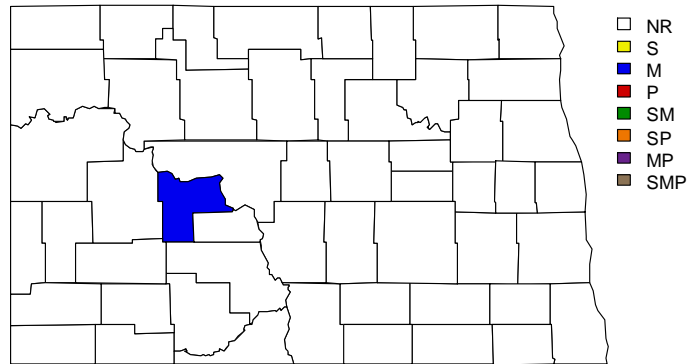
Graphocephala hieroglyphica



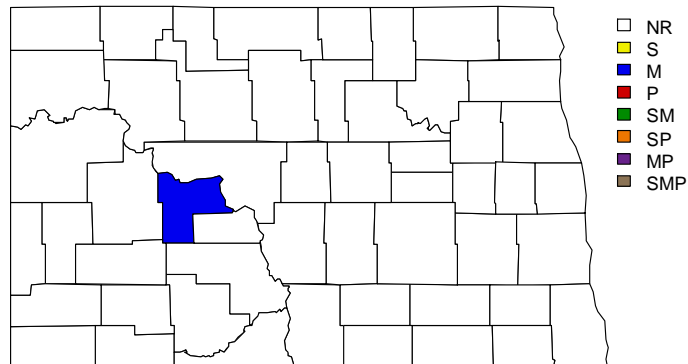
Gypona melanota



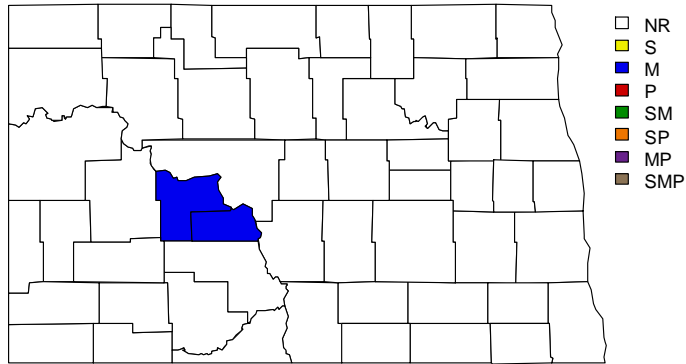
Neohecalus (=Hecalus) lineatus



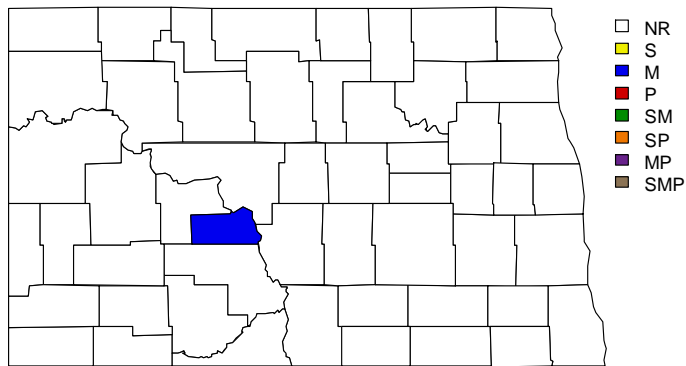
Osbornellus auronitens



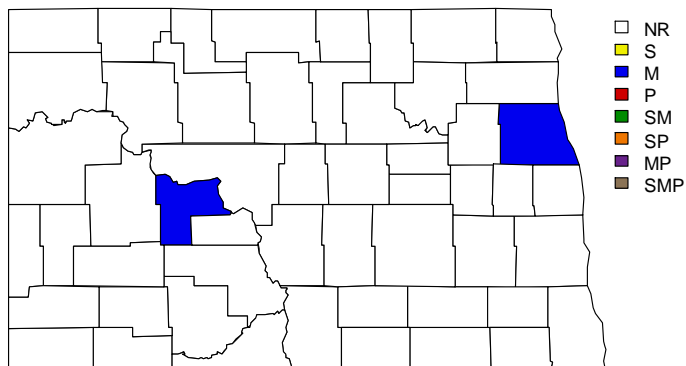
Paraboloocratus viridis



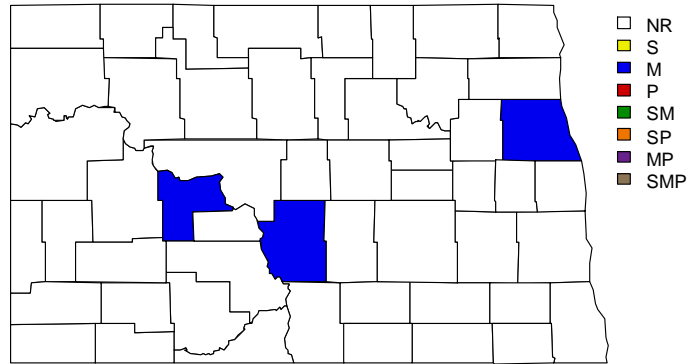
Paraphlepsius altus



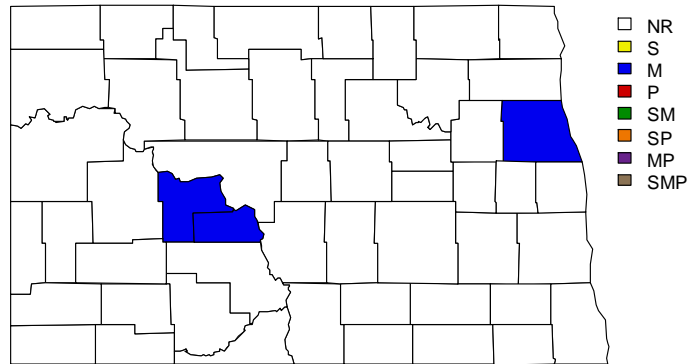
Paraphlepsius hemicolor



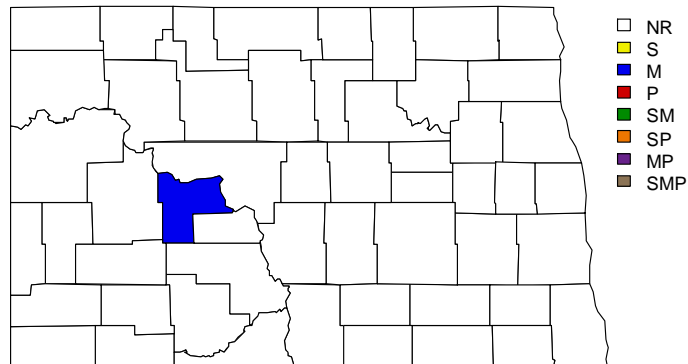
Paraphlepsius irroratus
(Brown Speckled Leafhopper, Irroate Leafhopper)



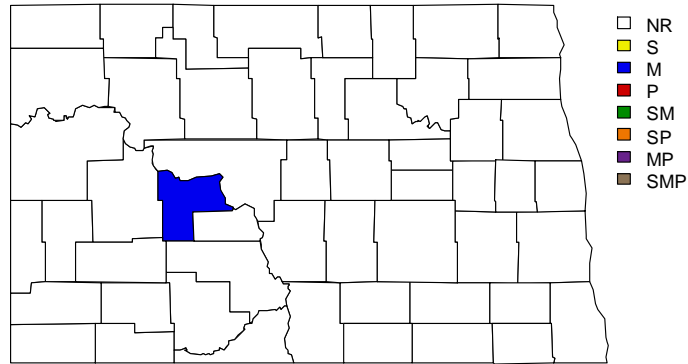
Penthimia americana



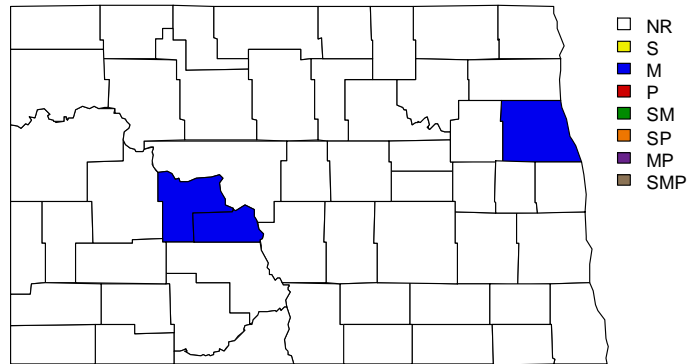
Prairiana cinerea



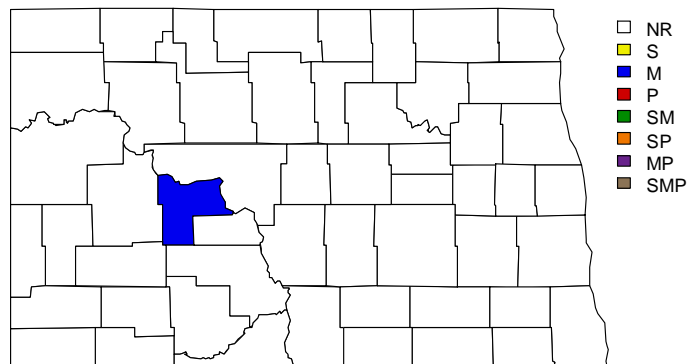
Scaphoideus morosus



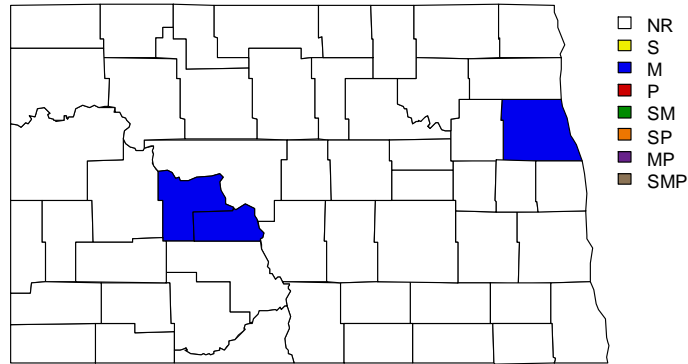
Scaphytopius acutus
(Sharpnosed Leafhopper)



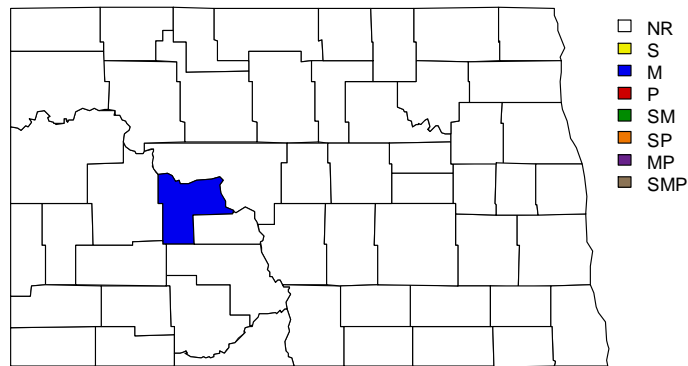
Sorhoanus orientalis



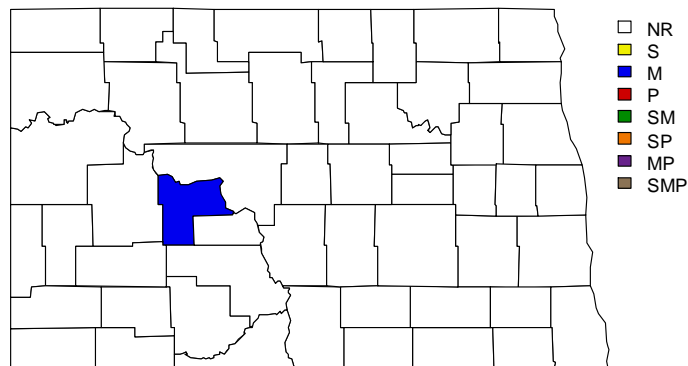
Sorhoanus uhleri



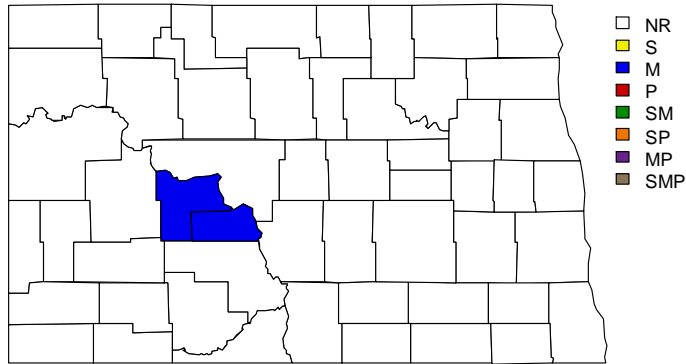
Streptanus aemulans



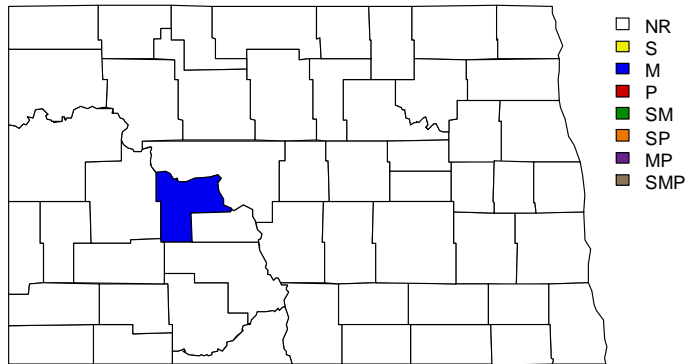
Streptanus confinis



Xerophloea peltata



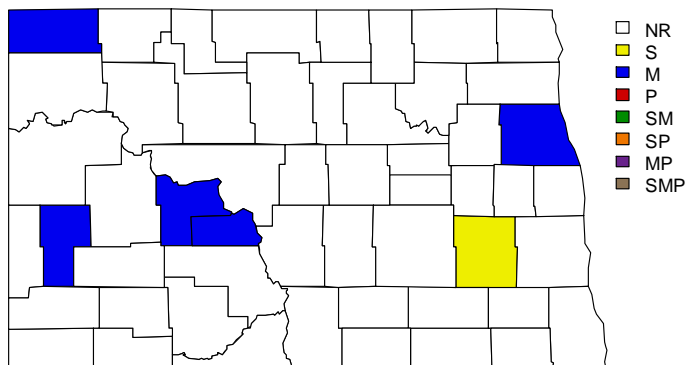
Xerophloea viridis



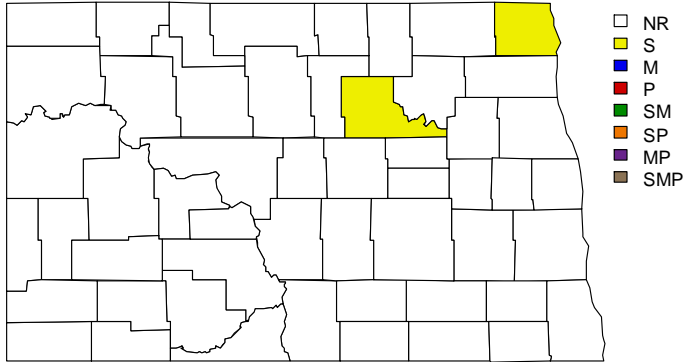
Family: Membracidae (Treehoppers)

Campylenchia latipes

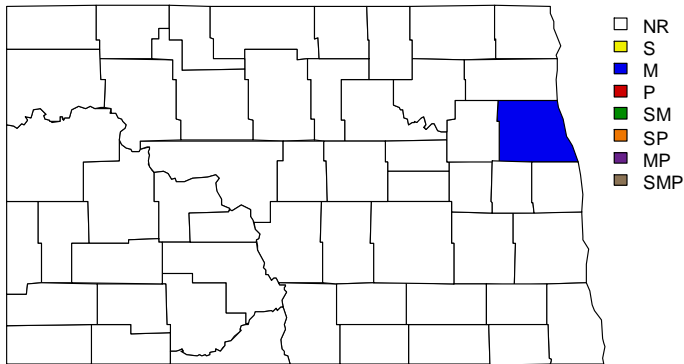
(Widefooted Treehopper, Eastern Thornhopper)



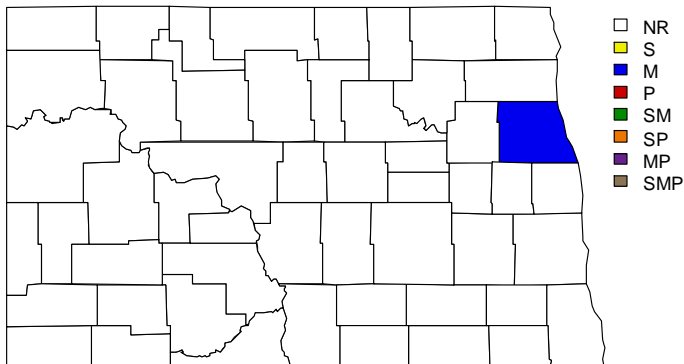
Campylenchia rugosa
(Western Thornhopper)



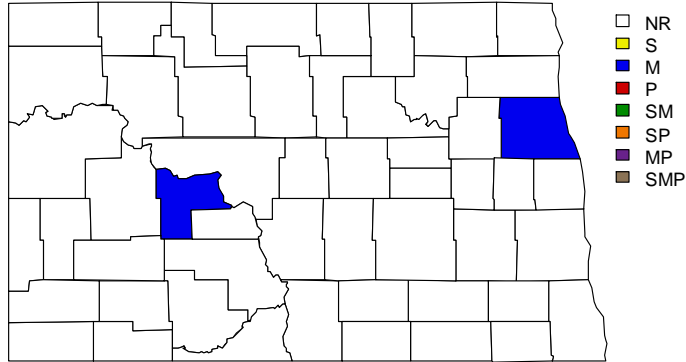
Cyrtolobus maculifrontis



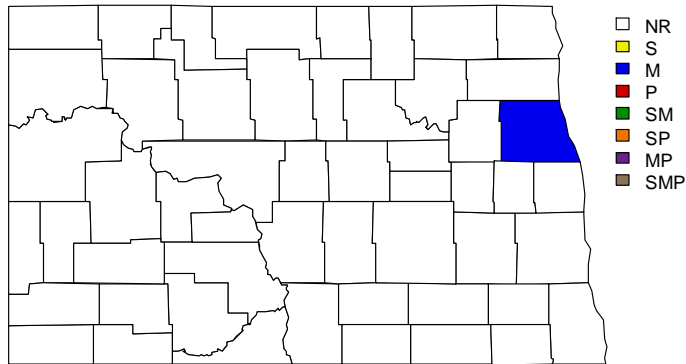
Cyrtolobus vau



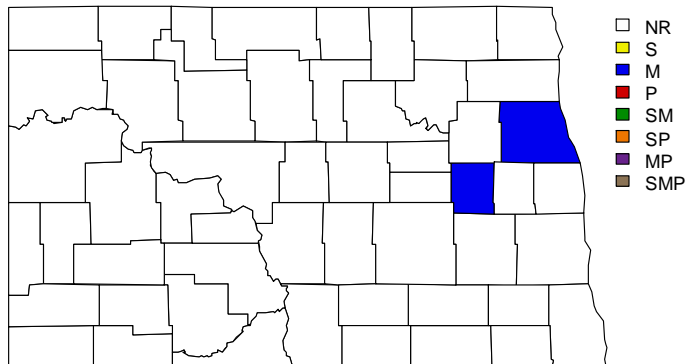
Enchenopa binotata
(Two-marked Treehopper)



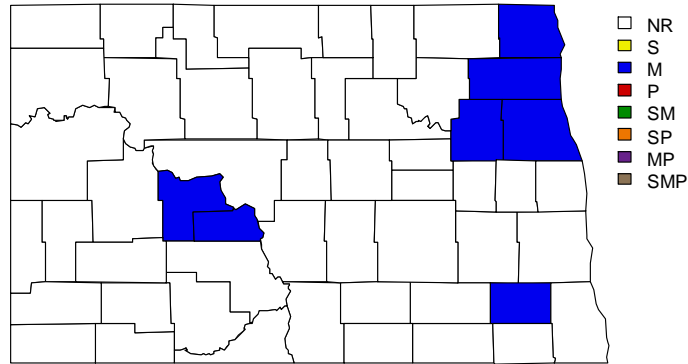
Entylia baccifera



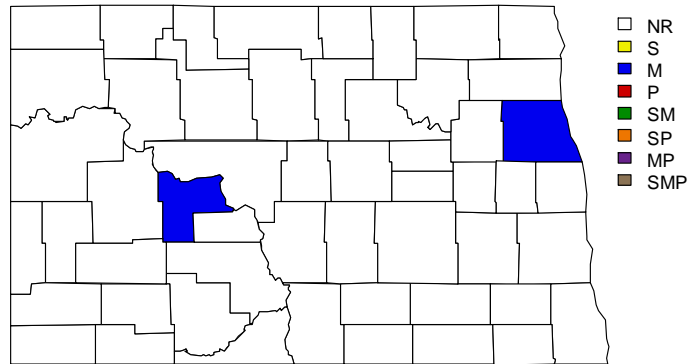
Glossonotus univittatus



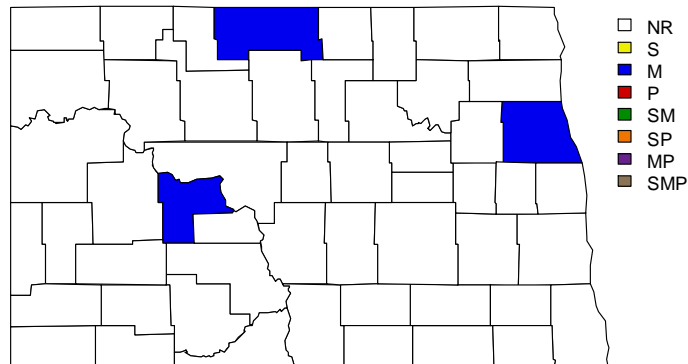
Stictocephala (=Ceresa) basalis



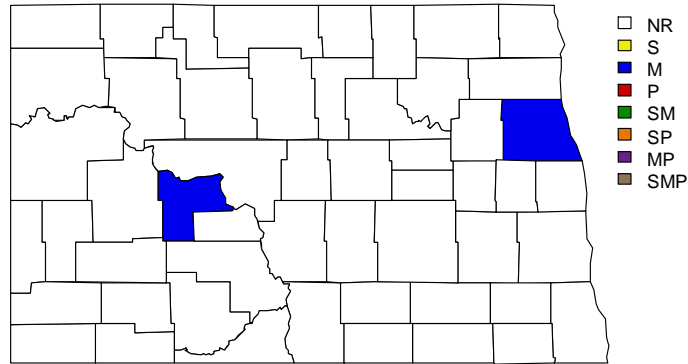
Stictocephala (=Ceresa) bisonia
(Buffalo Treehopper)



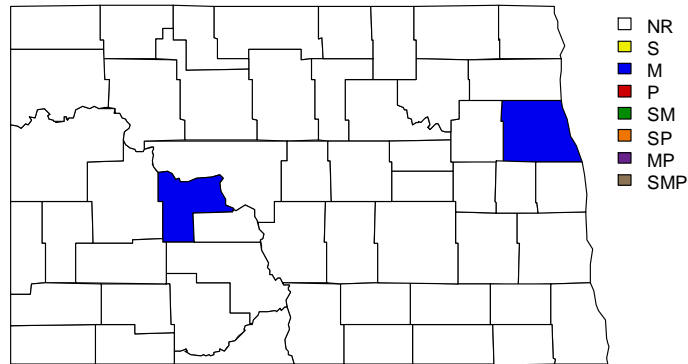
Stictocephala (=Ceresa) diceros
(Two-horned Treehopper)



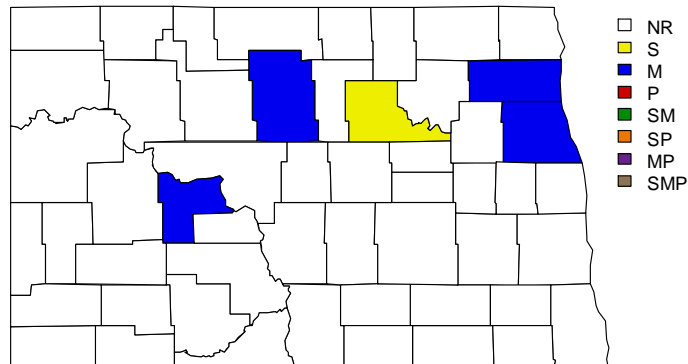
Stictocephala (=Ceresa) lutea



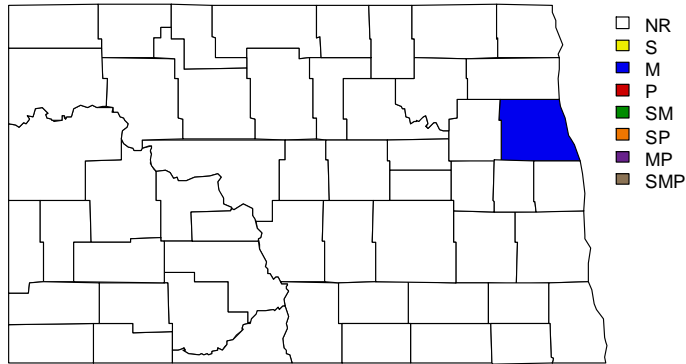
Stictocephala (=Ceresa) palmeri



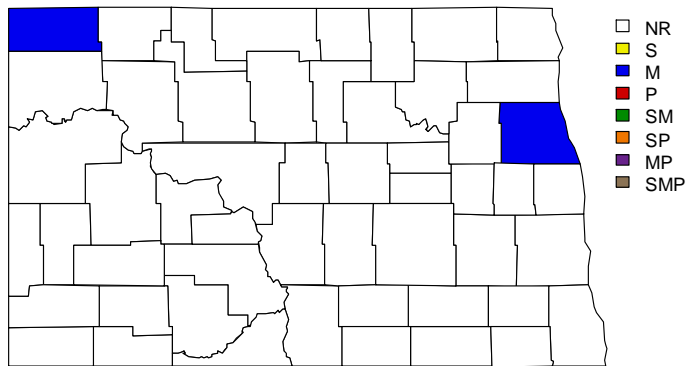
Stictocephala (=Ceresa) taurina



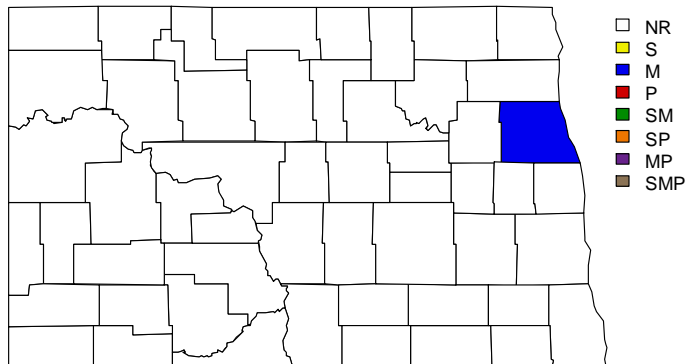
Telamona decorata



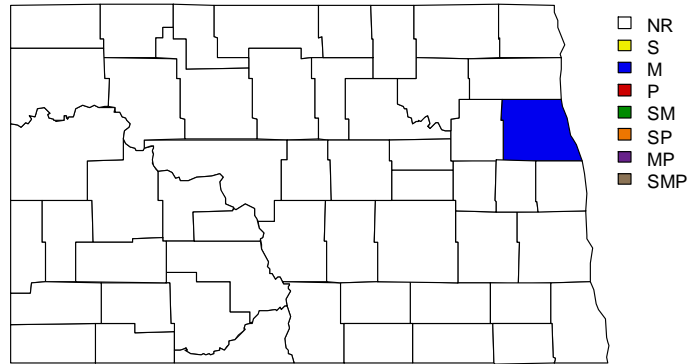
Telamona gibbera



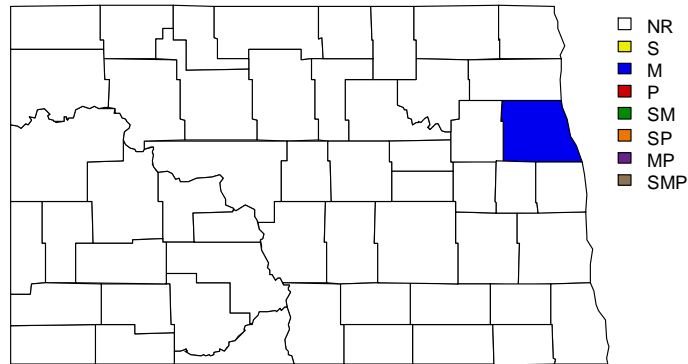
Telamona monticola



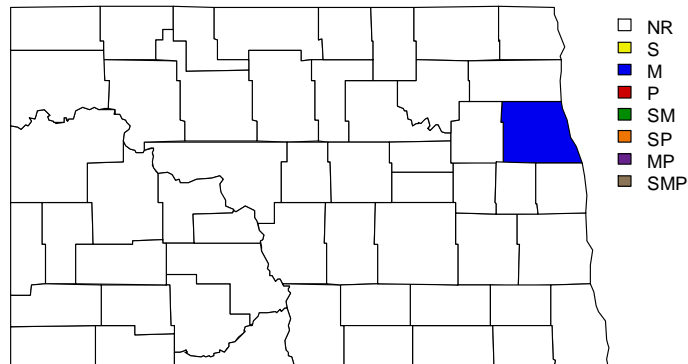
Telamona spreta



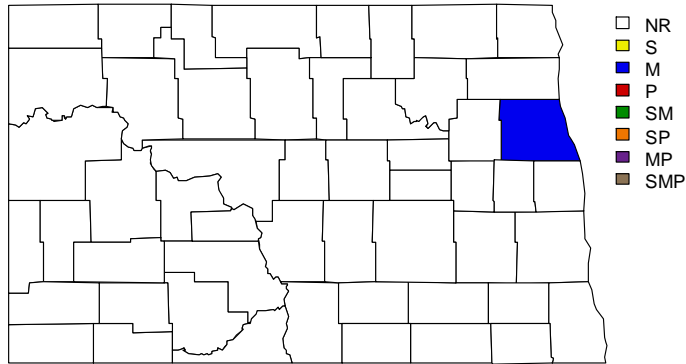
Telamona tristis



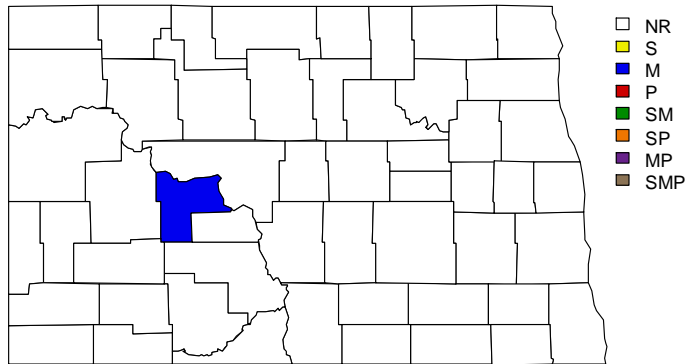
Telamona westcotti



Thelia uhleri

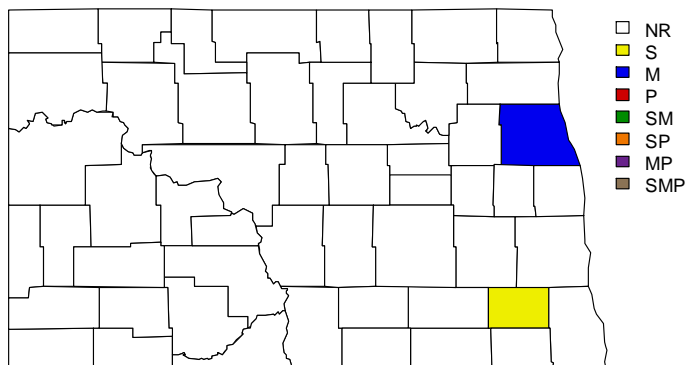


Tortistilus inermis

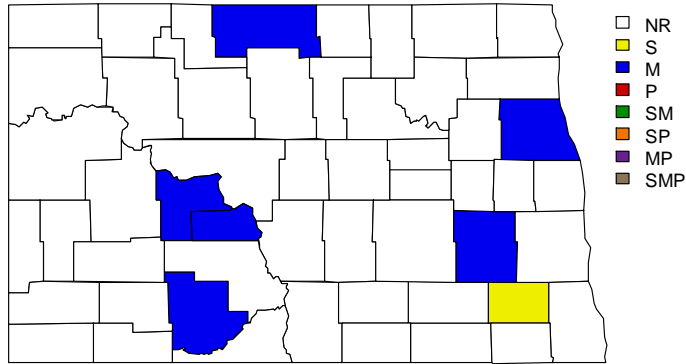


Family: Acanaloniidae (Acanaloniid Planthoppers)

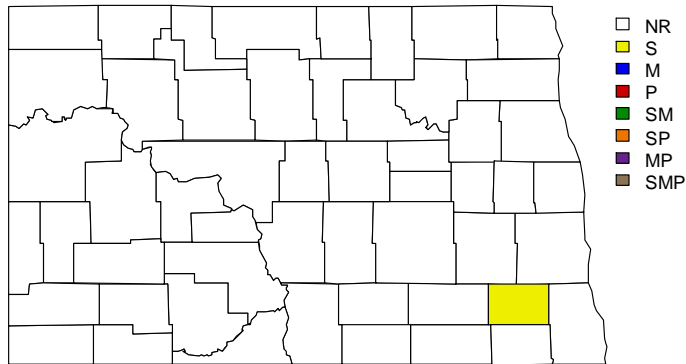
Acanalonia bivittata
(Two-striped Planthopper)



Family: Dictyopharidae (Dictyopharid Planthoppers)

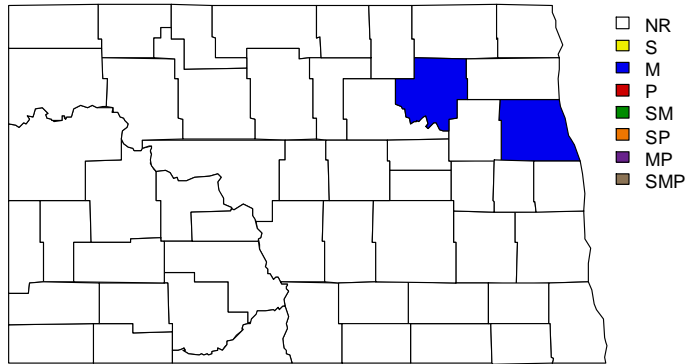
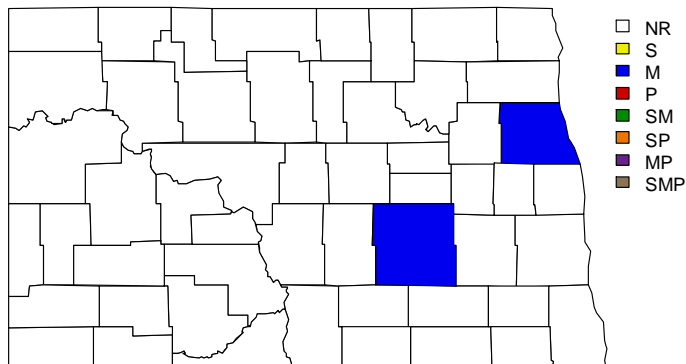
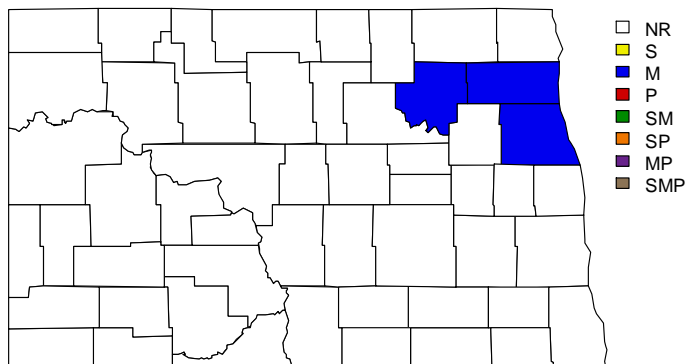
Scolops sulcipes
(Partridge Bug)

Family: Flatidae (Flatid Planthoppers)

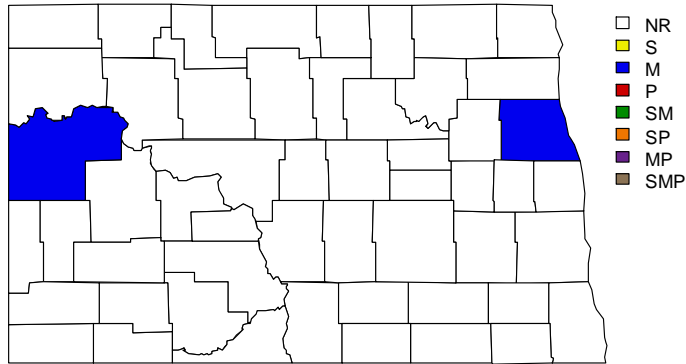
Metcalfa pruinosa
(Citrus Flatid Planthopper)

Sub-Order: Heteroptera (True Bugs)

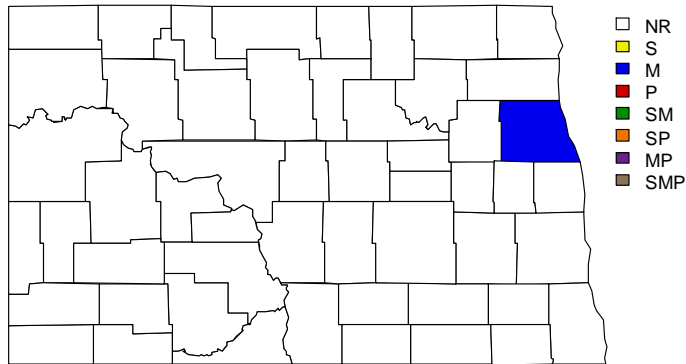
Family: Gerridae (Water Striders)

Gerris buenoi
(Blue-winged Water Strider)*Aquarius (=Gerris) conformis**Limnoporus (=Gerris) dissortis*
(Kayak Pond Skater)

Aquarius (=Gerris) remigis
(Common Water Strider)

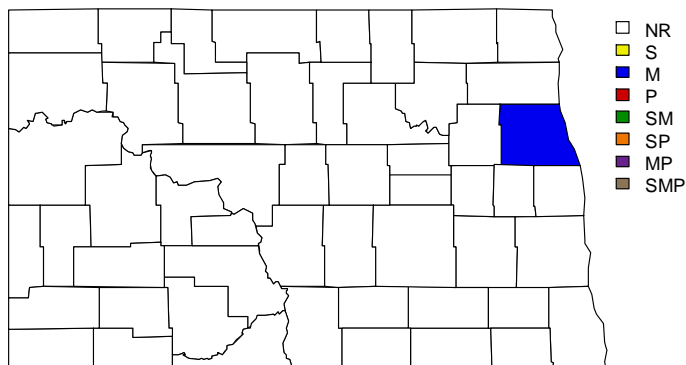


Metrobates hesperius

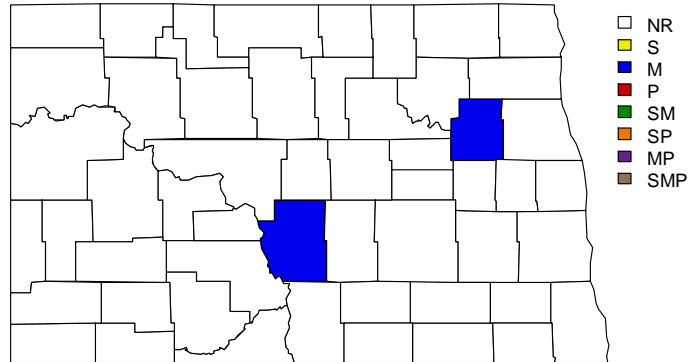
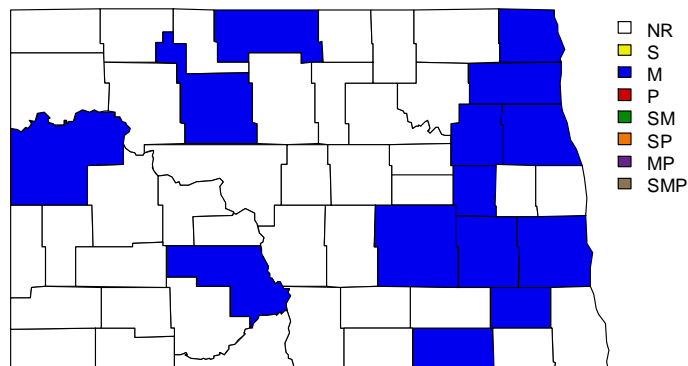


Family: Saldidae (Shore Bugs)

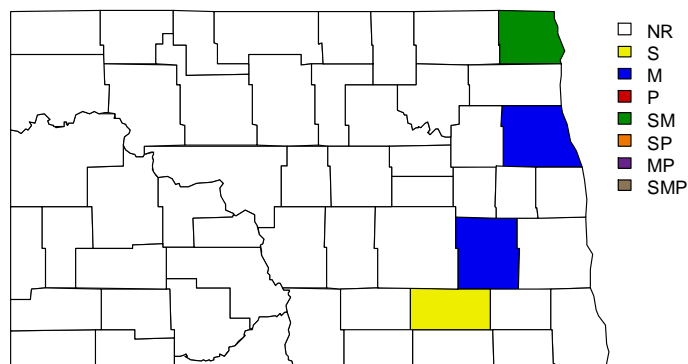
Pentacora ligata



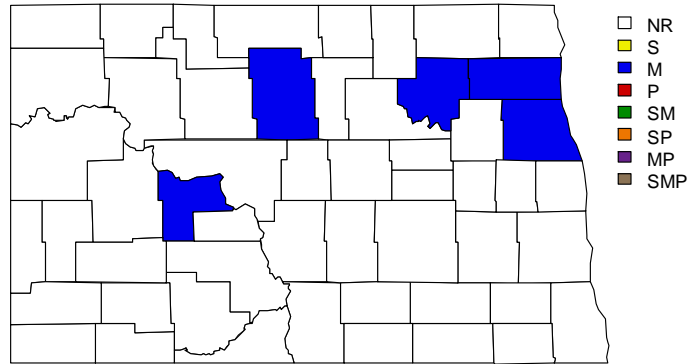
Family: Corixidae (Water Boatmen)

Corisella edulis*Hesperocorixa (=Arctocorisa) interrupta*
(Interrupted Water Boatman)

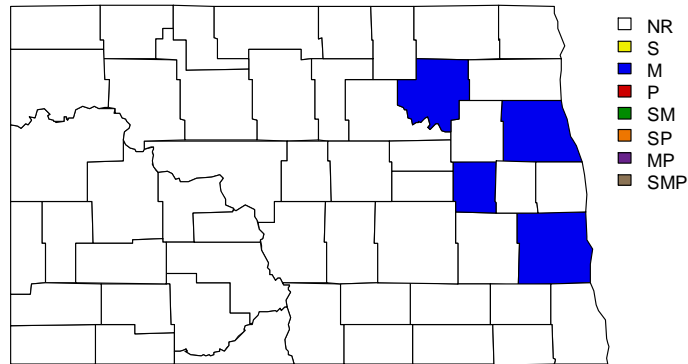
Family: Belostomatidae (Giant Water Bugs)

Belostoma flumineum

Lethocerus americanus

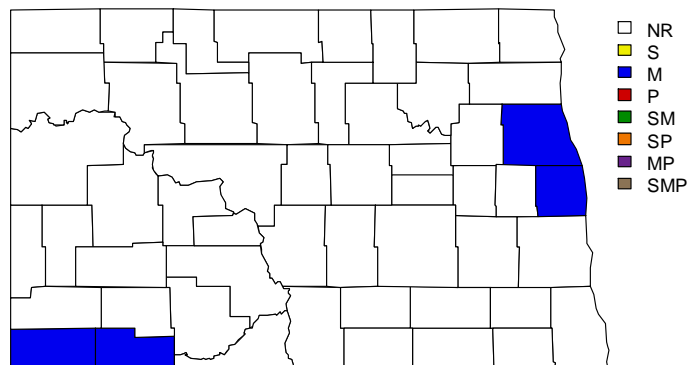


Lethocerus uhleri



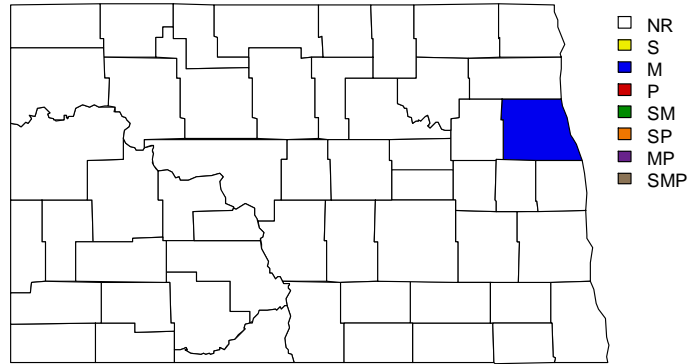
Family: Nepidae (Waterscorpions)

Ranatra fusca
(Brown Waterscorpion)

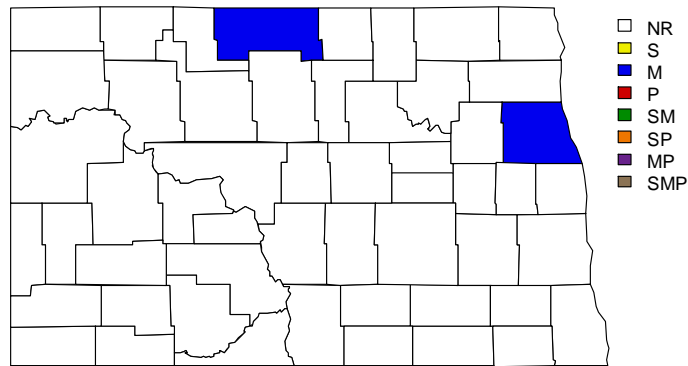


Family: Notonectidae (Backswimmers)

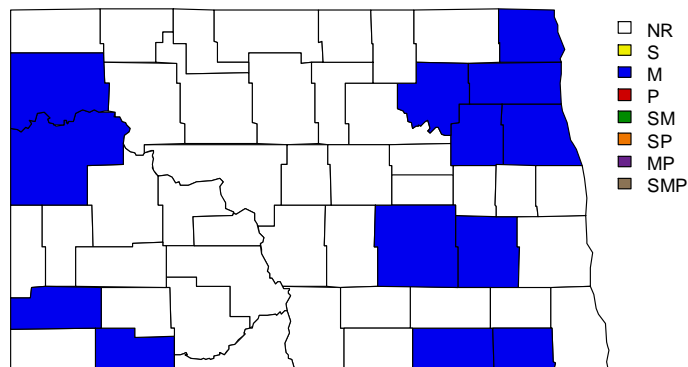
Notonecta insulata



Notonecta lunata

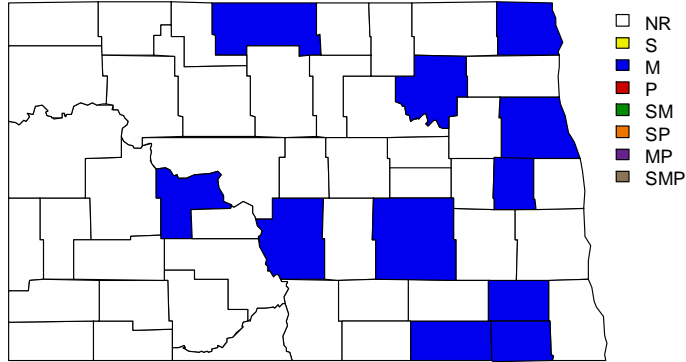


Notonecta undulata
(Grousewinged Backswimmer)

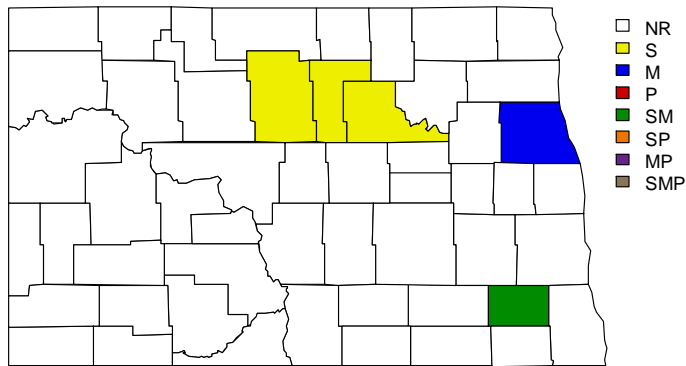


Family: Miridae (Plant Bugs, Leaf Bugs, Grass Bugs, Caspid Bugs)

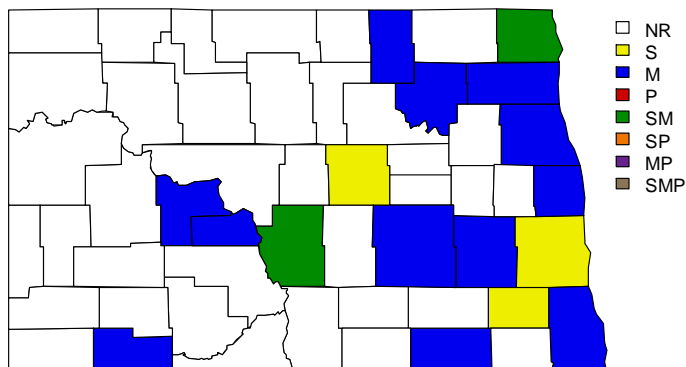
Adelphocoris lineolatus
(Alfalfa Plant Bug)



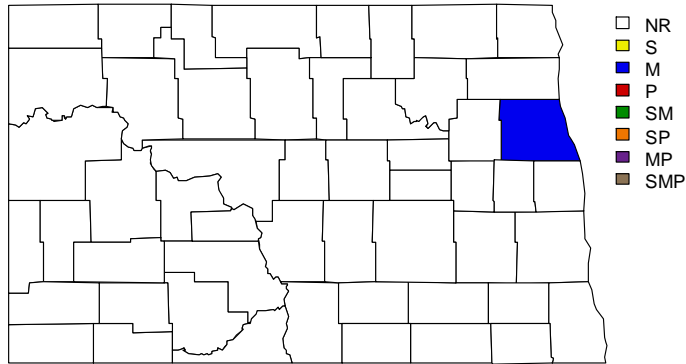
Collaria meillerii



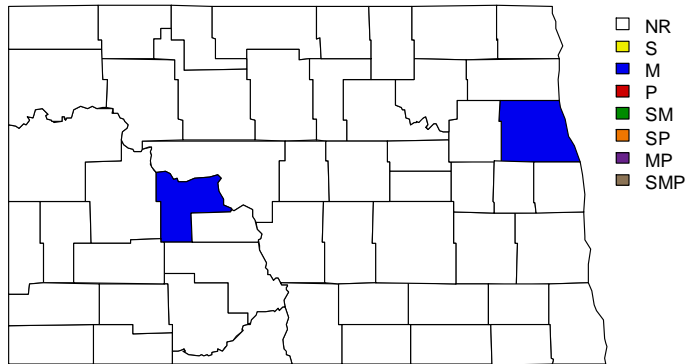
Lygus lineolaris
(Tarnished Plant Bug)



Mimoceps insignis

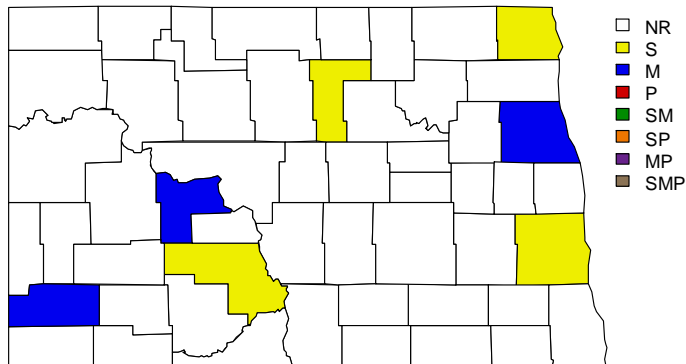


Porpomiris curtulus



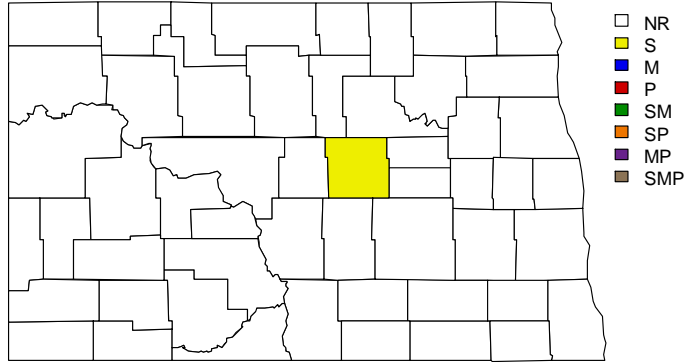
Trigonotylus caelestialium

(Rice Leaf Bug)

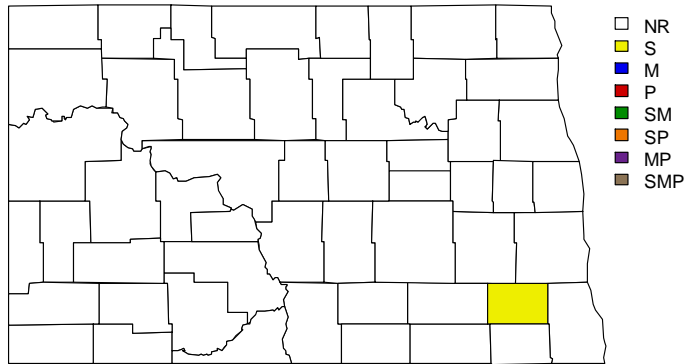


Family: Nabidae (Damsel Bugs)

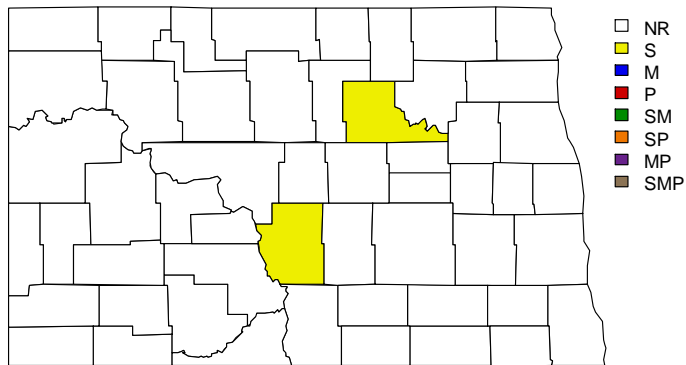
Nabacula subcoleoprata



Pagasa fusca

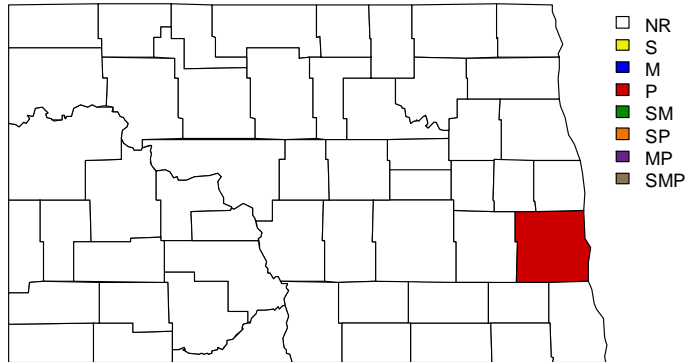


Dolichonabis propinquus

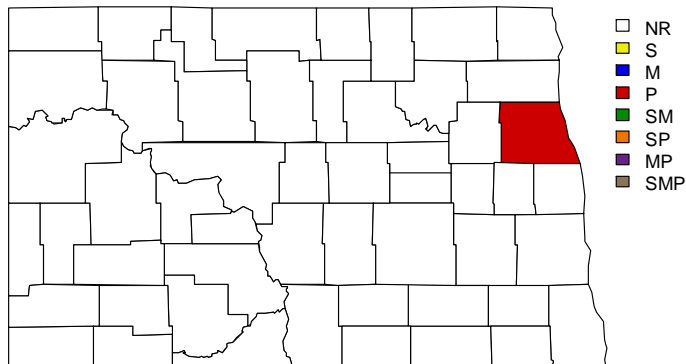


Family: Acanthosomatidae (Shield Bugs)

Elasmostethus cruciatus
(Red-Cross Shield Bug)

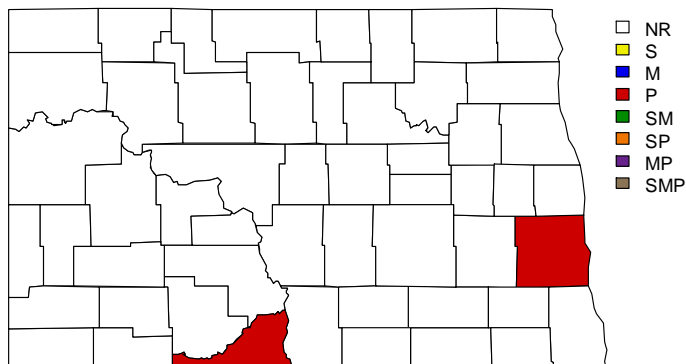


Elasmucha lateralis

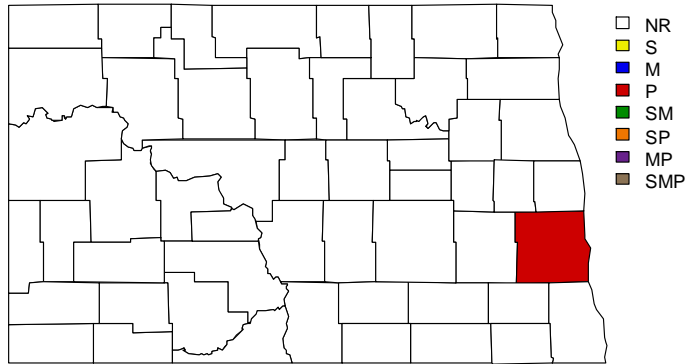


Family: Cydnidae (Burrowing Bugs)

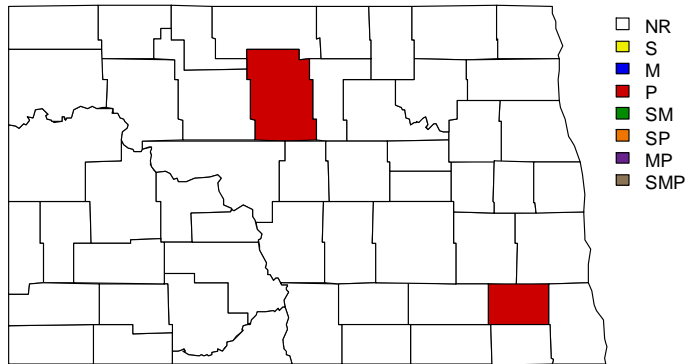
Amnestus pusillus



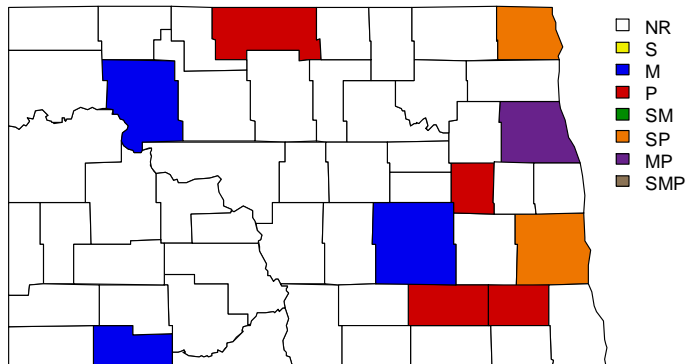
Amnestus spinifrons



Microporus obliquus

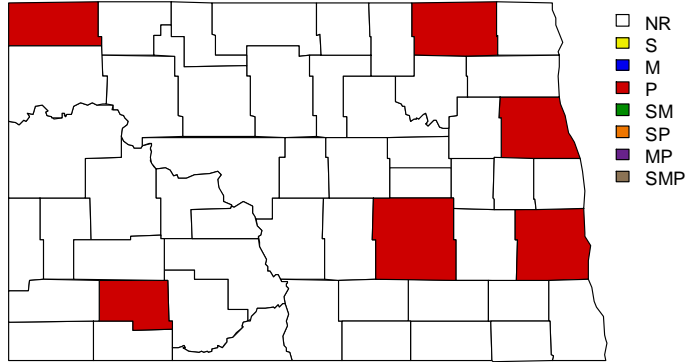


Sehirus cinctus
(White-margined Burrower Bug)

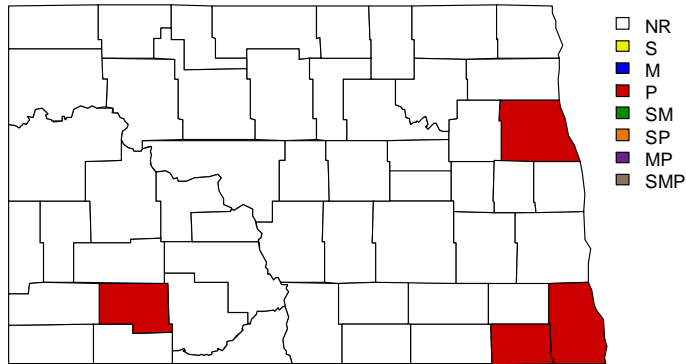


Family: Pentatomidae (Stink Bugs)

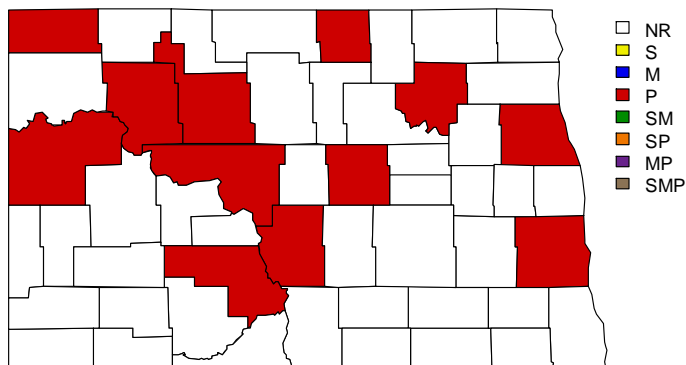
Apoecilus bracteatus



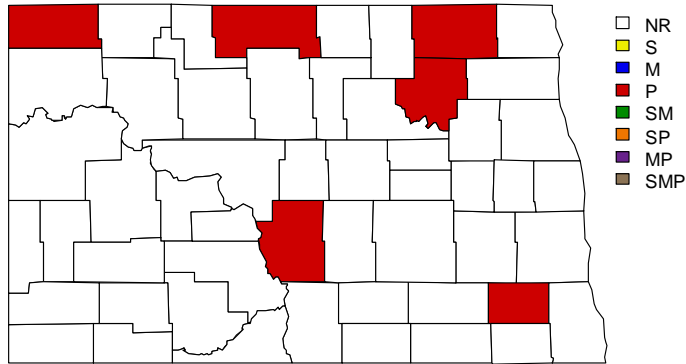
Apoecilus cynicus



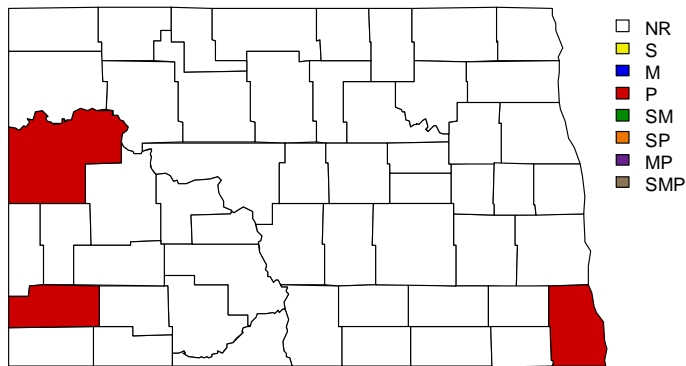
Perillus bioculatus
(Two-spotted Stink Bug)



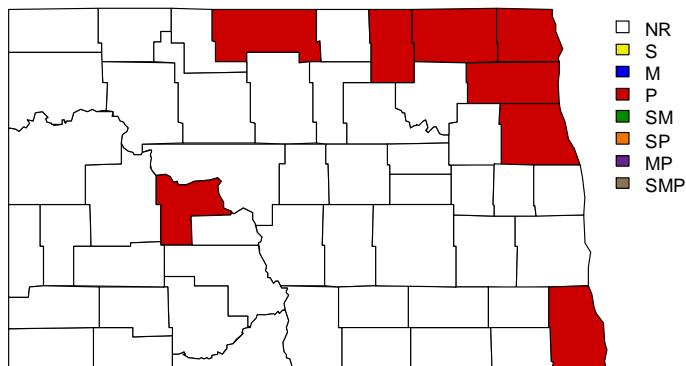
Perillus circumcinctus



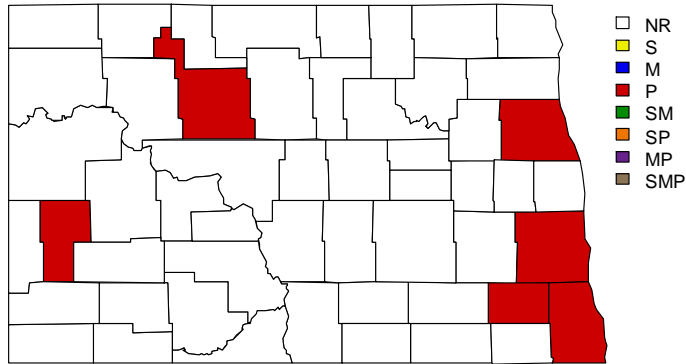
Perillus exaptus



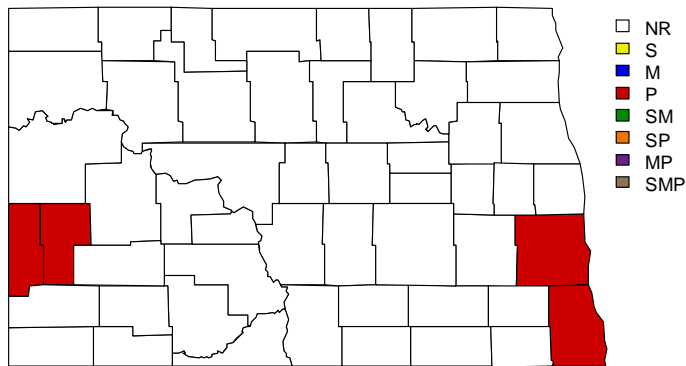
Podisus brevispinus



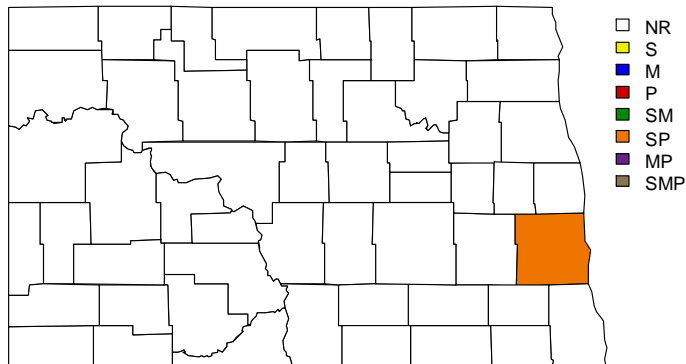
Podisus maculiventris
(Spined Soldier Bug)



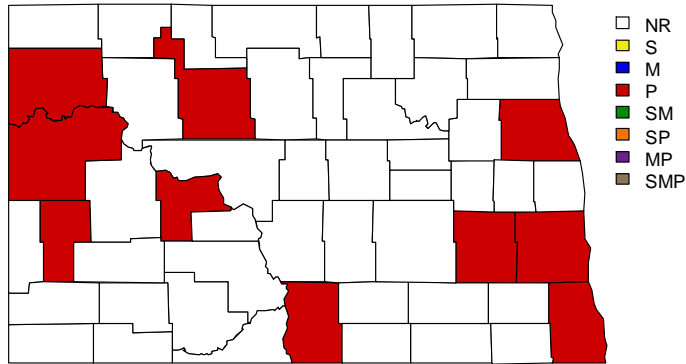
Podisus placidus



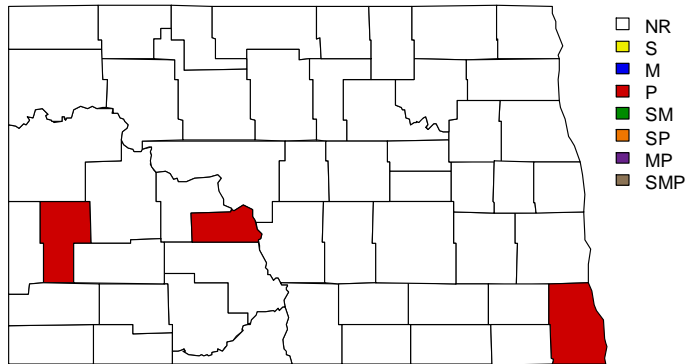
Podisus serieiventris



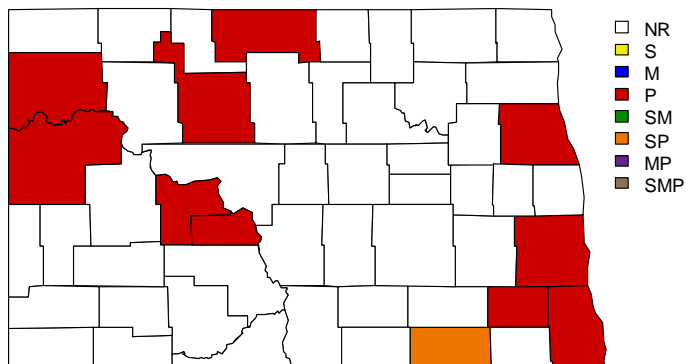
Aelia americana



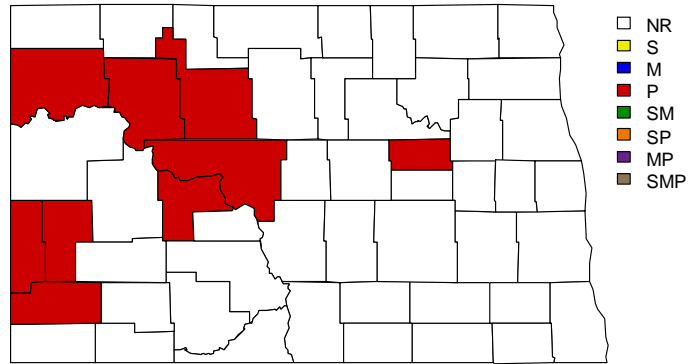
Neottiglossa sulcifrons



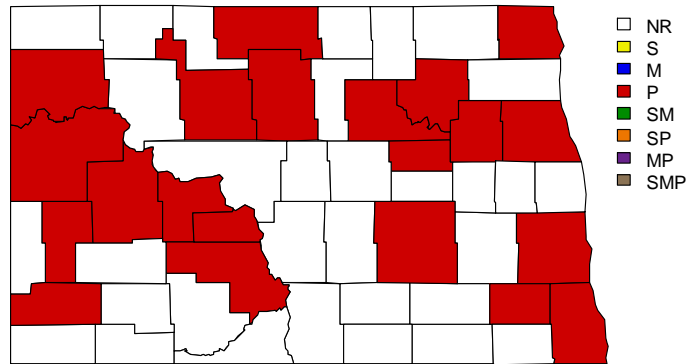
Neottiglossa undata



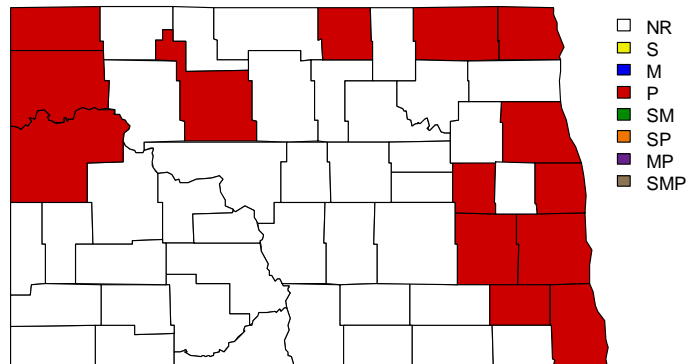
Antheminia eurynota



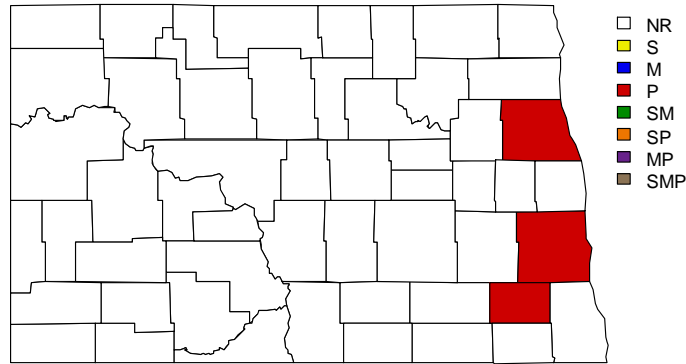
Coenus delius



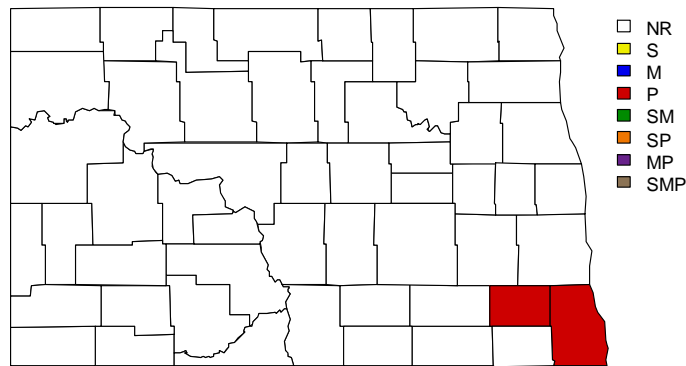
Cosmopepla lintneriana
(Twice-Stubbed Stink Bug)



Euschistus ictericus

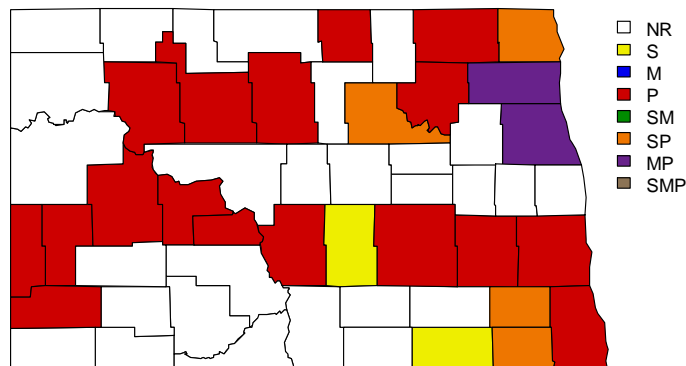


Euschistus latimarginatus

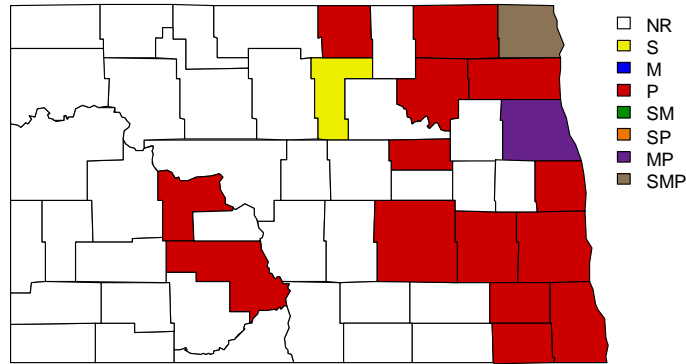


Euschistus servus

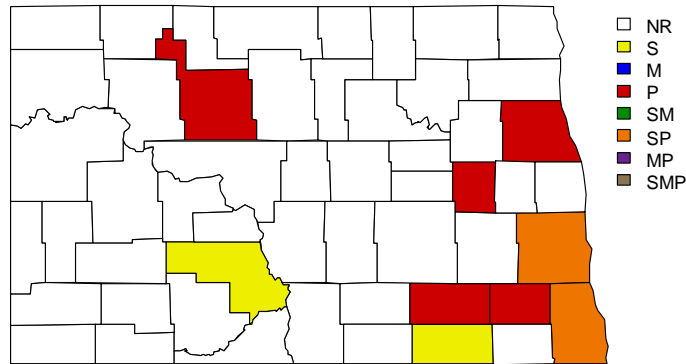
(Brown Stink Bug)



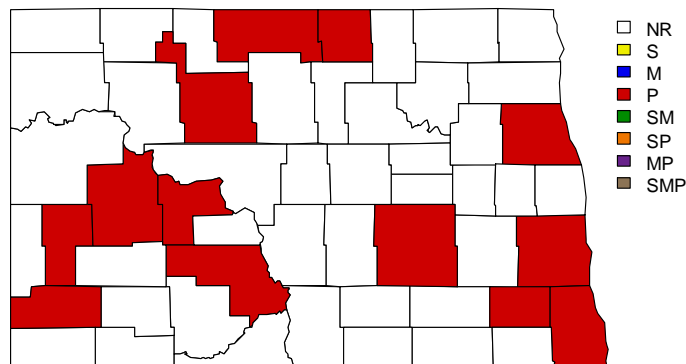
Euschistus tristigmus
(Dusky Stink Bug)



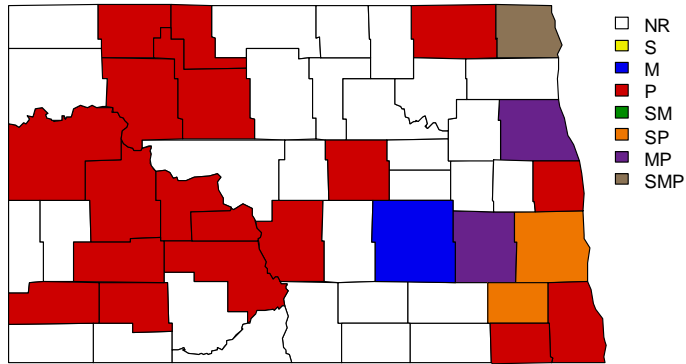
Euschistus variolarius
(One Spotted Stink Bug)



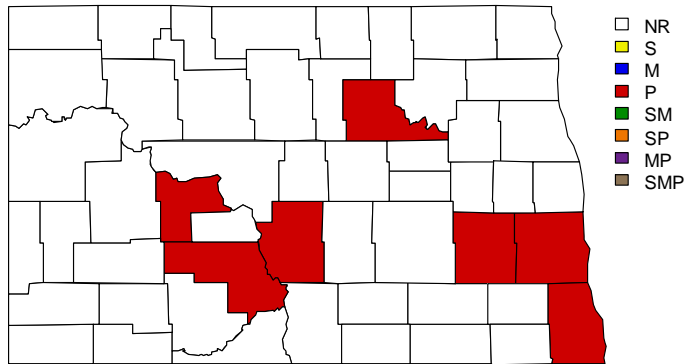
Holcostethus abbreviatus



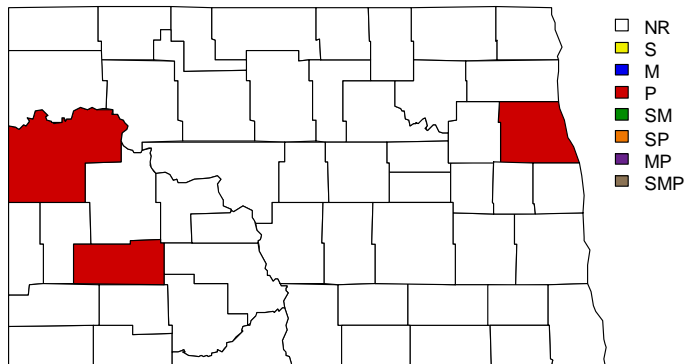
Holcostethus limbolarius



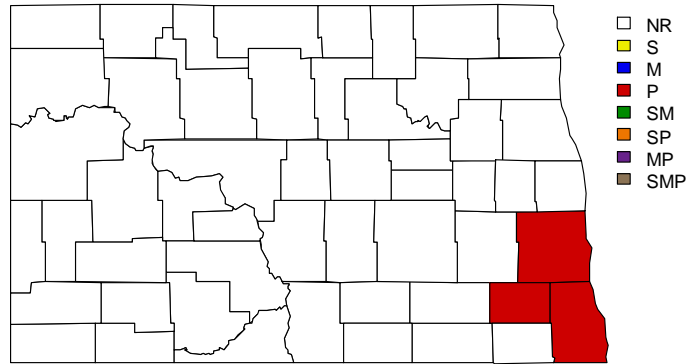
Holcostethus macdonaldi



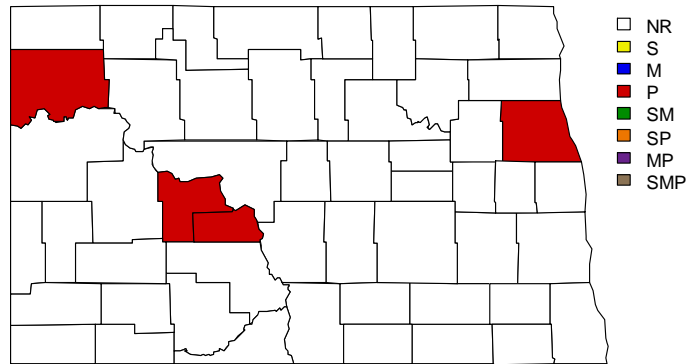
Meneclis insertus



Mormidea lugens

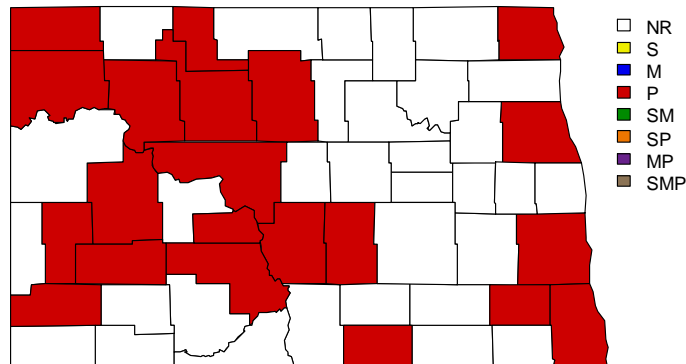


Trichopepla atricornis

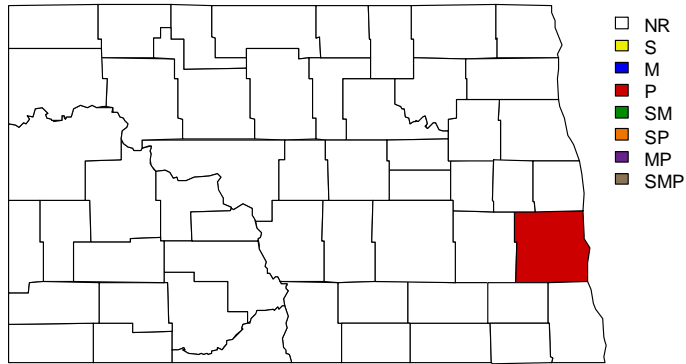


Brochymena quadripustulata

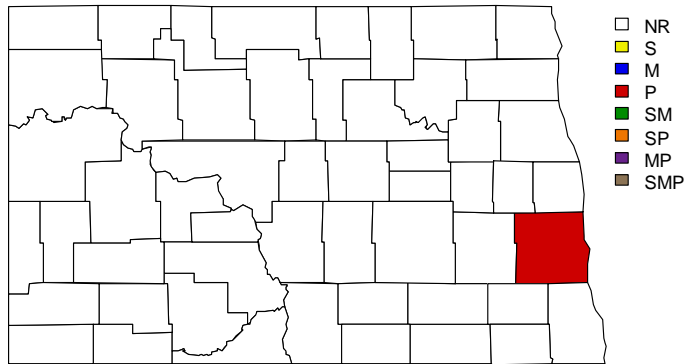
(Fourhumped Stink Bug)



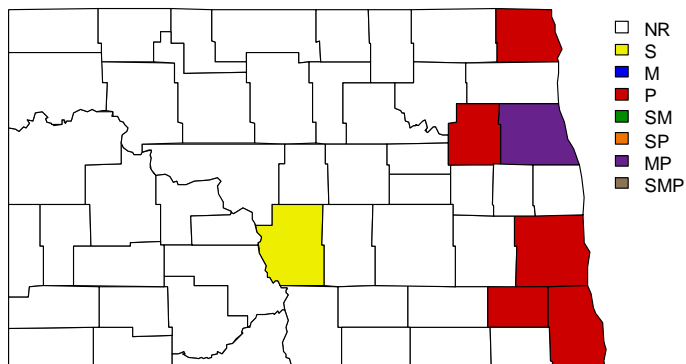
Parabrochymena arborea



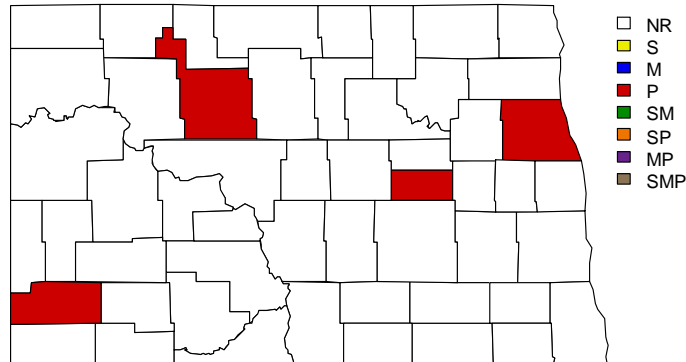
Mecidea minor



Chinavia hilaris
(Green Stink Bug)

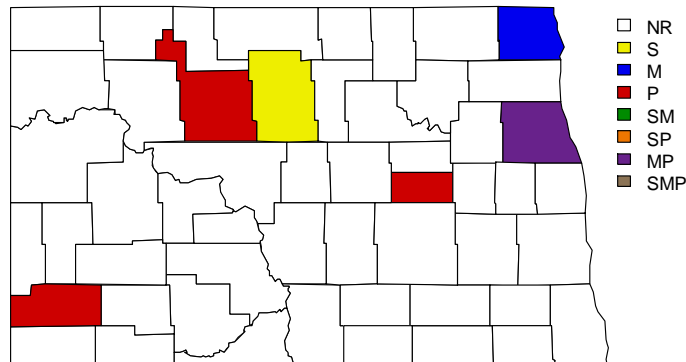


Chlorochroa belfragii
(Belfragi's Chlorochroan Bug)

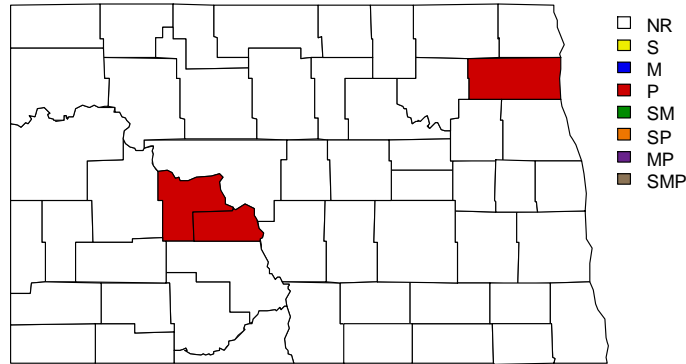


Note: The Slope Co. record is published on the USGS Northern Prairie Wildlife Research Center's North Dakota's Federally Listed Endangered, Threatened, and Candidate Species web page (U.S. Fish and Wildlife Service 1995). The Ward Co. record is based on an on-line photograph reported by Rider (2012). *Chlorochroa belfragii* was once a candidate species for federal listing but it is no longer listed, though still a species of management concern. The apparent rareness of the species is most likely due to difficulties in collecting.

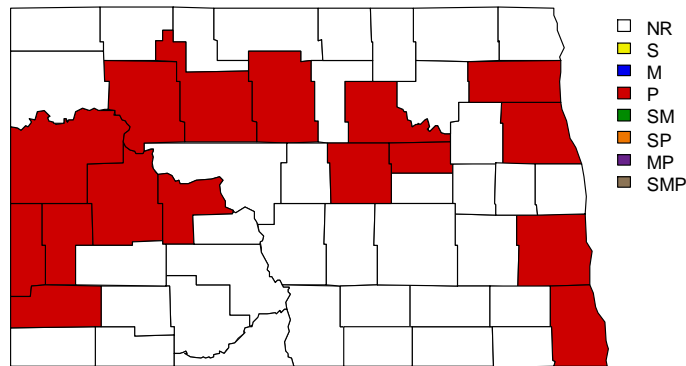
Chlorochroa faceta



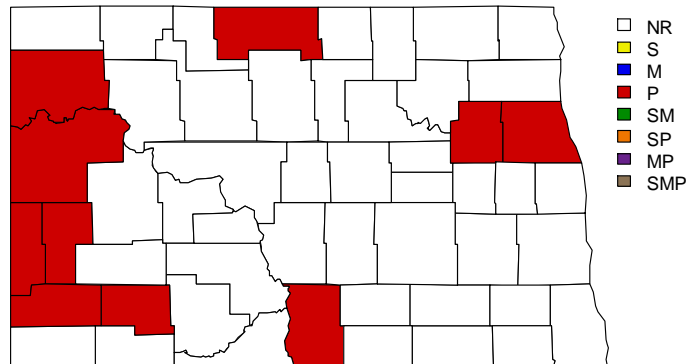
Chlorochroa ligata
(Conchuela Stink Bug)



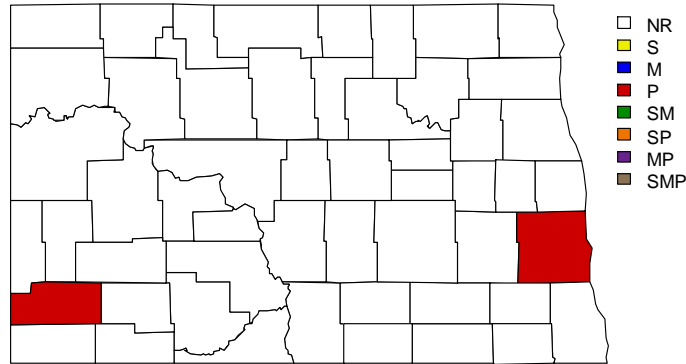
Chlorochroa persimilis



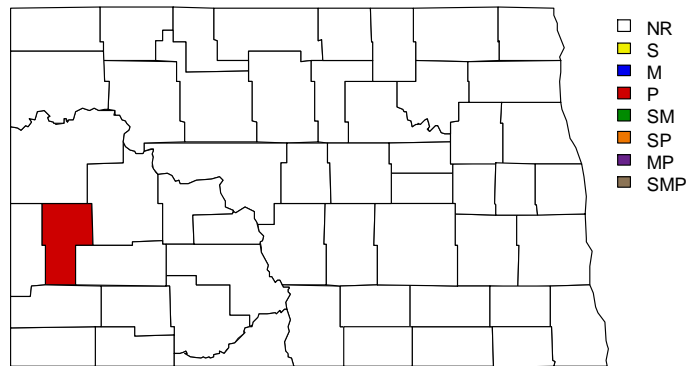
Chlorochroa uhleri
(Uhler's Stink Bug)



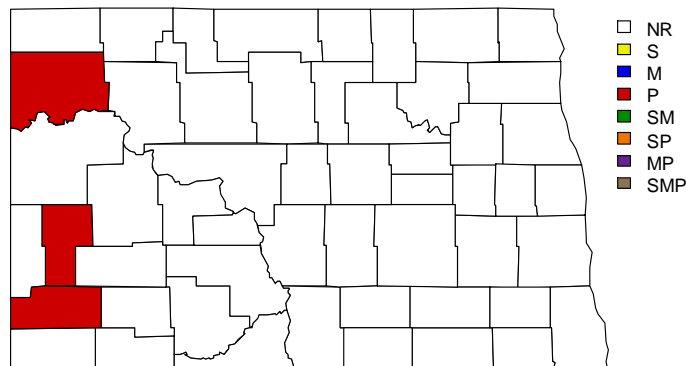
Chlorochroa viridicata



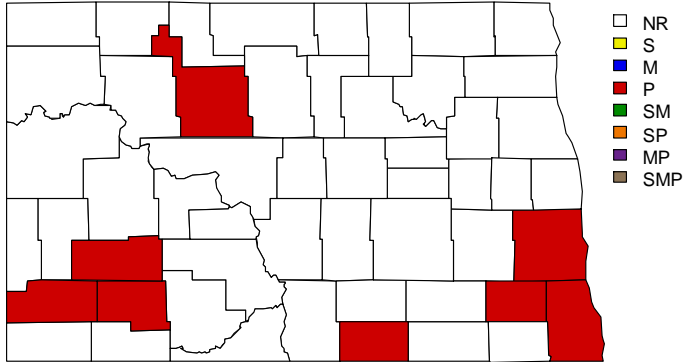
Tepa brevis



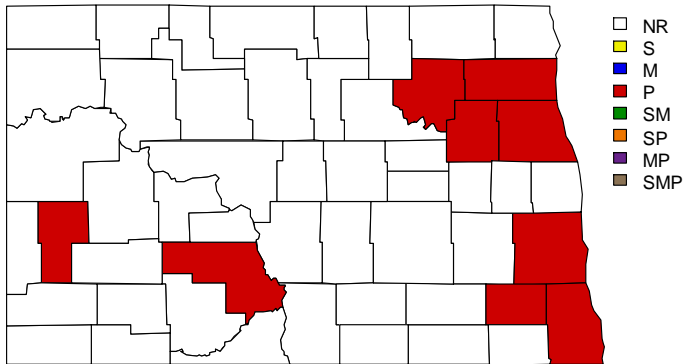
Tepa rugulosa



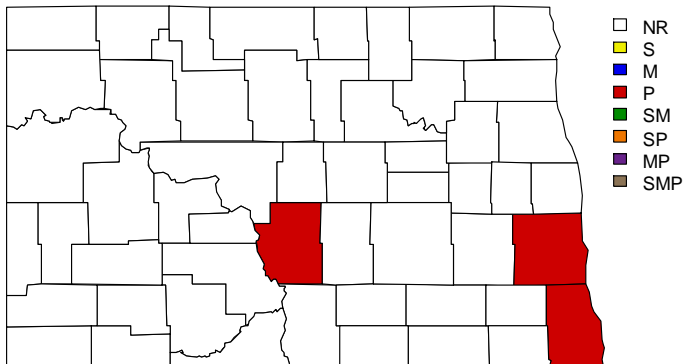
Thyanta custator
(Red-shouldered Stink Bug)



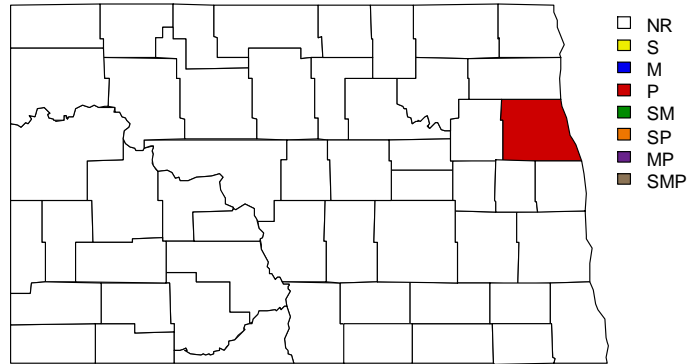
Banasa dimidiata
(Red-backed Stink Bug)



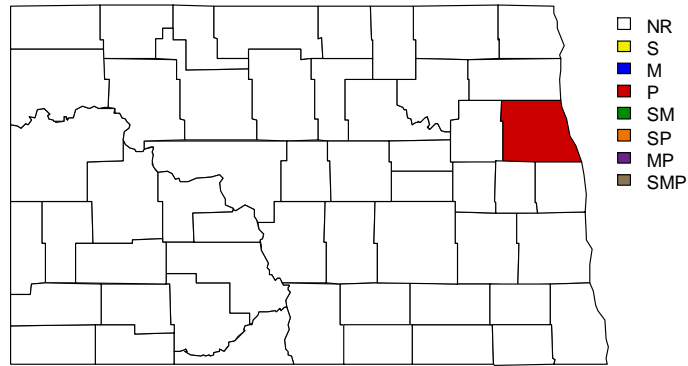
Banasa euchlora
(Juniper Stink Bug)



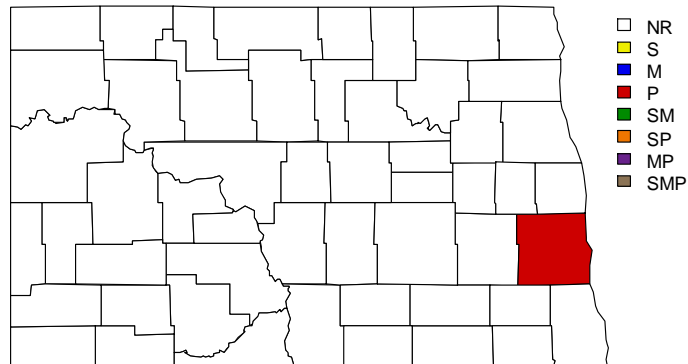
Sciocoris microphthalmus



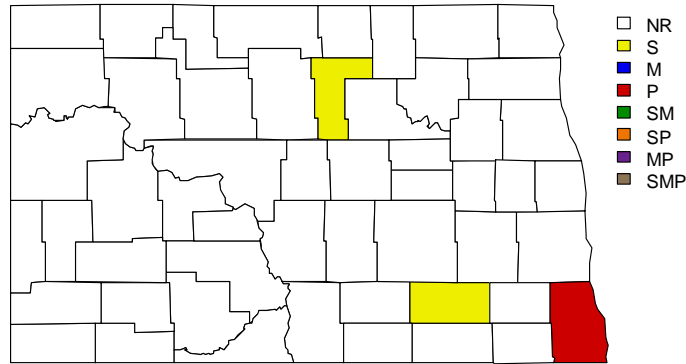
Murgantia histrionica
(Harlequin Bug)



Amaurochrous brevitylus

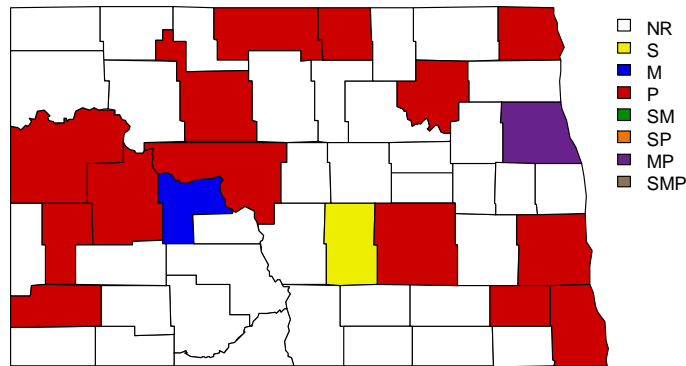


Amaurochrous cinctipes

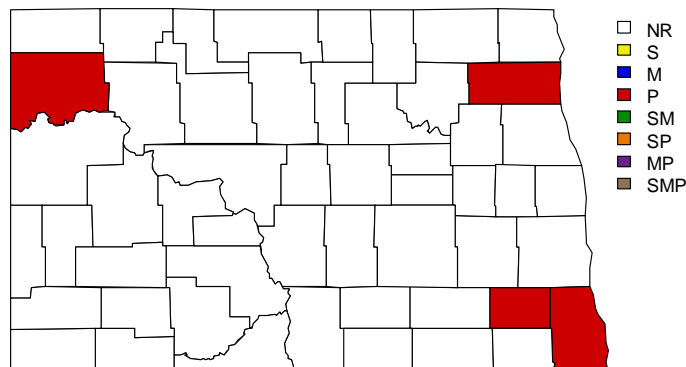


Family: Scutelleridae (Jewel, Metallic Shield, or Shield-backed Bugs)

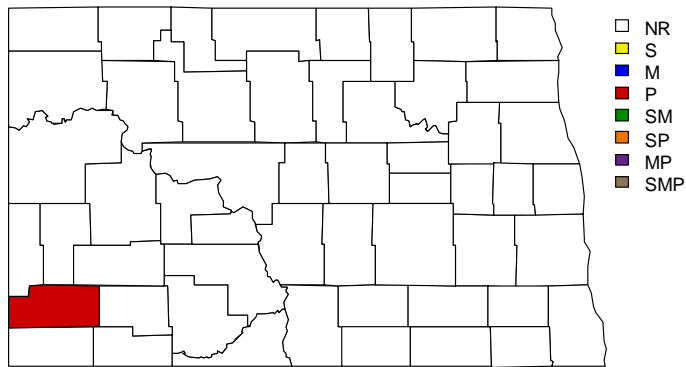
Eurygaster alternata



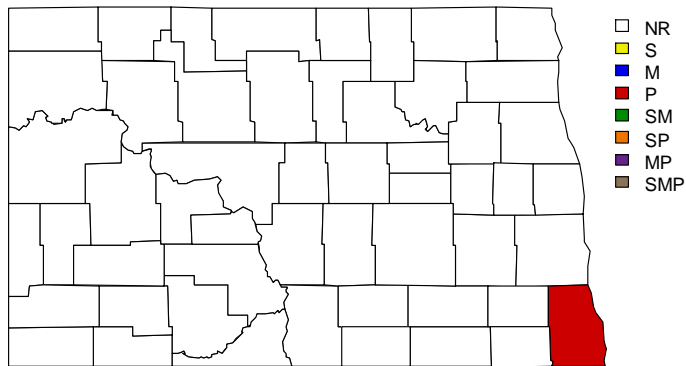
Phimodera binotata



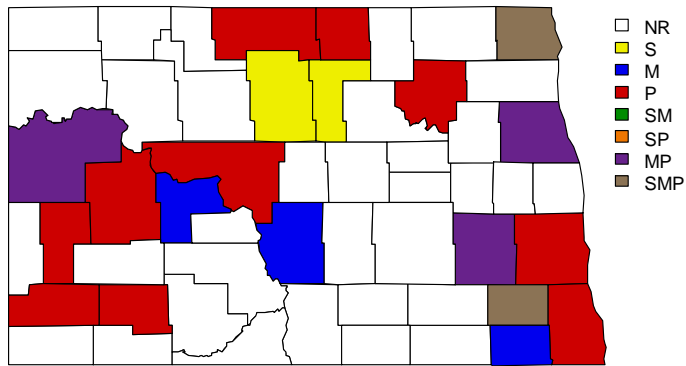
Vanduzeeina borealis



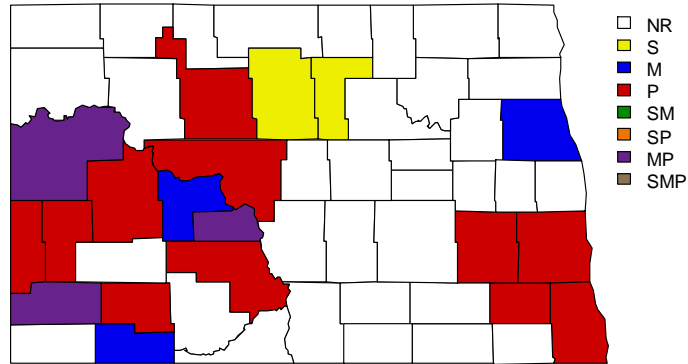
Acantholomidea denticulata



Homaemus aeneifrons

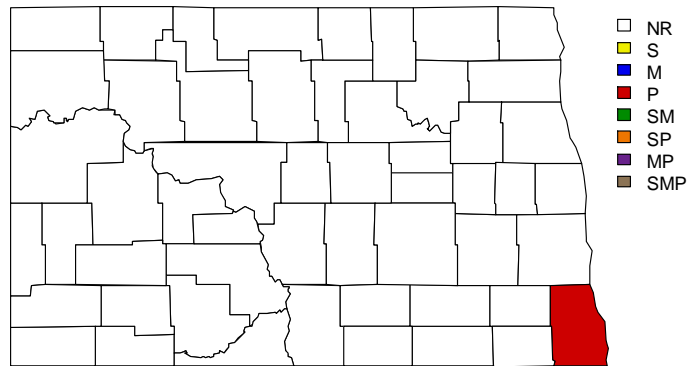


Homaemus bijugis

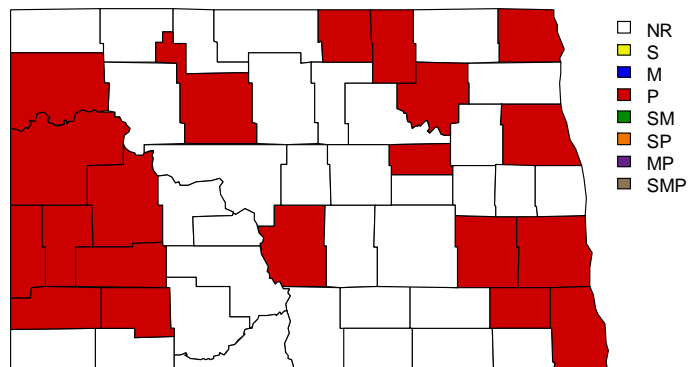


Family: Thyreocoridae (Ebony Bugs)

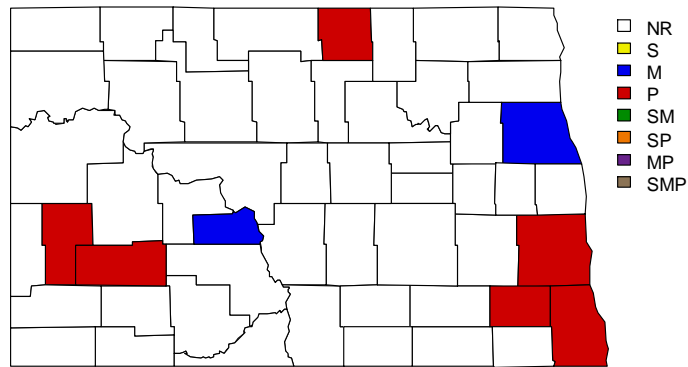
Corimelaena lateralis



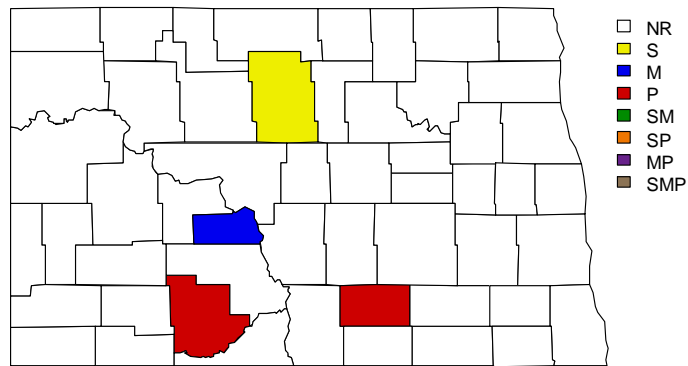
Corimelaena pulicaria



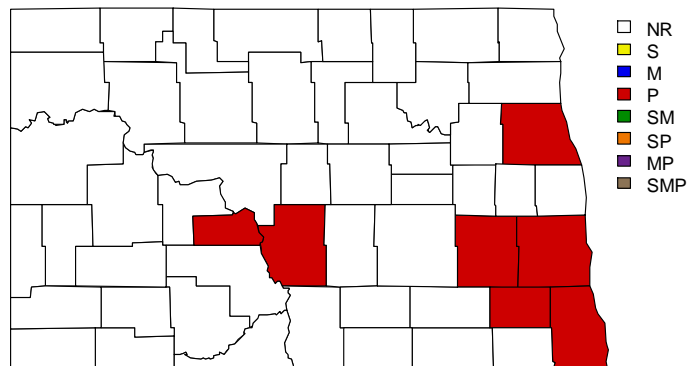
Galgupha atra



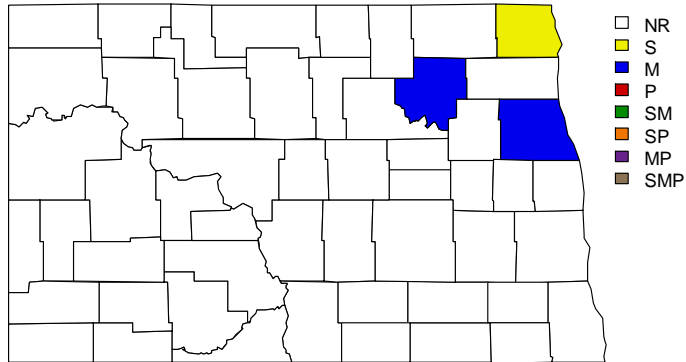
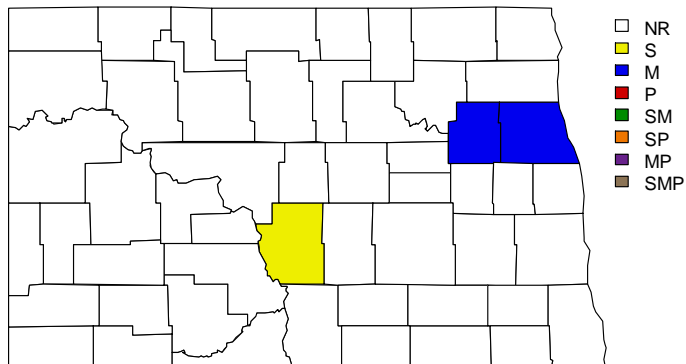
Galgupha ovalis



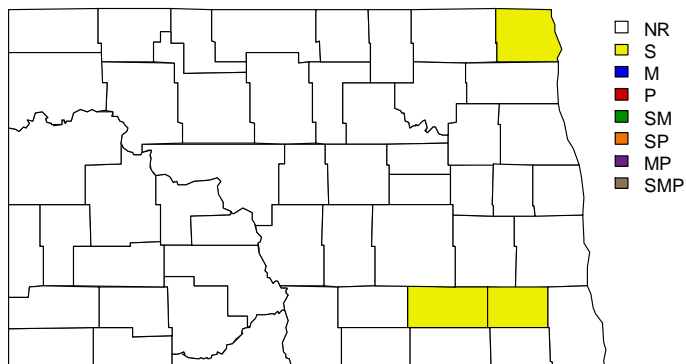
Galgupha nitiduloides



Family: Alydidae (Broad-headed Bugs)

Alydus conspersus*Alydus eurinus*

Family: Lygaeidae (Milkweed Bugs, Seed Bugs)

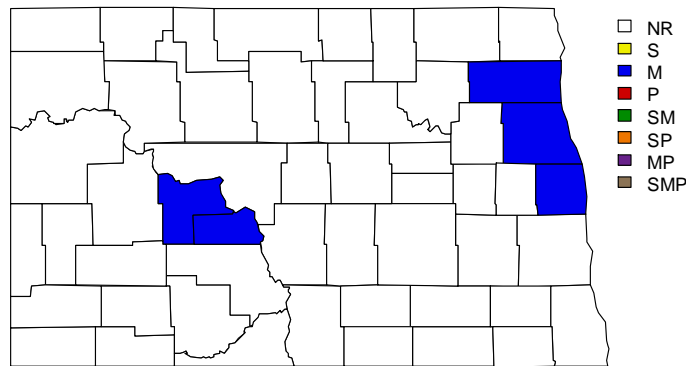
Ligyrocoris diffusus

Order: Neuroptera (Lacewings and Relatives)

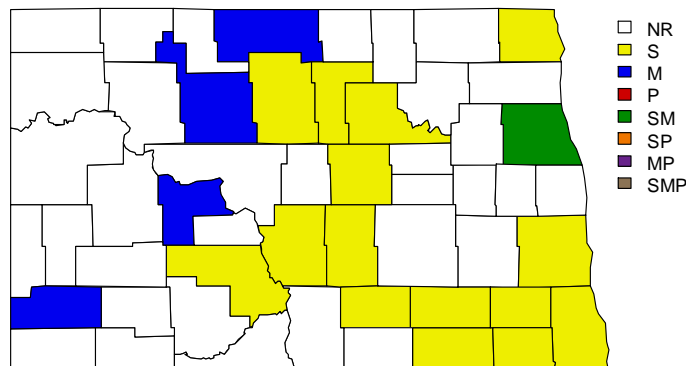
The Neuroptera include lacewings (well known as beneficial for pest control), antlions and mantidflies. This order undergoes complete metamorphosis with larvae that look entirely different from adults. All of the specimens considered either from field samples or from the UND museum collection were adults. There is no published record of Neuroptera distribution for the state of North Dakota, so all the data reported here are based on sampling and UND museum collections.

Family: Chrysopidae (Green Lacewings)

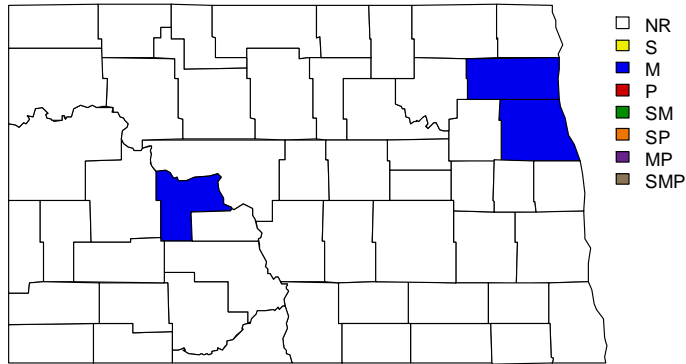
Chrysoperla (= *Chrysopa*) *carnea* (Common Green Lacewing)



Chrysopa oculata (Golden-eyed Lacewing)

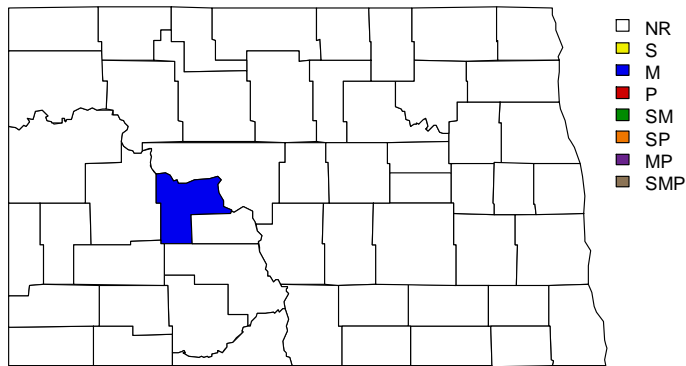


Chrysoperla (=Chrysopa) plorabunda
(Common Green Lacewing)

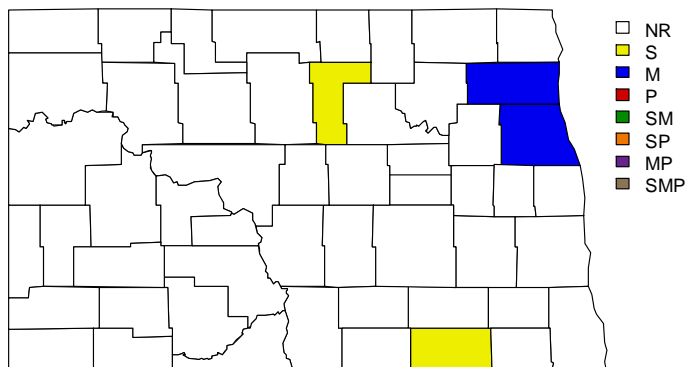


Family: Hemerobiidae (Brown Lacewings)

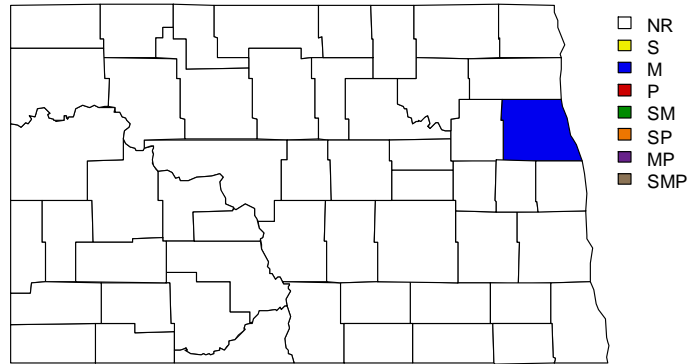
Megalomus (=Boriomyia) fidelis



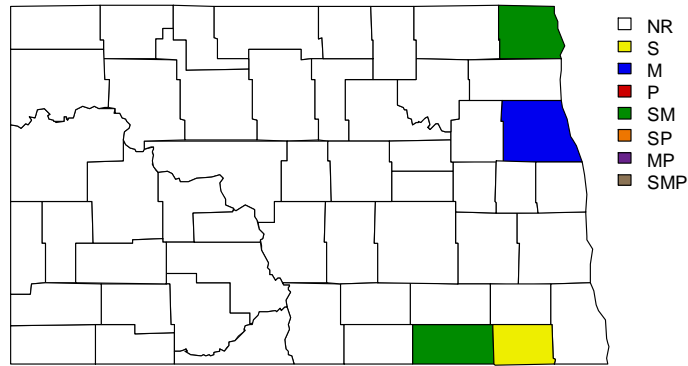
Micromus angulatus



Micromus posticus

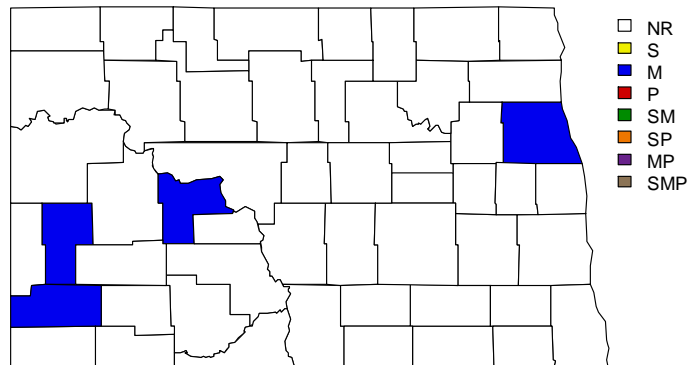


Micromus subanticus



Family: Myrmeleontidae (Antlions)

Brachynemurus (=Hesperoleon) abdominalis
(Snap-trap Antlion)



Order: Coleoptera (Beetles)

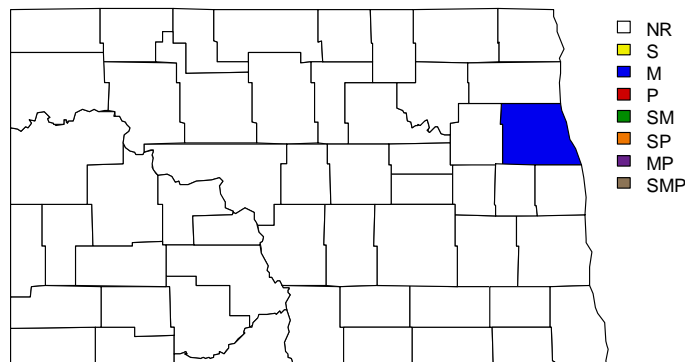
The Coleoptera, encompassing all of what are commonly called beetles, is considered one of the most diverse insect orders. Only a small portion of the Coleopterans are covered via published records for North Dakota. The family Cerambycidae (Hanley 2005) and some of the Scarabidae (Helgesen and Post 1967); though the second paper is quite old. Coleoptera have complete metamorphosis (that is, a distinct looking larval stage and a distinct looking adult stage). All of the field-sampled and museum specimens were adult specimens.

The American Burying Beetle (*Nicrophorus americanus*) is the largest of the Silphidae in North America and were once relatively wide-spread but has been federally listed as endangered due to declining populations (U.S. Fish and Wildlife Service 2014). Though not currently listed as being present in North Dakota, it is found in South Dakota and the historical range includes the south east corner of North Dakota (REF), so it is worth considering if the species may yet be present in North Dakota. There were no American Burying Beetle specimens found in field-sampling nor in the UND Museum collection.

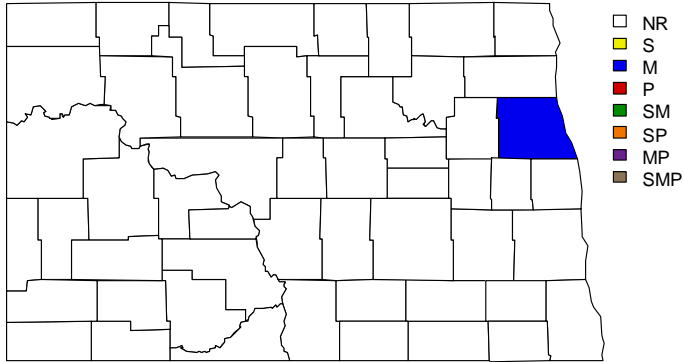
ADD DECLINING CERAMBYCIDAE

Family: Carabidae (Ground Beetles)

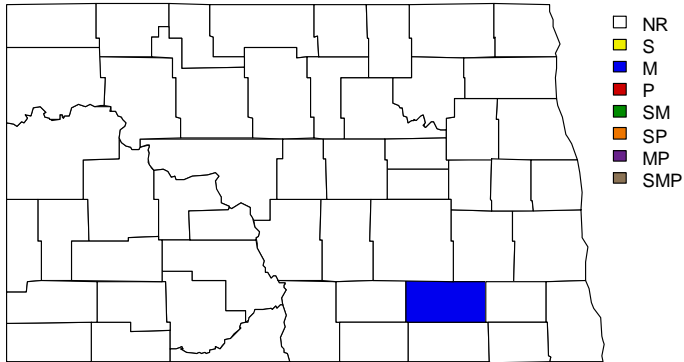
Carabus sylvosus



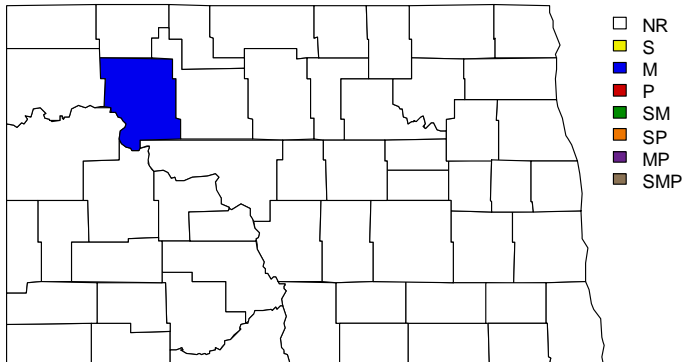
Cicindela circumpecta
(Cream-edged Tiger Beetle)



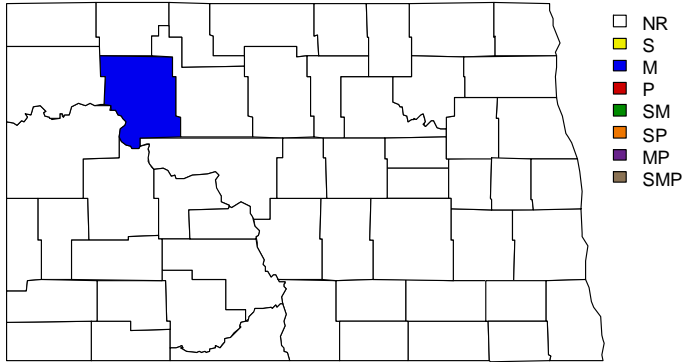
Cicindela cuprascens
(Coppery Tiger Beetle)



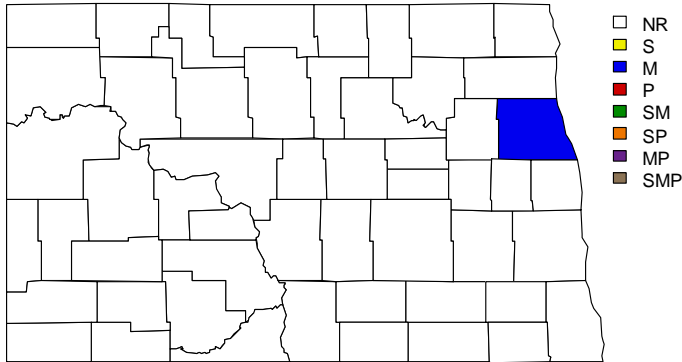
Cicindela decemnoata
(Badlands Tiger Beetle)



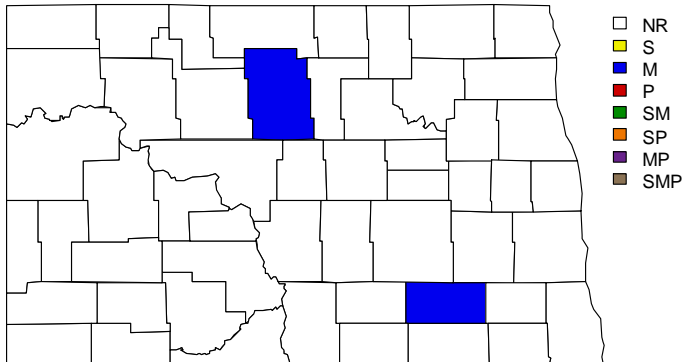
Cicindela denverensis
(Green Claybank Tiger Beetle)



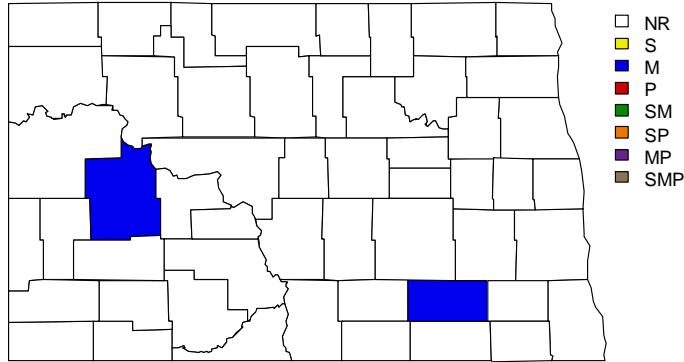
Cicindela duodecimguttata
(Twelve-spot Tiger Beetle)



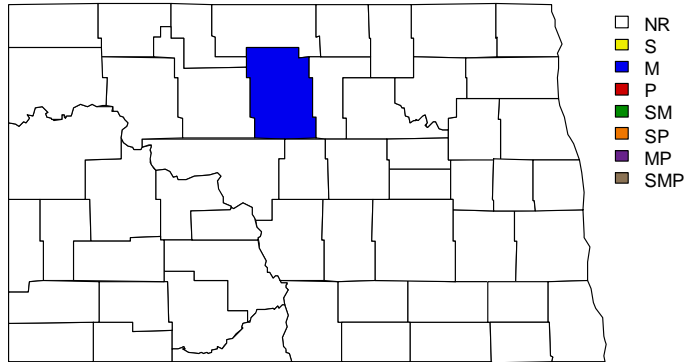
Cicindela formosa
(Big Sand Tiger Beetle)



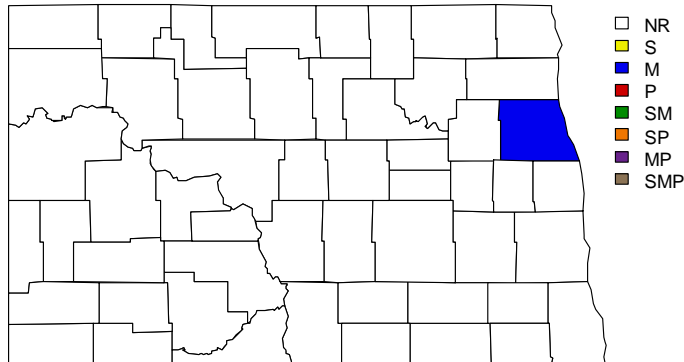
Cicindela hirticollis
(Hairy-necked Tiger Beetle)



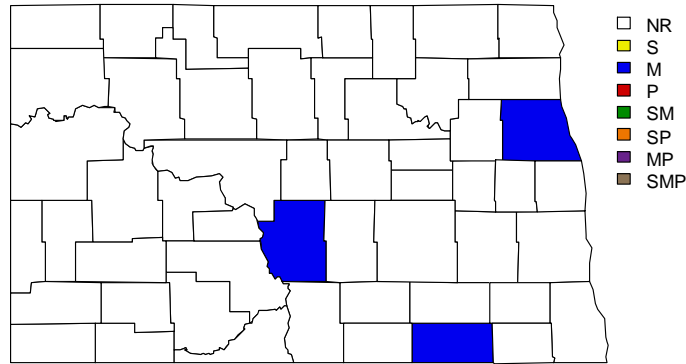
Cicindela lengi
(Blowout Tiger Beetle)



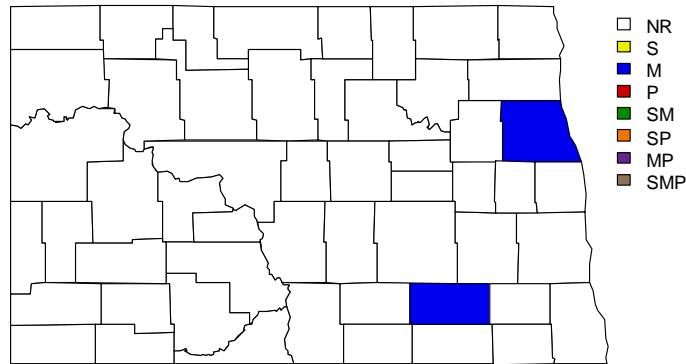
Cicindela limbalis
(Claybank Tiger Beetle)



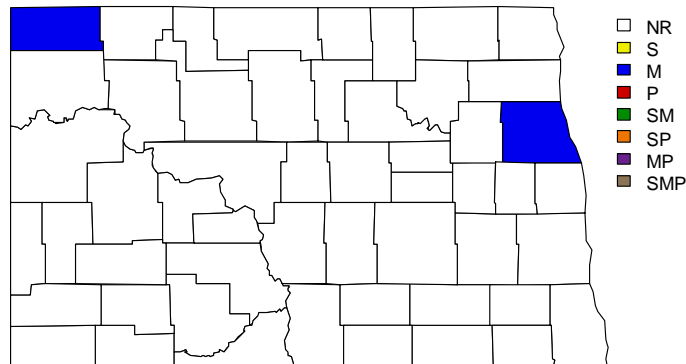
Cicindela punctulata
(Punctured Tiger Beetle)



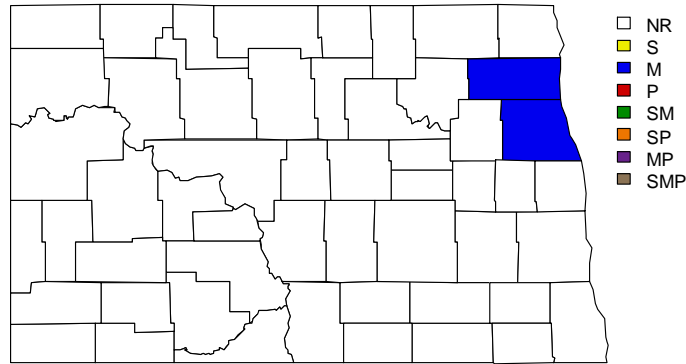
Cicindela purpurea
(Cow Path Tiger Beetle)



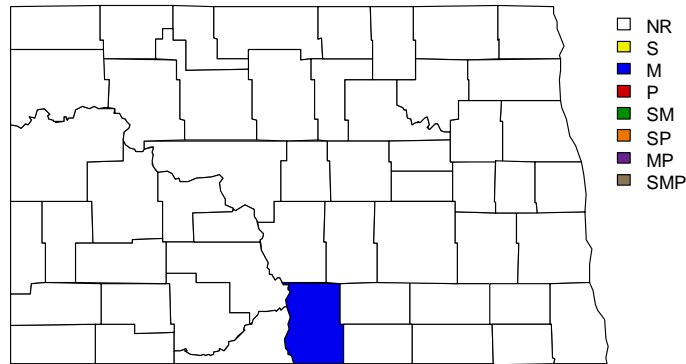
Cicindela pusilla



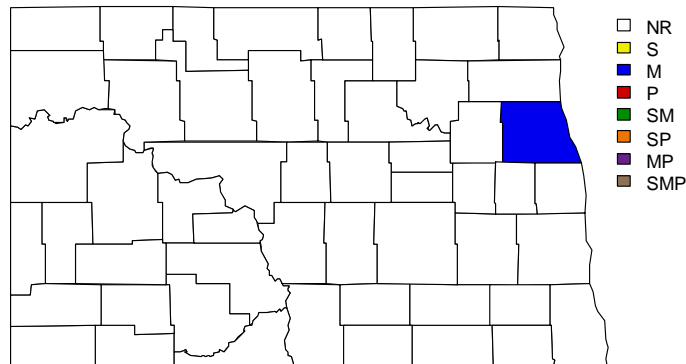
Cicindela repanda
(Bronzed Tiger Beetle)



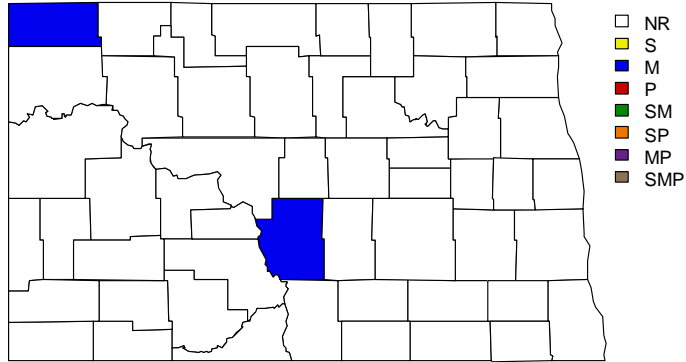
Cicindela scutellaris
(Festive Tiger Beetle)



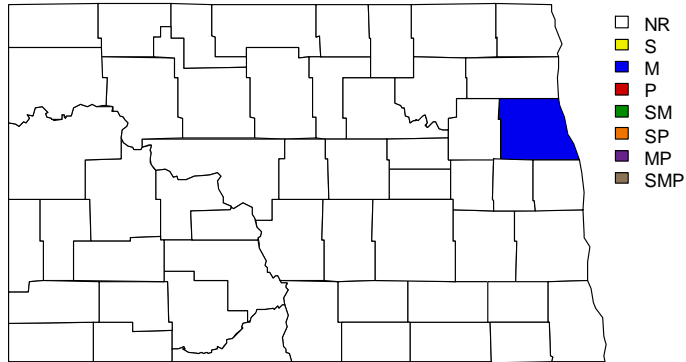
Cicindela sexguttata
(Six-spotted Tiger Beetle)



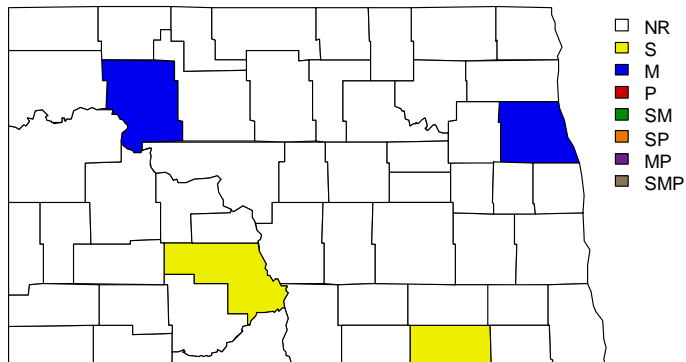
Cicindela terricola
(Variable Tiger Beetle)



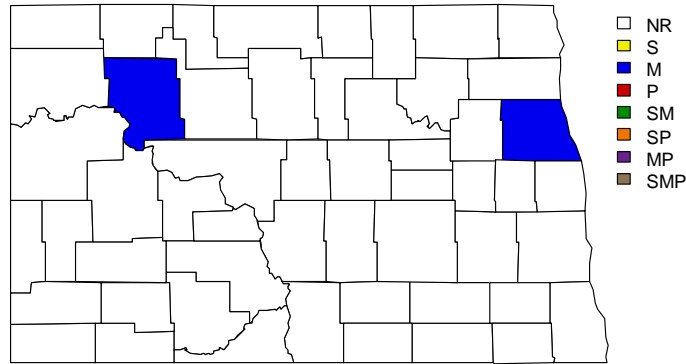
Cicindela tranquebarica
(Oblique-lined Tiger Beetle)



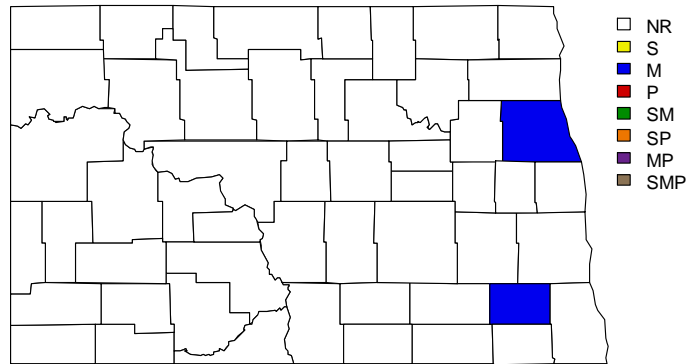
Diplocheila major



Elaphrus ruscarius

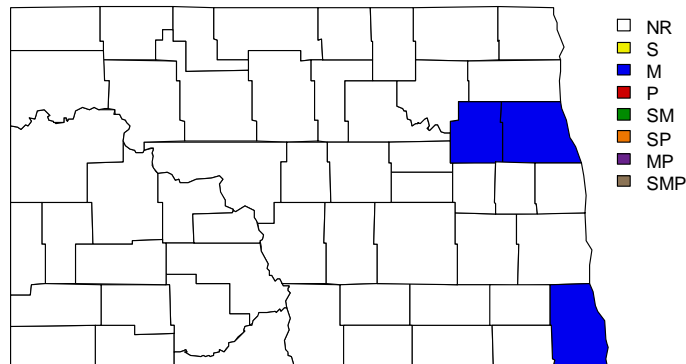


Geopinus incrassatus

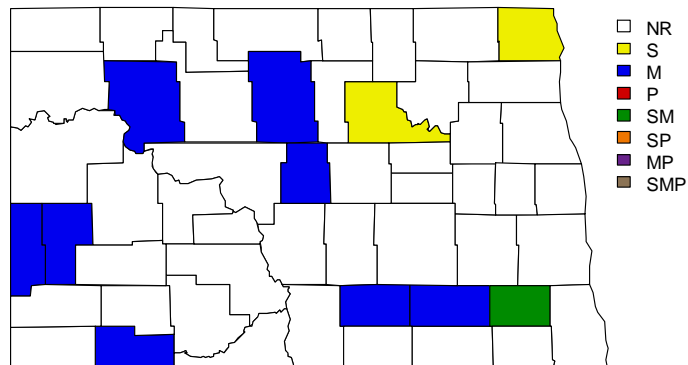


Omophron tessellatus

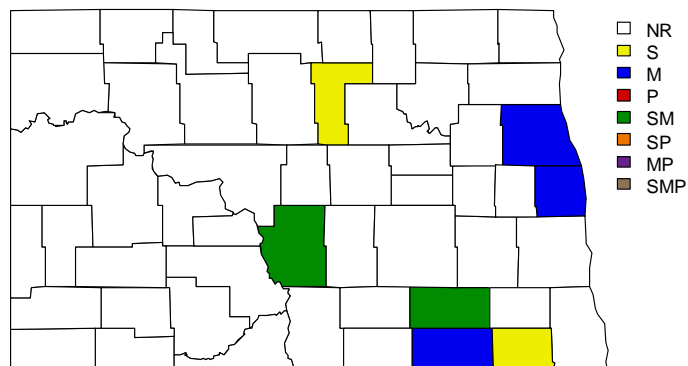
(Mosaic Round Sand Beetle)



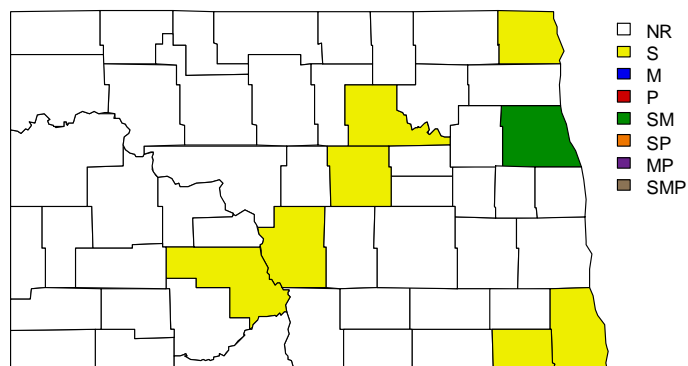
Pasimachus elongatus



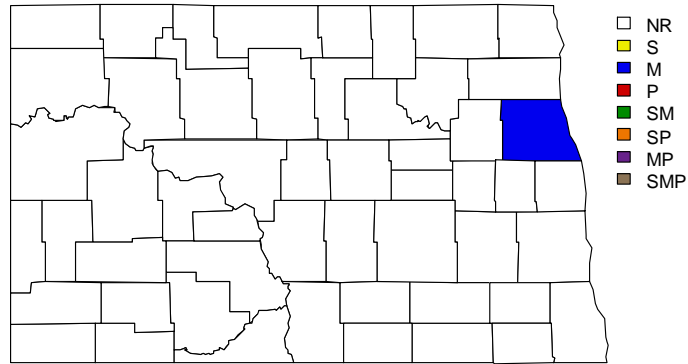
Platynus decorus



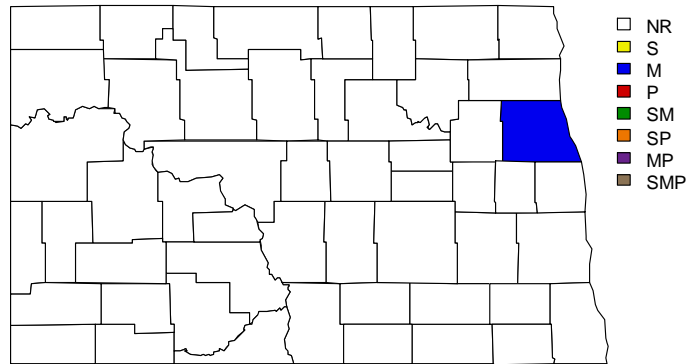
Platynus hypolithos



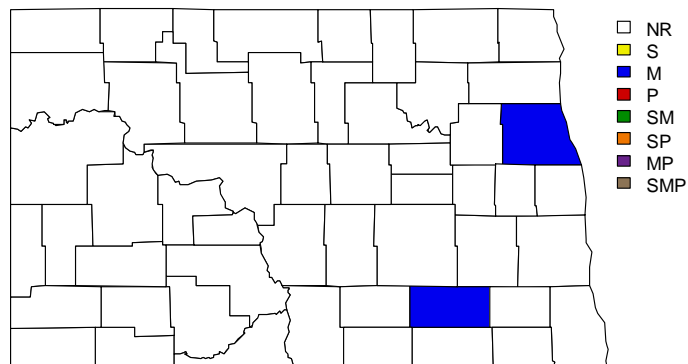
Platynus sinuatus



Pterostichus mutus

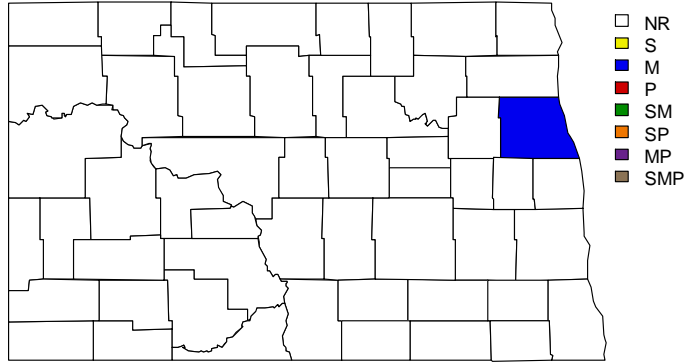


Stenolophus plebejus

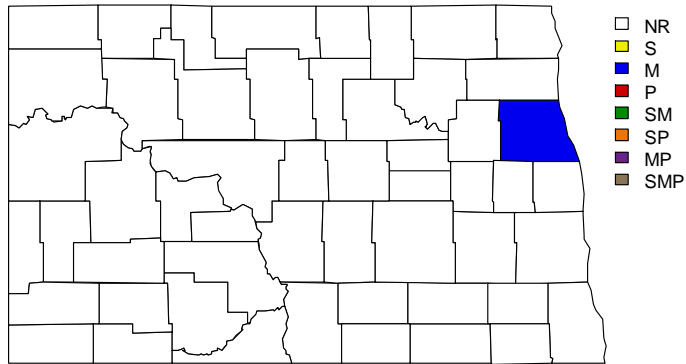


Family: Dytiscidae (Predaceous Diving Beetles)

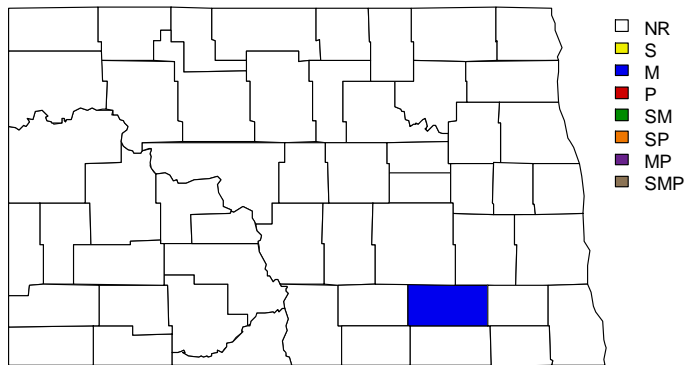
Acilius semisulcatus



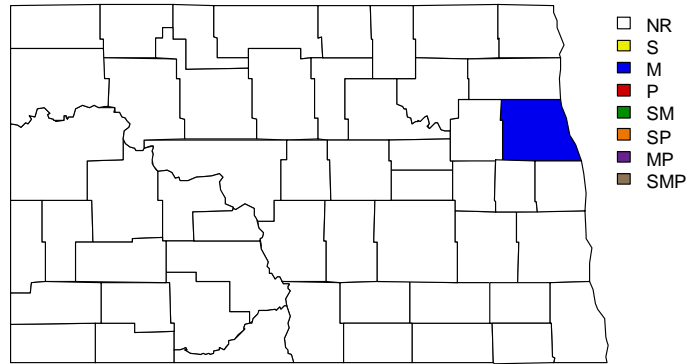
Agabus ambiguus



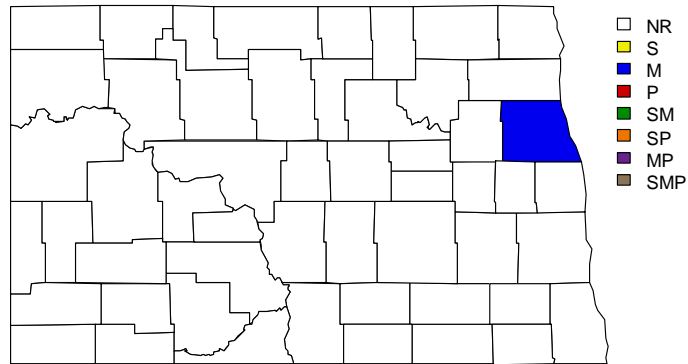
Agabus gagates



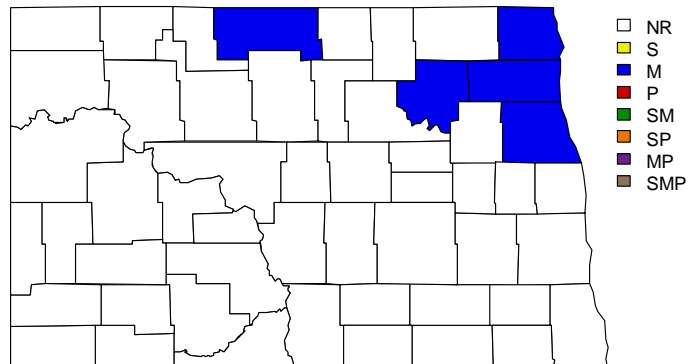
Colymbetes exaratus



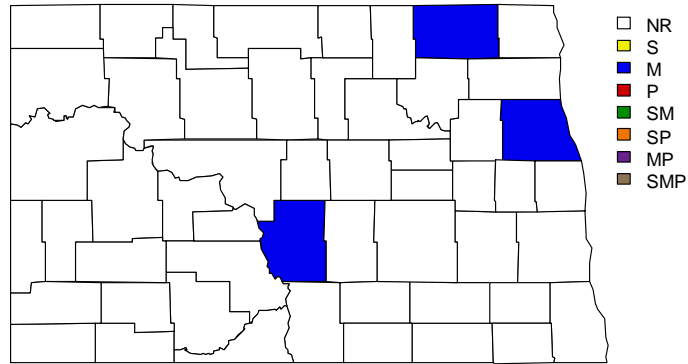
Dytiscus alaskanus



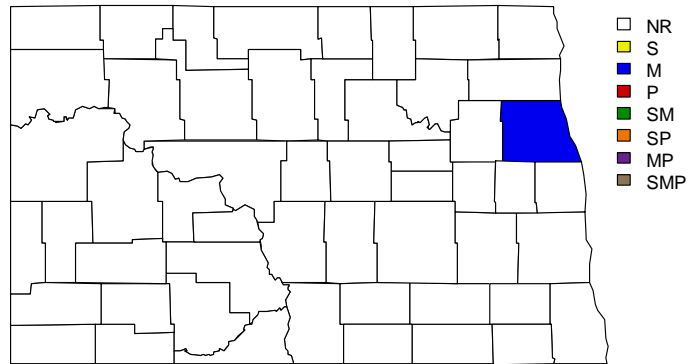
Dytiscus circumcinctus



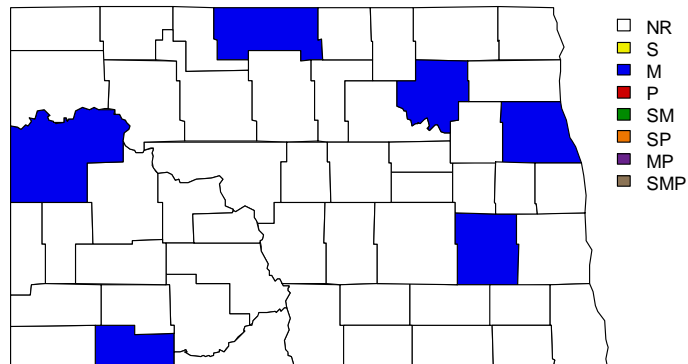
Dytiscus cordieri



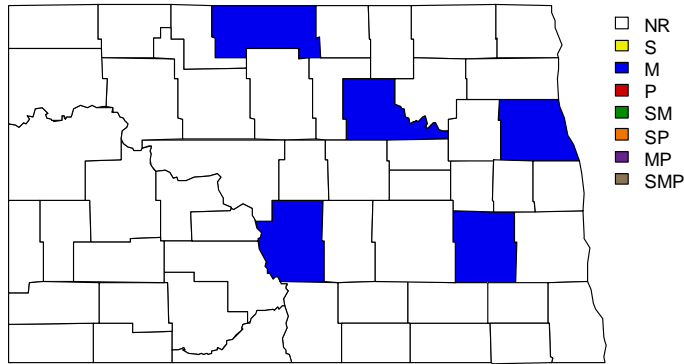
Dytiscus harrisii



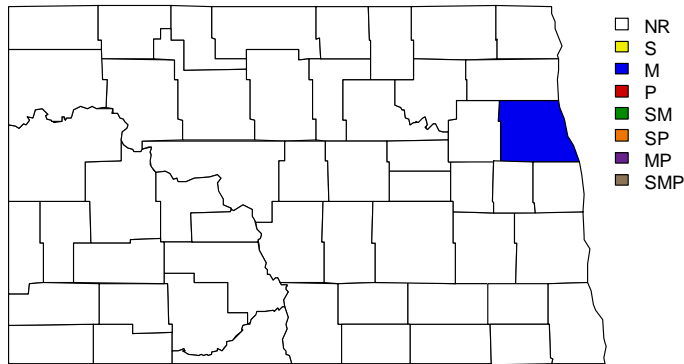
Dytiscus hybridus



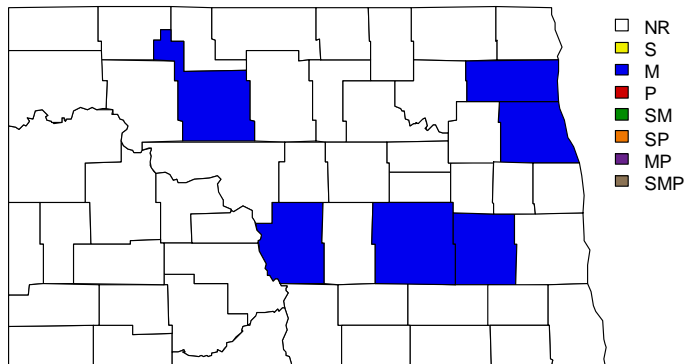
Dytiscus ooligbucki



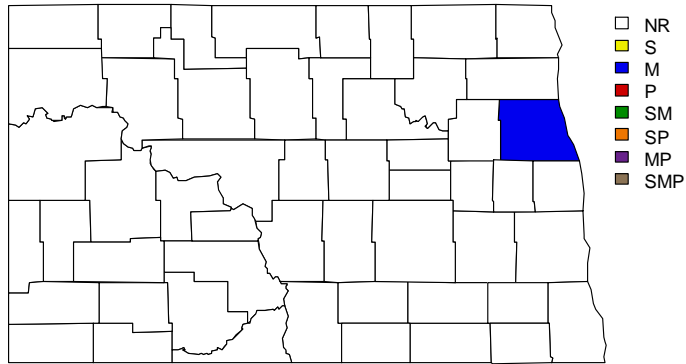
Graphoderus occidentalis



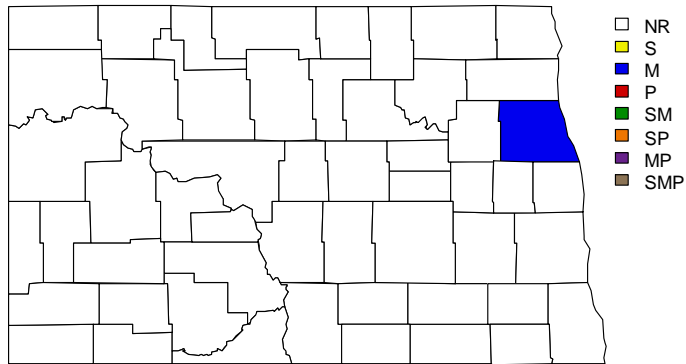
Graphoderus perplexus



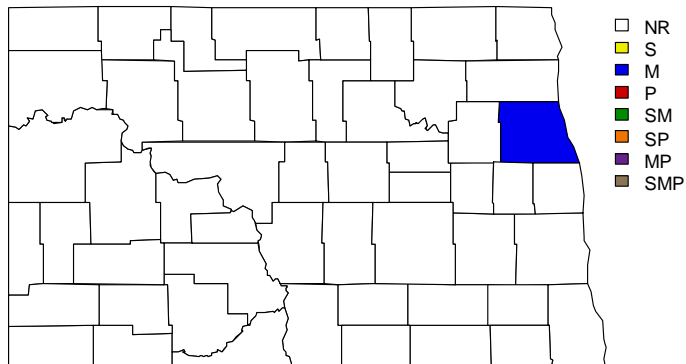
Hydroporus niger



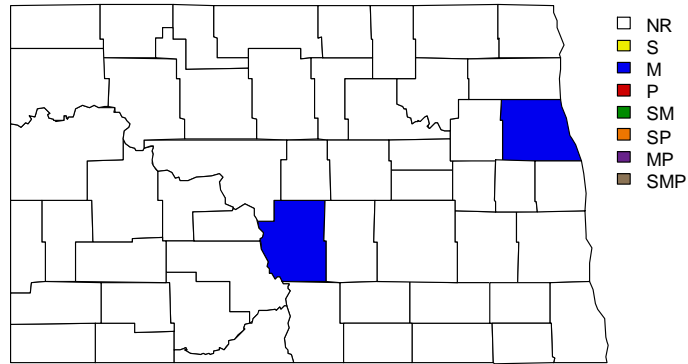
Laccophilus maculosus



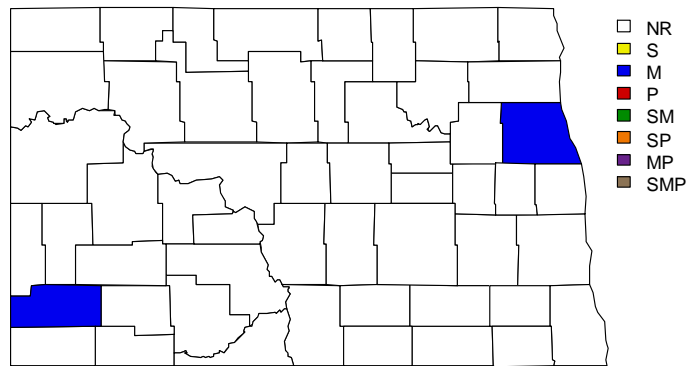
Rhantus binotatus



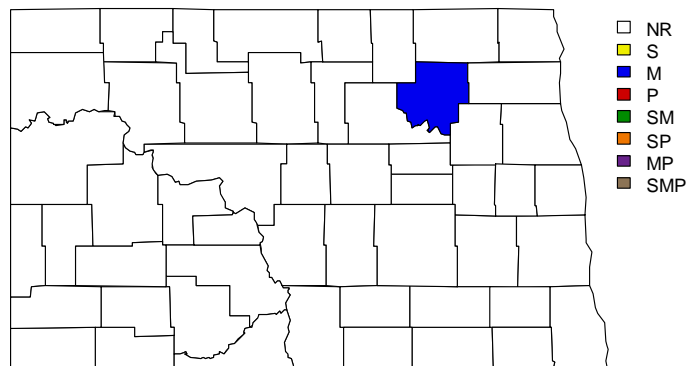
Rhantus frontalis



Rhantus gutticollis

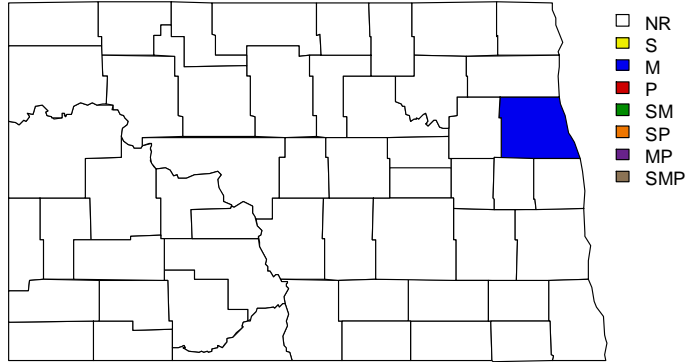


Rhantus suturellus

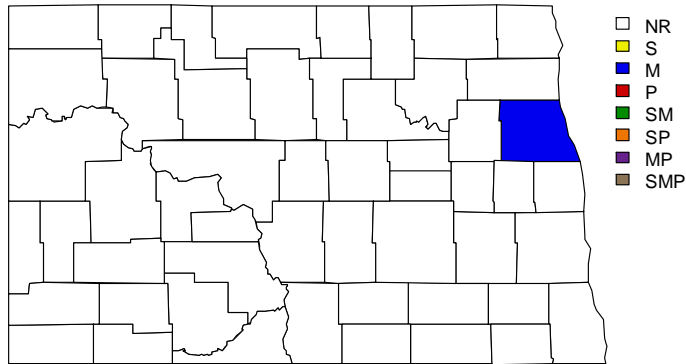


Family: Gyrinidae (Whirligig Beetles)

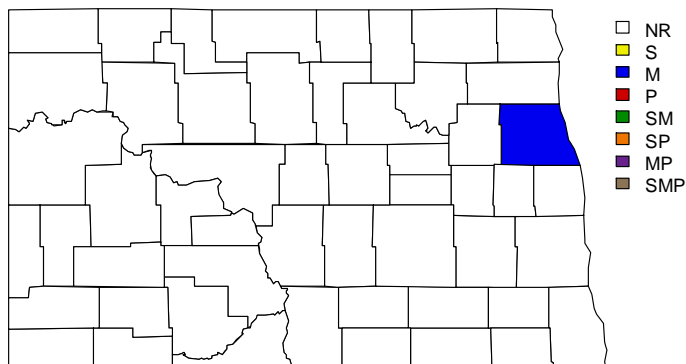
Dineutes hornii

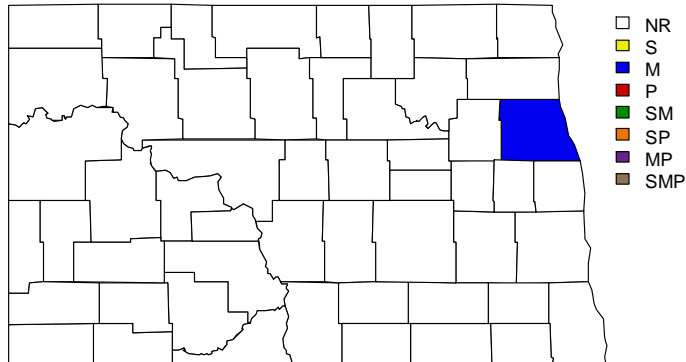
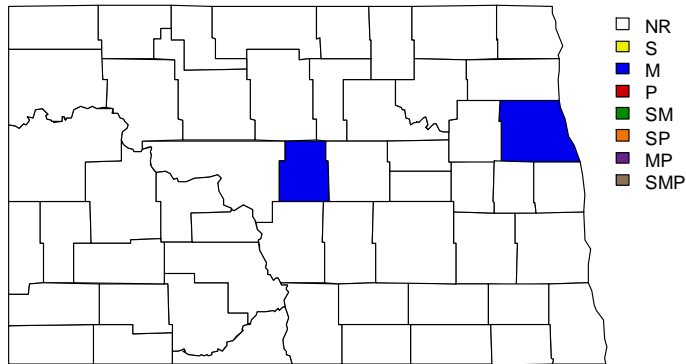
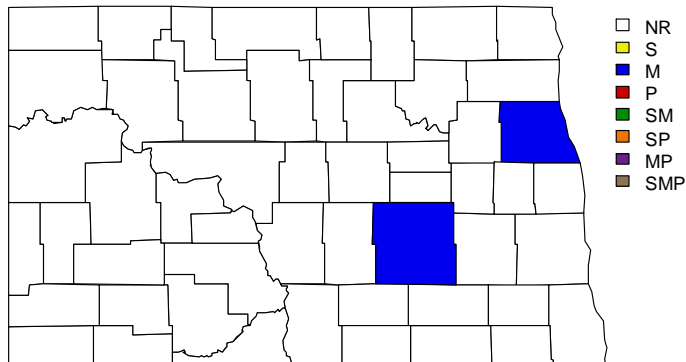


Gyrinus analis



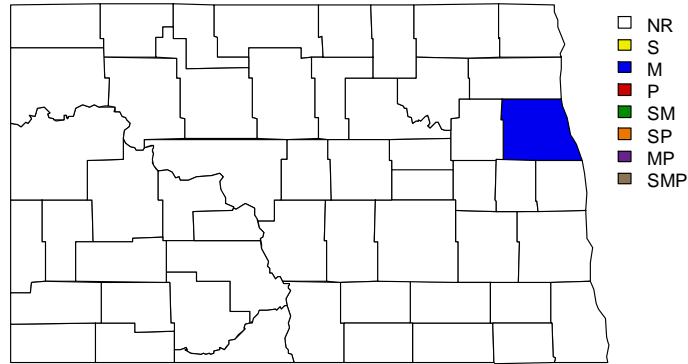
Gyrinus aquiris



Gyrinus confinis*Gyrinus maculiventris**Gyrinus pectoralis*

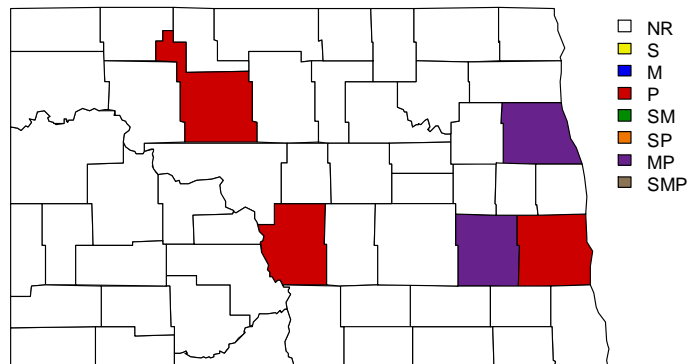
Family: Anobiidae (Furniture, Death Watch, and Spider Beetles)

Ptinus fur

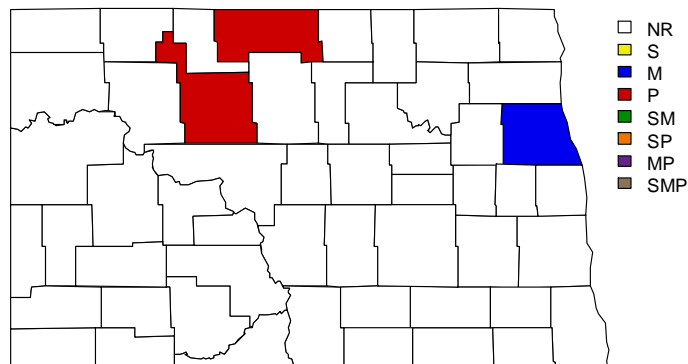


Family: Cerambycidae (Longhorn Beetles)

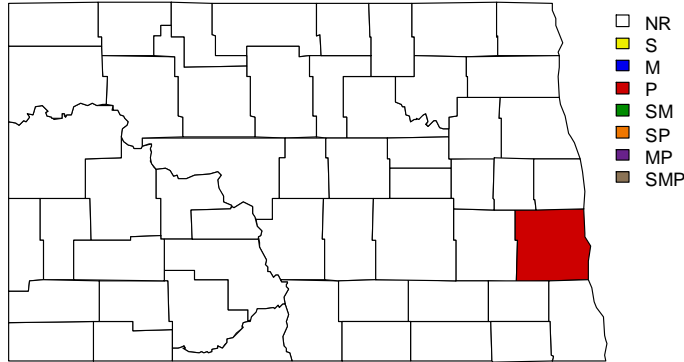
Neandra brunnea
(Brown Wood Borer)



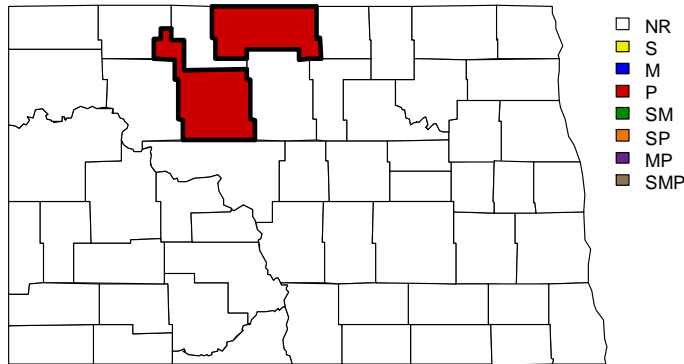
Arhopalus foveicollis



Asemum striatum
(Opaque Sawyer)

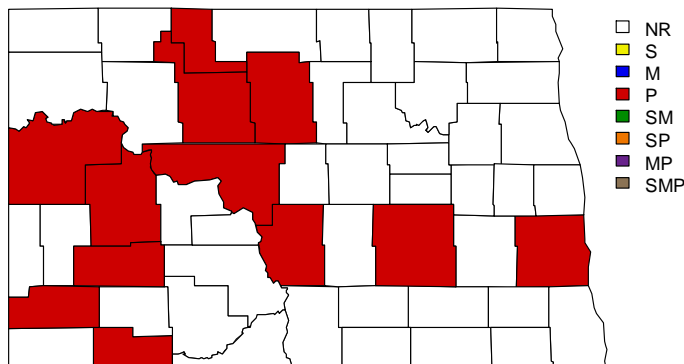


Ergates spiculatus
(Ponderosa Pine Borer, Ponderous Borer)

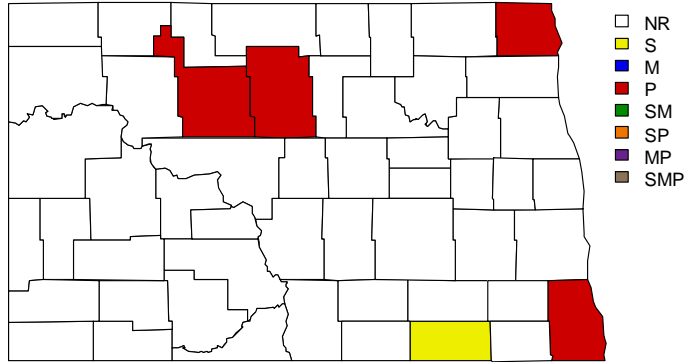


Note: The Bottineau and Ward County records are thought to be due to shipped produce and not to represent breeding populations (Hanley 2005).

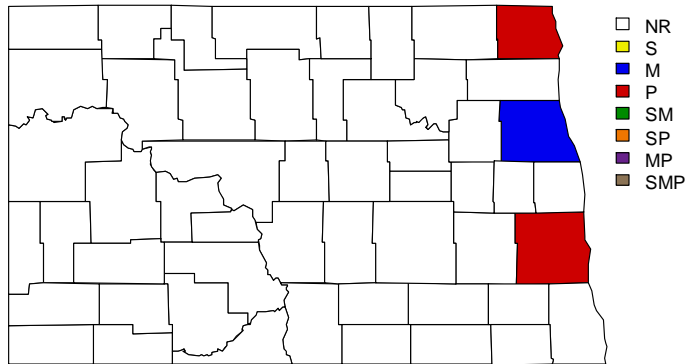
Prionus fissicornis



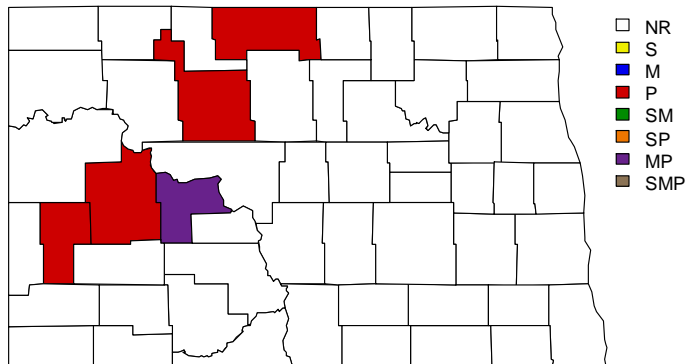
Prionus imbricornis
(Tile-horned Prionus)



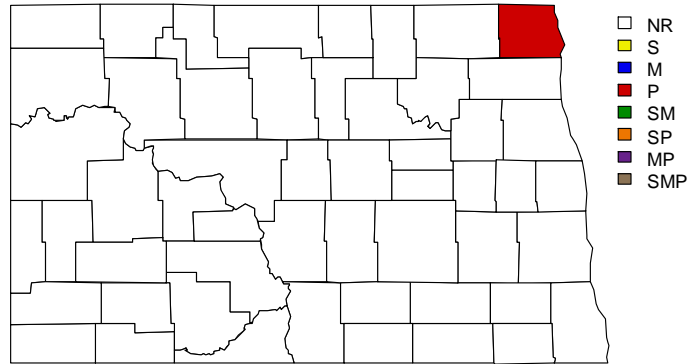
Stenocorus schaumi



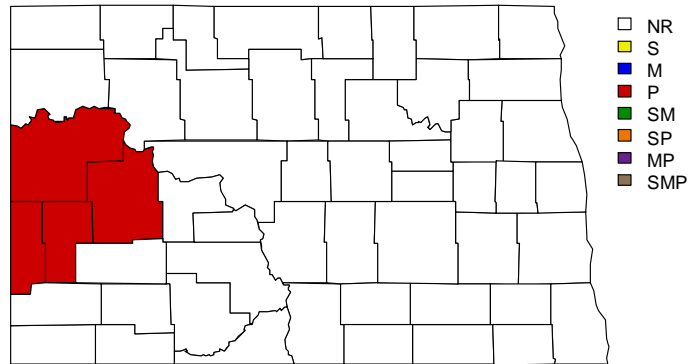
Stenocorus trivittatus



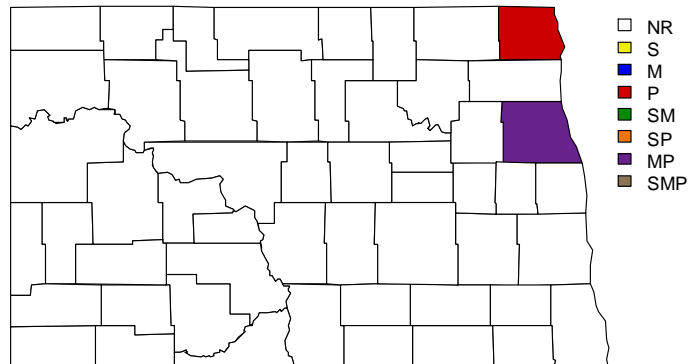
Stenocorus vittiger



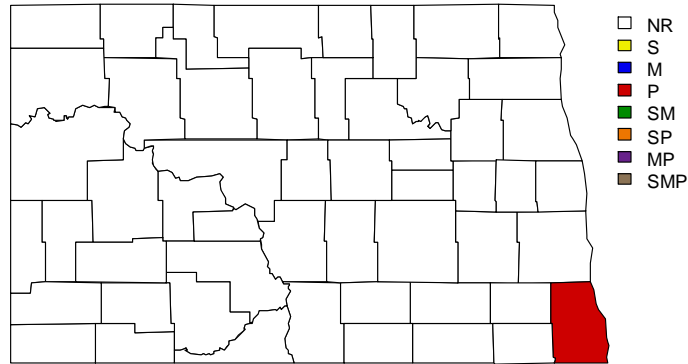
Cortodera longicornis



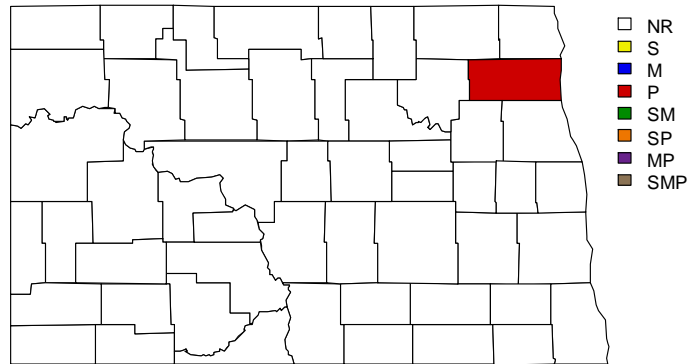
Strangalia luteicornis



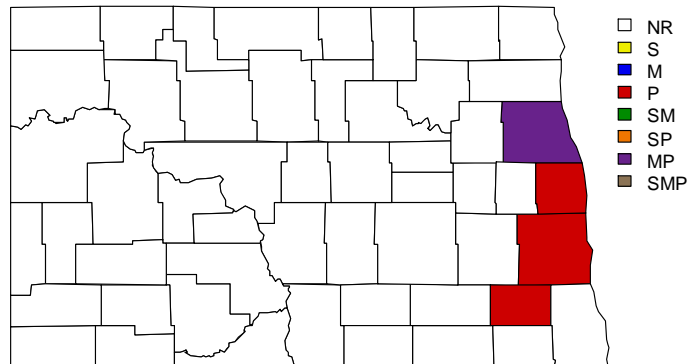
Strangalia famelica



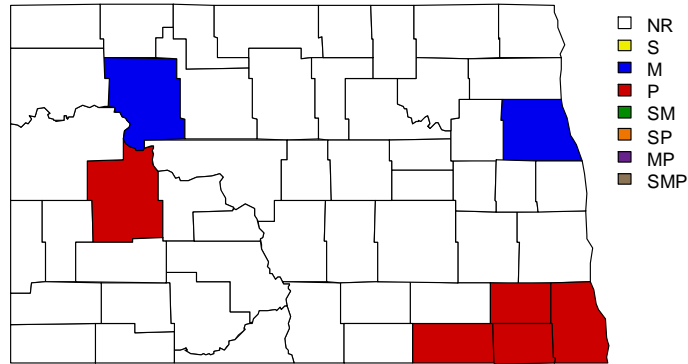
Bellamira scalaris



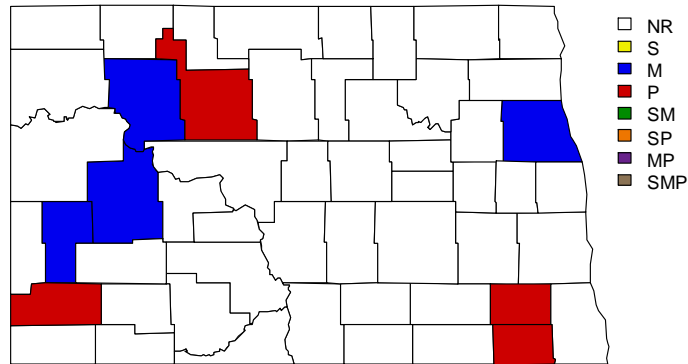
Brachysomida bivittata



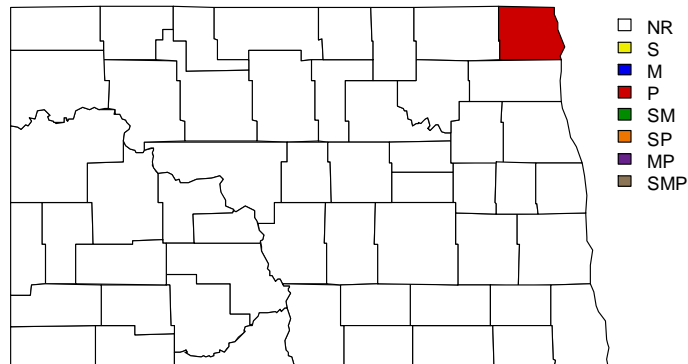
Typocerus confluens



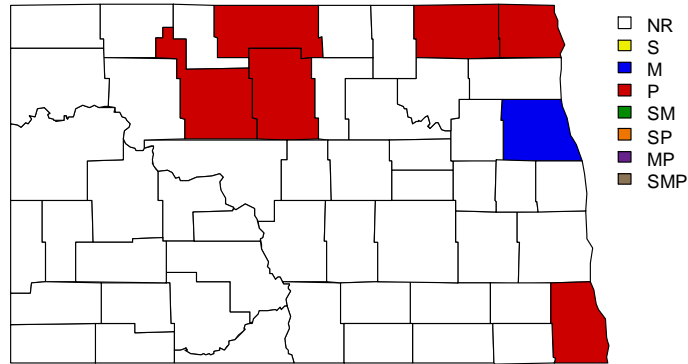
Typocerus octonotatus



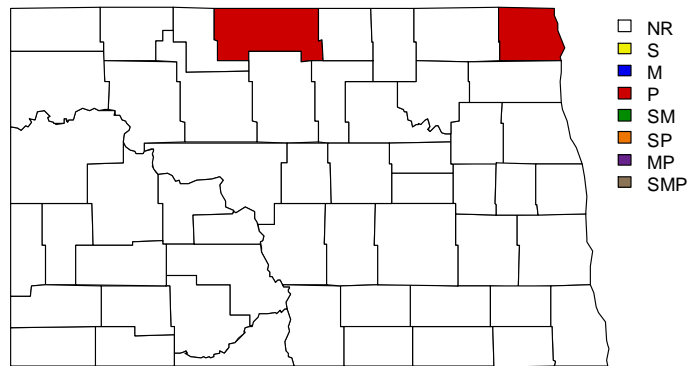
Typocerus sparsus



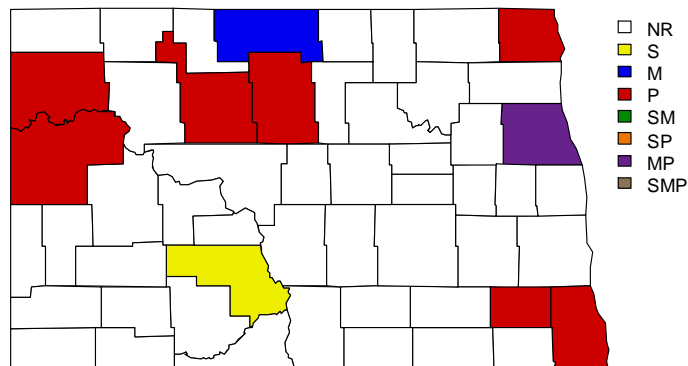
Typocerus velutinus



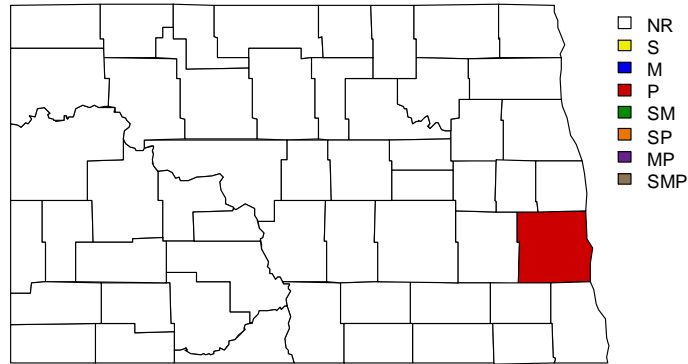
Trachysida mutabilis



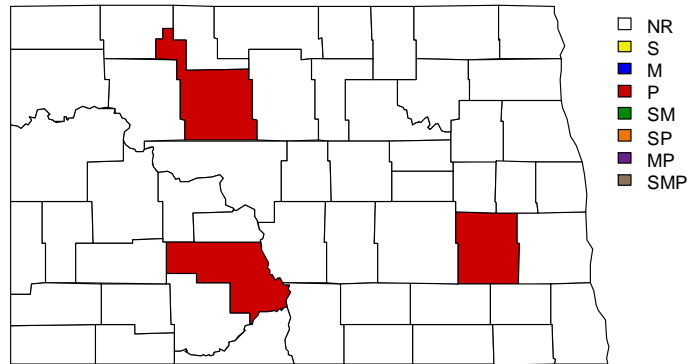
Trigonarthris minnesotana



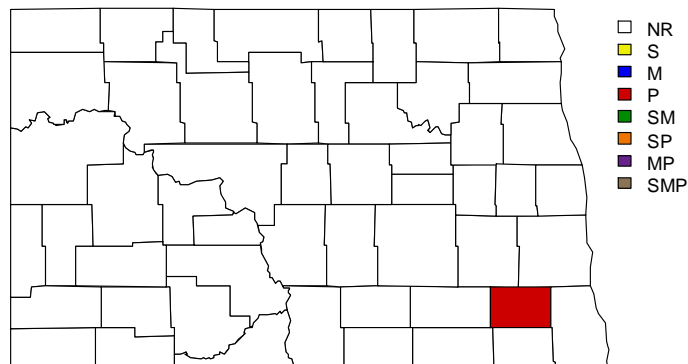
Oeme rigida



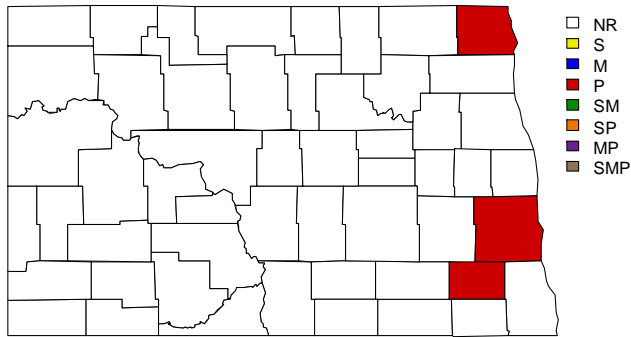
Tylontus bimaculatus
(Ash and Privet Borer)



Tylontus masonii

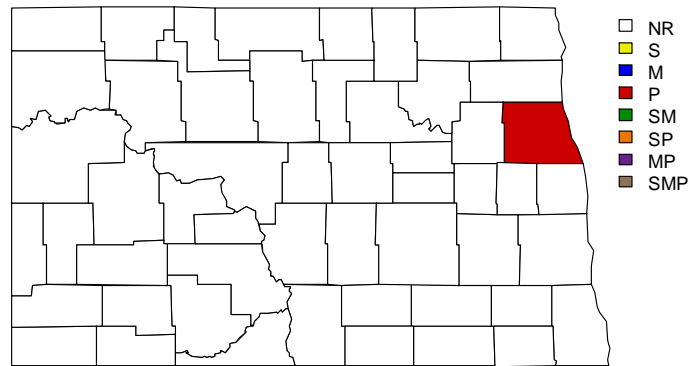


Psyrassa unicolor



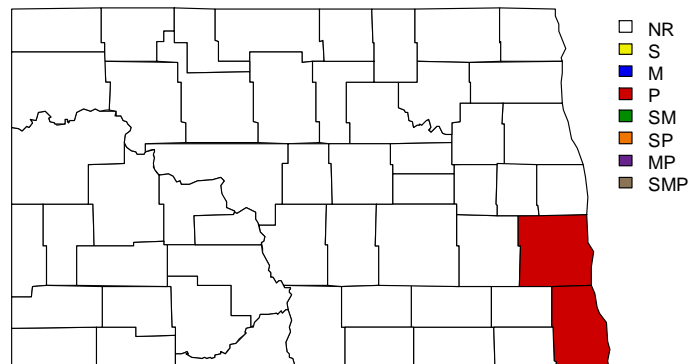
Enaphalodes cortiphagus

(Oak-bark Scarrer)

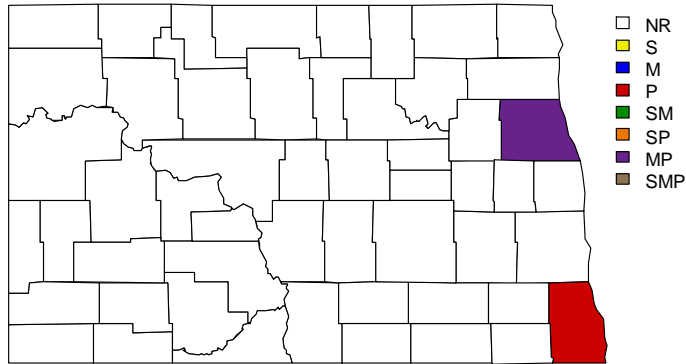


Elaphidion mucronatum

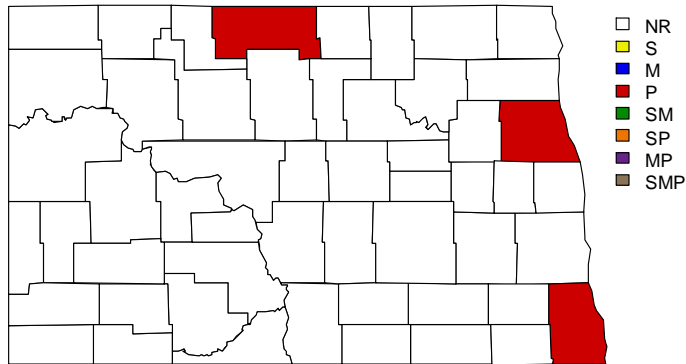
(Spined Bark Borer)



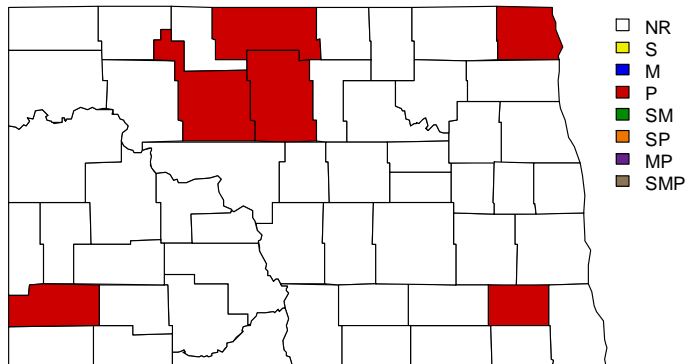
Parelaphidion (=Elaphidionoides) incertum



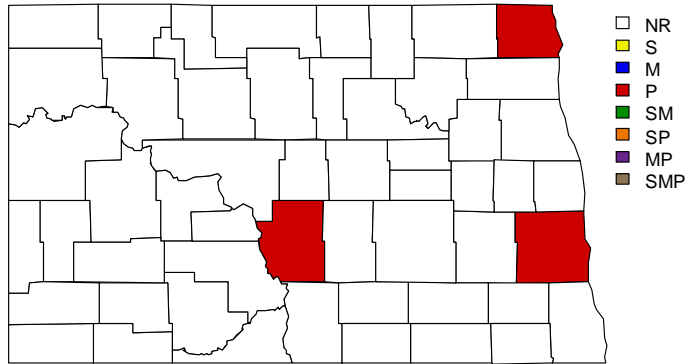
Anelaphus parallelus
(Oak Twig Pruner)



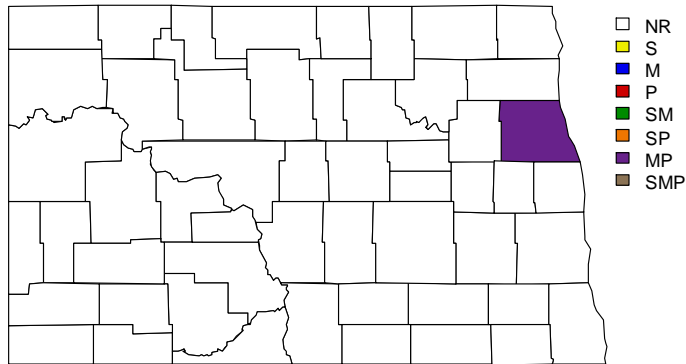
Anelaphus villosus
(Twig Pruner)



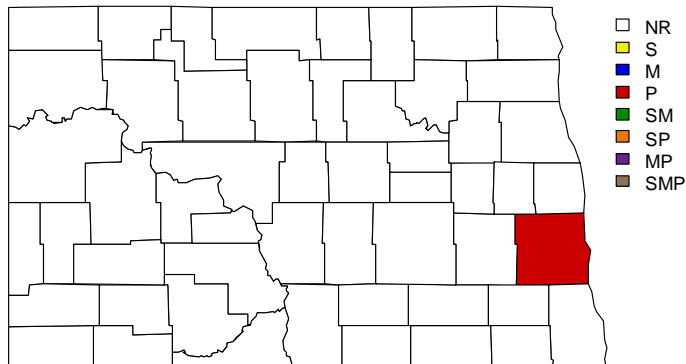
Obrium rufulum



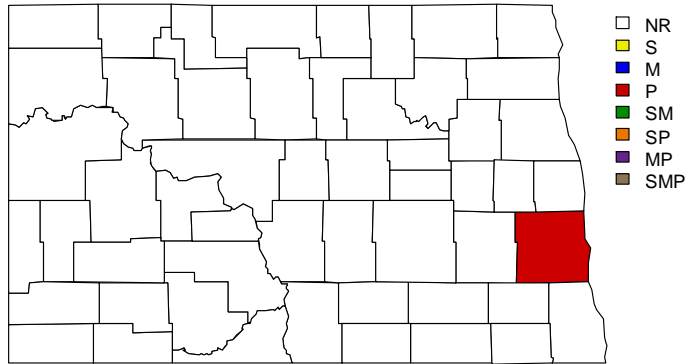
Molorchus bimaculatus



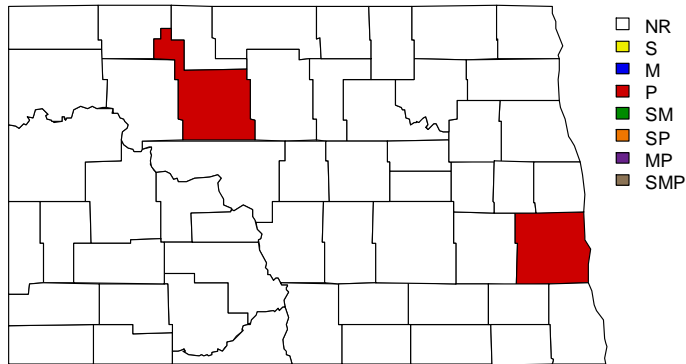
Phymatodes aereus



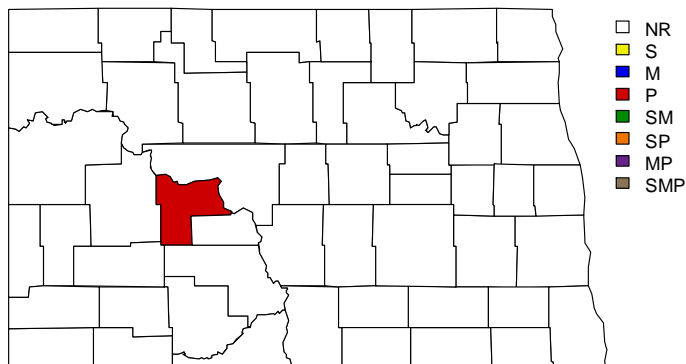
Phymatodes dimidiatus

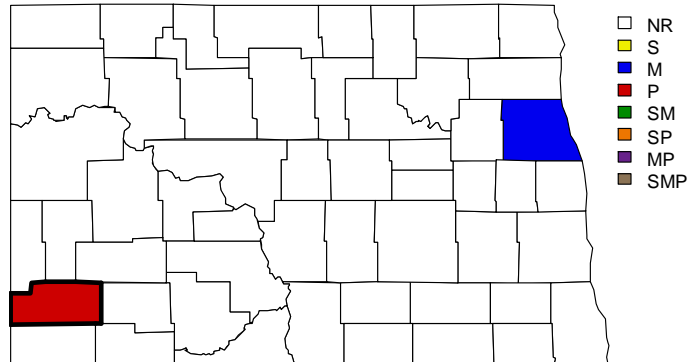


Physocnemum brevilineum
(Elm-bark Borer)

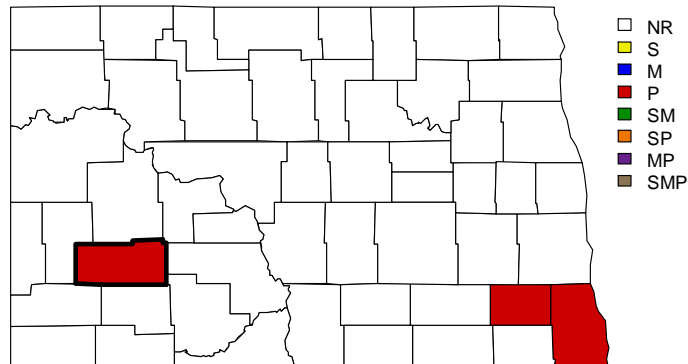


Ropalopus sanguinicollis

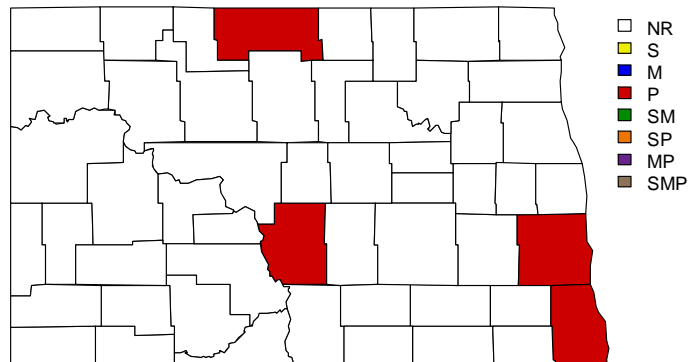


Megacyllene angulifera

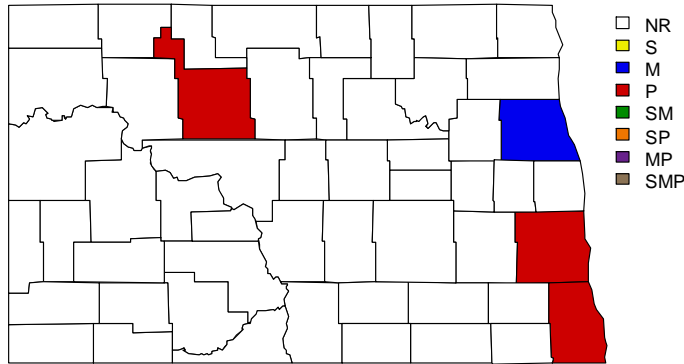
Note: Hanley (2005) is unsure on the Slope County record due to lack of voucher specimen from North Dakota and possibility of misidentification.

Megacyllene powersi

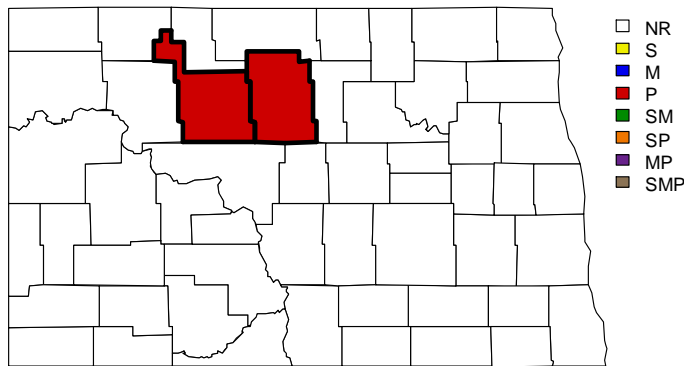
Note: Hanley (2005) is unsure on the Stark County record since it is outside of the known range of the species.

Xylotrechus annosus

Xylotrechus colonus
(Rustic Borer)

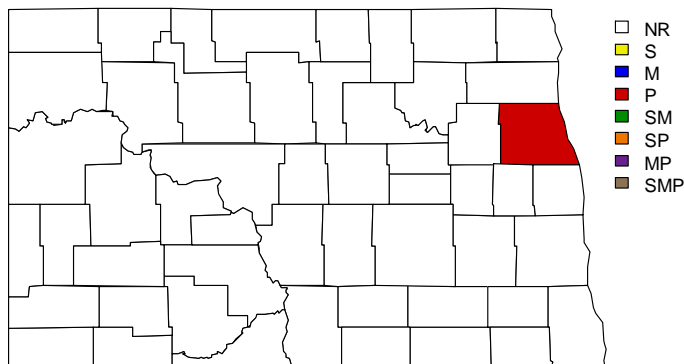


Xylotrechus convergens

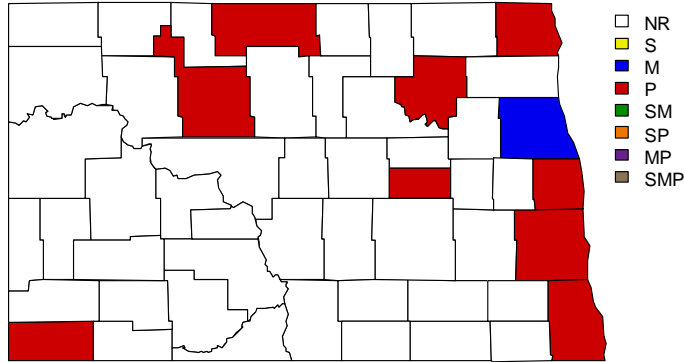


Note: Due to the lack of a voucher specimen and discrepancy in county location for the one historical record of this species Hanley (2005) lists two county records but is unsure as which is the correct county.

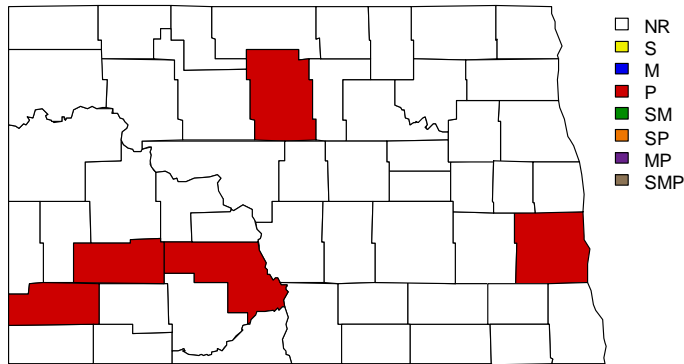
Sarosesthes fulminans



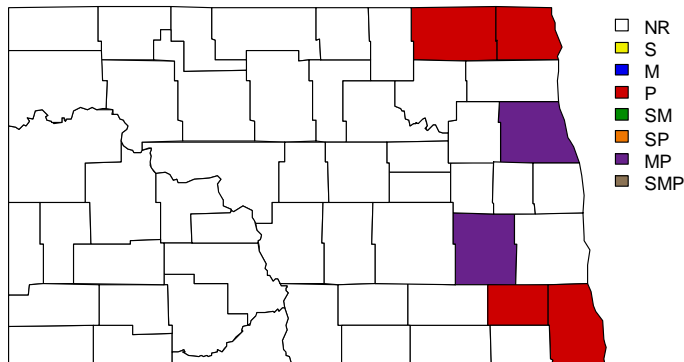
Neoclytus acuminatus
(Red-headed Ash Borer)

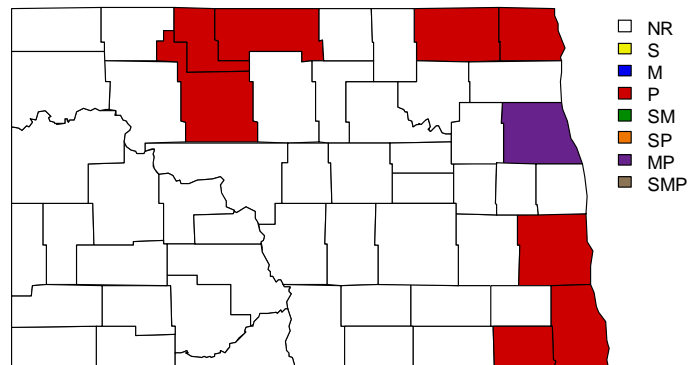
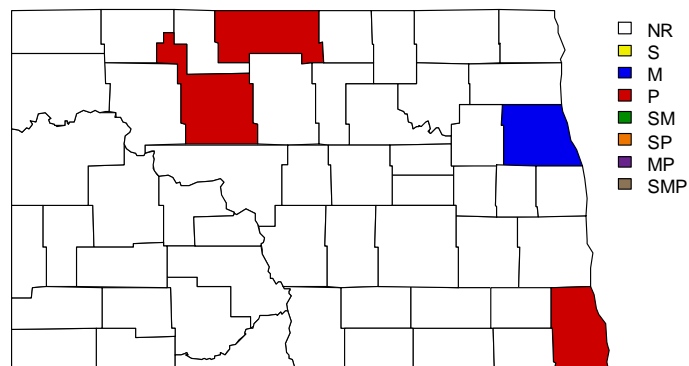
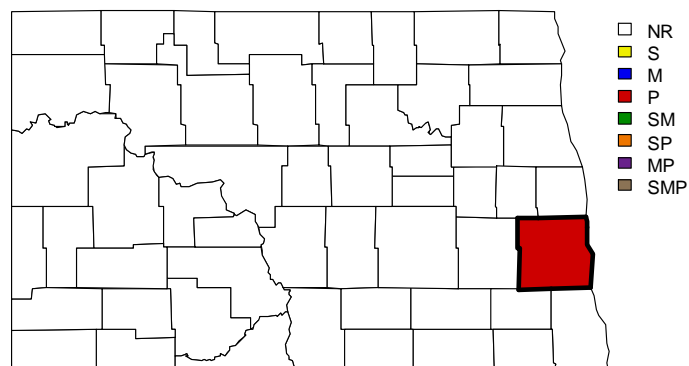


Neoclytus leucozonus



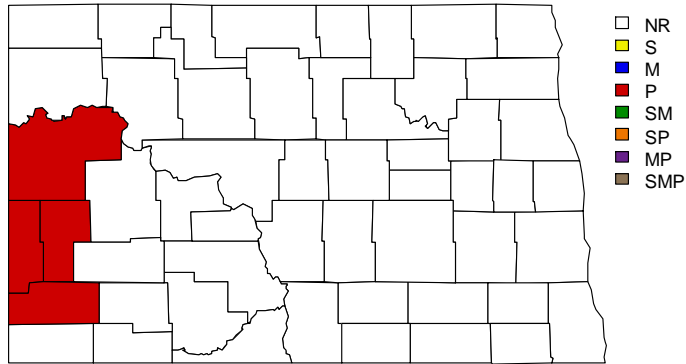
Clytus ruricola



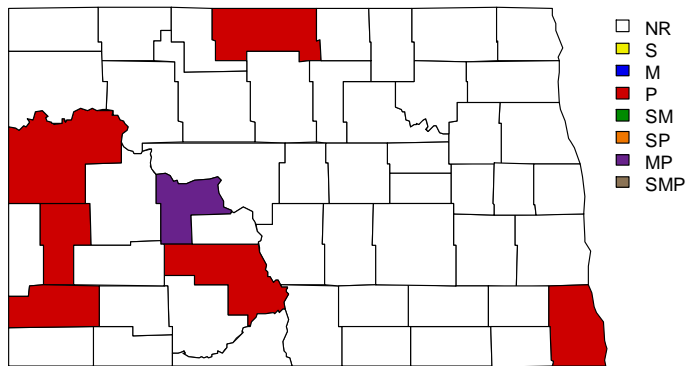
Cyrtophorus verrucosus*Purpuricenus humeralis**Tragidion armatum*

Note: Due to the lack of a voucher specimen and lack of host plants (*Yucca*) in Cass, Hanley (2005) is doubtful of the veracity of the Cass County record.

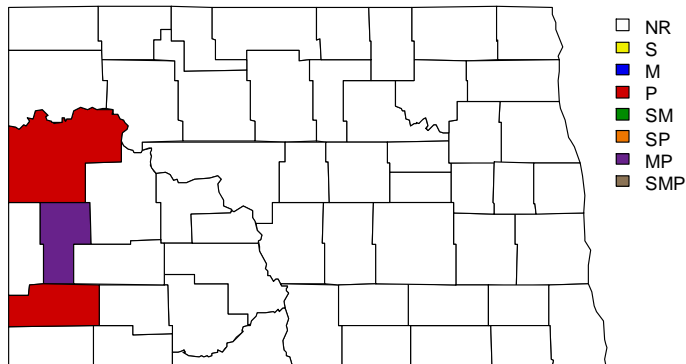
Batyle ignicollis



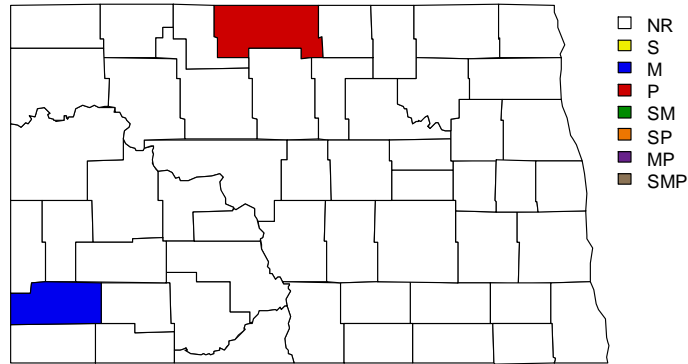
Batyle suturalis



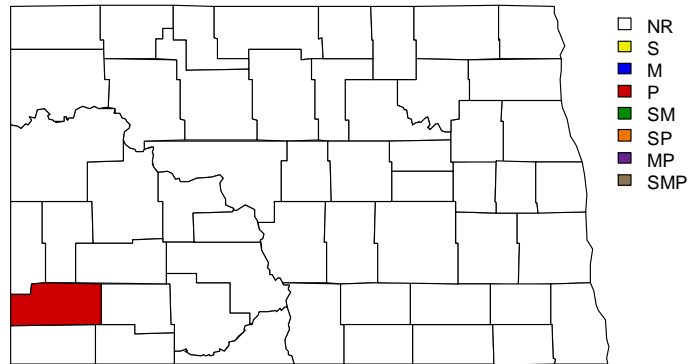
Crossidius coralinus



Crossidius pulchellus

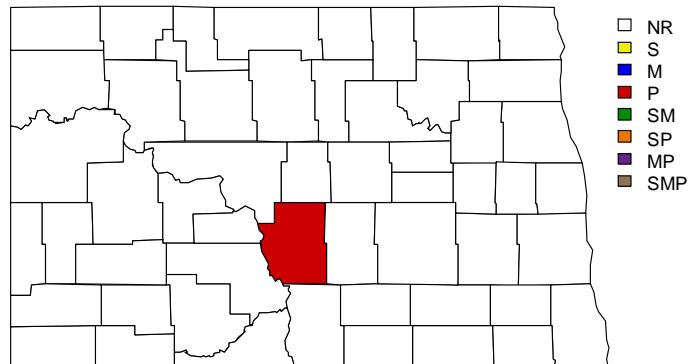


Moneilema annulatum



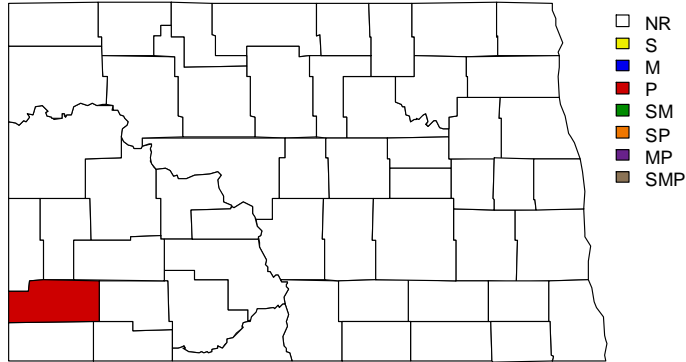
Plectrodera scalator

(Cottonwood Borer)

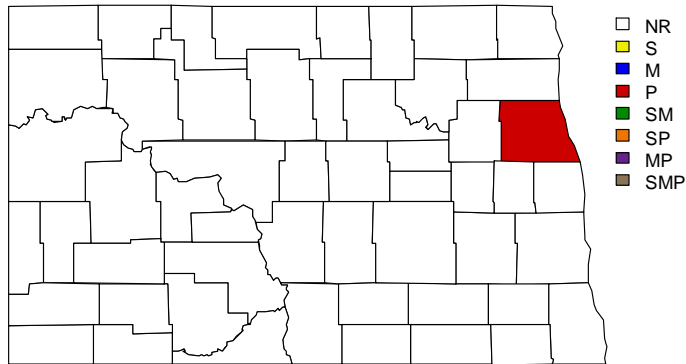


Note: Loss of lowland cottonwood stands along the Missouri River is likely driving this species toward extreme rarity in North Dakota (Hanley 2005).

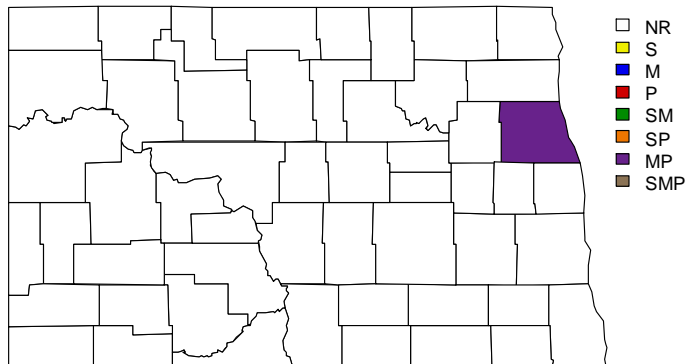
Monochamus clamator
(Spotted Pine Sawyer)



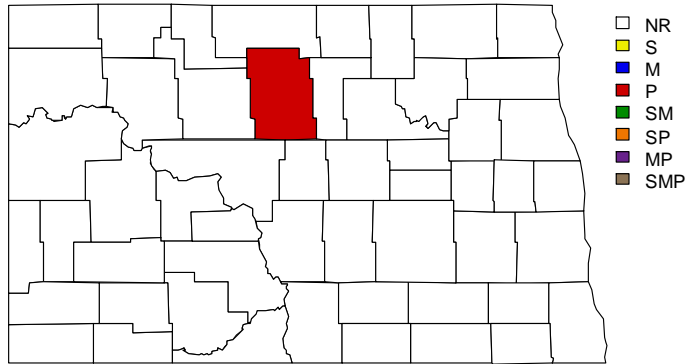
Monochamus titillator
(Southern Pine Sawyer)



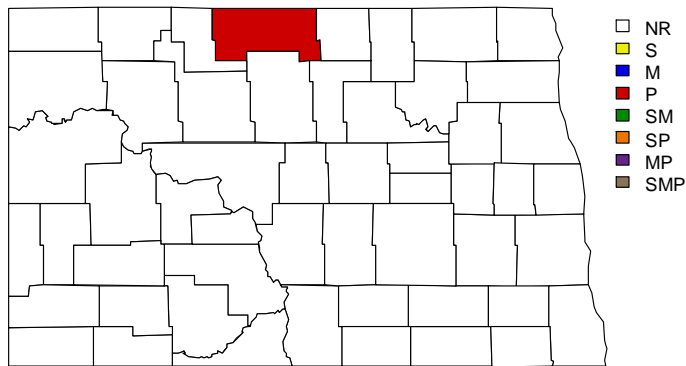
Ataxia brunnea



Pogonocherus mixtus

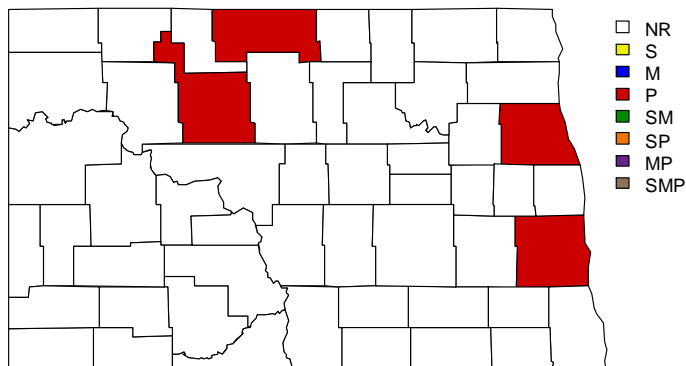


Pogonocherus parvulus

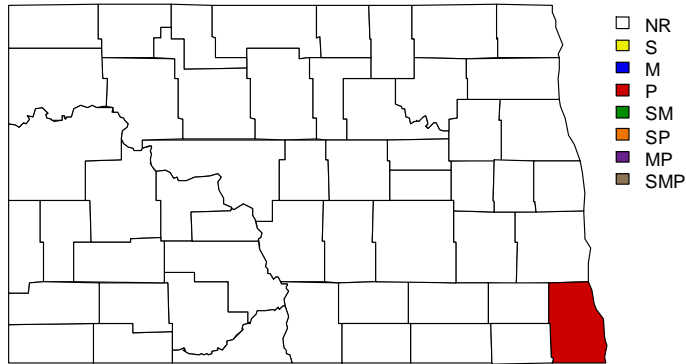


Psenocerus supernotatus

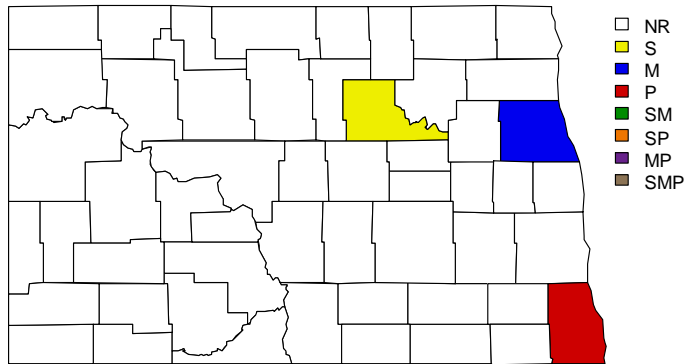
(Currant-tip Borer)



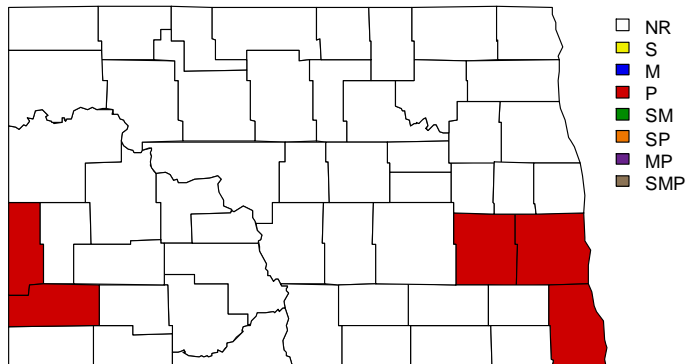
Aegomorphus modestus

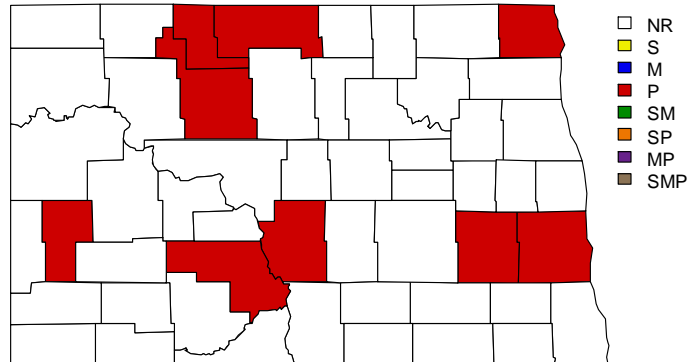
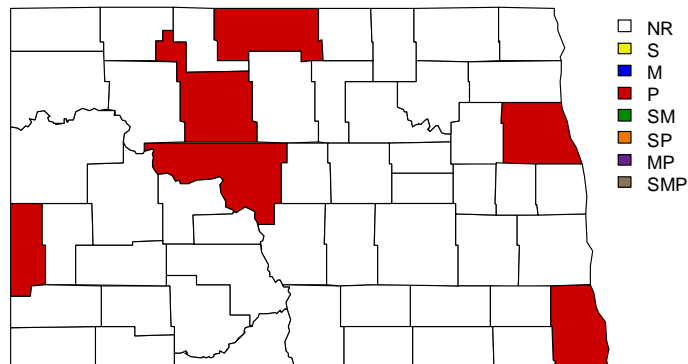
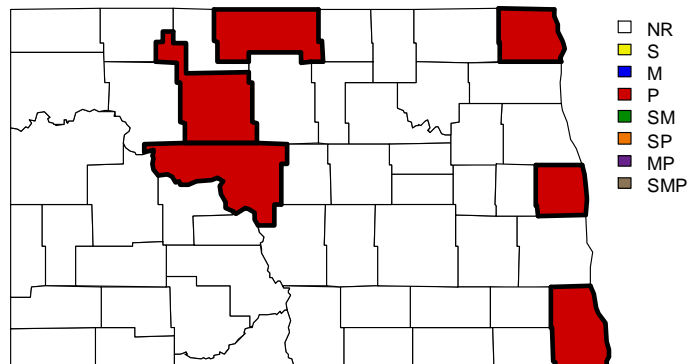


Dectes sayi



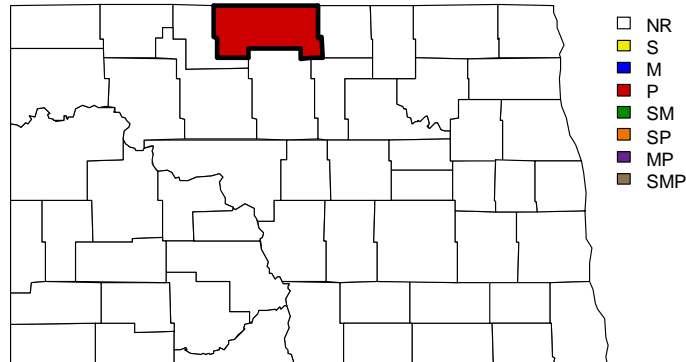
Dectes texanus



Sternidius variegatus*Hyperplatys aspersa**Hyperplatys maculata*

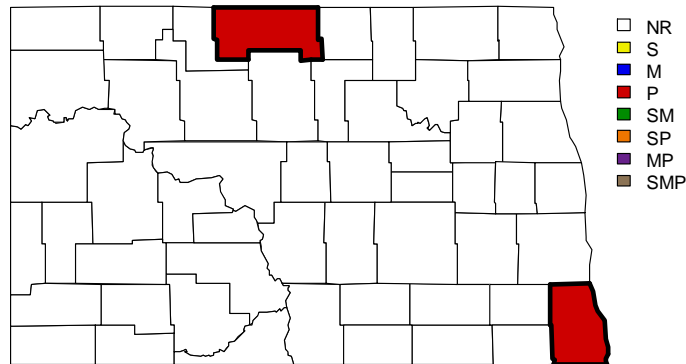
Note: With no reliably identified voucher specimens and difficulty in positively identifying this species, Hanley (2005) considers all records in the state to be problematic.

Liopinus alpha



Note: Due to difficulty in positively identifying this species, Hanley (2005) considers the Bottineau County record to be questionable.

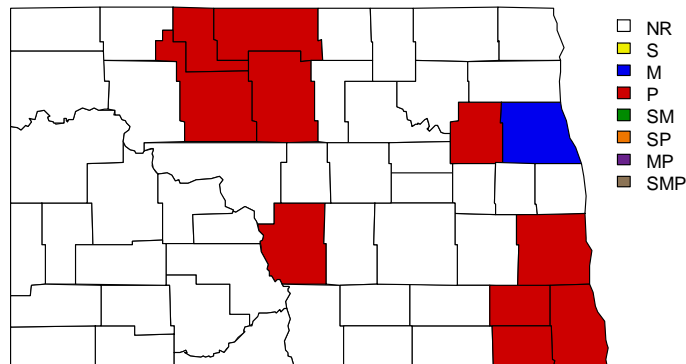
Liopinus misellus



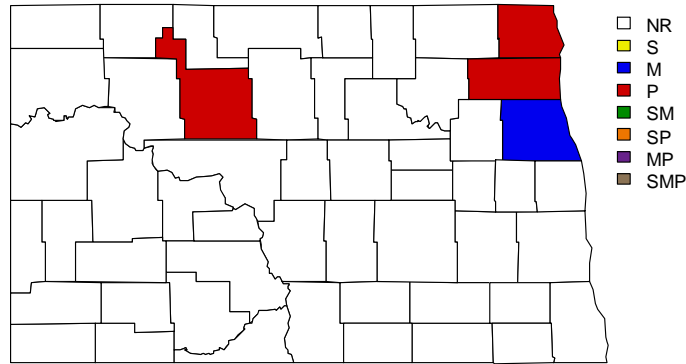
Note: Due to difficulty in positively identifying this species, Hanley (2005) considers the Bottineau and Richland County record to be questionable.

Saperda calcarata

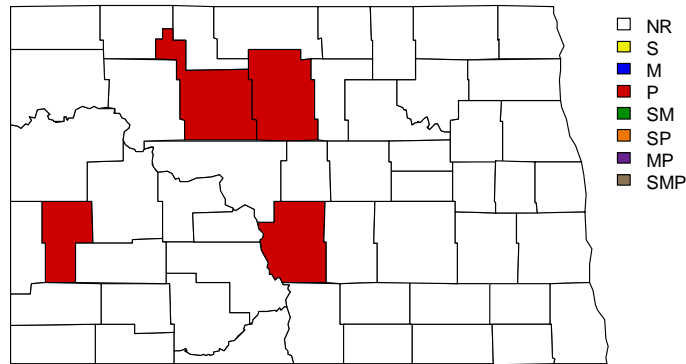
(Poplar Borer)



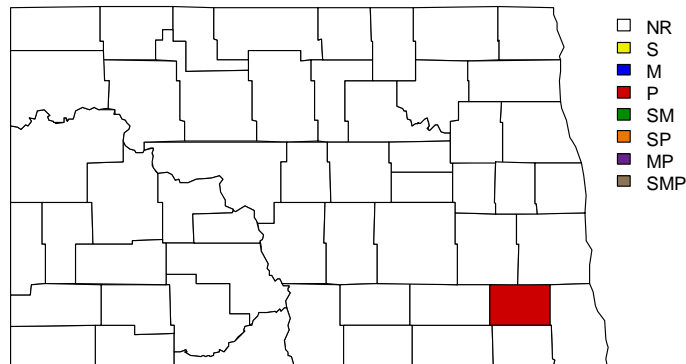
Saperda candida
(Round-headed Apple Tree Borer)



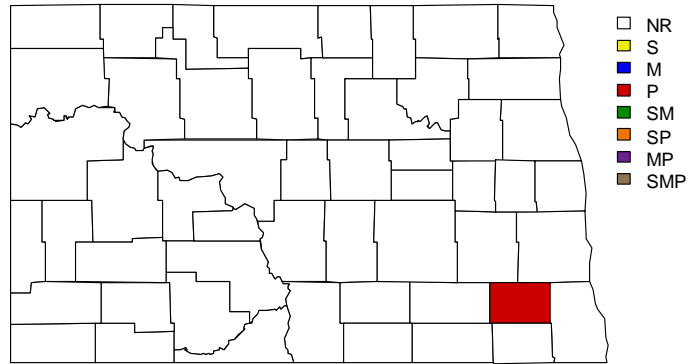
Saperda inornata
(Poplar Gall Borer)



Saperda lateralis
(Red-edged Saperada)

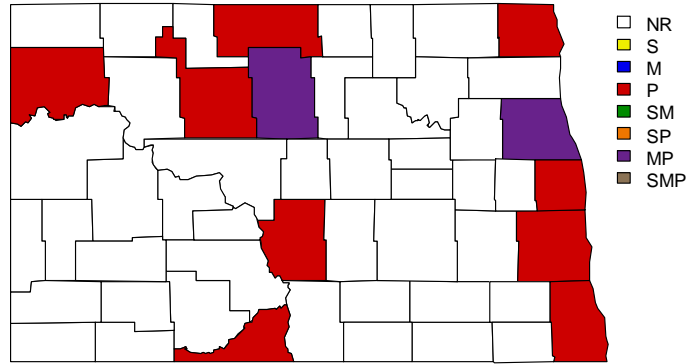


Saperda mutica



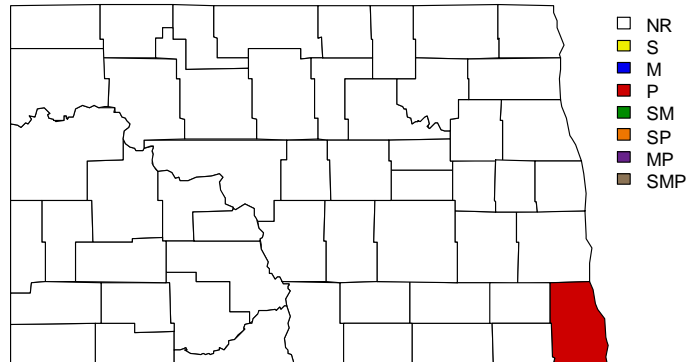
Saperda tridentata

(Elm Borer)

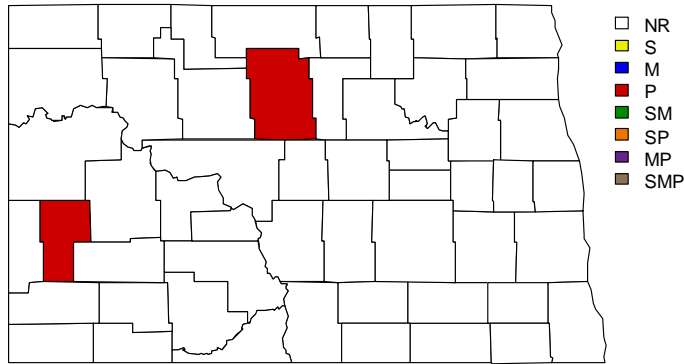


Saperda verstita

(Linden or Basswood Borer)

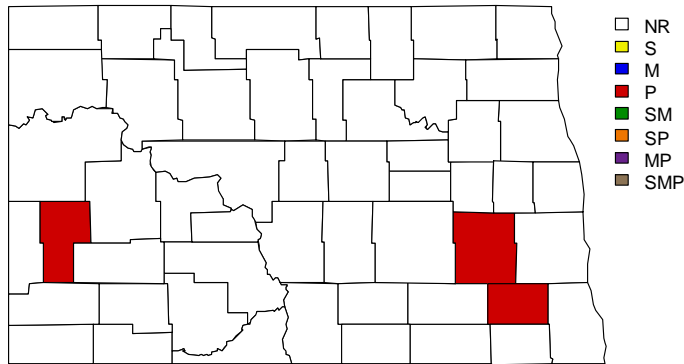


Oberea caseyi



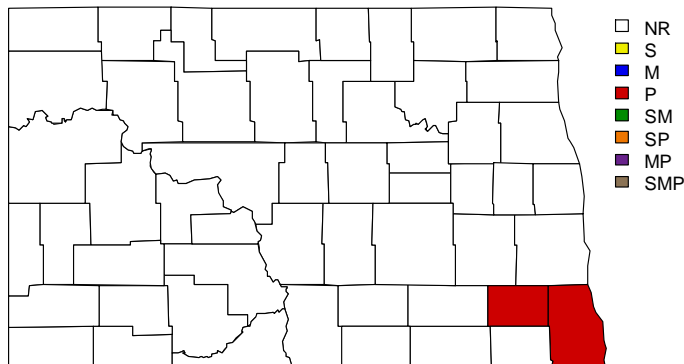
Oberea erythrocephala

(Leafy Spurge Steam-boring Beetle)

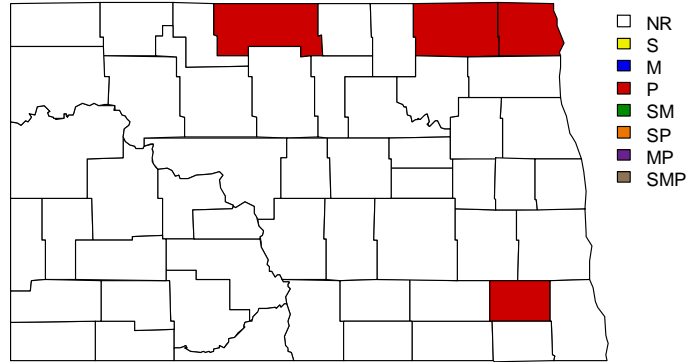


Note: This species was intentionally released from Europe in the 1980s through to 1995 to control leafy spurge (Hanson 2005).

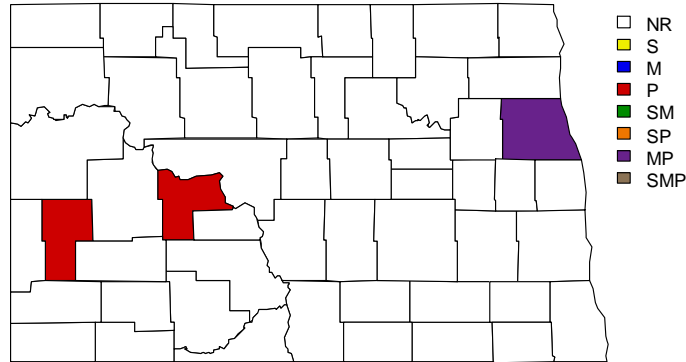
Oberea oculaticollis



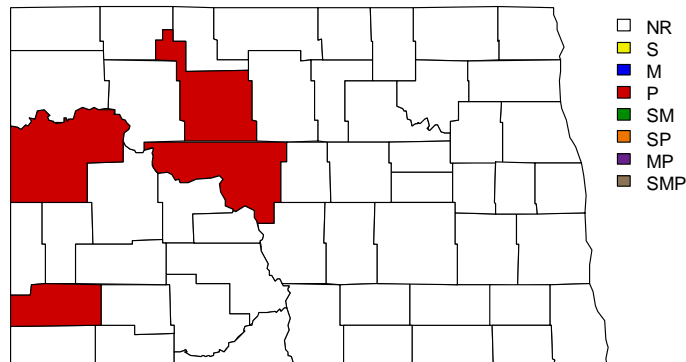
Oberea perspicilata
(Raspberry Cane Borer)



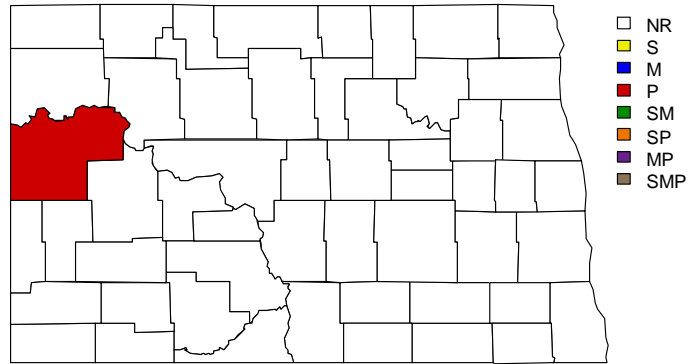
Oberea tripunctata
(Dogwood Twig Borer)



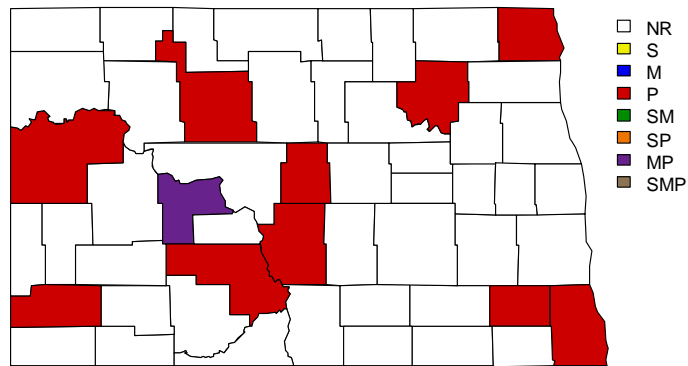
Mecas cineracea



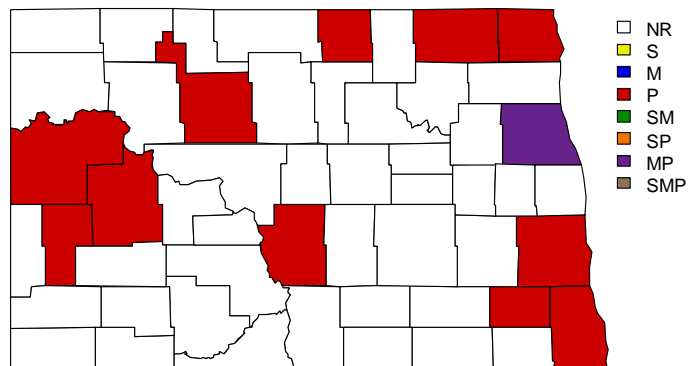
Mecas pergrata



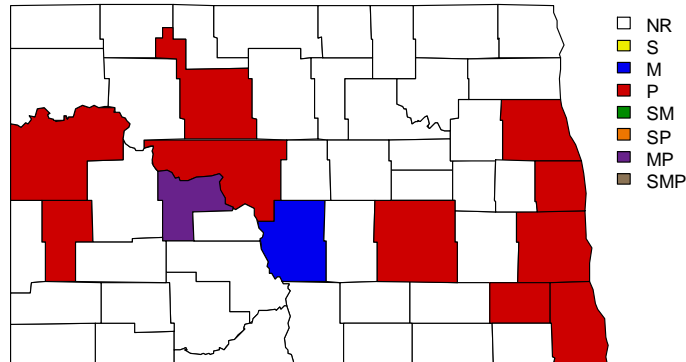
Tetraopes annulatus



Tetraopes femoratus

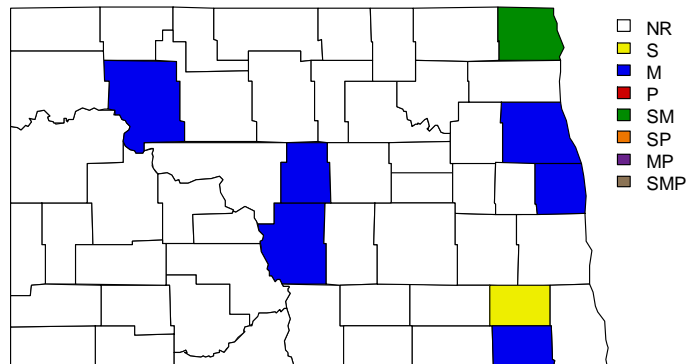


Tetraopes tetraophthalmus
(Red Milkweed Beetle)

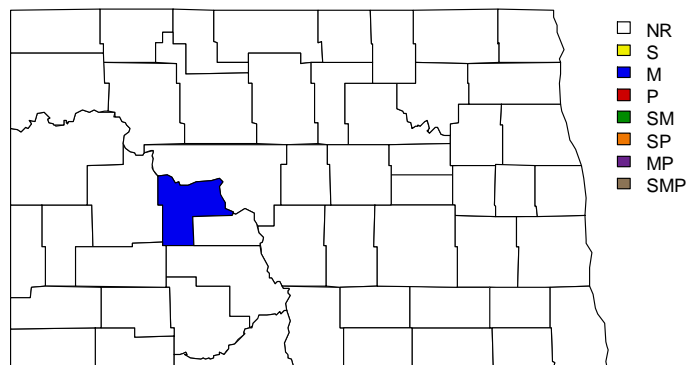


Family Chrysomelidae (Leaf Beetles)

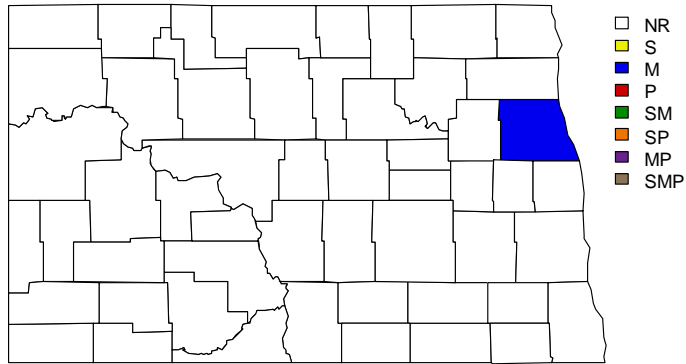
Acalymma (=Diabrotica) vittatum (=undecimpunctata)
(Striped Cucumber Beetle)



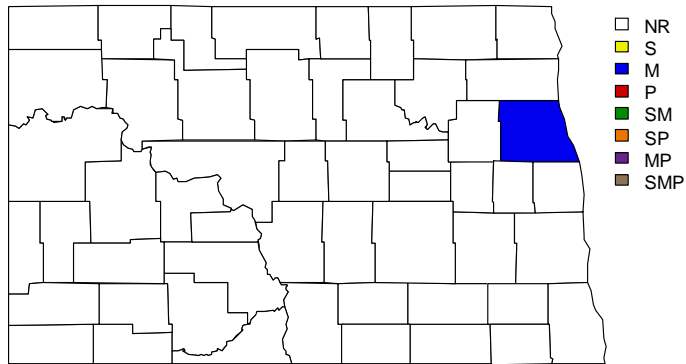
Altica canadensis
(Prairie Flea Beetle)



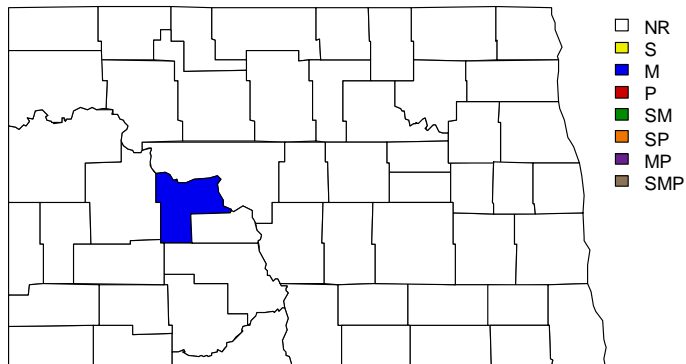
Altica carinata



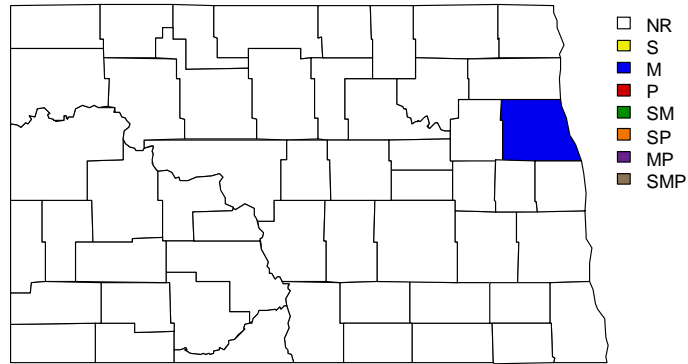
Altica chalybea
(Grape Flea Beetle)



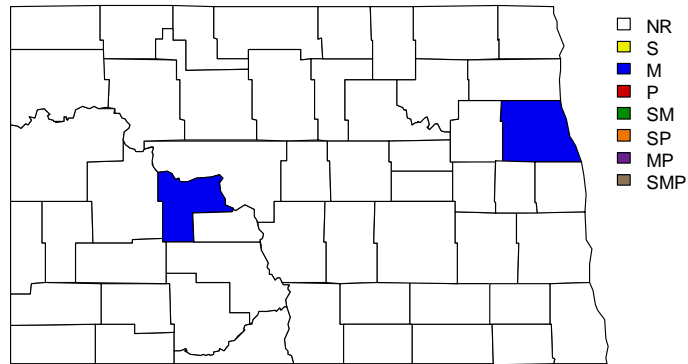
Brachycoryna montana



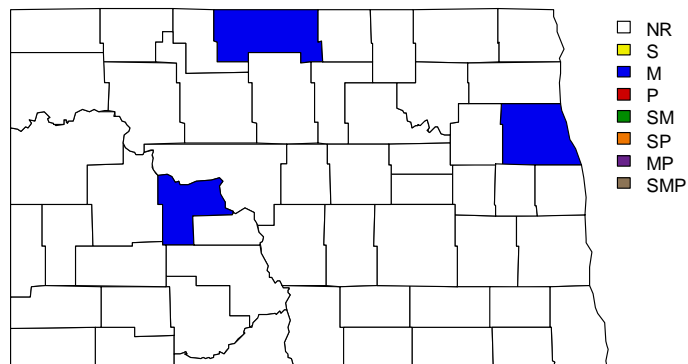
Calligrapha californiica (=eegans)



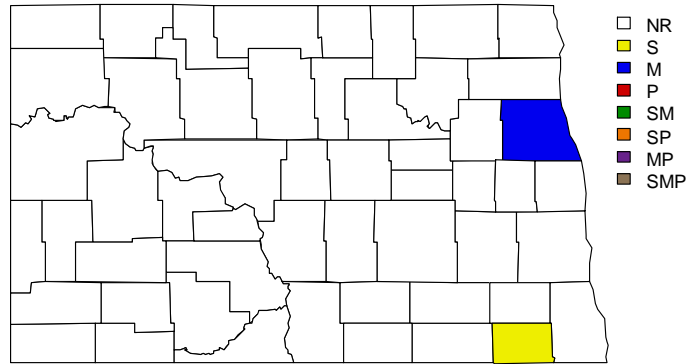
Cerotoma trifurcata
(Bean Leaf Beetle)



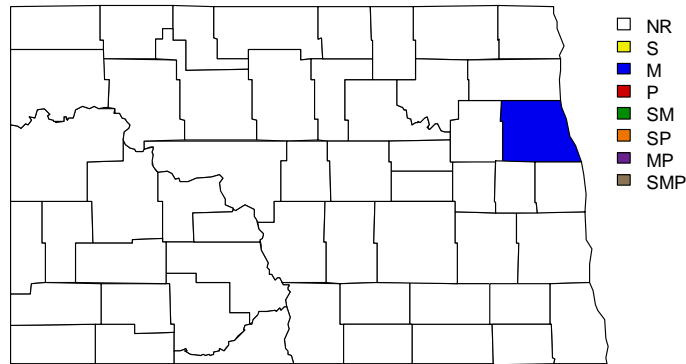
Charidotella (=Metriona) *purpurata*



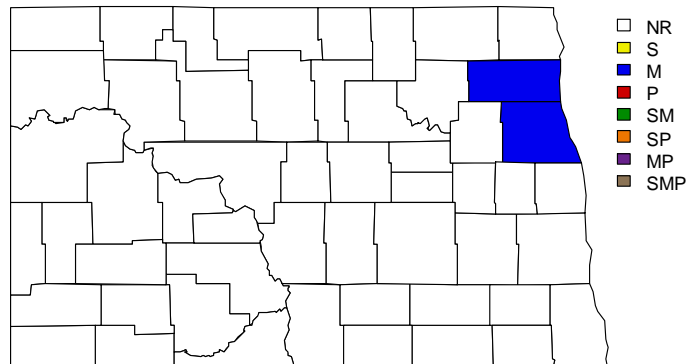
Charidotella sexpunctata (= *Metriona bicolor*)
 (Golden Tortoise Beetle)



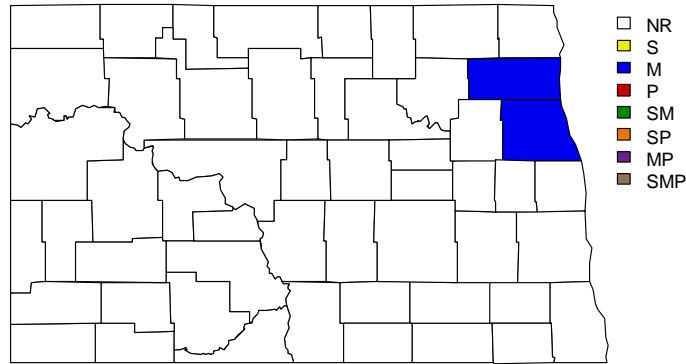
Chrysochus auratus
 (Dogbane Beetle)



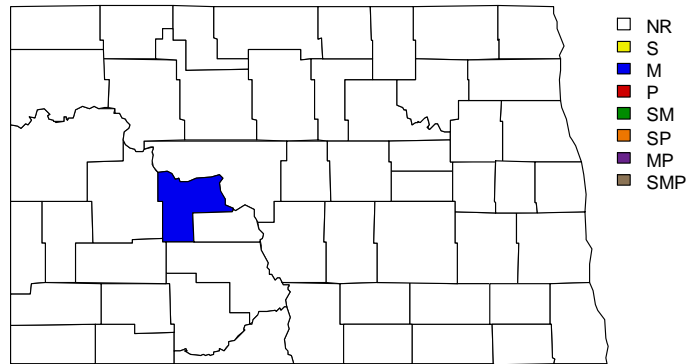
Chrysomela scripta
 (Cottonwood Leaf Beetle)



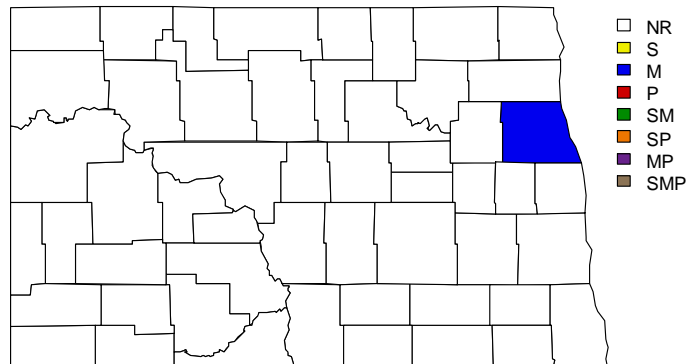
Crioceris duodecimpunctata
(Spotted Asparagus Beetle)



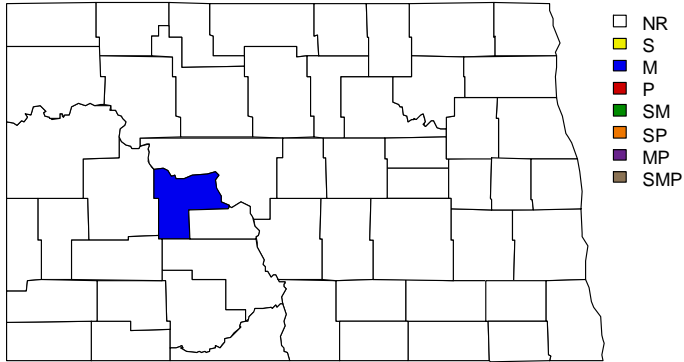
Cryptocephalus insertus



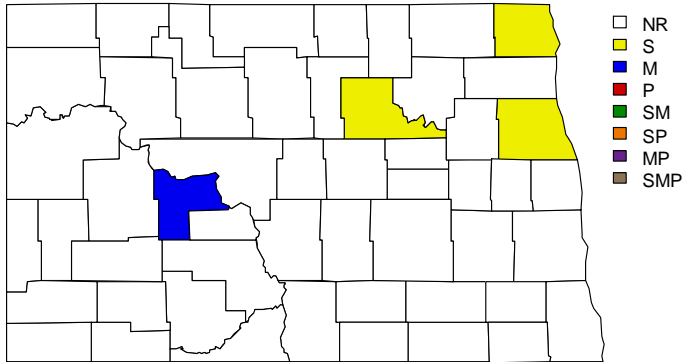
Cryptocephalus venustus



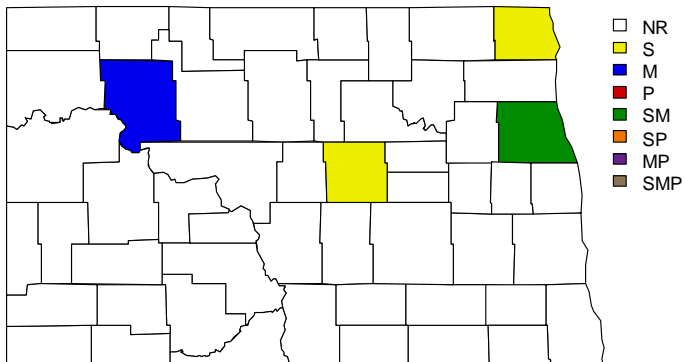
Deloyala guttata
(Mottled Tortoise Beetle)



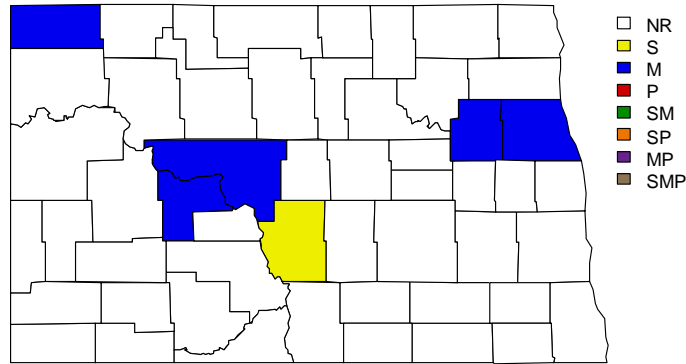
Disonycha alternata
(Striped Willow Leaf Beetle)



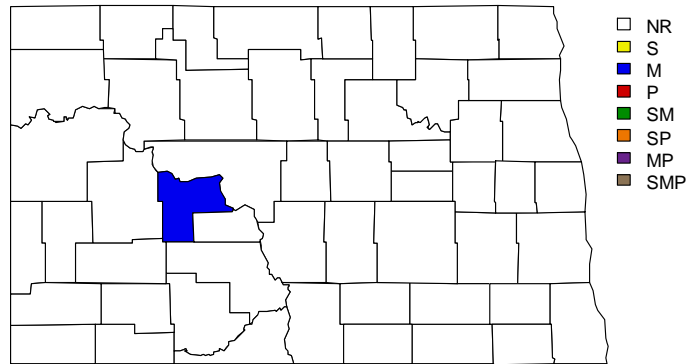
Disonycha pennsylvanica



Disonycha triangularis

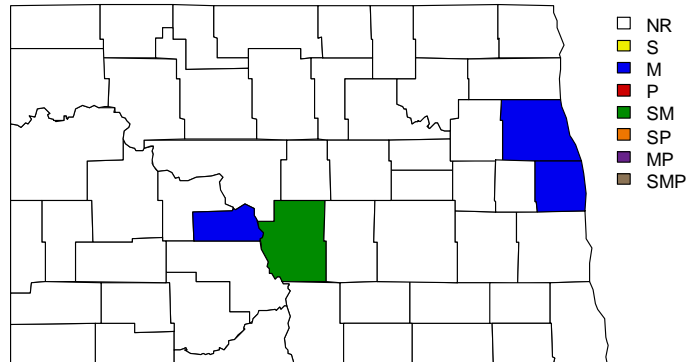


Disonycha xanthomelas

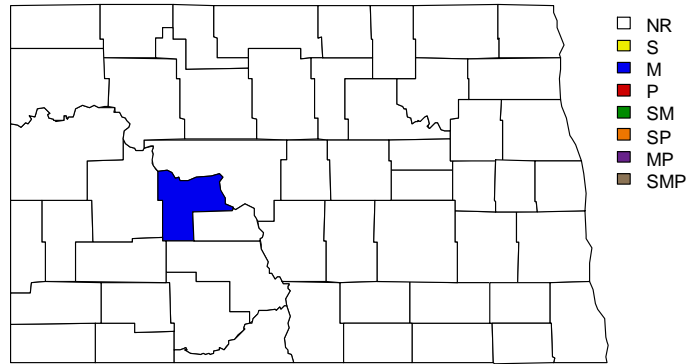


Erynephala puncticollis

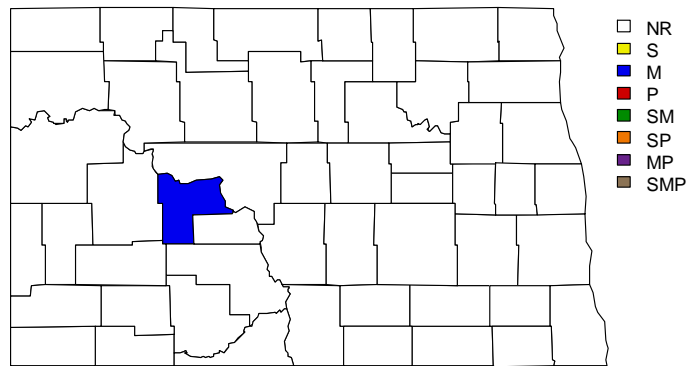
(Beet Leaf Beetle)



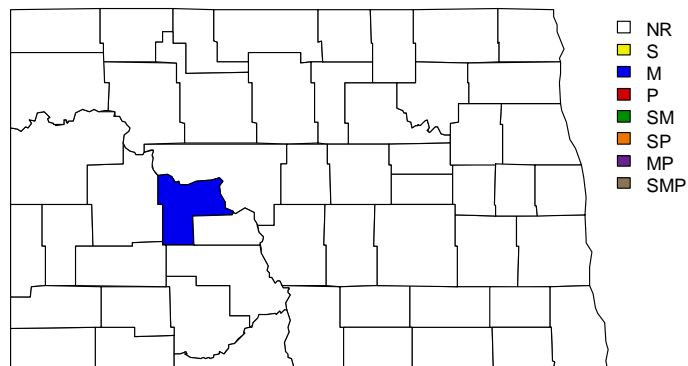
Graphops marcassita



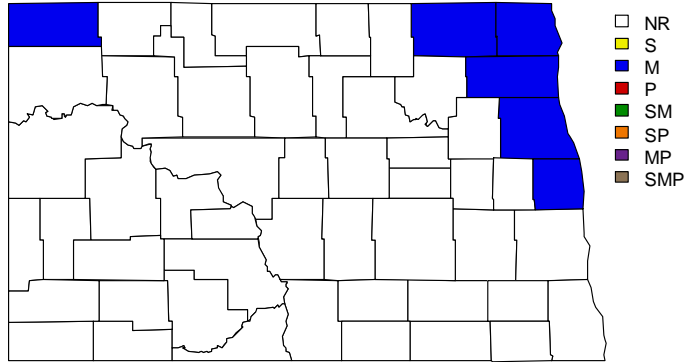
Kuschelina gibbitarsa



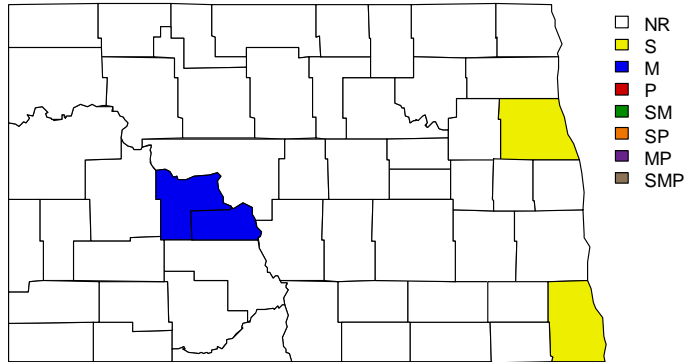
Lema palustris



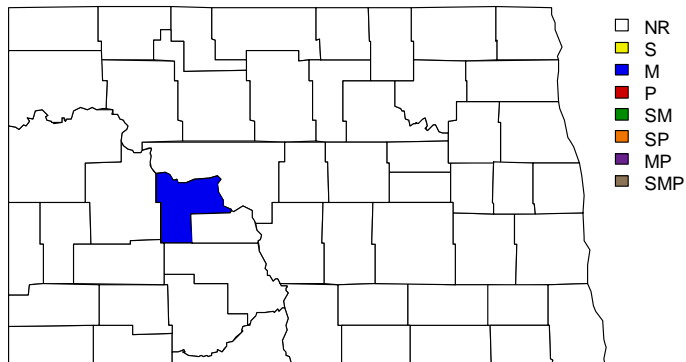
Leptinotarsa decemlineata
(Colorado Potato Beetle)



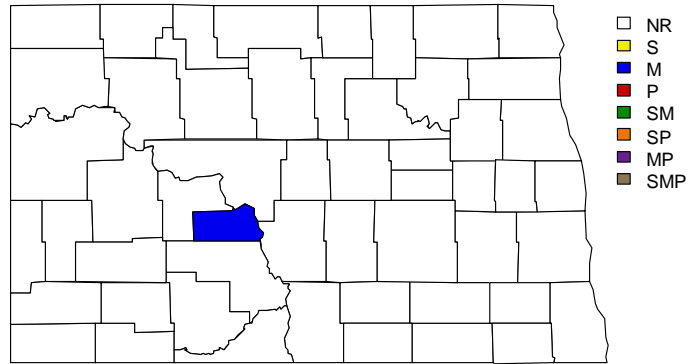
Microrhopala vittata
(Goldenrod Leaf Miner)



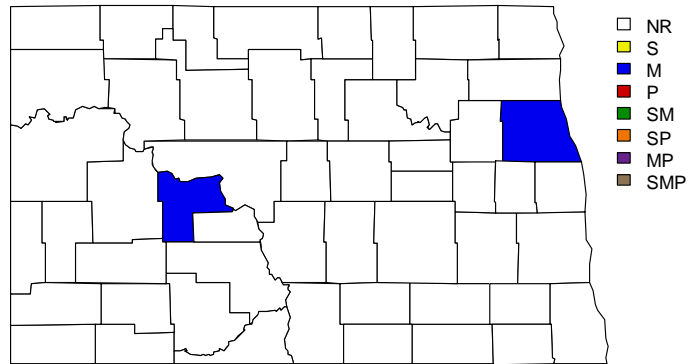
Monoxia debilis



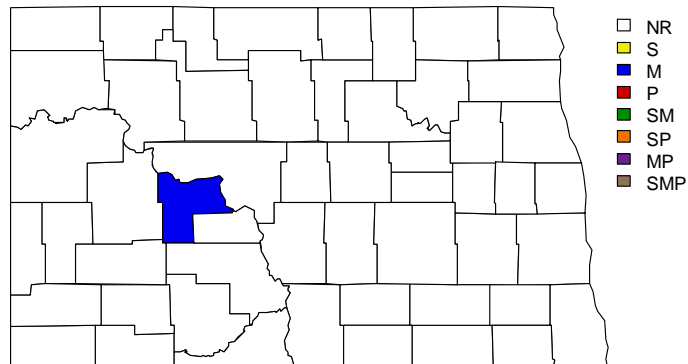
Monoxia pallida



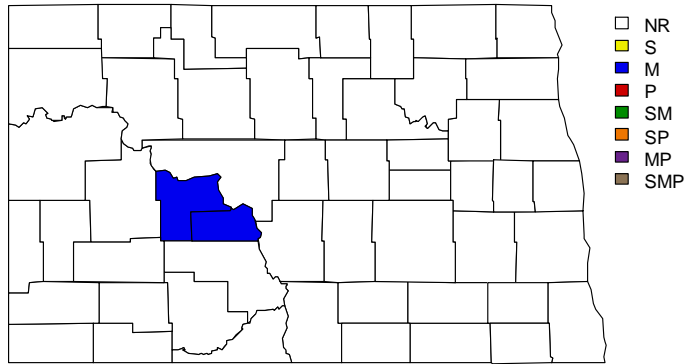
Monoxia schizonycha



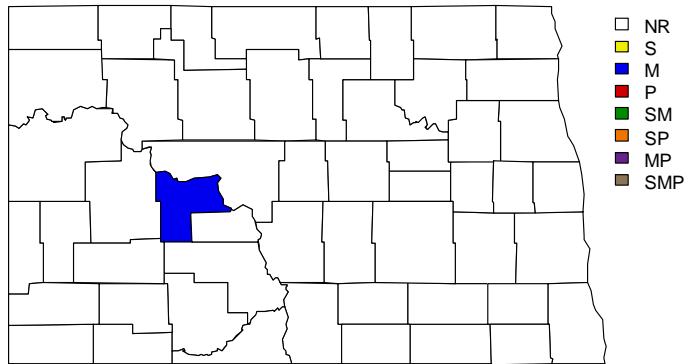
Myochrous squamosus



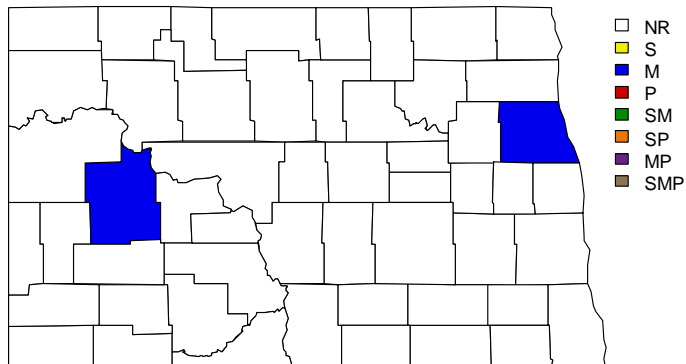
Ophraella americana



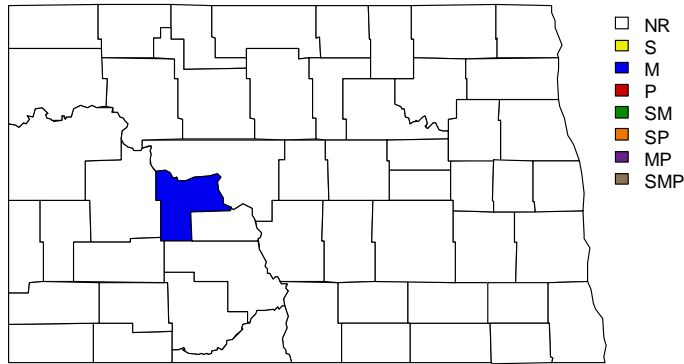
Ophraella notulata



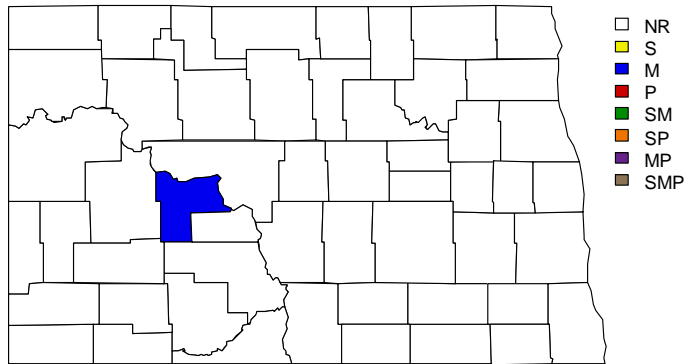
Orsodacne atra



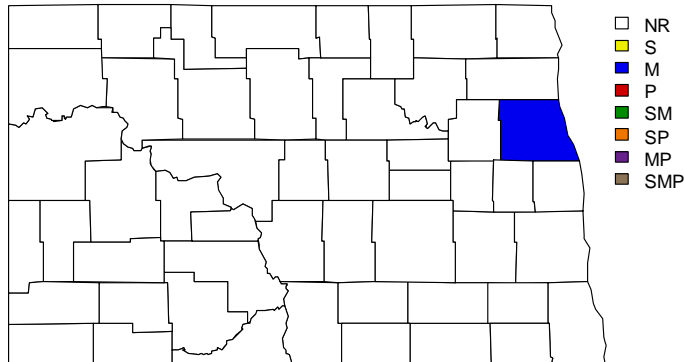
Pachybrachis laevis



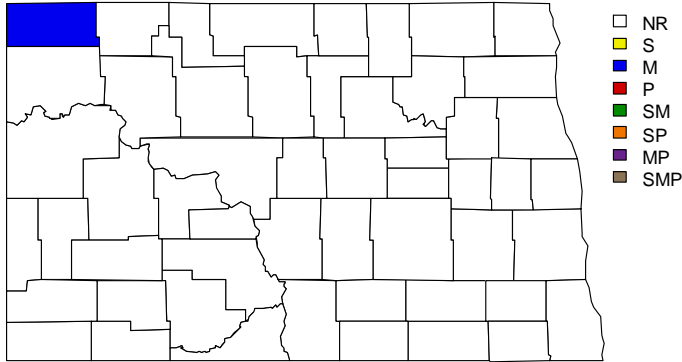
Pachybrachis othonus



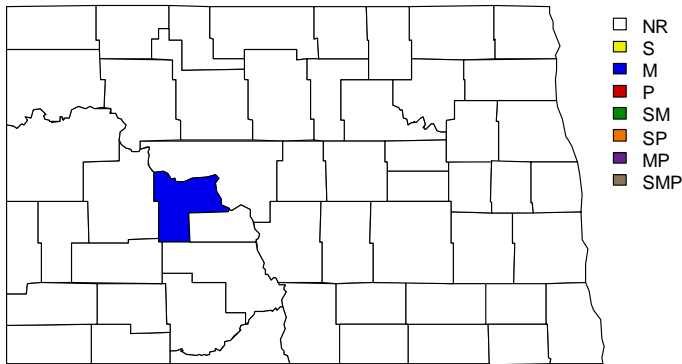
Physonota helianthi
(Sunflower Tortoise Beetle)



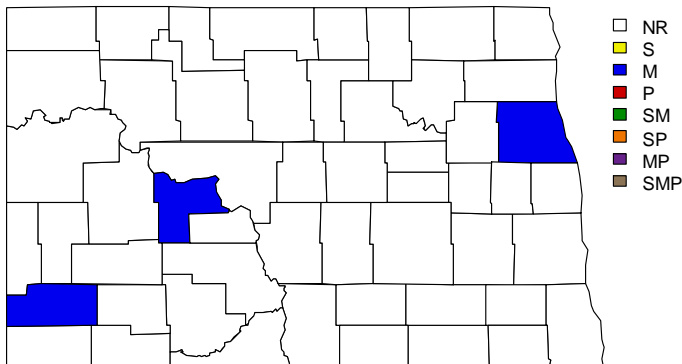
Plagiodera versicolora
(Imported Willow Leaf Beetle)



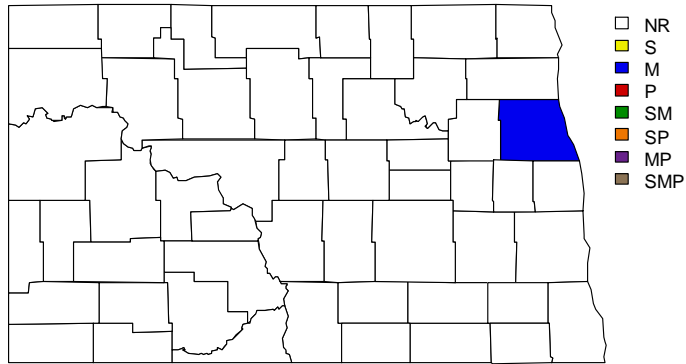
Trirhabda attenuata



Trirhabda canadensis
(Goldenrod Leaf Beetle)

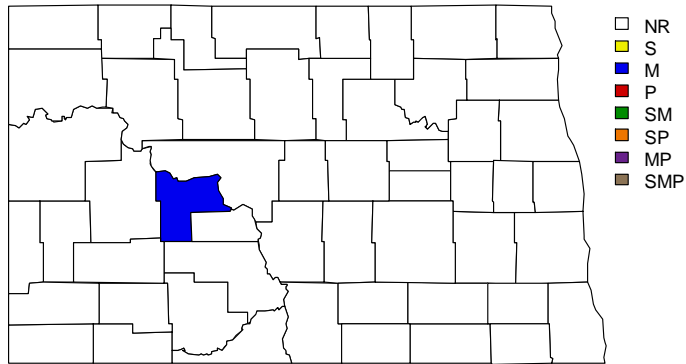


Xanthonia villosula

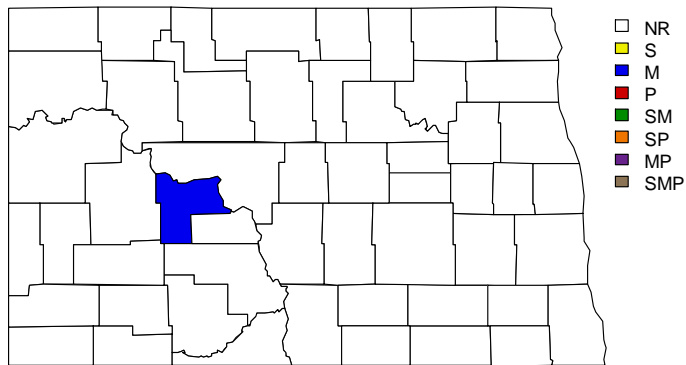


Family: Cleridae (Checkered Beetles)

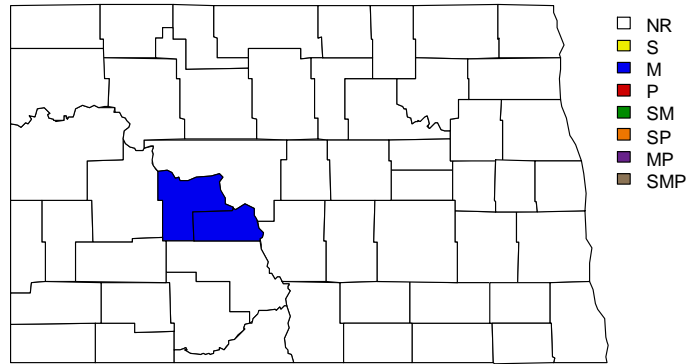
Enoclerus coccineus



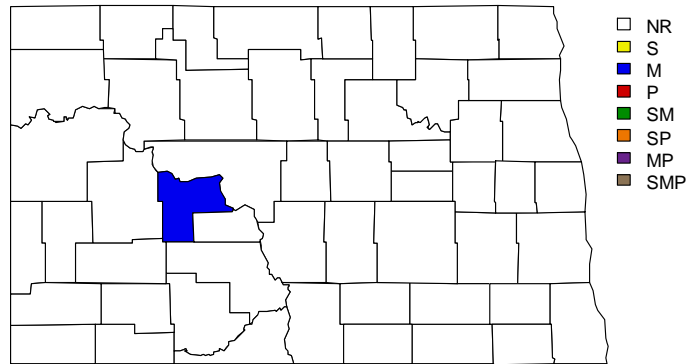
Isohydnocera curtipennis



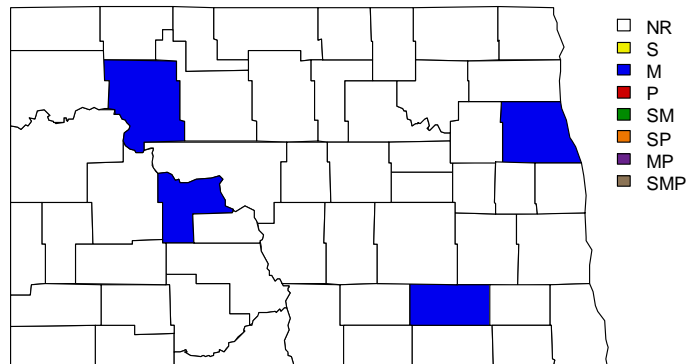
Phyllobaenus humeralis



Phyllobaenus lecontei

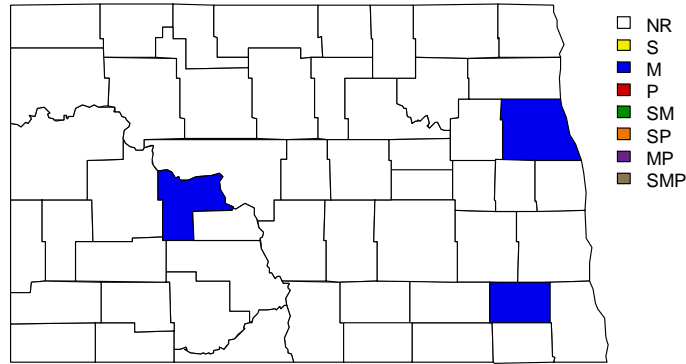


Trichodes nutalli
(Red-blue Checkered Beetle)



Family: Melyridae (Soft-wing Flower Beetles)

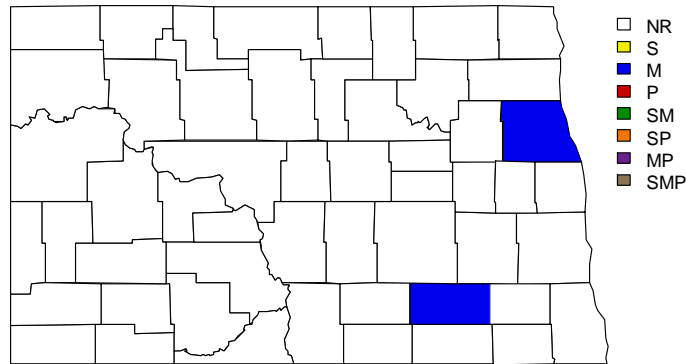
Collops vittatus



Family: Coccinellidae (Ladybird or Ladybug Beetles)

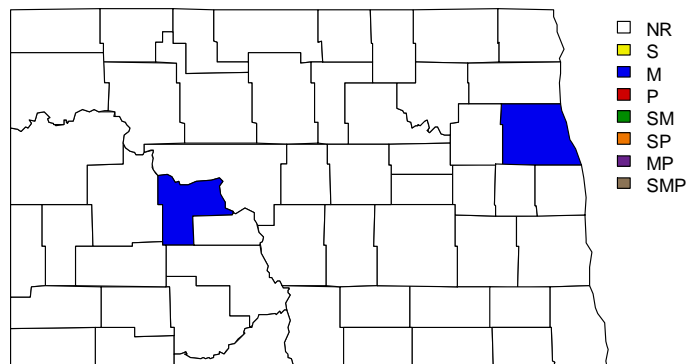
Adalia bipunctata

(Twospotted Lady Beetle)

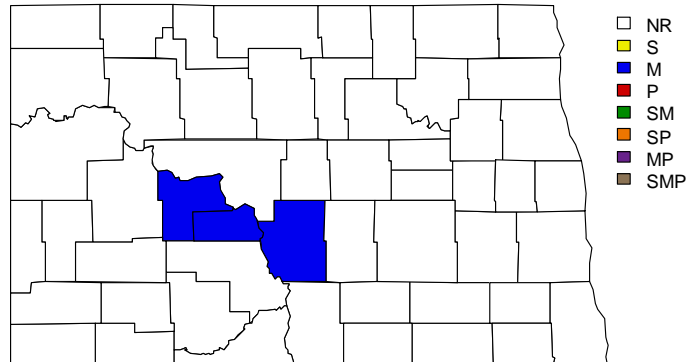


Anatis labiculata

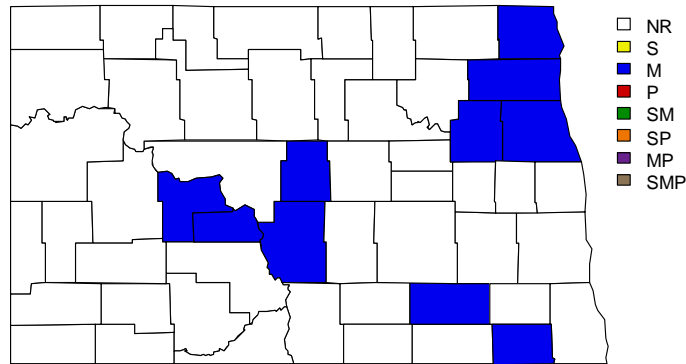
(Fifteen-spotted Ladybird Beetle)



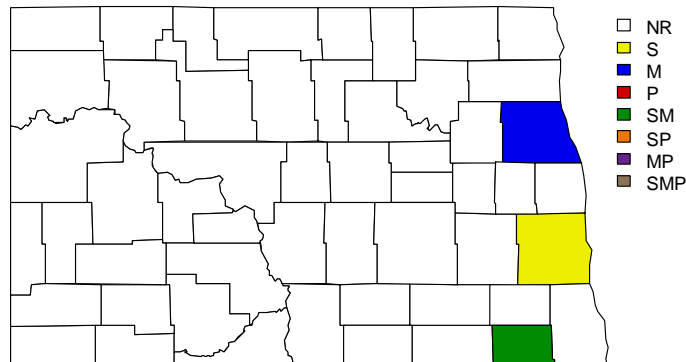
Coccinella novemnotata
(Ninespotted Lady Beetle)



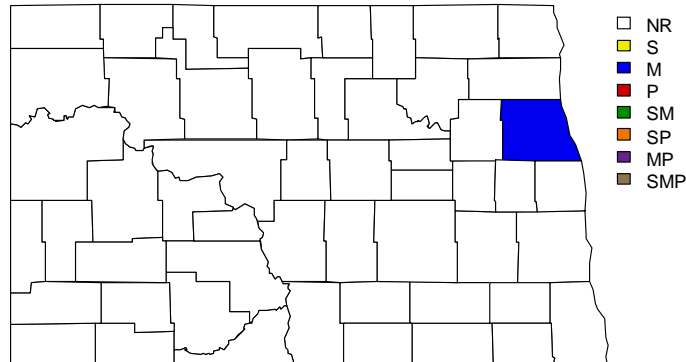
Coccinella transversoguttata
(Transverse Ladybird Beetle)



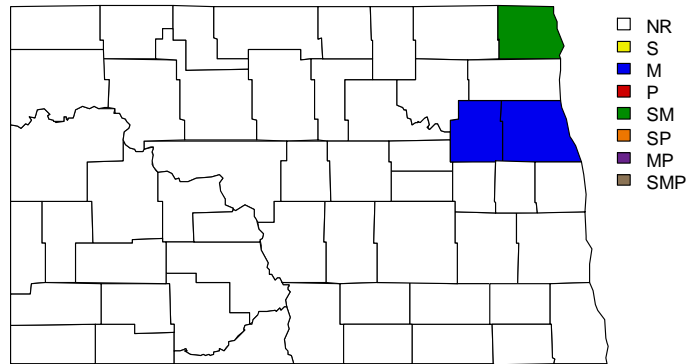
Coleomegilla fuscilabris
(Spotted Lady Beetle)



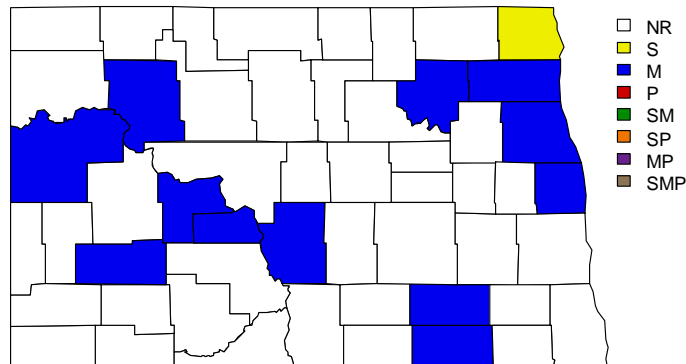
Epilachna borealis
(Squash Beetle)



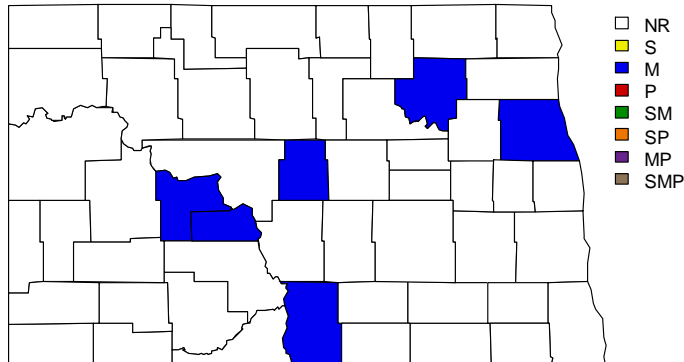
Harmonia axyridis
(Multicolored Asian Lady Beetle)



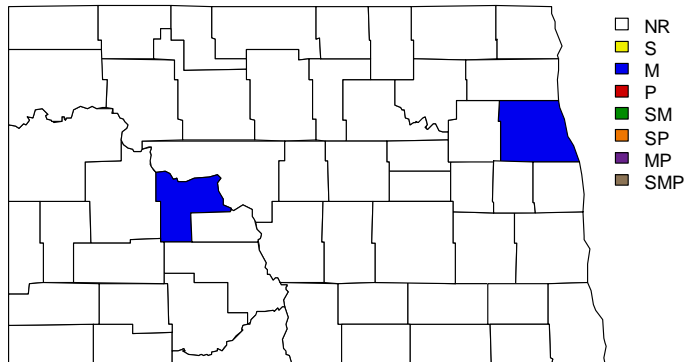
Hippodamia convergens
(Convergent Lady Beetle)



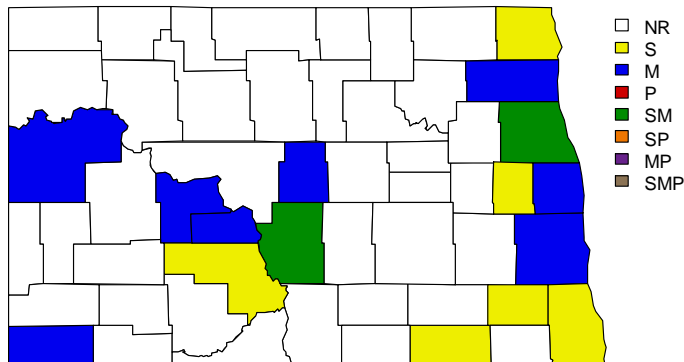
Hippodamia parenthesis
(Parenthesis Ladybird Beetle)



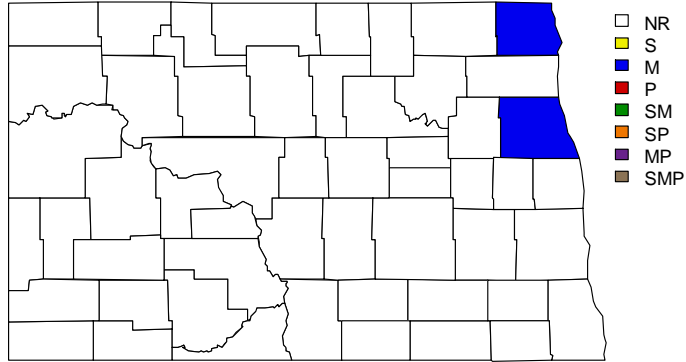
Hippodamia quinquesignata
(Five-spotted Lady Beetle)



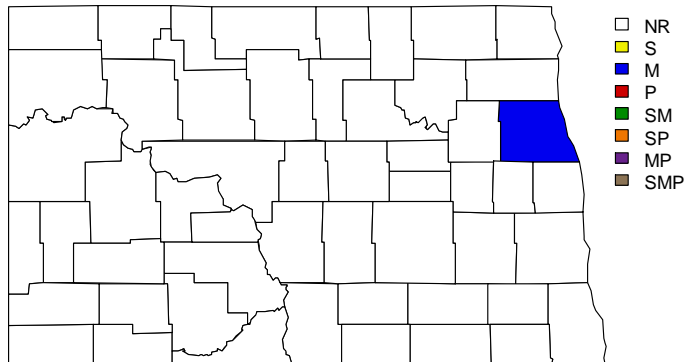
Hippodamia tredecimpunctata
(Thirteen-spotted Lady Beetle)



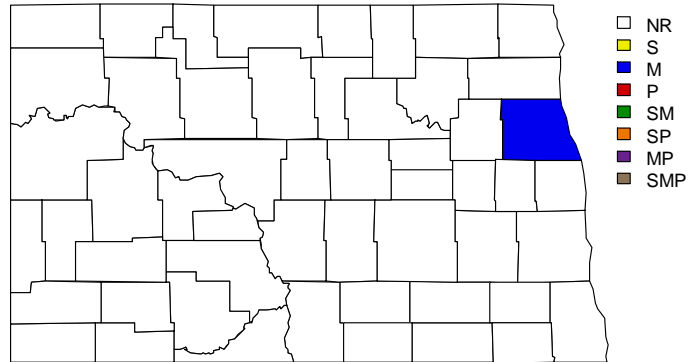
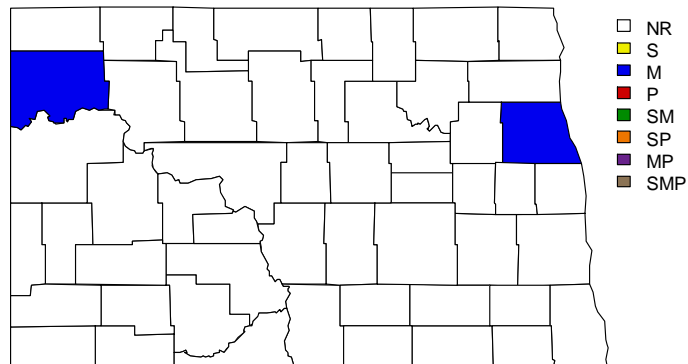
Family: Cucujidae (Flat Bark Beetles)

Cucujus clavipes
(Red Flat Bark Beetle)

Family: Endomychidae (Handsome Fungus Beetles)

Lycoperdina ferruginea

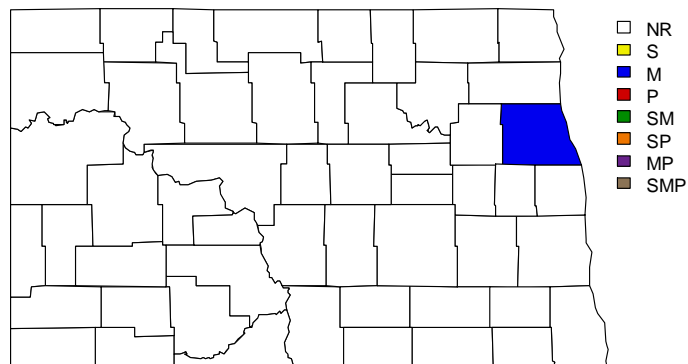
Family: Erotylidae (Pleasing Fungus Beetles)

Triplax flavicollis*Triplax thoracica*

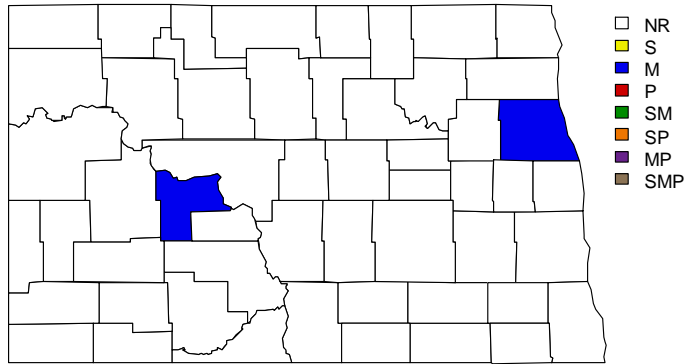
Family: Curculionidae (True Weevils, Snout Beetles)

Acanthoscelides obtectus

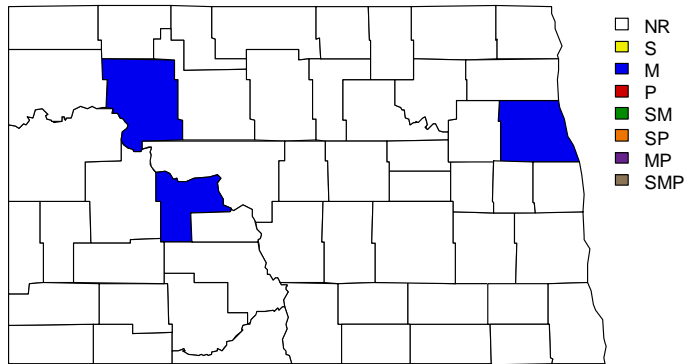
(Common Bean Weevil)



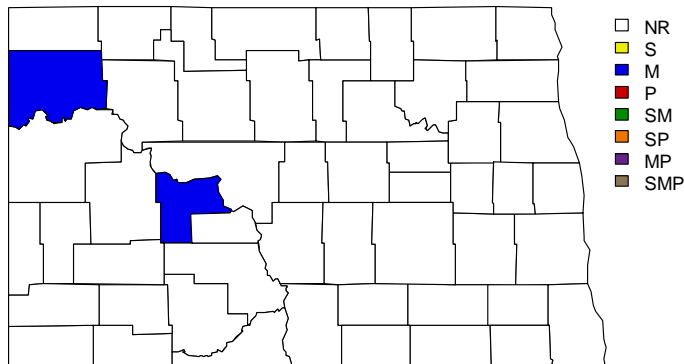
Anametis granulata



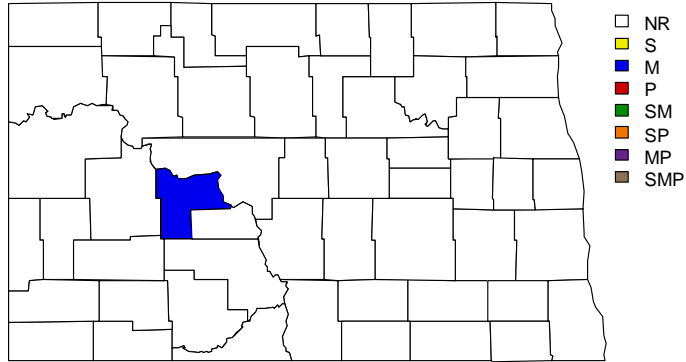
Haplorhynchites aeneus
(Sunflower Headclipping Weevil)



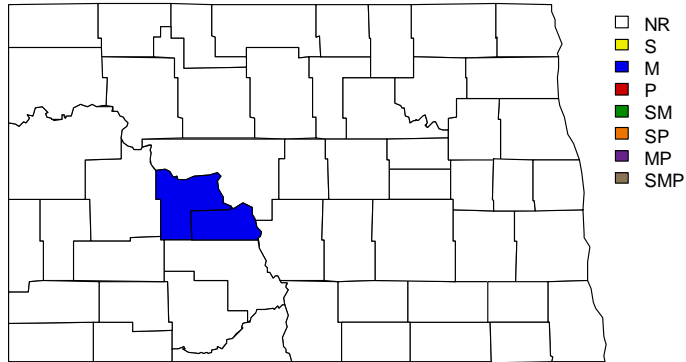
Hypera postica
(Alfalfa Weevil)



Lignyodes bischoffi

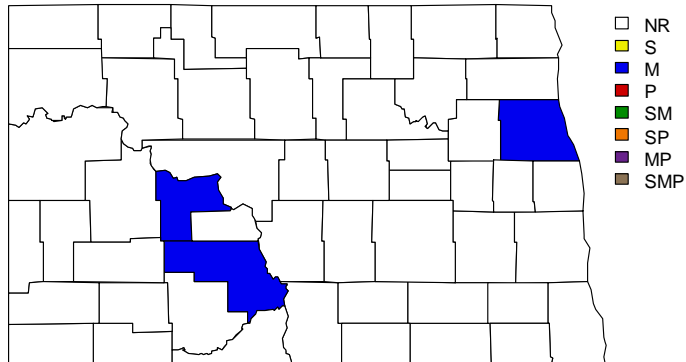


Lignyodes helvolus

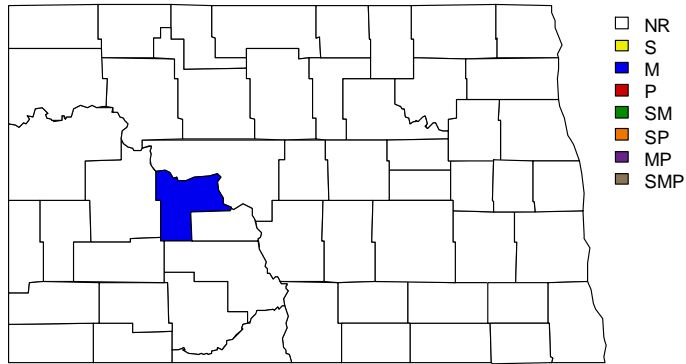


Magdalis armicollis

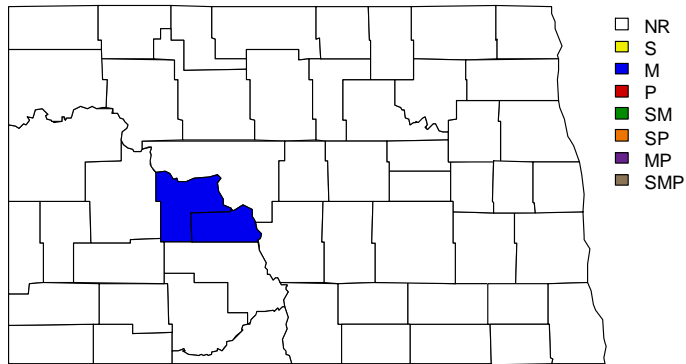
(Red Elm Weevil)



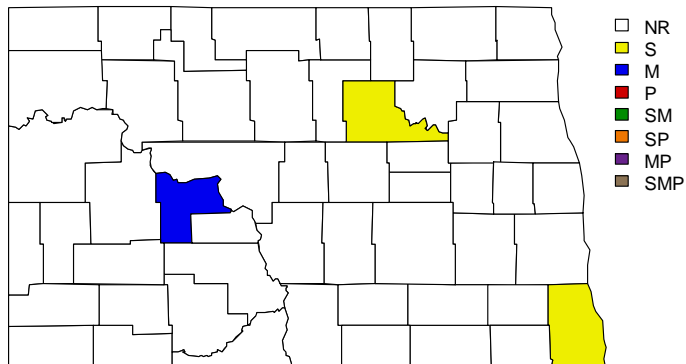
Pselaphorhynchites cyanellus



Sitona cylindricollis
(Sweetclover Weevil)

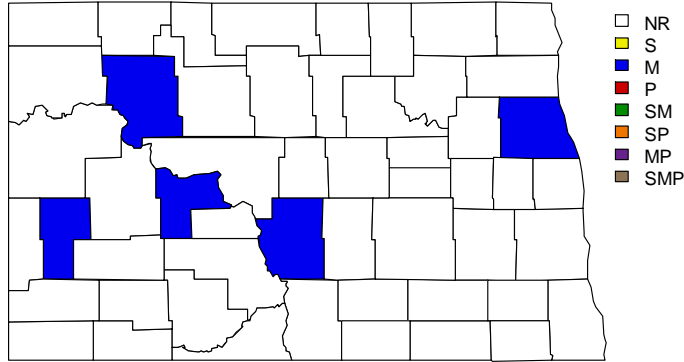


Sitona scissifrons

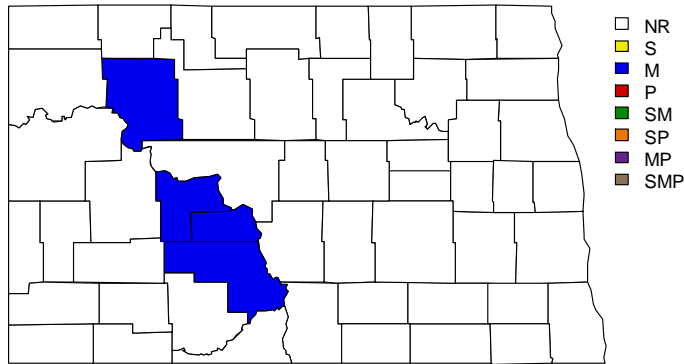


Family: Meloidae (Blister Beetles)

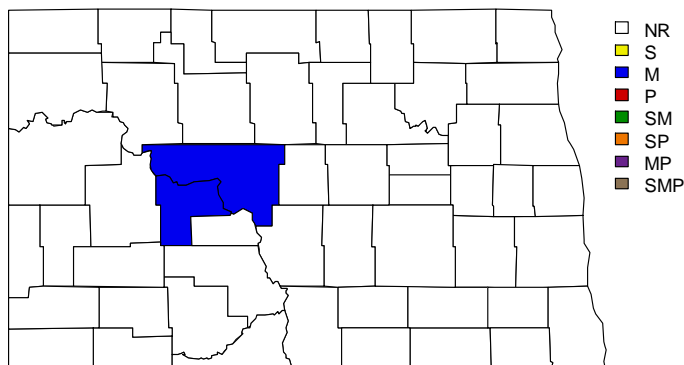
Epicauta fabricii
(Ashgray Blister Beetle)



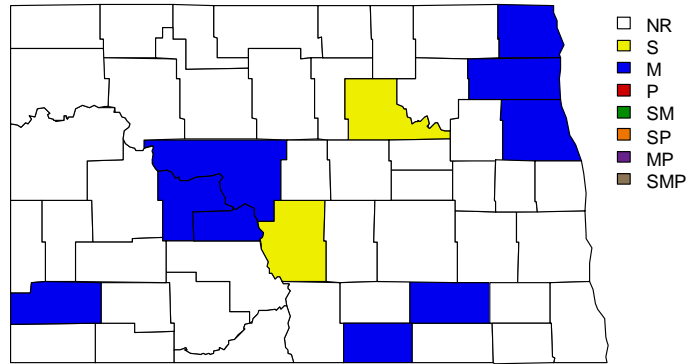
Epicauta ferruginea



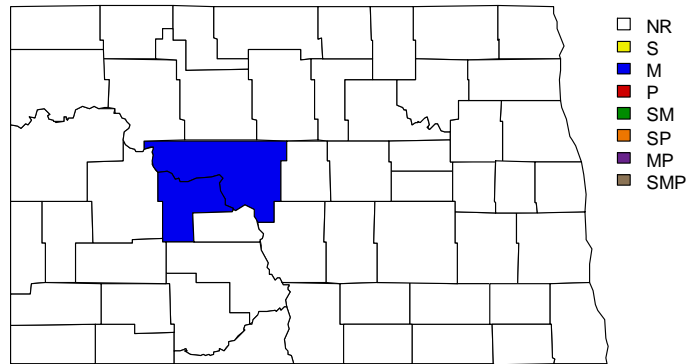
Epicauta normalis



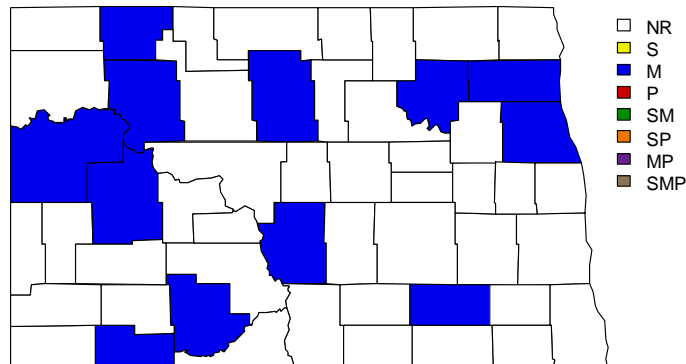
Epicauta pennsylvanica
(Black Blister Beetle)



Linsleya sphaericollis

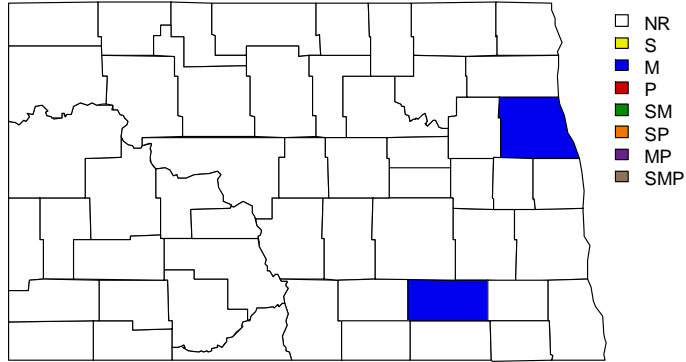


Lytta nuttalli
(Nuttall's Blister Beetle)

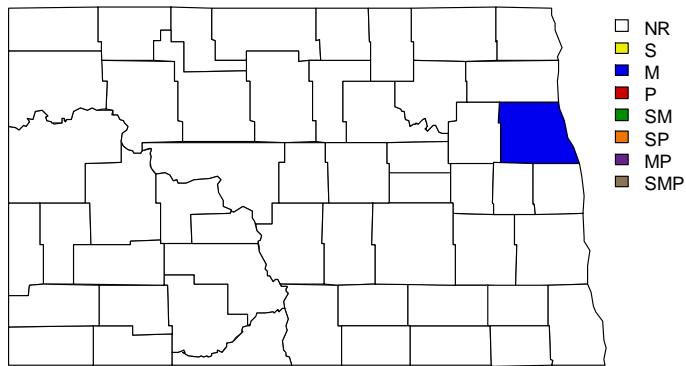


Family: Tenebrionidae (Darkling Beetles)

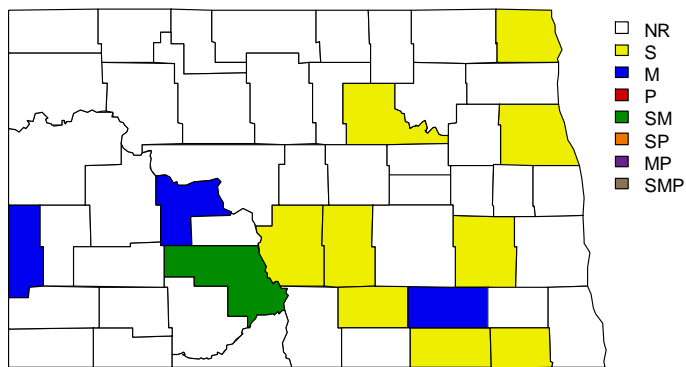
Alobates pensylvanica
(False Mealworm Beetle)



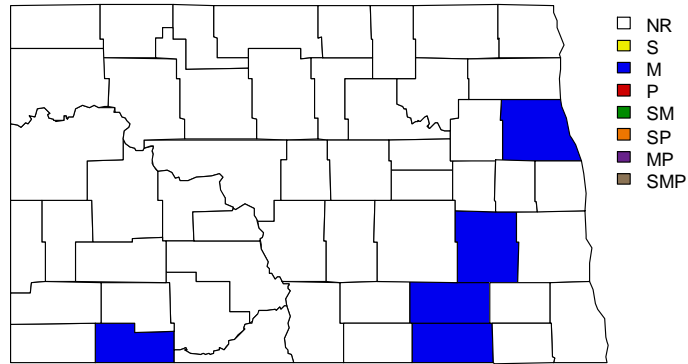
Bolitotherus cornutus



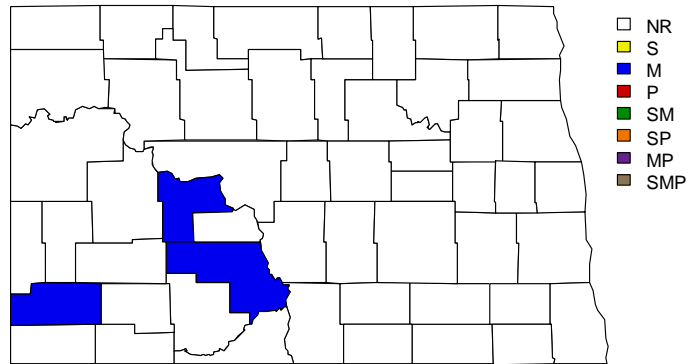
Eleodes extricatus



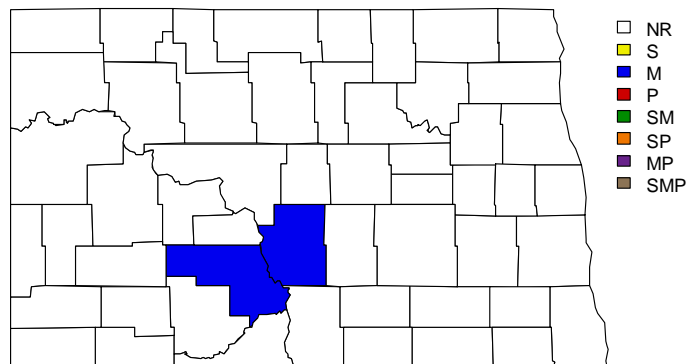
Eleodes hispilabris



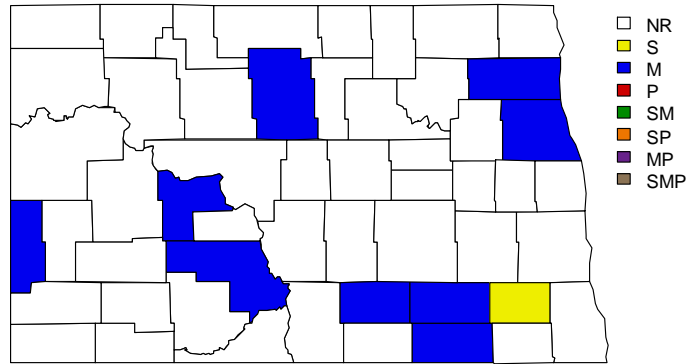
Eleodes obsoletus



Eleodes opacus

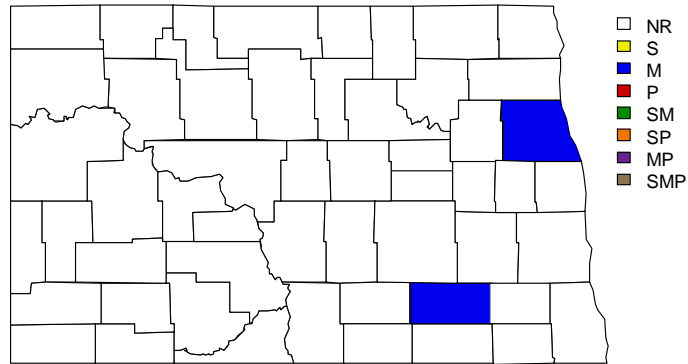


Eleodes tricostatus

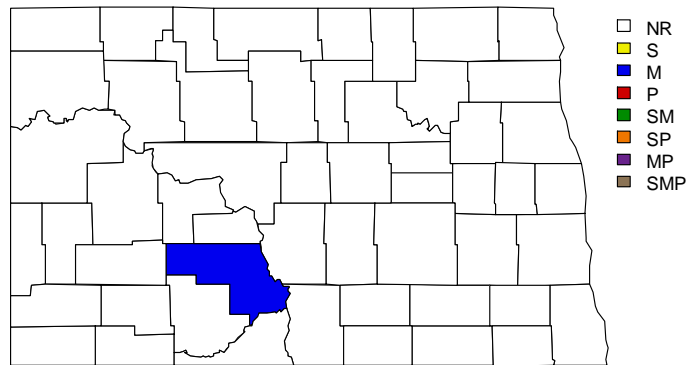


Family: Elateridae (Click Beetles)

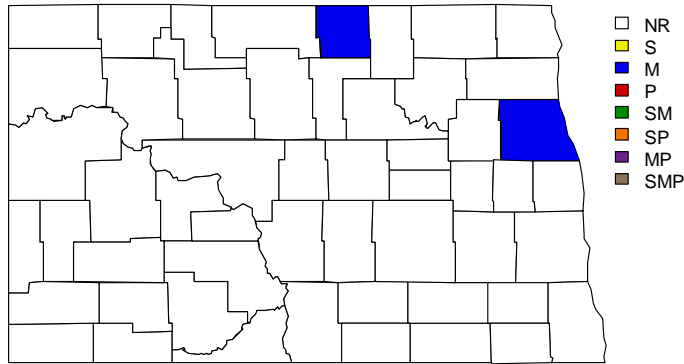
Aeolus dorsalis



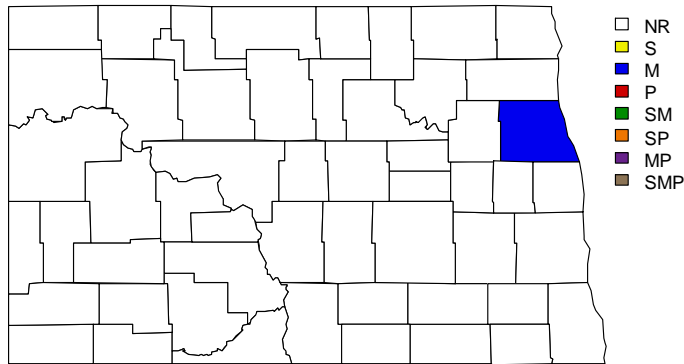
Alaus oculatus
(Eyed Click Beetle)



Ampedus linteus



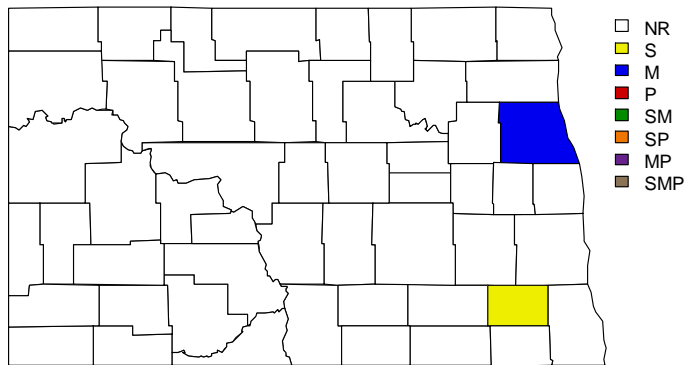
Ctenicera hieroglyphica



Family: Lycidae (Net-winged Beetles)

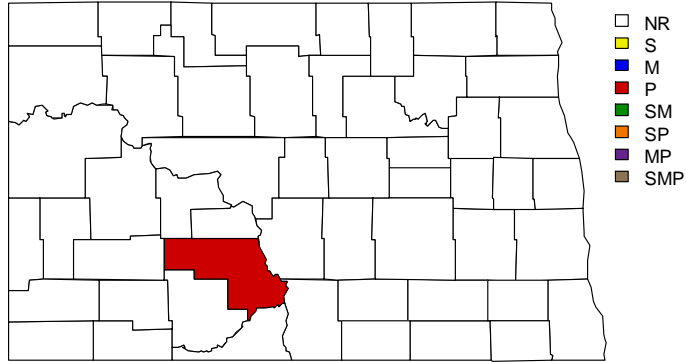
Calopteron discrepans

(Banded Net-winged Beetle)

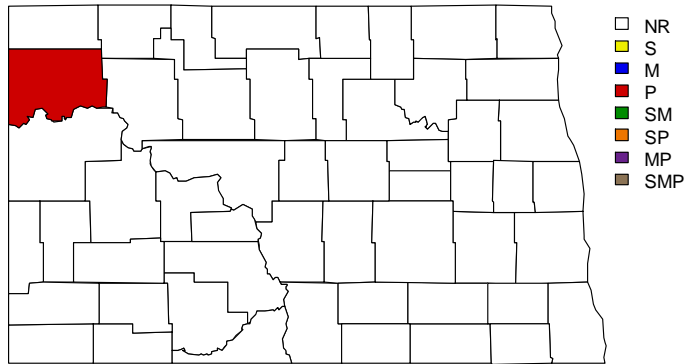


Family: Scarabaeidae (Scarab Beetles)

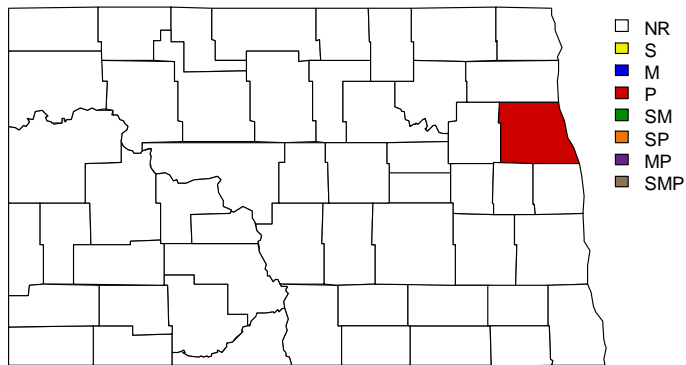
Aegialia conferta



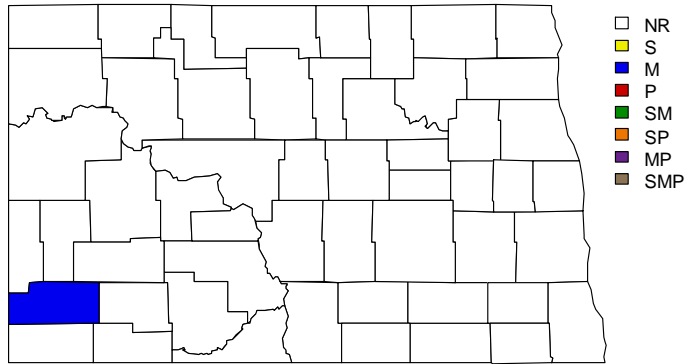
Aegialia lacustris



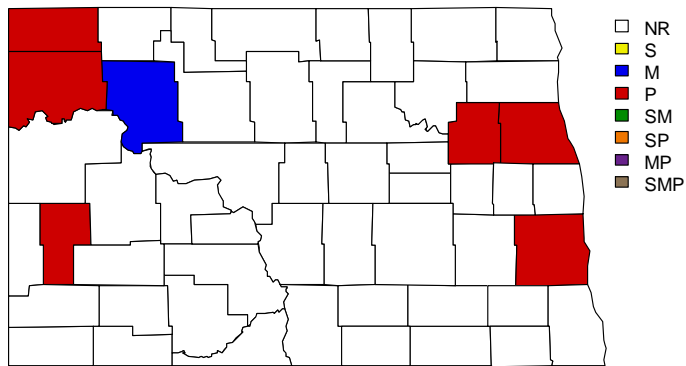
Aegialia rufescens



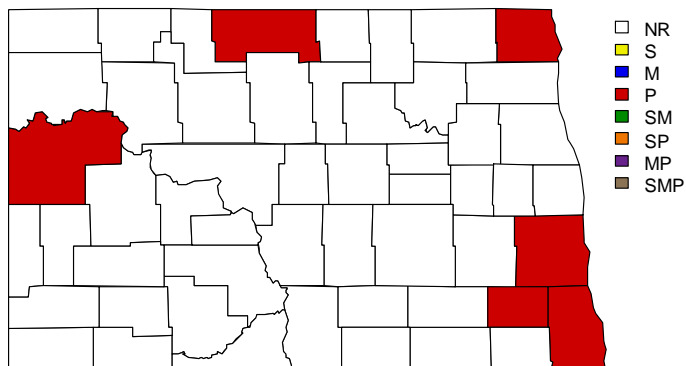
Anomala ludoviciana



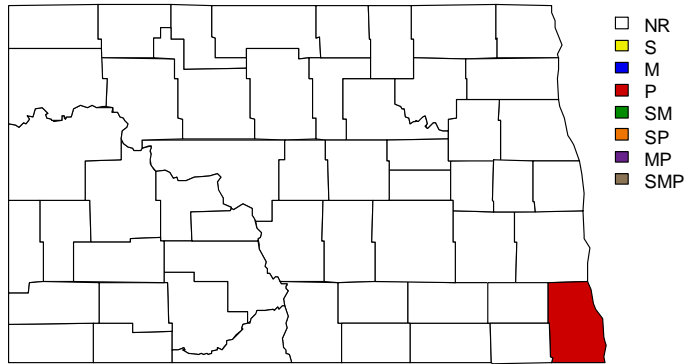
Aphodius alternatus



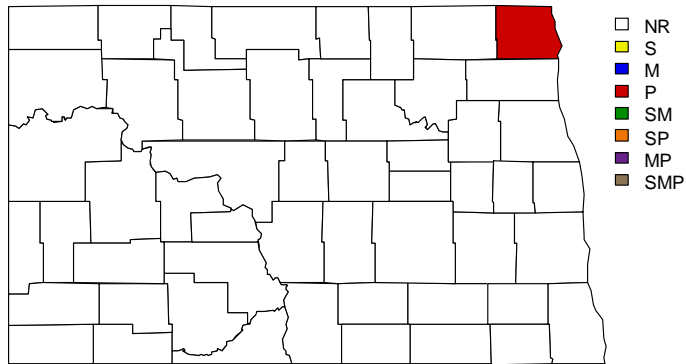
Aphodius coloradensis



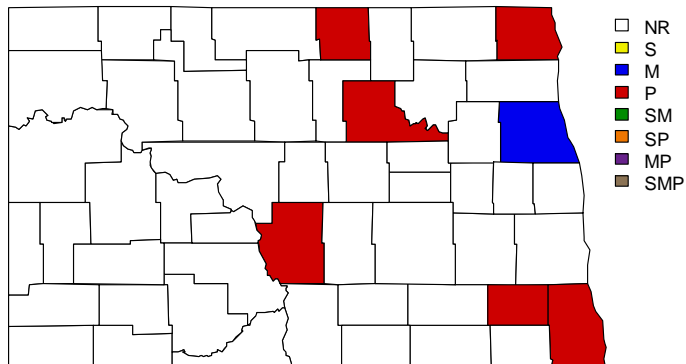
Aphodius concavus



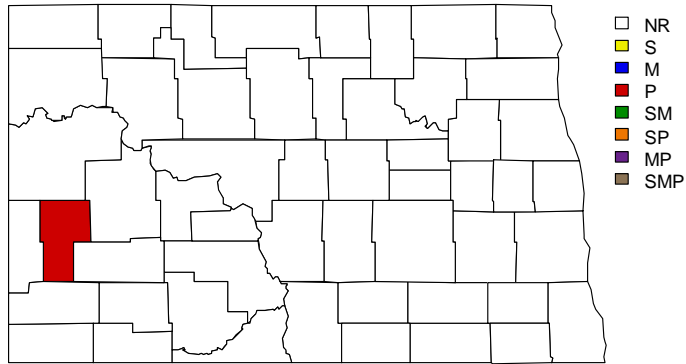
Aphodius consentaneus



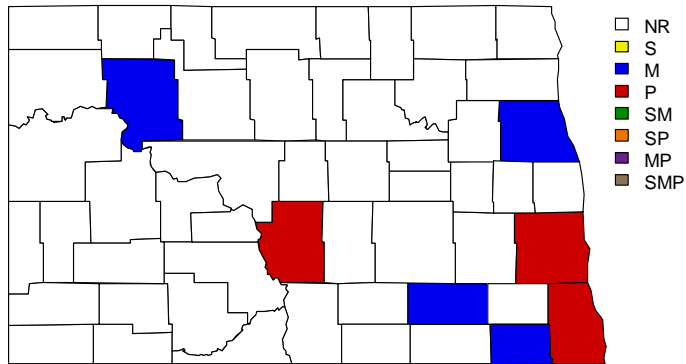
Aphodius criddlei



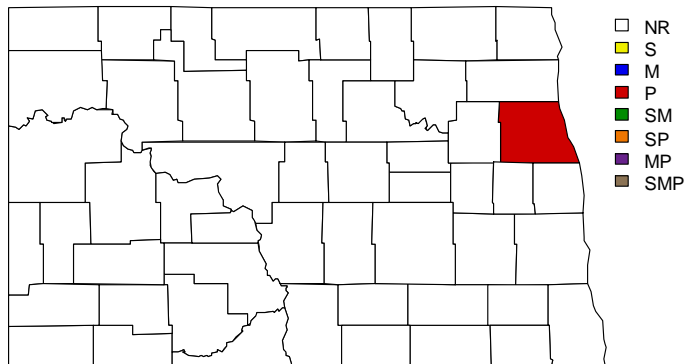
Aphodius dentigerulus



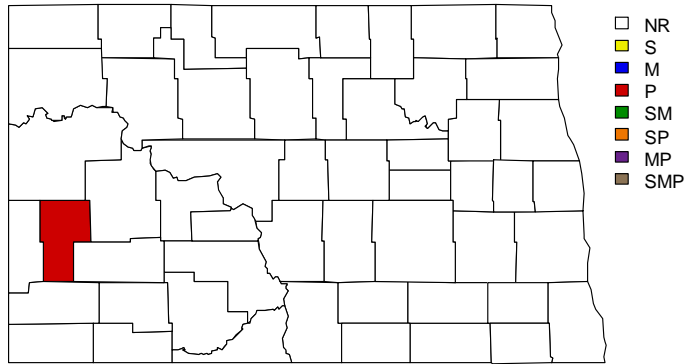
Aphodius distinctus



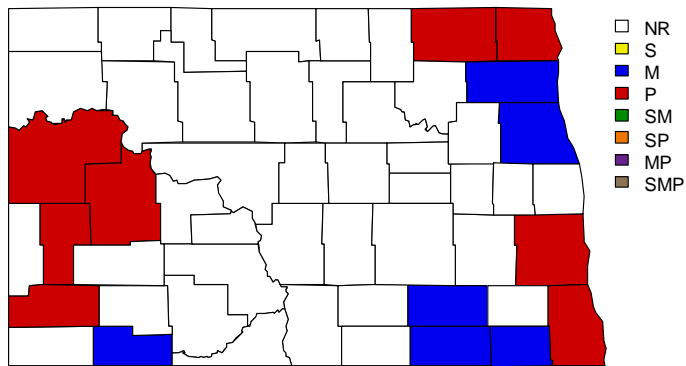
Aphodius erraticus



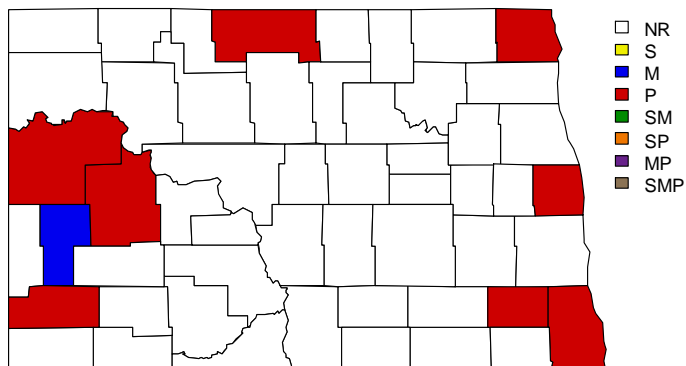
Aphodius explanatus



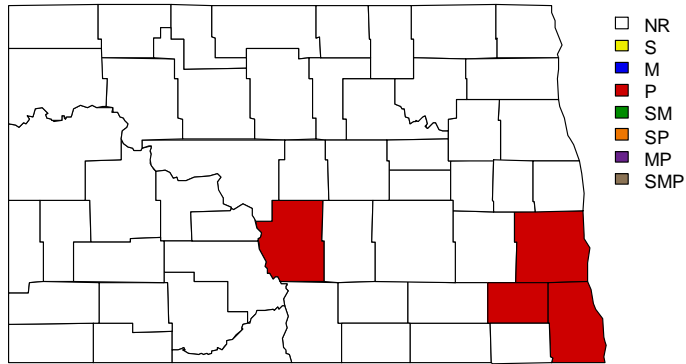
Aphodius fimetarius



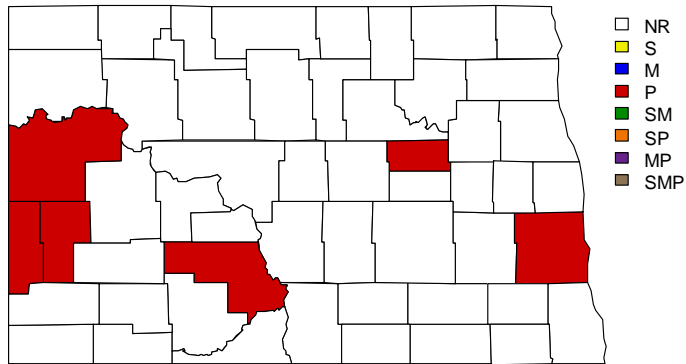
Aphodius fossor



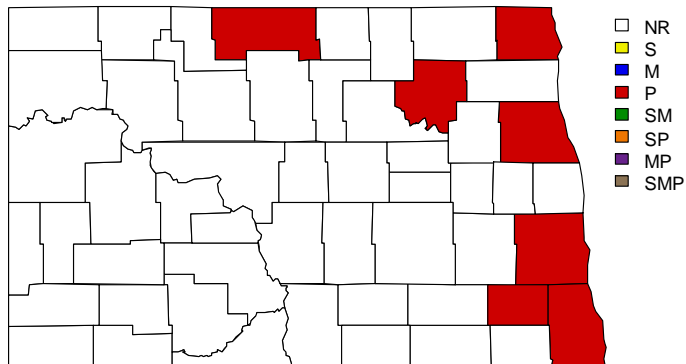
Aphodius fucosus



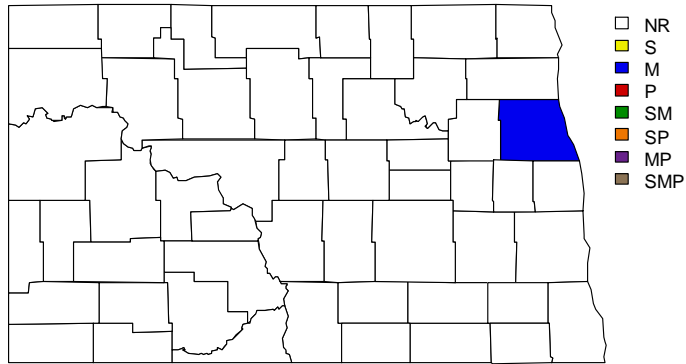
Aphodius granarius



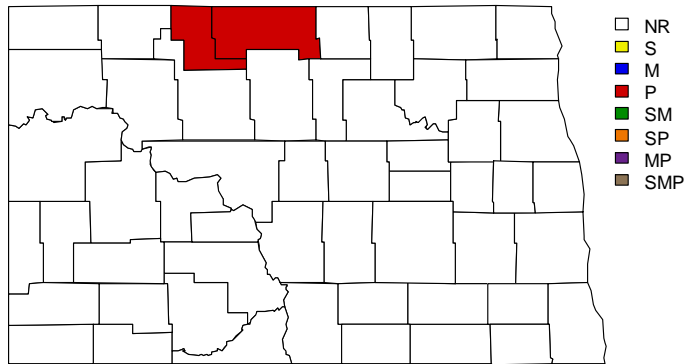
Aphodius haemorrhoidalis



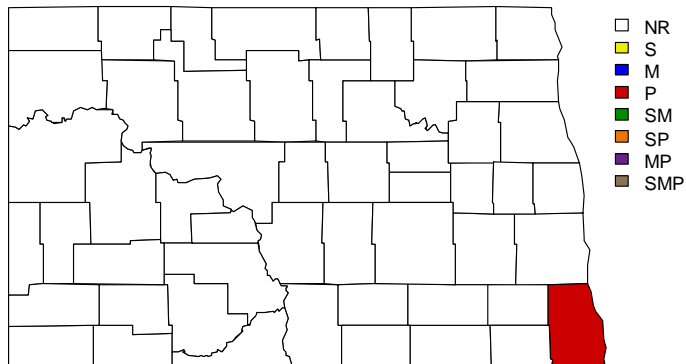
Aphodius haldemani



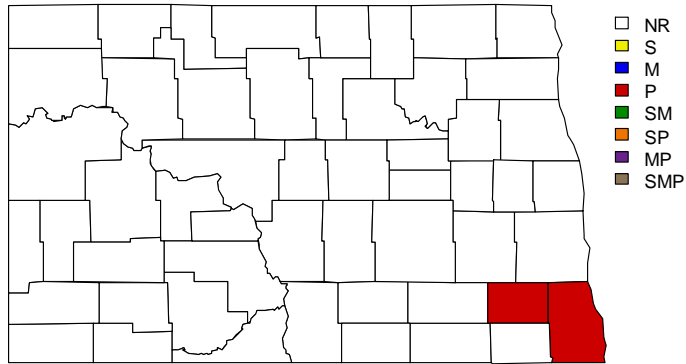
Aphodius hamatus



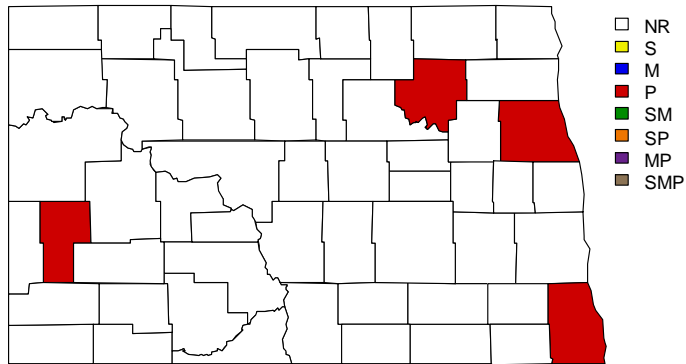
Aphodius iowensis



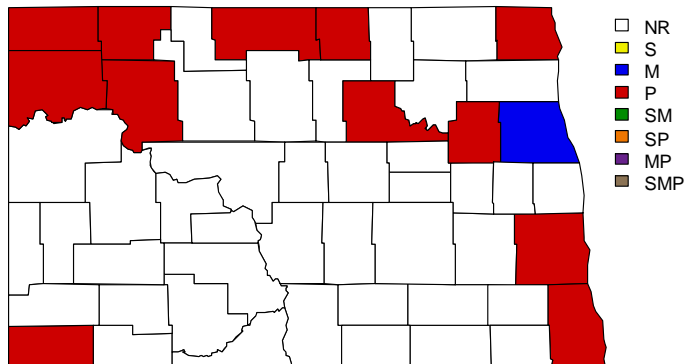
Aphodius lentus



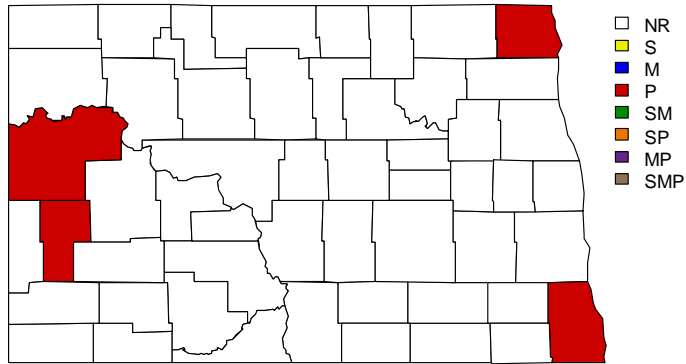
Aphodius leopardus



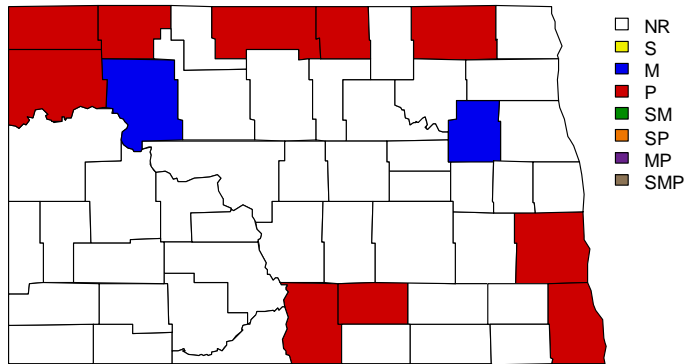
Aphodius omissus



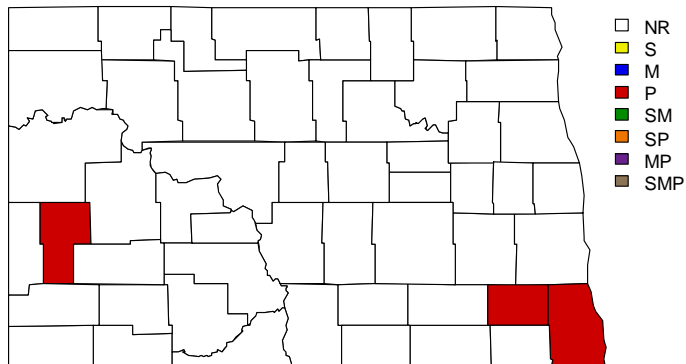
Aphodius pinguis



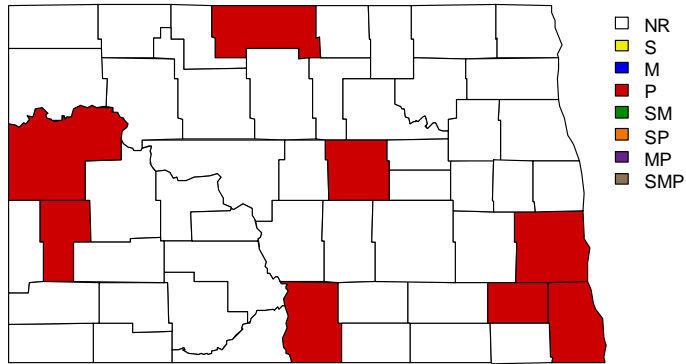
Aphodius pinguellis



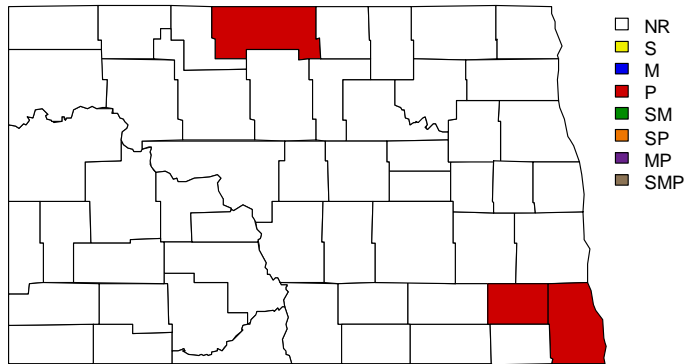
Aphodius pseudabusus



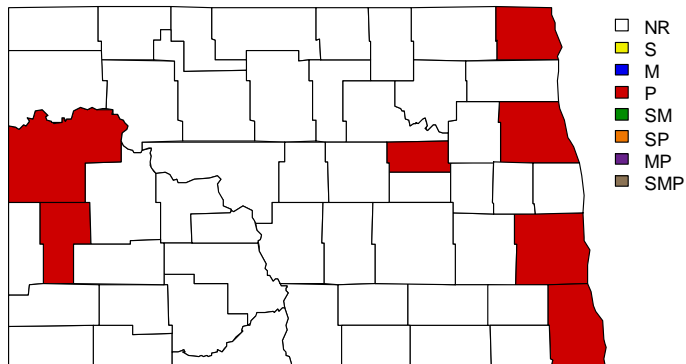
Aphodius ruricola



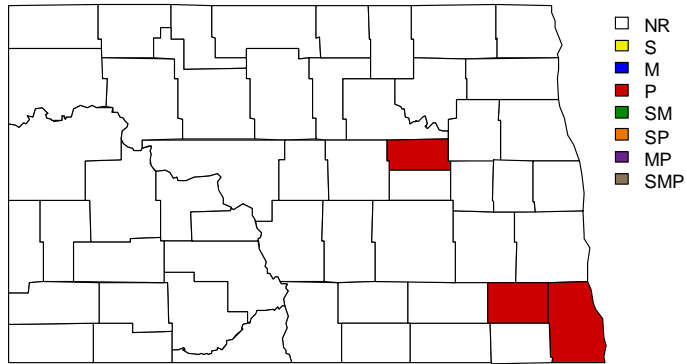
Aphodius tenellus



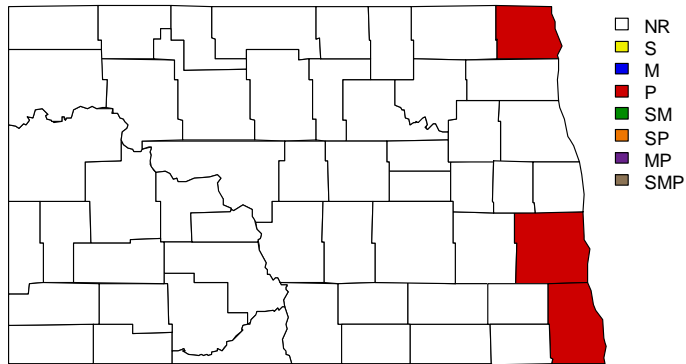
Aphodius vittatus



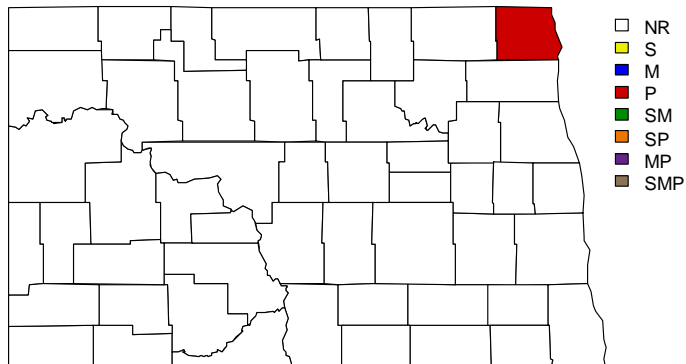
Aphodius walshi



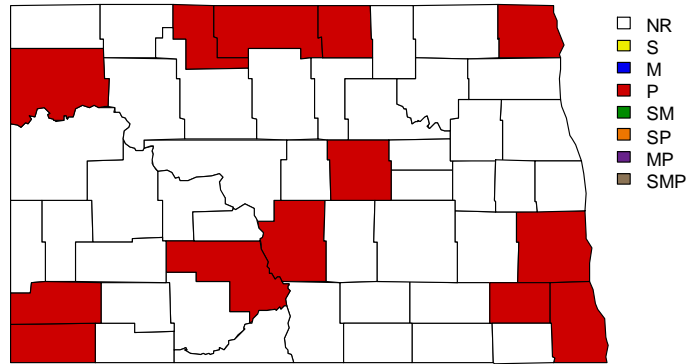
Ataenius spretulus



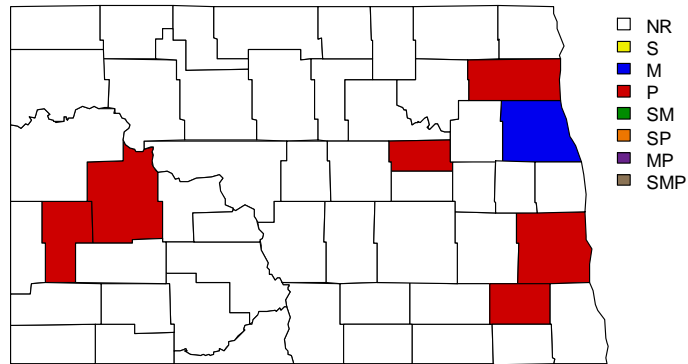
Ataenius texanus



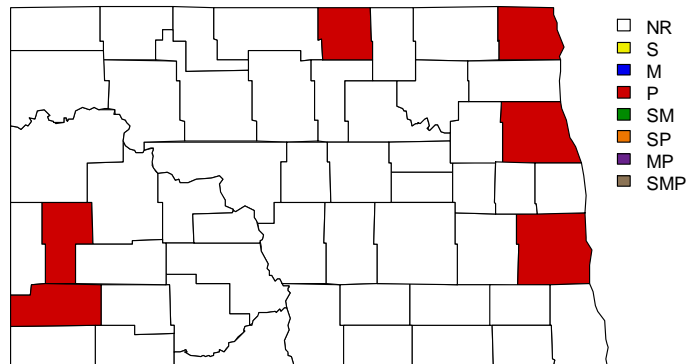
Bolboceras musculus



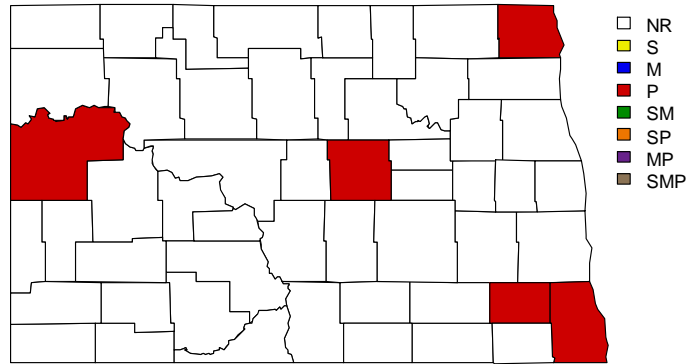
Bolbocerosoma bruneri



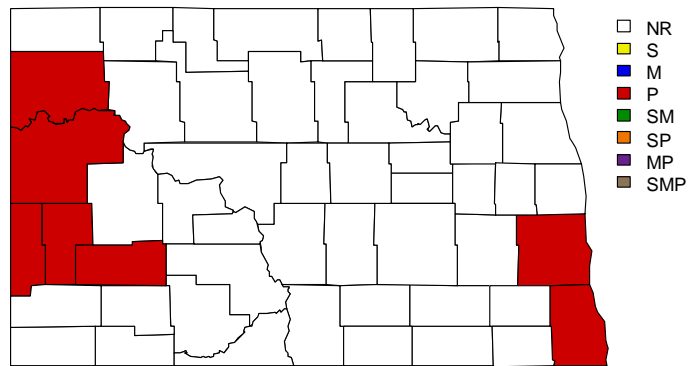
Bolbocerosoma falli



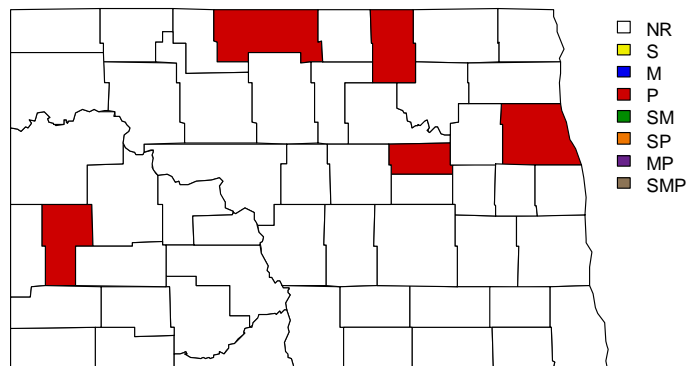
Bolbocerosoma filicornis



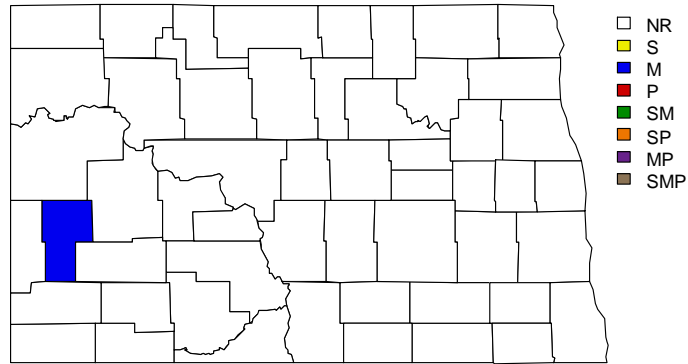
Canthon pilularius



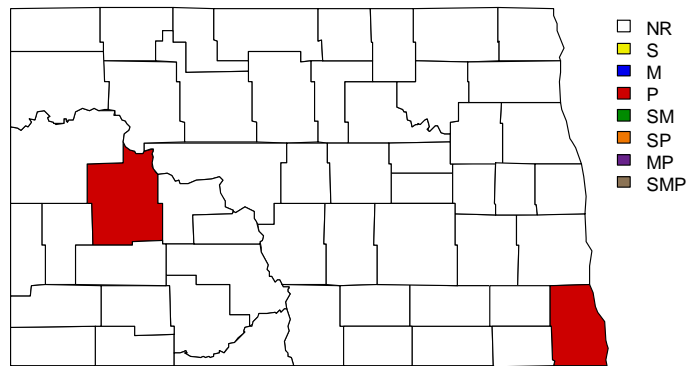
Canthon praticola



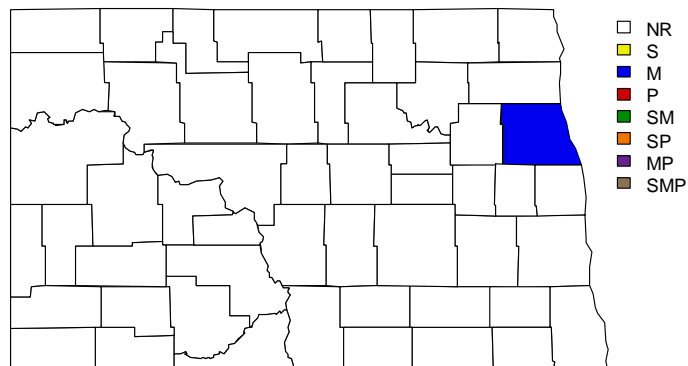
Cremastocheilus knochi



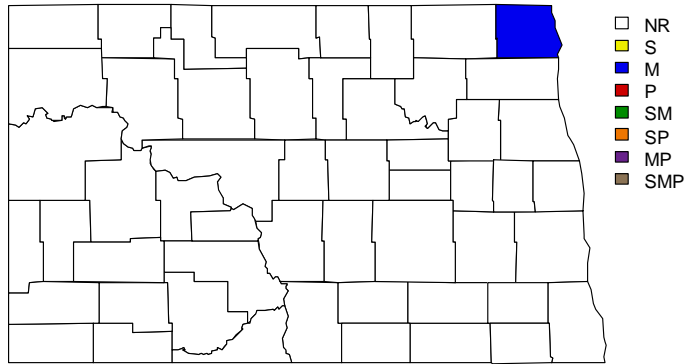
Dialytes criddlei



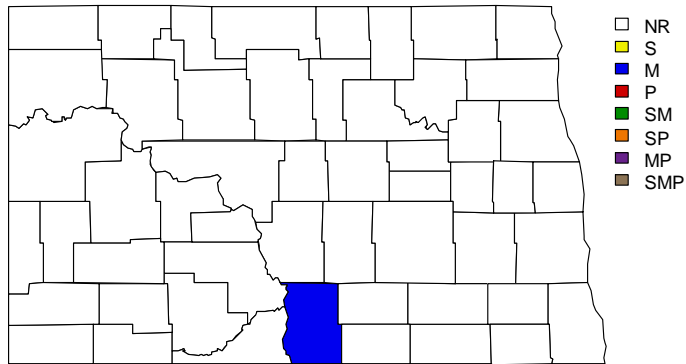
Dichelonyx kirbyi



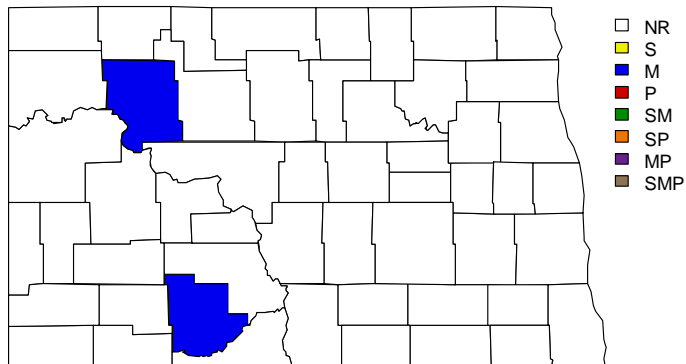
Dichelonyx subvittata



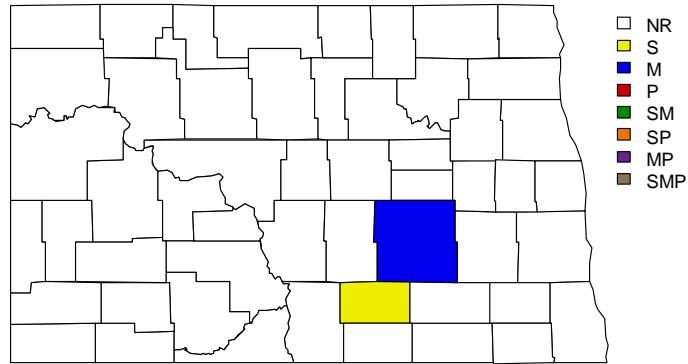
Dichelonyx truncata



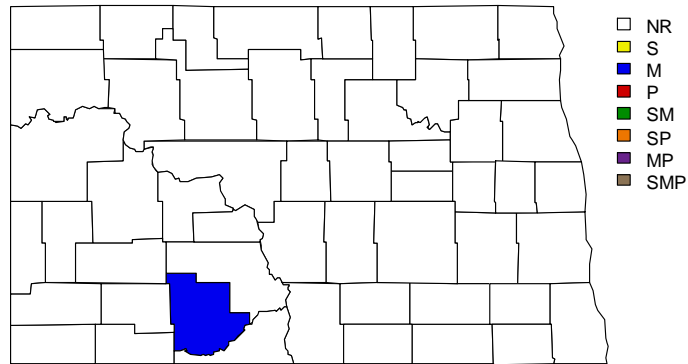
Diplotaxis haydeni



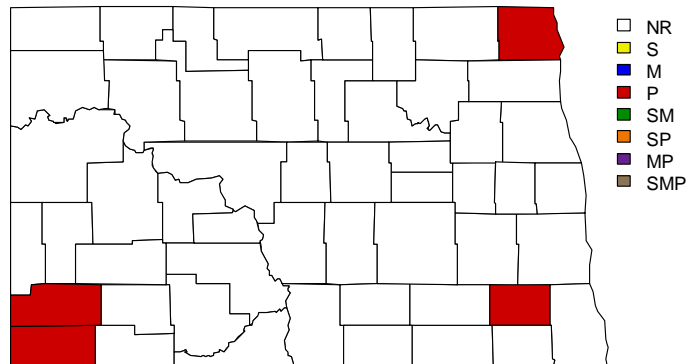
Diplotaxis obscura



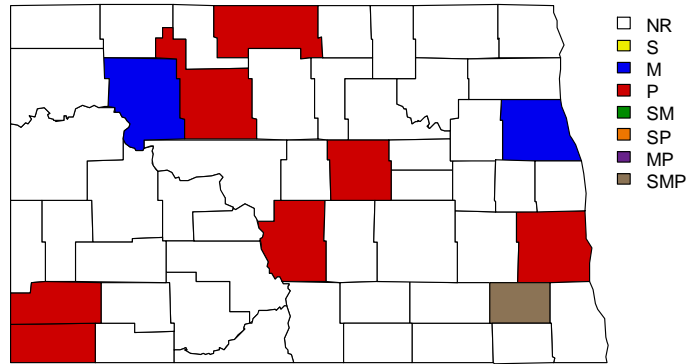
Diplotaxis subangulata



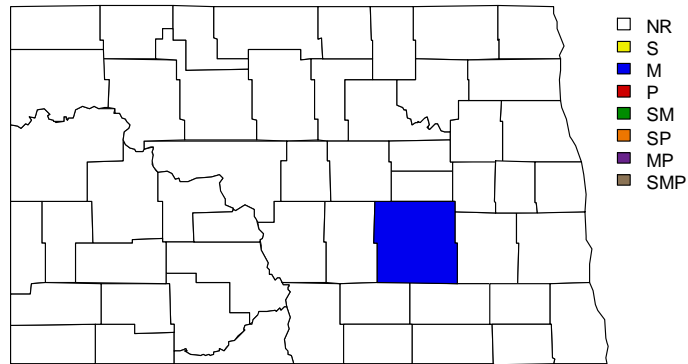
Eucanthus greeni



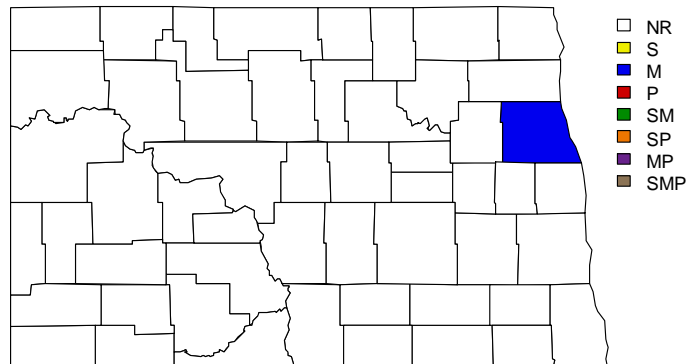
Eucanthus lazarus



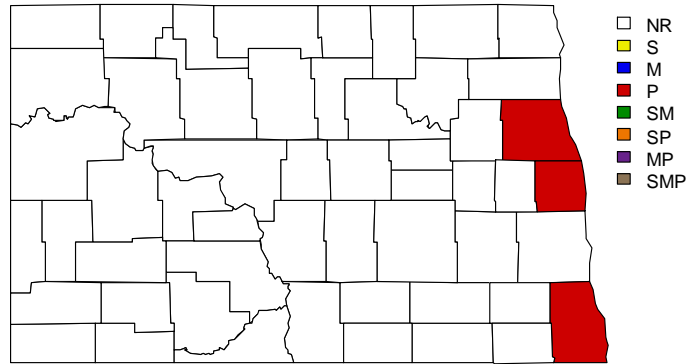
Euphoria hirtipes



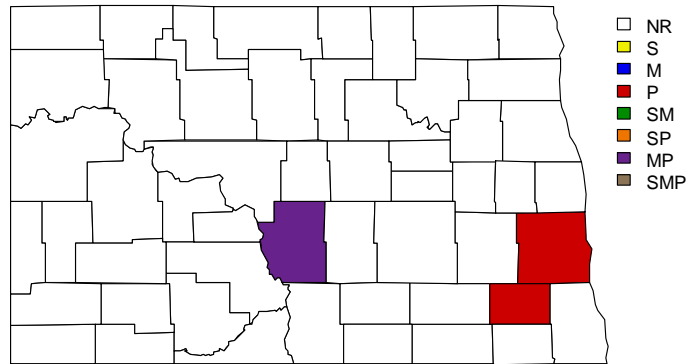
Euphoria inda



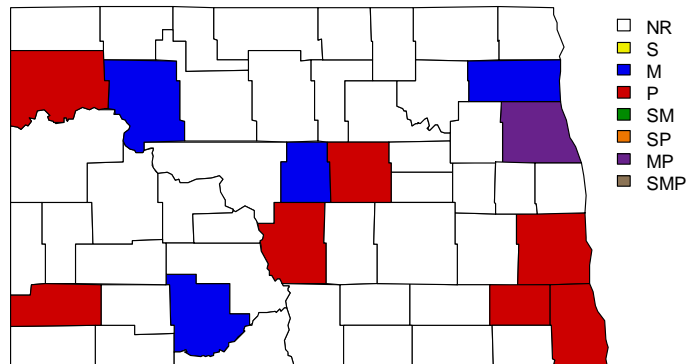
Geotrupes semiopacus



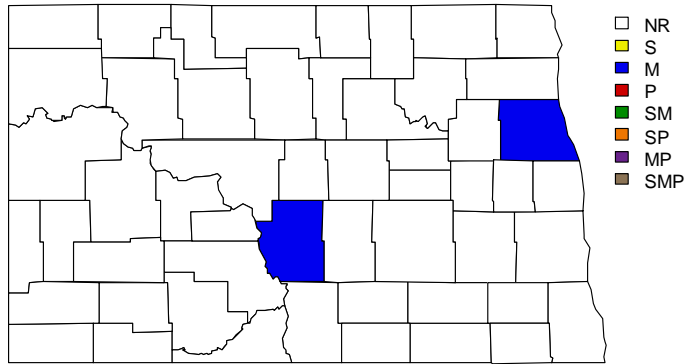
Ligyris (=Bothynus) gibbosus



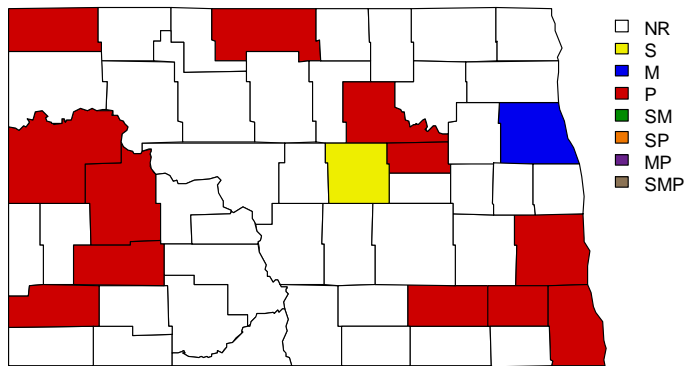
Ligyris (=Bothynus) relictus



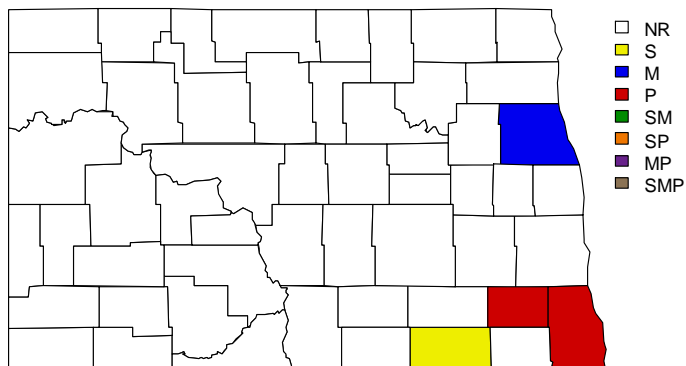
Ochodaeus musculus



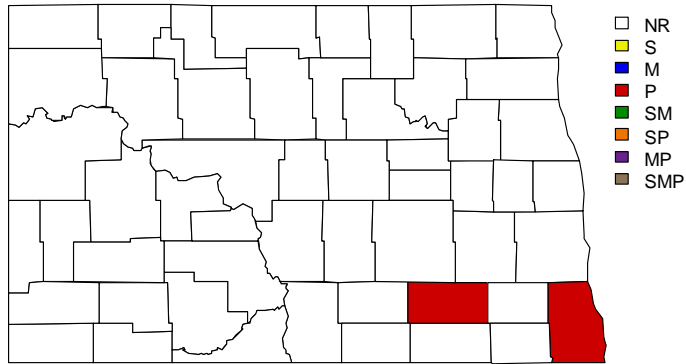
Onthophagus hecate



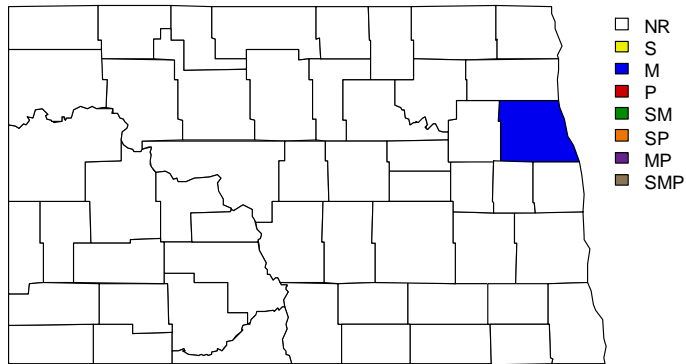
Onthophagus pennsylvanicus



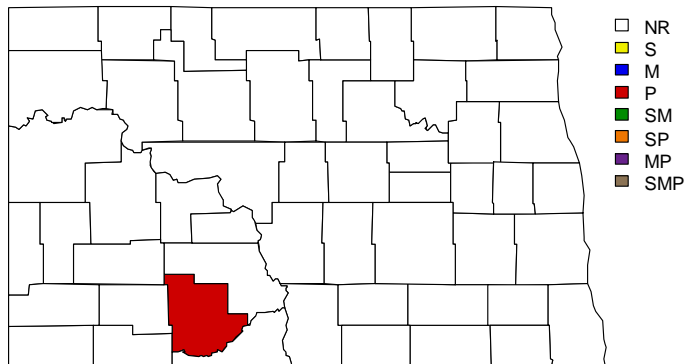
Onthophagus orpheus



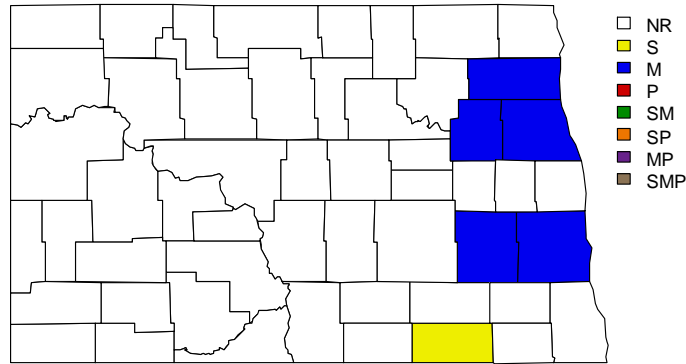
Osmoderma scabrum



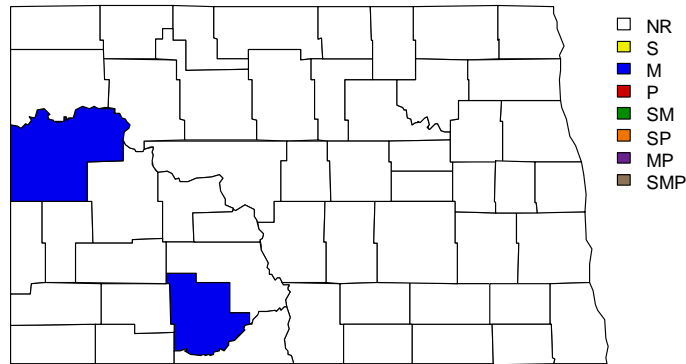
Psammodius mimeticus



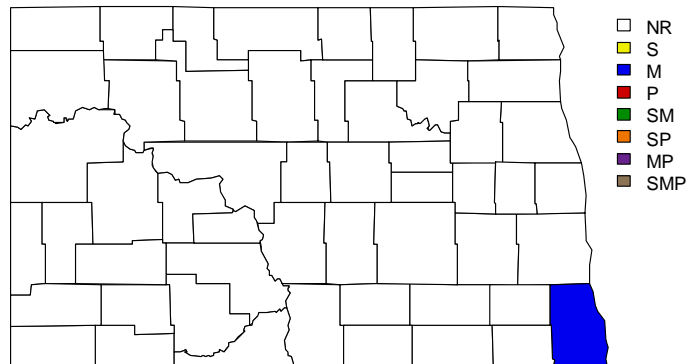
Phyllophaga anxia



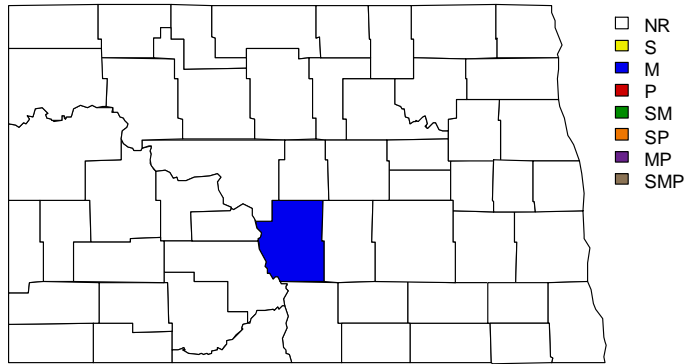
Phyllophaga drakei



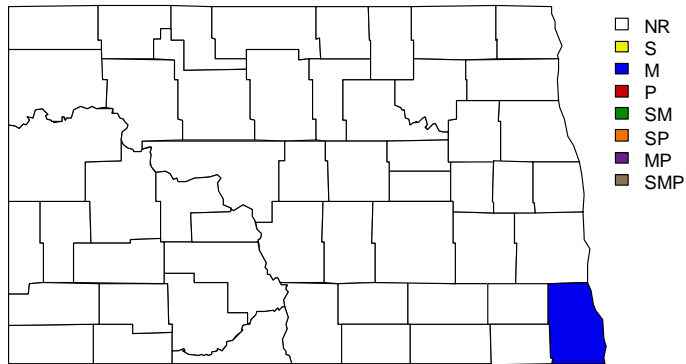
Phyllophaga fusca



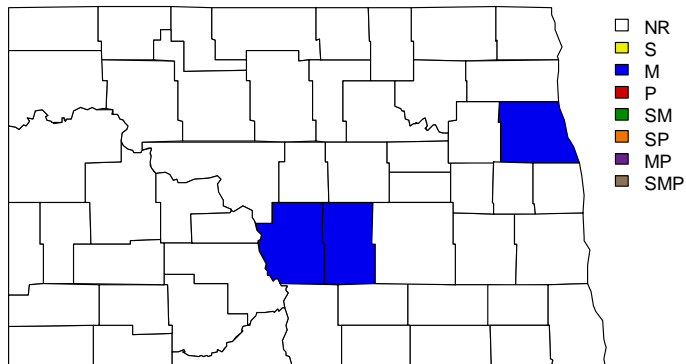
Phyllophaga implicata



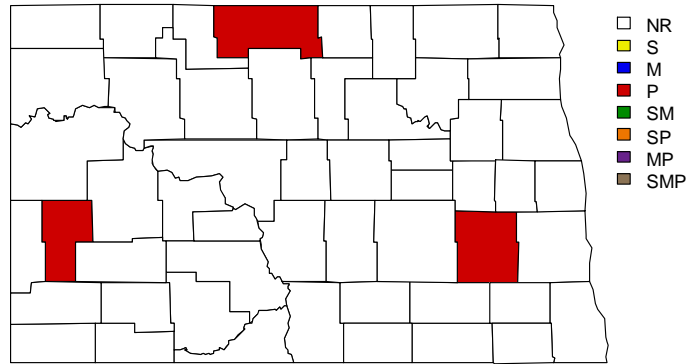
Phyllophaga nitida



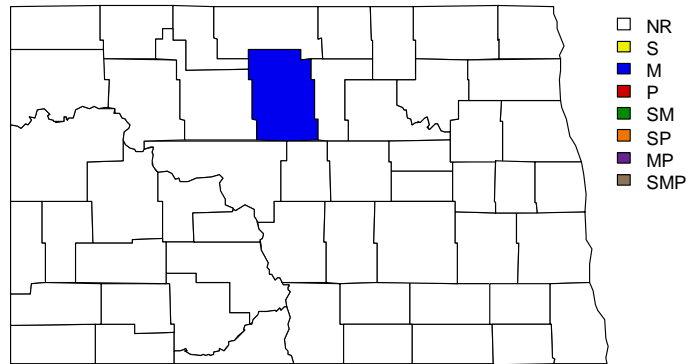
Phyllophaga rugosa



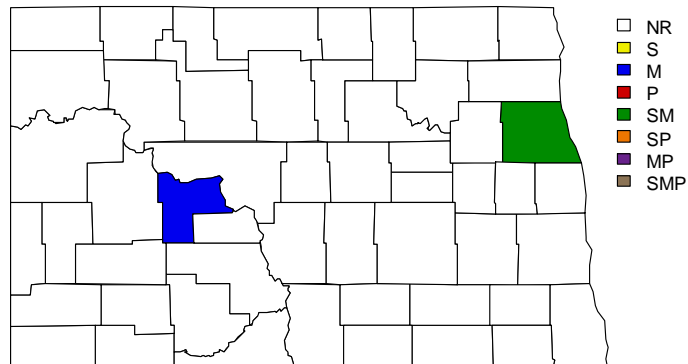
Rhyssalus sonatus



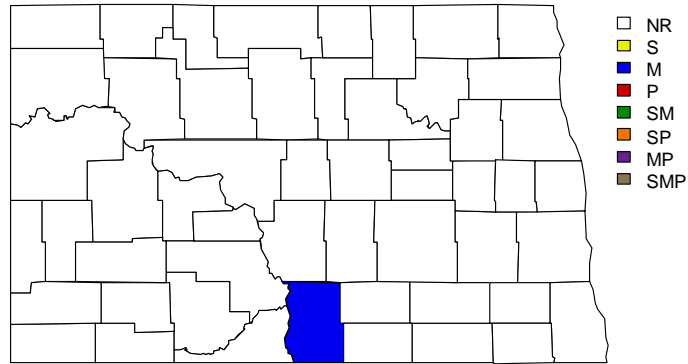
Serica curvata



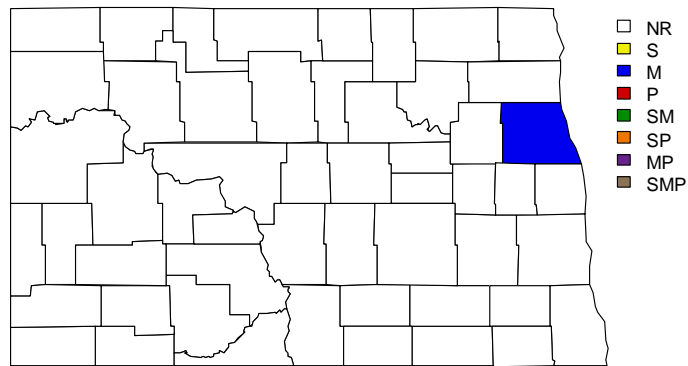
Serica intermixta



Serica sericea

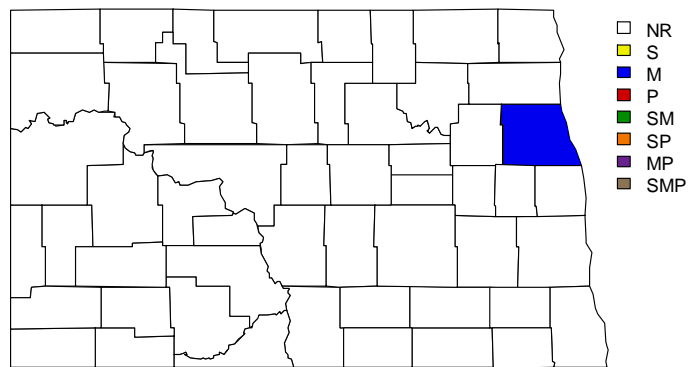


Trichiotinus assimilis



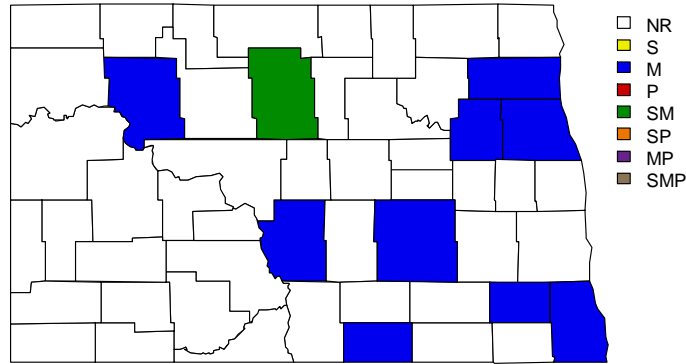
Family: Trogidae (Hide Beetles)

Trox robinsoni



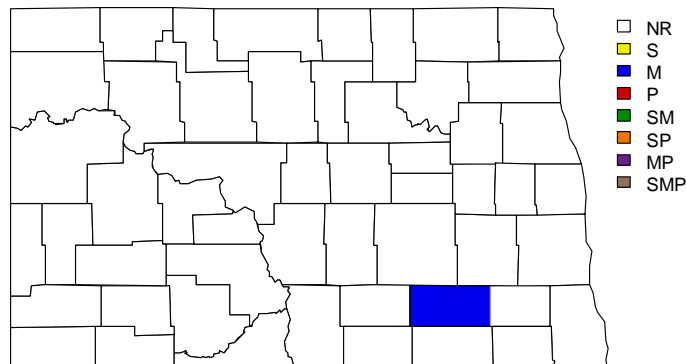
Family: Silphidae (Carrion Beetles, Burying Beetles)

Nicrophorus tomentosus
(Tomentose Burying Beetle)

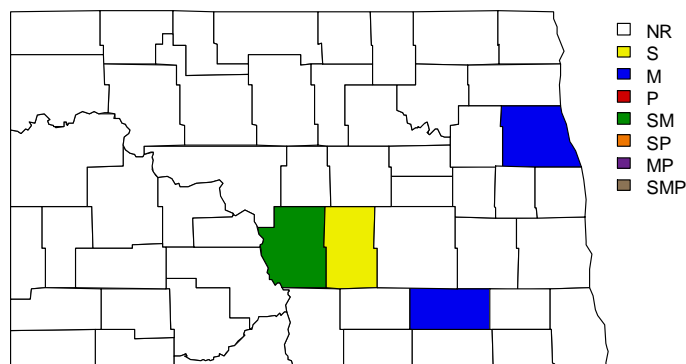


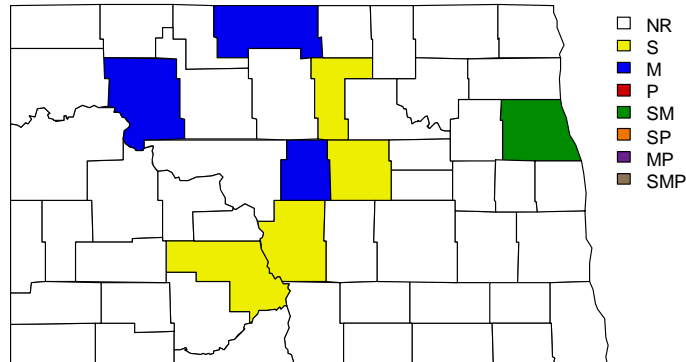
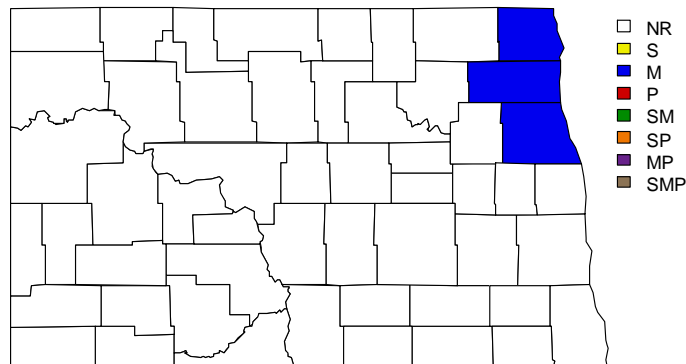
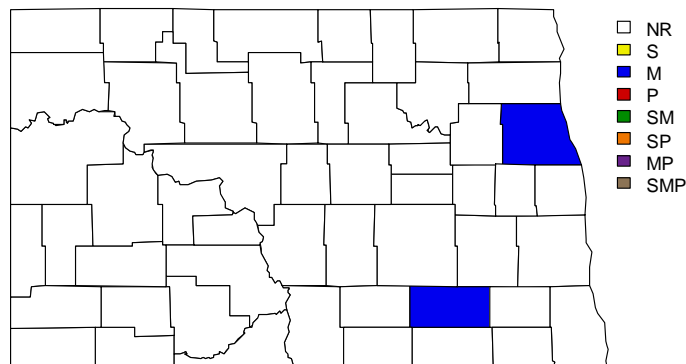
Family: Staphylinidae (Rove Beetles)

Paederus littoralis



Philonthus politus



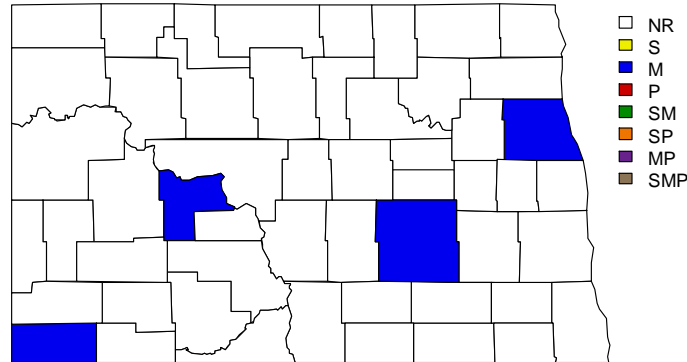
Staphylinus vulpinus*Stenus flavicornis**Tachyporus jocosus*

Order: Mecoptera (Scorpionflies)

The Mecoptera include the scorpionflies and the hangingflies, both groups that are relatively rare. There is no published record of species distributions for North Dakota for this order.

Family: Bittacidae (Hanging Scorpionflies, Hangingflies)

Bittacus strigosus

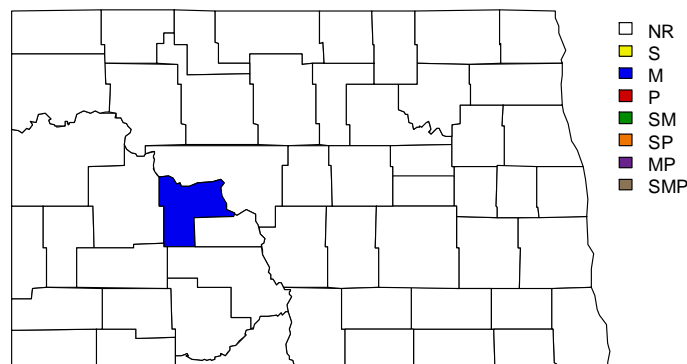


Order: Diptera (True Flies, Mosquitoes, and Gnats)

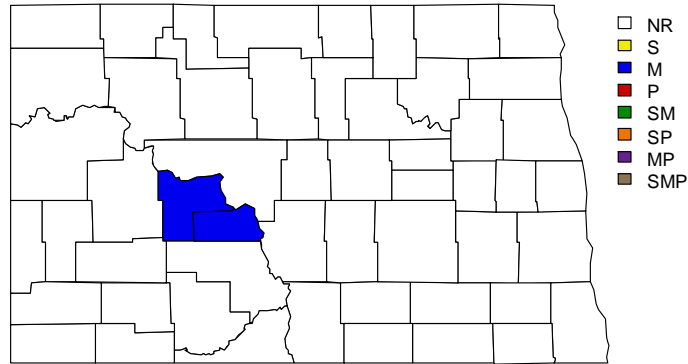
The Diptera consist of all the flies – flies, crane flies, mosquitoes, gnats – and is a very diverse and abundant insect order. Diptera are very difficult to identify to species as species identity is usually determined by small morphological details (such as number and placement of hairs) that are often damaged on specimens. While a large portion of the insects sampled for this project were Diptera most of the samples could not be identified to species. Similarly, most of the specimens in the UND museum were not identified to species. There is no published record of county distributions in North Dakota for any of the Diptera.

Family: Limoniidae

Gnophomyia tristissima

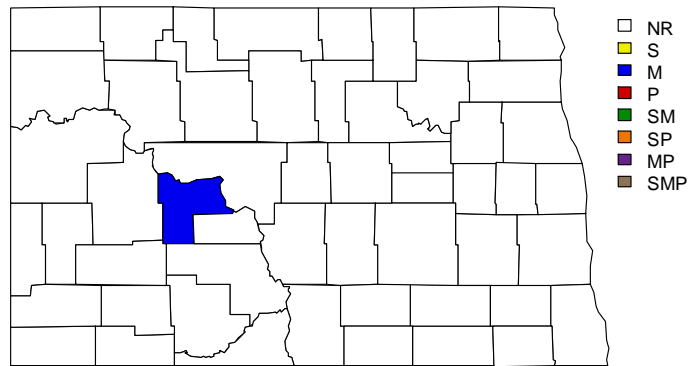


Limonia (=Dicranom) haeretica

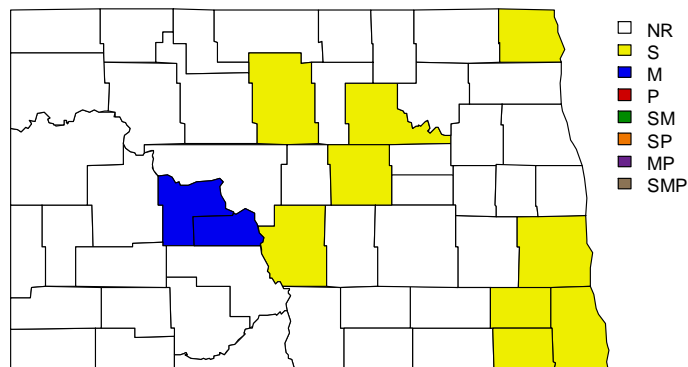


Family: Tipulidae (Crane Flies)

Erioptera cana



Tipula cunctans



Order: Trichoptera (Caddisflies)

The Trichoptera, commonly known as the caddisflies, have an aquatic larval form and a free-living adult form, which tends to be short-lived. Trichopterans are usually encountered in their larval form, due to the short adult life-span, and are much more easily identified at that stage. The few adult specimens that we collected could not be identified to species. Also, the specimens we found in the UND museum were not identified to species. There is no published record of species distributions for North Dakota for this order.

Order: Lepidoptera (Butterflies and Moths)

The Lepidoptera, the butterflies and moths, are likely the most carefully studied group in North Dakota. The order is divided informally into moths and butterflies. All Lepidoptera have two distinct life stages – a caterpillar like larval stage and a winged adult stage. All of the information presented here is based on adult specimens.

The butterflies are probably the most well studied insect group in North Dakota. Royer of Minot State University had published 2 editions of a North Dakota butterflies guide and atlas (1988, 2003). This resource has transitioned to an on-line atlas which is updated annually (Royer 2004). All the published county occurrence data were taken from this resource.

The moths are less well studied and can be quite difficult for a non-specialist to identify to species, due to high degrees of similarity between species and the small size of many species. In the field samples, only specimens that could be easily identified (usually due to having a very distinct appearance) to species were identified. Published records for North Dakota moths were based on Fauske's (2009) online moth guide.

Maps are presented in the taxonomic order of the primary reference – Royer (2004) for butterflies and Fauske (2009) for moths.

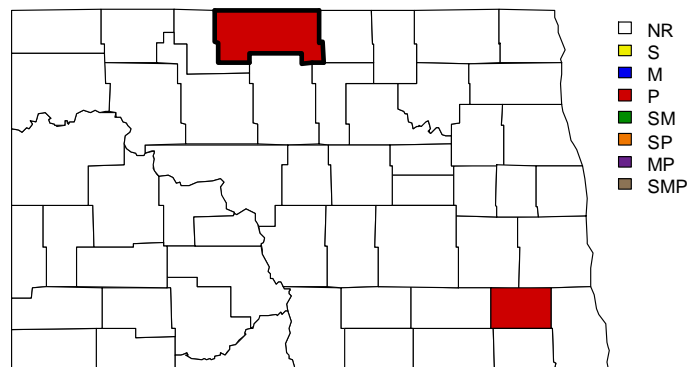
There are four species of potential management concern in the Lepidoptera. The Regal Fritillary (*Speyeria idalia*) and Tawny Crescent (*Phyciodes batesii*) were once candidates for federal listing but are no longer under consideration though both are still thought to be species of management concern due to habitat loss and rangewide local extinctions (U.S. Fish and Wildlife Service 1995). Field sampling produced two possible sightings of the Regal Fritillary (Morton and Pembina Counties) though both were spotted on the wing and not confirmed. There were no sightings of the Tawny Crescent. Neither species were found in the UND Museum. The Dakota Skipper (*Hesperia dacotae*) and the Poweshiek Skipperling (*Oarisma poweshiek*) are both currently proposed to be listed due to population declines, local extinctions, and habitat loss (U.S. Fish & Wildlife Service, North Dakota Field Office website). The Dakota Skipper was collected in Wells County in a Malaise trap and spotted on the wing in Pembina County (a new county record). Museum specimens from Grand Forks and LaMoure Counties were new county records for the Dakota Skipper. There were no Poweshiek Skipperling sightings but a museum specimen from Grand Forks County (from the 1960s) represents a new county record. Finally, a species previously unreported from North Dakota – the Hayden's Ringlet (*Coenonympha*

haydenii) – was found in the UND Museum and would represent the most easterly record for this species. However, due the specimen dating to 1974 and no other sightings this is likely a stray individual and likely not indicative of a breeding population.

Moths

Family: Hepialidae (Ghost Moths)

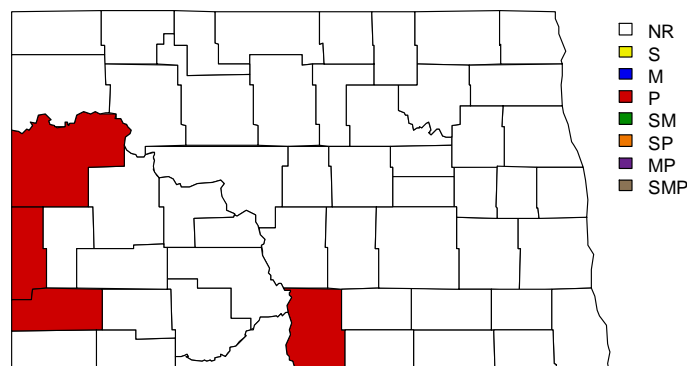
Sthenopis purpurascens (=quadriguttatus) (Four-lined Ghost Moth)



Note: The Bottineau county record is based on an unlabeled specimen in the NDUS collection thought to have come from that county.

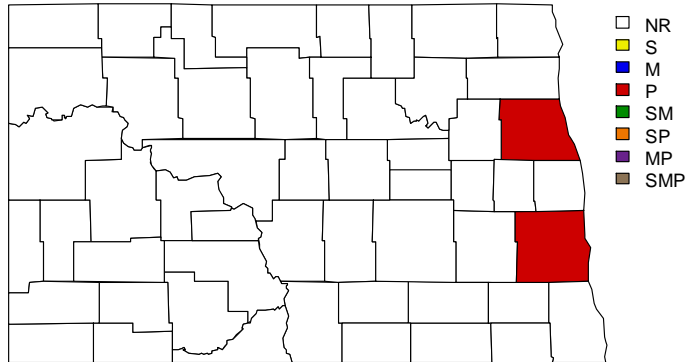
Family: Prodoxidae (Yucca Moths)

Tegeticula yuccasella (Yucca Moth)



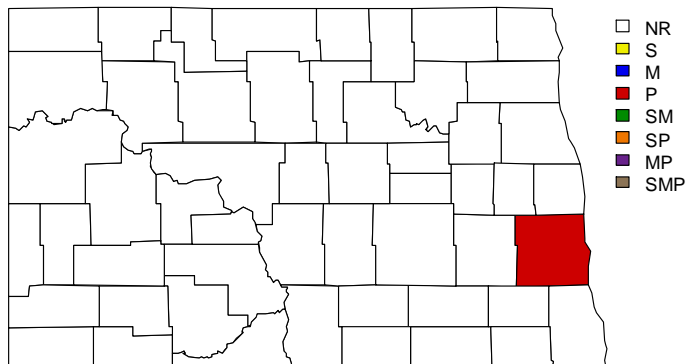
Family: Tineidae (Cloths Moths)

Xylesthia pruniramiella
(Clemens Bark Moth)



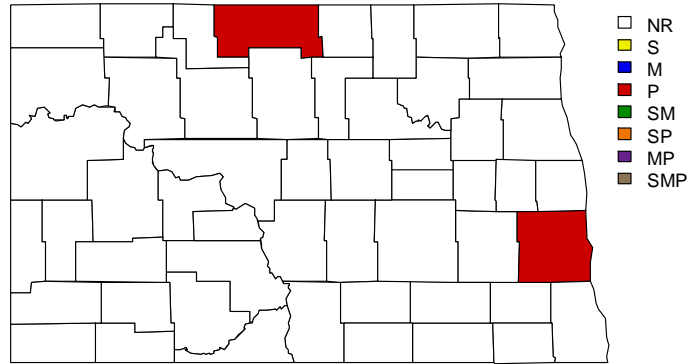
Family: Acrolophidae (Burrowing Webworms)

Amydria effrentella



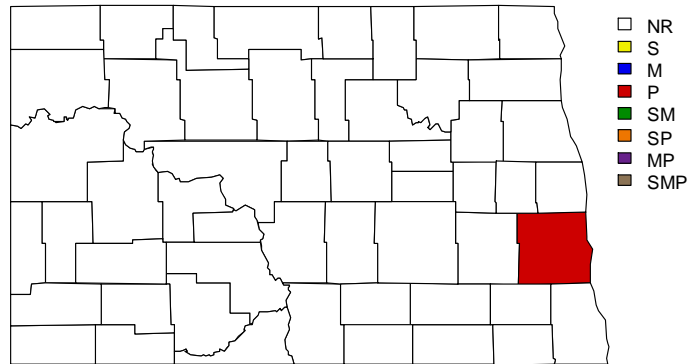
Family: Gracillariidae (Leaf-blotch Miners)

Caloptilia negundella
(Boxelder Leafroller)

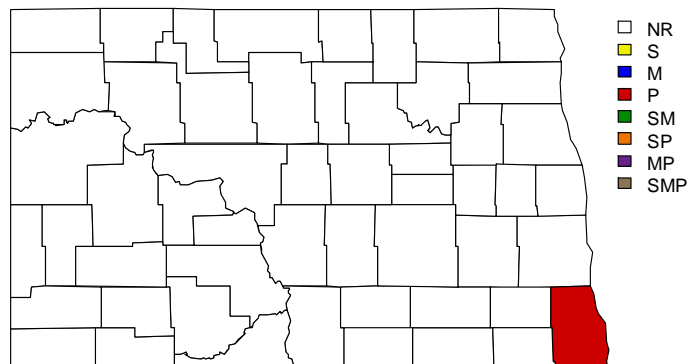


Family: Yponomeutidae (Ermine Moths)

Atteva punctella
(Ailanthus Webworm)

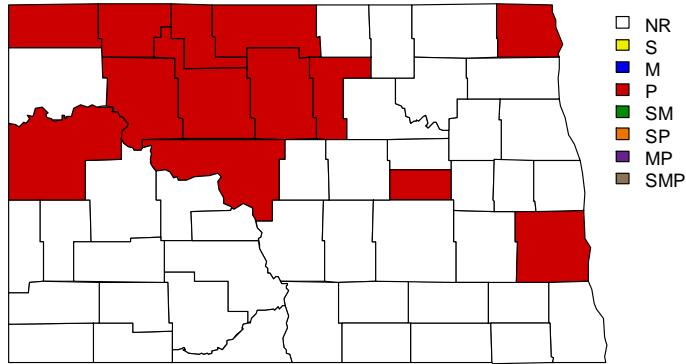


Yponomeuta multipunctella
(American Ermine Moth)



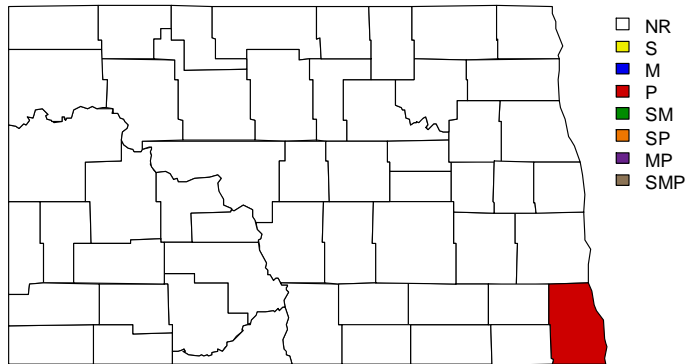
Family: Plutellidae (Diamondbacked Moths)

Plutella xylostella
(Diamondback Moth)



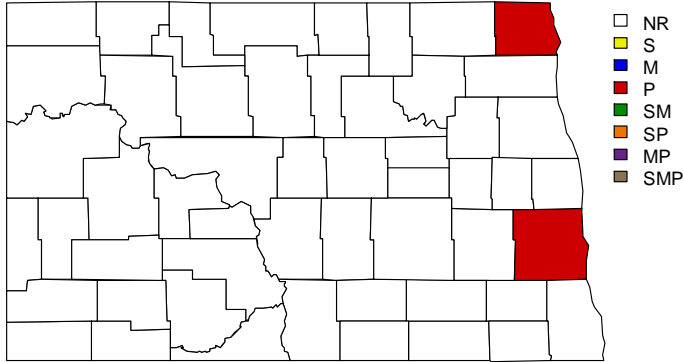
Family: Glyphipterygidae (Sedge Moths)

Diploschizia impigritella
(Yellow-nut Sedge Moth)

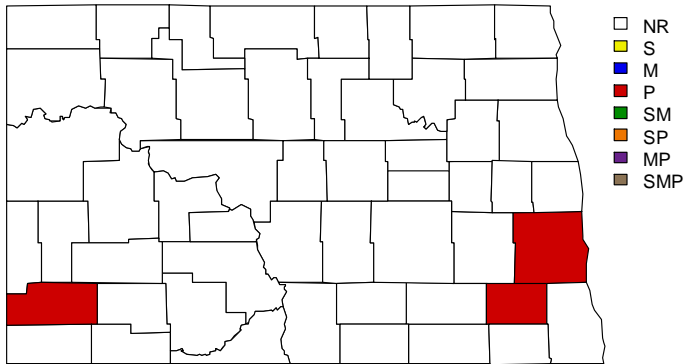


Family: Elachistidae (Elachistids)

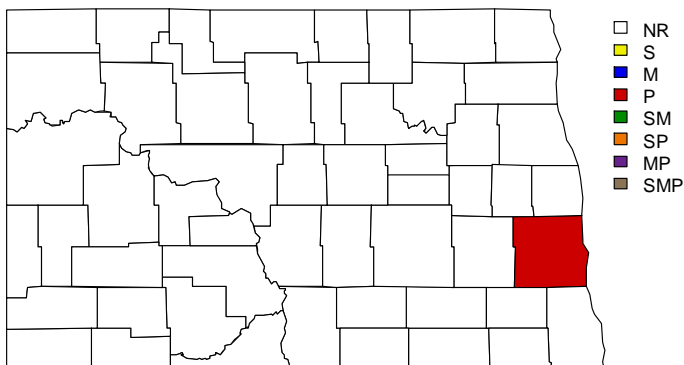
Exaeretia gracilis
(Ambrosia Seed Moth)



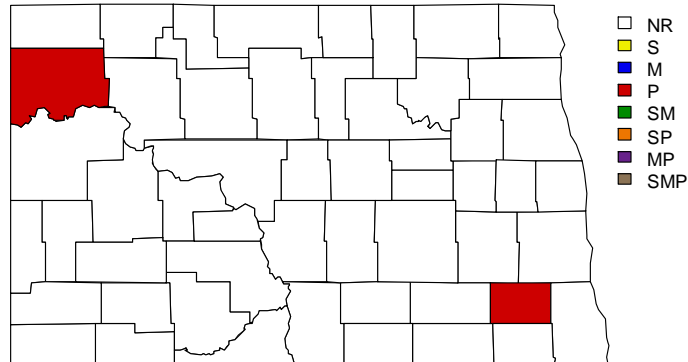
Ethmia monticola
(Gray Ethmia Moth)



Ethmia longimaculella
(Streaked Ethmia Moth)

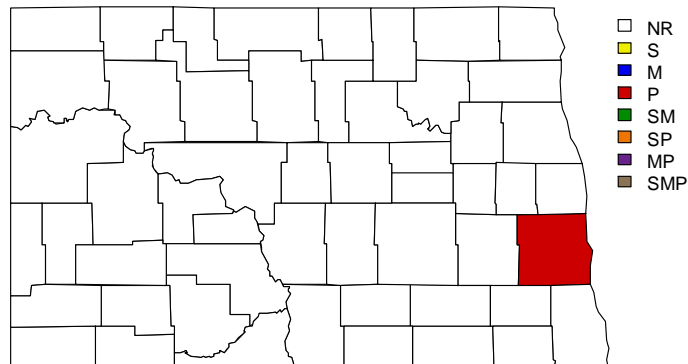


Ethmia albicostella
(Pale-edged Ethmia Moth)



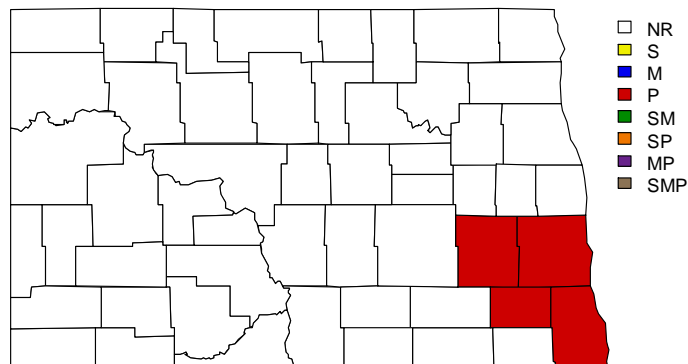
Family: Autostichidae (Autostichids)

Oegoconia quadripuncta
(Four-spotted Yellowneck, Leaf Litter Moth)

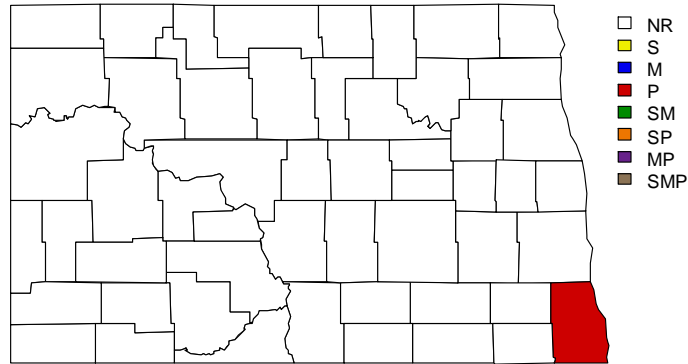


Family: Coleophoridae (Case-bearers)

Coleophora trifolii
(Large Clover Case-bearer)

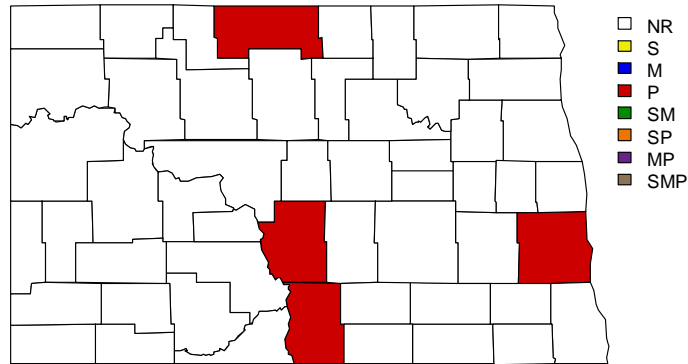


Mompha eloisella
(Red-streaked Mompha Moth)



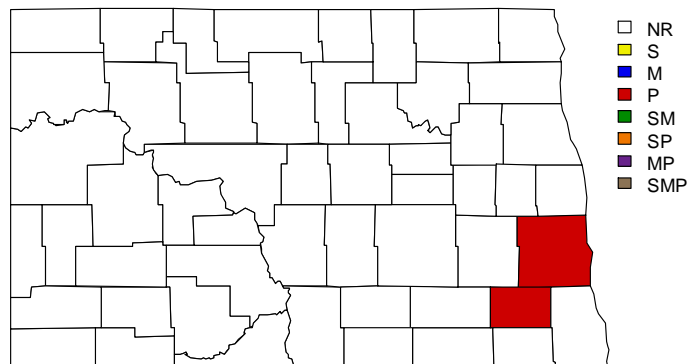
Family: Cosmopterigidae (Cosmopterigids)

Walshia miscecolorella
(Sweetclover Root Borer Moth)



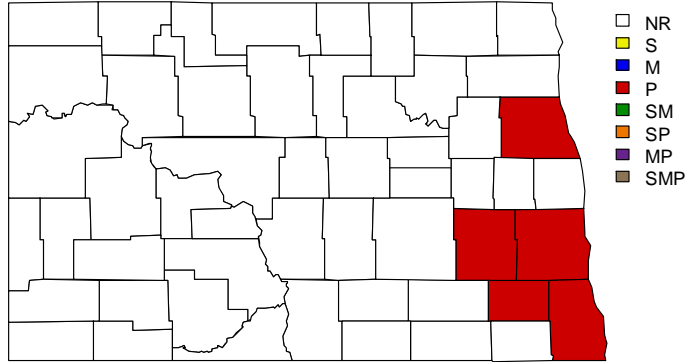
Family: Gelechiidae (Cosmopterigids)

Dichromeris ligulella
(Palmerworm Moth)



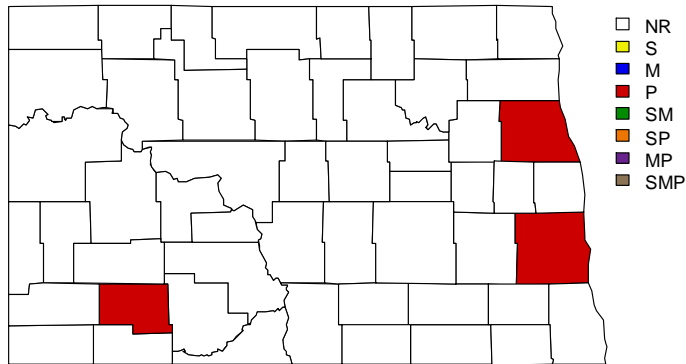
Family: Limacodidae (Slug Caterpillars)

Lithacodes fasciola
(Yellow-shouldered Slug Moth)



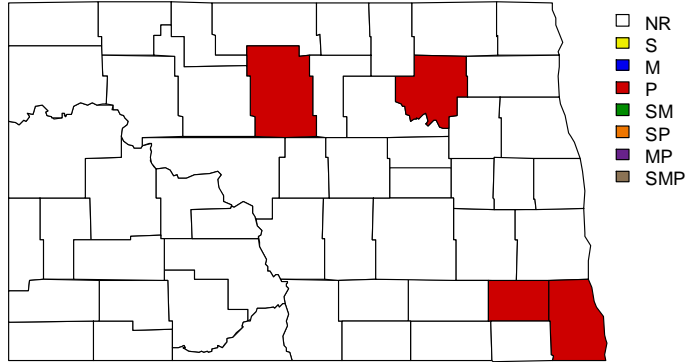
Family: Sesiidae (Clearwing Moths)

Podosesia syringae
(Ash Borer Moth, Lilac Borer Moth)

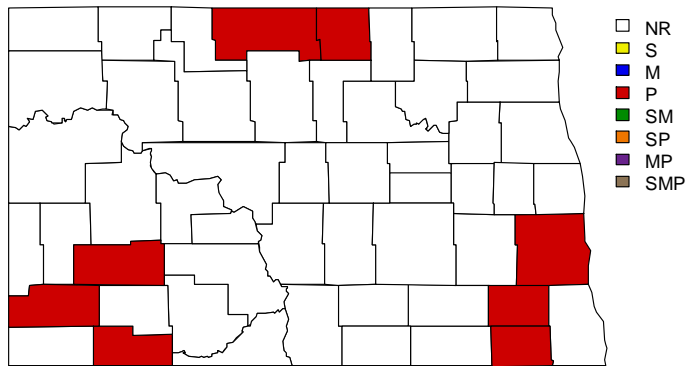


Family: Cossidae (Carpenter Moths)

Acossus centerensis
(Poplar Carpenterworm)

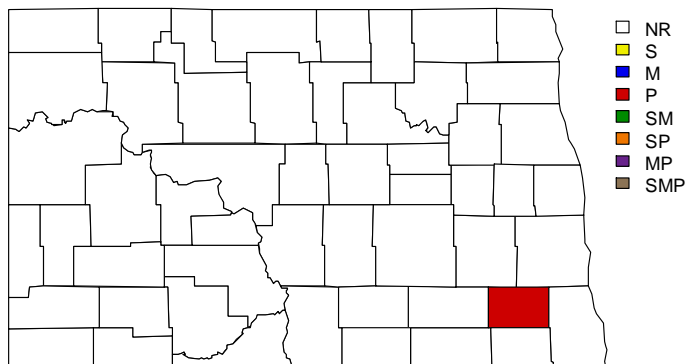


Prionoxystus robiniae
(Carpenterworm Moth, Locust Borer)

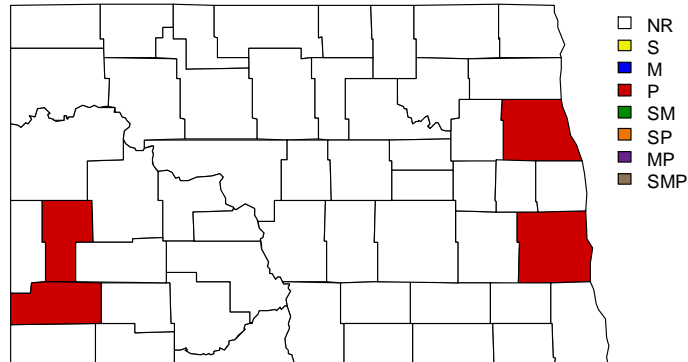


Family: Tortricidae (Leaf Rollers, Bell Moths)

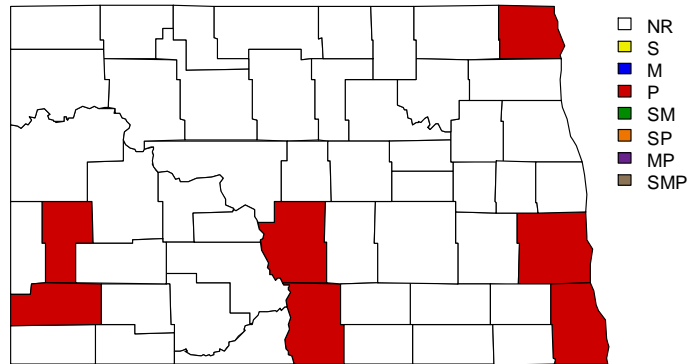
Phaneta olivaceana
(Olivaceous Phaneta Moth)



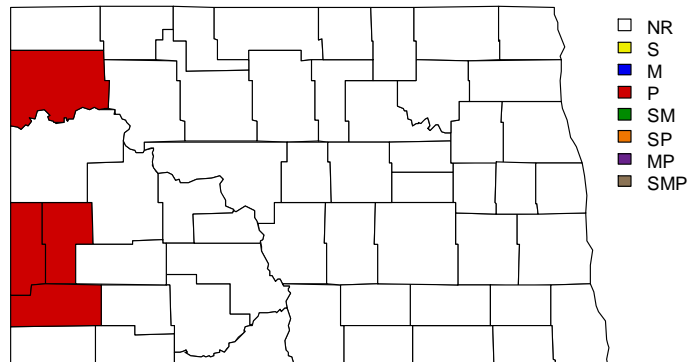
Eucosma ridingsana
(Snakeweed Borer Moth)



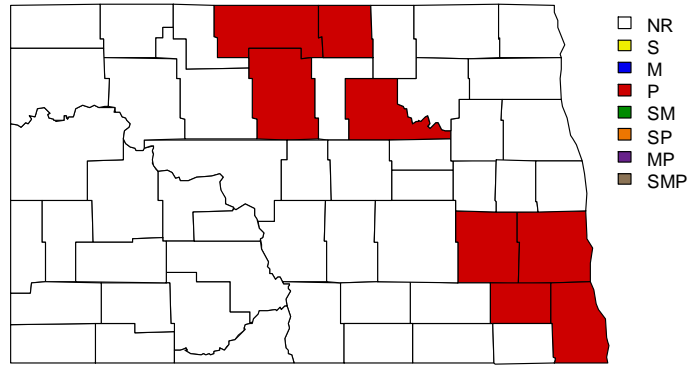
Eucosma morrisoni
(Morrison's Borer Moth)



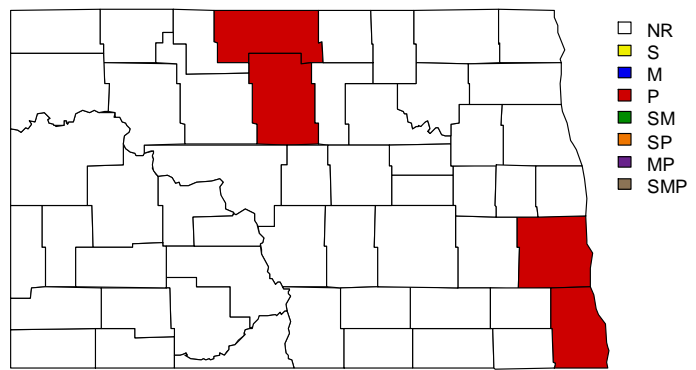
Pelochrista argenteana
(Silver-lined clay Moth)



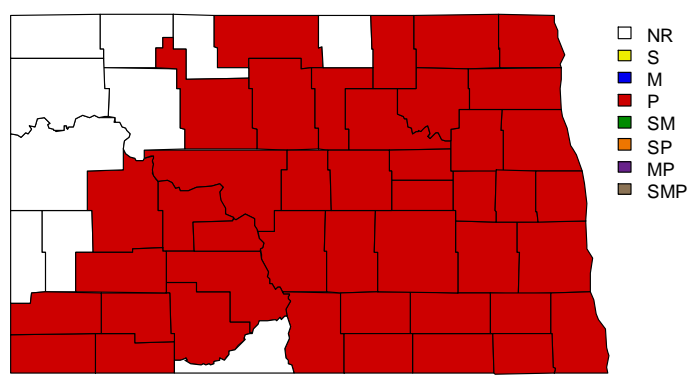
Choristoneura rosaceana
(Oblique-banded leafroller)



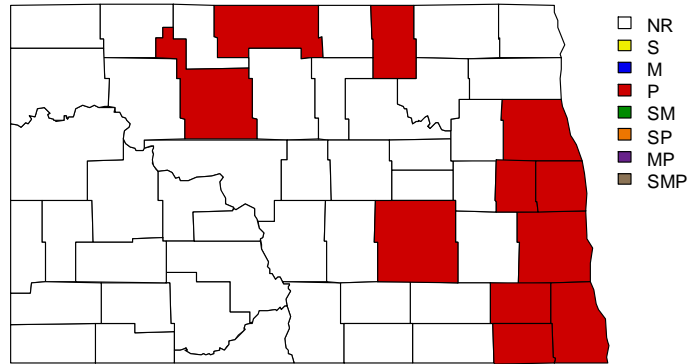
Choristoneura pinus
(Jack Pine Budworm)



Cochylis hospes
(Banded Sunflower Moth)

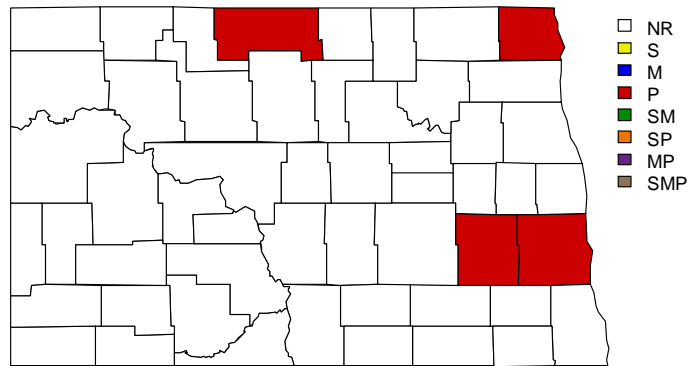


Cochylis arthuri
(Arthur's Sunflower Moth)



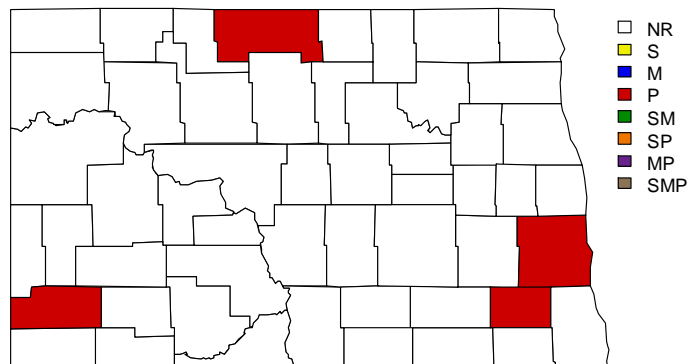
Family: Epermeniide (Epermenids)

Ochromolopis ramapoella
(Ochre-patched Epermenid)



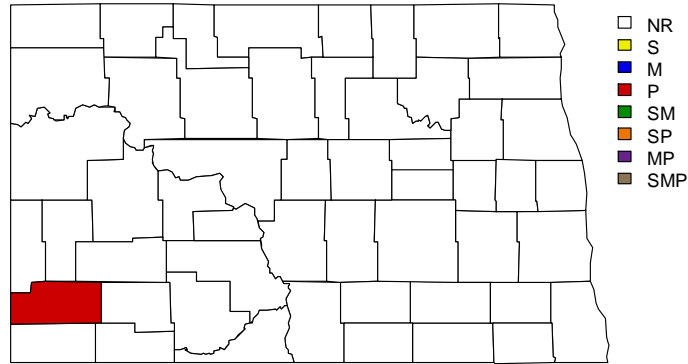
Family: Alucitidae (Many Plumed Moths)

Alucita hexadactyla
(Twenty-plume Moth)



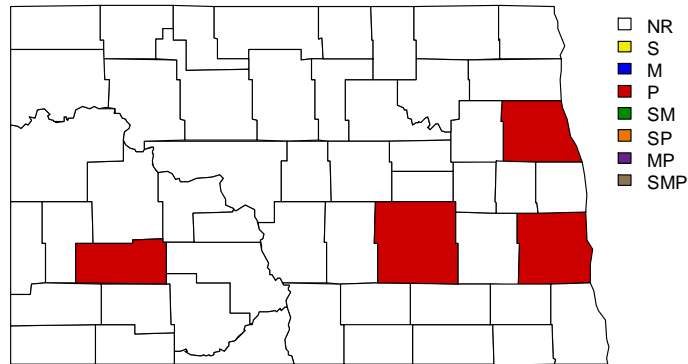
Family: Pterophoridae (Plume Moths)

Oidaematophorus mathewianus
(Mathew's Plume Moth)

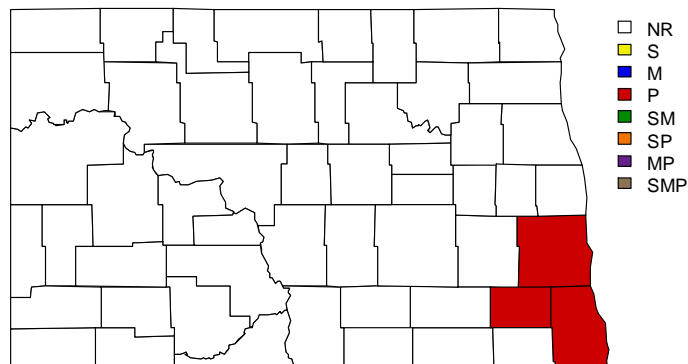


Family: Pyralidae (Pyralid Snout Moths)

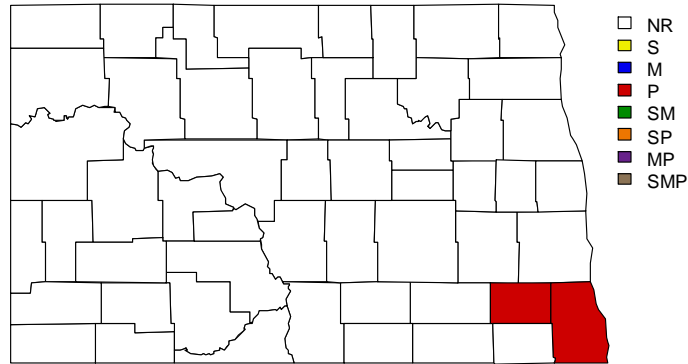
Pyralis farinalis
(Meal Moth)



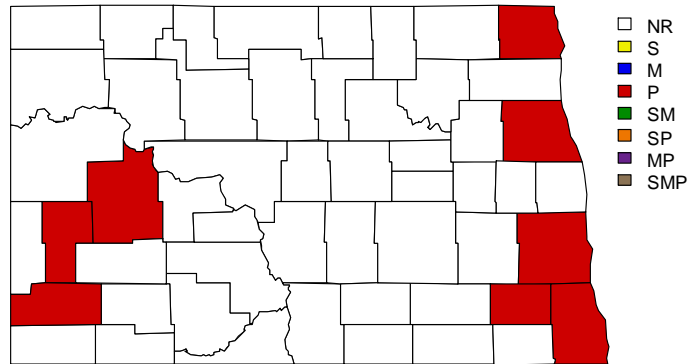
Interjectio niviella
(Smeared White Snout Moth)



Tampa dimediatella
(Small Carmine Snout Moth)

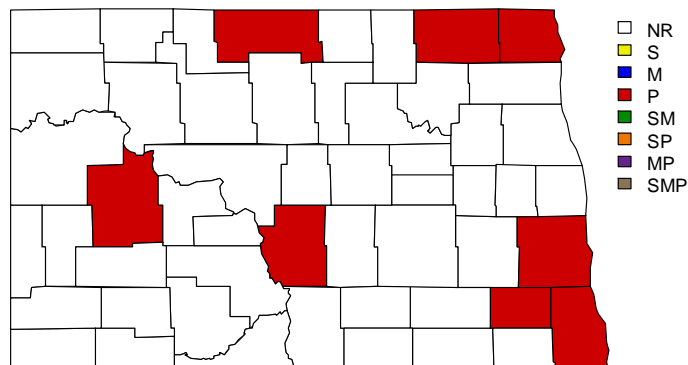


Peoria approximella
(Carmine Snout Moth)

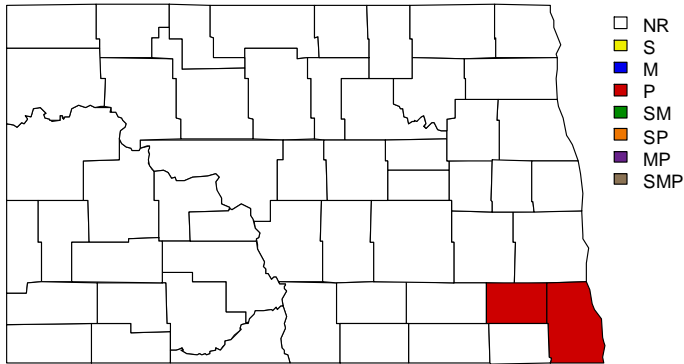


Family: Crambidae (Crambid Snout Moths)

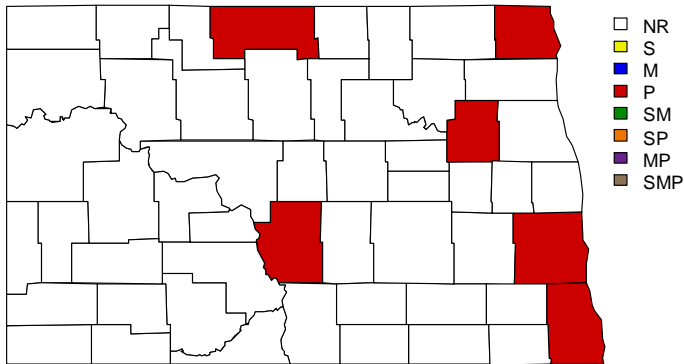
Crambus unistriatellus
(Wide-stripe Grass-veneer)



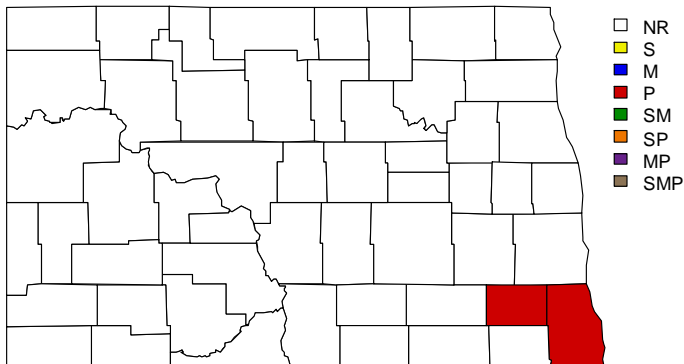
Crambus ainsliellus
(Ainslieel's Grass-veneer)



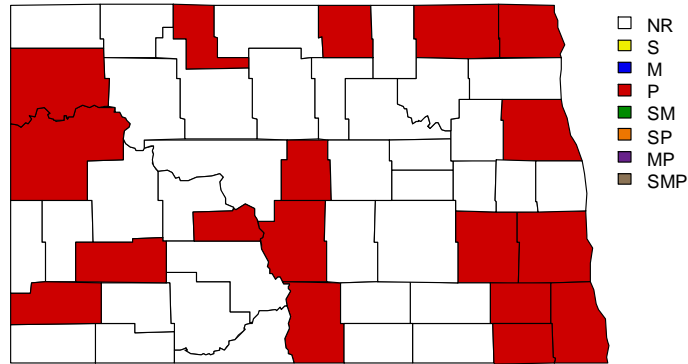
Crambus praefectellus
(Common Grass-veneer)



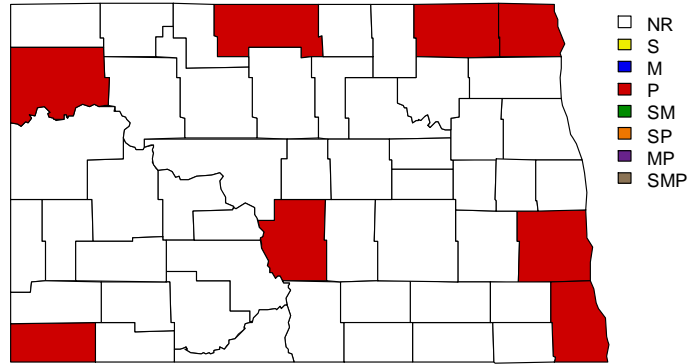
Crambus laqueatellus
(Eastern Grass-veneer)



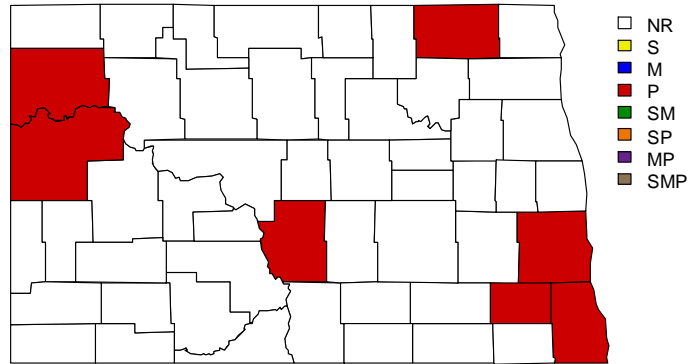
Chrysoteuchia topiaria
(Cranberry Girdler)



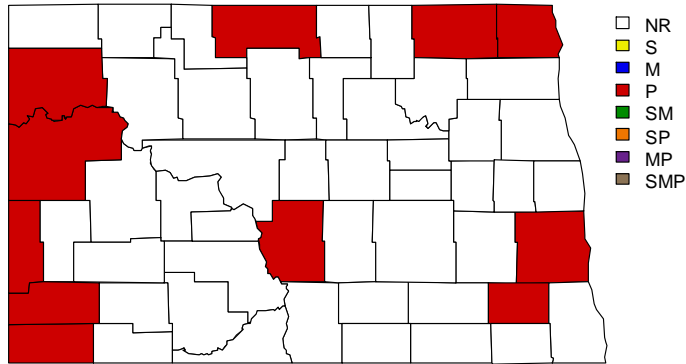
Agriphila ruricolella
(Lesser Vagabond Sod Webworm)



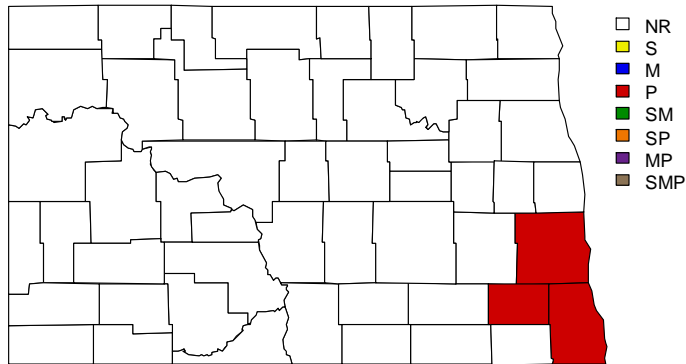
Agriphila vulgivagella
(Vagabond Sod Webworm)



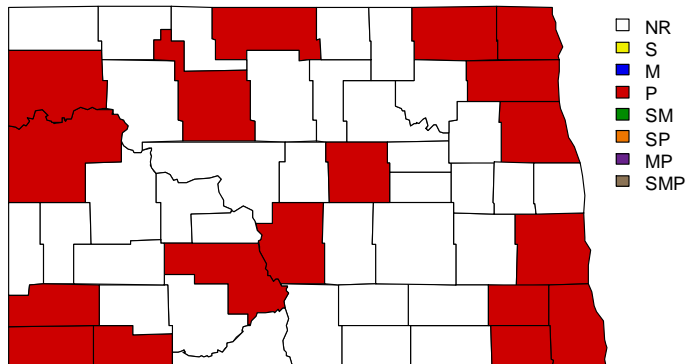
Pediasia trisecta
(Large Sod Webworm, Greater Sod Webworm)



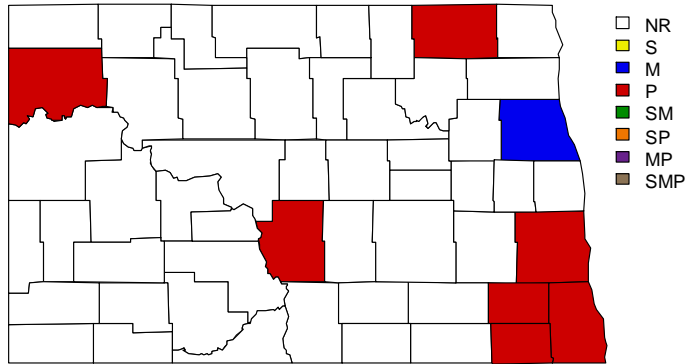
Parapoynx badiusalis
(Chestnut-marked Pondweed Moth)



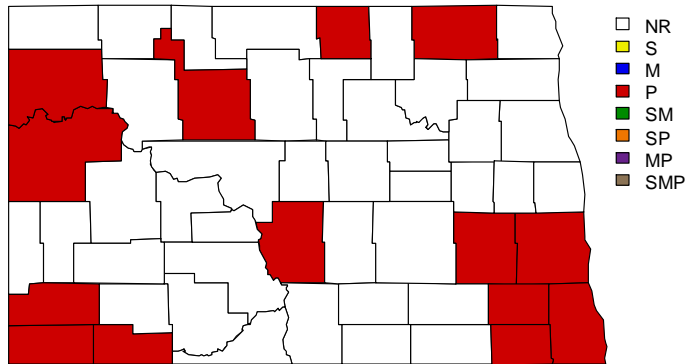
Loxostege sticticalis
(Beet Webworm Moth)



Loxostege ceralis
(Alfalfa Webworm Moth)

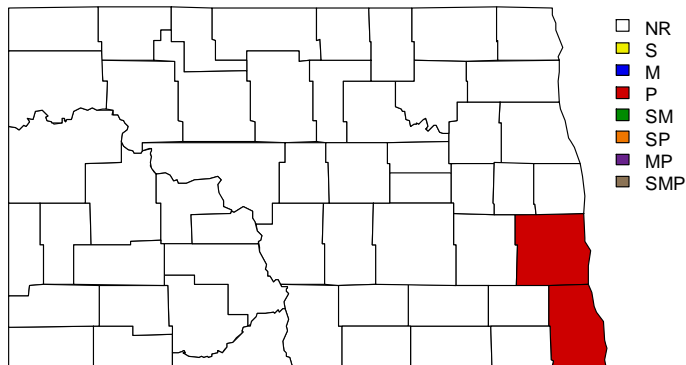


Nomophila nearctica
(False Webworm Moth)

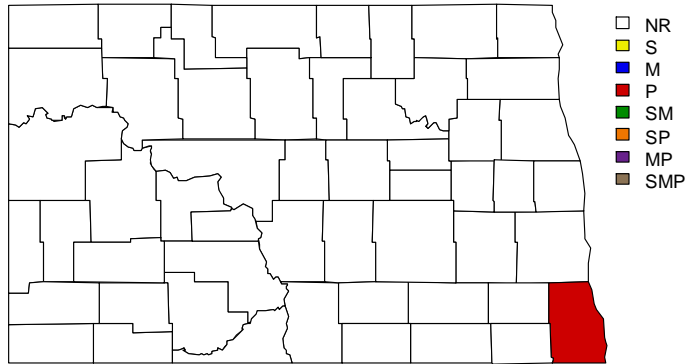


Family: Drepanidae (Hook-tipped Moths)

Habrosyne scripta
(Lettered Habrosyne, Scribe)

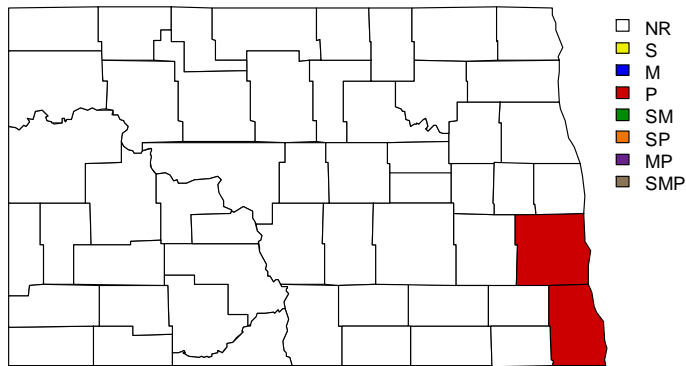


Drepana arcuata
(Arched Hooktip Moth)



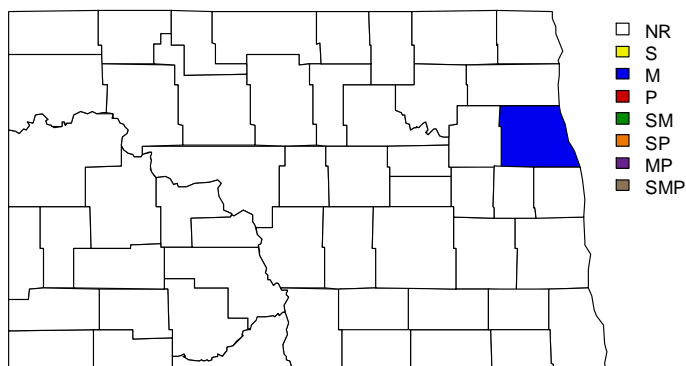
Family: Uraniidae (Uraniid Moths)

Callizzia amorata
(Gray Scoopwing Moth)

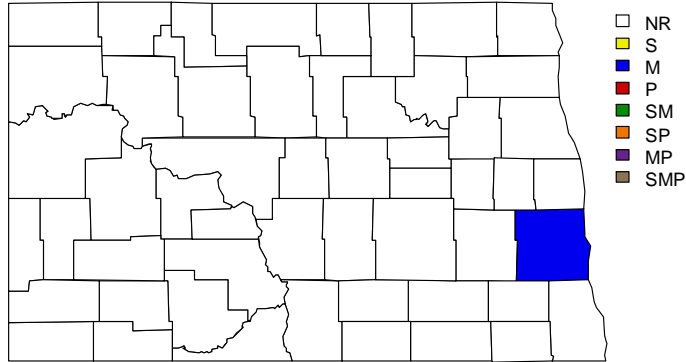


Family: Geometridae (Geometrids or Inchworm Moths)

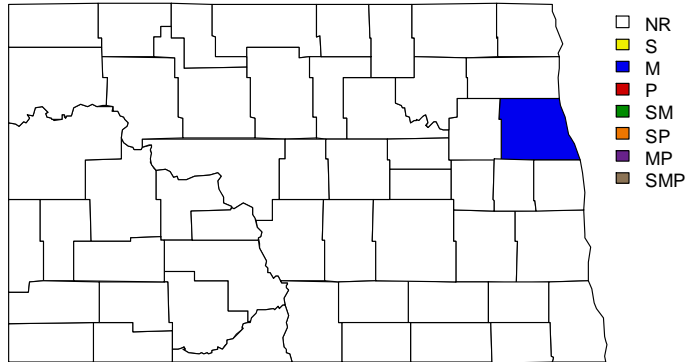
Alsophila pometaria
(Fall Cankerworm)



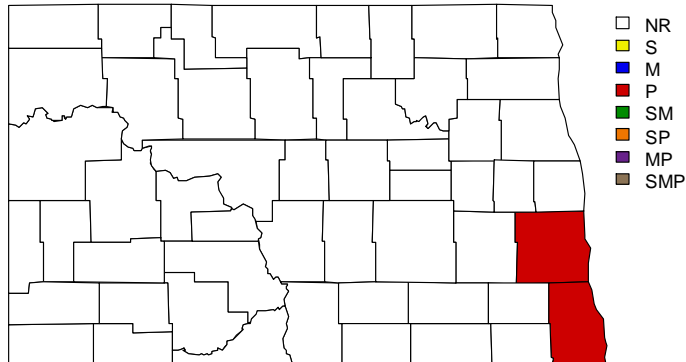
Iridopsis (=Anacamptodes) ephyraria
(Pale-winged Gray)



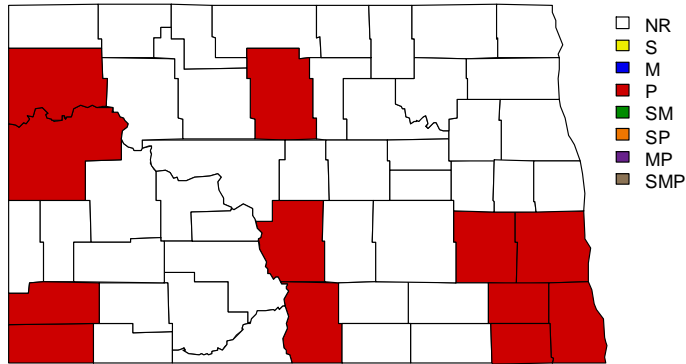
Erannis tiliaria
(Linden Looper)



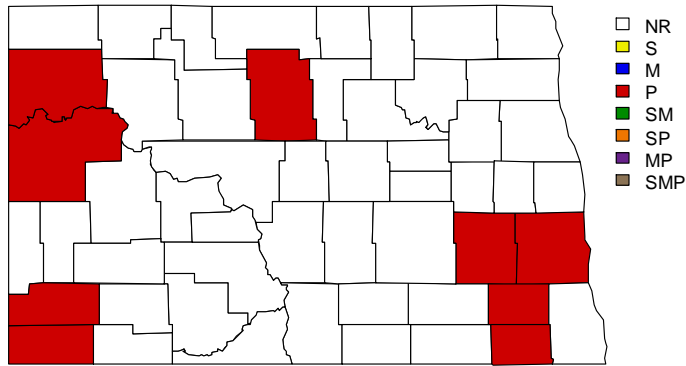
Speranza (=Itame) pustularia
(Lesser Maple Spanworm Moth)



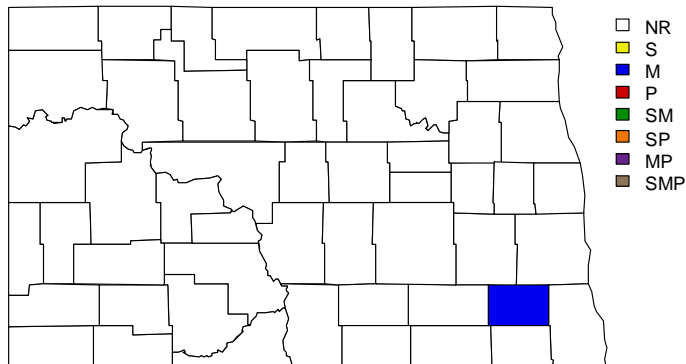
Itame sulphurea
(Sulphur Itame)



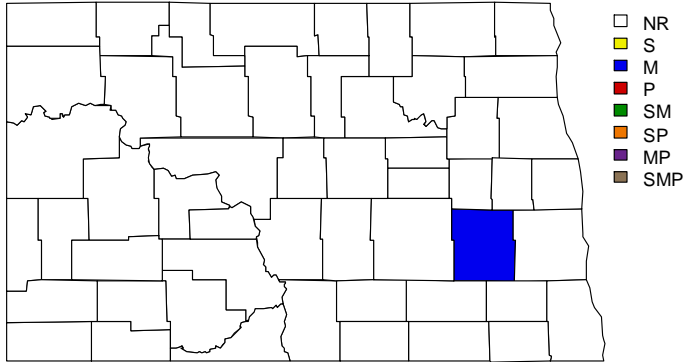
Semiothisa denticulata
(Tooth-lined Angle)



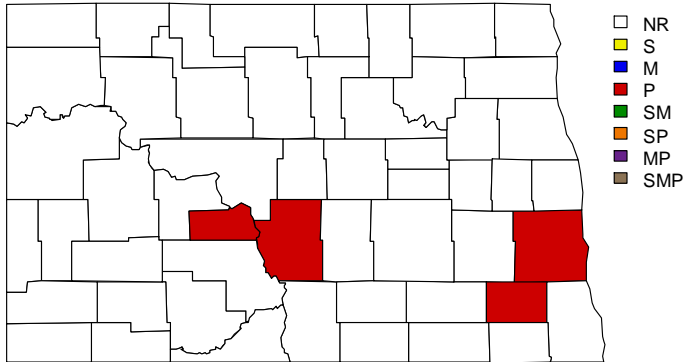
Euchlaena astylusaria



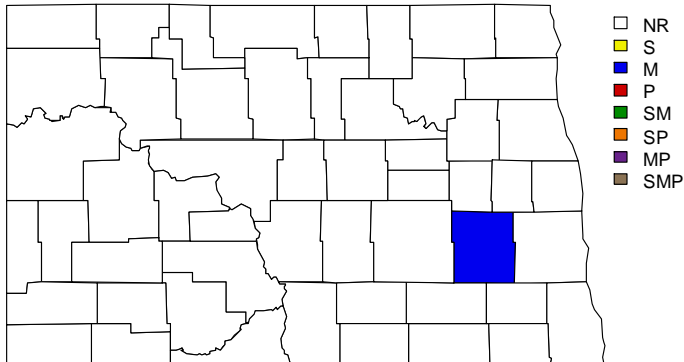
Euchlaena johnsonaria
(Johnson's Euchlaena Moth)



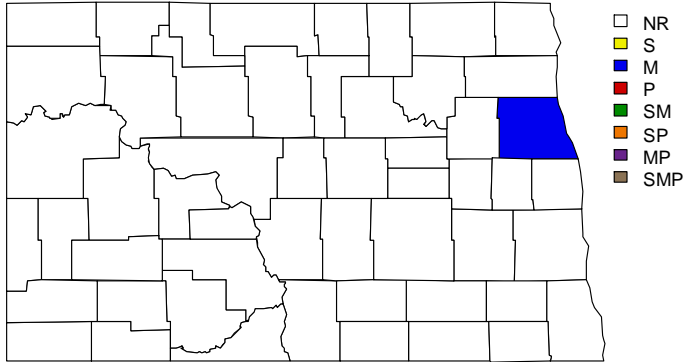
Euchlaena serrata
(Saw-wing Moth)



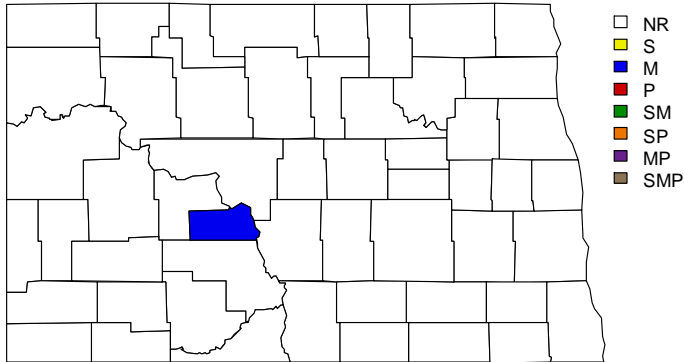
Euchlaena tigrinaria
(Mottled Euchlaena Moth)



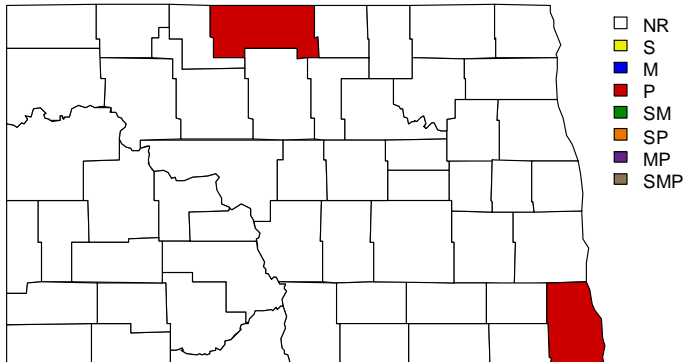
Eugonobapta nivosaria
(Snowy Geometer Moth)



Lomographa vesta
(White Spring Moth)

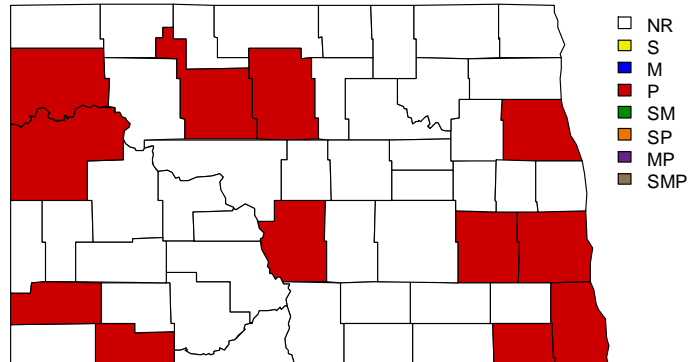


Nacophora quernaria
(Oak Beauty)



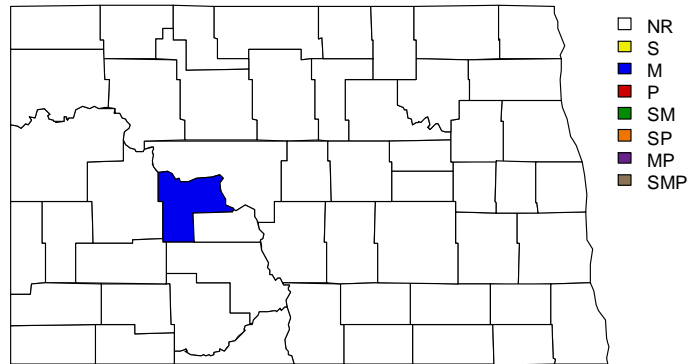
Ennomos magnaria

(Maple Spanworm Moth, Notchwing Moth)



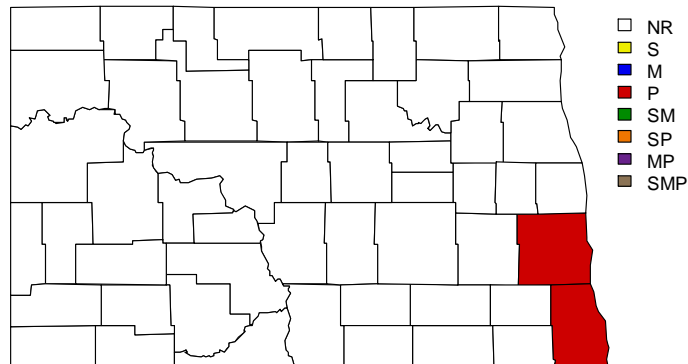
Prochoerodes transversata

(Large Maple Spanworm)

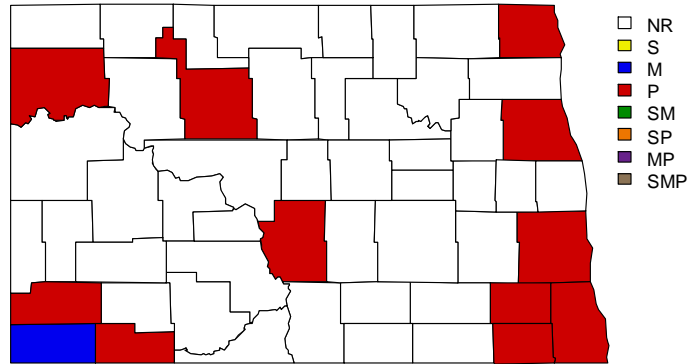


Besma quercivoraria

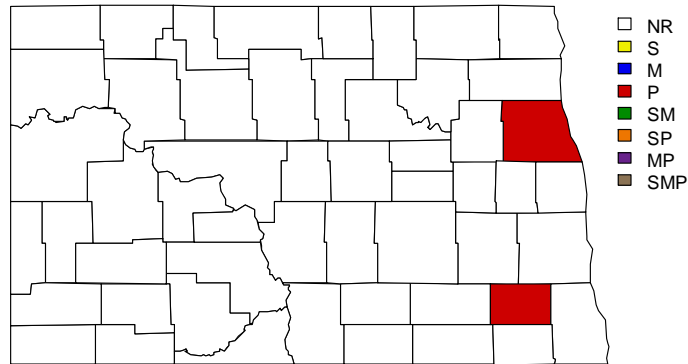
(Oak Besma)



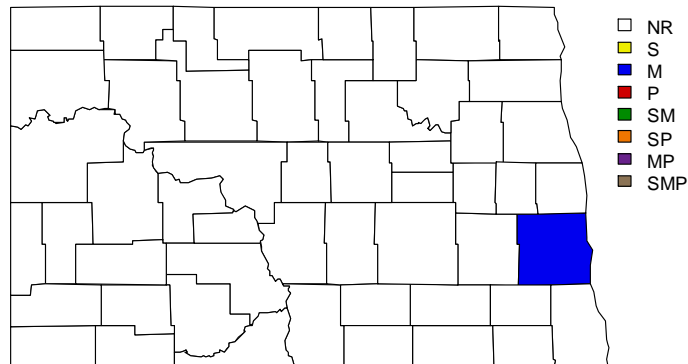
Haematopsis grataria
(Chickweed Geometer)



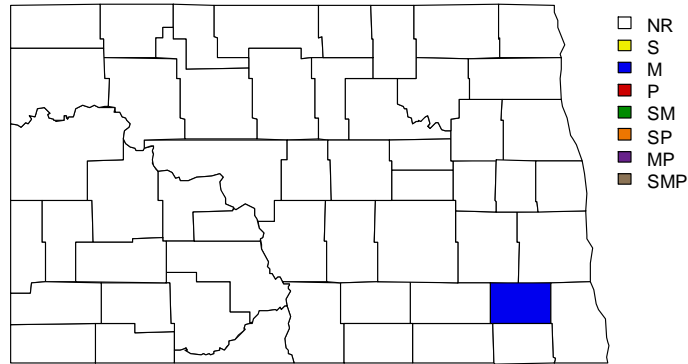
Heterophleps refusaria
(Three-patched Bigwig Moth)



Synchlora frondaria (=denticulata)
(Southern Emerald Moth)

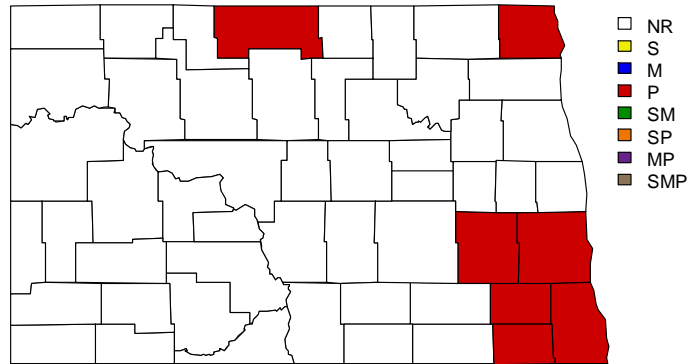


Synchlora liquoraria

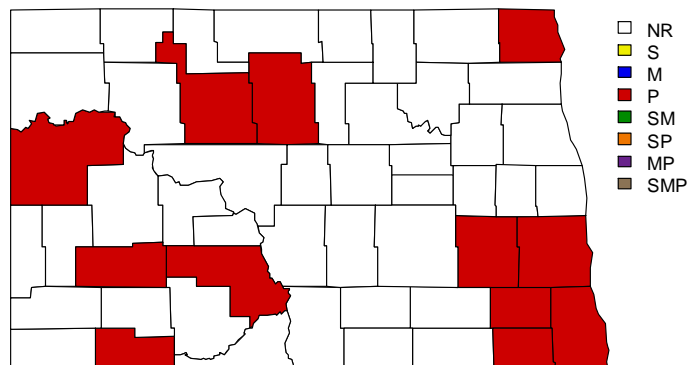


Family: Lasiocampidae (Tent Caterpillar and Lappet Moths)

Malacosoma disstria
(Forest Tent Caterpillar Moth)

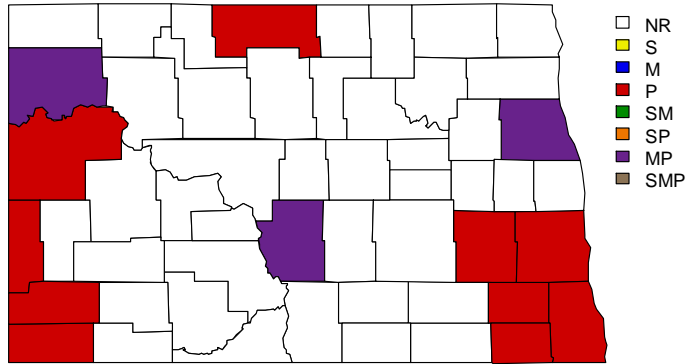


Phyllodesma americana
(American Lappet Moth)

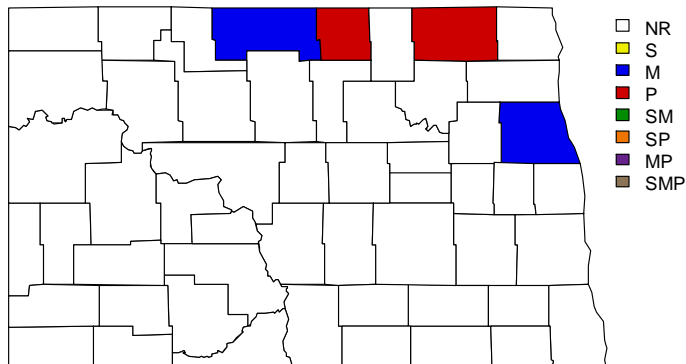


Family: Saturniidae (Giant Silkworm and Royal Moths)

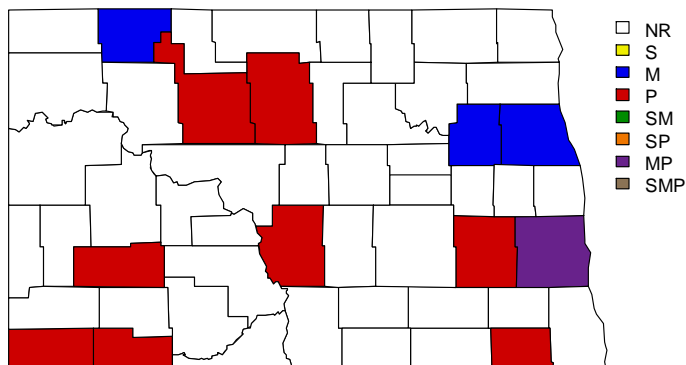
Antheraea (=Telea) polyphemus
(Polyphemus Moth)



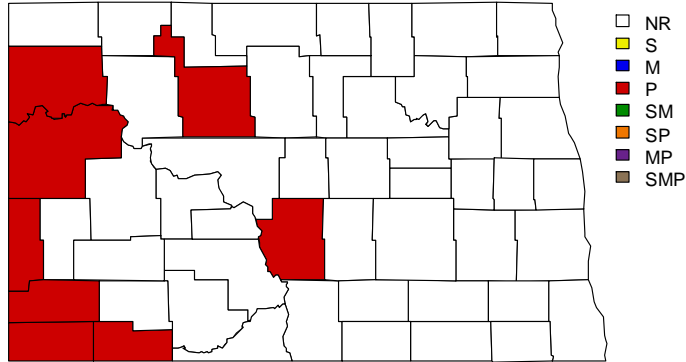
Actias luna
(Luna Moth)



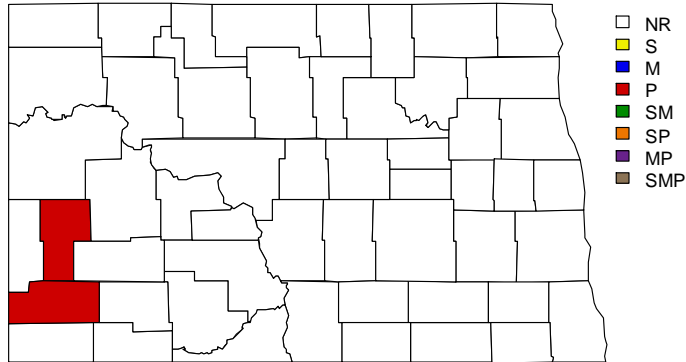
Hyalophora (=Samia) cecropia
(Cecropia Moth)



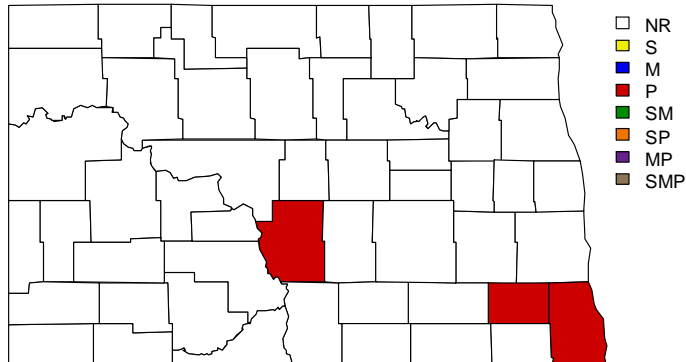
Hyalophora gloveri
(Glover's Silkmoth)



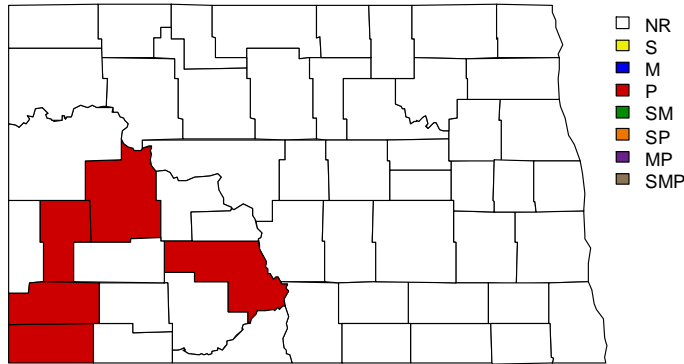
Coloradia pandora
(Pandora Pinemoth, Pandora Moth)



Hemileuca nevadensis
(Nevada Buck Moth)

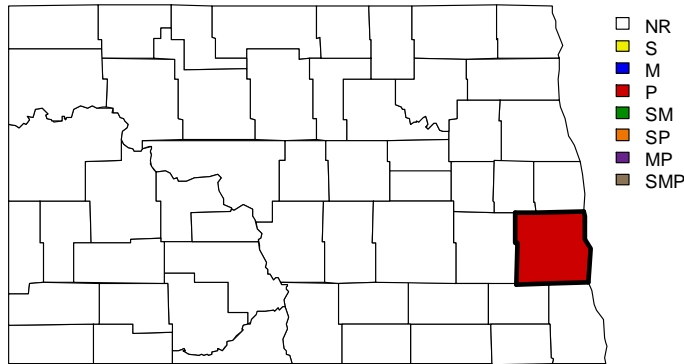


Hemileuca hera
(Sagebrush Sheep Moth, Hera Buckmoth)



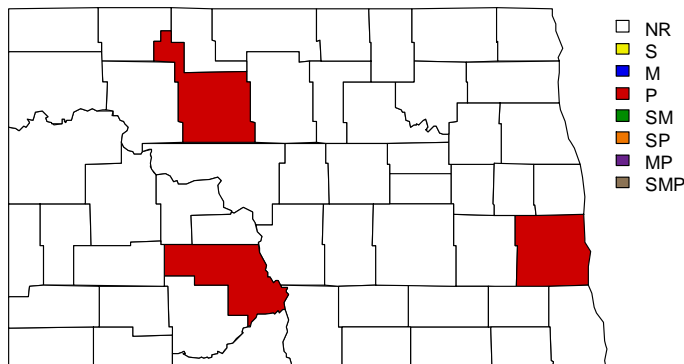
Family: Spingidae (Hawk Moths, Sphinx Moths, and Hornworms)

Manduca sexta
(Tobacco Hornworm, Carolina Sphinx)

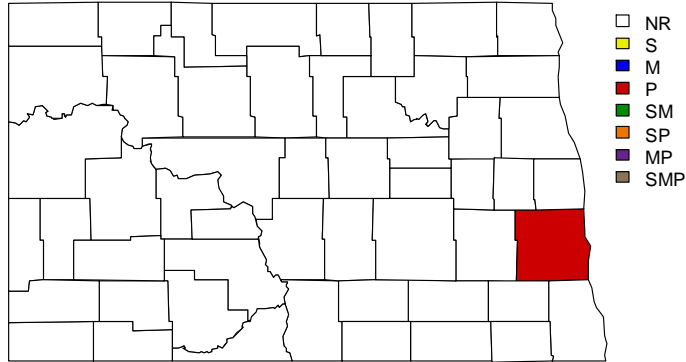


Note: The Cass county record may be due to an escape from a laboratory culture.

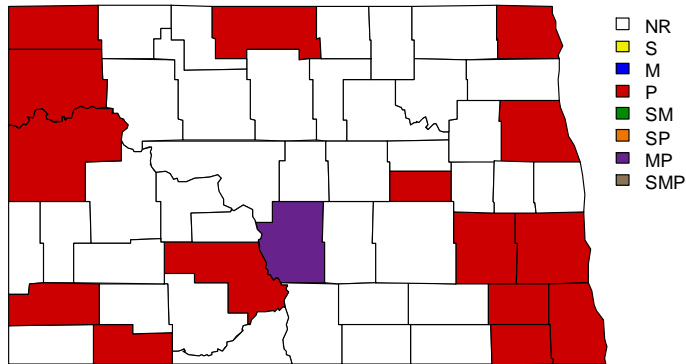
Manduca quinquemaculatus
(Tomato Hornworm, Five-spotted Hawk Moth)



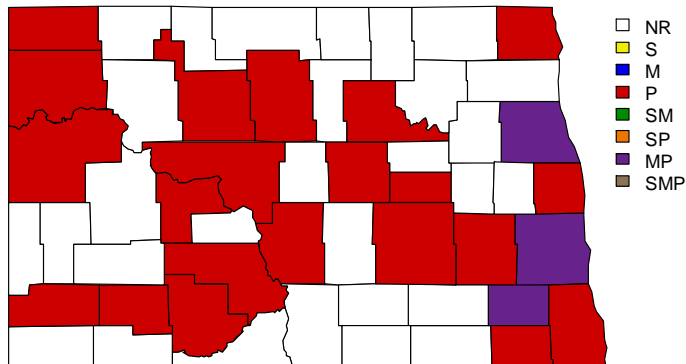
Manduca rustica
(Rustic Sphinx Moth)



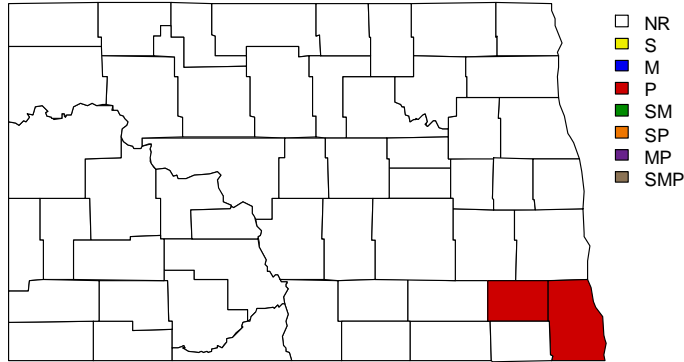
Ceratomia amyntor
(Elm Sphinx Moth, Four-horned Sphinx)



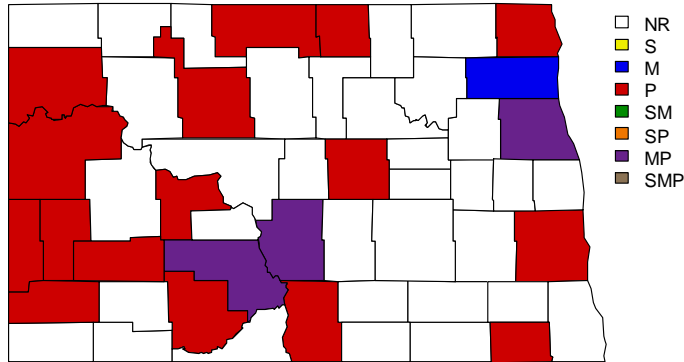
Ceratomia undulosa
(Waved Sphinx)



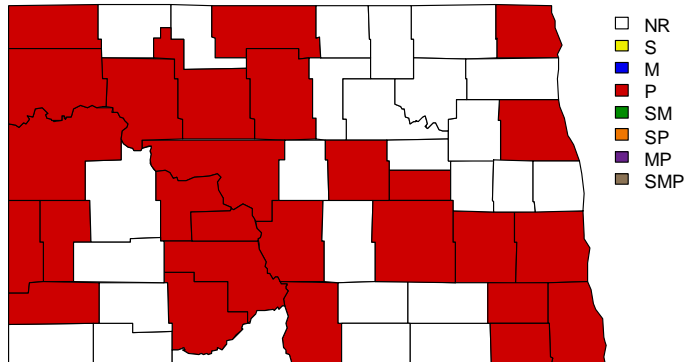
Sphinx eremitus
(Hermit Sphinx)



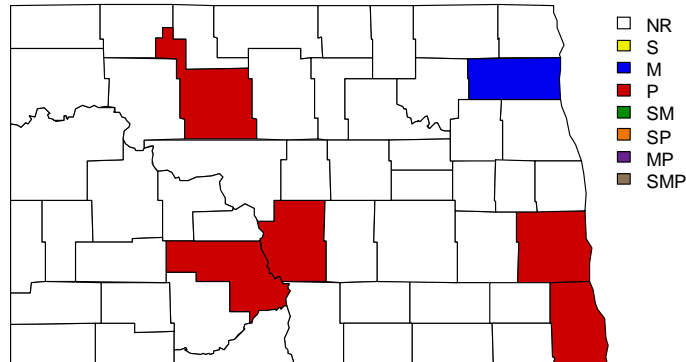
Sphinx (=Hyloicus) chersis
(Great Ash Sphinx, Northern Ash Sphinx)



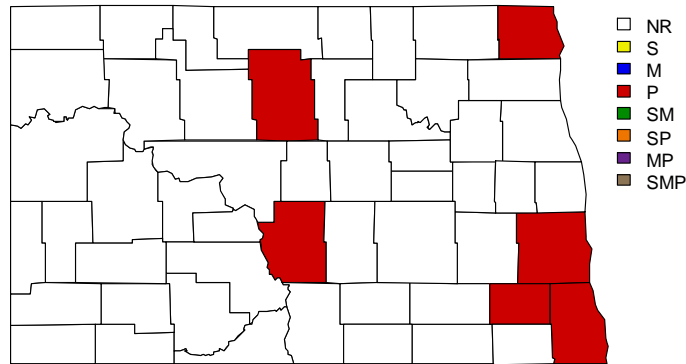
Sphinx vashti
(Vashti Sphinx, Snowberry Sphinx)



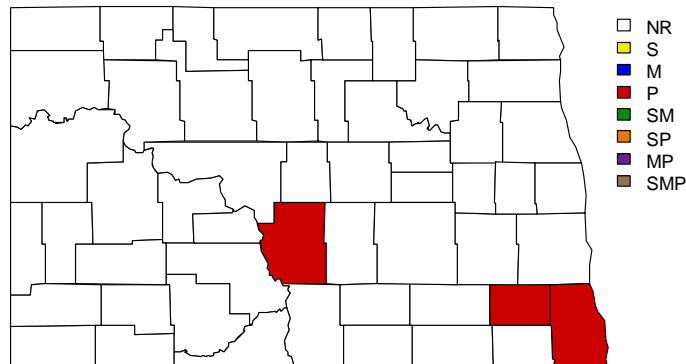
Sphinx (=Hyloicus) kalmiae
(Laurel Sphinx)



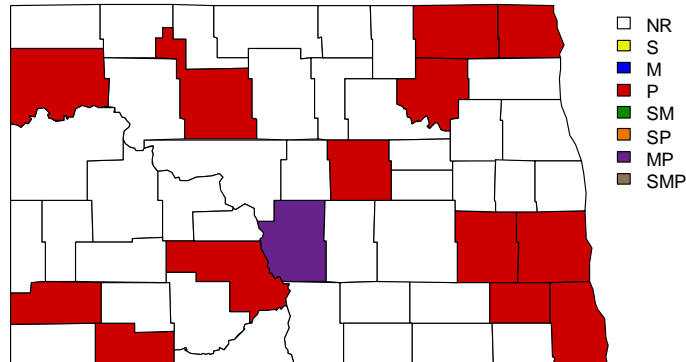
Sphinx gordius
(Apple Sphinx)



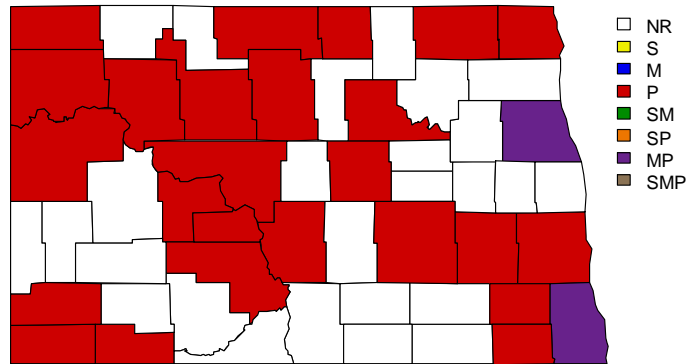
Sphinx luscitiosa
(Poplar-and-willow Sphinx, Clemens' Hawkmoth)



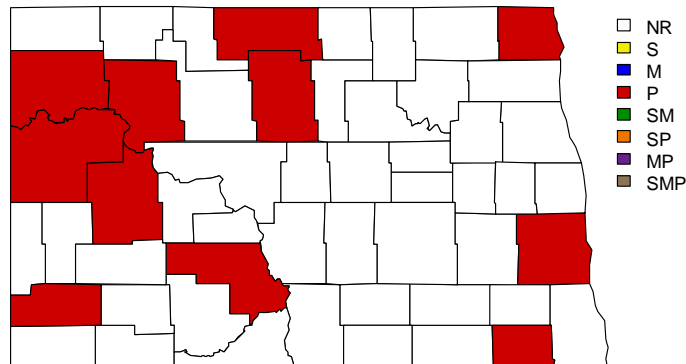
Sphinx drupiferarum
(Wild Cherry Sphinx)



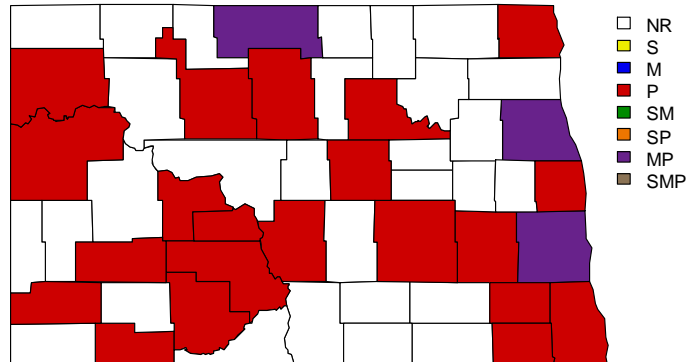
Smerinthus jamaicensis
(Twin-spotted Sphinx)



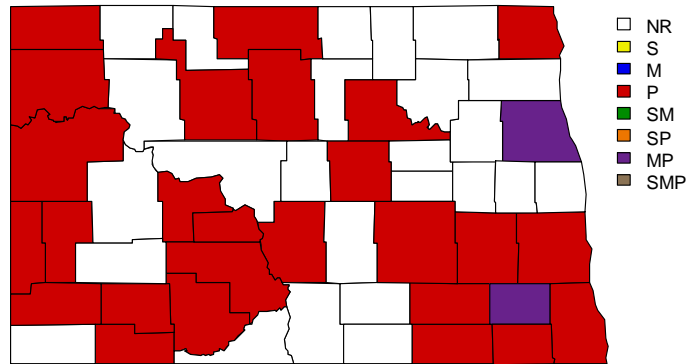
Smerinthus cerisyi
(One-eyed Sphinx, Cerisy's Sphinx)



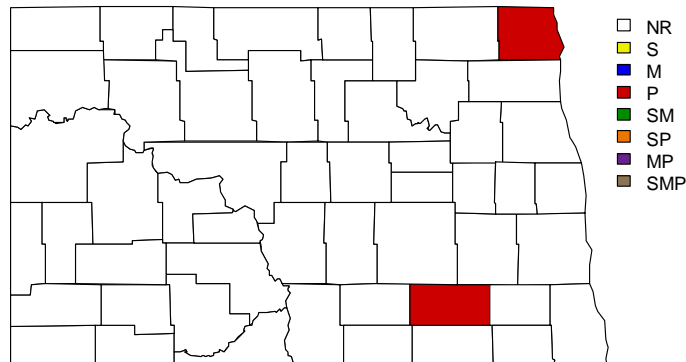
Paonias (=Calasymbolus) excaecatus
(Blinded Sphinx)



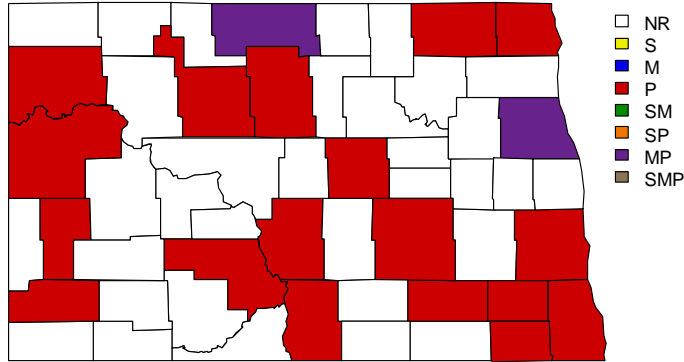
Paonias (=Calasymbolus) myops
(Smalleyed Sphinx)



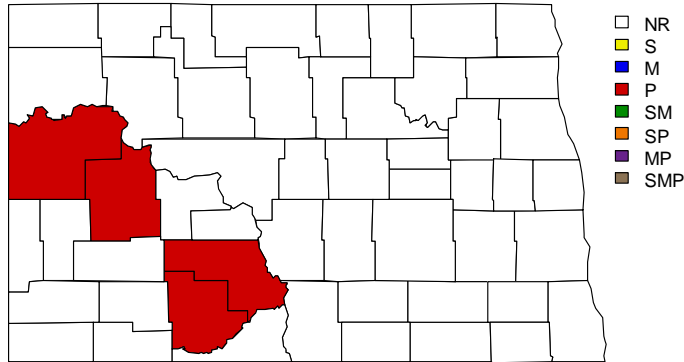
Amorpha juglandis
(Walnut Sphinx)



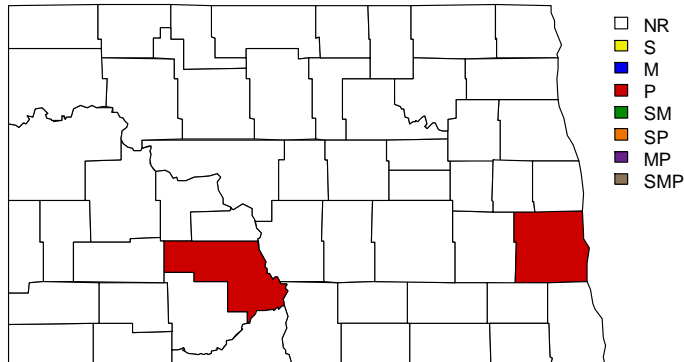
Pachysphinx modesta
(Big Poplar Sphinx)



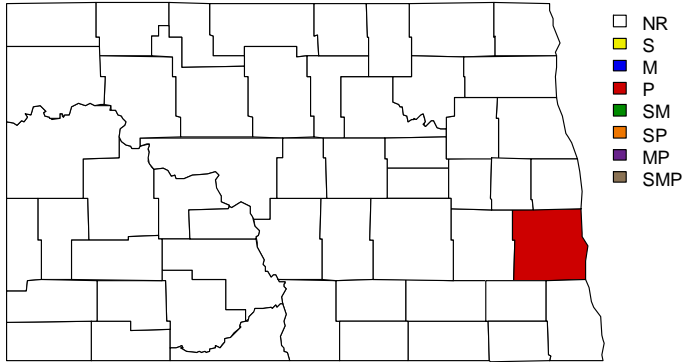
Pachysphinx occidentalis
(Western Poplar Sphinx Moth)



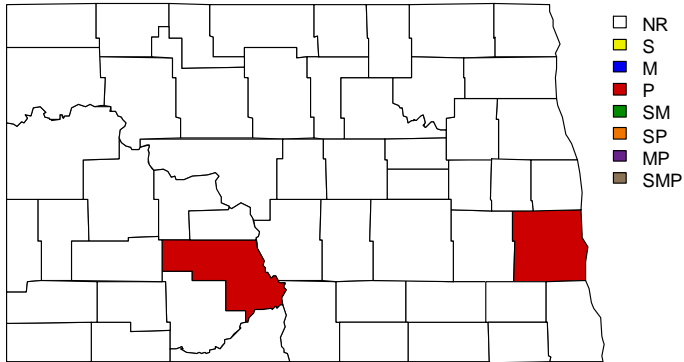
Erinnyis ello
(Ello Sphinx)



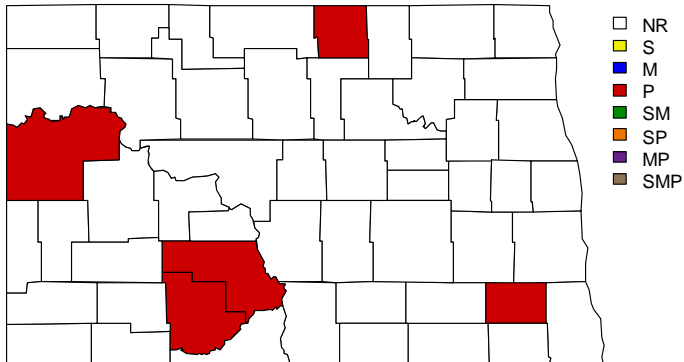
Erinnyis obscura
(Obscure Sphinx)



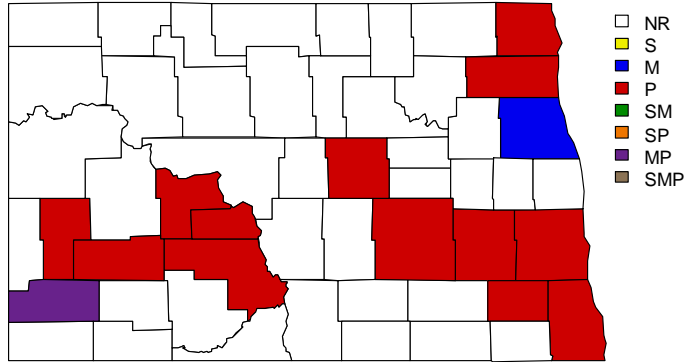
Aellopos titan
(Titan Sphinx)



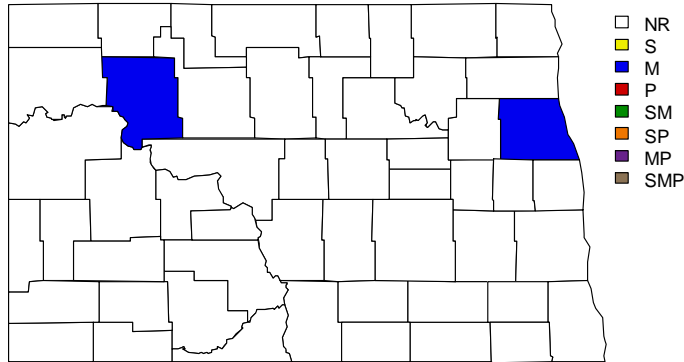
Hemaris thysbe
(Hummingbird Clearwing Moth)



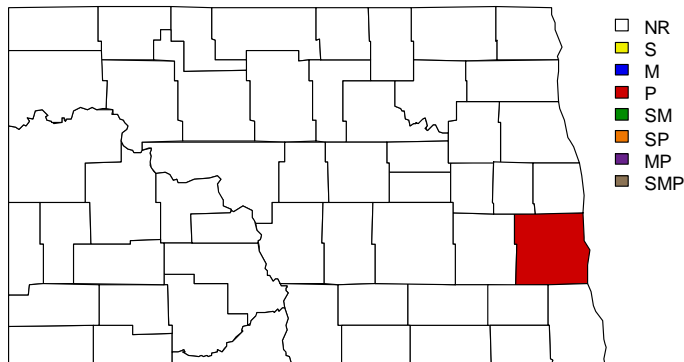
Hemaris diffinis
(Bumblebee Clearwing Moth, Snowberry Clearwing)



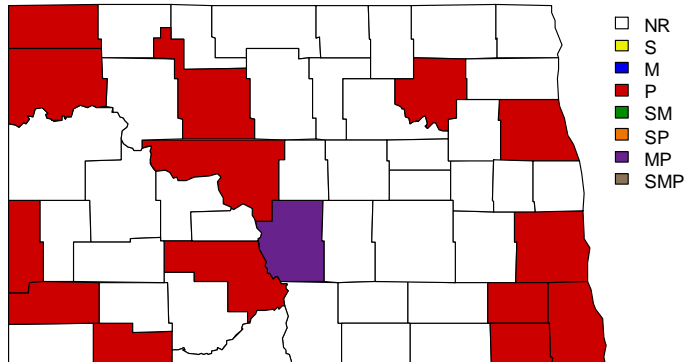
Hemaris thetis
(Rocky Mountain Clearwing Moth)



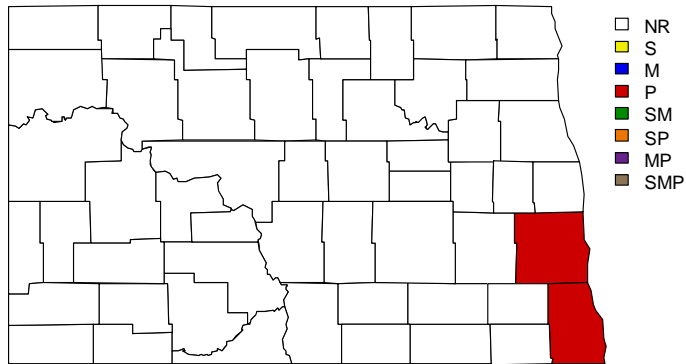
Eumorpha pandorus
(Pandorus Sphinx)



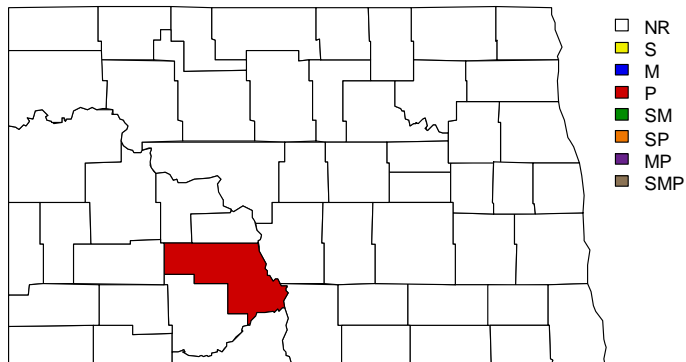
Eumorpha (=Pholus) achemon
(Achemon Sphinx)



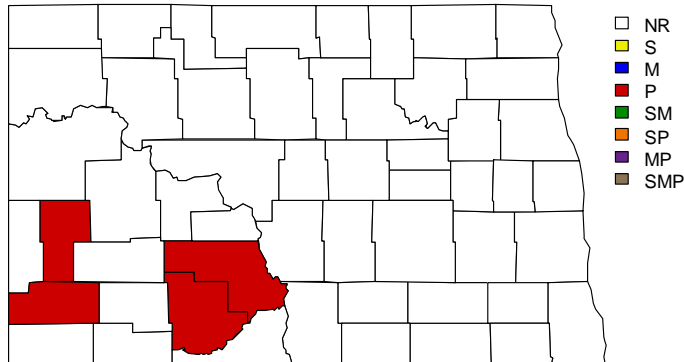
Deidamia inscriptum
(Lettered Sphinx)



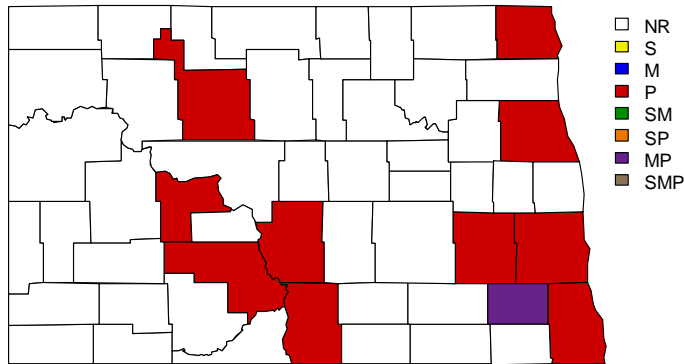
Amphion floridensis
(Nessus Sphinx)



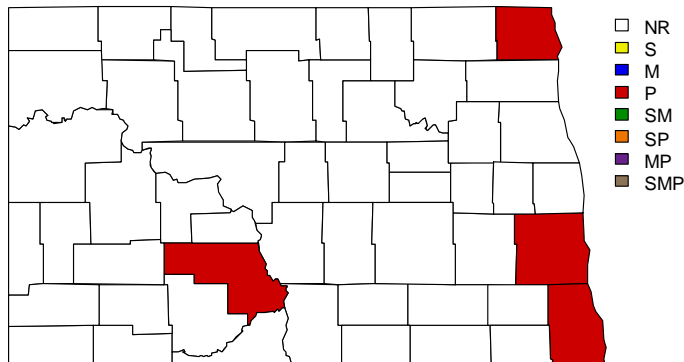
Proserpinus juanita
(Juanita Sphinx Moth)



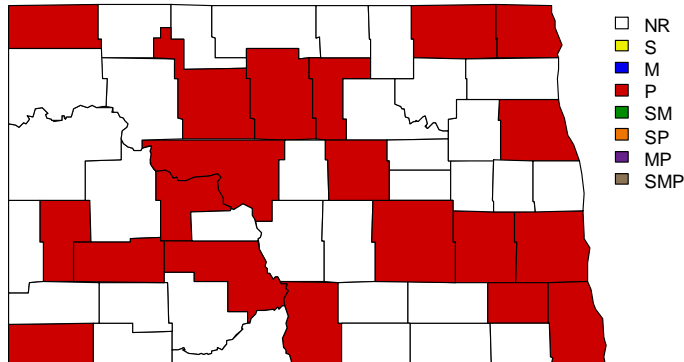
Darapsa (=Ampeloeca) myron
(Hog Sphinx)



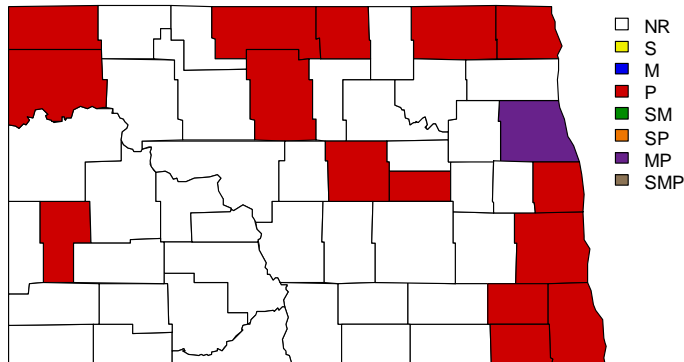
Darapsa choerilus
(Azalea Sphinx)



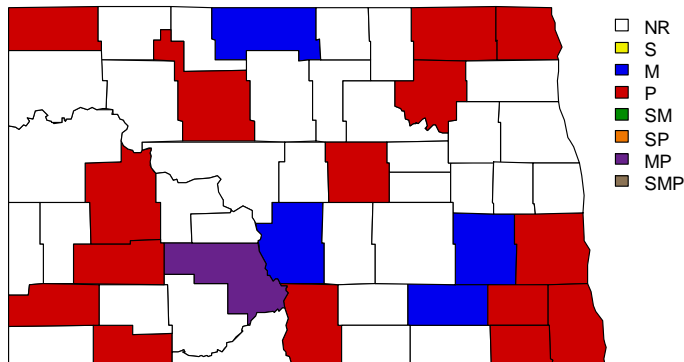
Hyles euphorbiae
(Leafy Spurge Hawk Moth)



Hyles (=Celerio) gallii
(Galium Sphinx, Bedstraw Moth)

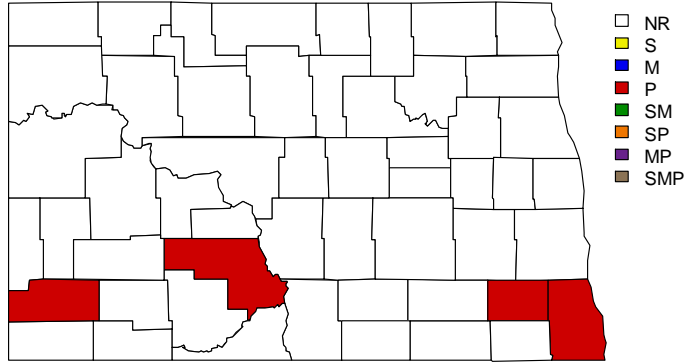


Hyles (=Celerio) lineata
(Whitelined Sphinx)

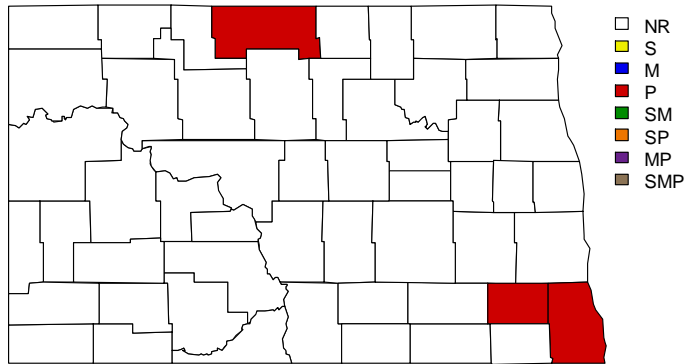


Family: Notodontidae (Prominents)

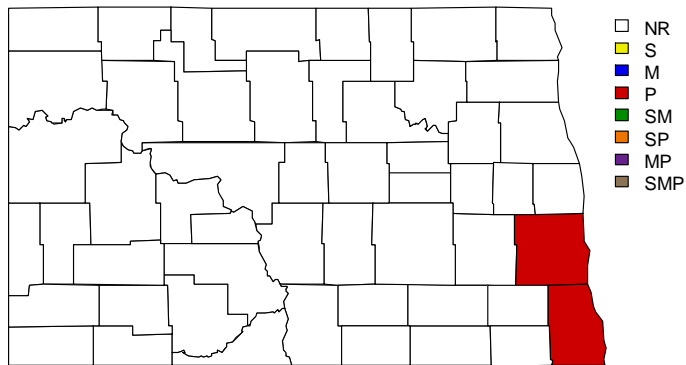
Clostera albosigma
(Sigmoid Prominent)



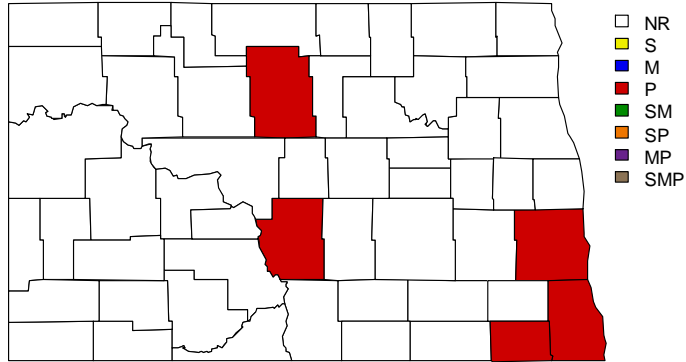
Clostera strigosa
(Striped Chocolate-tip Moth)



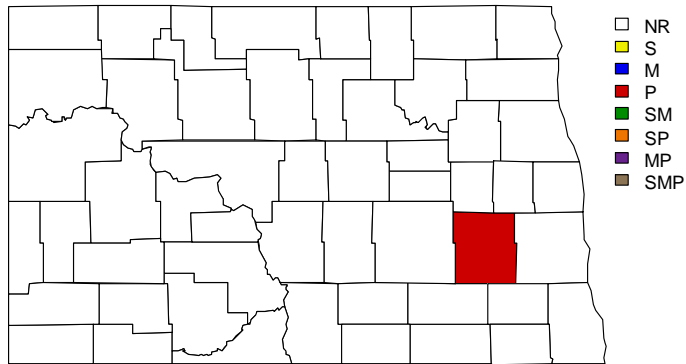
Clostera apicalis
(Apical Prominent, Toothed Clostera)



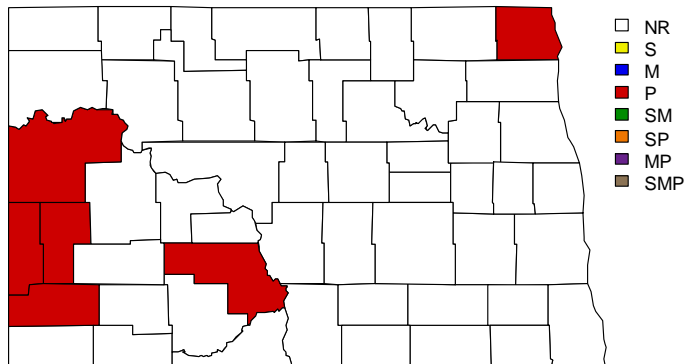
Datana ministra
(Yellownecked Caterpillar)



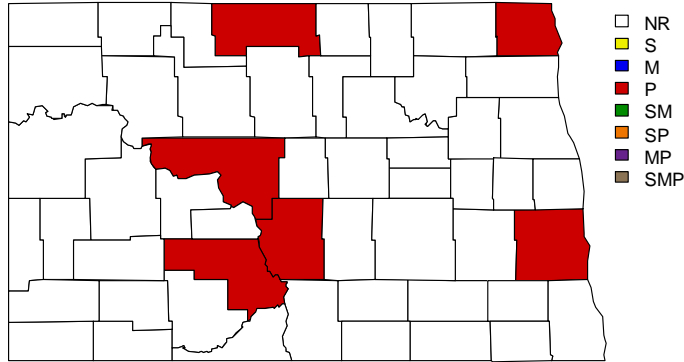
Datana angusii
(Angus's Datana)



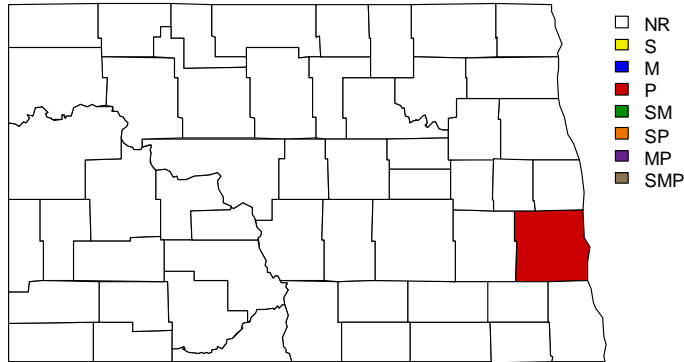
Datana perspicua
(Spotted Datana)



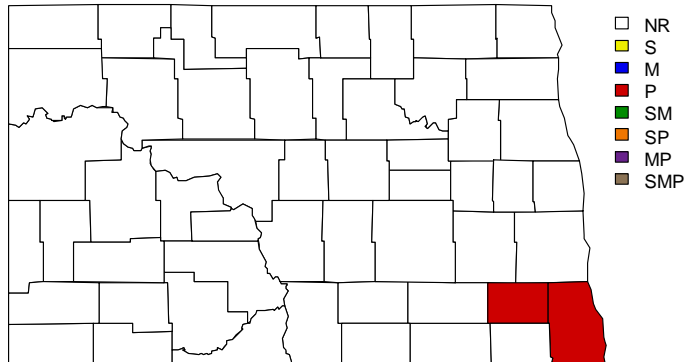
Nadata gibbosa
(White-dotted Prominent, Rough Prominent)



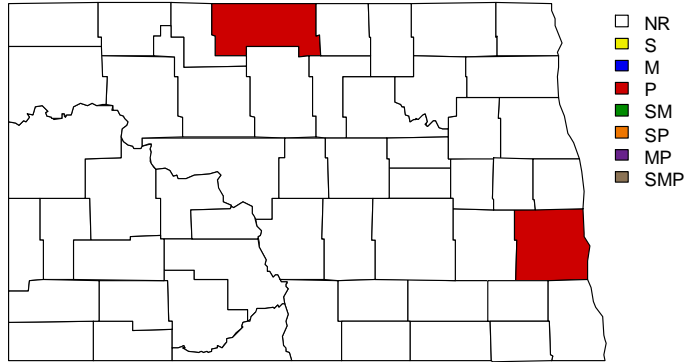
Peridea basitriens
(Oval-Based Prominent)



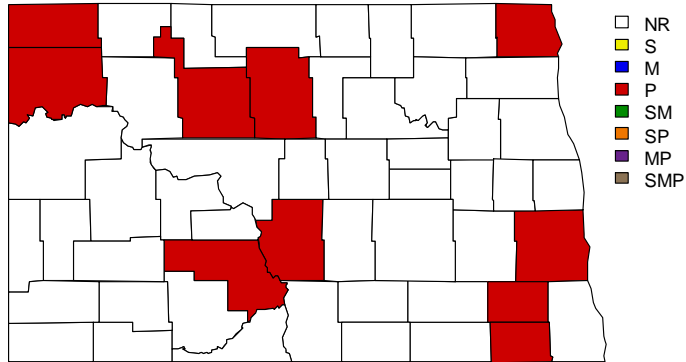
Peridea angulosa
(Angulose Prominent)



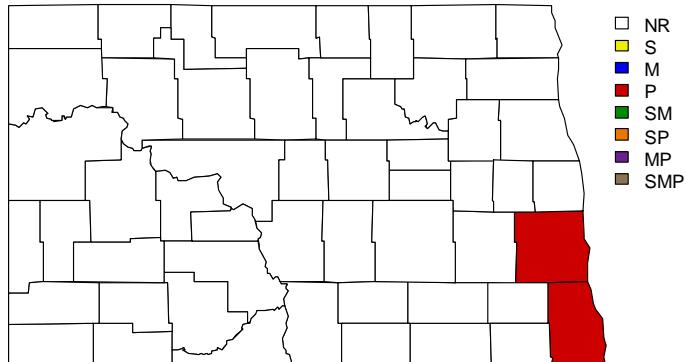
Peridea ferruginea
(Chocolate Prominent)



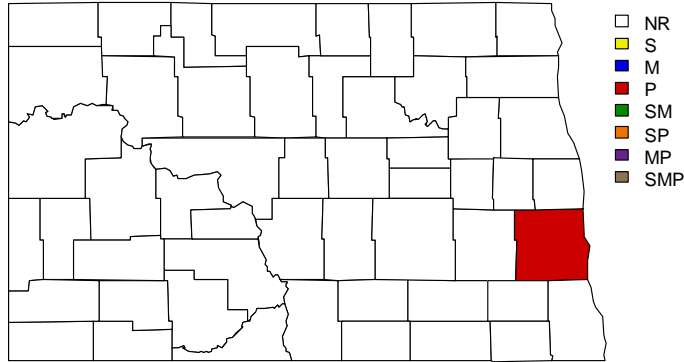
Nerice bidentata
(Base-streaked Prominent, Double-toothed Prominent)



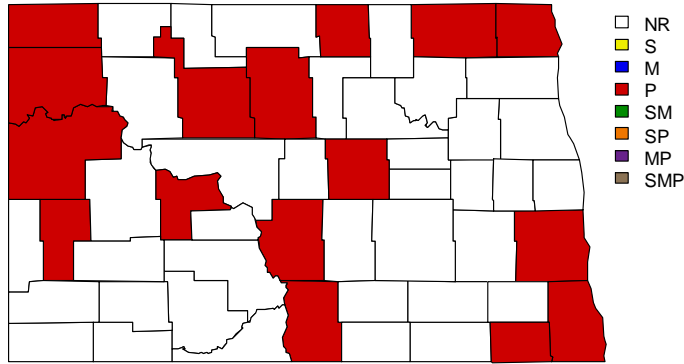
Ellida caniplaga
(Linden Prominent)



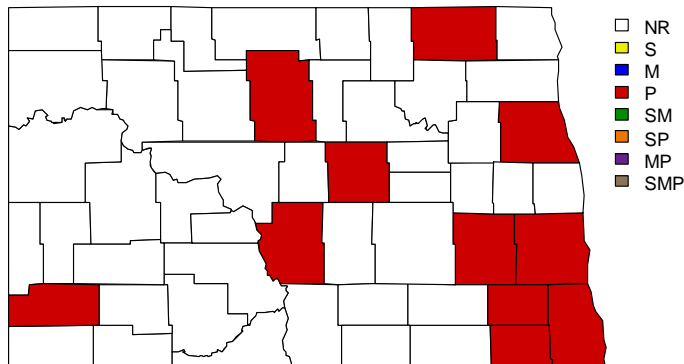
Hyperaeschra georgica
(Georgian Prominent)



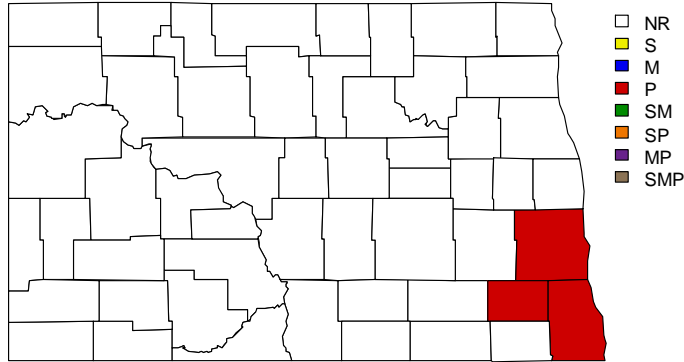
Pheosia rimosa
(Black-rimmed Prominent, Fissured Prominent, False-sphinx)



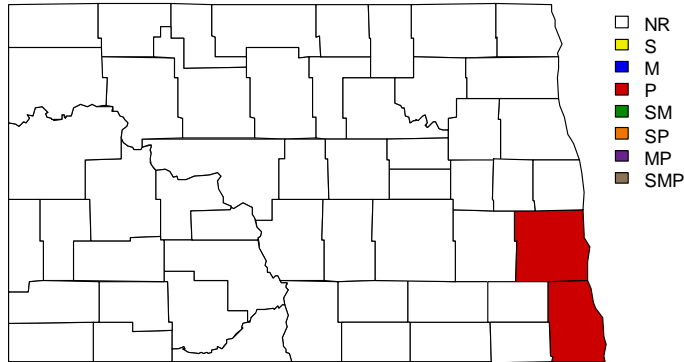
Odontosia elegans
(Elegant Prominent)



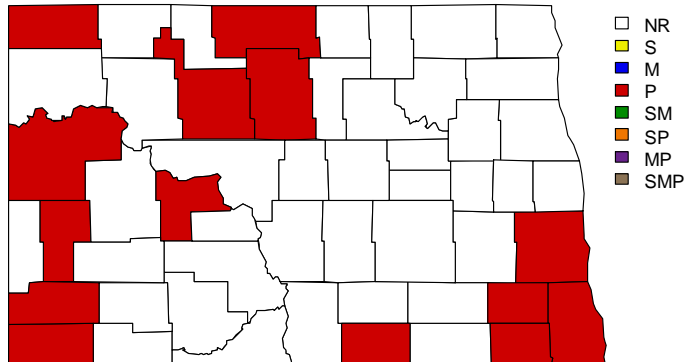
Notodonta scitipennis
(Finned-willow Prominent)



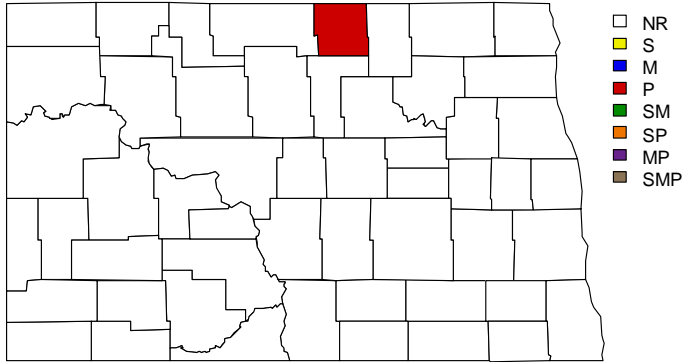
Notodonta simplaria
(Plain Prominent, Simple Prominent)



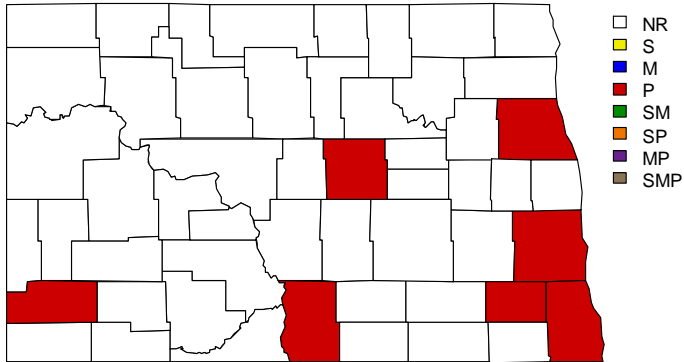
Gluphisia septentrionis
(Common Gluphisia Moth)



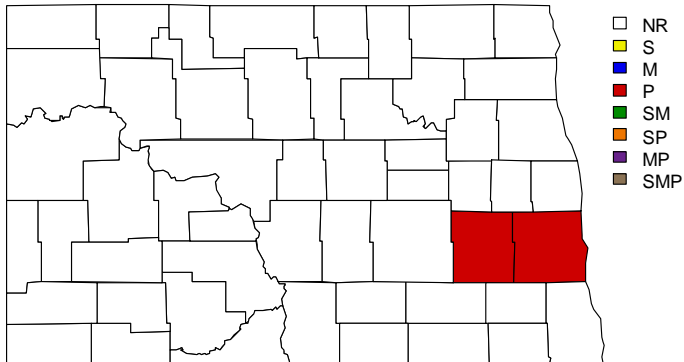
Gluphisia avimacula
(Four-spotted Gluphisia Moth)



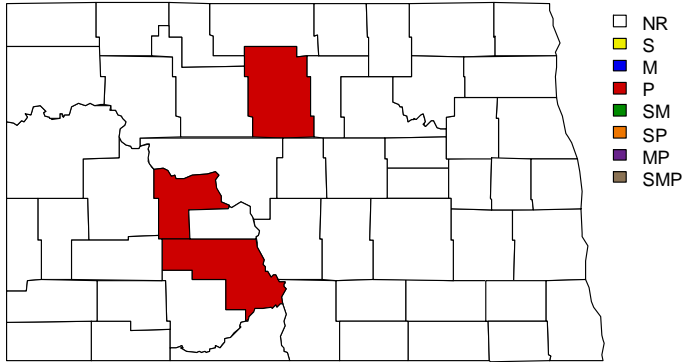
Furcula cinerea
(Gray Furcula Moth)



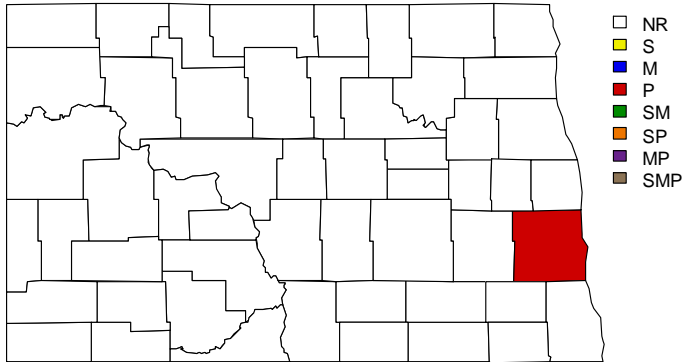
Furcula occidentalis
(Western Furcula Moth, Double-lined Furcula, Willow Kitten)



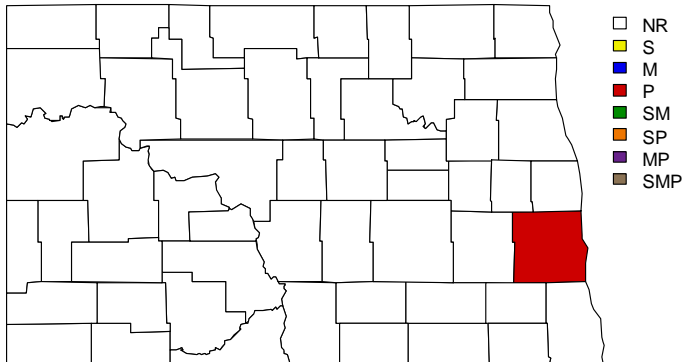
Furcula scolopendrina
(Zigzag Furcula Moth, Poplar Kitten)



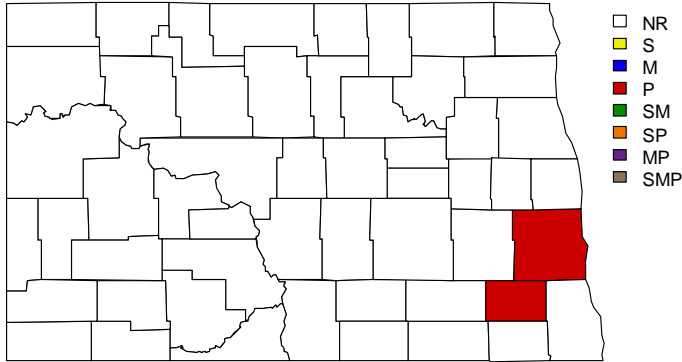
Symmerista canicosta
(Red-humped Oakworm Moth)



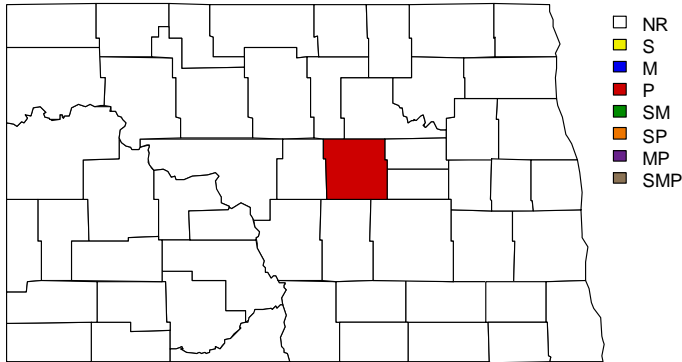
Symmerista leucitys
(Orange-humped Mapleworm Moth)



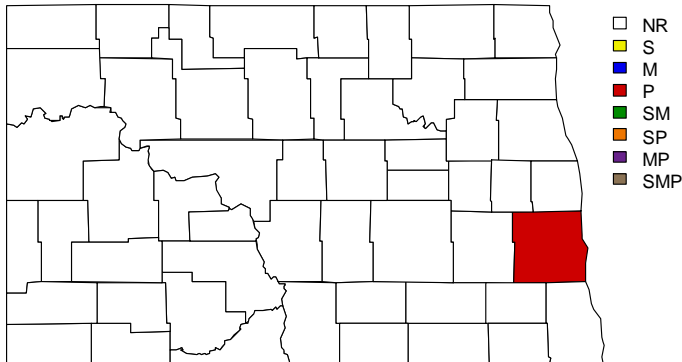
Dasylophia anguina
(Black-spotted Prominent)



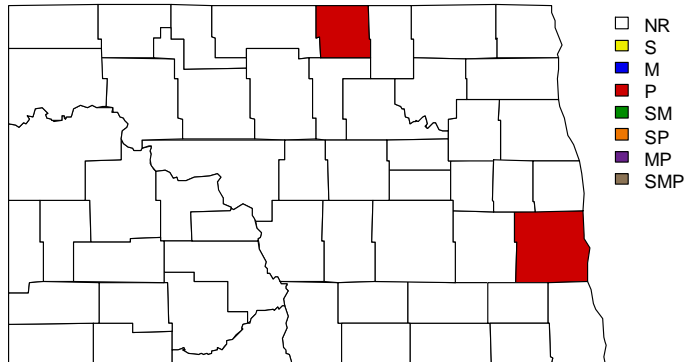
Macrurocampa marthesia
(Mottled Prominent)



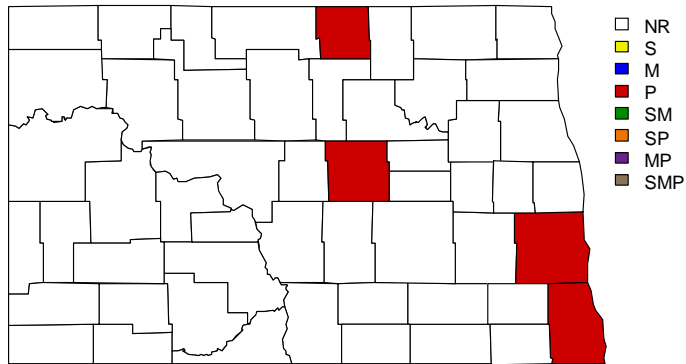
Heterocampa obliqua
(Oblique Heterocampa Moth)



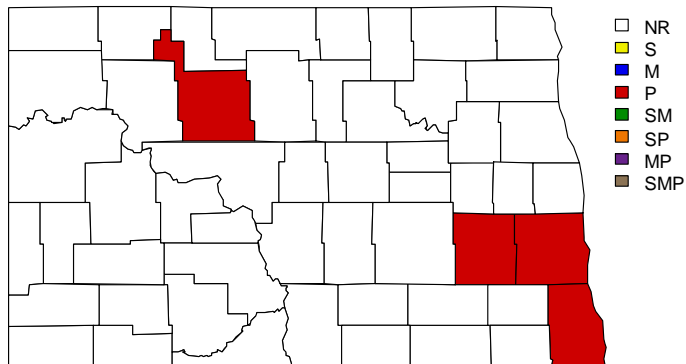
Heterocampa umbrata
(White-blotched *Heterocampa* Moth)



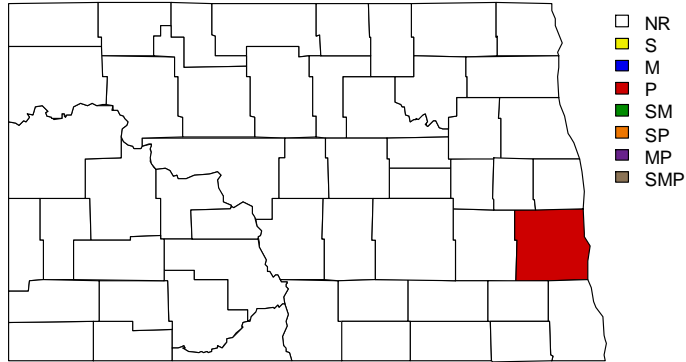
Heterocampa guttivitta
(Saddled Prominent Moth)



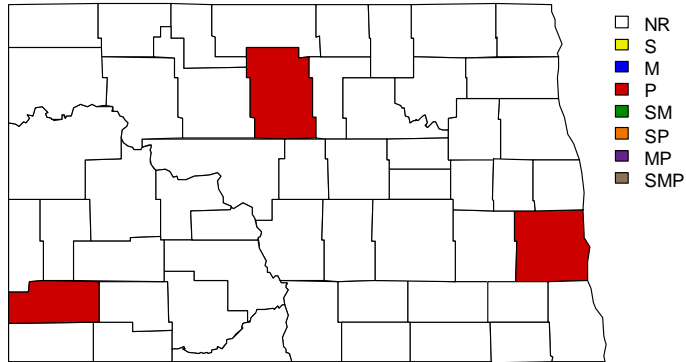
Lochmaeus manteo
(Variable Oakleaf Caterpillar Moth)



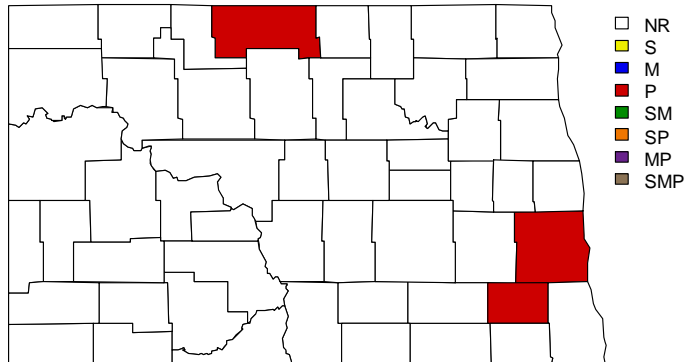
Lochmaeus bilineata
(Double-lined Prominent)



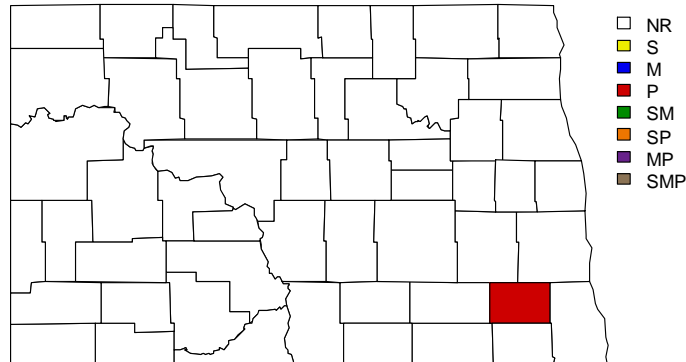
Schizura ipomoeae
(Checked-Fringe Prominent, Morning-glory Prominent)



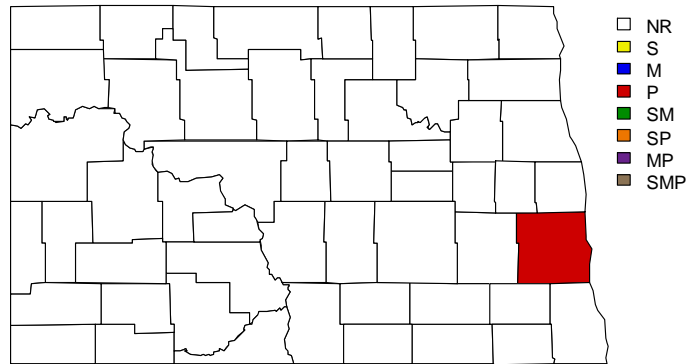
Schizura unicornis
(Unicorn Caterpillar Moth, Unicorn Prominent, Variegated Prominent)



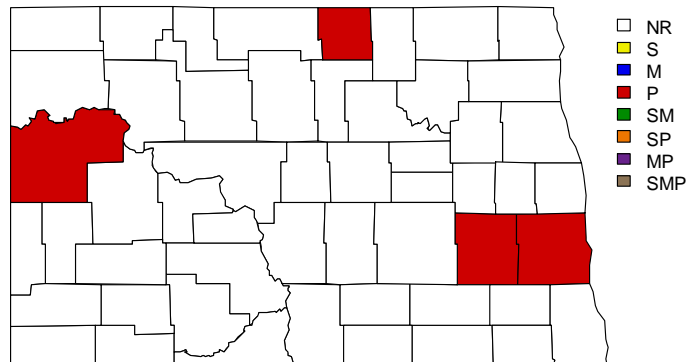
Schizura apicalis
(Plain Schizura Moth)



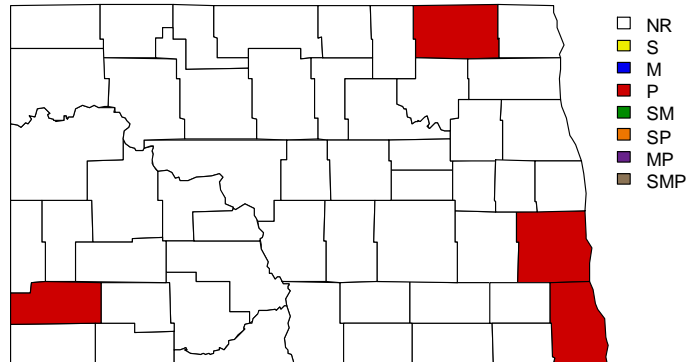
Schizura leptinoides
(Black-blotched Schizura Moth)



Oligocentria semirufescens
(Red-washed Prominent, Rusty Prominent)

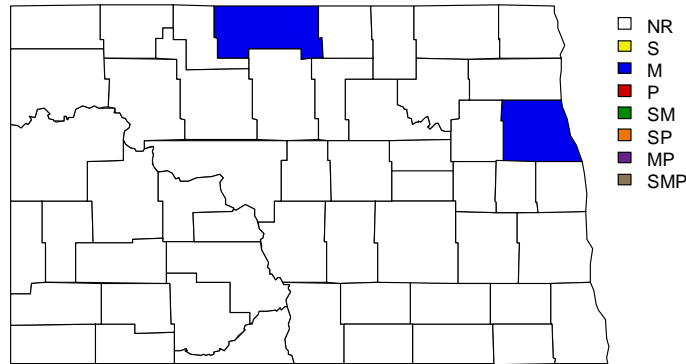


Oligocentria lignicolor
(White-streaked Prominent)

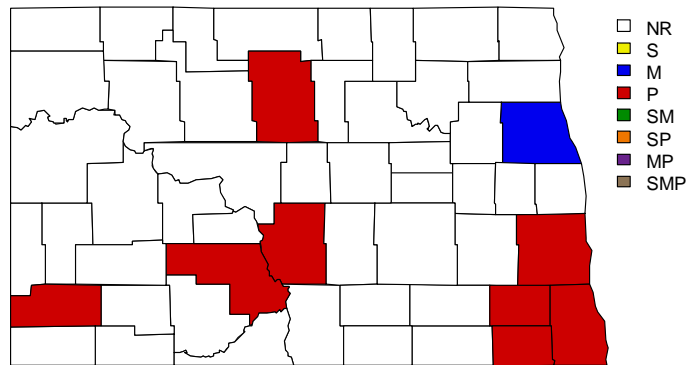


Family: Noctuidae (Owlet Moths)

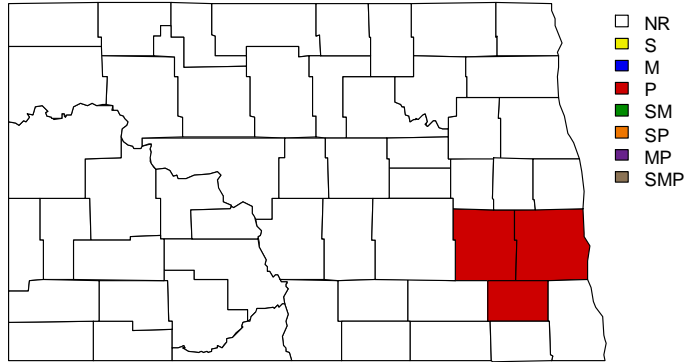
Acronicta (=Apatela) americana
(American Dagger Moth)



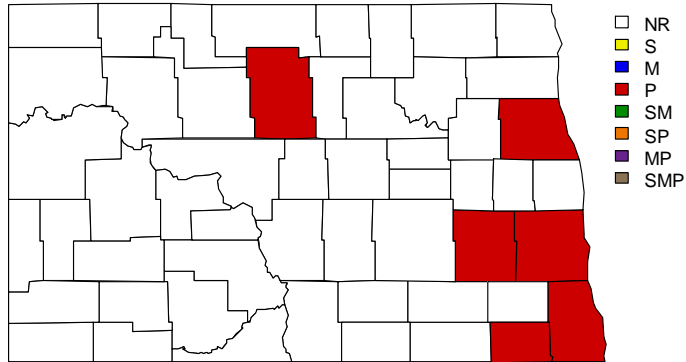
Acronicta lepusculina
(Cottonwood Dagger Moth)



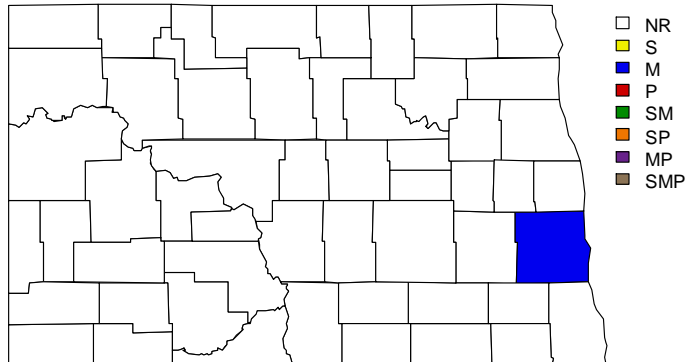
Acronicta sperata
(Hopeful Dagger Moth)



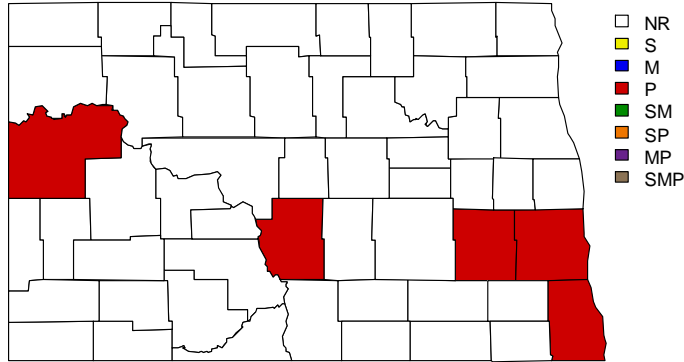
Euclidia cuspidata
(Toothed Somberwing)



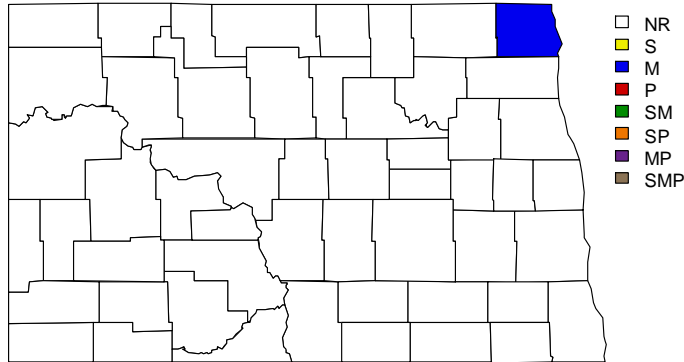
Caenurgina erechtea
(Forage Looper Moth)



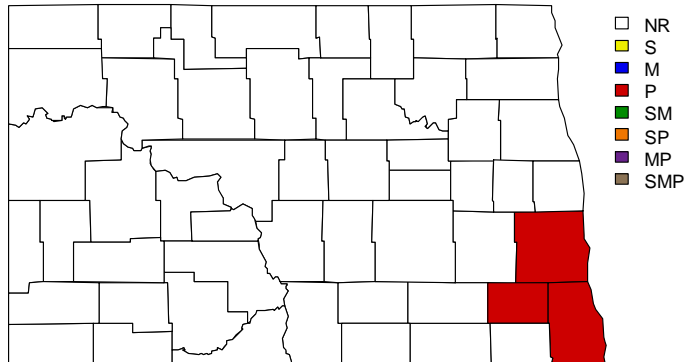
Argyrostrotis anilis
(Short-lined Chocolate)



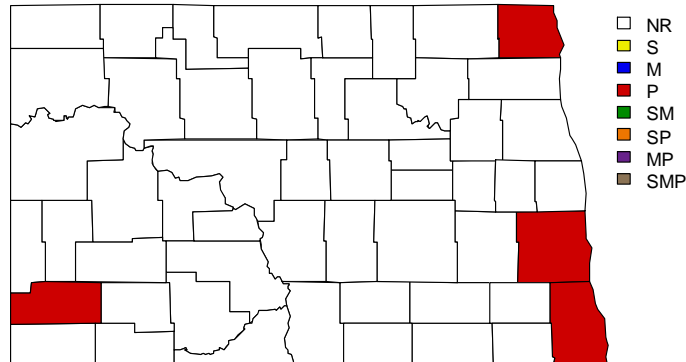
Catocala palaeogama
(Oldwife Underwing)



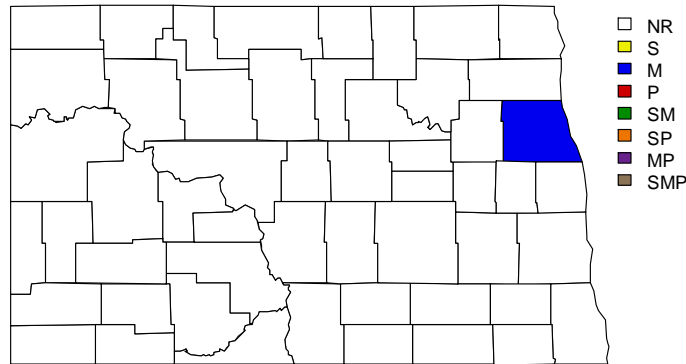
Catocala ilia
(Ilia Underwing, Beloved Underwing, Wife Underwing)



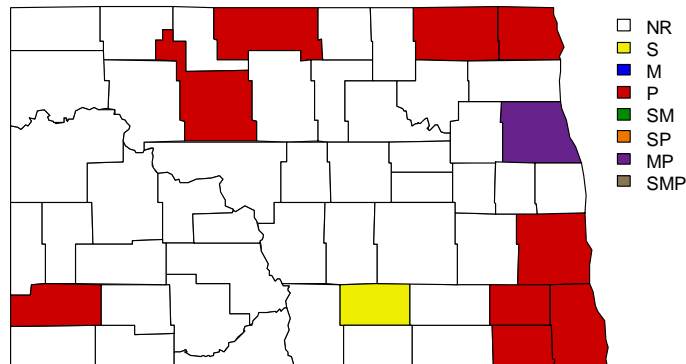
Catocala cerogama
(Yellow-banded Underwing)



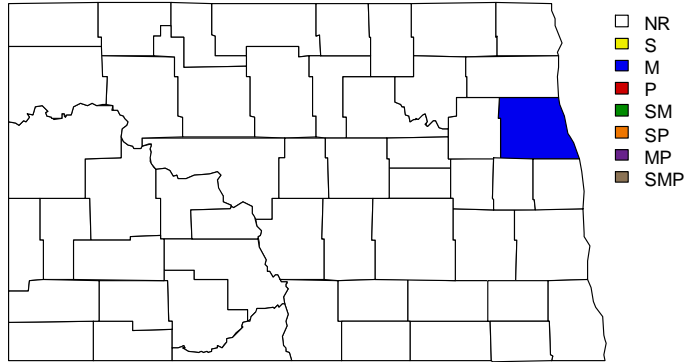
Catocala relictta
(White Underwing)



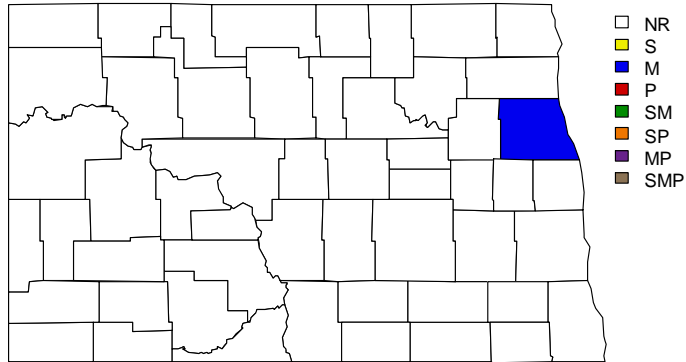
Catocala parta
(Mother Underwing)



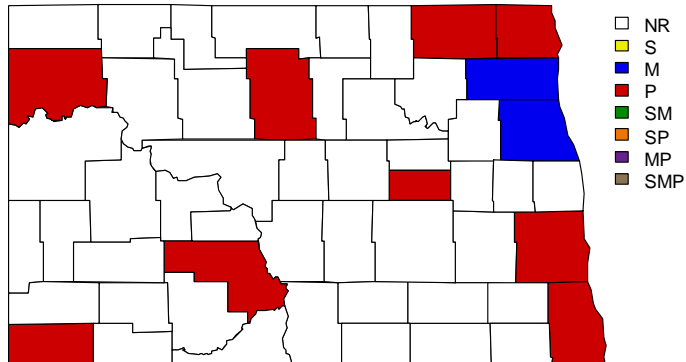
Catocala luciana
(Luciana Underwing)



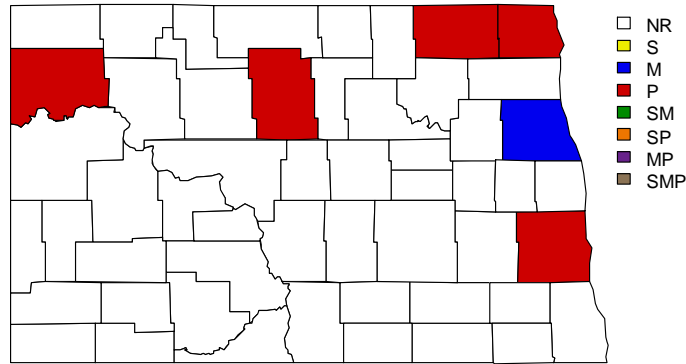
Catocala briseis
(Briseis Underwing)



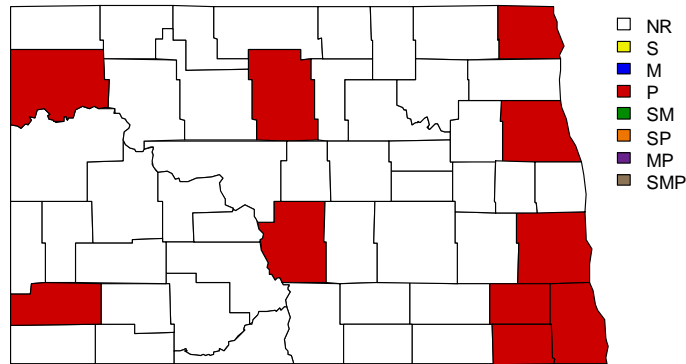
Catocala meski
(Mesk's Underwing)



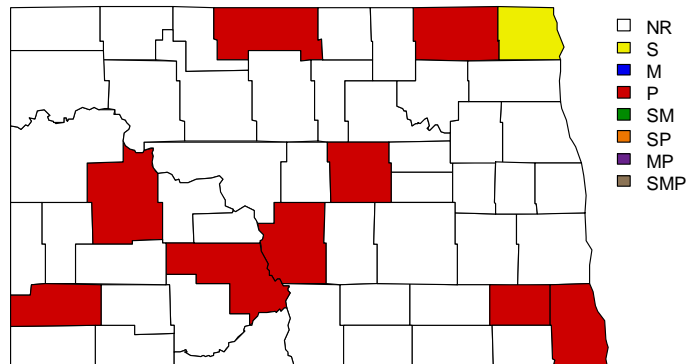
Catocala concumbens
(Sleepy Underwing, Pink Underwing)



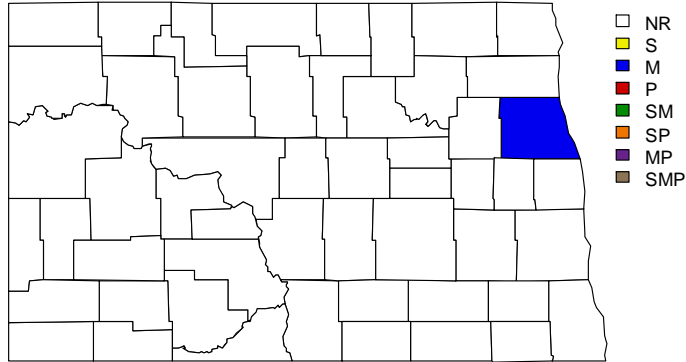
Catocala whitneyi
(Whitney's Underwing)



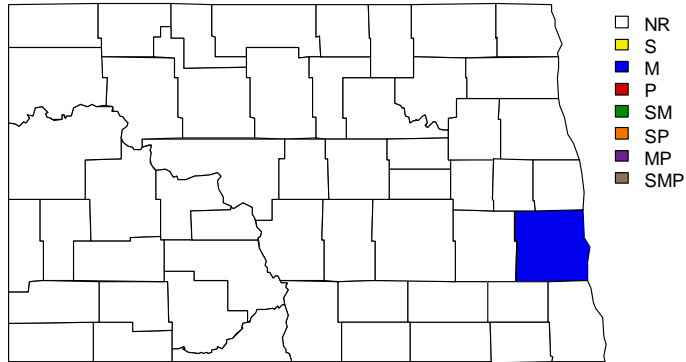
Catocala coccinata
(Scarlet Underwing)



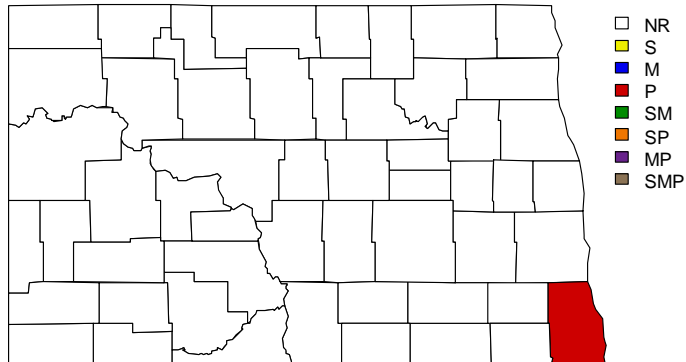
Catocala ultronia
(Ultronia Underwing)



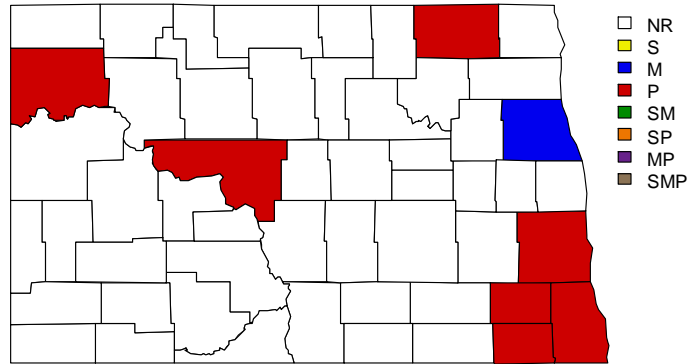
Catocala grynea
(Woody Underwing)



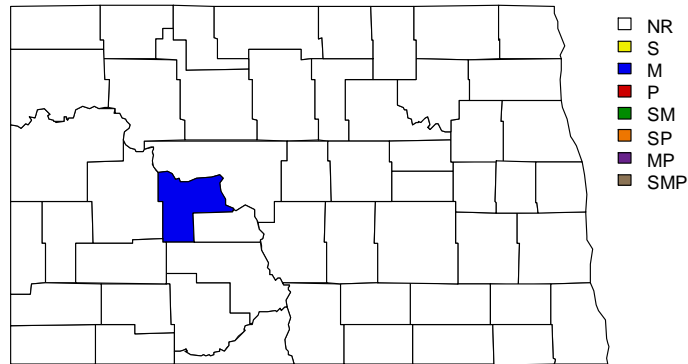
Catocala amica
(Girlfriend Underwing)



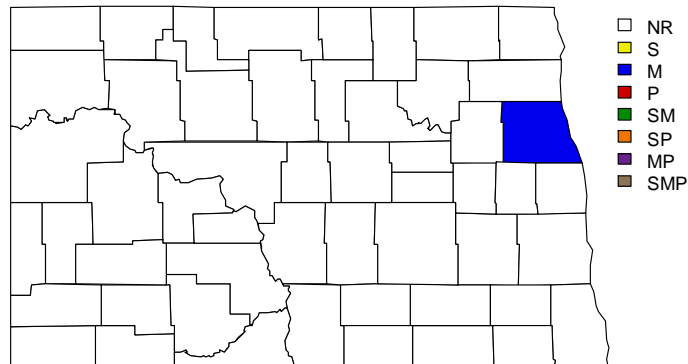
Scoliopteryx libatrix
(Herald Moth)



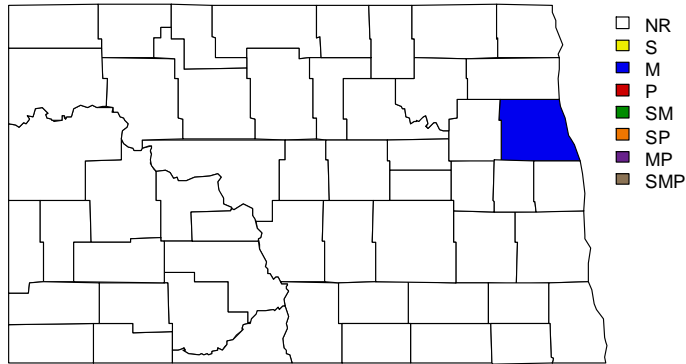
Hypena (=Bomolocha) edictalis
(Large Bomolocha Moth)



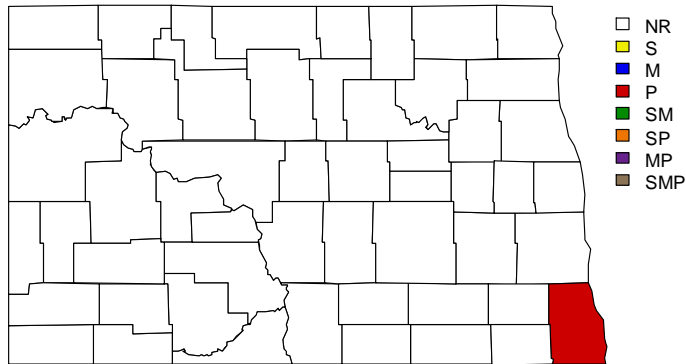
Hypena humuli
(Hop Vine Moth)



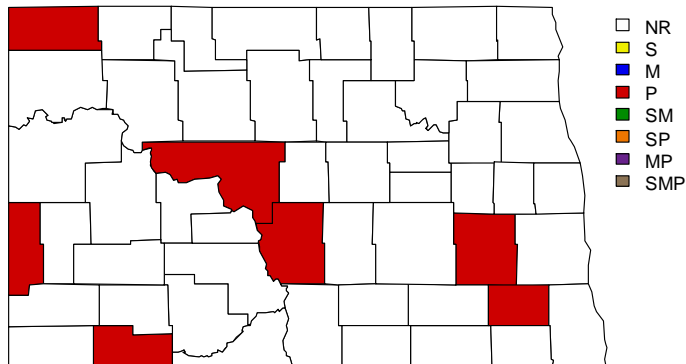
Hypena (=Plathypena) scabra
(Green Cloverworm Mouth, Black Snout Moth)



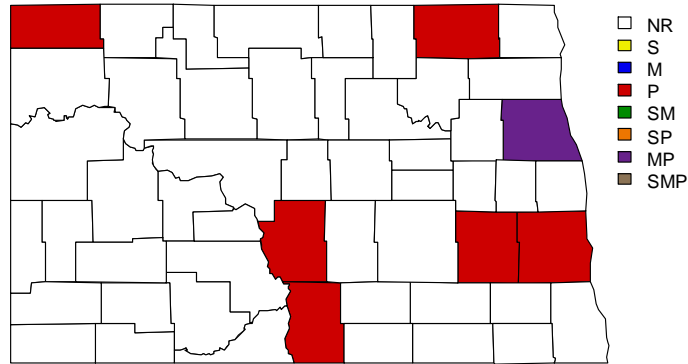
Paectes oculatrix
(Eyed Paectes Moth)



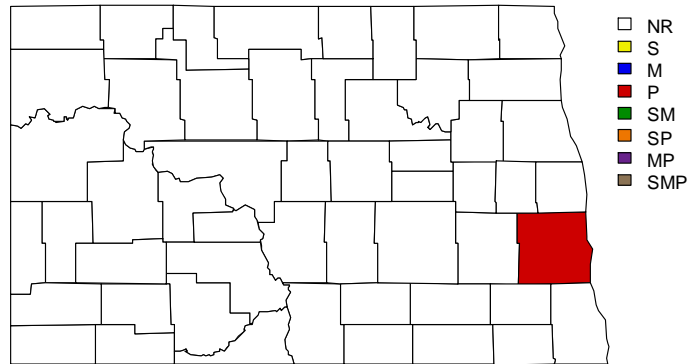
Abrostola urentis
(Spectacled Nettle Moth, Variegated Brindle)



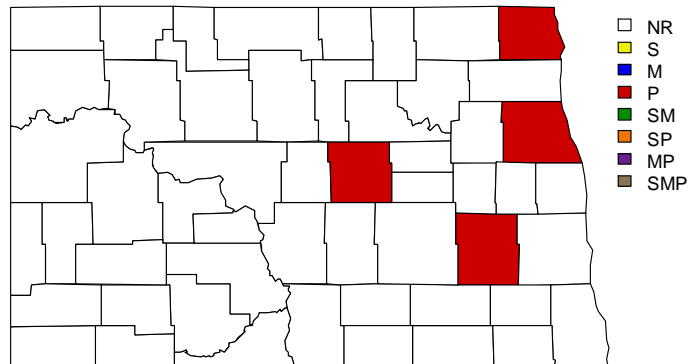
Trichoplusia ni
(Cabbage Looper Moth)



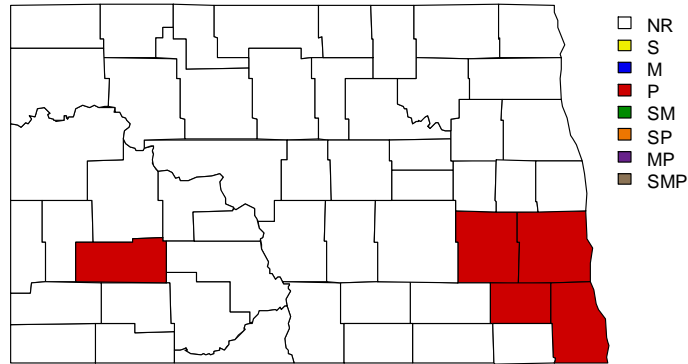
Rachiplusia ou
(Gray Looper Moth)



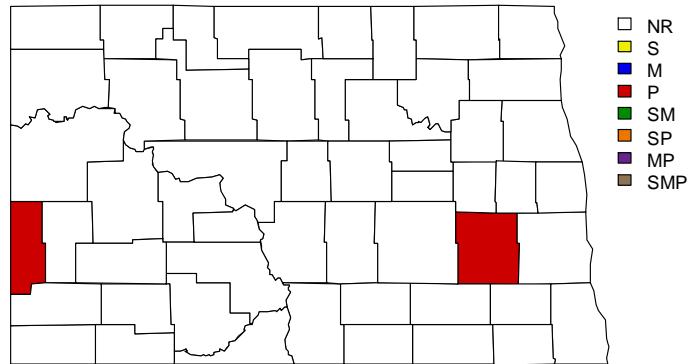
Diachrysia aereoides
(Dark-spotted Looper Moth, Lined Copper Looper Moth)



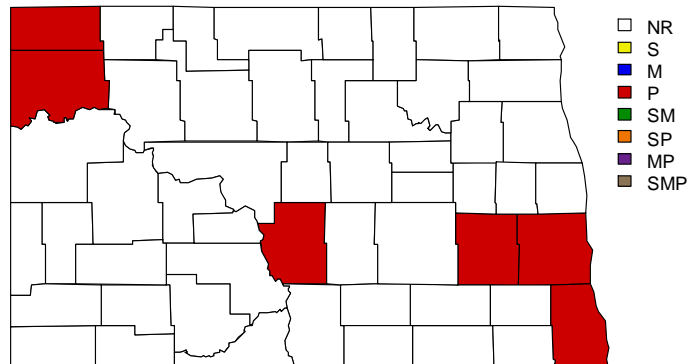
Diachrysia balluca
(Green-patched Looper Moth)



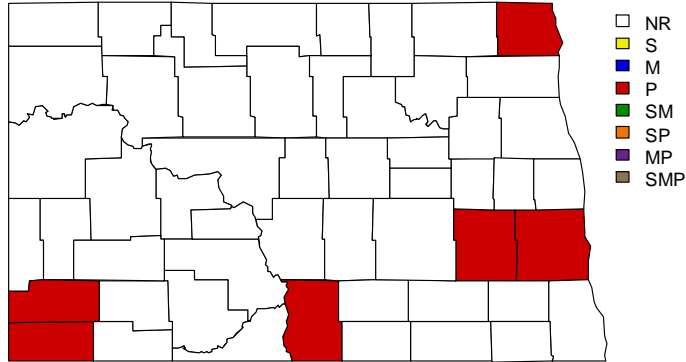
Allagrapha aerea
(Unspotted Looper Moth, Copper Looper Moth)



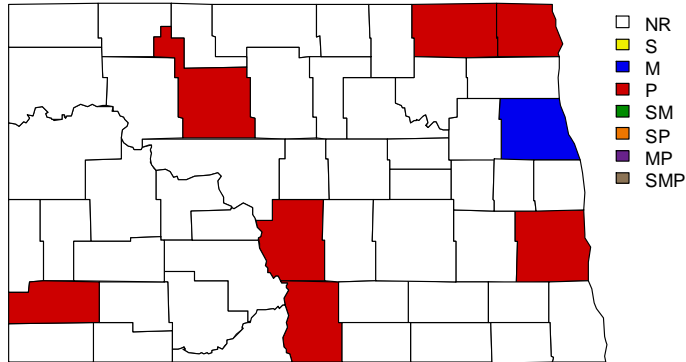
Pseudeva purpurigera
(Straight-lined Looper Moth)



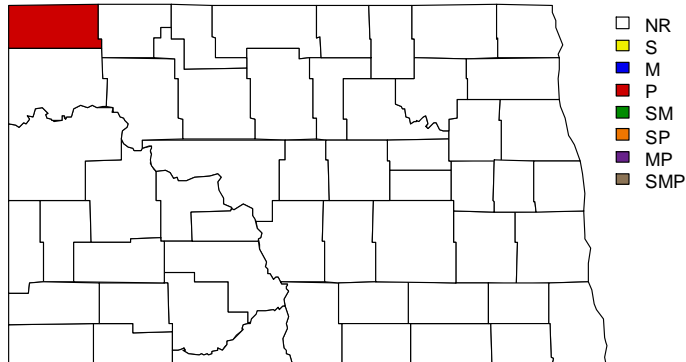
Megalographa biloba
(Bilobed Looper Moth)



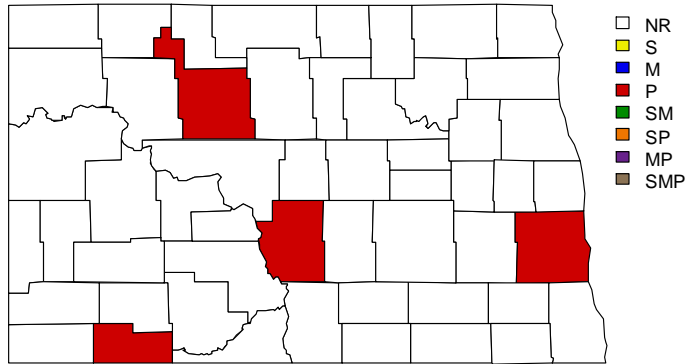
Autographa precatioris
(Common Looper Moth)



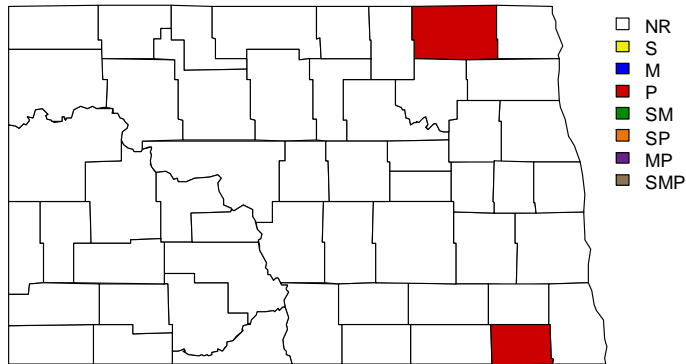
Autographa pseudogamma
(Delicate Silver Y)



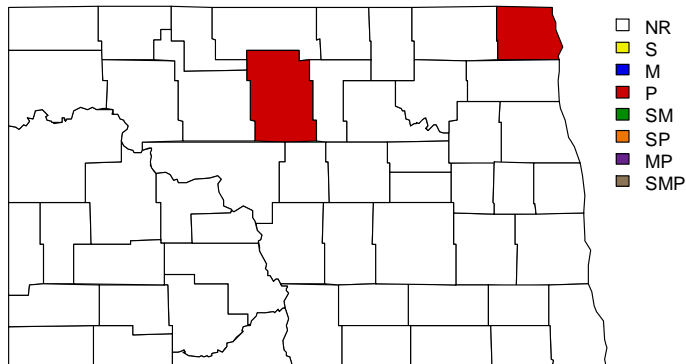
Autographa californica
(Alfalfa Looper Moth)



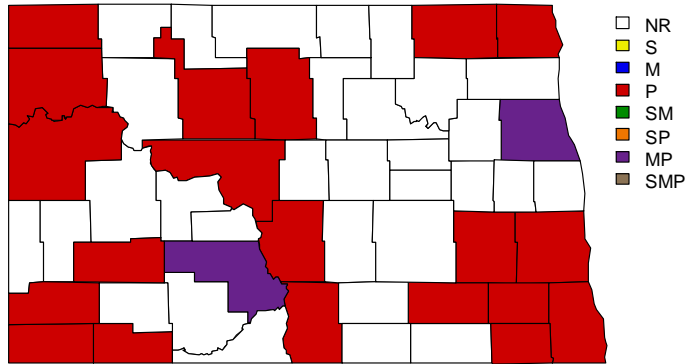
Autographa flagellum
(Sinuated Looper Moth)



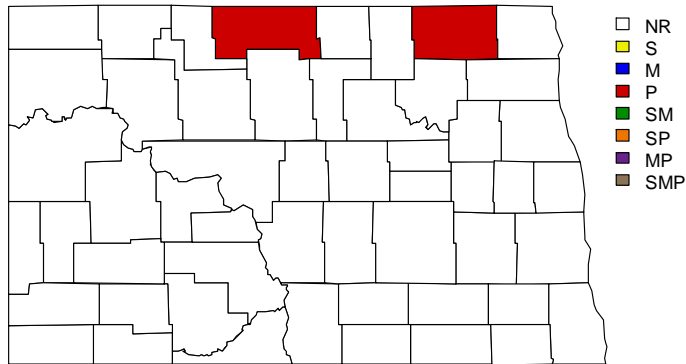
Autographa ampla
(Large Looper, Raspberry Looper, Brown-patched Looper, Broken-banded Y)



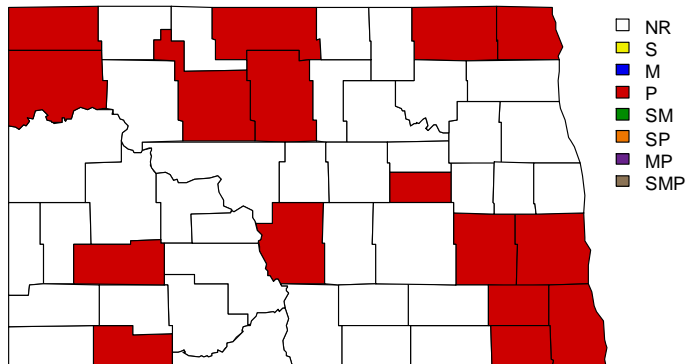
Anagrapha falcifera
(Celery Looper Moth)



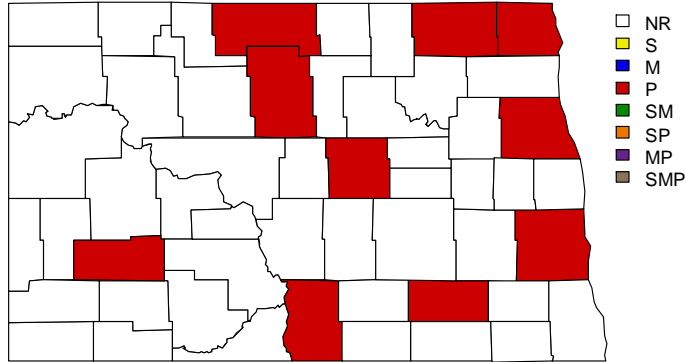
Plusia putnami
(Lempke's Gold Spot, Putnam's Looper Moth)



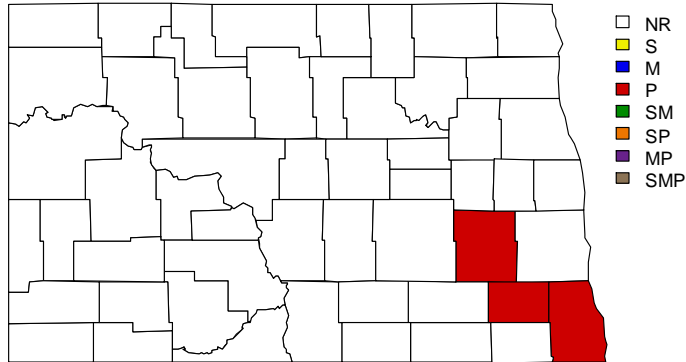
Plusia contexta
(Connected Looper Moth)



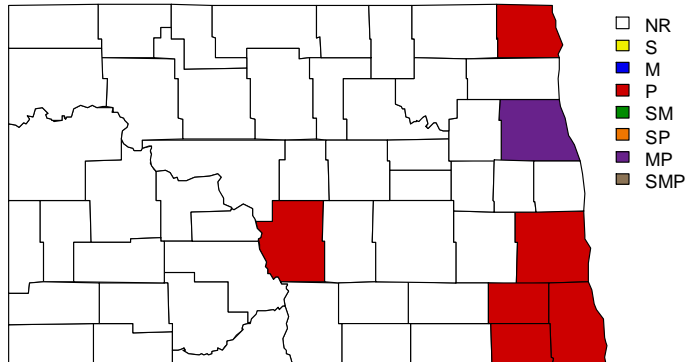
Plusia venusta
(White-streaked Looper Moth)



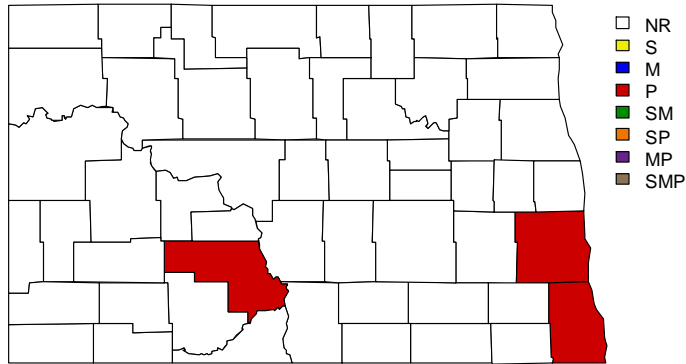
Eudryas unio
(Pearly Wood-Nymph)



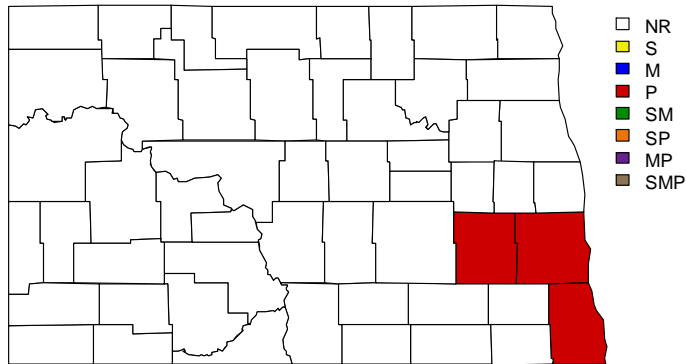
Eudryas grata
(Beautiful Wood-Nymph)



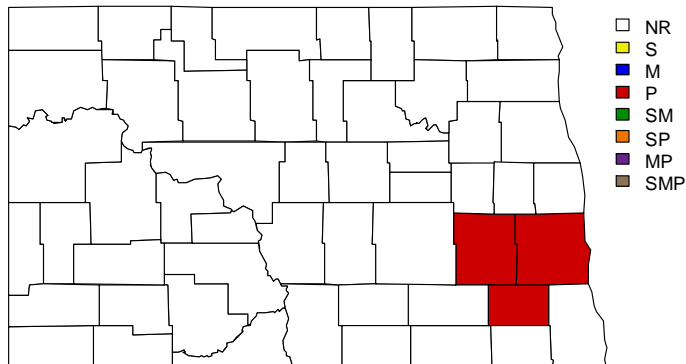
Alypia octomaculata
(Eight-spotted Forester Moth)



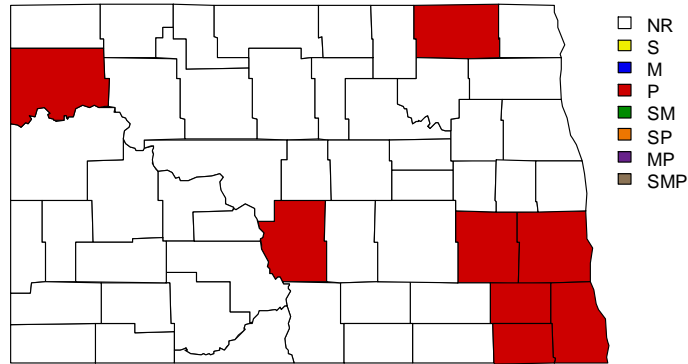
Deltote (=Lithacodia) bellicula
(Bog Lithacodia Moth, Bog Glyph)



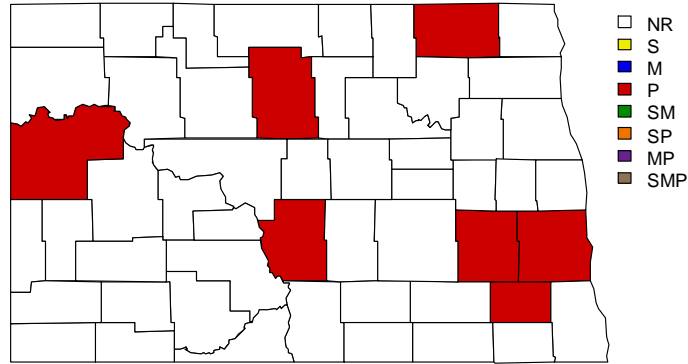
Protodeltote (=Lithacodia) muscosula
(Large Mossy Lithacodia Moth, Larger Mossy Glyph)



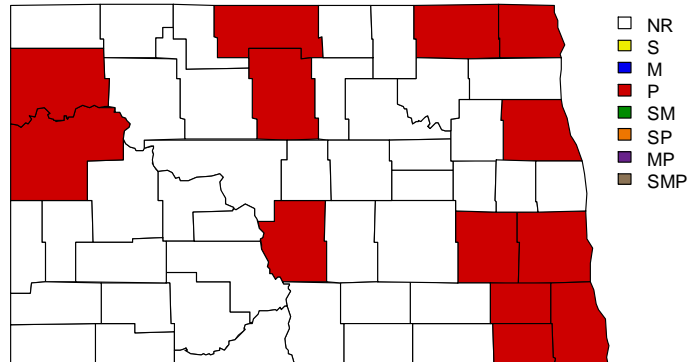
Protodeltote (=Lithacodia) albidula
 (Pale Lithacodia Moth, Pale Glyph)



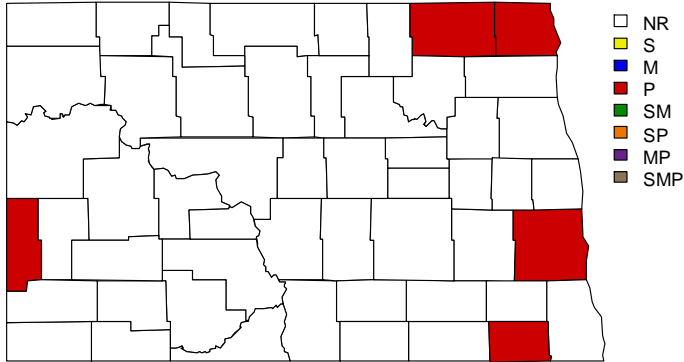
Maliattha synochitis
 (Black-dotted Lithacodia Moth, Black-dotted Glyph)



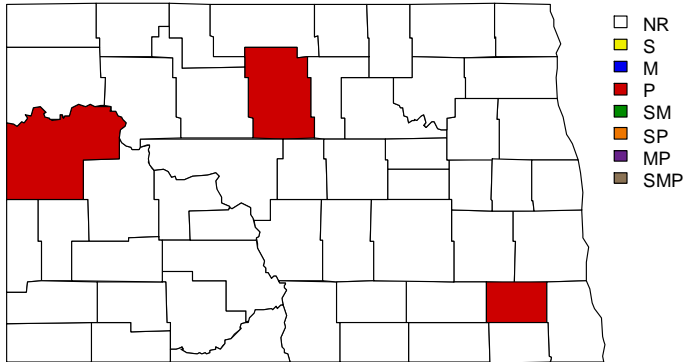
Pseudeustrotia carneola
 (Pink-barred Lithacodia Moth, Pink-barred Glyph)



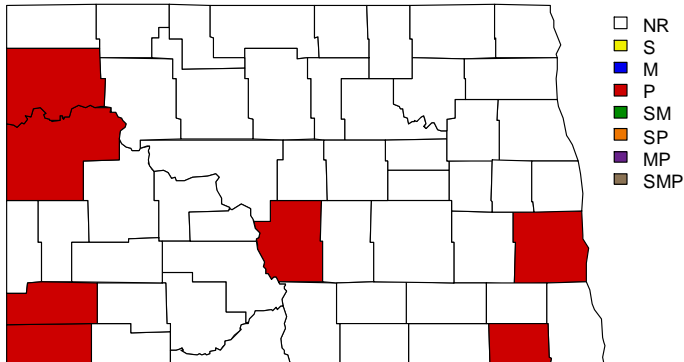
Cerma cerintha
(Tufted Bird-dropping Moth)



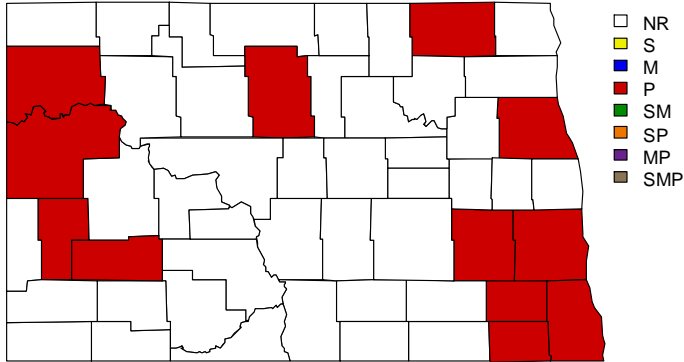
Tarachidia semiflava
(Half-yellow Moth)



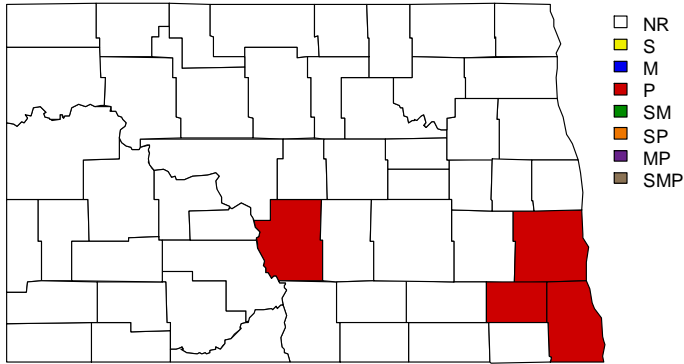
Tarachidia binocula
(Prairie Bird-dropping Moth)



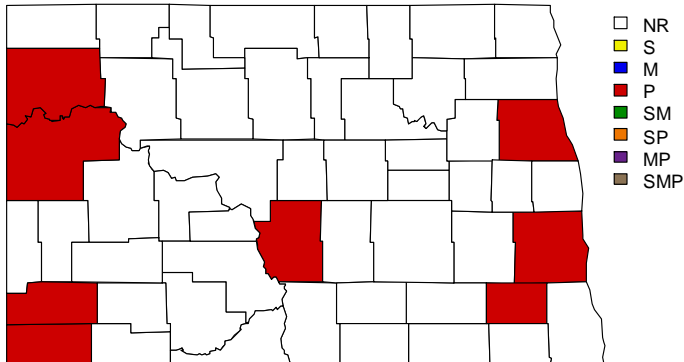
Tarachidia candefacta
(Olive-shaded Bird-dropping Moth)



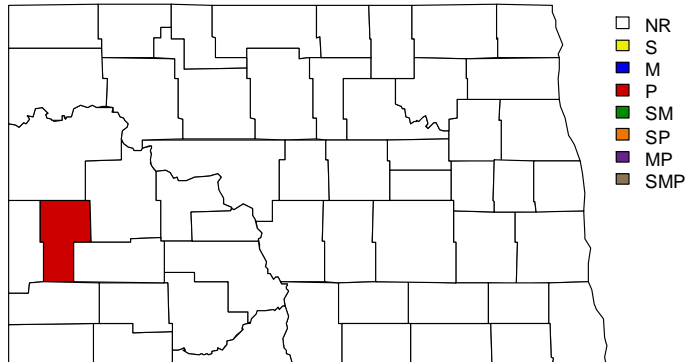
Tarachidia erastrioides
(Small Bird-dropping Moth)



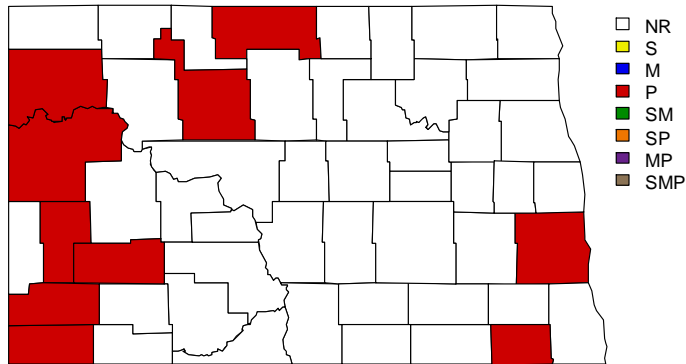
Tarachidia tortricina
(Olive-yellow Moth)



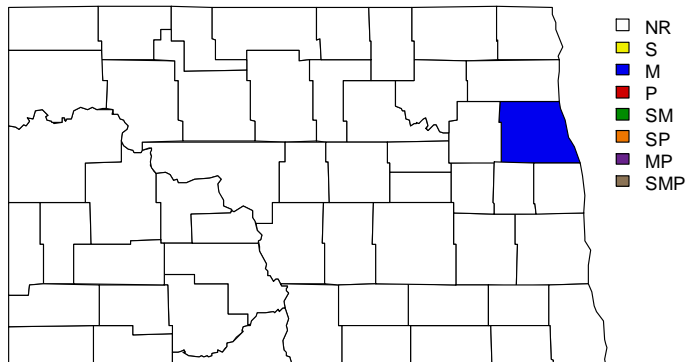
Ponometia (=Conochoares) elegantula
(Arizona Bird-dropping Moth)



Therapsea flavicosta
(Cream-edged Bird-lime Moth)

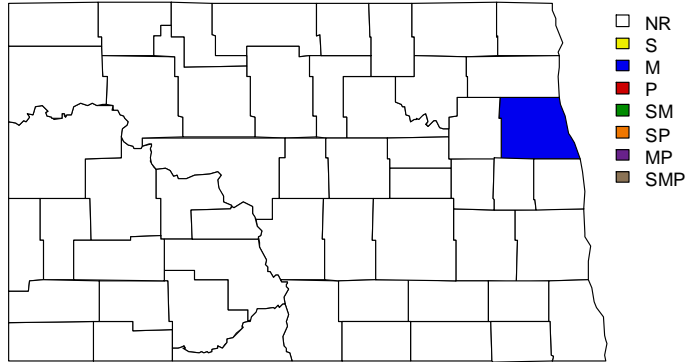


Simyra insularis (=henrici)
(Henry's Marsh Moth)



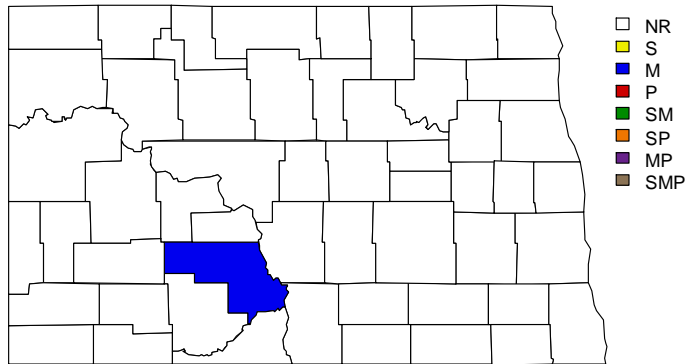
Xylena nupera

(American Swordgrass Moth)



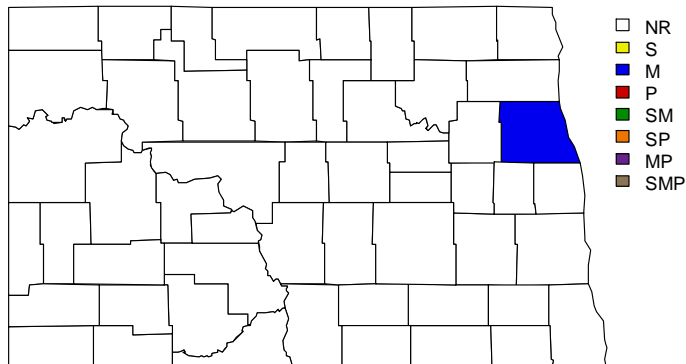
Lithophane georgii

(Large Grey Pinion, Green Fruitworm Moth)

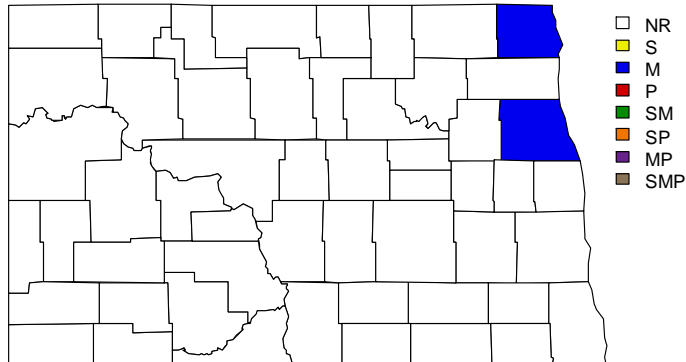


Lithophane laticinerea

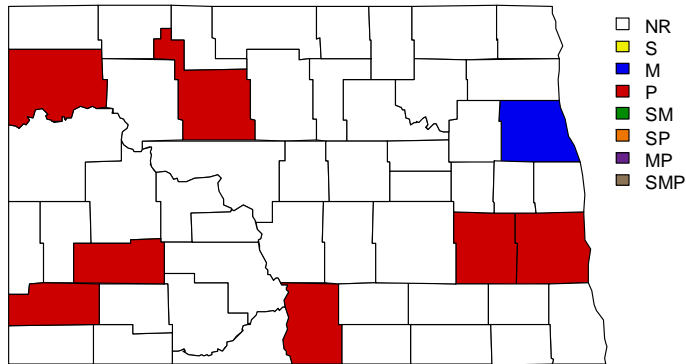
(Broad Ashen Pinion Moth)



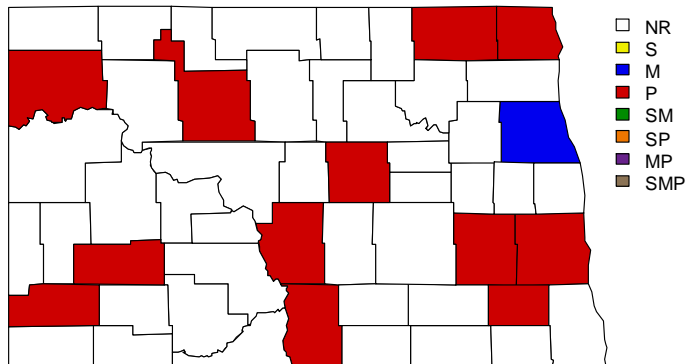
Agrochola (=Sunira) bicolorago
 (Bicolored Sallow Moth, Shield-backed Cutworm Moth)



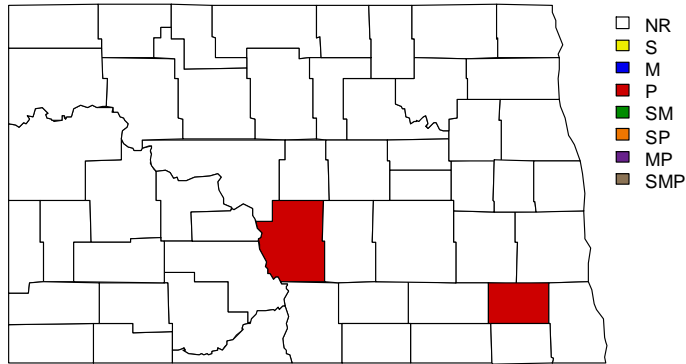
Cucullia speyeri
 (Speyer's Hooded Owlet Moth)



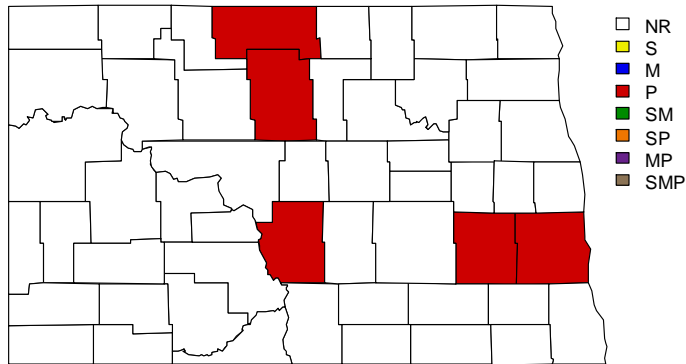
Cucullia intermedia
 (Intermediate Hooded Owlet Moth, Intermediate Falconer)



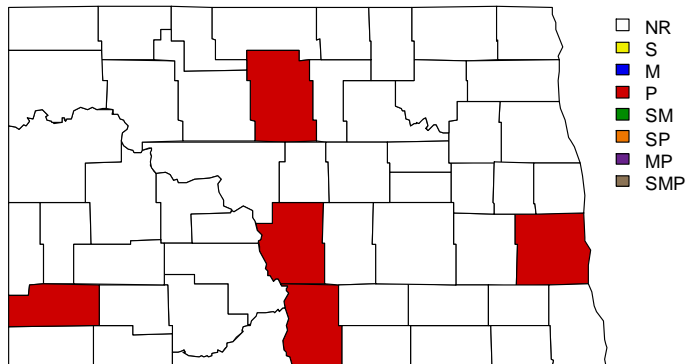
Cucullia florea
(Gray-hooded Owlet Moth)



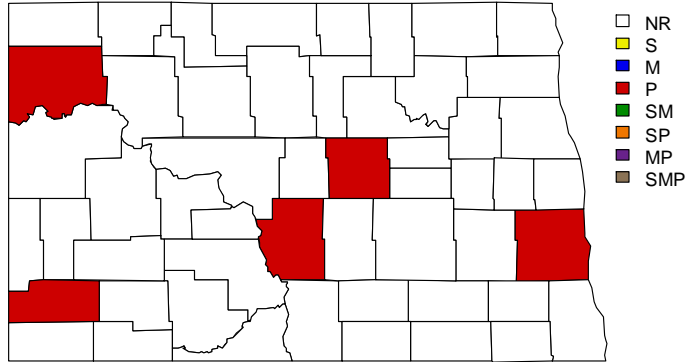
Cucullia postera
(Suffused Hooded Owlet Moth)



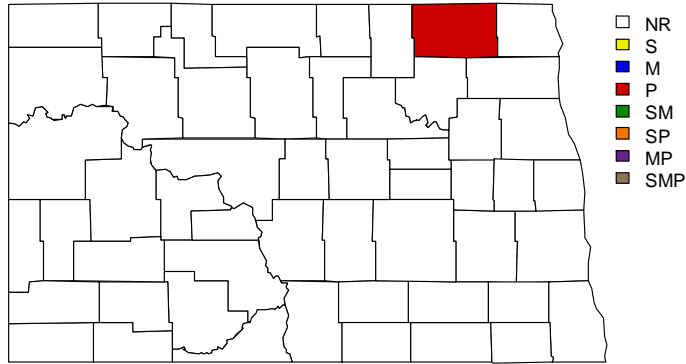
Cucullia asteroides
(Asteroid Moth)



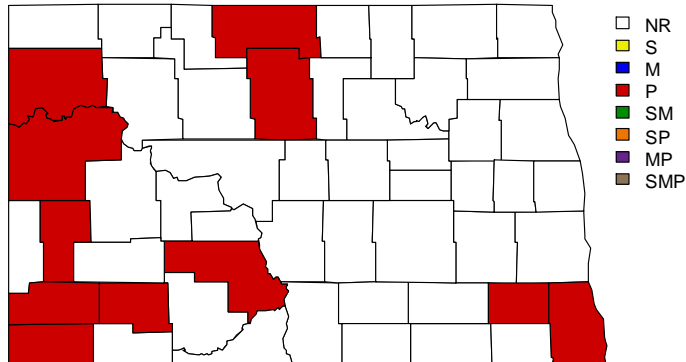
Cucullia montanae
(Mountain Hooded Owlet Moth)



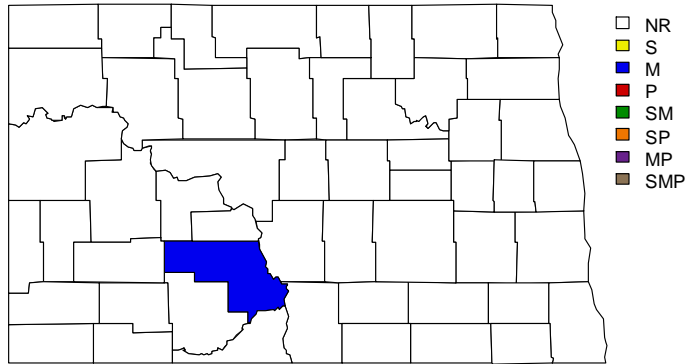
Cucullia convexipennis
(Brown-hooded Owlet Moth)



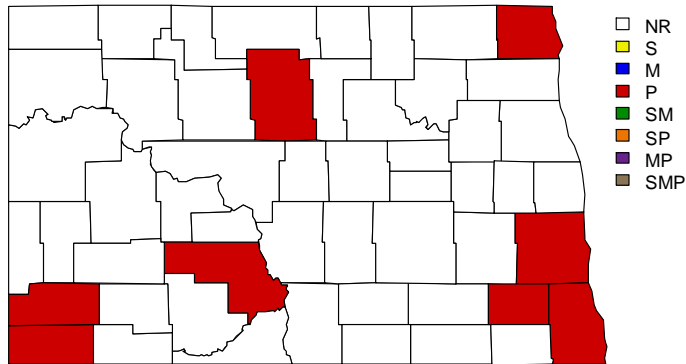
Cucullia luna
(Satin-hooded Owlet Moth)



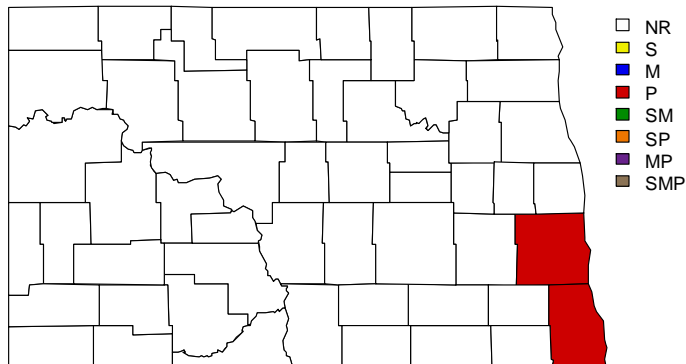
Papaipema cerina
(Golden Borer Moth)



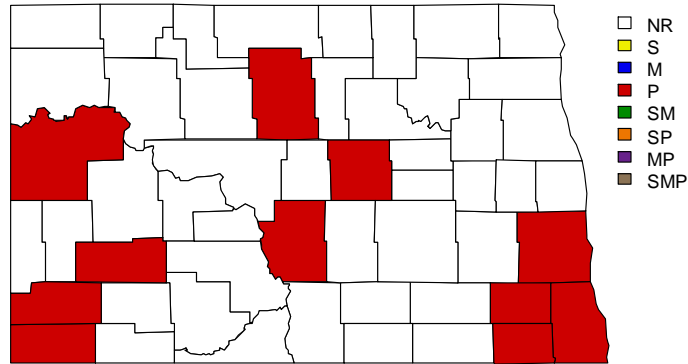
Amphipyra pyramidoides
(Copper Underwing Moth)



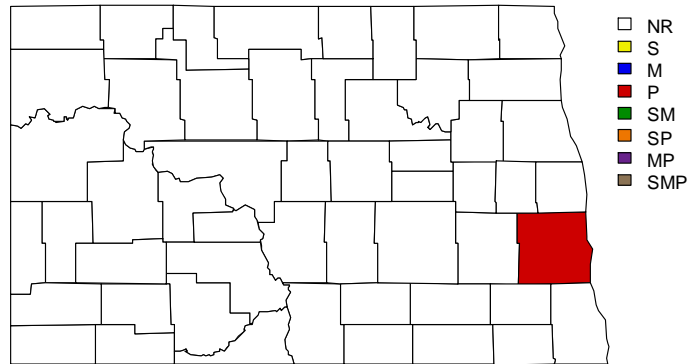
Leuconycta diphteroides
(Green Leuconycta Moth)



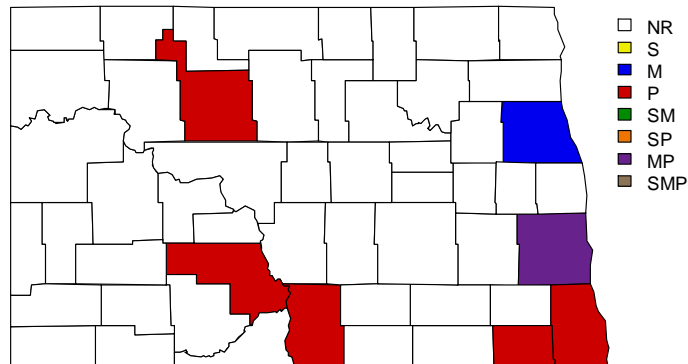
Stiria rugifrons
(Yellow Sunflower Moth)



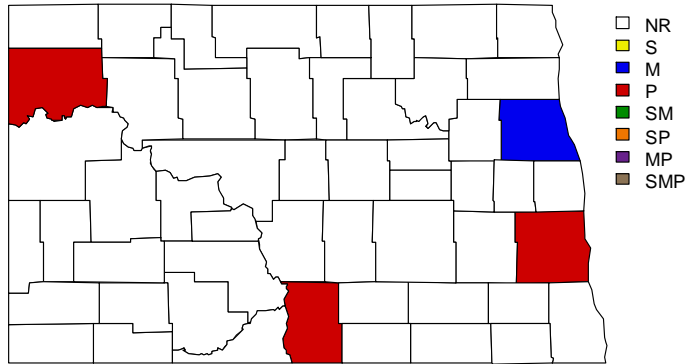
Psectrotarsia (=Erythroecia) suavis
(Pink-spotted Flower Moth)



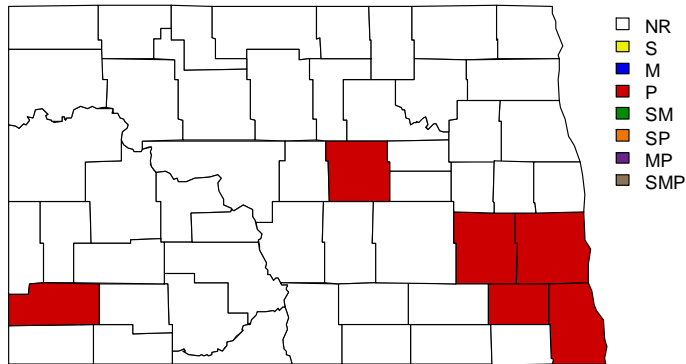
Helicoverpa zea
(Corn Earworm Moth, American Bollworm)



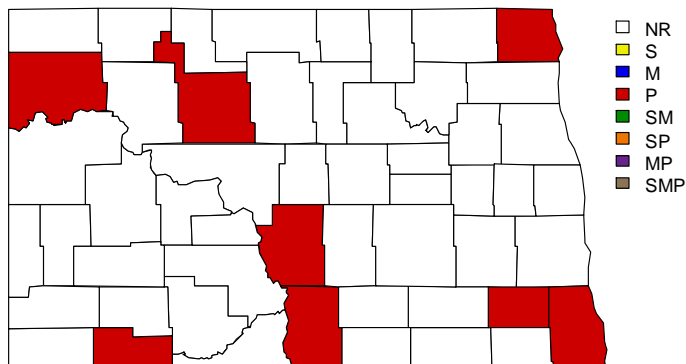
Heliothis phloxiphaga
 (Darker Spotted Straw Moth, Spotted Buff Gem Moth)



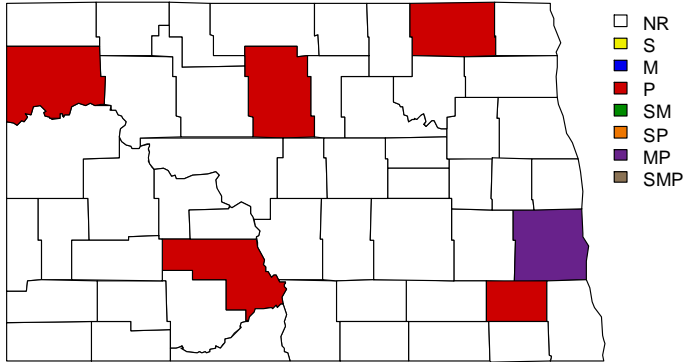
Heliothis acesias
 (Orange Phlox Moth, Acesias Buff Gem Moth)



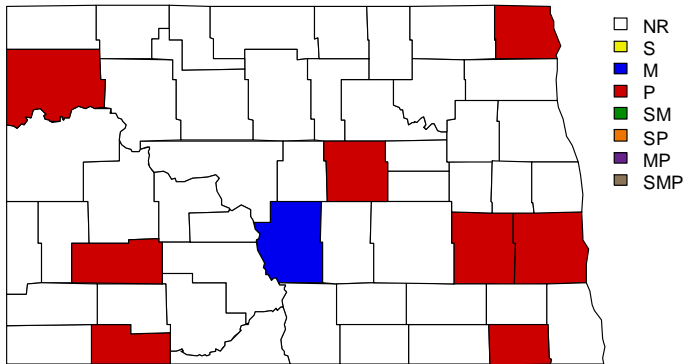
Schinia (=Protoschinia) nuchalis
 (Spotted Sage Moth, Spotted Clover Moth)



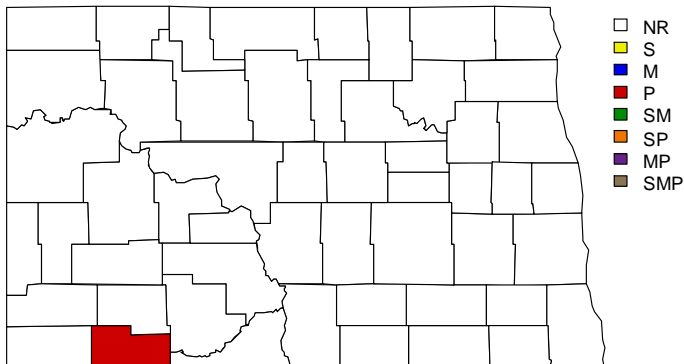
Schinia arcigera
(Arcigera Flower Moth)



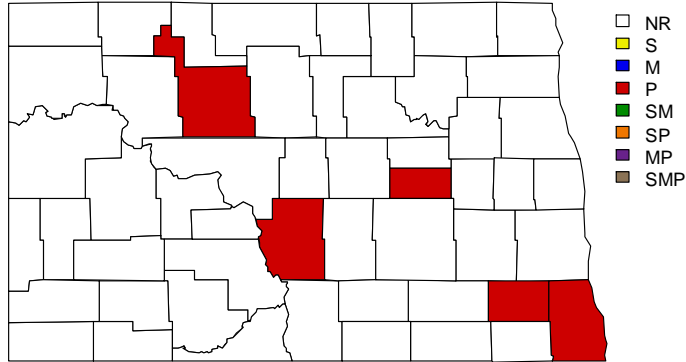
Schinia jaguarina
(Jaguar Flower Moth)



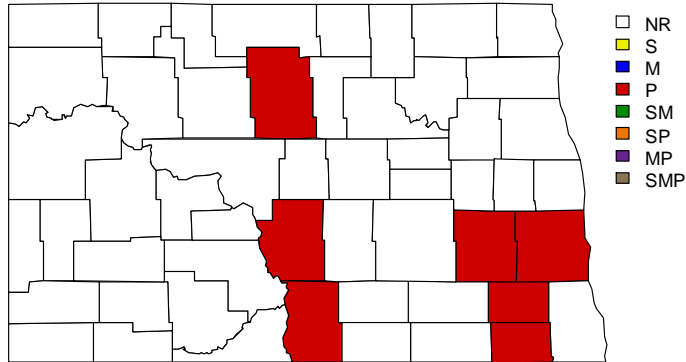
Schinia simplex
(Green-winged Flower Moth)



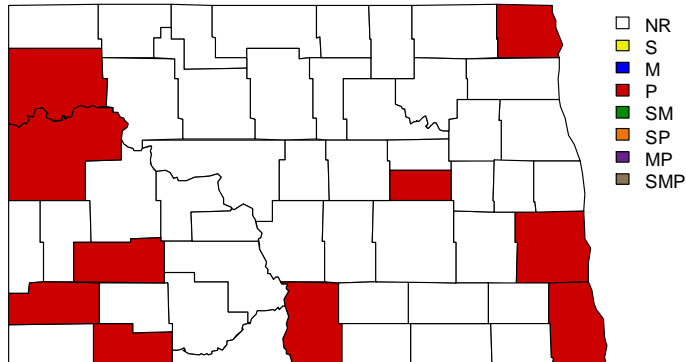
Schinia florida
(Primrose Moth)



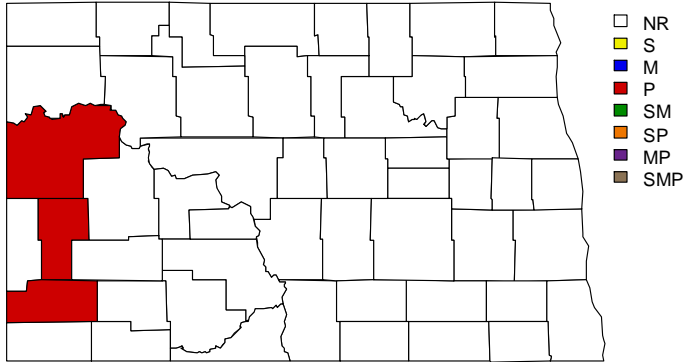
Schinia lucens
(Leadplant Flower Moth)



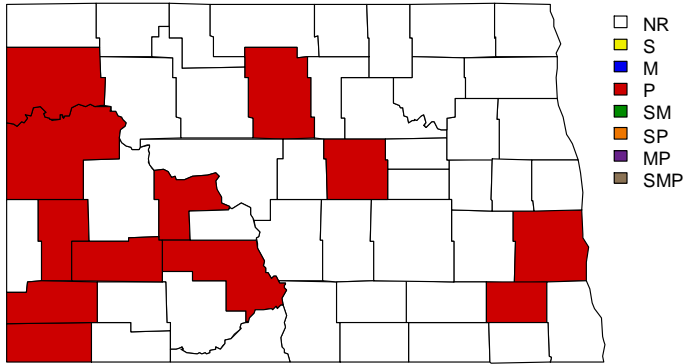
Schinia meadi
(Mead's Flower Moth)



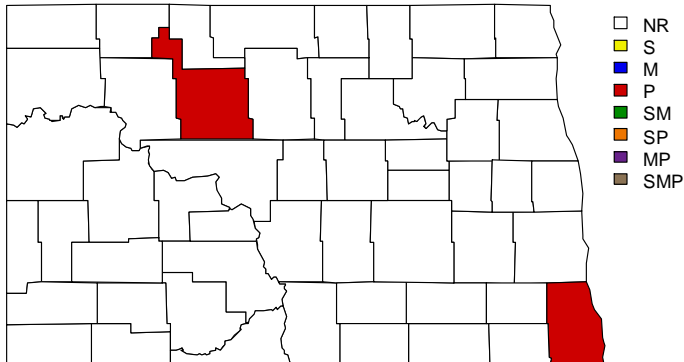
Schinia acutilinea
(Angled Gem, Acute-lined Flower Moth)



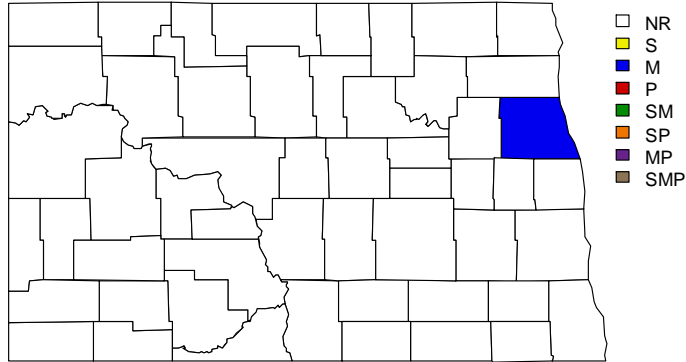
Schinia cumatilis
(Silver-banded Gem, Prairie Sage Flower Moth)



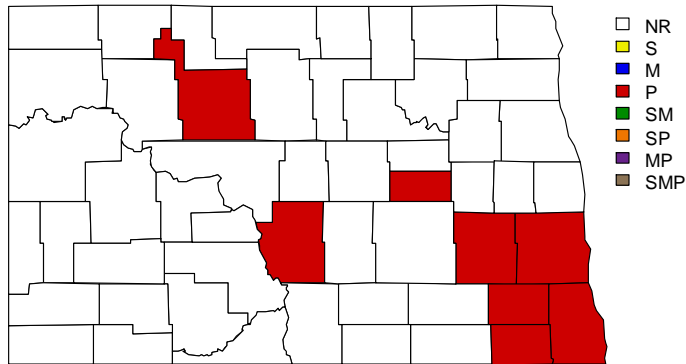
Schinia hulstia
(Hulst's Flower Moth)



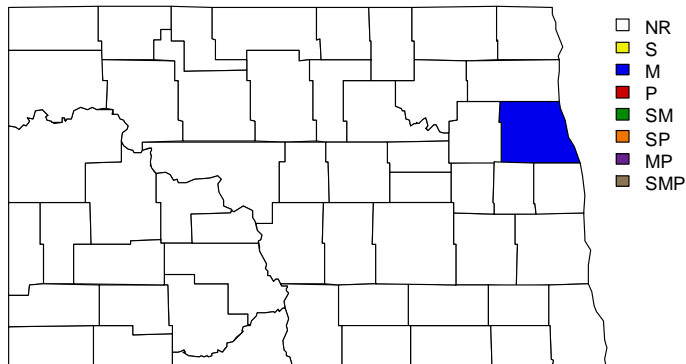
Bellura obliqua
(Cattail Borer Moth)



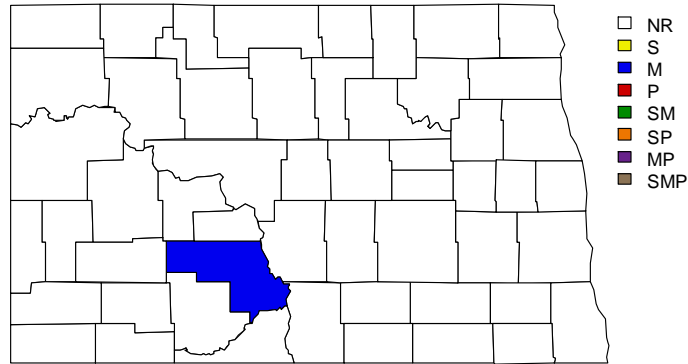
Phlogophora iris
(Olive Angle Shades Moth)



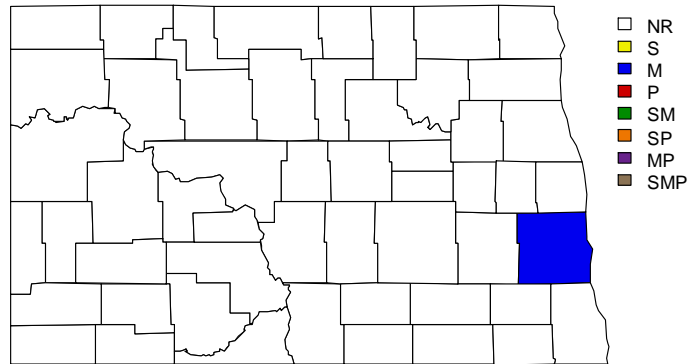
Anarta (=Discestra) trifolii
(Nutmeg Moth, Clover Cutworm Moth)



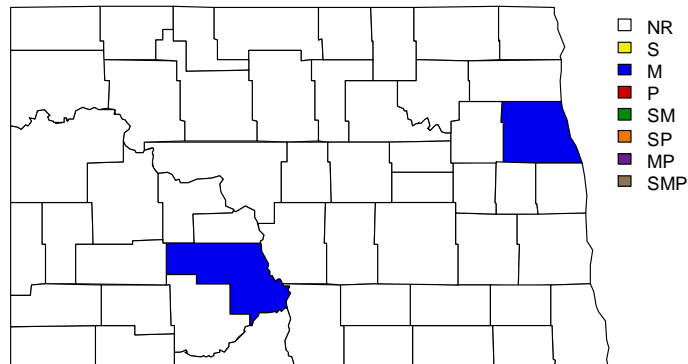
Mamestra configurata
(Bertha Armyworm Moth)



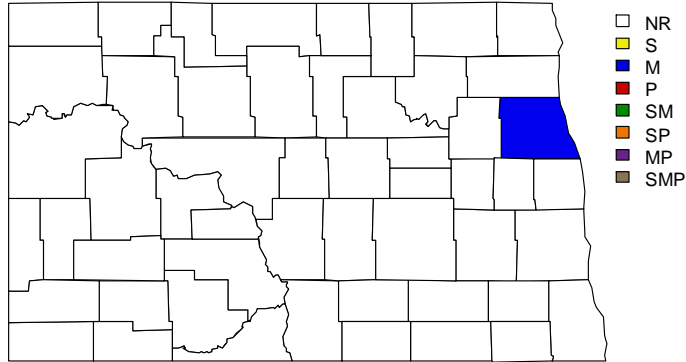
Melanchra (=Polia) adjuncta
(Hitched Arches Moth)



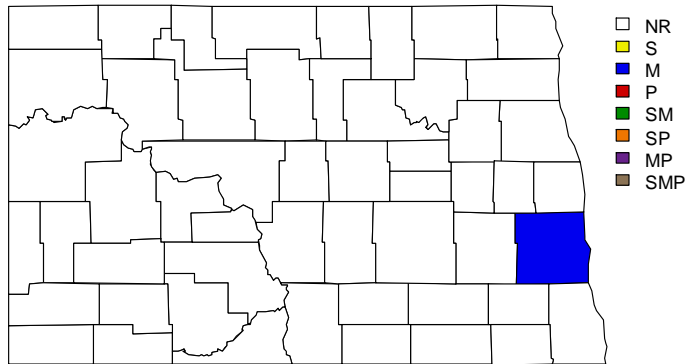
Melanchra (=Ceramica) picta
(Zebra Caterpillar Moth)



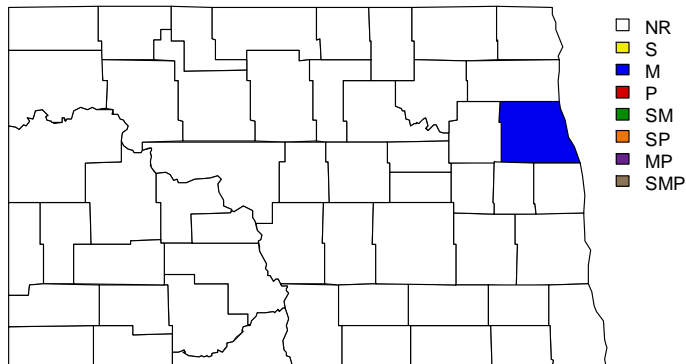
Lacanobia atlantica
(Atlantic Arches Moth)



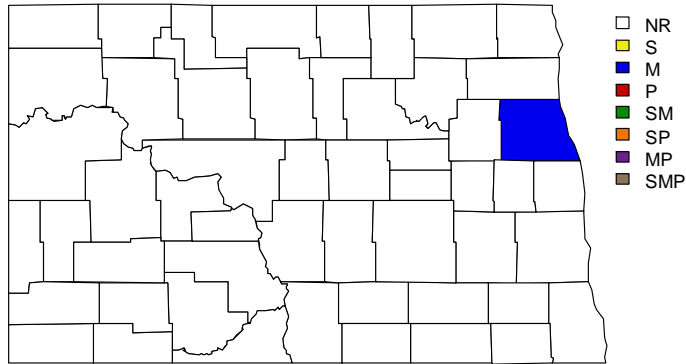
Lacinipolia vicina



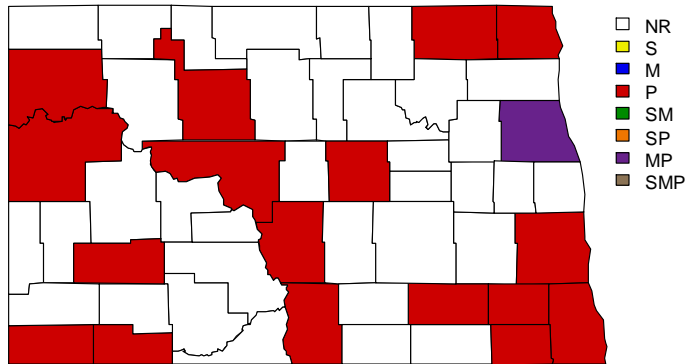
Dargida (=Faronata) diffusa
(Wheat Head Armyworm)



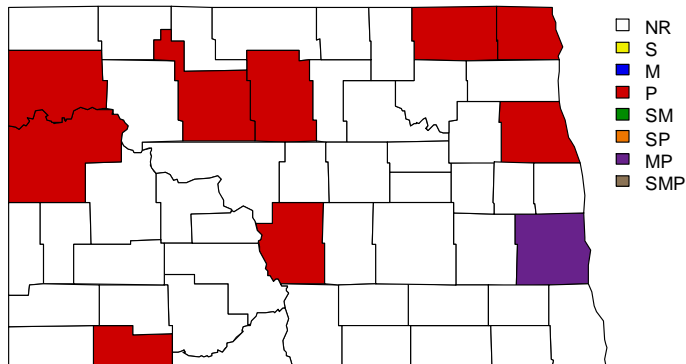
Leucania insueta
(Heterodox Wainscot Moth)



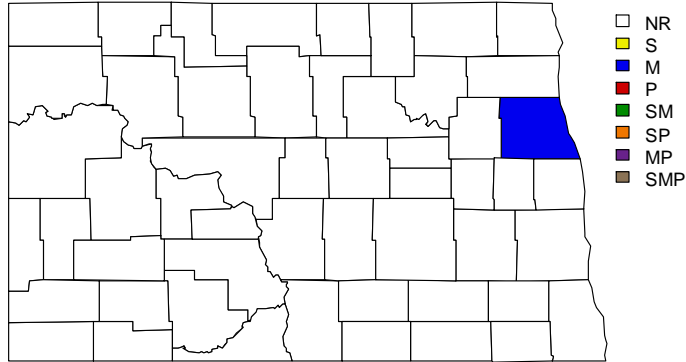
Pseudaletia unipuncta
(Armyworm Moth)



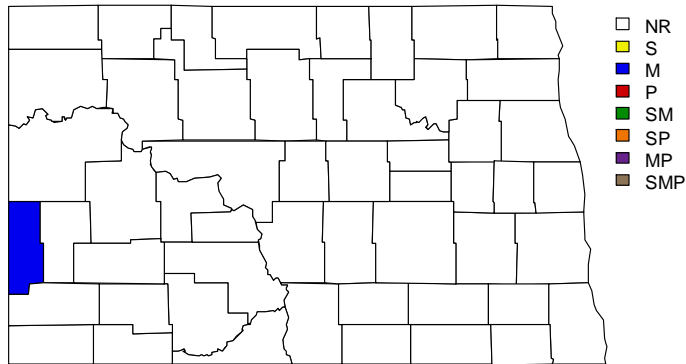
Nephelodes minians
(Bronzed Cutworm Moth)



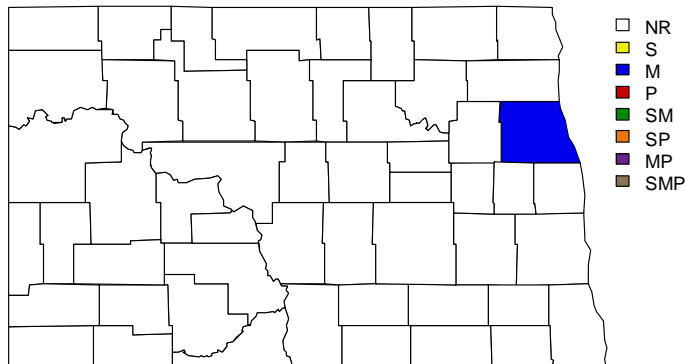
Apamea lignicolora
(Wood-colored Apamea Moth)



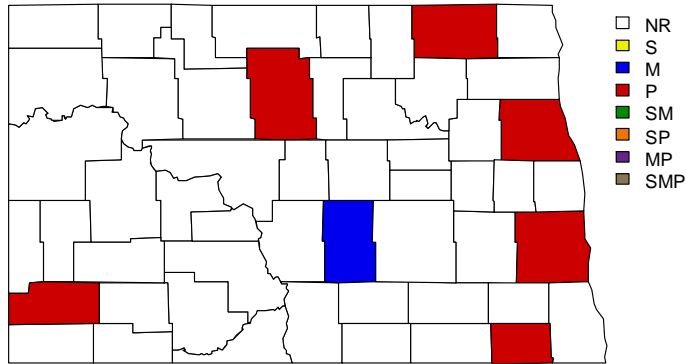
Apamea inordinata



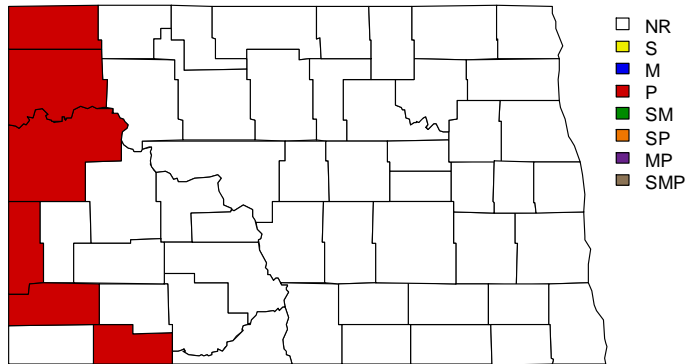
Apamea (=Crymodes) devastator
(Glassy Cutworm Moth)



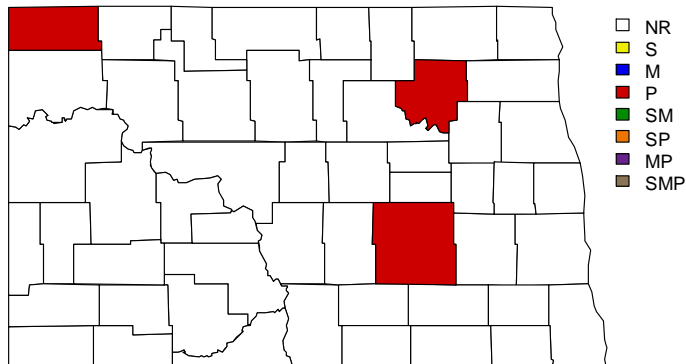
Agrotis vetusta
(Old Man Dart Moth)



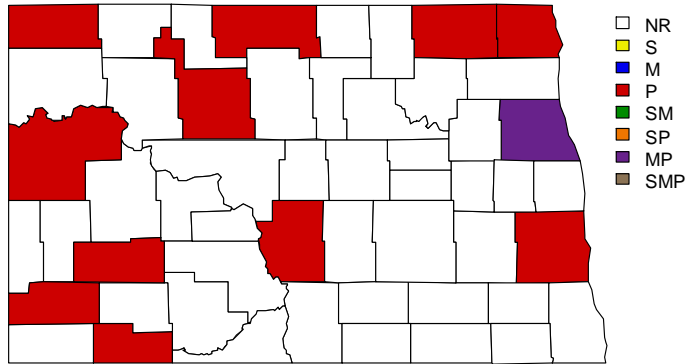
Agrotis orthogonia
(Pale Western Cutworm Moth)



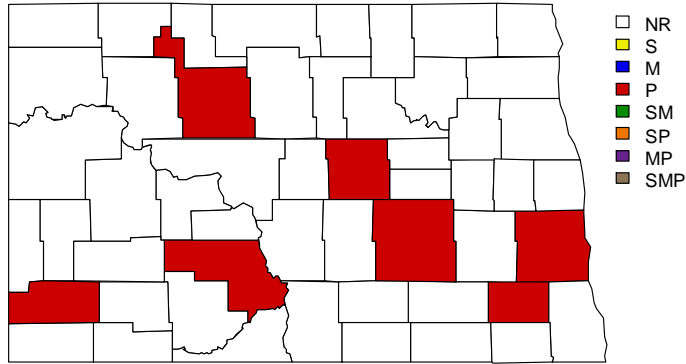
Agrotis robustior
(Robust Dart Moth)



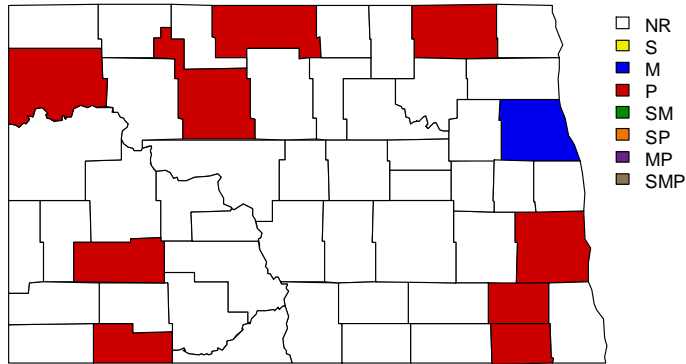
Agrotis venerabilis
(Venerable Dart Moth, Dusky Cutworm)



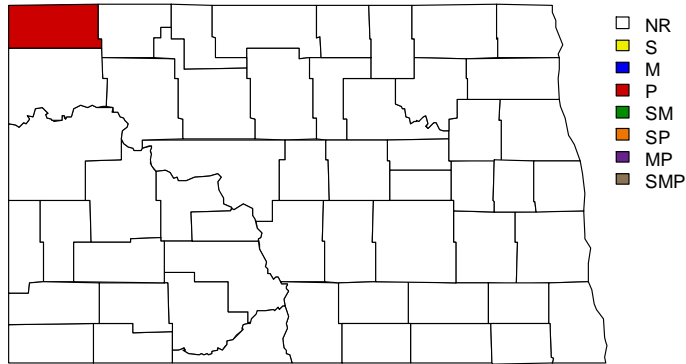
Agrotis stigmosa
(Spotted Dart Moth, Fuscous Sandhill Dart)



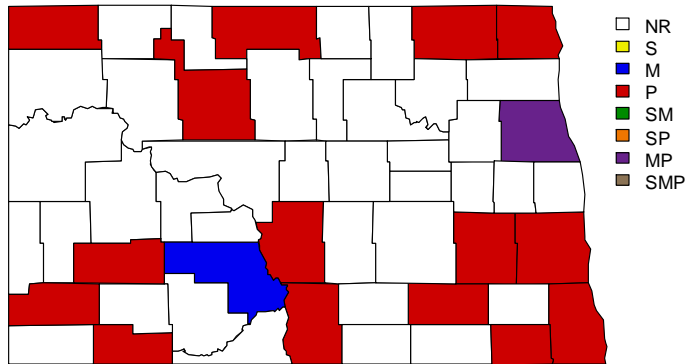
Agrotis volubilis
(Voluble Dart Moth)



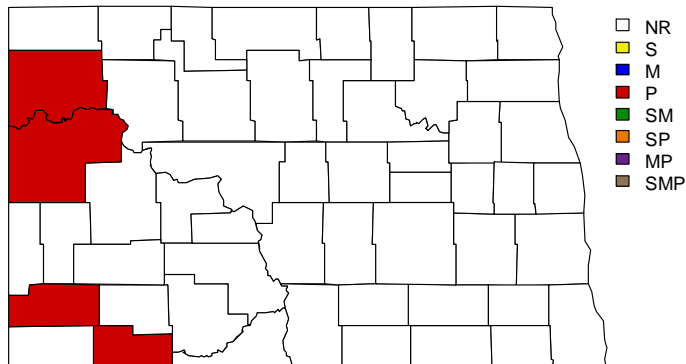
Agrotis obliqua
(Oblique Dart Moth)



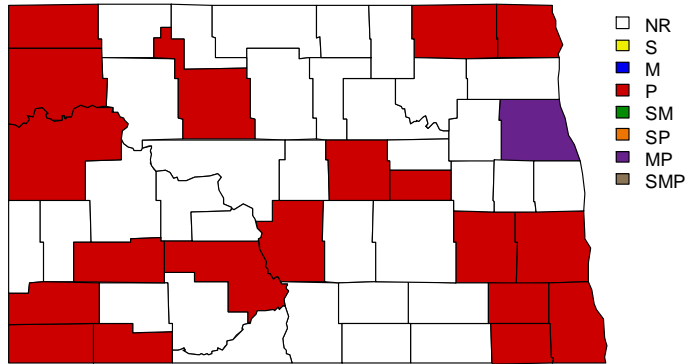
Agrotis ipsilon
(Ipsilon Dart Moth, Black Cutworm Moth, Dark Sword Grass Moth)



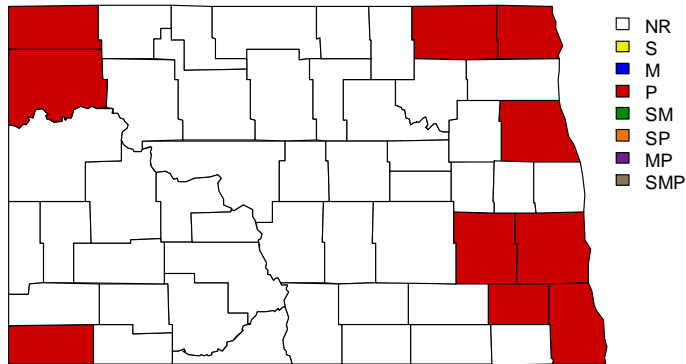
Agrotis rileyana
(Riley's Dart Moth)



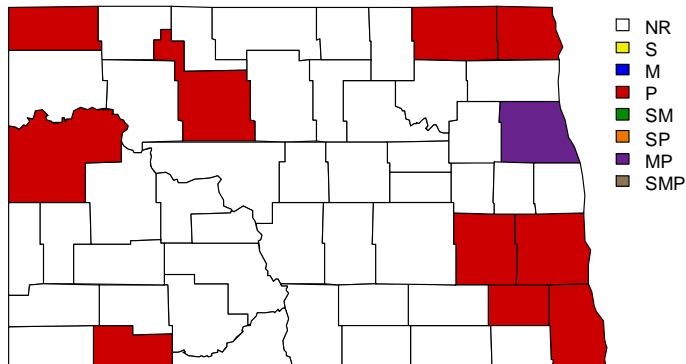
Feltia jaculifera
(Dingy Cutworm Moth)



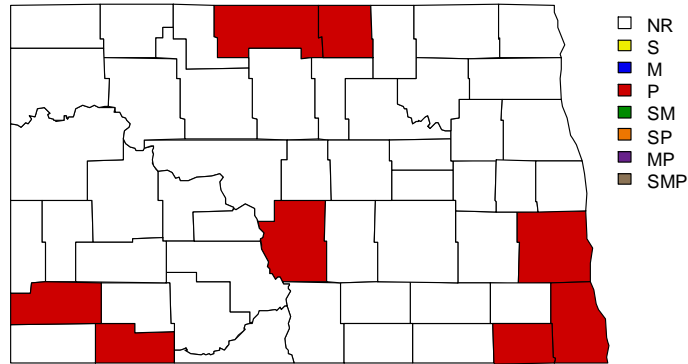
Feltia subgothica
(Subgothic Dart Moth)



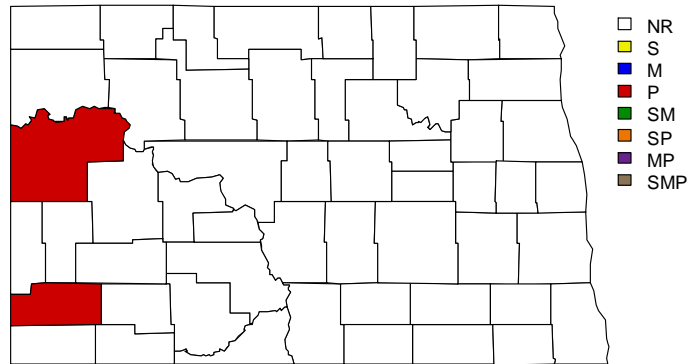
Feltia herilis
(Master's Dart Moth, Herald Dart Moth)



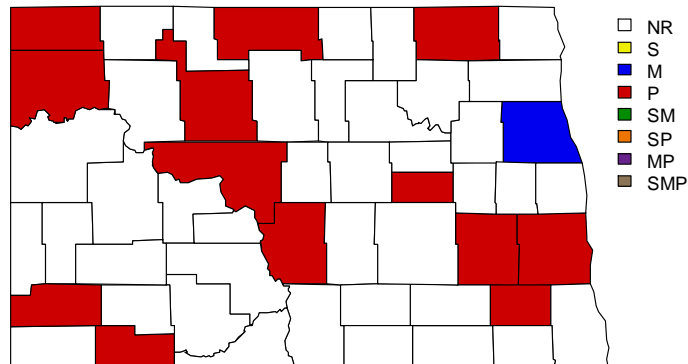
Copablepharon grandis
(Pale Yellow Dune Moth)



Copablepharon longipenne
(Dusky Dune Moth, Long-winged Dune Moth)

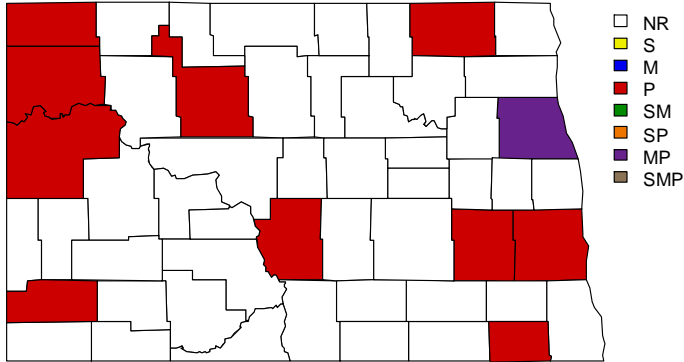


Euxoa divergens
(Divergent Dart Moth)



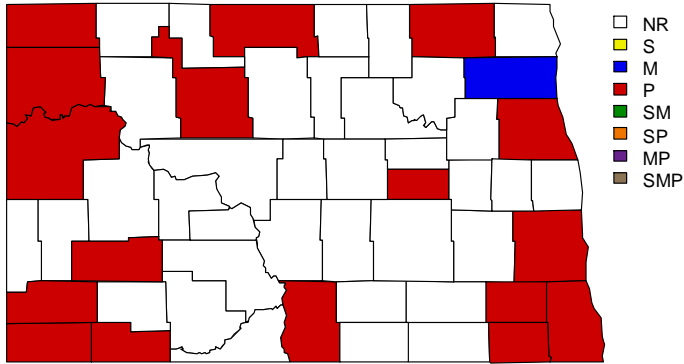
Euxoa messoria

(Reaper Dart Moth, Dark-sided Cutworm Moth)



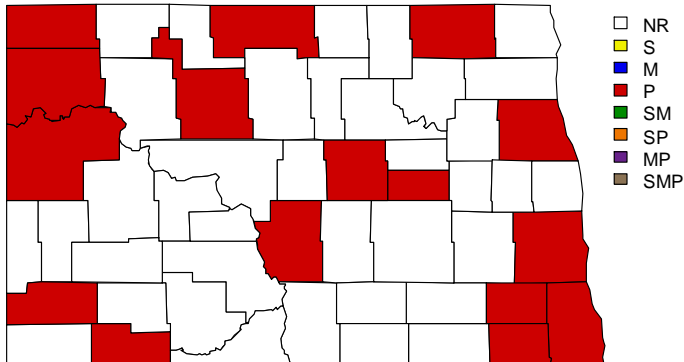
Euxoa scandens

(White Cutworm Moth)

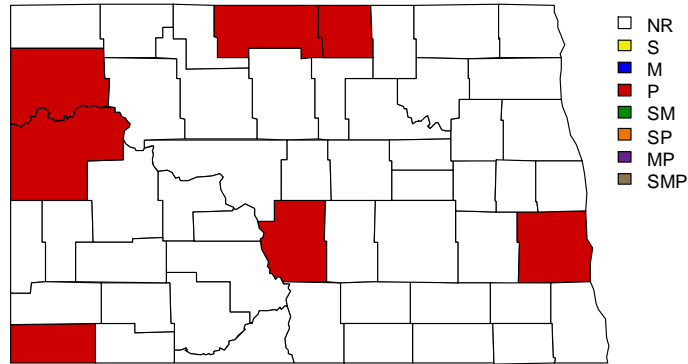


Euxoa tristicula

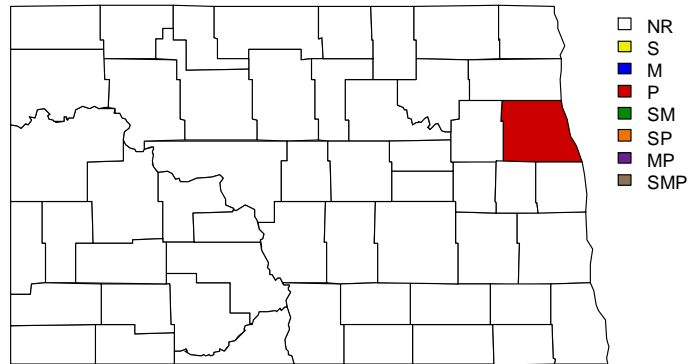
(Early Cutworm Moth)



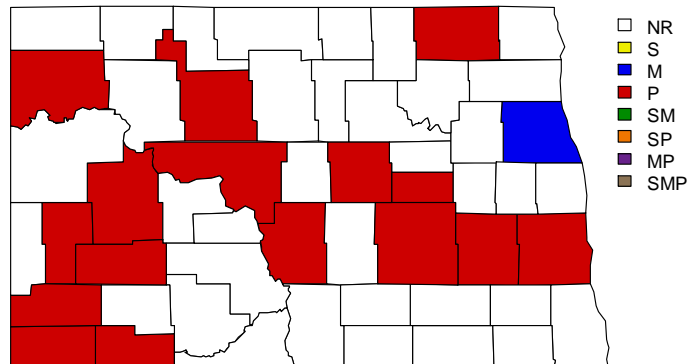
Euxoa pleuritica
(Fawn Brown Dart Moth)



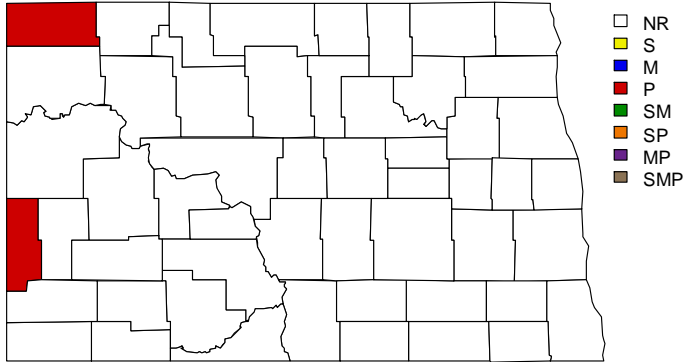
Euxoa adumbrata (=lidia)
(Sordid Dart Moth)



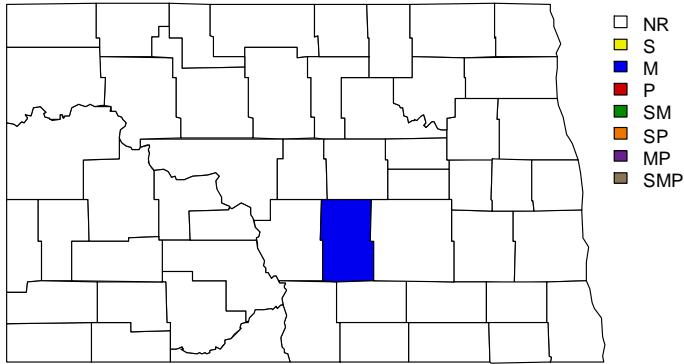
Euxoa auxiliaris
(Army Cutworm Moth)



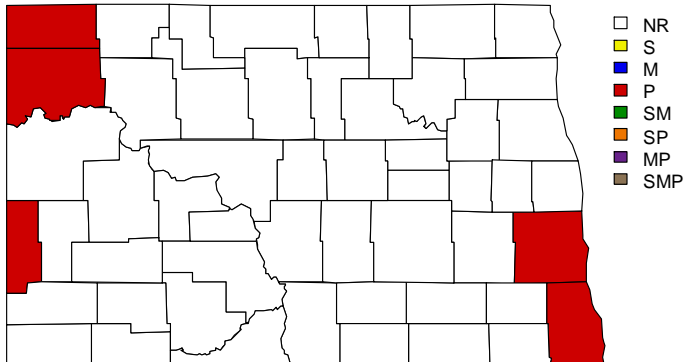
Euxoa olivia
(Morrison's Olive Dart Moth)



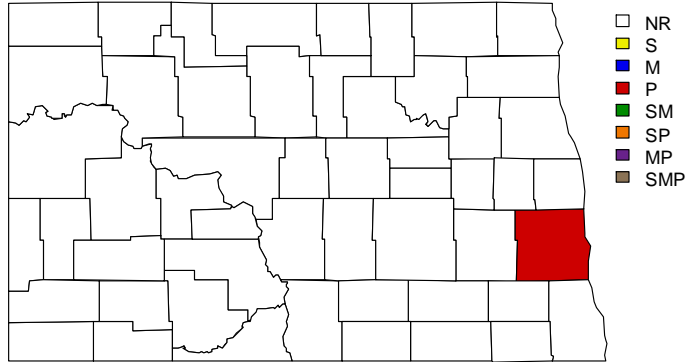
Euxoa immixta
(Mixed Dart Moth)



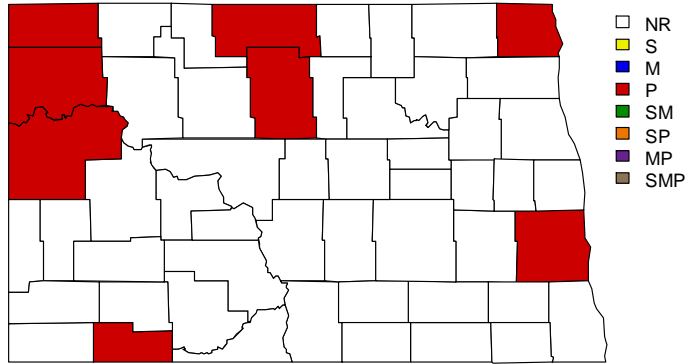
Euxoa declarata
(Clear Dart Moth)



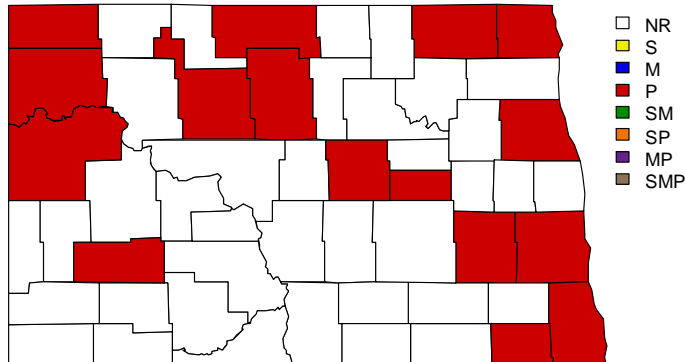
Euxoa comosa
(Pilose Dart Moth)



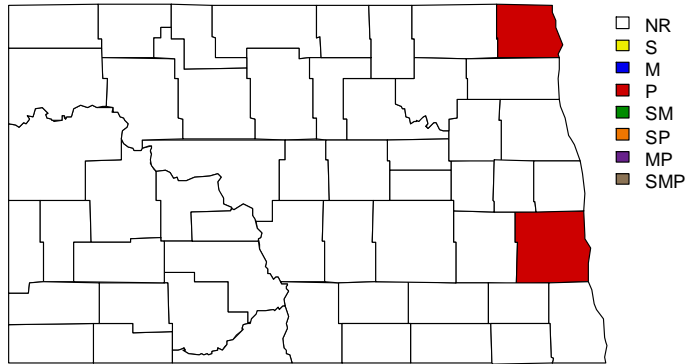
Euxoa basalis
(Western Brown Dart Moth)



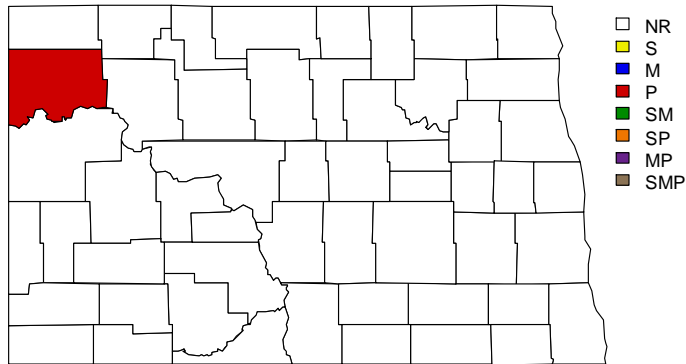
Euxoa ochrogaster
(Red-backed Cutworm Moth)



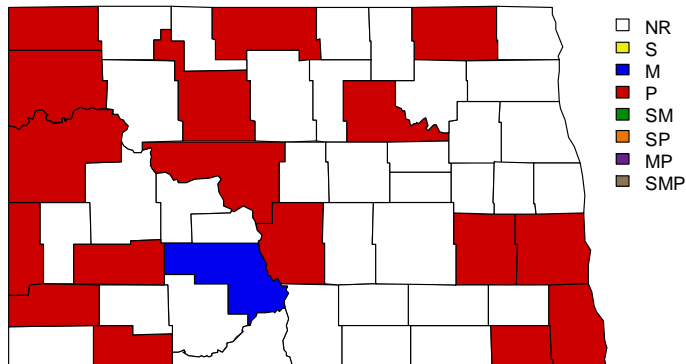
Euxoa velleripennis
(Fleece-winged Dart Moth)



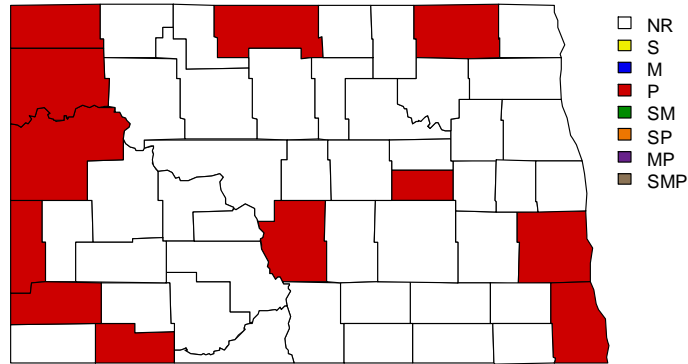
Euxoa plagigera
(Striped Dart Moth)



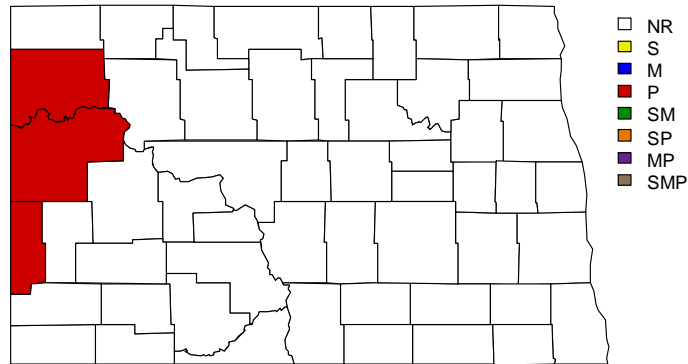
Euxoa tessellata
(Tessellate Dart Moth, Striped Cutworm Moth)



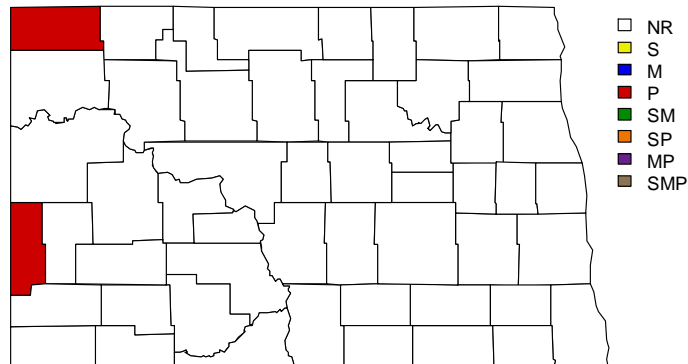
Euxoa albipennis
(White-striped Dart Moth)



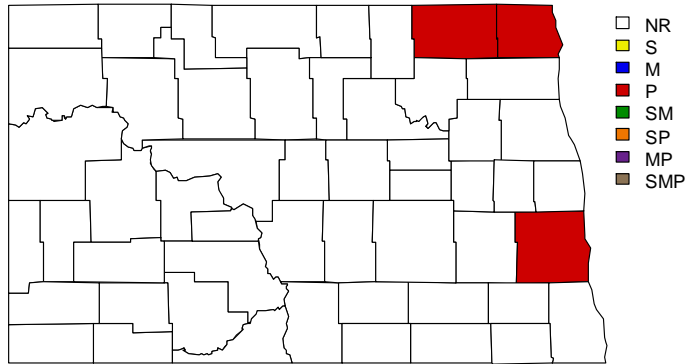
Euxoa catenula
(Four Spot Dart Moth)



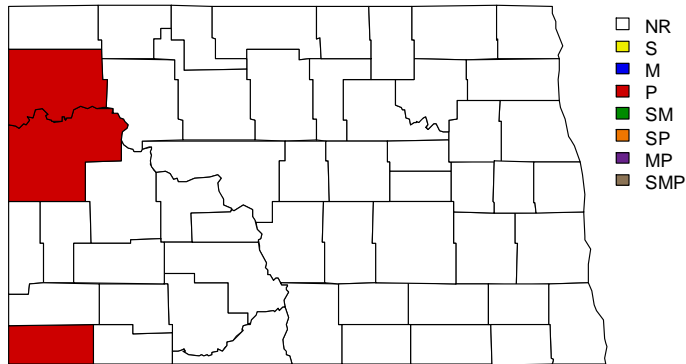
Euxoa medialis
(Median-banded Dart Moth, Clay-colored Dart Moth)



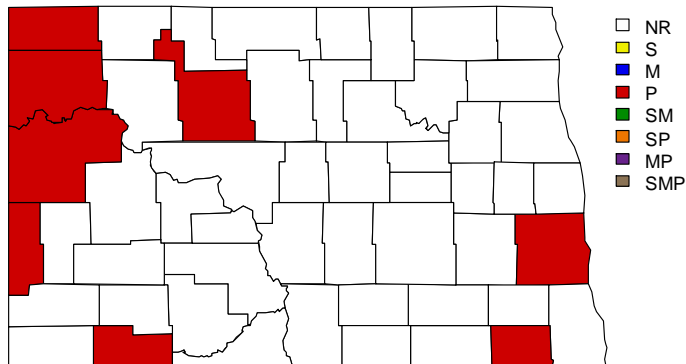
Euxoa obeliscoides
(Obelisk Dart Moth)



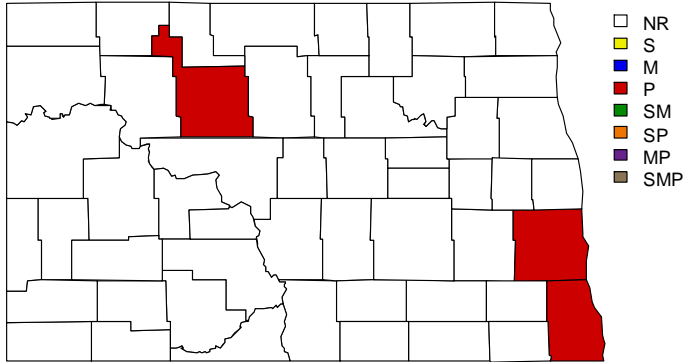
Euxoa oberfoelli
(Oberfoell's Dart Moth)



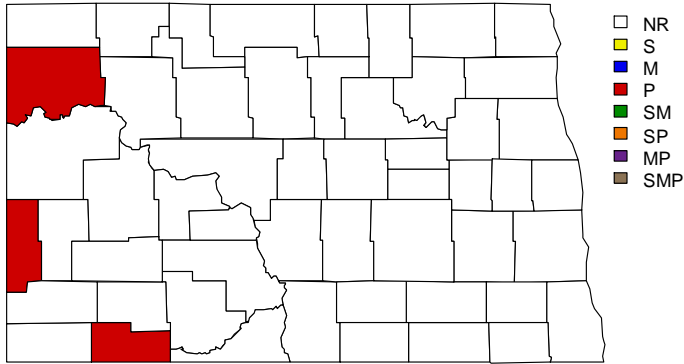
Euxoa quadridentata
(Four-tooth Dart Moth)



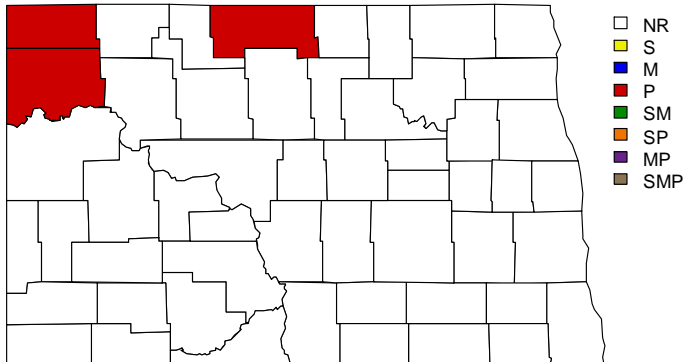
Euxoa niveilinea
(Small Striped Cutworm Moth, Snow-lined Dart Moth)



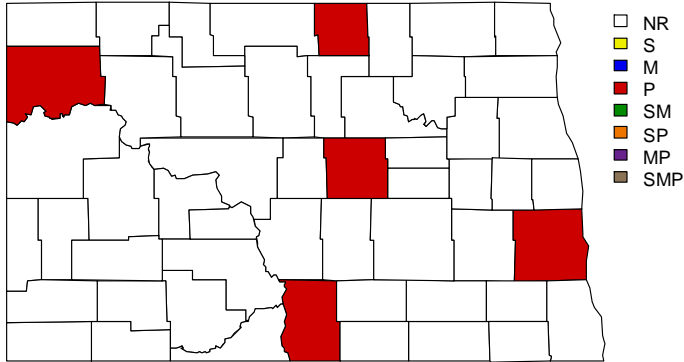
Euxoa dargo
(Strecker's Dart Moth)



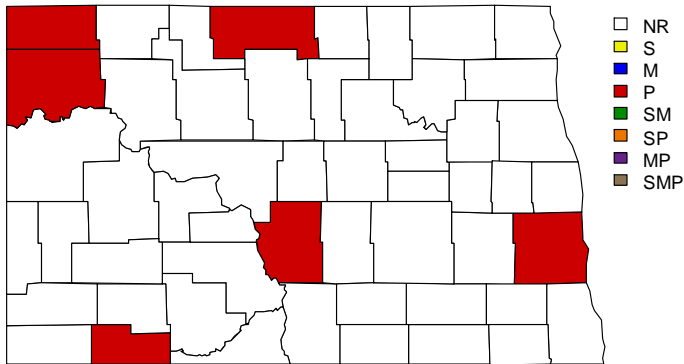
Euxoa ridingsiana
(Ridings Dart Moth)



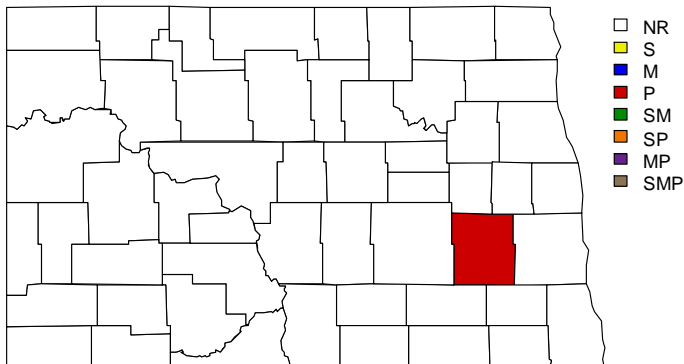
Euxoa manitobana
(Manitoba Dart Moth)



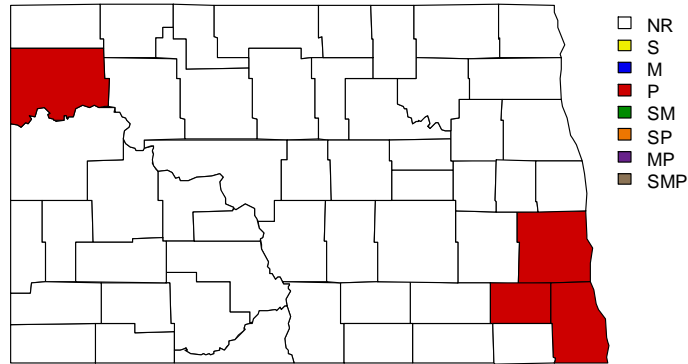
Euxoa flavicollis
(Yellow-collared Dart Moth)



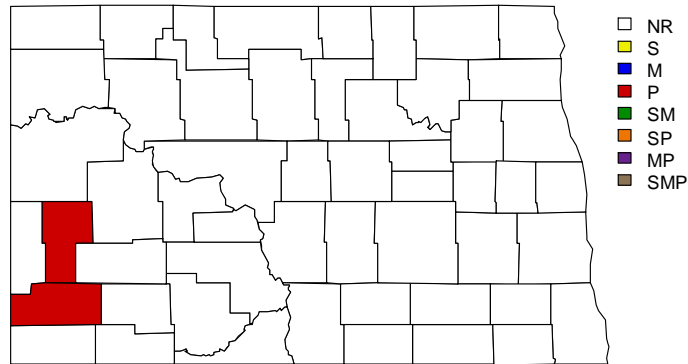
Striacosta albicosta
(Western Bean Cutworm Moth)



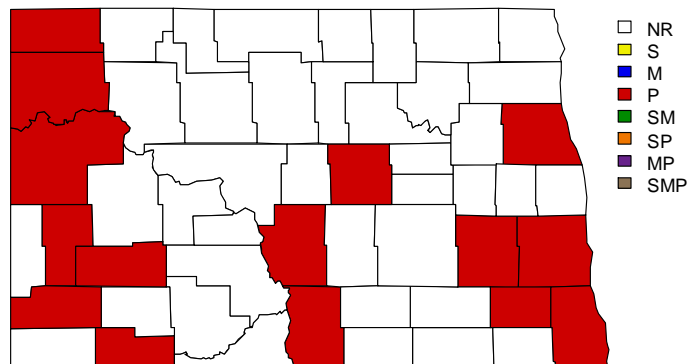
Ochropleura implecta
(Flame-shouldered Dart Moth)



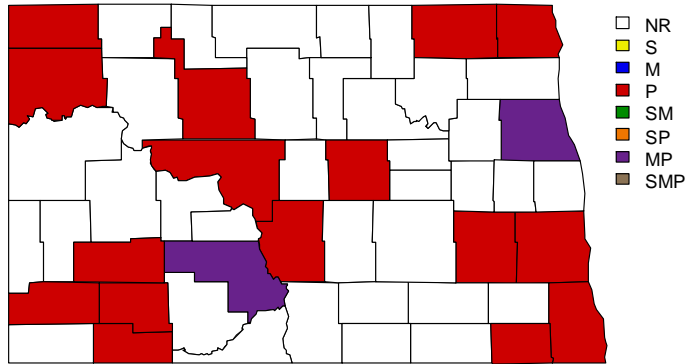
Anicla exuberans
(Exuberant Dart Moth)



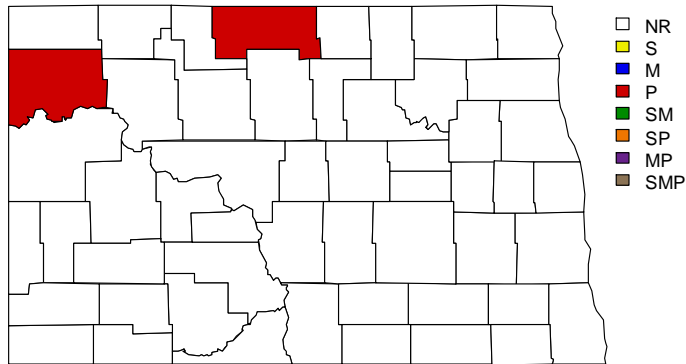
Anicla tepperi
(Black-girdled Dart Moth)



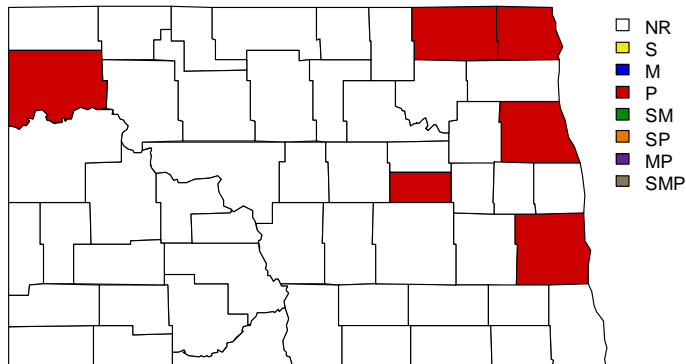
Peridroma saucia (=margaritosa)
(Variegated Cutworm Moth, Pearly Underwing Moth)



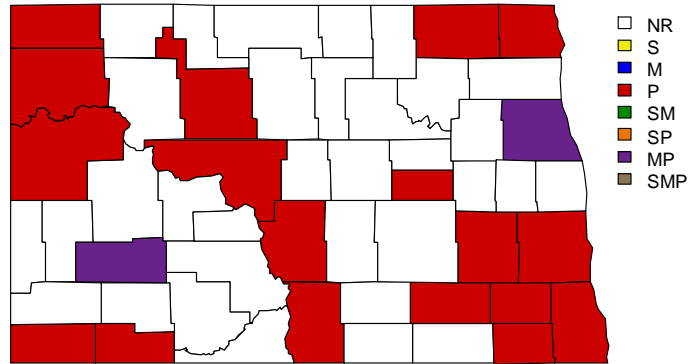
Protexarnis (=Actebia) *balanitis*
(Bracketed Dart Moth)



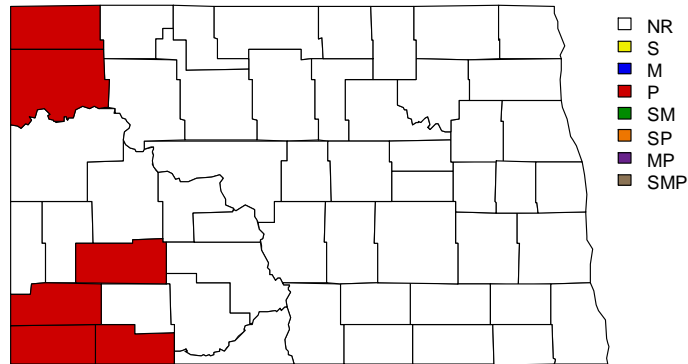
Actebia fennica
(Black Army Cutworm Moth)



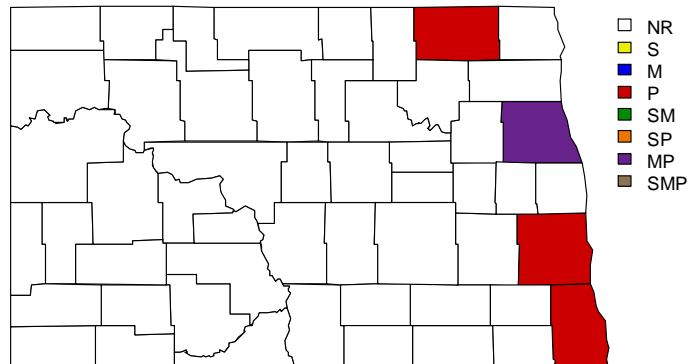
Spaelotis clandestina
(Clandestine Dart Moth)



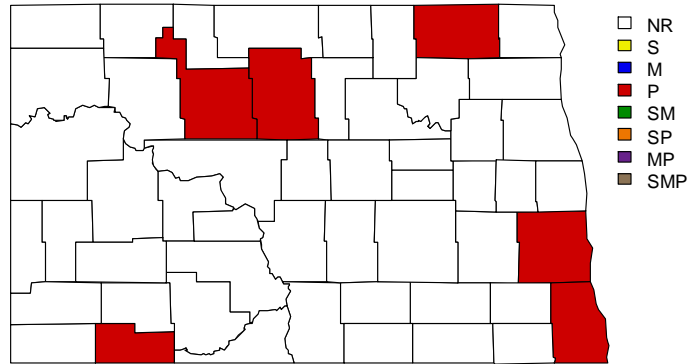
Spaelotis bicava
(Rocky Mountain W-marked Cutworm Moth)



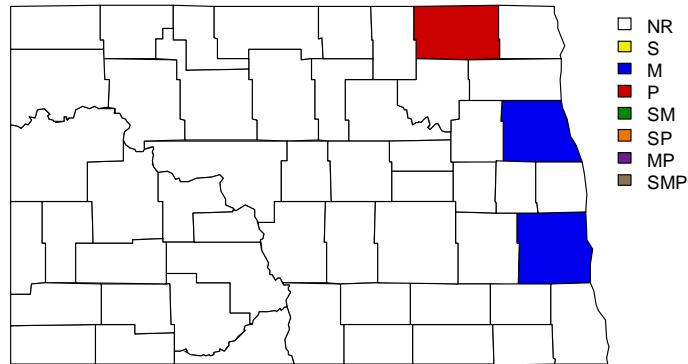
Graphiphora augur
(Soothsayer Dart Moth, Double Dart Moth)



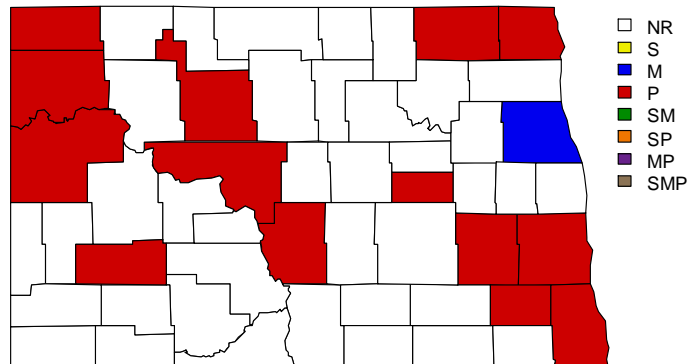
Eurois occulta
(Great Gray Dart Moth, Great Brocade Moth)



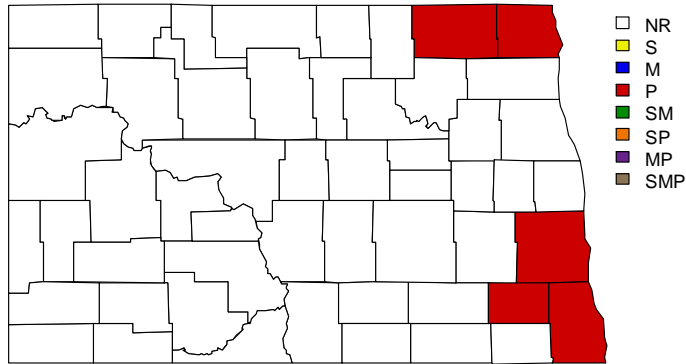
Xestia (=Amathes) c-nigrum (=adela)
(Lesser Black-letter Dart Moth)



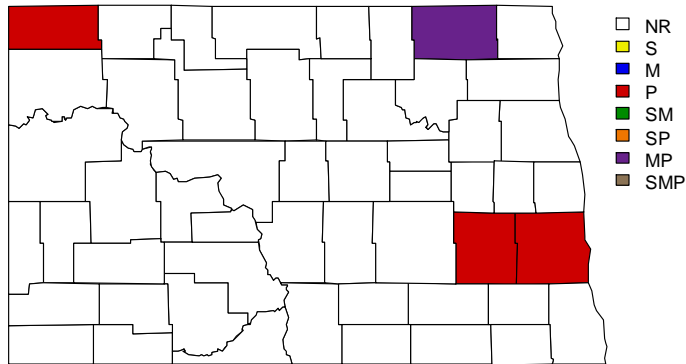
Xestia dolosa
(Greater Black-lettered Dart Moth)



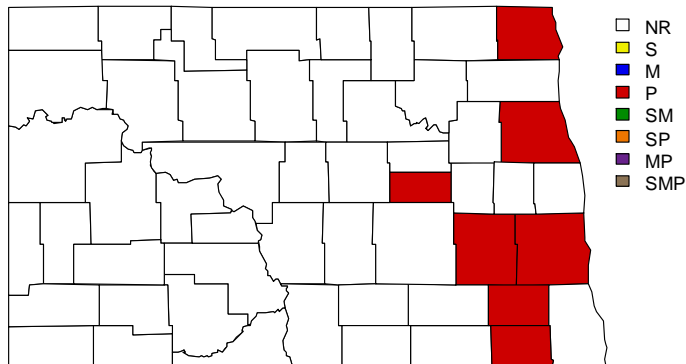
Xestia normaniana
(Norman's Dart Moth)



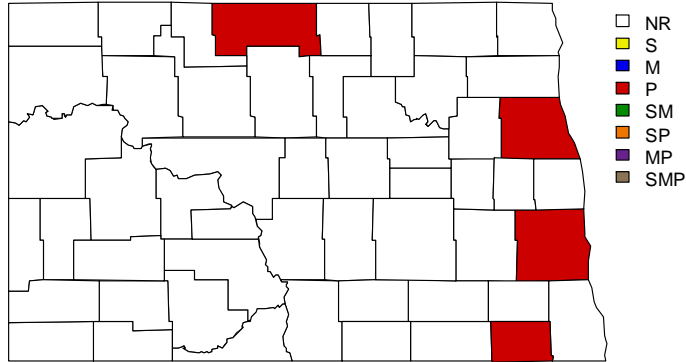
Xestia smithii
(Smith's Dart Moth)



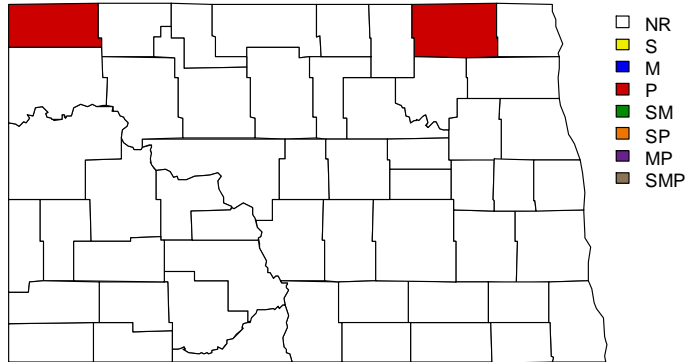
Pseudohermonassa bicarnea
(Pink-spotted Dart Moth)



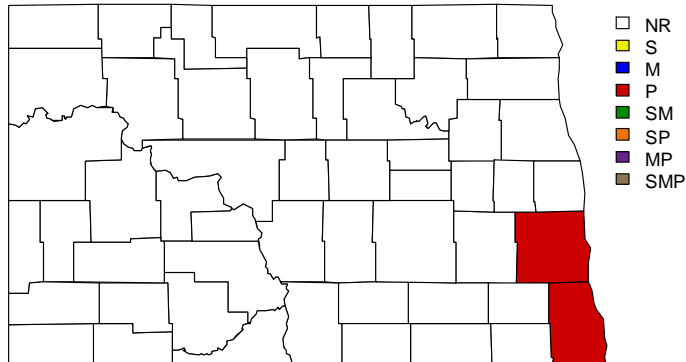
Pseudohermonassa tenuicula
(Hair-pin Dart Moth, Morrison's Sooty Dart Moth)



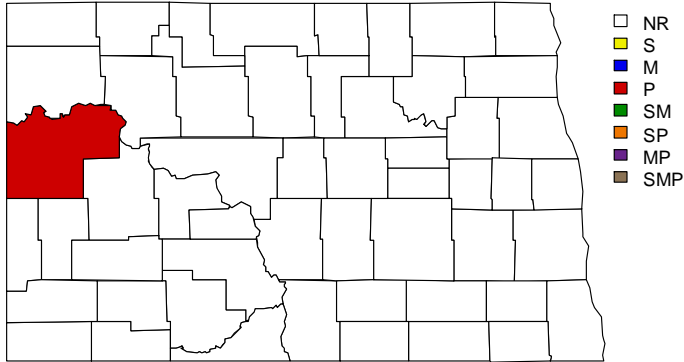
Agnorisma bugrai
(Collared Dart Moth)



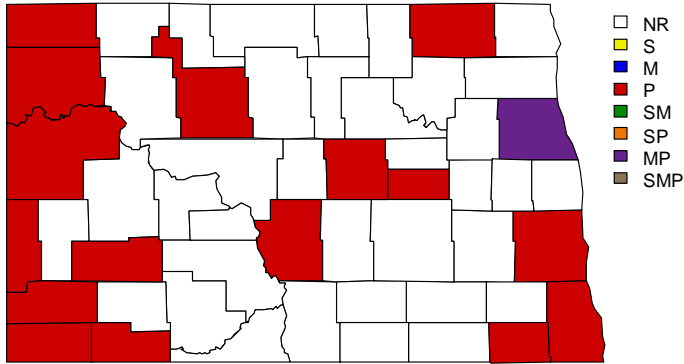
Agnorisma badinodis
(Pale-banded Dart Moth)



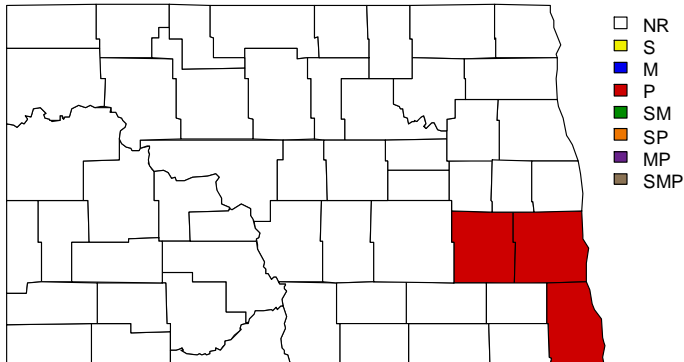
Setagrotis radiola
(Hampson's Streaked Dart Moth)



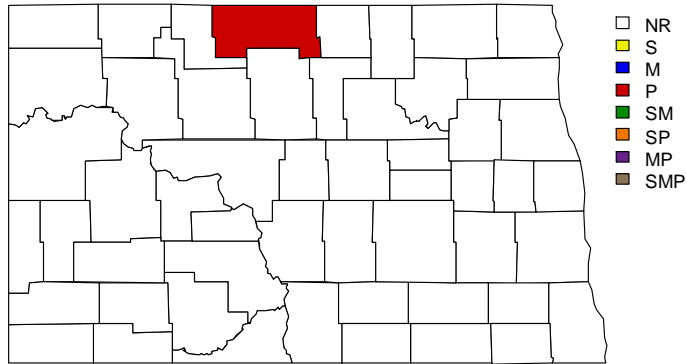
Paradiarsia littoralis
(Labrador Dart Moth)



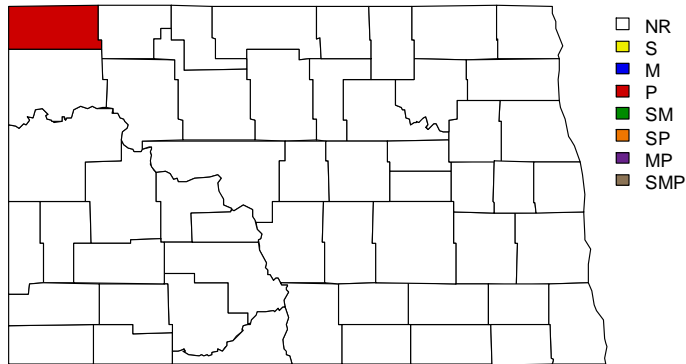
Anaplectoides prasina
(Green Arches Moth)



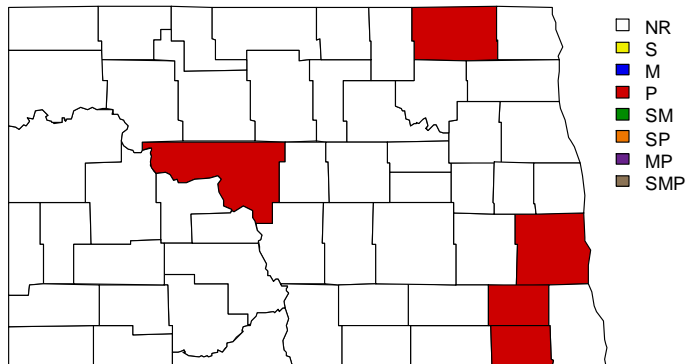
Anaplectoides pressus
(Dappled Dart Moth)



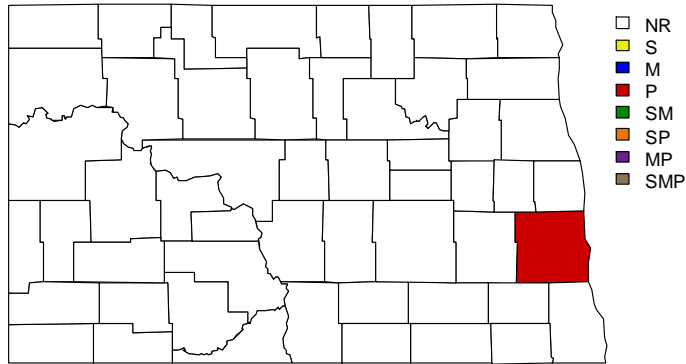
Protolampra rufipectus
(Red-breasted Dart Moth)



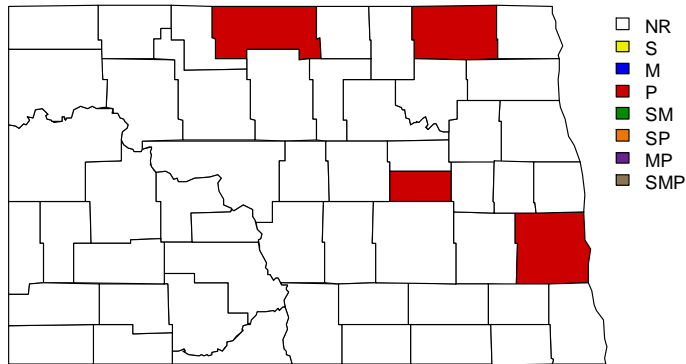
Protolampra brunneicollis
(Brown-collared Dart Moth, Scarley-backed Dart Moth)



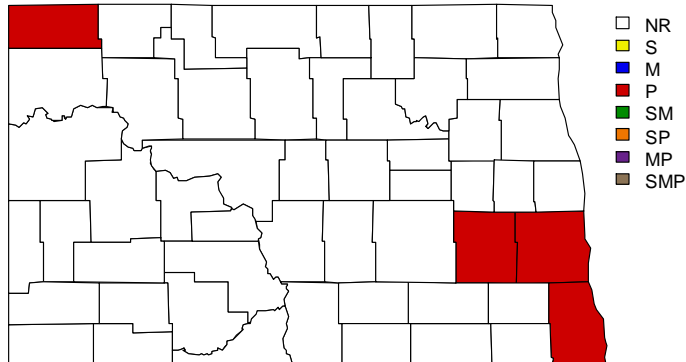
Eueretagrotis sigmoides
(Sigmoid Dart Moth)



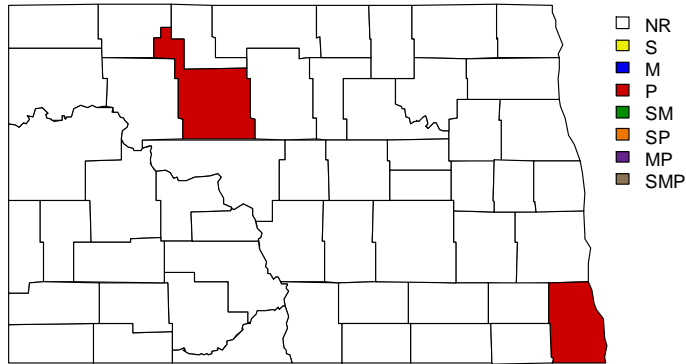
Cryptocala acadensis
(Catocaline Dart Moth)



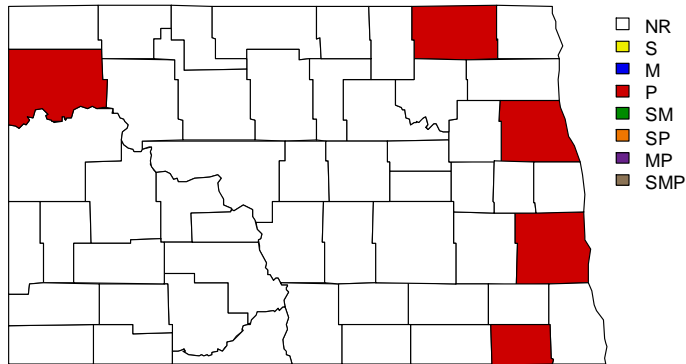
Noctua pronuba
(Large Yellow Underwing Moth)



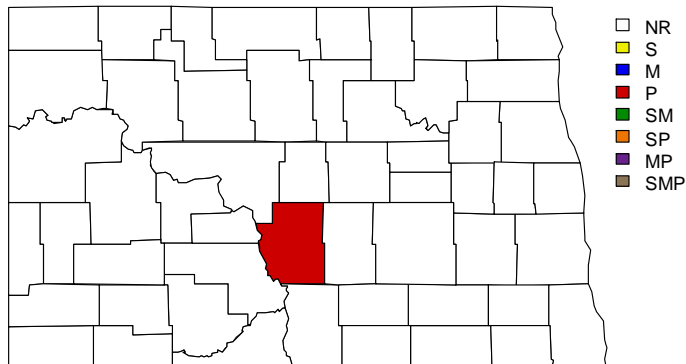
Abagrotis orbis
(Well-marked Cutworm Moth)



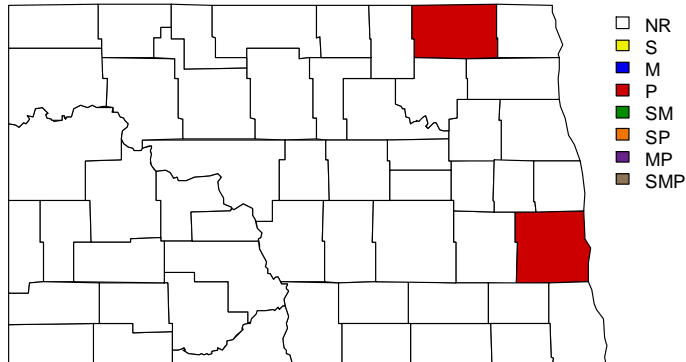
Abagrotis alternata
(Mottled Gray Cutworm Moth)



Abagrotis cupida
(Cupid Dart Moth)

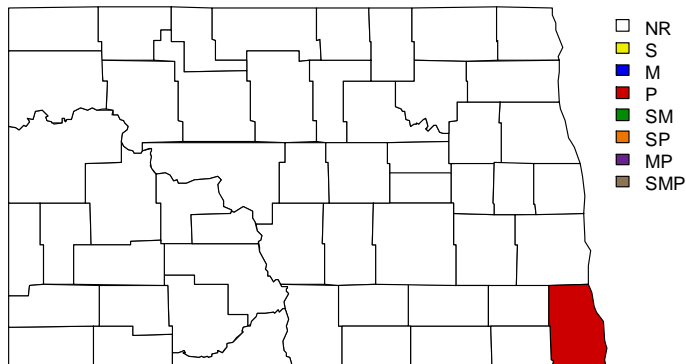


Parabagrotis exertistigma
(Morrison's Black-letter Dart Moth)



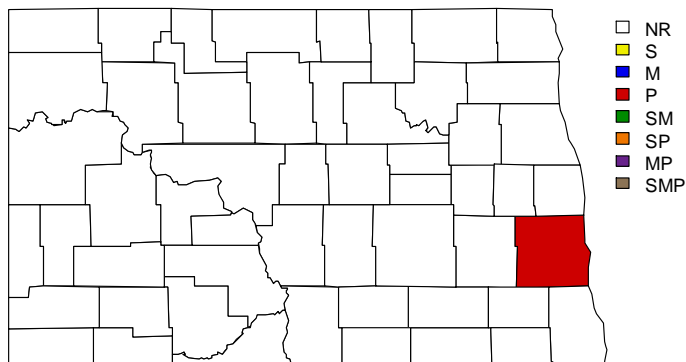
Family: Nolidae (Tuft Moths)

Baileya ophthalmica
(Eyed Bailey Moth)

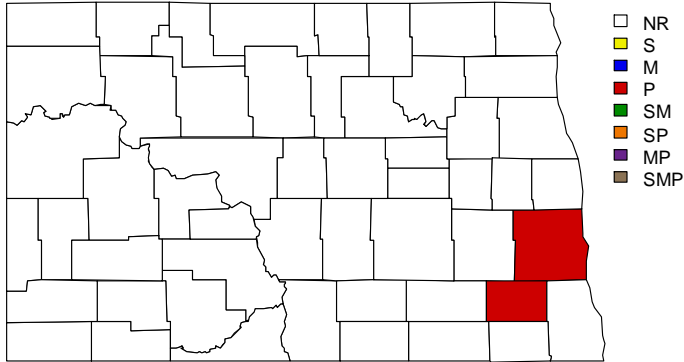


Family: Arctiidae (Tigers, Footmen, Lichen Moths, Wasp Moths)

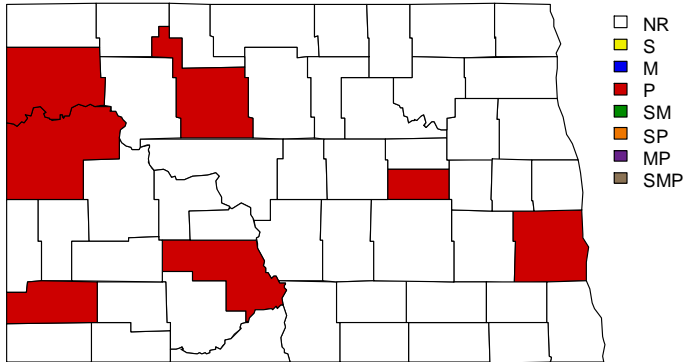
Eilema bicolor
(Bicolored Moth, Yellow-edged Footman)



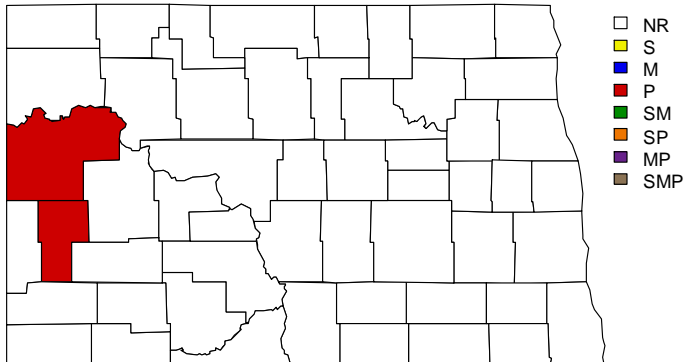
Crambidia pallida
(Pale Lichen Moth)



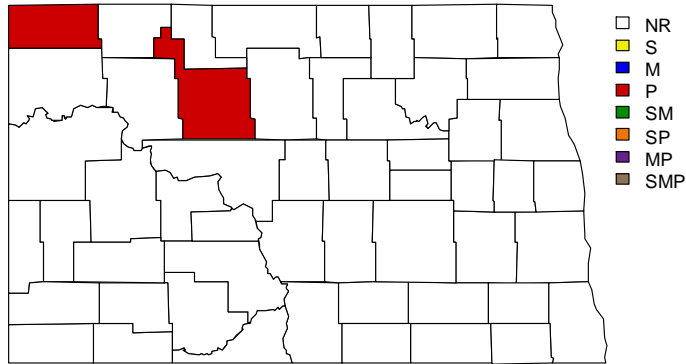
Crambidia casta
(Pearly-winged Lichen Moth)



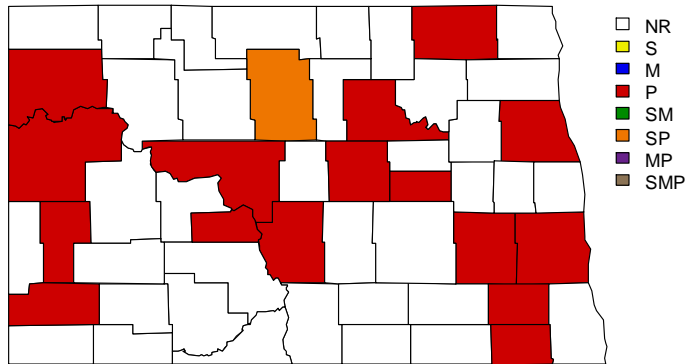
Cisthene barnesii
(Barnes' Lichen Moth)



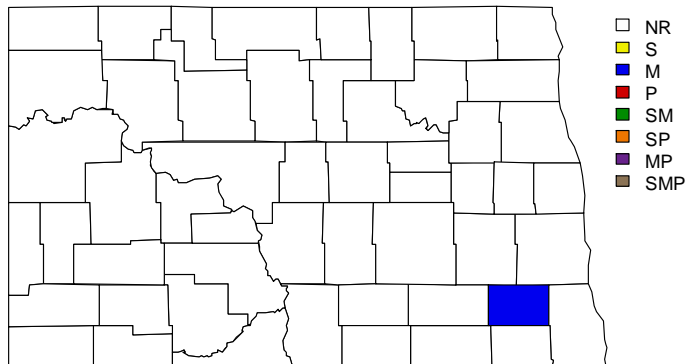
Lycomorpha pholus
(Black-and-yellow Lichen Moth)



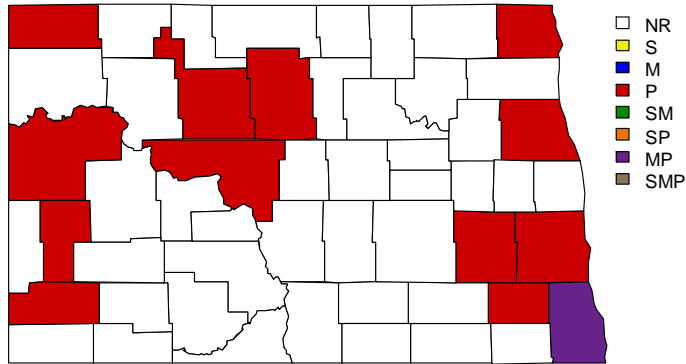
Hypoprepia miniata
(Scarletwinged Lichen Moth)



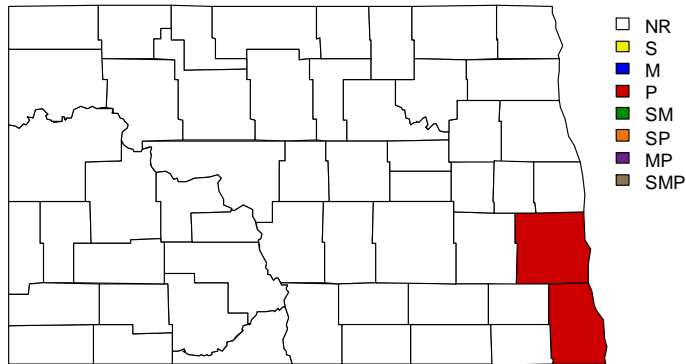
Haploa clymene
(Clymene Moth)



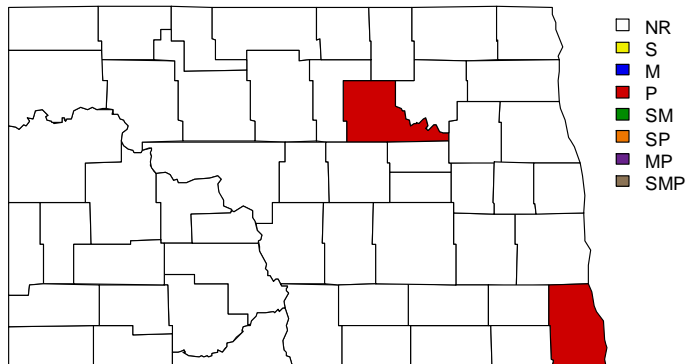
Haploa lecontei
(Leconte's Haploa Moth)



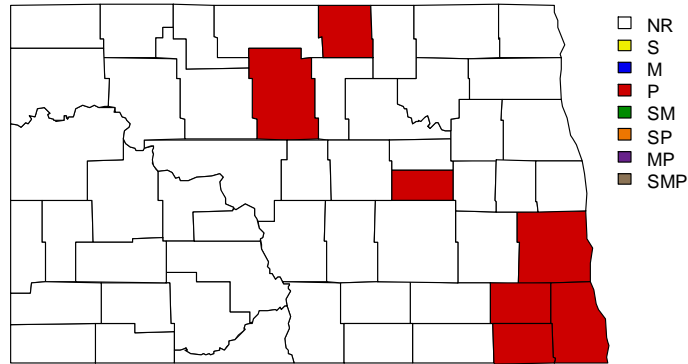
Haploa confusa
(Confused Haploa Moth)



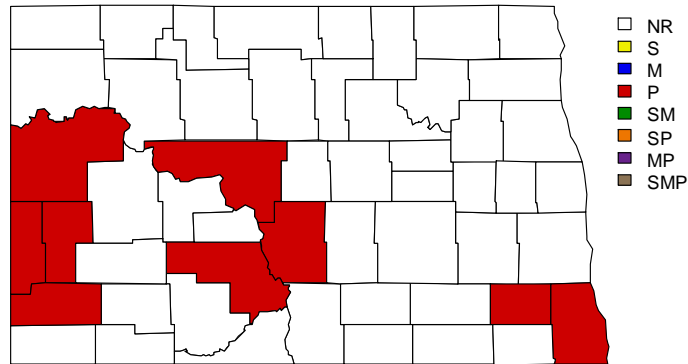
Virbia laeta
(Joyful Holomelina Moth)



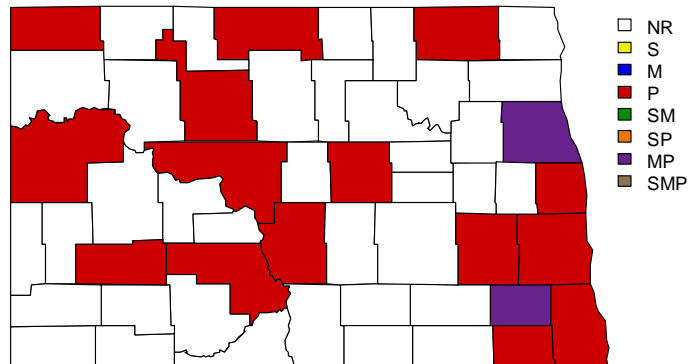
Virbia ferruginosa
(Rusty Holomelina Moth)



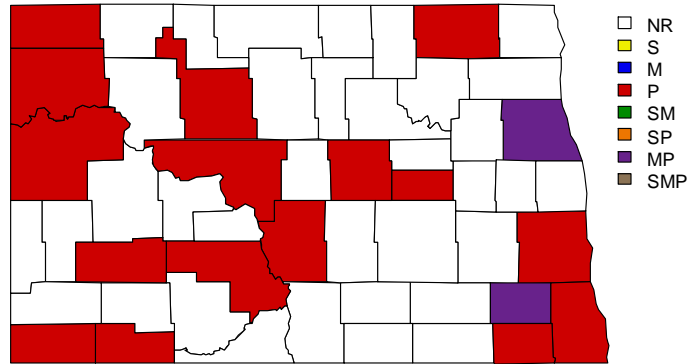
Virbia fragilis
(Fragile Virbia Moth)



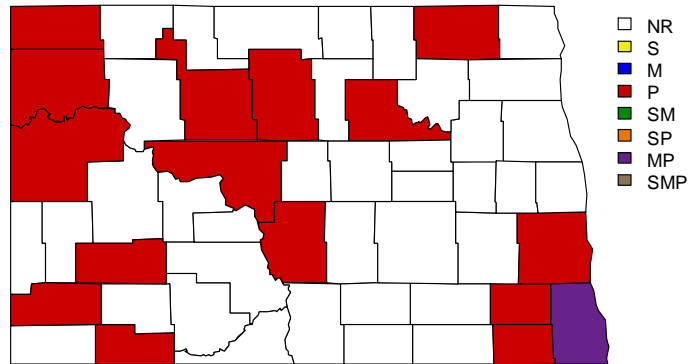
Pyrrharctia (=Isia) isabella
(Isabella Tiger Moth)



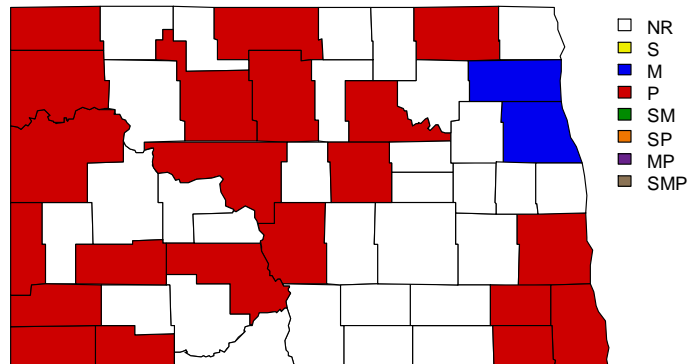
Estigmene acrea
(Salt Marsh Tiger Moth)



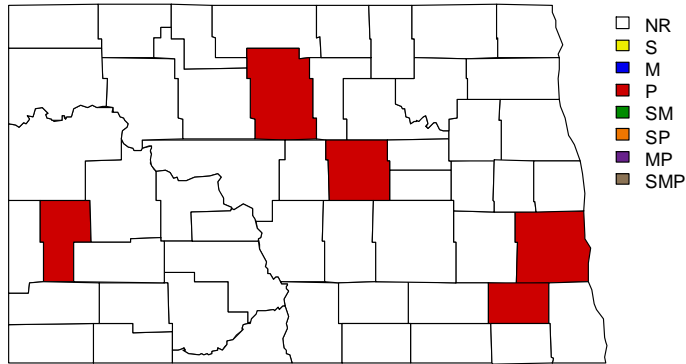
Spilosoma congrua
(Agreeable Tiger Moth)



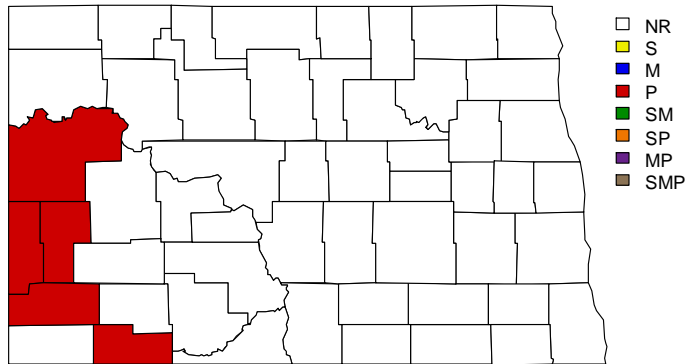
Spilosoma (=Diacrisia) virginica
(Virginian Tiger Moth)



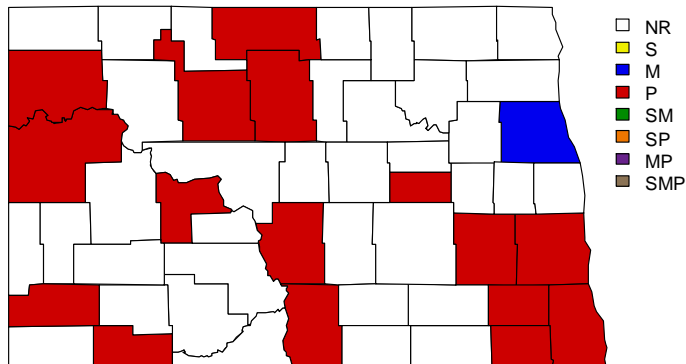
Hyphantria cunea
(Fall Webworm Moth)



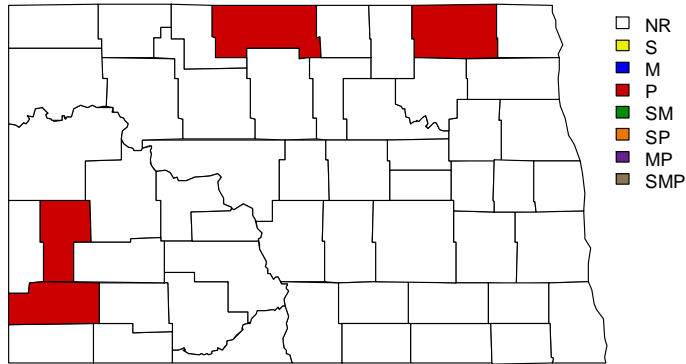
Hypercompe permaculata
(Many-spotted Tiger Moth)



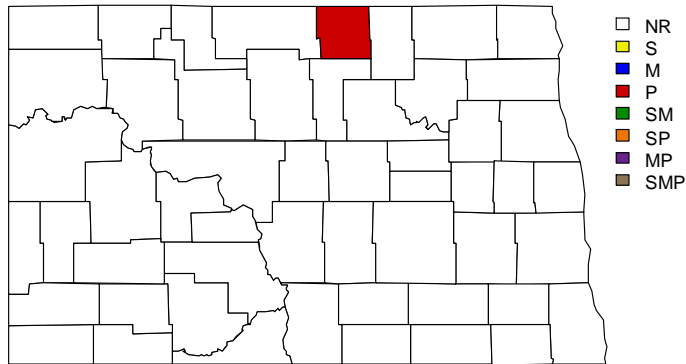
Phragmatobia fuliginosa
(Ruby Tiger Moth)



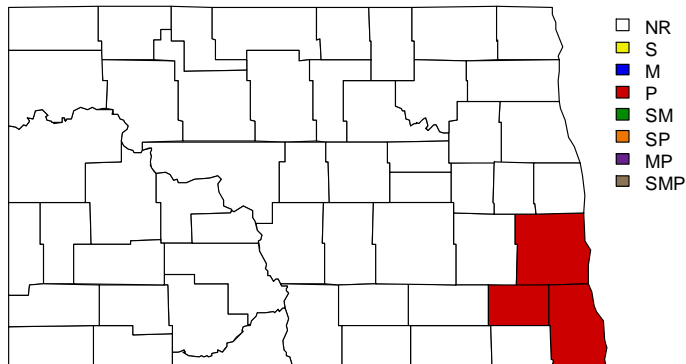
Phragmatobia assimilans
(Large Ruby Tiger Moth)



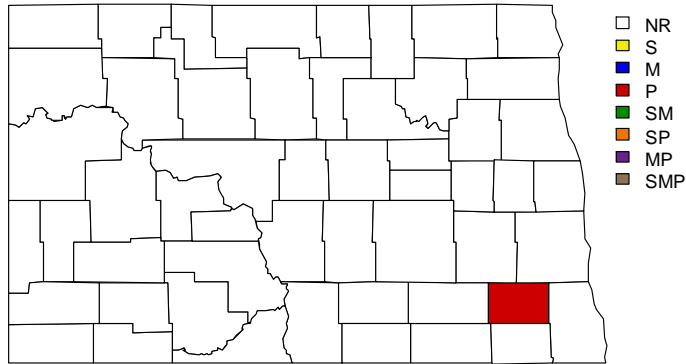
Platarctia parthenos
(St. Lawrence Tiger Moth)



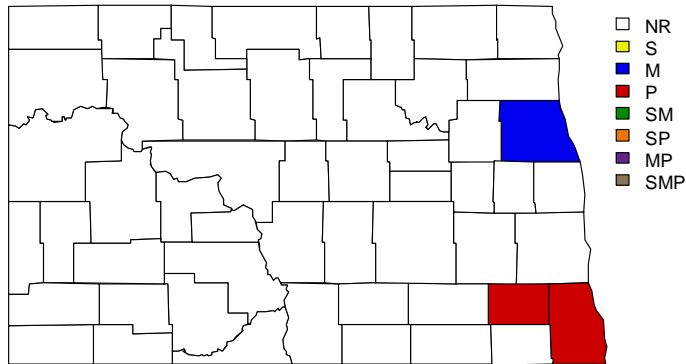
Apantesis nais
(Nais Tiger Moth)



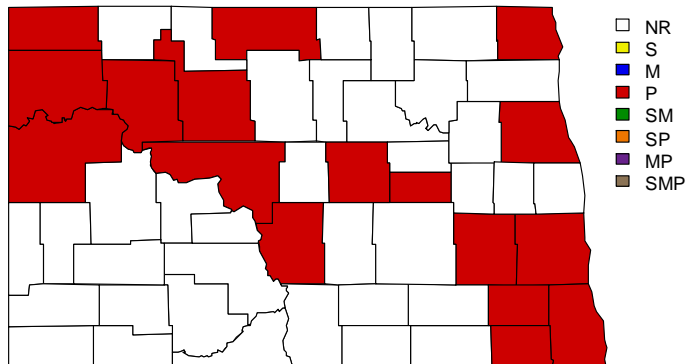
Apantesis carlotta
(Carlotta's Tiger Moth)



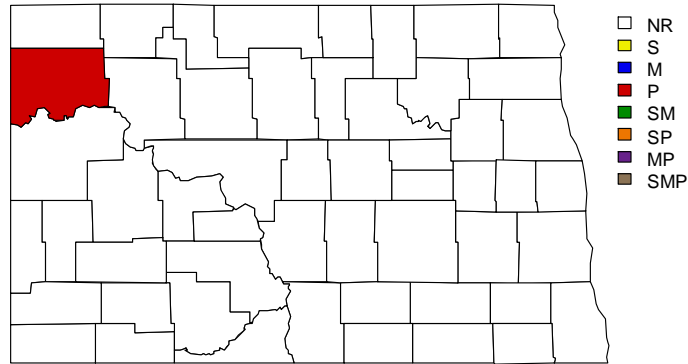
Grammia (=Apantesis) virguncula
(Little Virgin Tiger Moth)



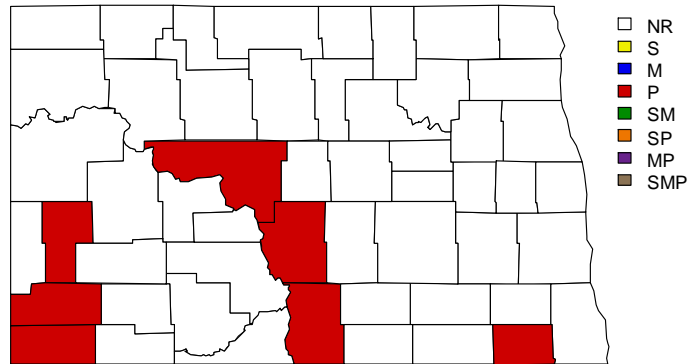
Grammia speciosa
(Bog Tiger Moth)



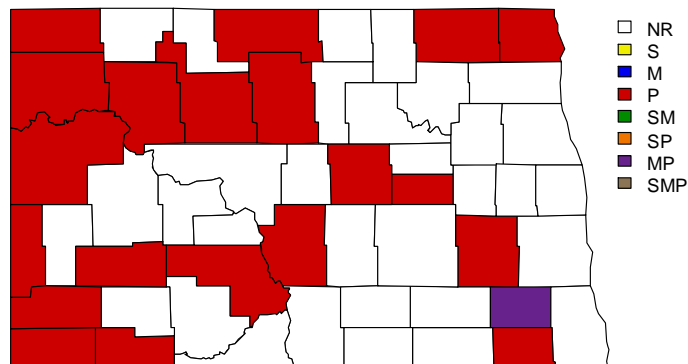
Grammia gibsoni
(Gibson's Tiger Moth)



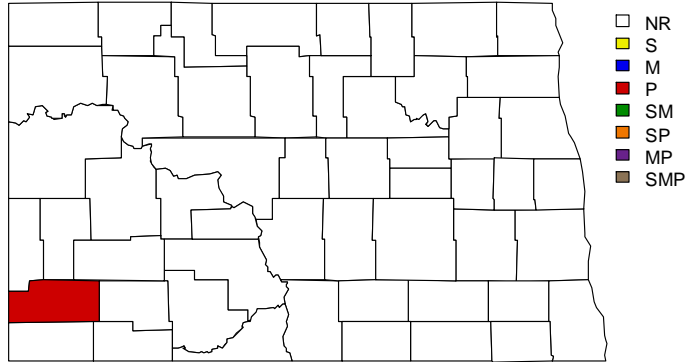
Grammia blakei
(Blake's Tiger Moth)



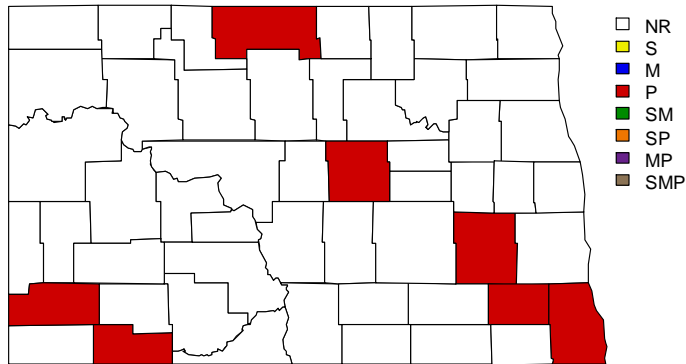
Grammia (=Apantesis) williamsii
(Williams' Tiger Moth)



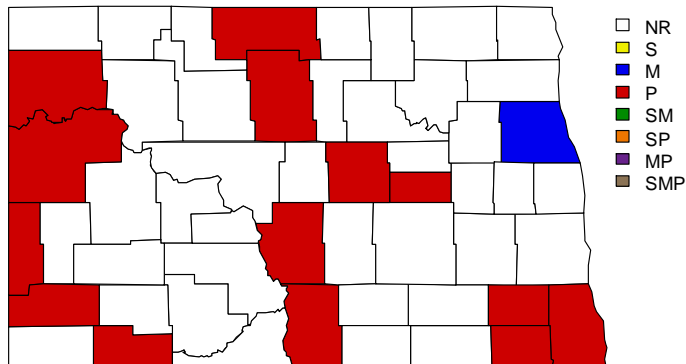
Grammia celia
(Celia's Tiger Moth)



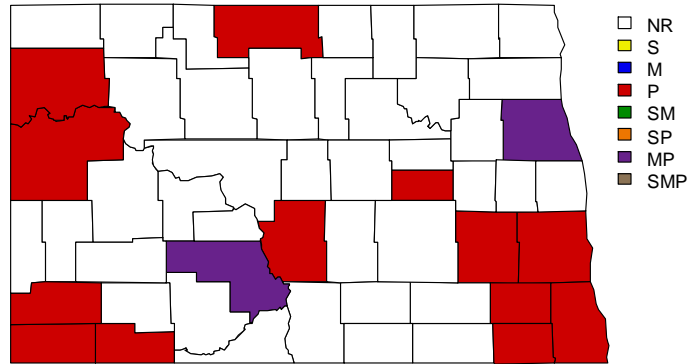
Grammia favorita
(Favorite Tiger Moth)



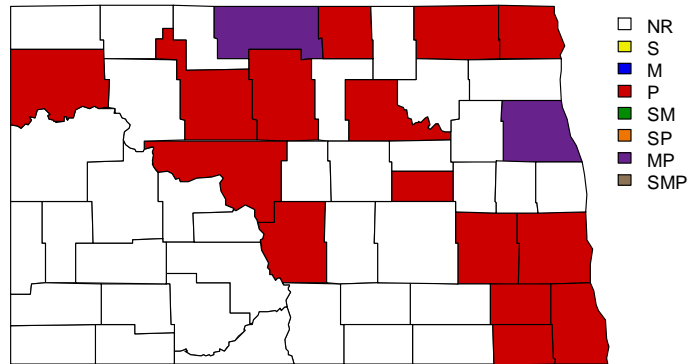
Grammia phyllira (= *Apantesis rectilinea*)
(Phyllira Tiger Moth)



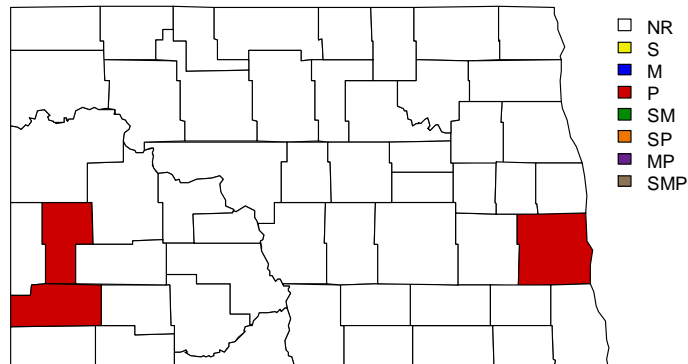
Grammia parthenice (=intermedia)
(Parthenice Tiger Moth)



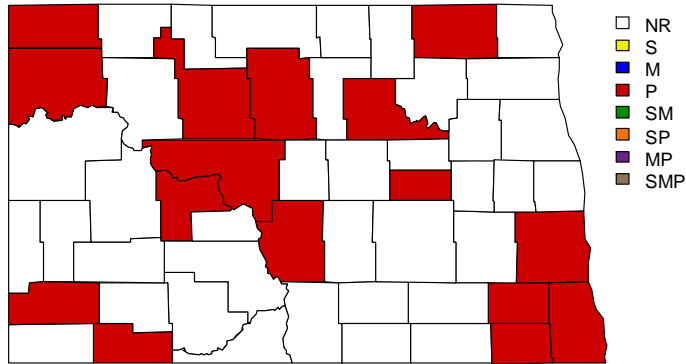
Grammia (=Apantesis) *virgo*
(Virgin Tiger Moth)



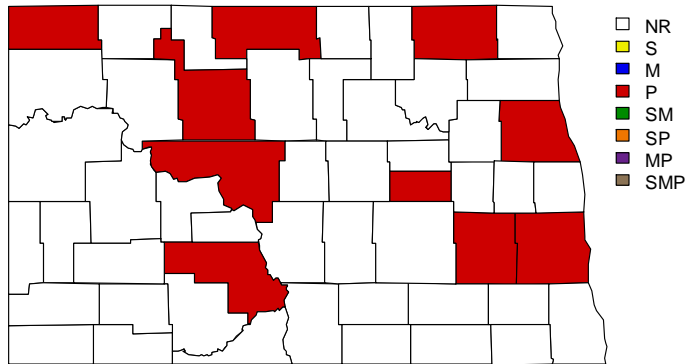
Grammia arge
(Arge Moth)



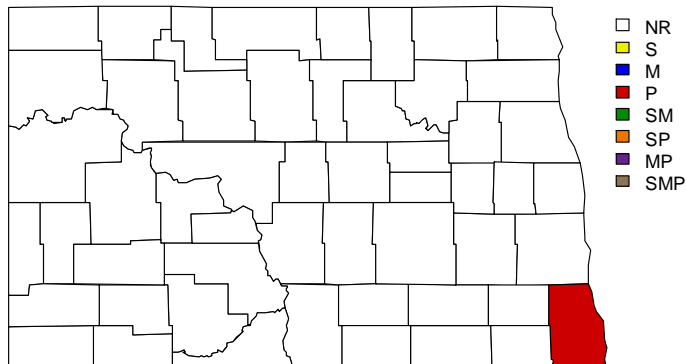
Halysidota tessellaris
(Banded Tussock Moth)



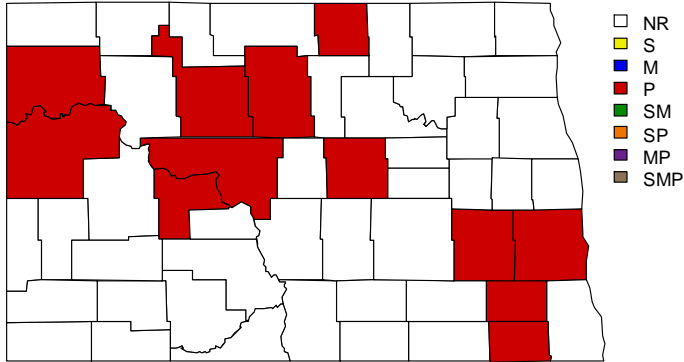
Lophocampa maculata
(Spotted Tussock Moth)



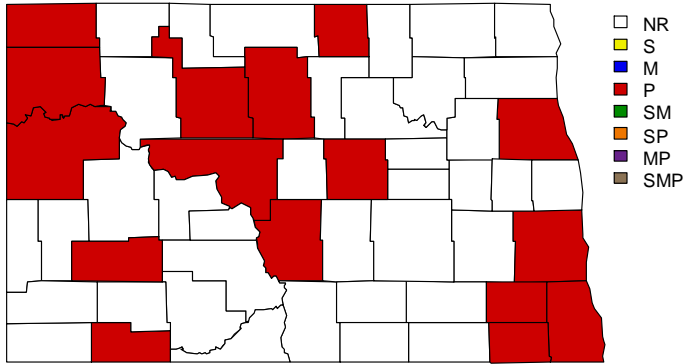
Cycnia inopinatus
(Lesser Milkweed Tiger Moth)



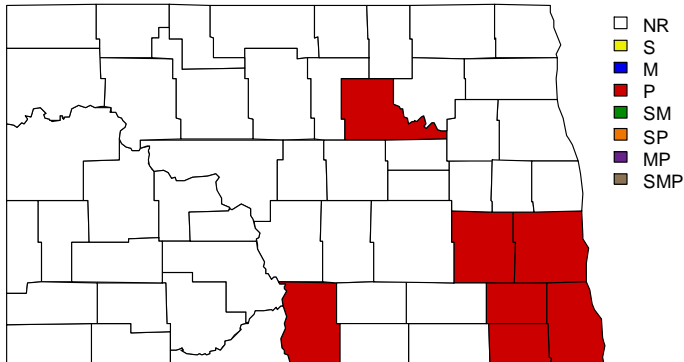
Cycnia tenera
(Delicate Cycnia Moth)



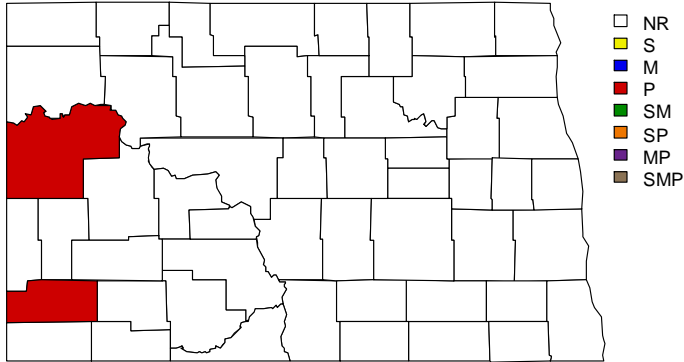
Cycnia oregonensis
(Oregon Cycnia Moth)



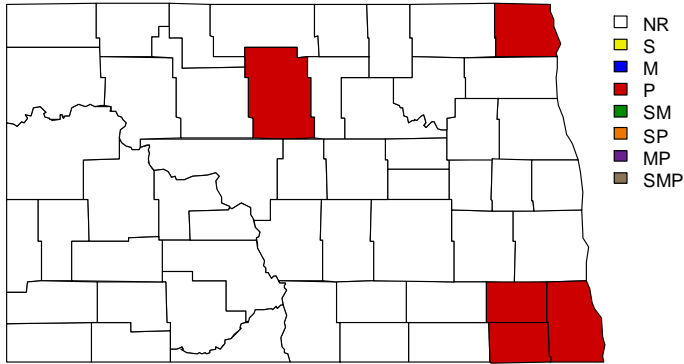
Euchaetes egle
(Milkweed Tussock Moth)



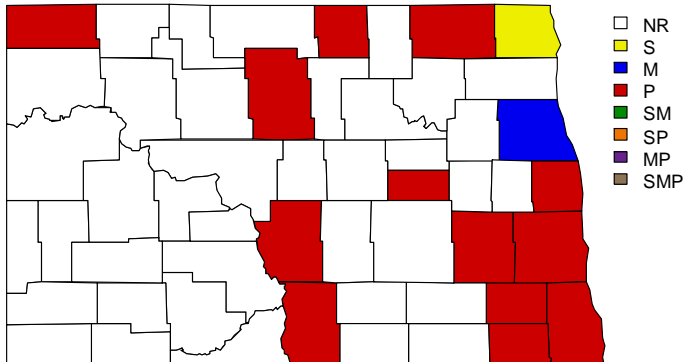
Ectypia clio
(Clio Tiger Moth)



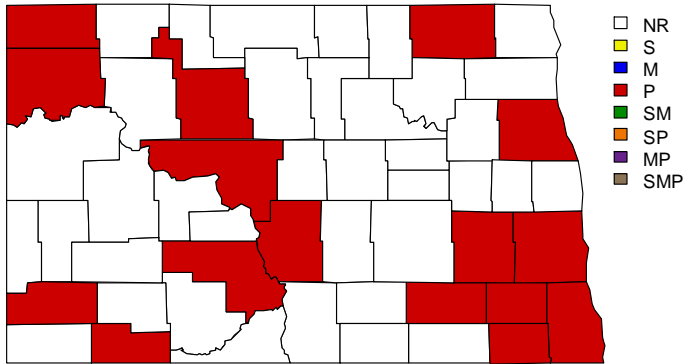
Pygarctia spraguei
(Sprague's Pygarctia Moth)



Ctenucha virginica
(Virginia Ctenucha Moth)

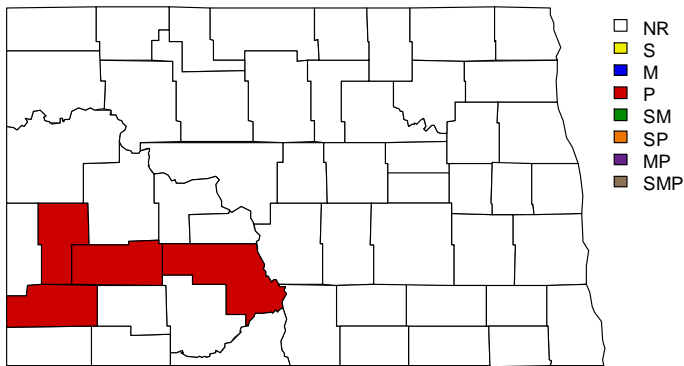


Ciseps fulvicollis
(Yellow-collared Scape Moth)



Family: Lymantriidae (Tussock Moths)

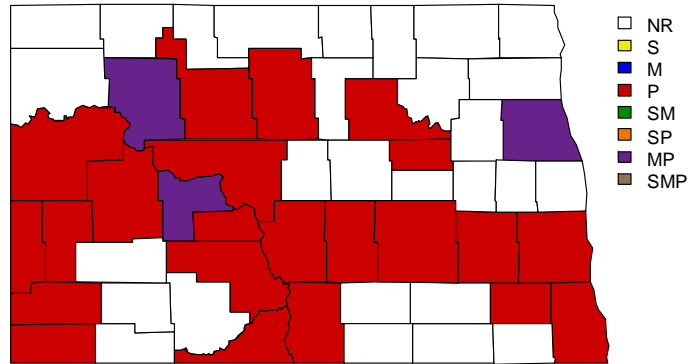
Dasychira grisefacta
(Pine Tussock Moth)



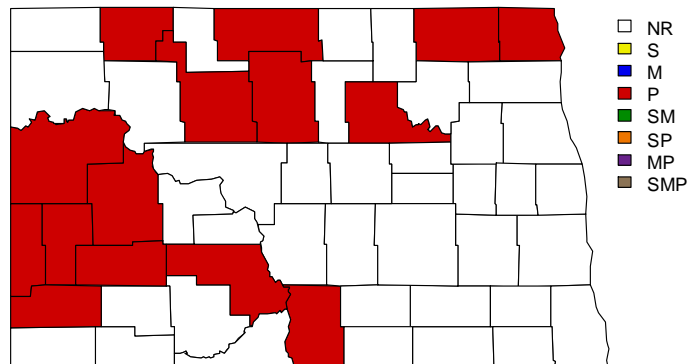
Butterflies

Family: Hesperiiidae (Skippers)

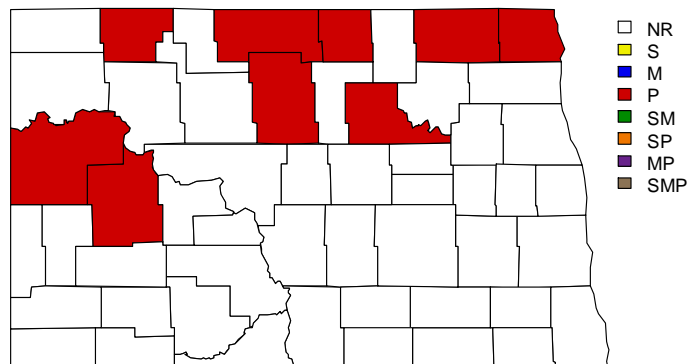
Epargyreus clarus
(Silver-spotted Skipper)



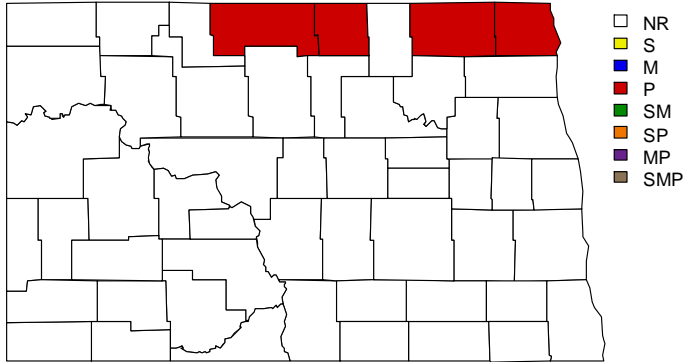
Thorybes pylades
(Northern Cloudywing)



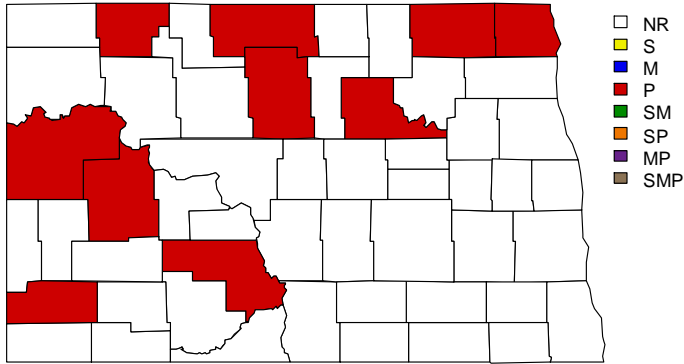
Erynnis icelus
(Dreamy Duskywing)



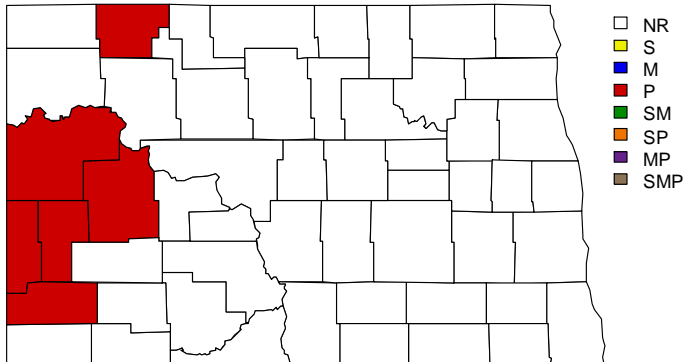
Erynnis brizo
(Sleepy Duskywing)



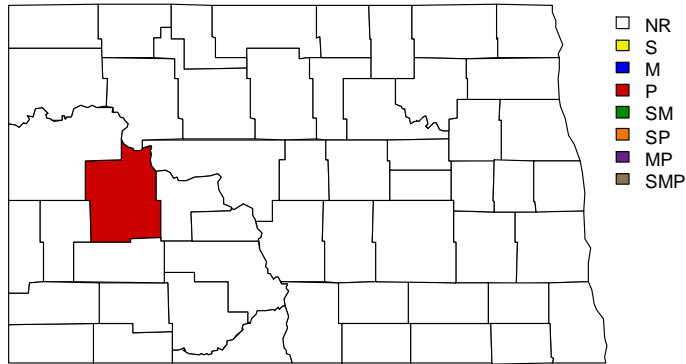
Erynnis juvenalis
(Juvenal's Duskywing)



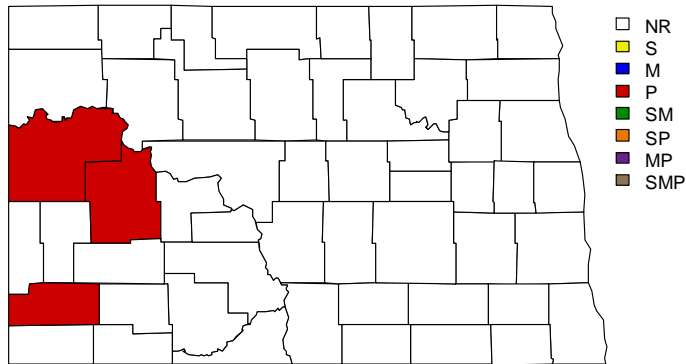
Erynnis afranius
(Afranius Duskywing)



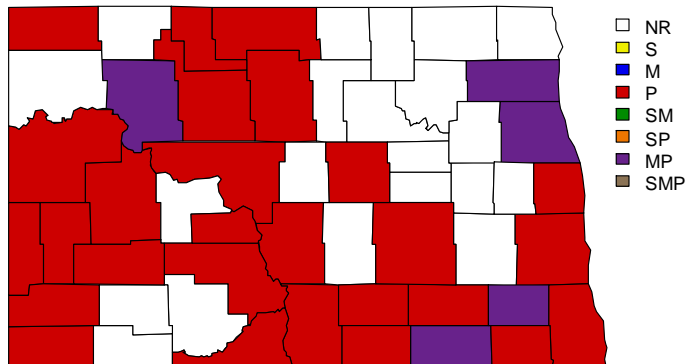
Erynnis persius
(Persius Duskywing)



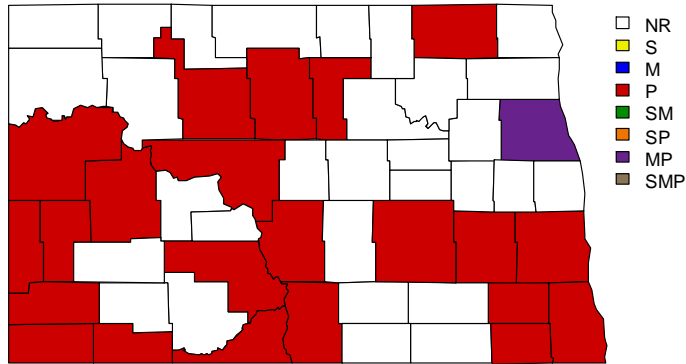
Pyrgus scriptura
(Small Checkered Skipper)



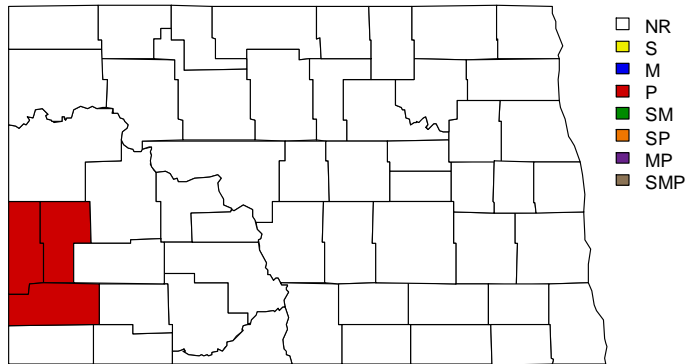
Pyrgus communis
(Checkered Skipper, Common Checkered Skipper)



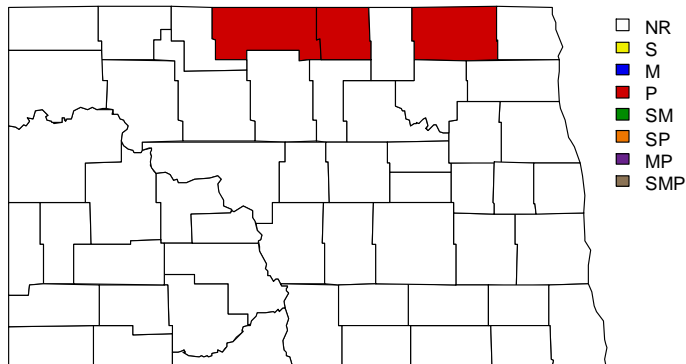
Pholisora catullus
(Common Sootywing)



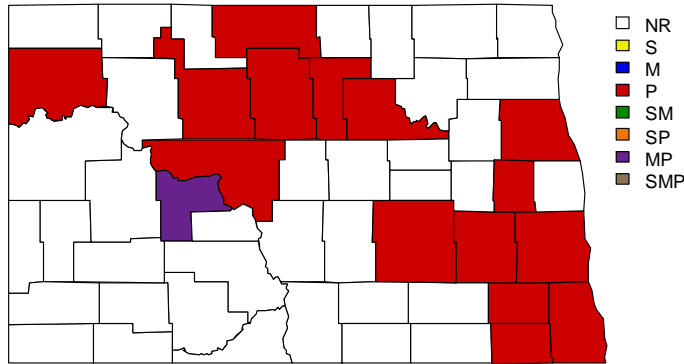
Hesperopsis libya
(Mohave Sootywing)



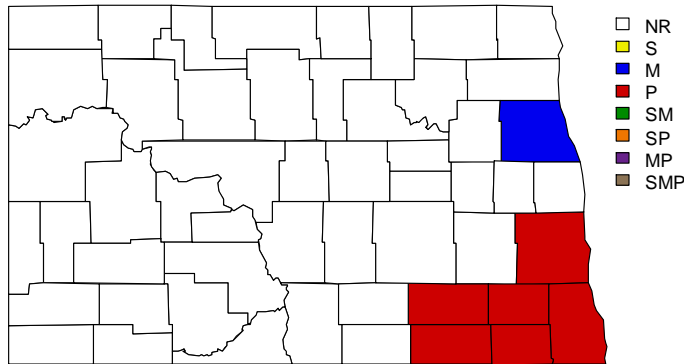
Carterocephalus palaemon
(Arctic Skipper)



Ancyloxypha numitor
(Least Skipper)

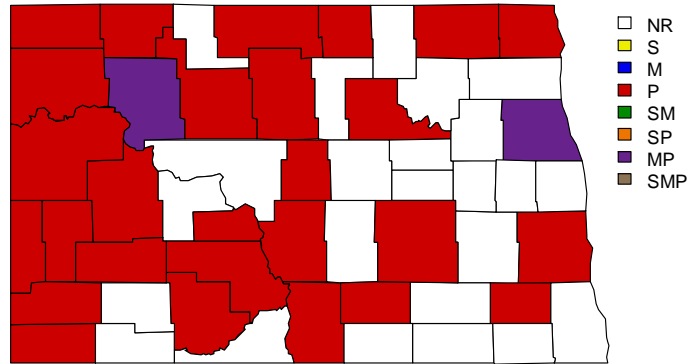


Oarisma poweshiek
(Poweshiek Skipperling)

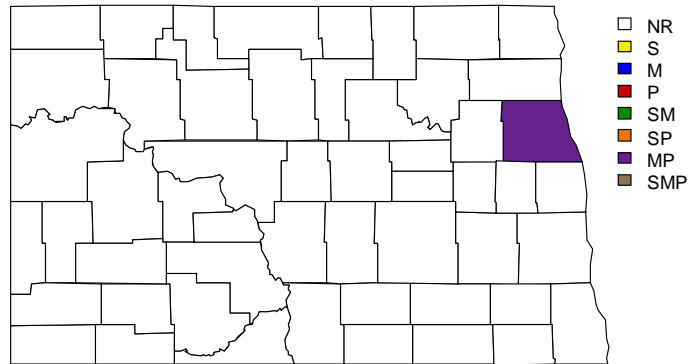


Note: Poweshiek Skipperling is a species of conservation concern which currently has federal proposed species status. This species has traditionally been thought to be restricted to the southeast corner of the state. The Grand Forks county record from the UND museum collection represents a new county record but the record is from the 1960s.

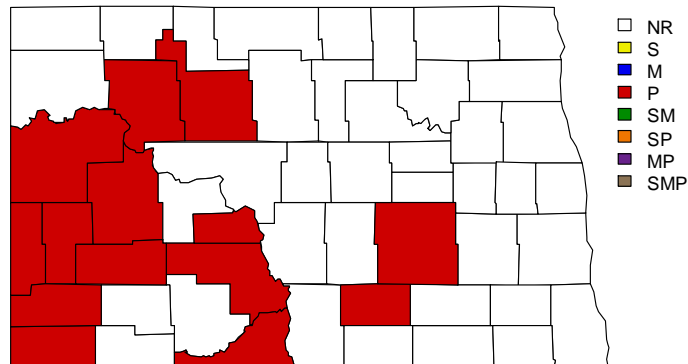
Oarisma garita
(Garita Skipperling)



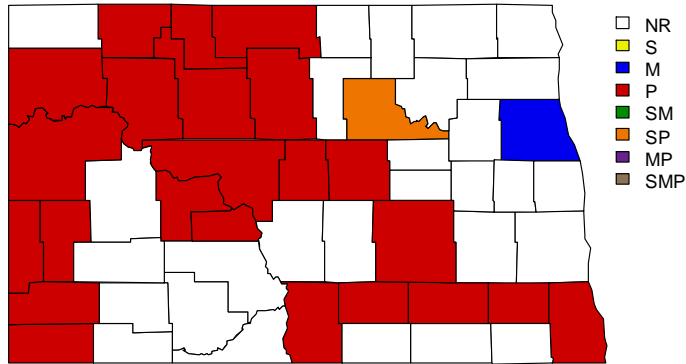
Thymelicus lineola
(European Skipper)



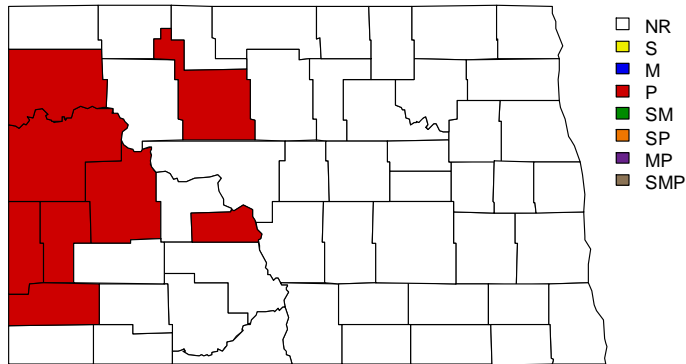
Hesperia uncas
(Uncas Skipper)



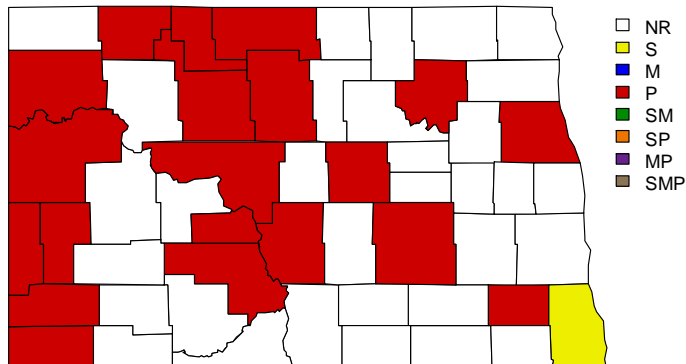
Hesperia comma (=assiniboia)
 (Common Branded Skipper, Plains Skipper)



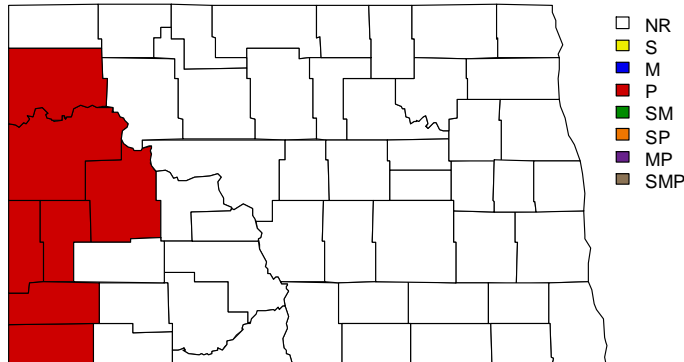
Hesperia ottoe
 (Ottoe Skipper)



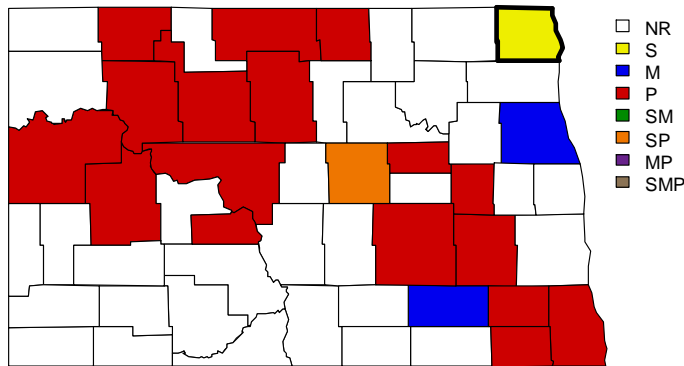
Hesperia leonardus pawnee
 (Pawnee Skipper)



Hesperia pahaska
(Pahaska Skipper)

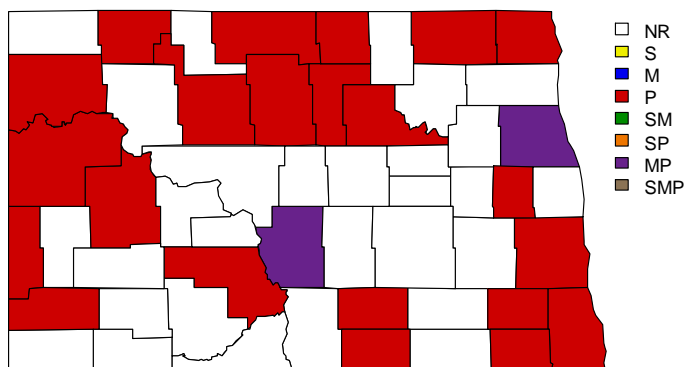


Hesperia dacotae
(Dakota Skipper)

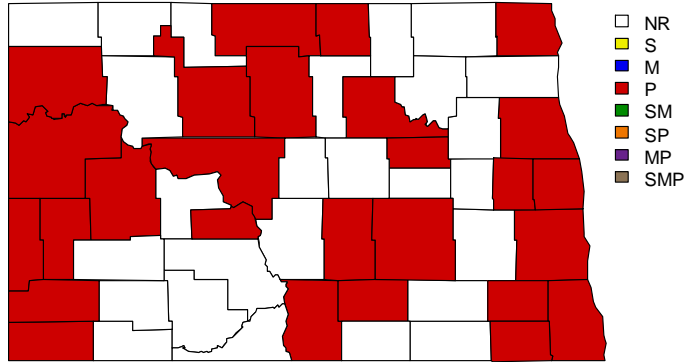


Note: Dakota Skipper is a species of conservation concern and currently has federal proposed species status. The Pembina County record was a skipper observed on the wing that was not confirmed as the butterfly was not caught for careful observation.

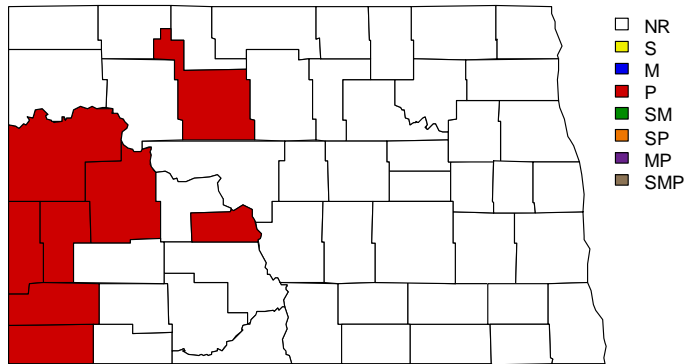
Polites peckius (=coras)
(Peck's Skipper)



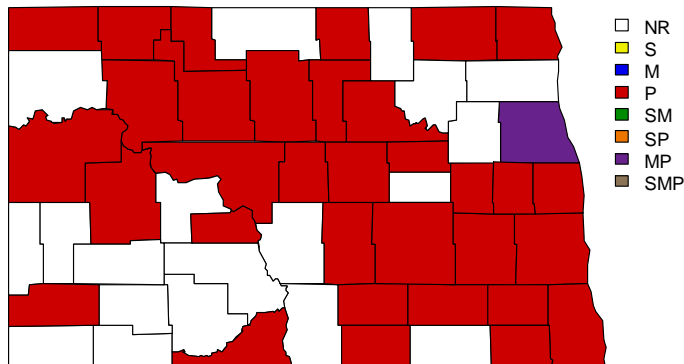
Polites themistocles
(Tawny-edged Skipper)



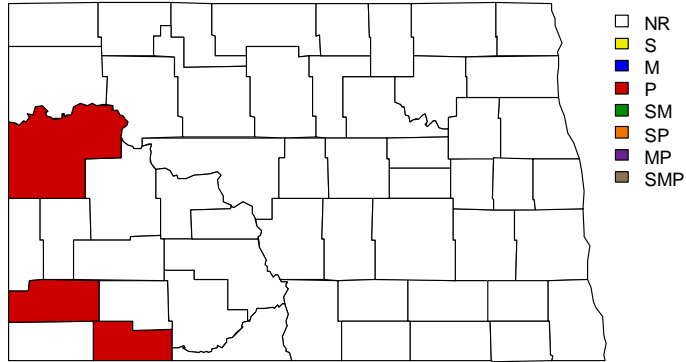
Polites origenes
(Crossline Skipper)



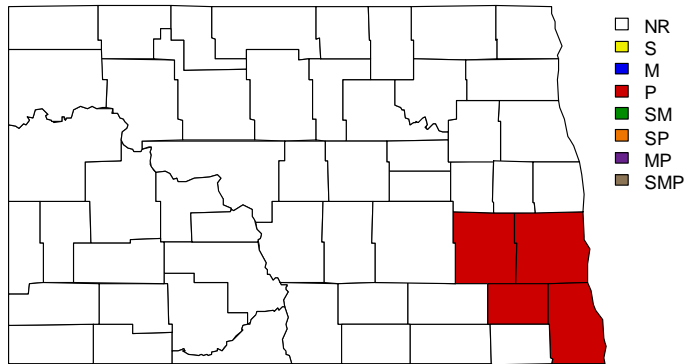
Polites mystic
(Long Dash)



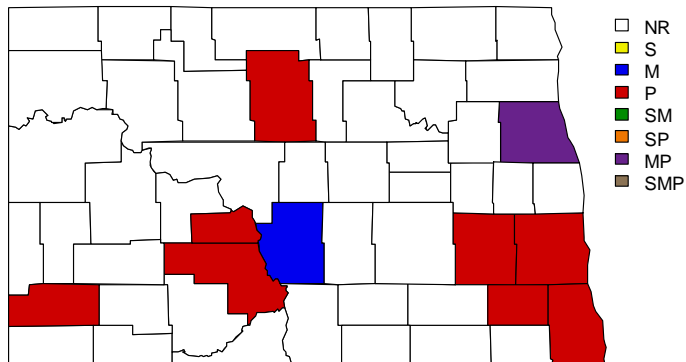
Polites rhesus
(Rhesus Skipper)



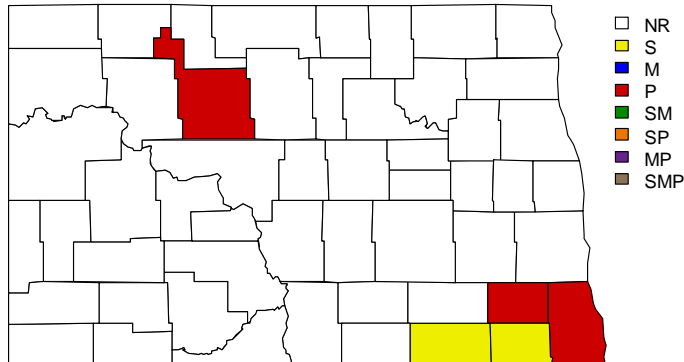
Wallengrenia egeremet
(Northern Broken-Dash)



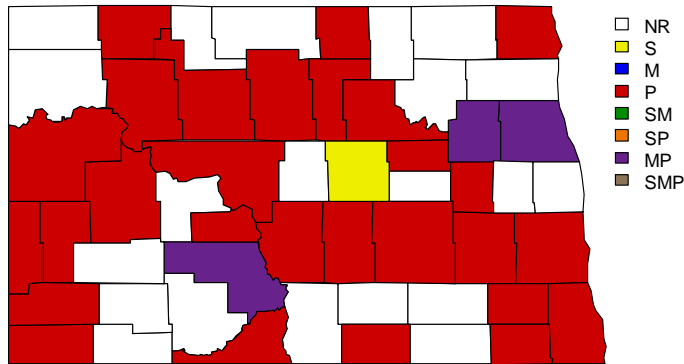
Atalopedes campestris
(Sachem)



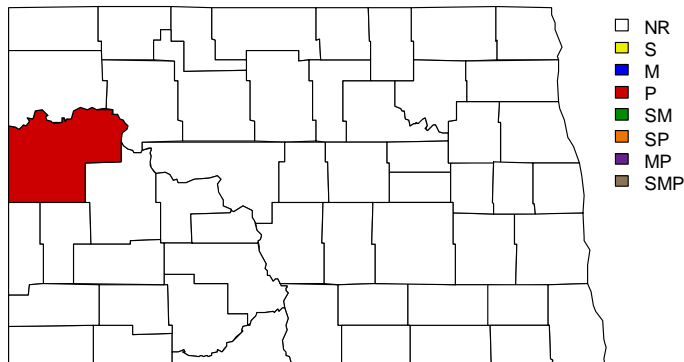
Atrytone arogos
(Arogos Skipper)



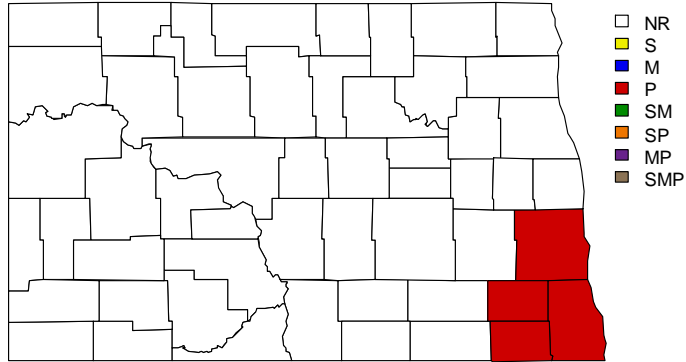
Anatrytone logan (= *Atrytone delaware*)
(Delaware Skipper)



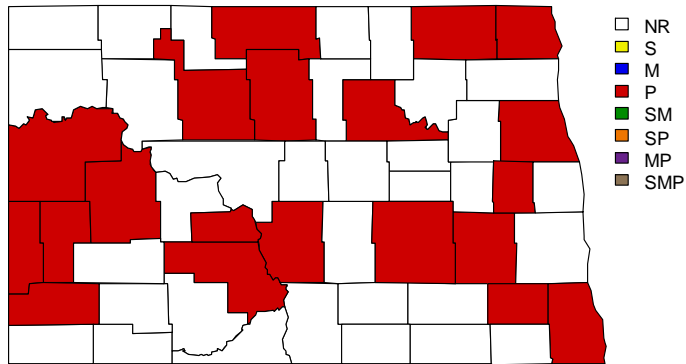
Ochlodes sylvanoides
(Woodland Skipper)



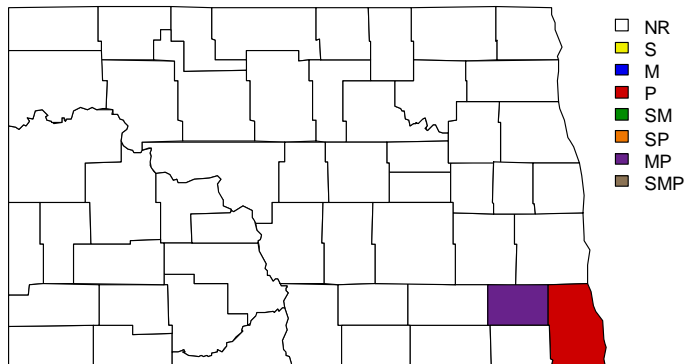
Poanes massasoit
(Mulberry Wing)



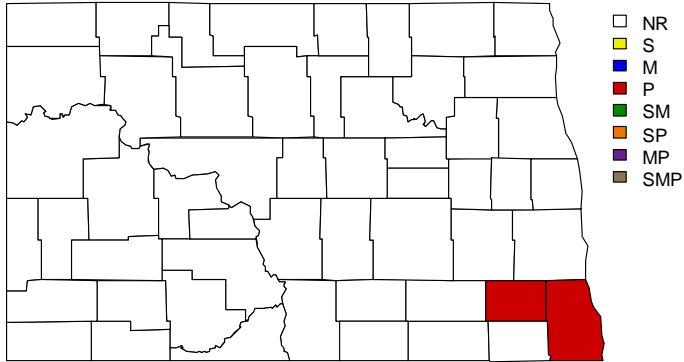
Poanes hobomok
(Hobomok Skipper)



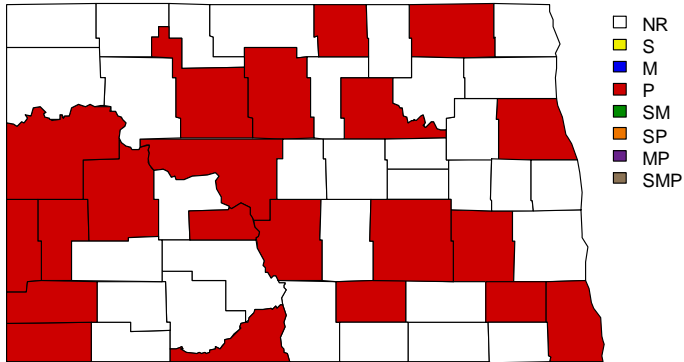
Poanes viator
(Broad-winged Skipper)



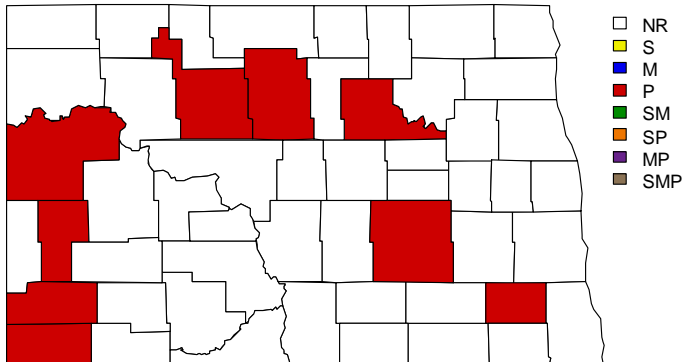
Euphyes dion
(Dion Skipper)



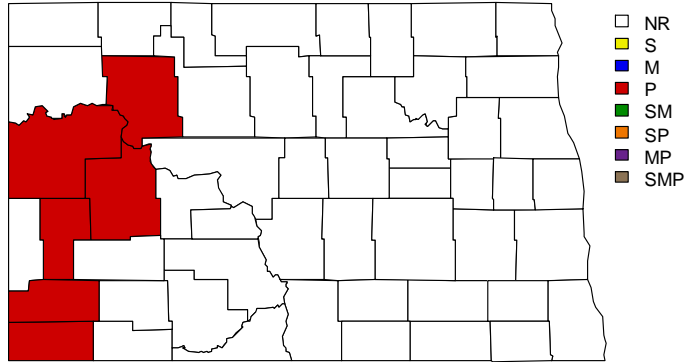
Euphyes vestris
(Dun Skipper)



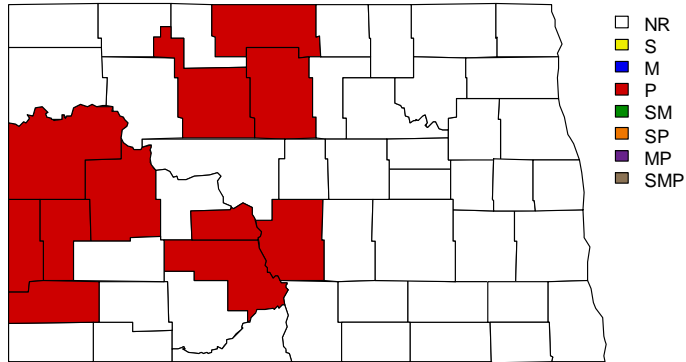
Atrytonopsis hianna
(Dusted Skipper)



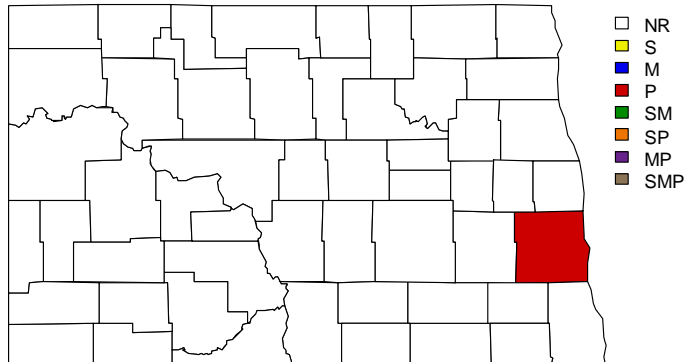
Amblyscirtes oslari
(Oslar's Roadside-Skipper)



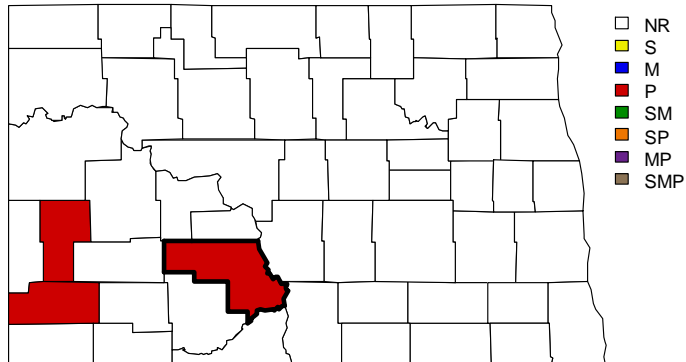
Amblyscirtes vialis
(Common Roadside-Skipper)



Lerodea eufala
(Eufala Skipper)



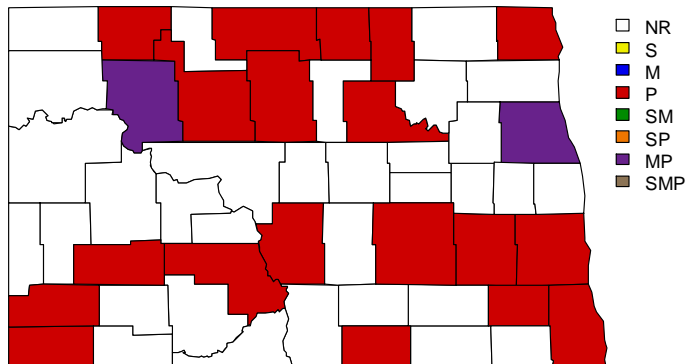
Megathymus streckeri
(Strecker's Giant-Skipper)



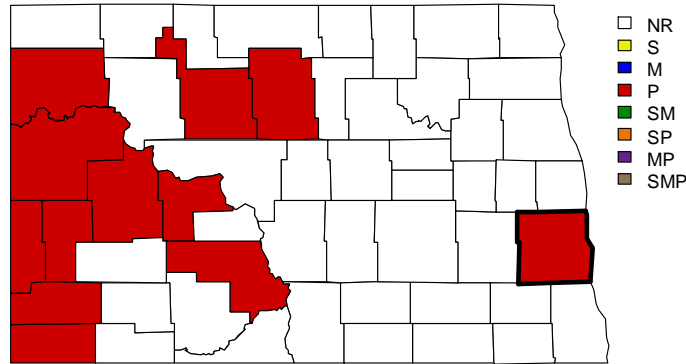
Note: Morton County record is based on historical or questionable records (Royer 2004).

Family: Papilionidae (Swallowtails)

Papilio polyxenes
(Black Swallowtail)

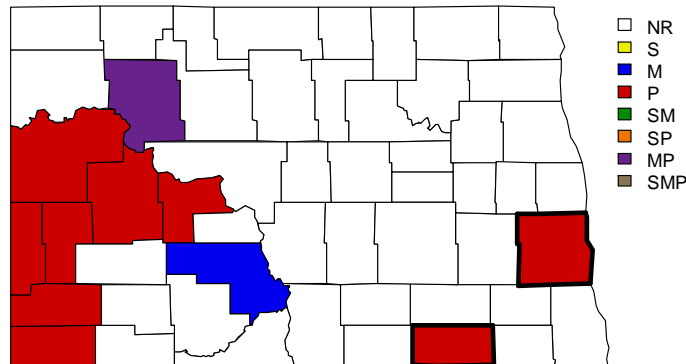


Papilio machaon
(Baird's Swallowtail, Old World Swallowtail)



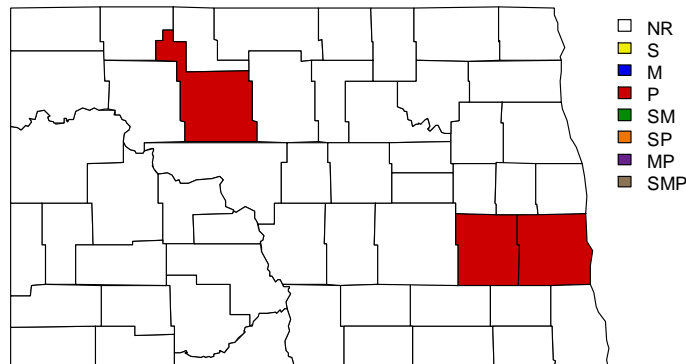
Note: Cass County record is based on historical or questionable records (Royer 2004).

Papilio zelicaon
(Anise Swallowtail)

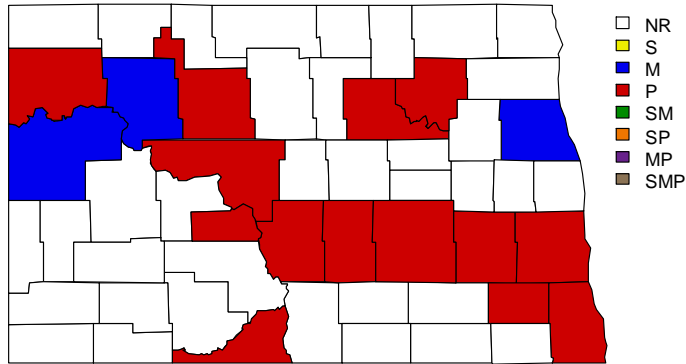


Note: Cass County and Dickey County records are based on historical or questionable records (Royer 2004).

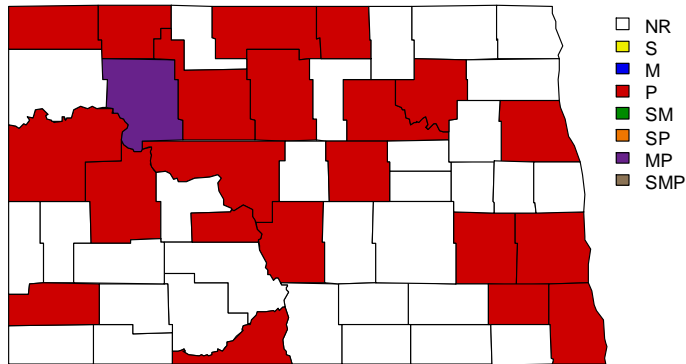
Papilio cresphontes
(Giant Swallowtail)



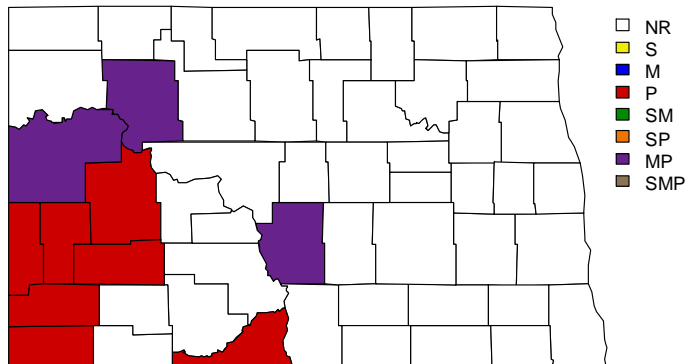
Papilio glaucus
(Tiger Swallowtail)



Papilio canadensis
(Canadian Tiger Swallowtail)

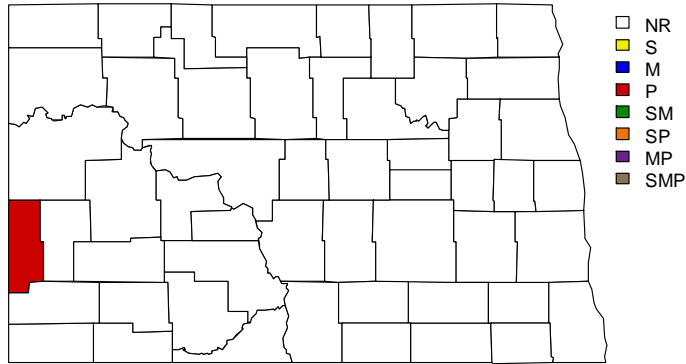


Papilio multicaudata
(Two-tailed Swallowtail)

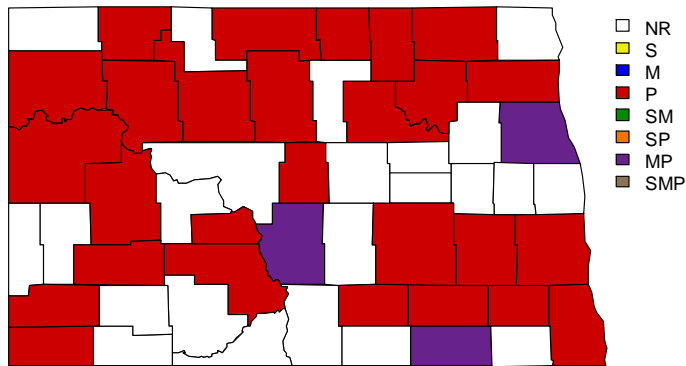


Family: Pieridae (Whites and Sulphurs)

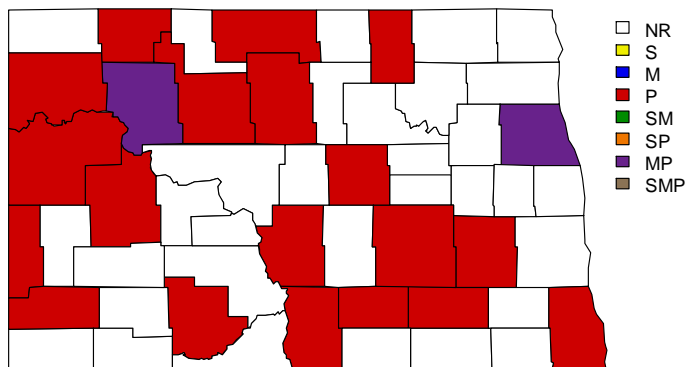
Pontia sisymbrii
(Spring White)



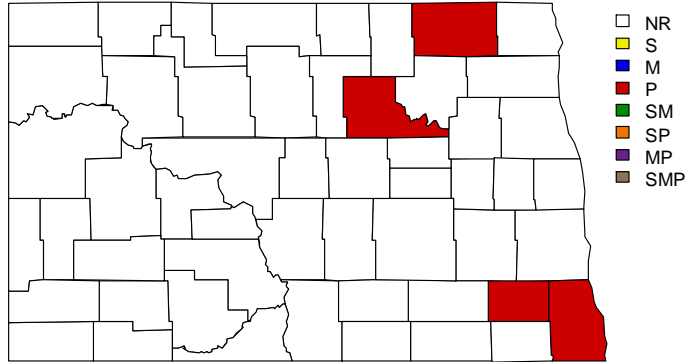
Pontia (=Pieris) protodice
(Checkered White)



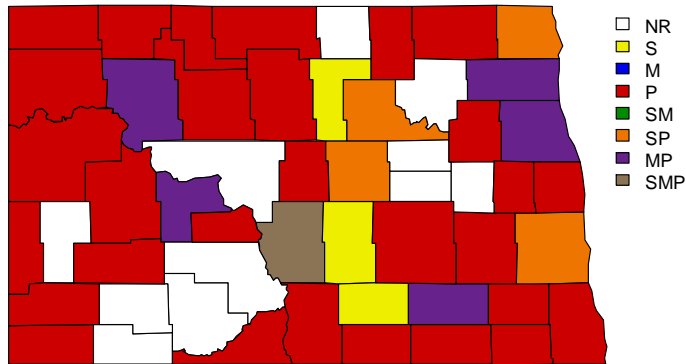
Pontia occidentalis
(Western White)



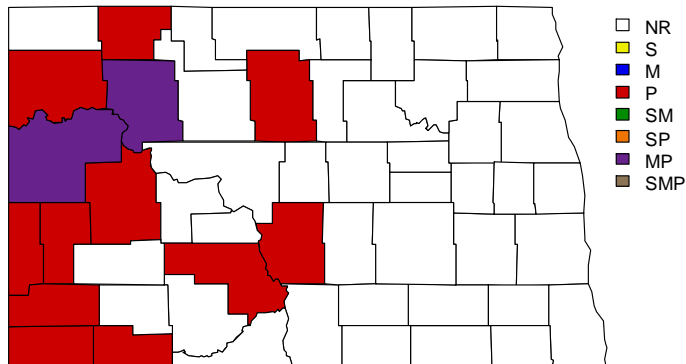
Pieris oleracea
(Mustard White)



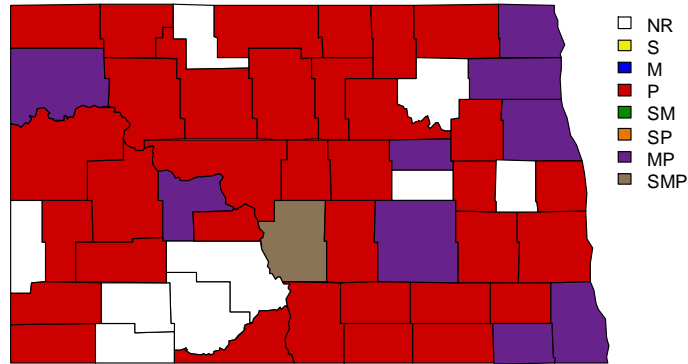
Pieris rapae
(Cabbage Butterfly, Cabbage White)



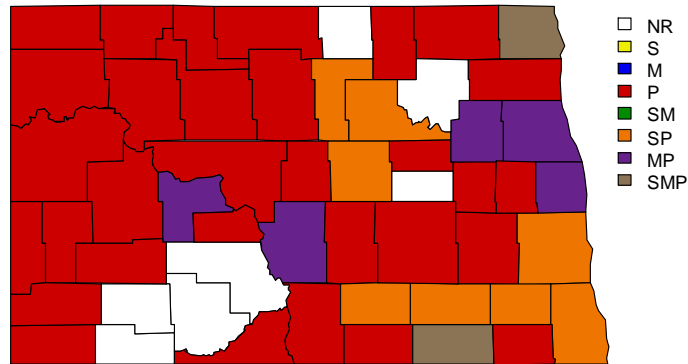
Euchloe olympia
(Olympia Marble)



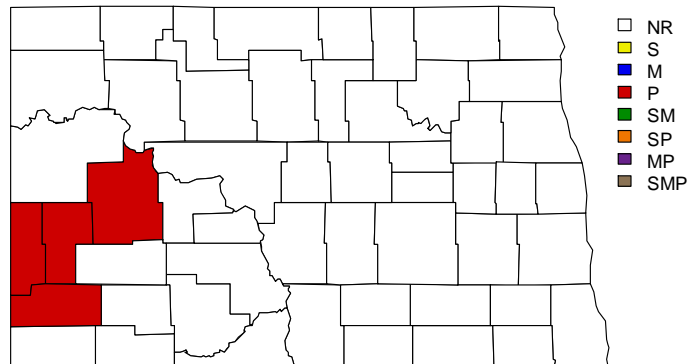
Colias philodice
(Clouded Sulphur)



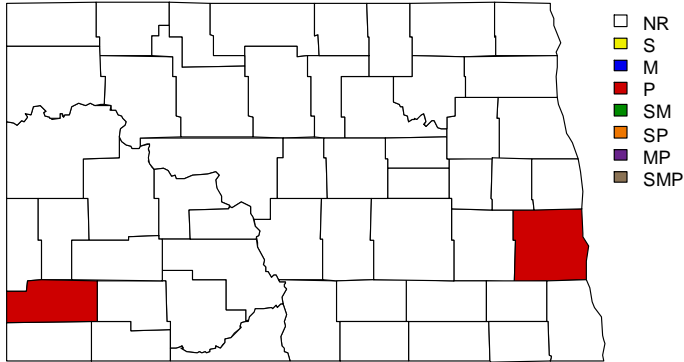
Colias eurytheme
(Orange Sulphur, Alfalfa Butterfly)



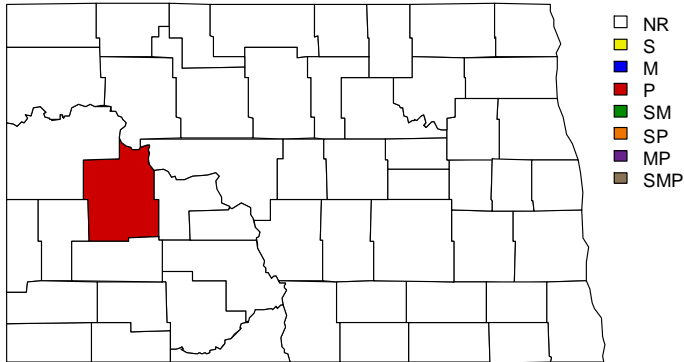
Colias alexandra
(Queen Alexandra's Sulphur)



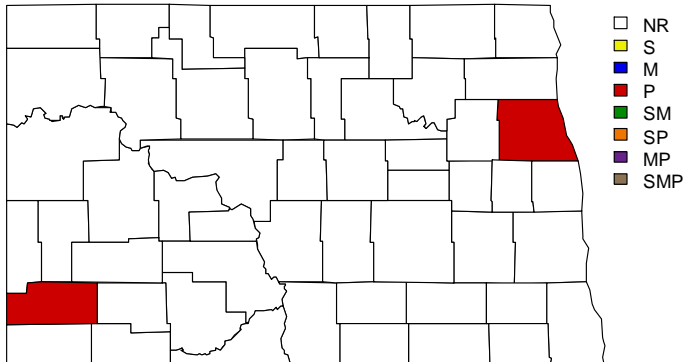
Zerene cesonia
(Southern Dogface)



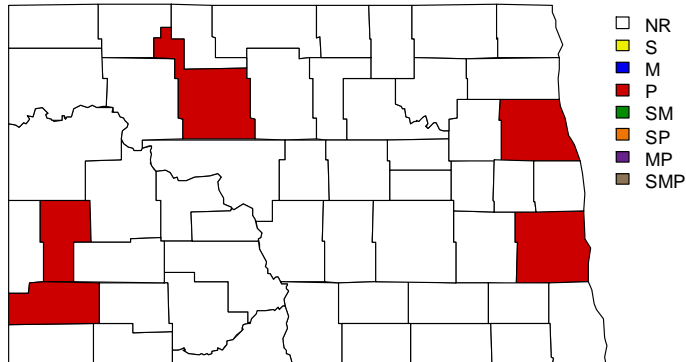
Phoebis sennae
(Cloudless Sulphur)



Eurema mexicana
(Mexican Yellow)

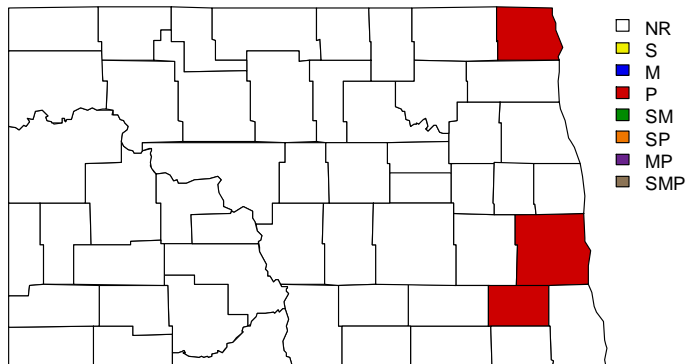


Nathalis iole
(Dainty Sulphur)

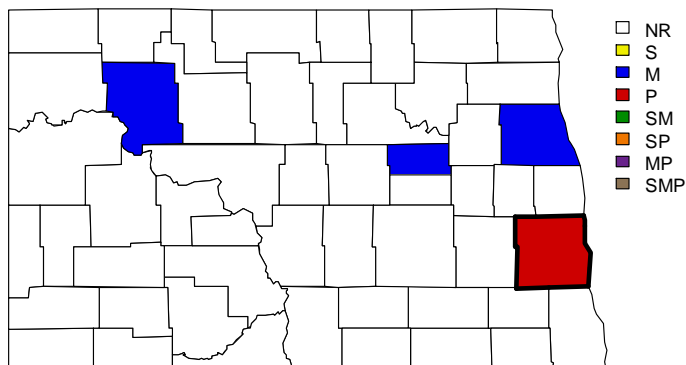


Family: Lycaenidae (Gossamer Winged Butterflies)

Feniseca tarquinius
(Harvester)

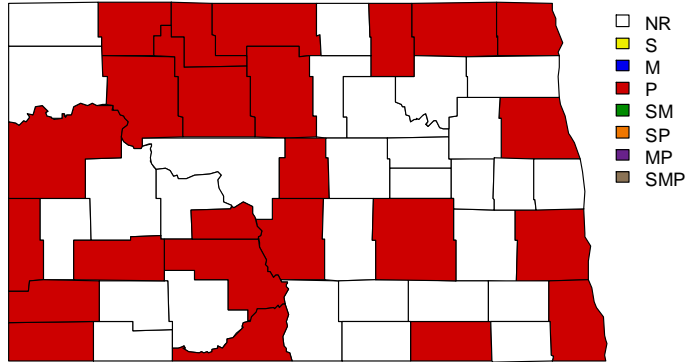


Lycaena phalaes
(Little Copper)

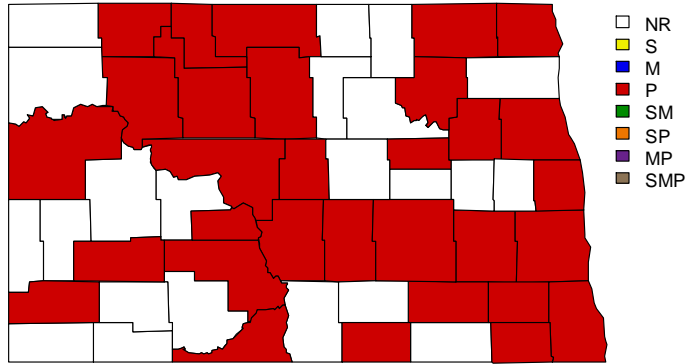


Note: Cass County record is based on historical or questionable records (Royer 2004).

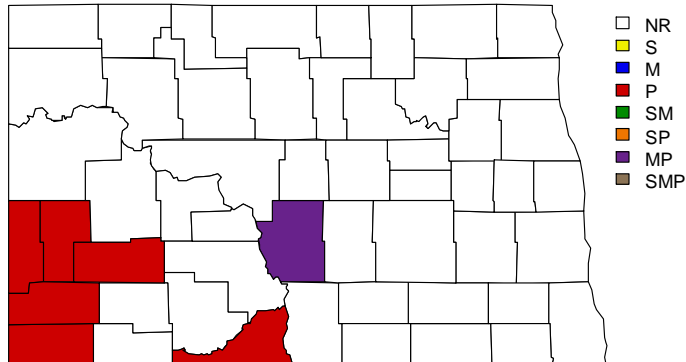
Lycaena dione
(Gray Copper)



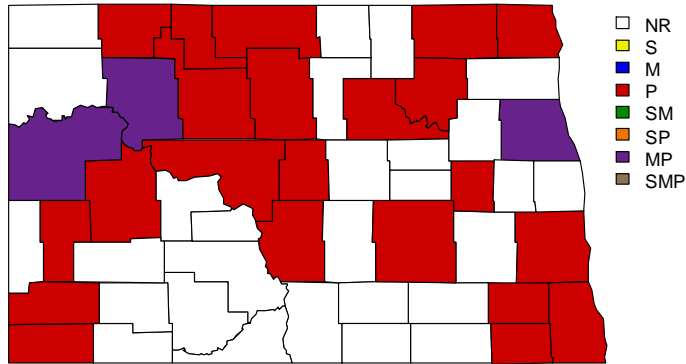
Lycaena hyllus
(Bronze Copper)



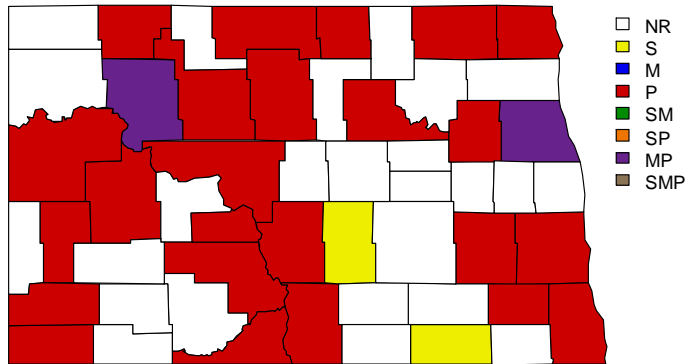
Lycaena rubidus
(Ruddy Copper)



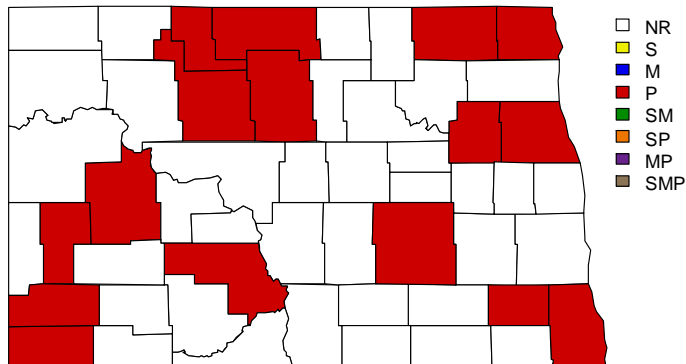
Lycaena helloides
(Purplish Copper)



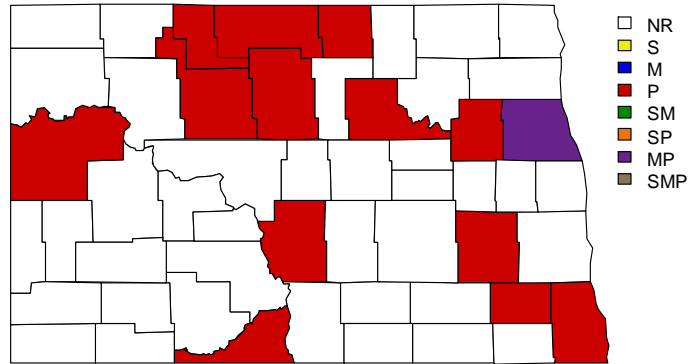
Satyrium titus
(Coral Hairstreak)



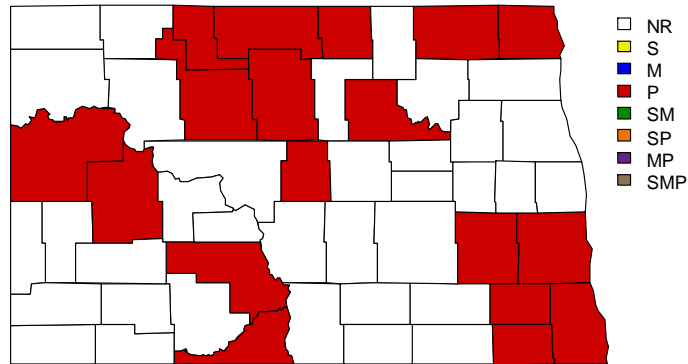
Satyrium acadica
(Acadian Hairstreak)



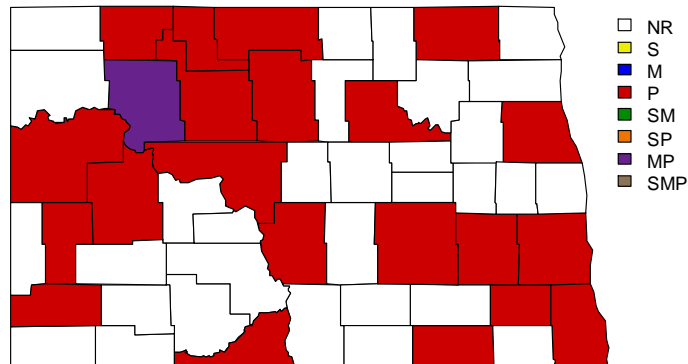
Satyrium edwardsii
(Edwards' Hairstreak)



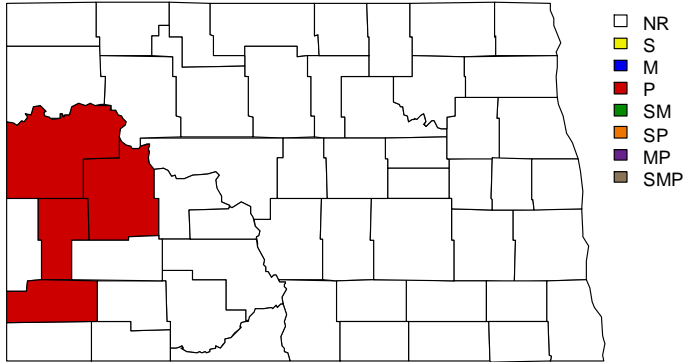
Satyrium calanus
(Banded Hairstreak)



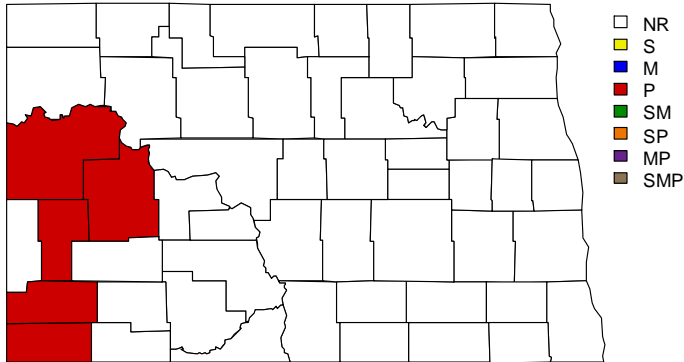
Satyrium liparops
(Striped Hairstreak)



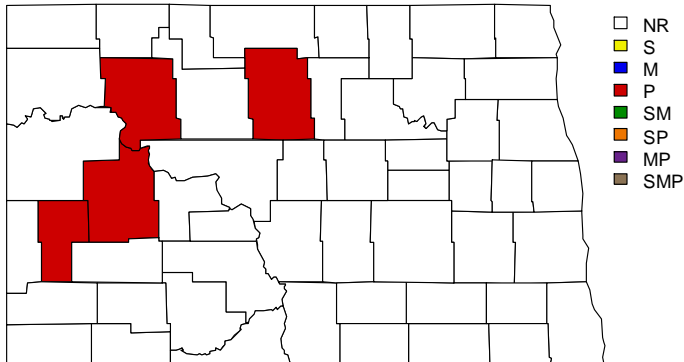
Callophrys sheridanii
(Sheridan's Green Hairstreak)



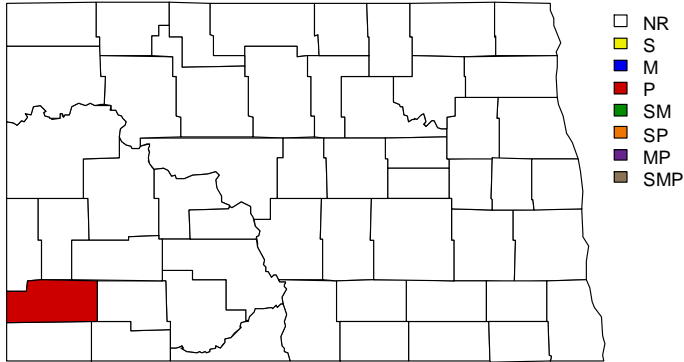
Callophrys gryneus
(Juniper Hairstreak)



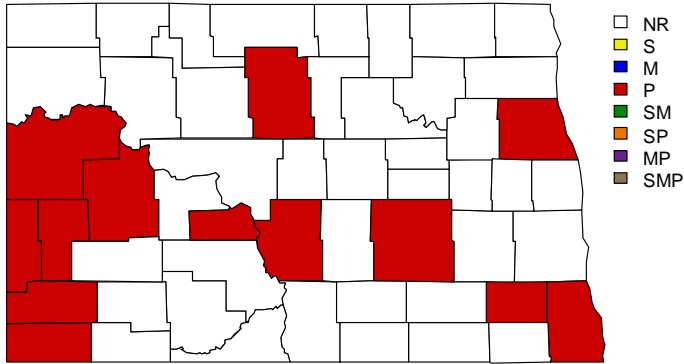
Callophrys polios
(Hoary Elfin)



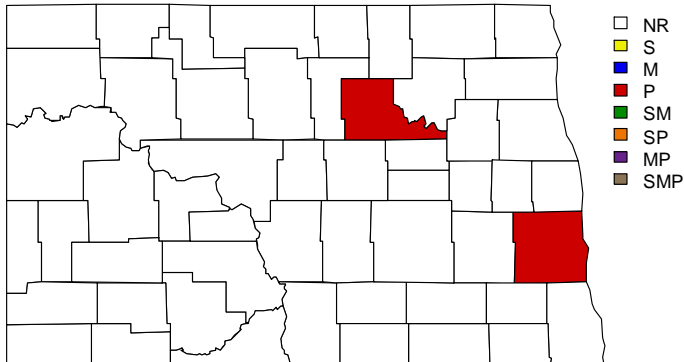
Callophrys eryphon
(Western Pine Elfin)



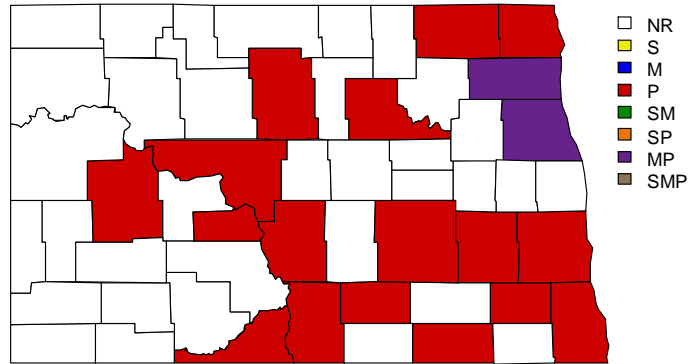
Strymon melinus
(Gray Hairstreak)



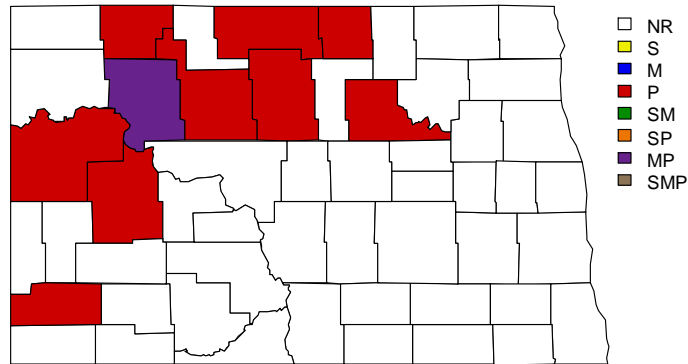
Echinargus isola
(Reakirt's Blue)



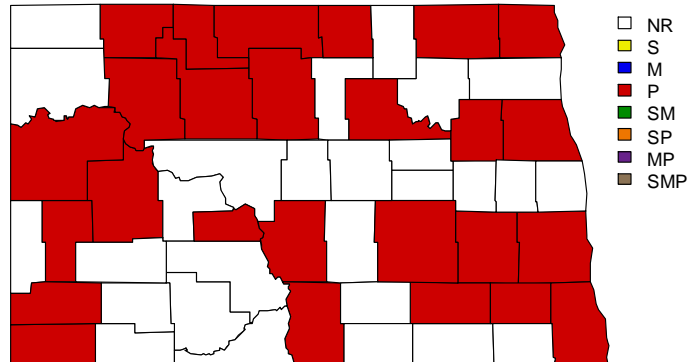
Cupido comyntas
(Eastern Tailed-Blue)



Cupido amyntula
(Western Tailed-Blue)

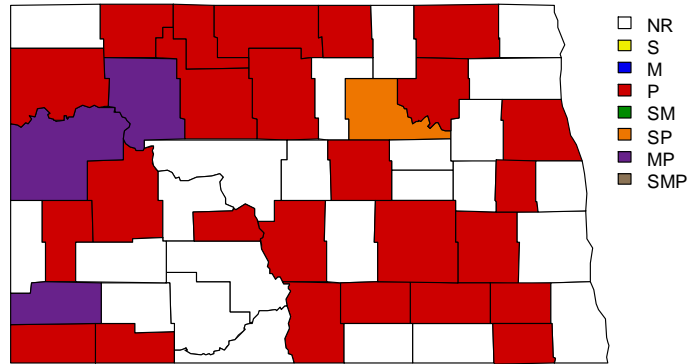


Celastrina 'ladon'
(Spring Azure, Summer Azure)

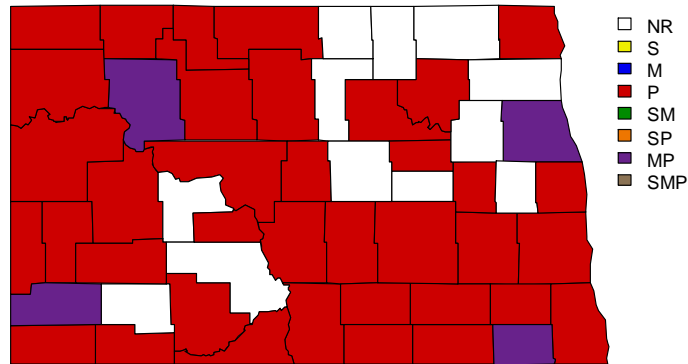


Note: This “species” is likely a complex of sibling species which are still being resolved (Royer 2004).

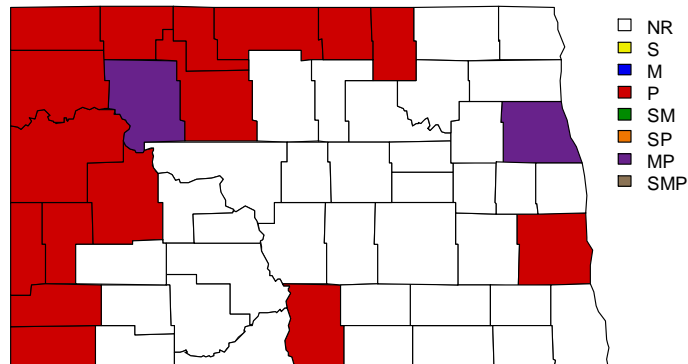
Glaucopteryx lygdamus
(Silvery Blue)



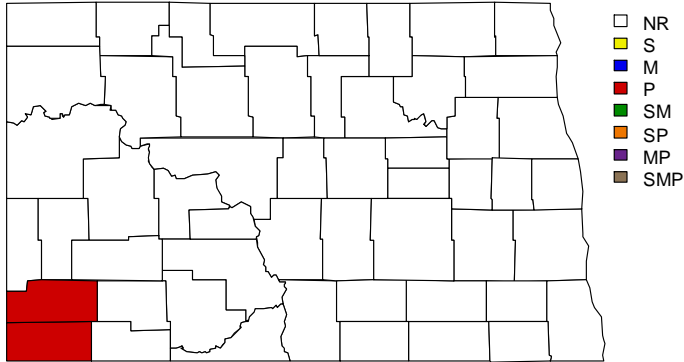
Plebejus melissa
(Melissa Blue)



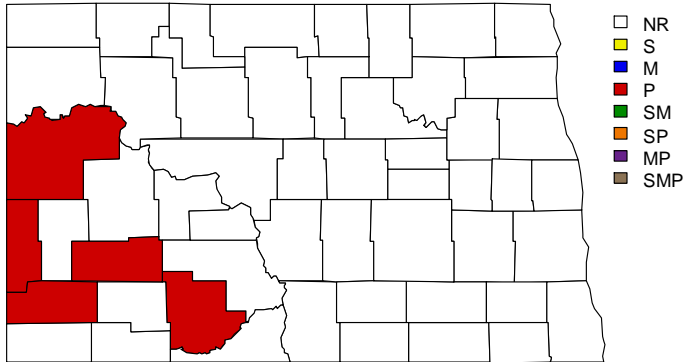
Plebejus saepiolus
(Greenish Blue)



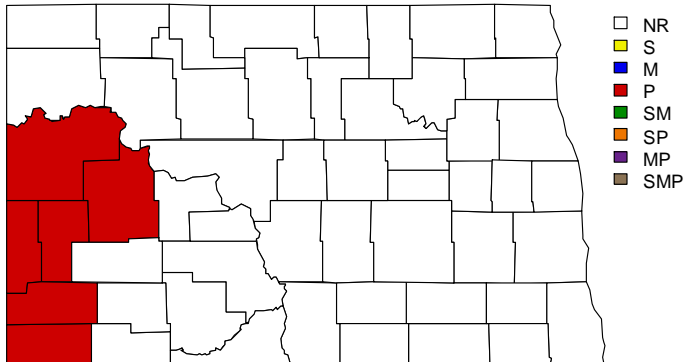
Plebeius icarioides
(Boisduval's Blue)



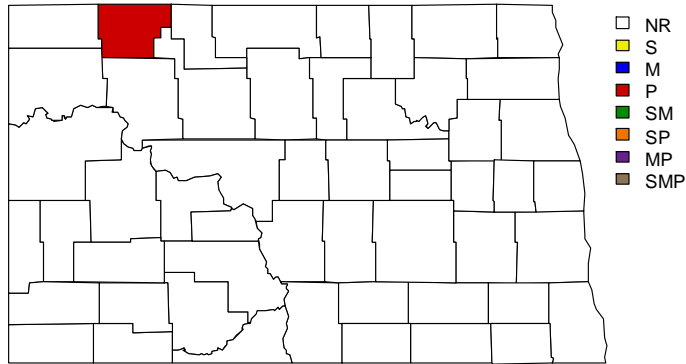
Plebejus shasta
(Shasta Blue)



Plebejus lupini
(Lupine Blue)

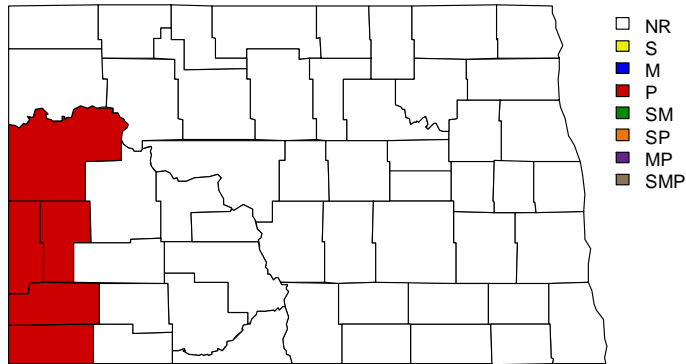


Plebejus glandon
(Arctic Blue, Rustic Blue)



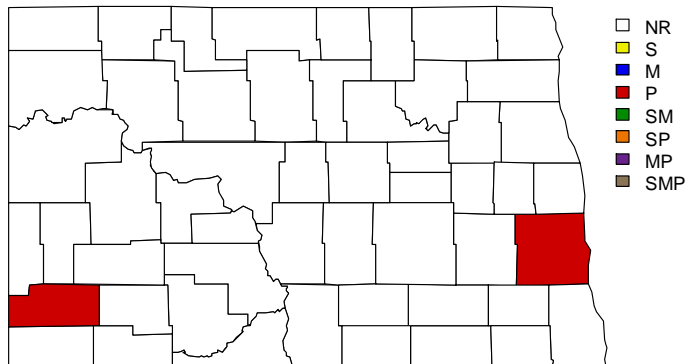
Family: Riodinidae (Metalmarks)

Apodemia mormo
(Mormon Metalmark)

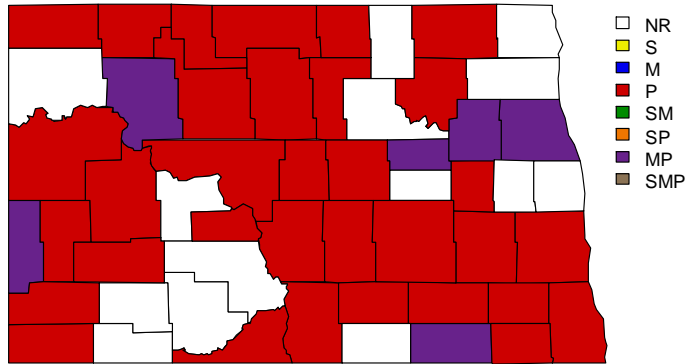


Family: Nymphalidae (Brush-footed Butterflies)

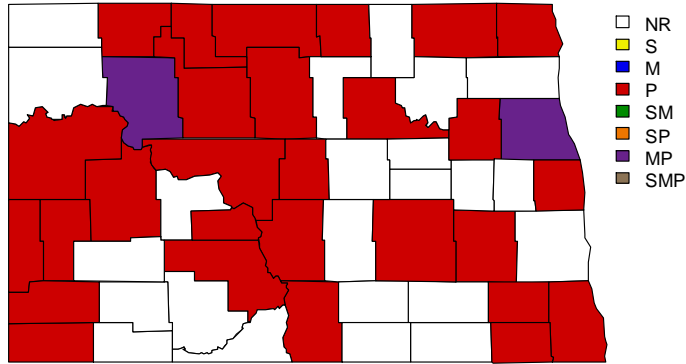
Libytheana carinenta
(American Snout)



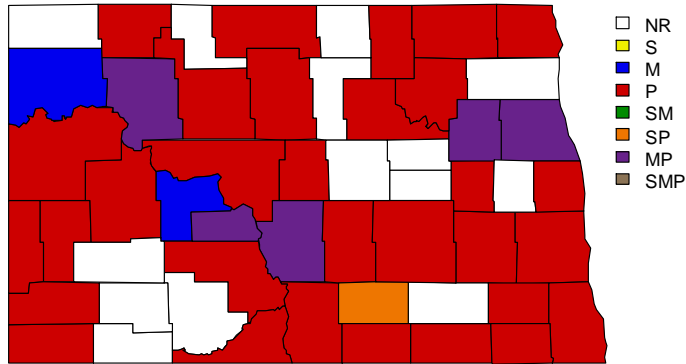
Euptoieta claudia
(Variegated Fritillary)



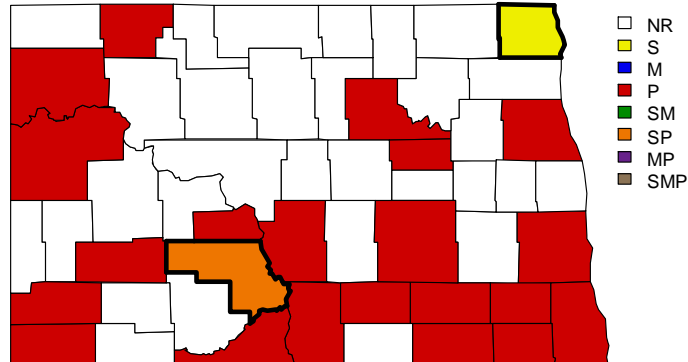
Speyeria cybele
(Great Spangled Fritillary)



Speyeria aphrodite
(Aphrodite Fritillary)

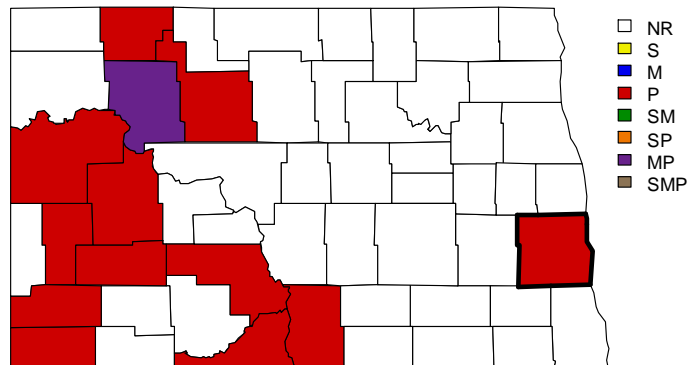


Speyeria idalia
(Regal Fritillary)



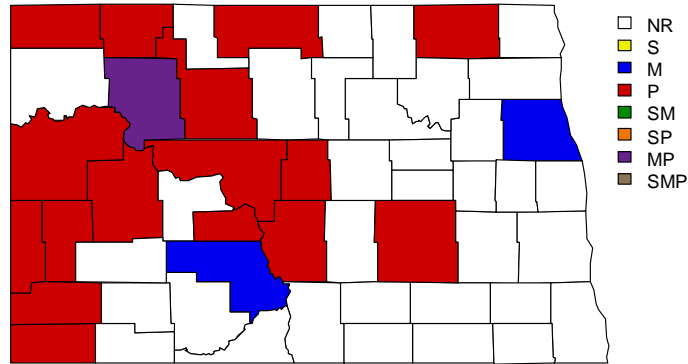
Note: Morton County and Pembina County samples were butterflies observed on the wing and not caught to confirm with a closer inspection. A species of potential management concern (U.S. Fish and Wildlife Service 1995).

Speyeria edwardsii
(Edwards' Fritillary)

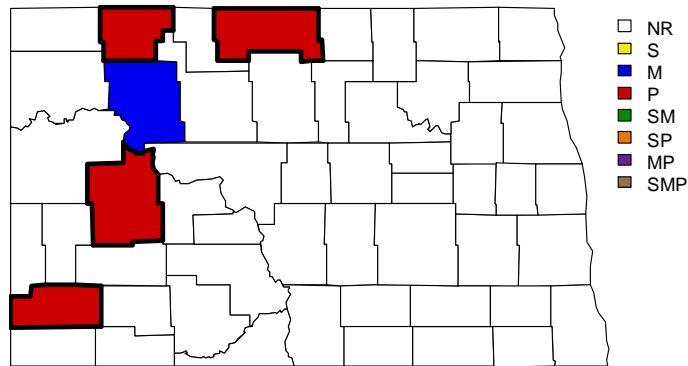


Note: Cass County record is based on historical or questionable records (Royer 2004).

Speyeria callippe
(Callippe Fritillary)

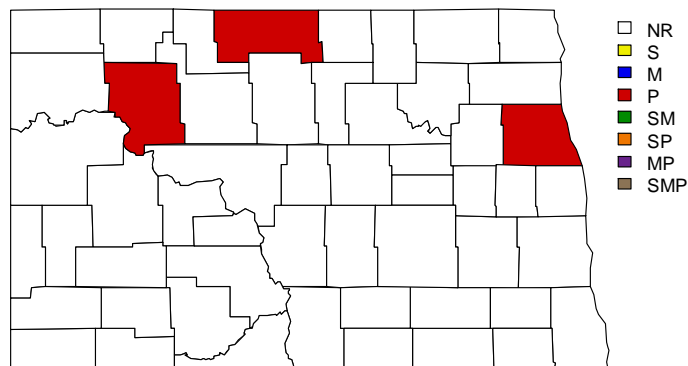


Speyeria atlantis
(Atlantis Fritillary)

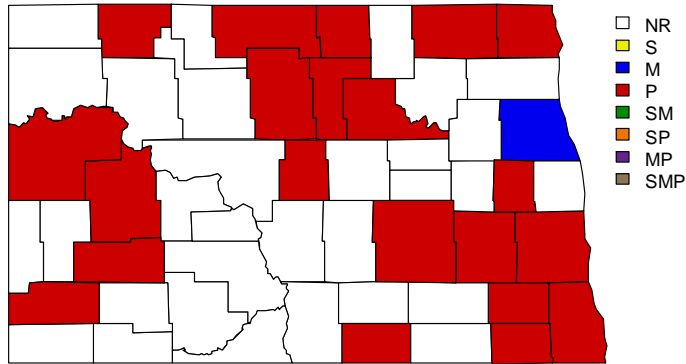


Note: Royer (2004) questions the veracity of all ND specimens..

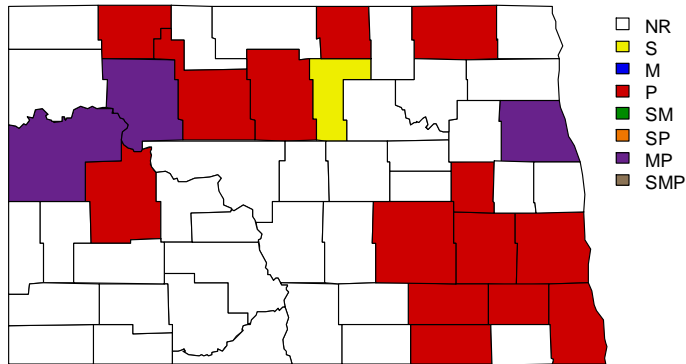
Speyeria mormonia
(Mormon Fritillary)



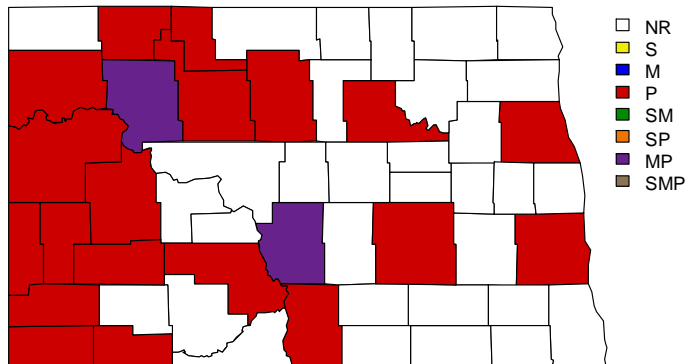
Boloria selene
(Silver-bordered Fritillary)



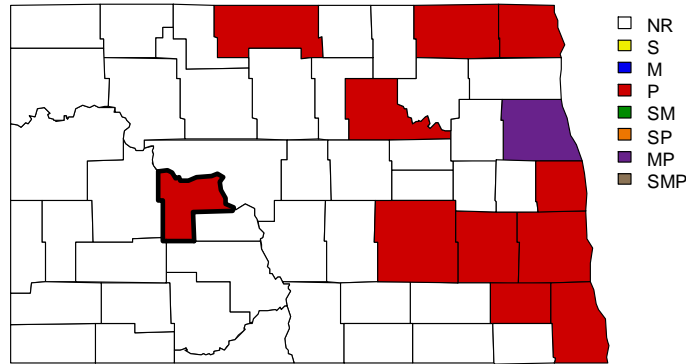
Boloria bellona (=toddi)
(Meadow Fritillary)



Chlosyne gorgone (=Melitaea ismeria)
(Gorgone Checkerspot)

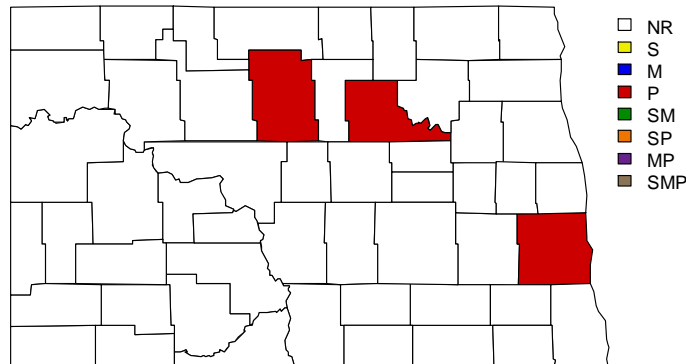


Chlosyne (=Melitaea) nycteis
(Silvery Checkerspot)

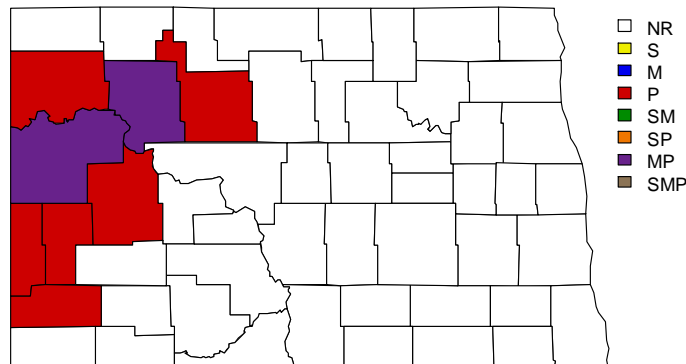


Note: Mercer County record is based on historical or questionable records (Royer 2004).

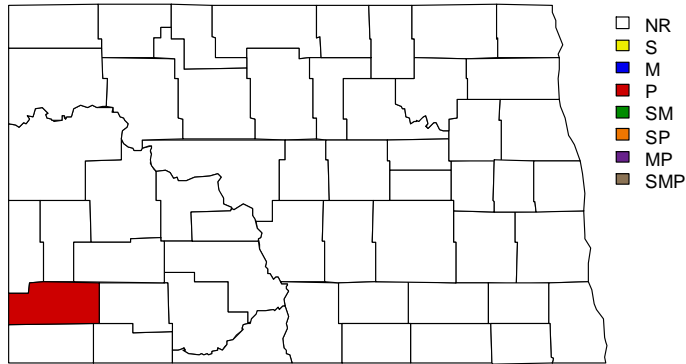
Chlosyne harrisii
(Harris' Checkerspot)



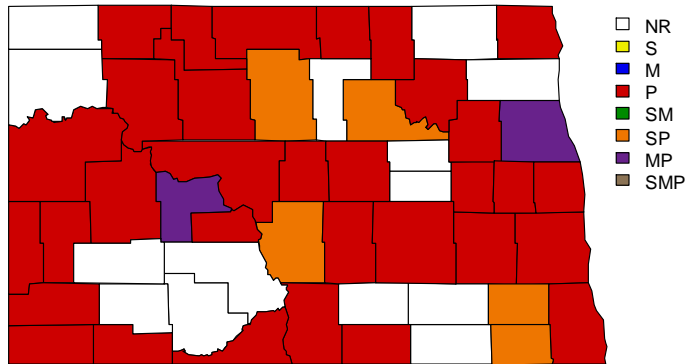
Chlosyne (=Melitaea) acastus
(Sagebrush Checkerspot)



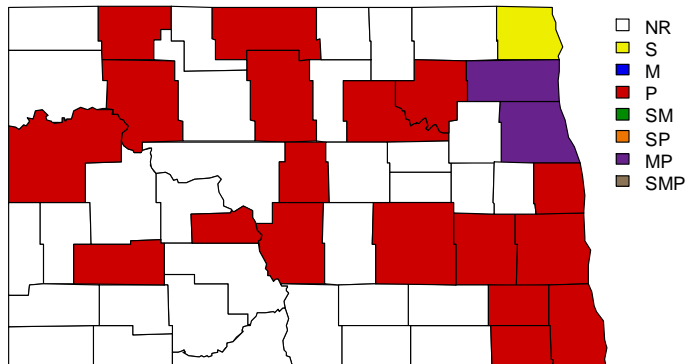
Anthanassa texana
(Texan Crescent)



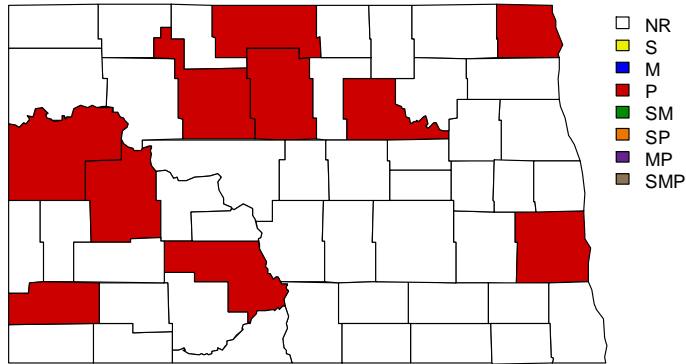
Phyciodes tharos
(Pearl Crescent)



Phyciodes cocyta (=pascoensis)
(Northern Crescent)

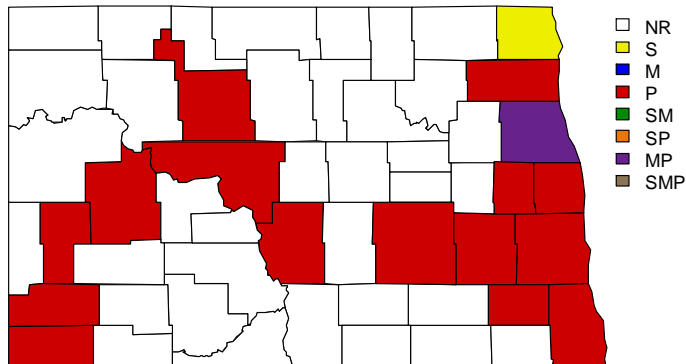


Phyciodes batesii
(Tawny Crescent)

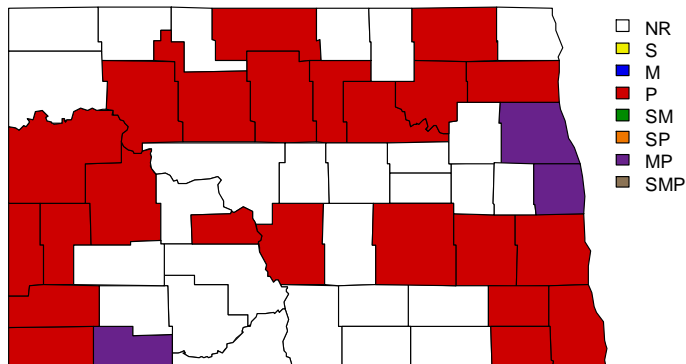


Note: A species of management concern (U.S. Fish and Wildlife Service 1995).

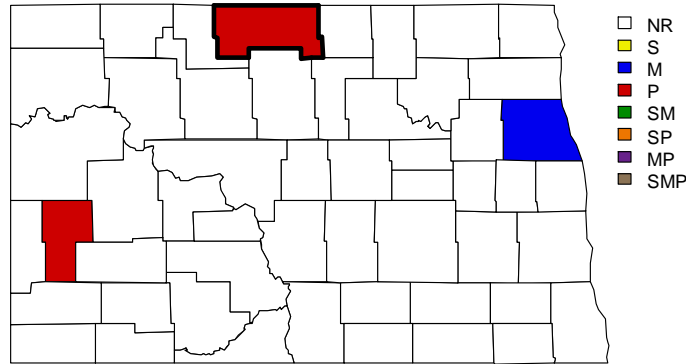
Polygonia interrogationis
(Question Mark)



Polygonia comma
(Eastern Comma)

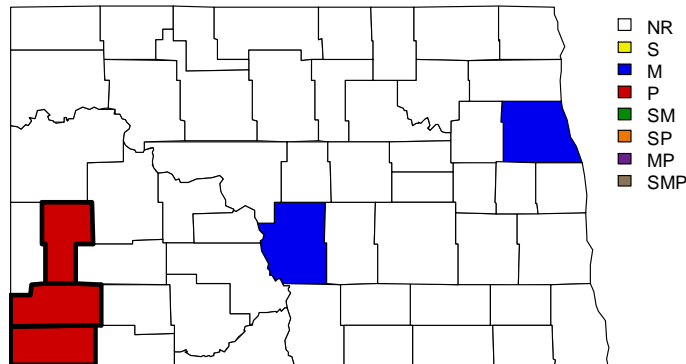


Polygonia faunus
(Green Comma)



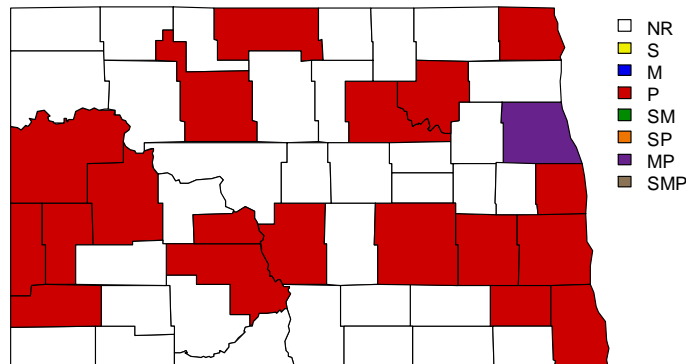
Note: Bottineau County record is based on historical or questionable records (Royer 2004).

Polygonia gracilis (=zephyrus)
(Zephyr)

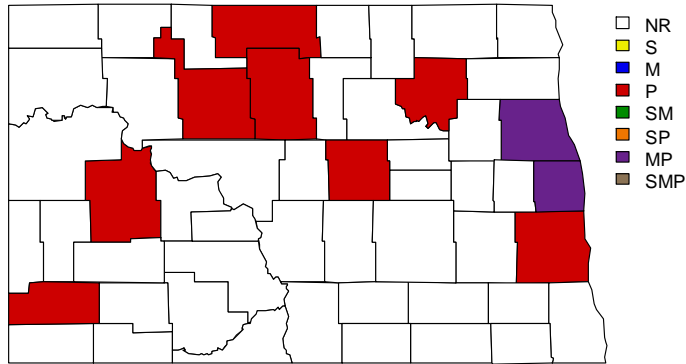


Note: Royer (2004) considers the Billings, Slope, and Bowman records to be due to misidentified specimens.

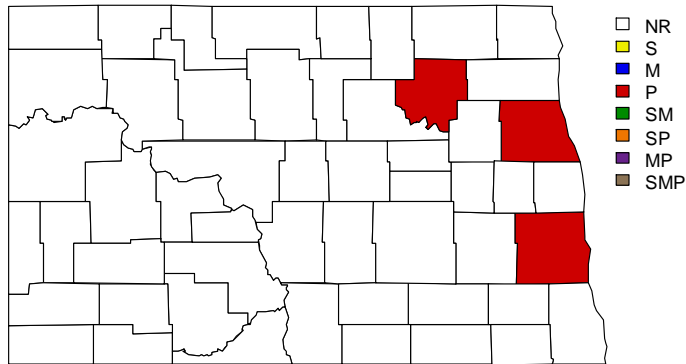
Polygonia progne
(Gray Comma)



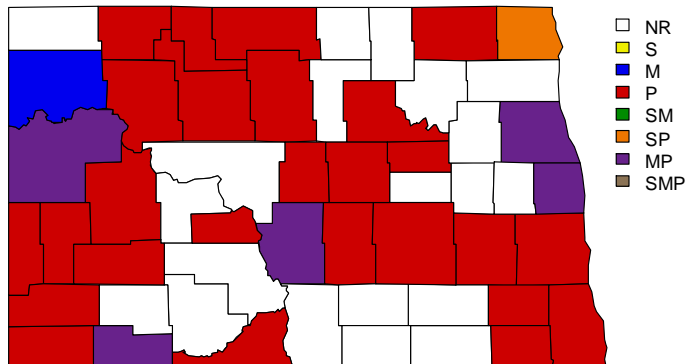
Nymphalis vaualbum
(Compton Tortoiseshell)



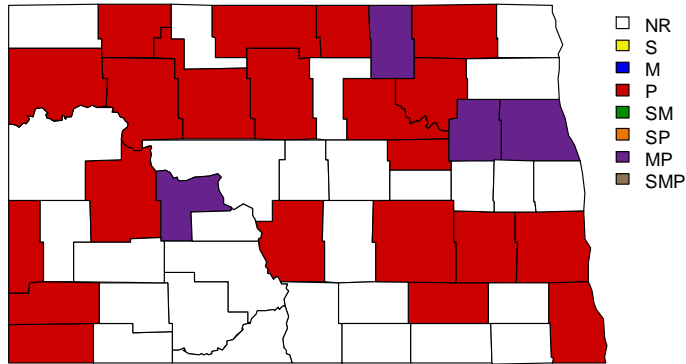
Nymphalis californica
(California Tortoiseshell)



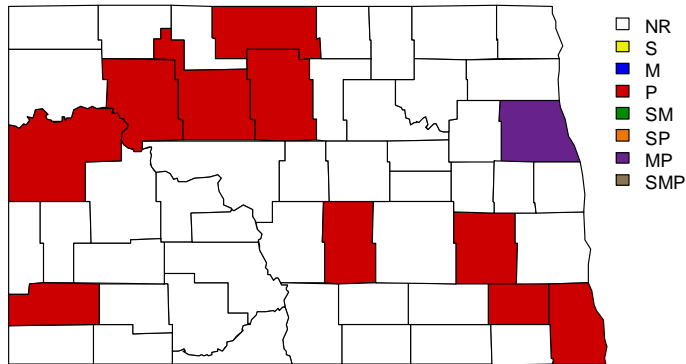
Nymphalis antiopa
(Mourning Cloak)



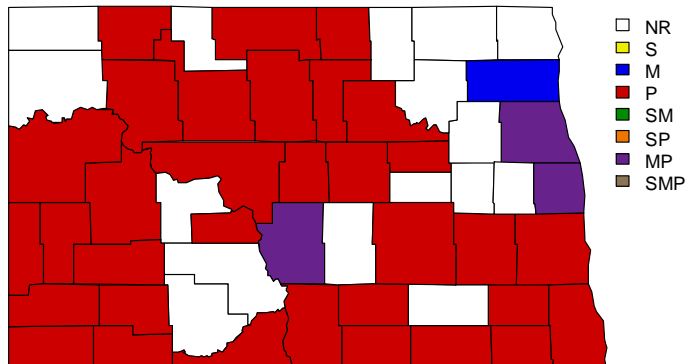
Aglais milberti
(Milbert's Tortoiseshell)



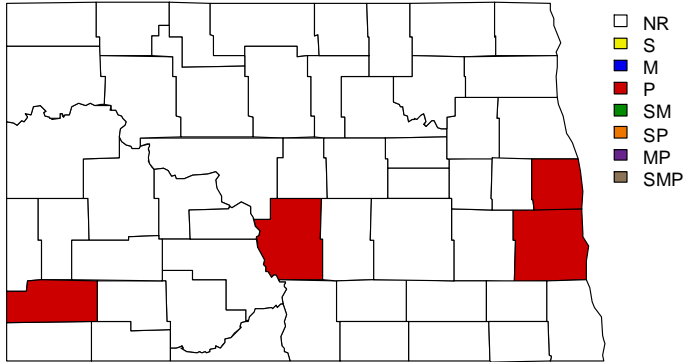
Vanessa virginiensis
(American Lady)



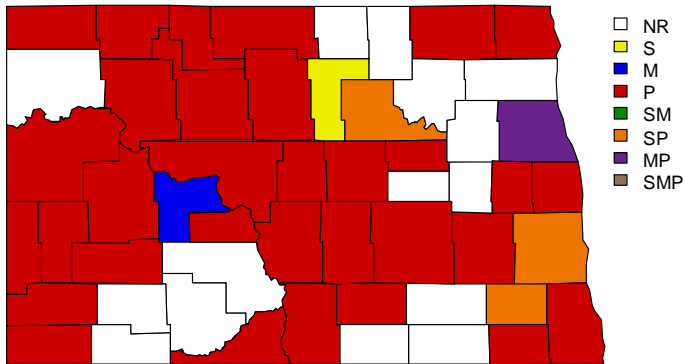
Vanessa cardui
(Painted Lady)



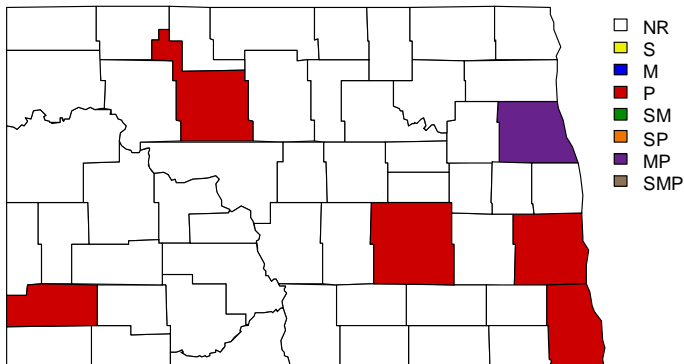
Vanessa annabella
(West Coast Lady)



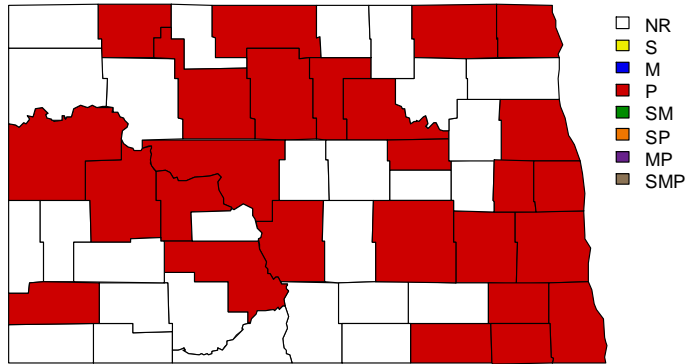
Vanessa atalanta
(Red Admiral)



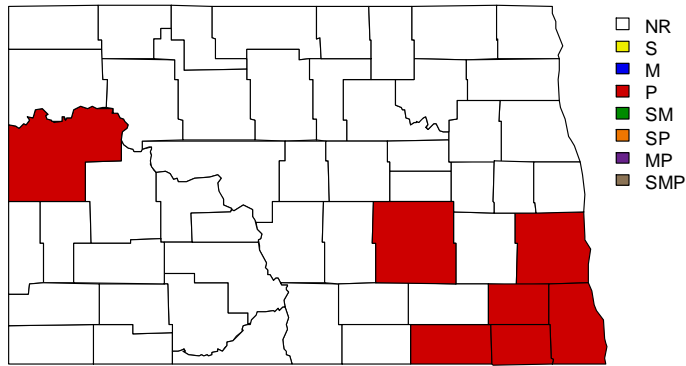
Junonia coenia
(Common Buckeye)



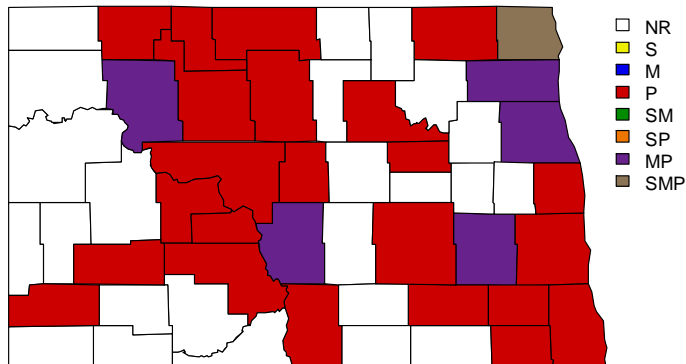
Limenitis arthemis arthemis
(White Admiral)



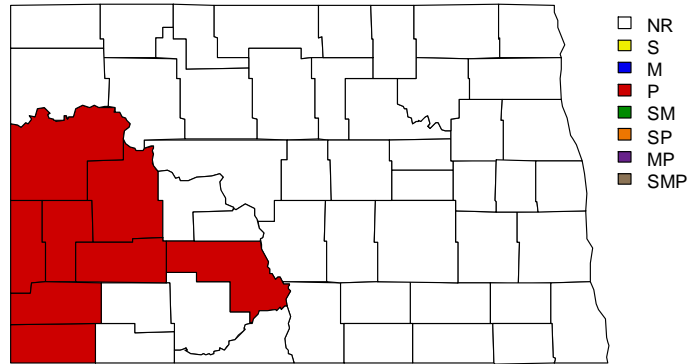
Limenitis arthemis astyanax
(‘Astyanax’ Red-spotted Purple)



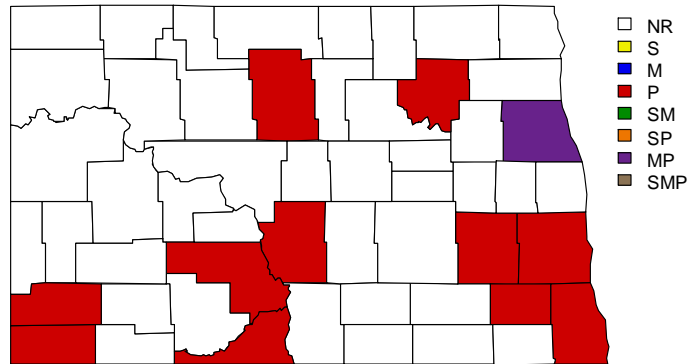
Limenitis archippus
(Viceroy)



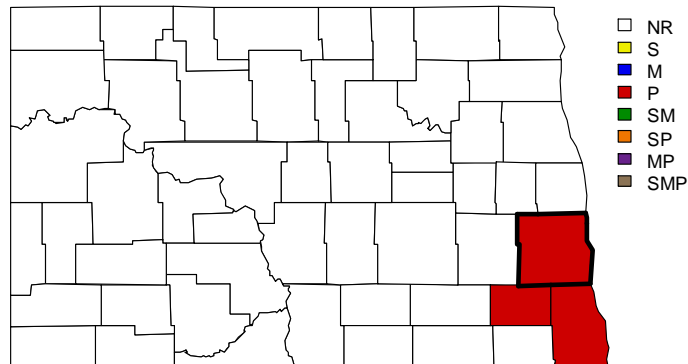
Limenitis weidemeyerii
(Weidemeyer's Admiral)



Asterocampa celtis
(Hackberry Emperor)

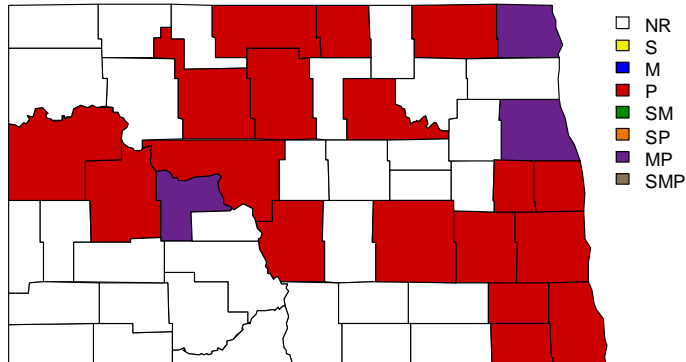


Asterocampa clyton
(Tawny Emperor)

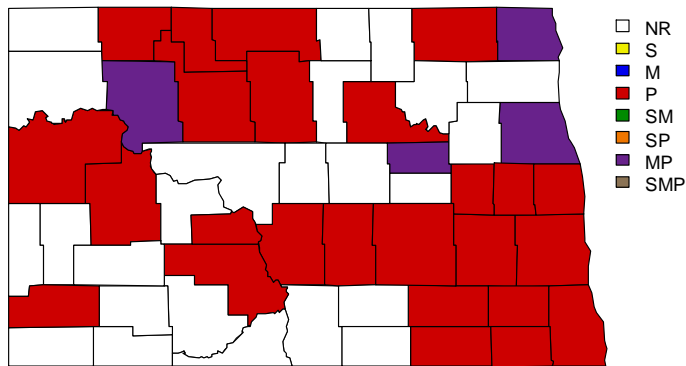


Note: Cass County record is based on historical or questionable records (Royer 2004).

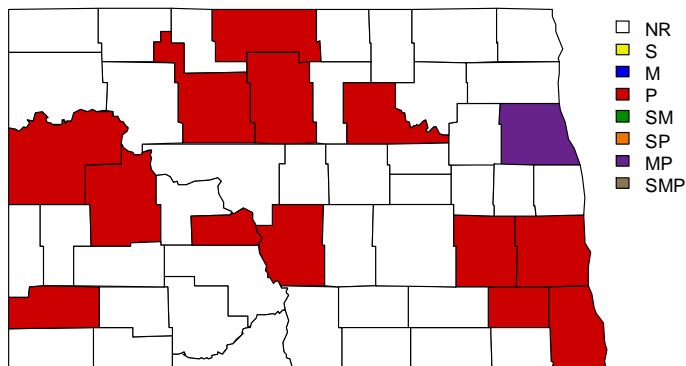
Enodia anthedon
(Northern Pearly-eye)



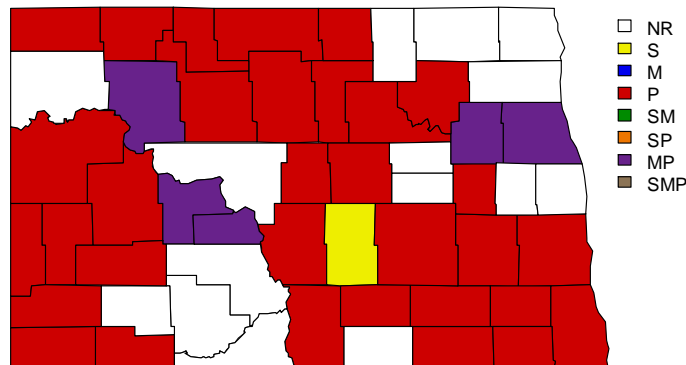
Lethe (=Satyrodes) eurydice
(Eyed Brown)



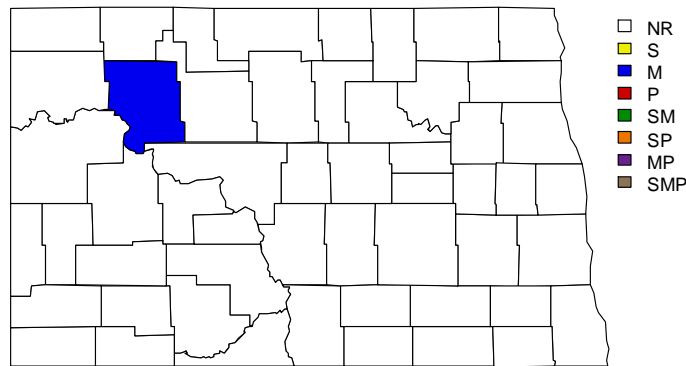
Euptychia (=Megisto) cymela
(Little Wood-Satyr)



Coenonympha inornata
(Common Ringlet)

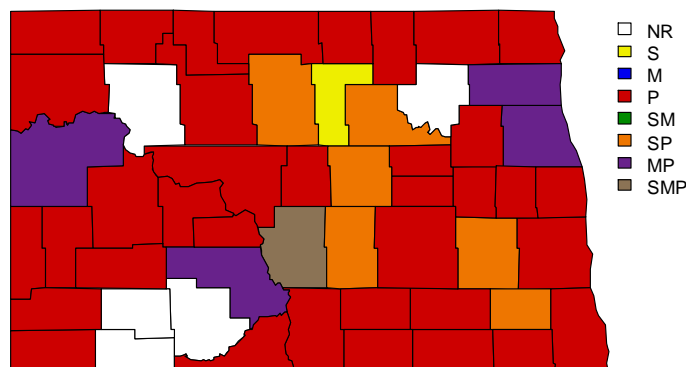


Coenonympha haydenii
(Hayden's Ringlet)

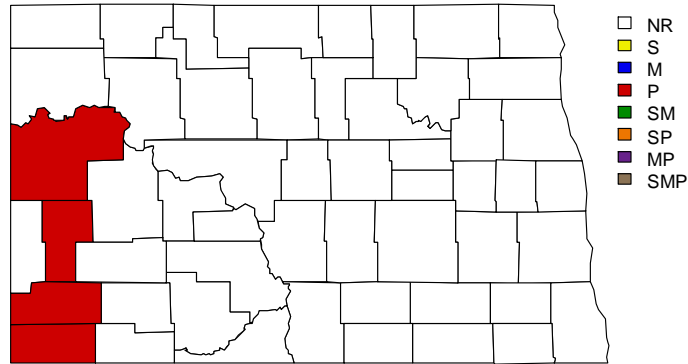


Note: If this museum specimen is correctly identified this would be the most easterly observation of Hayden's Ringlet. The specimen is from 1974 and with no subsequent observations in North Dakota this is likely a stray individual from Montana.

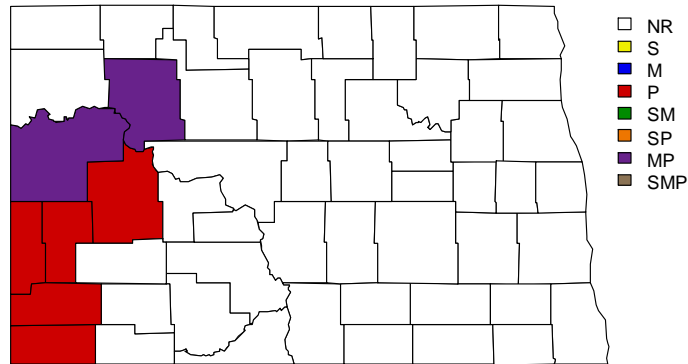
Cercyonis pegala
(Common Wood-Nymph)



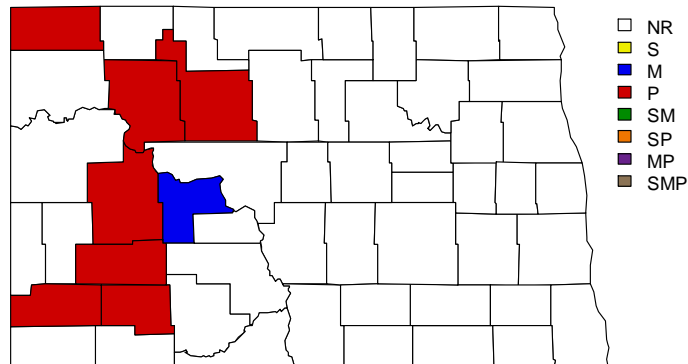
Cercyonis meadii
(Mead's Wood-Nymph)



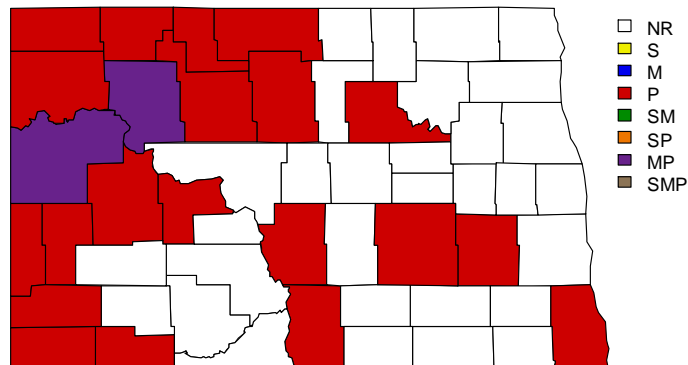
Cercyonis oetus
(Small Wood-Nymph)



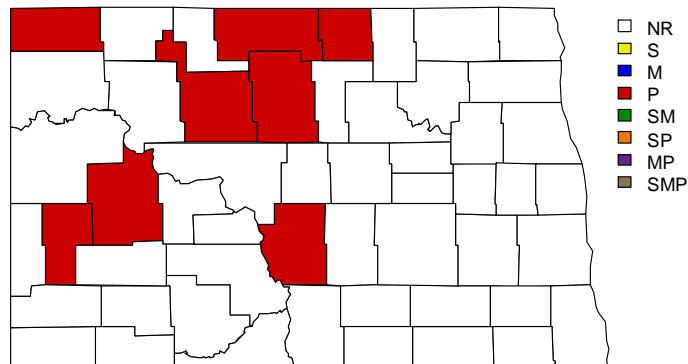
Neominois ridingsii
(Ridings' Satyr)



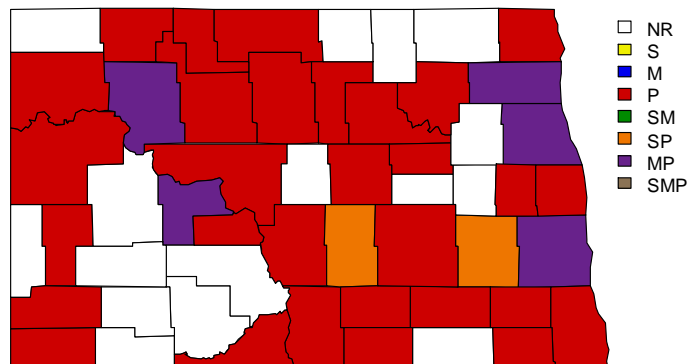
Oeneis uhleri
(Uhler's Arctic)



Oeneis alberta
(Alberta Arctic)



Danaus plexippus
(Monarch)



Order: Hymenoptera (Ants, Bees and Wasps)

The Hymenoptera are a large and diverse order including ants, bees, wasps and sawflies. The order consists of two suborders: Symphata (Sawflies) with caterpillar-like larvae and the

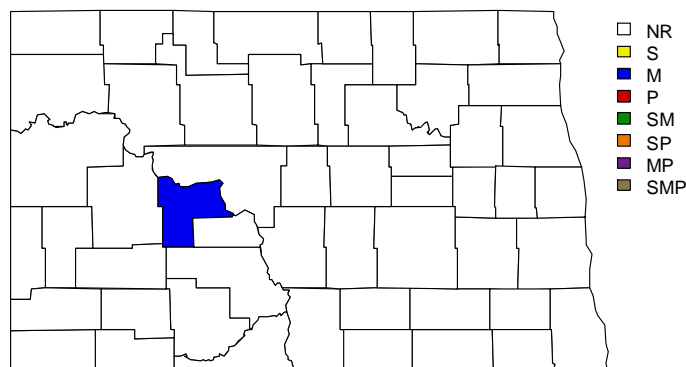
Apocrita (Wasps, Bees, and Ants) consisting of a diverse group of insects. Many of these species play important ecological roles as either pollinators or predators. This group is likely understudied in North Dakota.

There were no published records found for Hymenoptera distributions in North Dakota. All maps provided are based on adult specimens either collected or found in the UND museum. Many hymenopterans are hard to identify to species so there were many unnamed specimens in both our collection and the museum specimens. Most of the ants (Formicidae) were too small to meet our criteria for inclusion but for the few that did we did not identify them to species due to difficulties in doing so. Further, the UND museum has a disproportionately large collection of ants, most of which are not from North Dakota, so the ants in the UND museum were not searched.

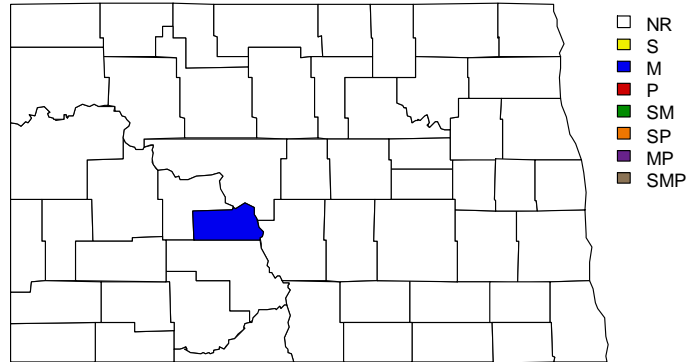
Sub-Order: Symphyta (Sawflies)

Family: Argidae (Argid Sawflies)

Arge humeralis
(Poison Ivy Sawfly)

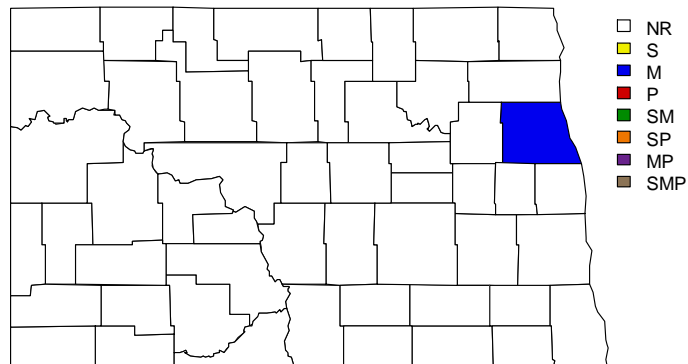


Family: Tenthredinidae (Common Sawflies)

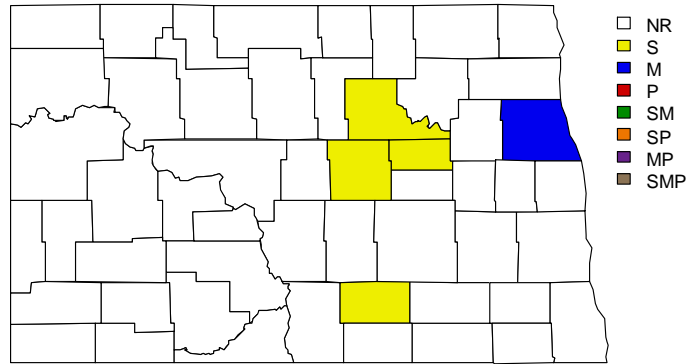
Zaschizonyx montana

Sub-Order: Apocrita (Wasps, Bees, and Ants)

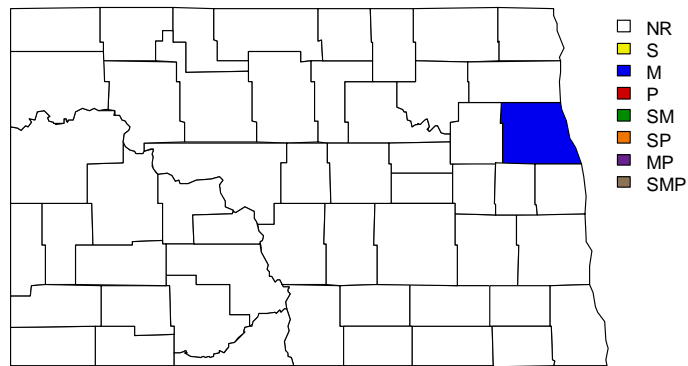
Family: Ichneumonidae (Ichneumon Wasps)

Cratichneumon paratus

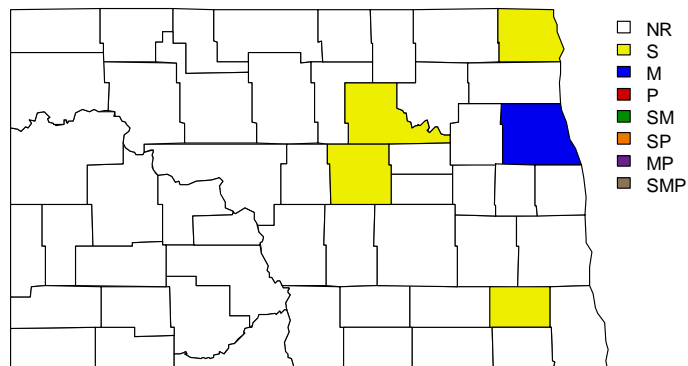
Cratichneumon signatipes



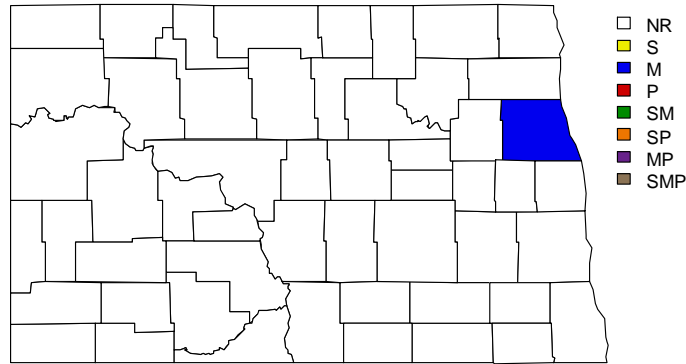
Hoplismenus morulus



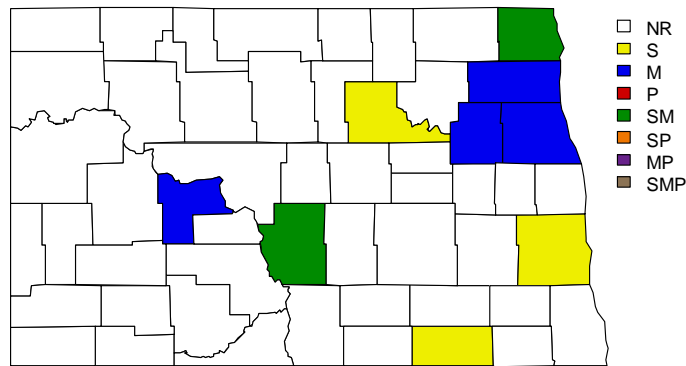
Hoplismenus rutilus



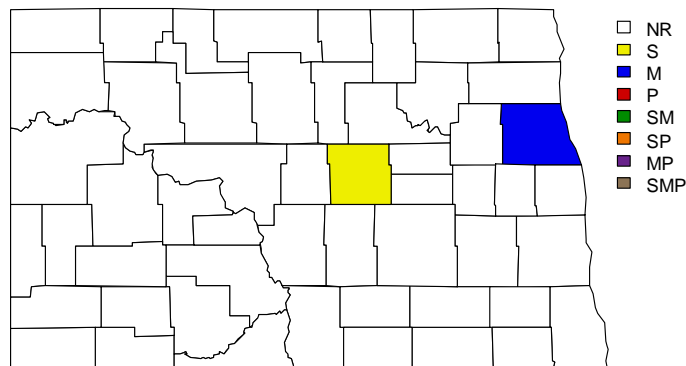
Itopectis conquisitor



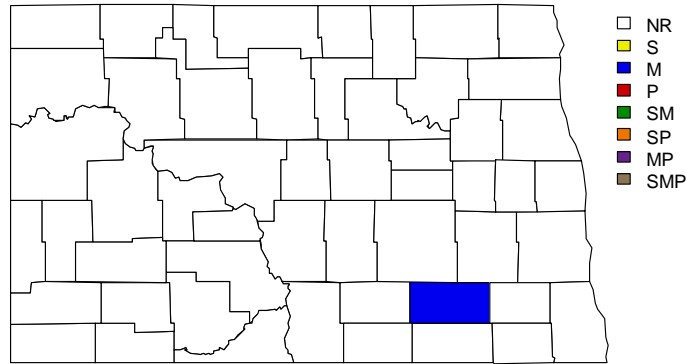
Netelia ocellata



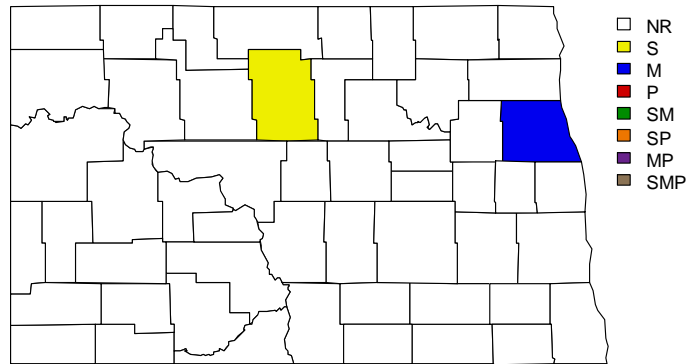
Pristomerus euryptychiae



Protichneumon grandis

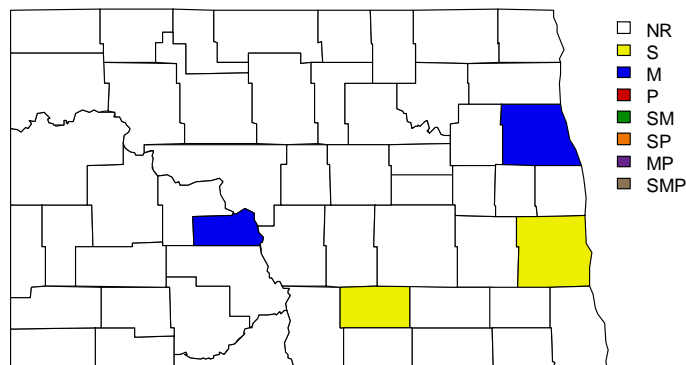


Therion morio

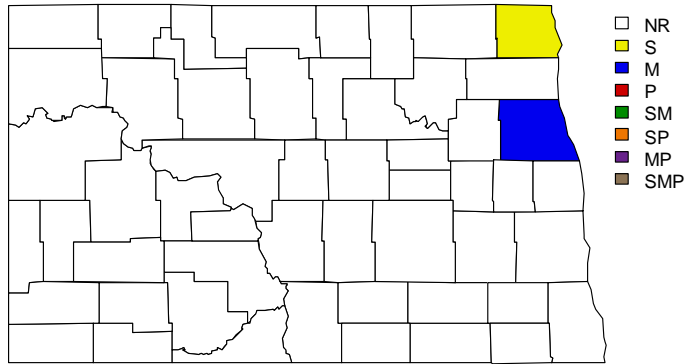


Family: Andrenidae (Mining Bees)

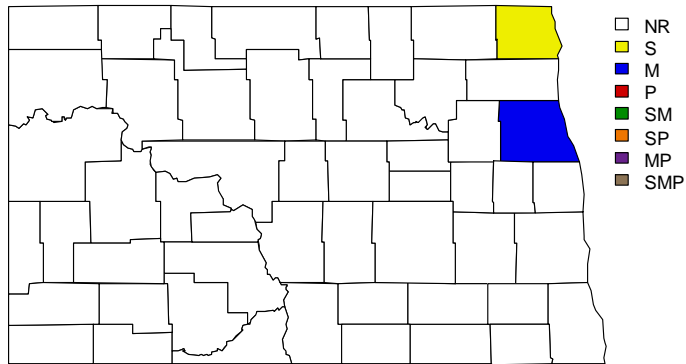
Andrena medionitens



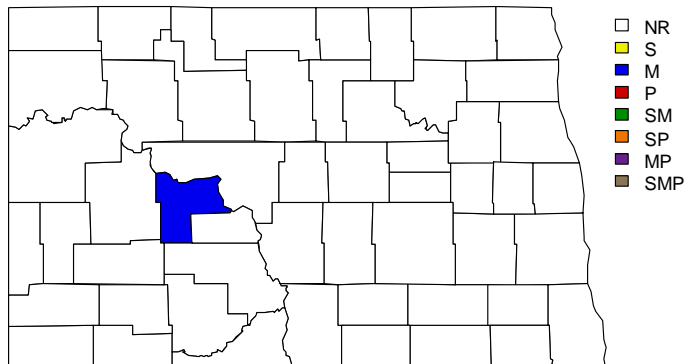
Andrena platyparia (=nigrifrons)



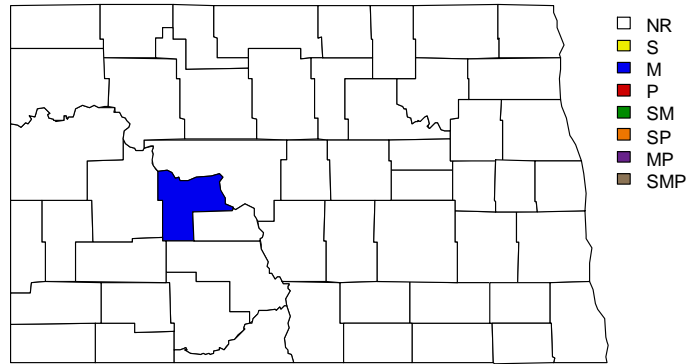
Calliopsis andreniformis



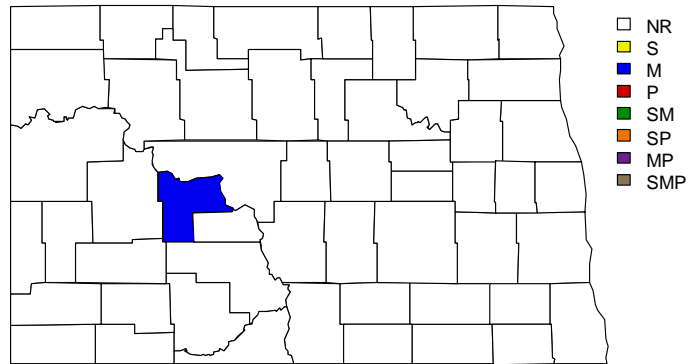
Heterosarus labrosiformis



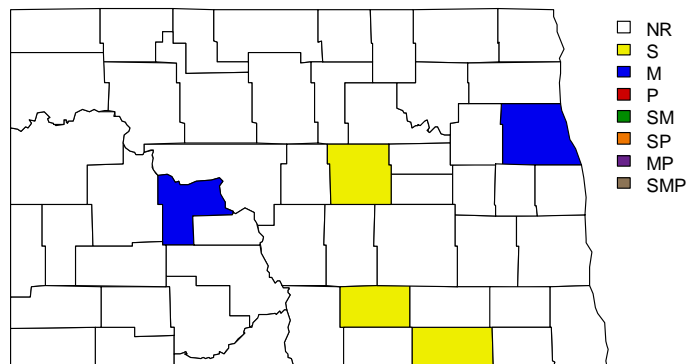
Perdita laticincta



Perdita swenki

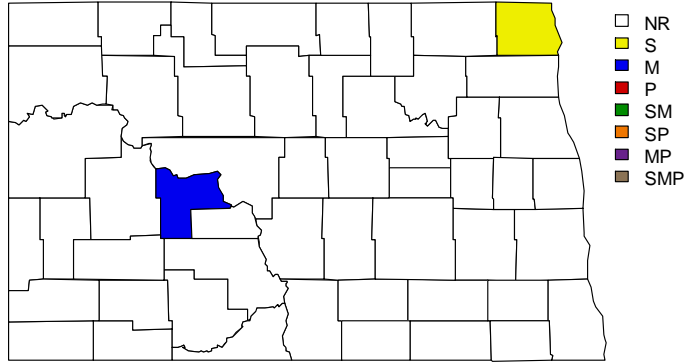


Pseudopanurgus (=Pterosarus) nebrascensis

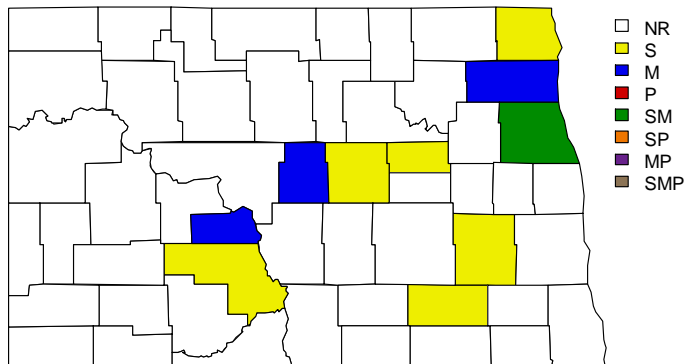


Family: Apidae (Honey, Bumble, Carpenter and Cuckoo Bees)

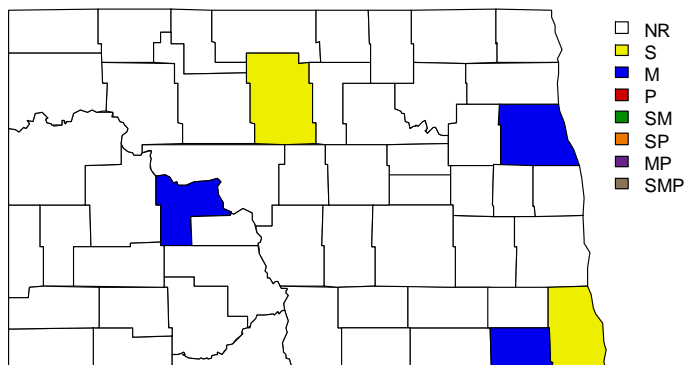
Apis mellifera
(European Honey Bee)



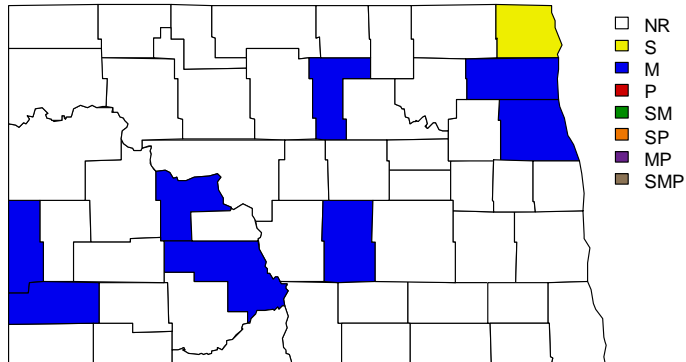
Bombus borealis
(Northern Amber Bumble Bee)



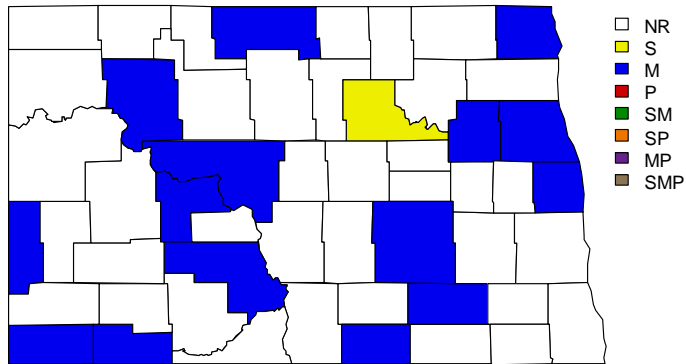
Bombus fervidus
(Yellow Bumble Bee)



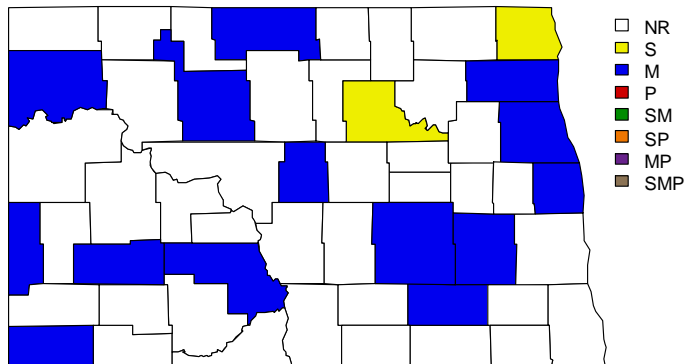
Bombus rufocinctus
(Red-belted Bumble Bee)



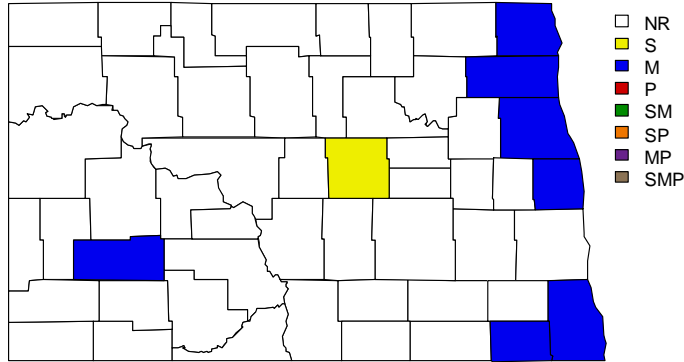
Bombus griseocollis (=separatus)
(Brown-belted Bumble Bee)



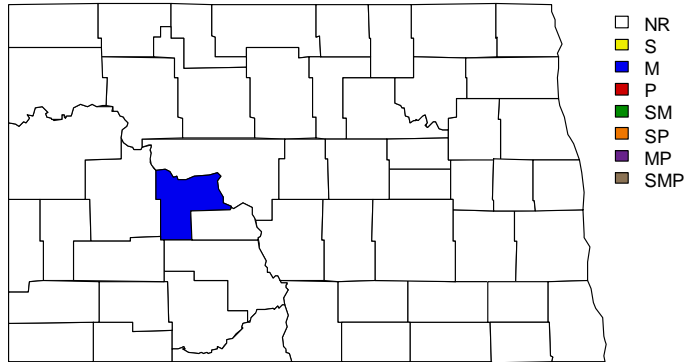
Bombus ternarius
(Tri-colored Bumble Bee)



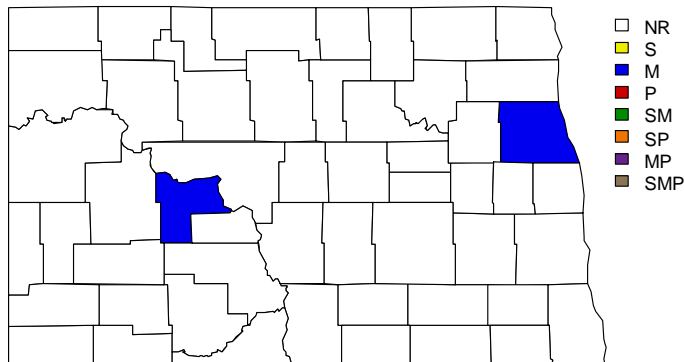
Bombus terricola
(Yellowbanded Bumble Bee)



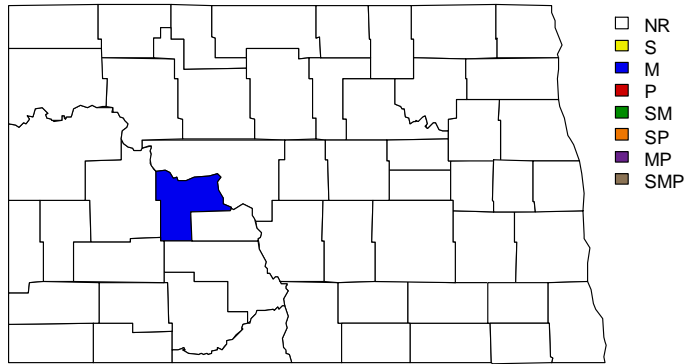
Bombus vagans
(Wandering Bumblebee)



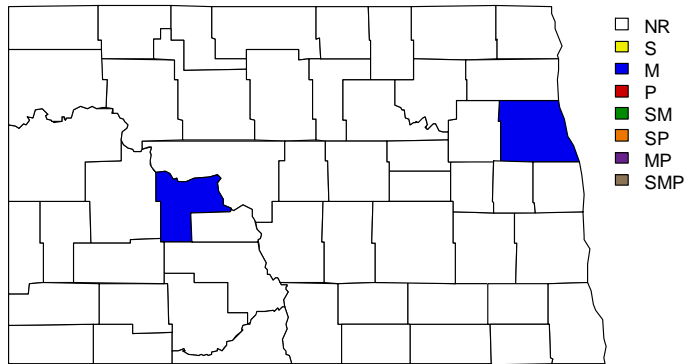
Ceratina calcarata



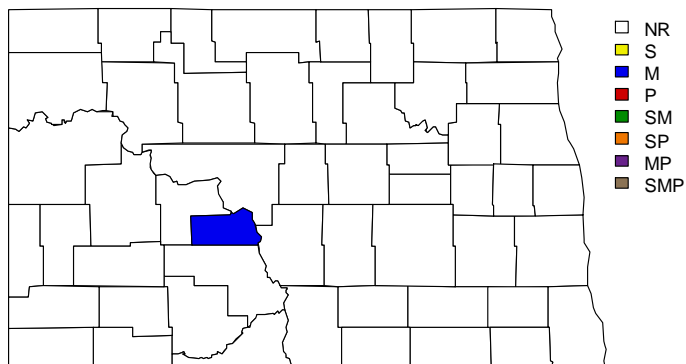
Ceratina dupla



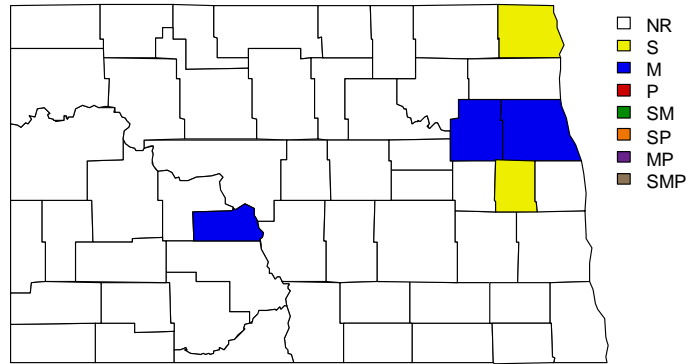
Diadasia diminuta



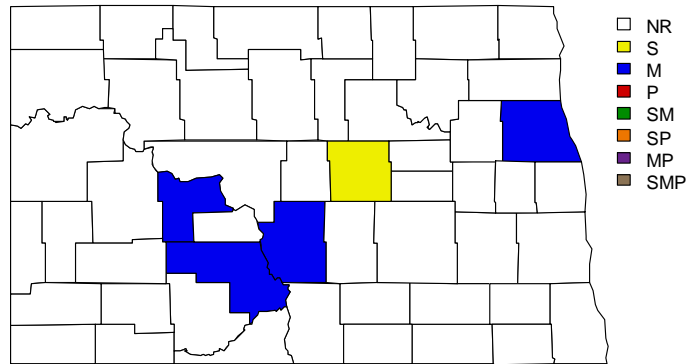
Melissodes coreopsis



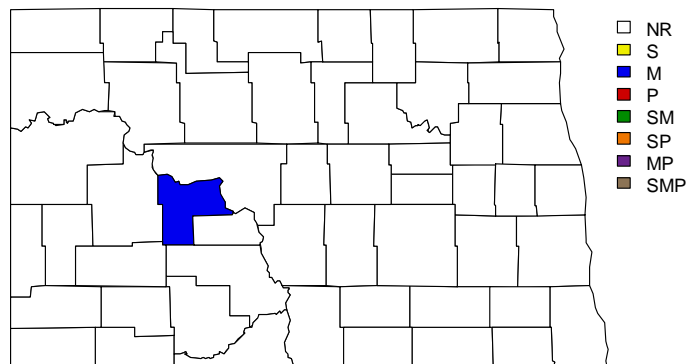
Melissodes subagilis



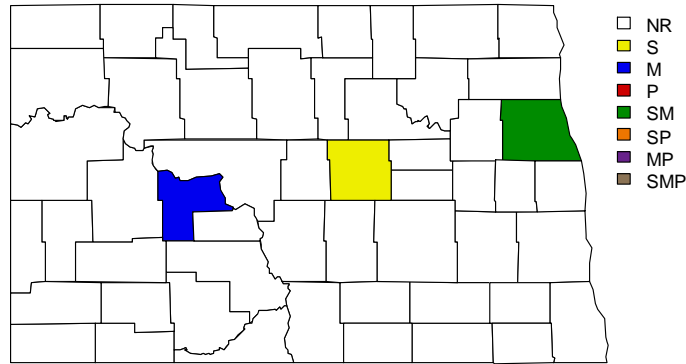
Nomada illinoensis



Nomada integerrima

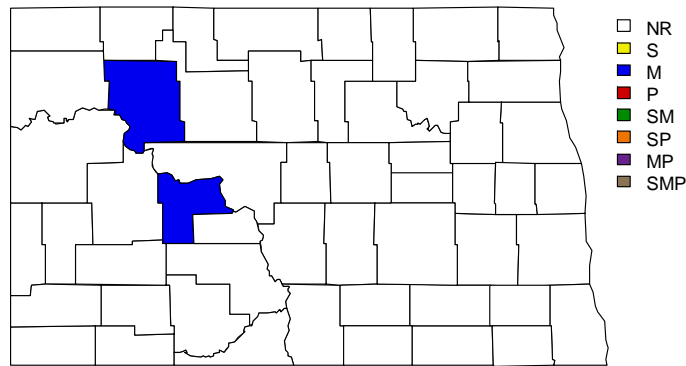


Nomada pygmaea

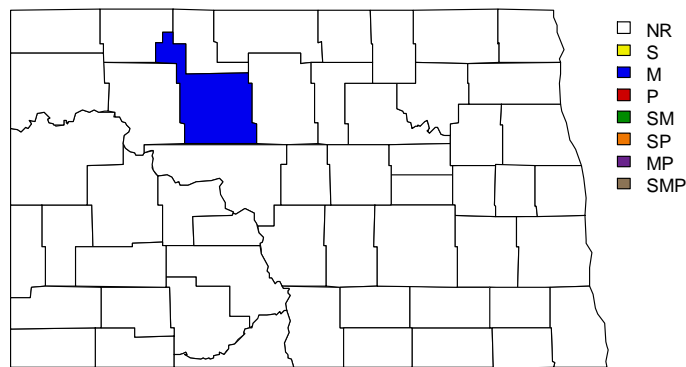


Family: Colletidae (Plasterer Bees)

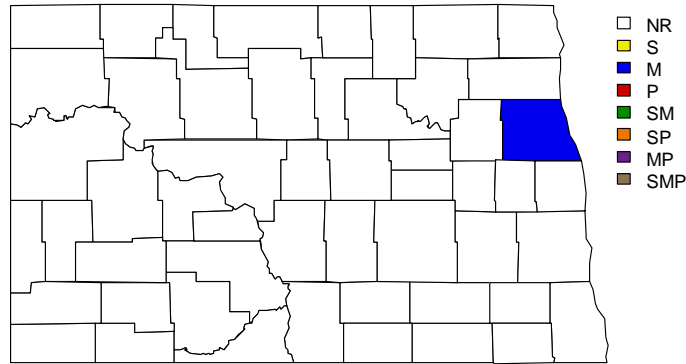
Colletes hyalinus



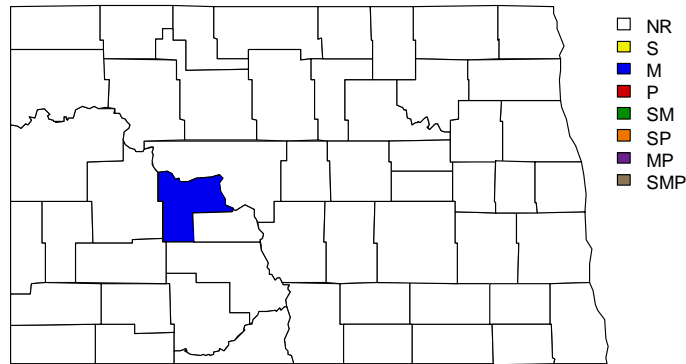
Colletes kincaidii



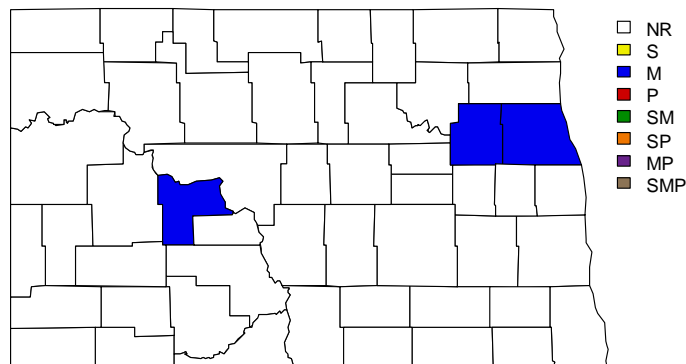
Colletes rufocinctus



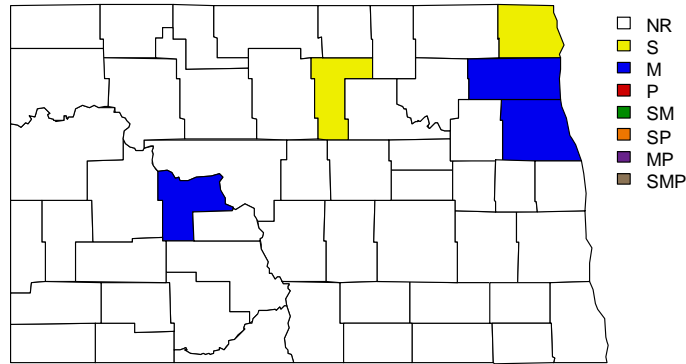
Colletes susannae



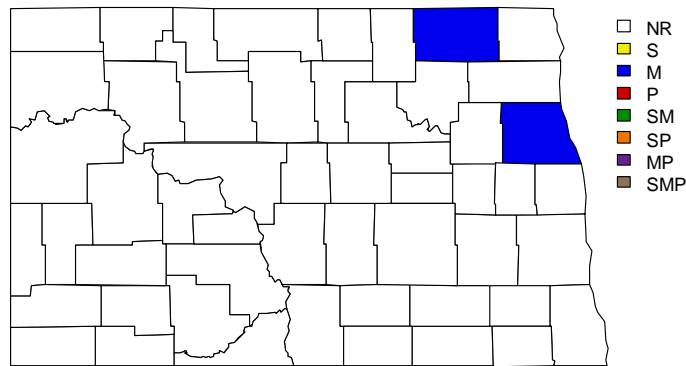
Hylaeus affinis



Hylaeus ellipticus

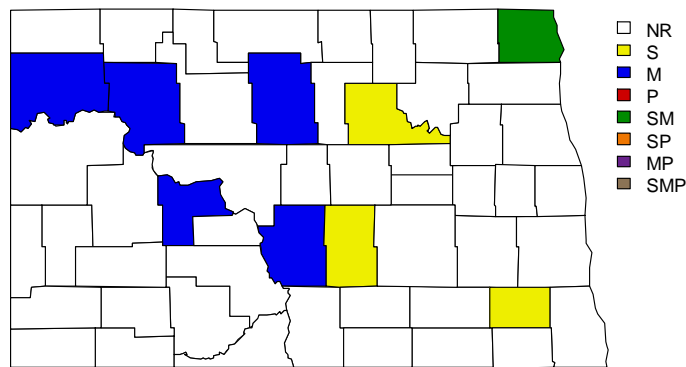


Hylaeus modestus

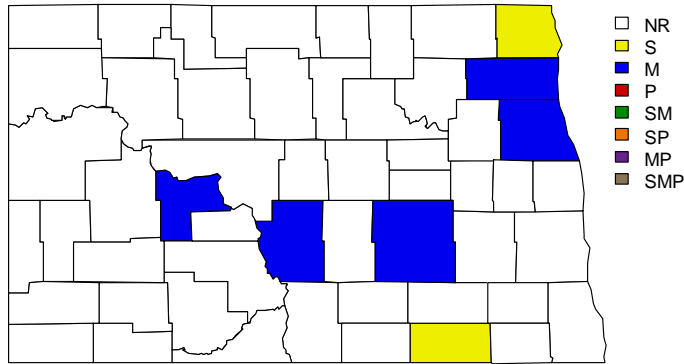


Family: Halictidae (Sweat Bees)

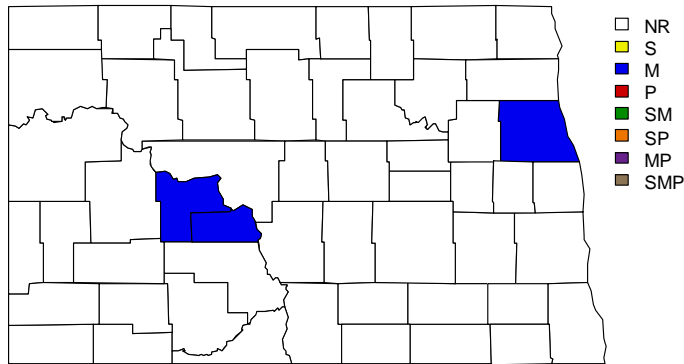
Agapostemon texanus



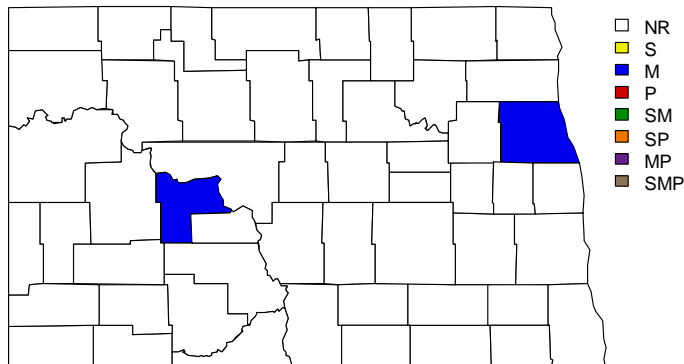
Agapostemon virescens



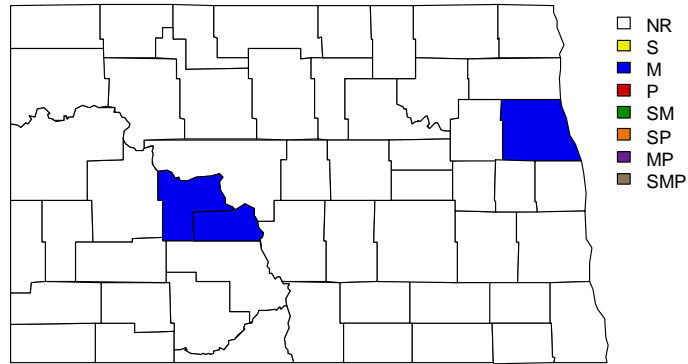
Lasioglossum albipenne (=Dialictus albipennis)



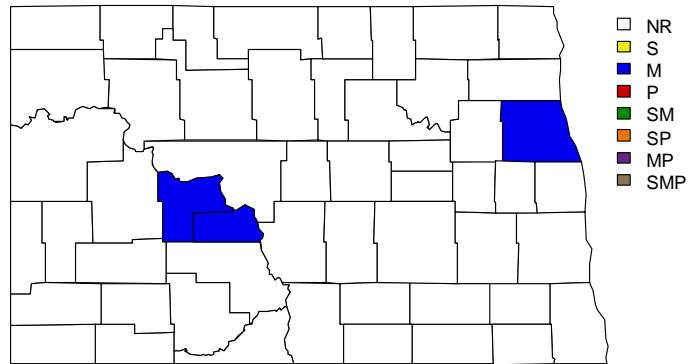
Lasioglossum (=Dialictus) *cressonii*



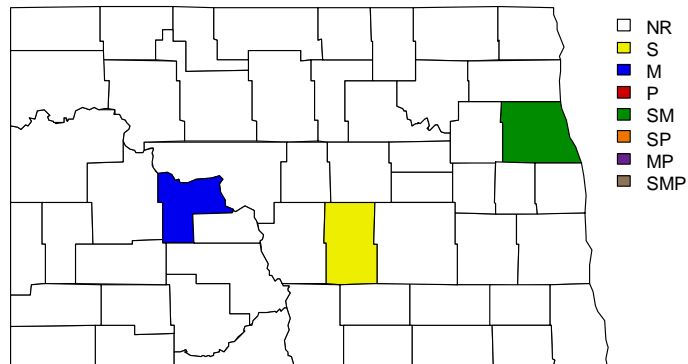
Lasioglossum (=Dialictus) imitatus

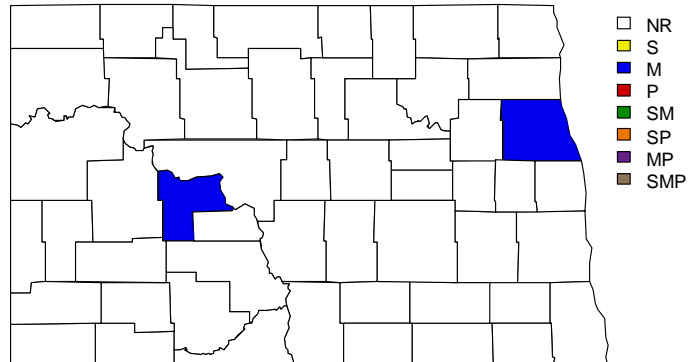
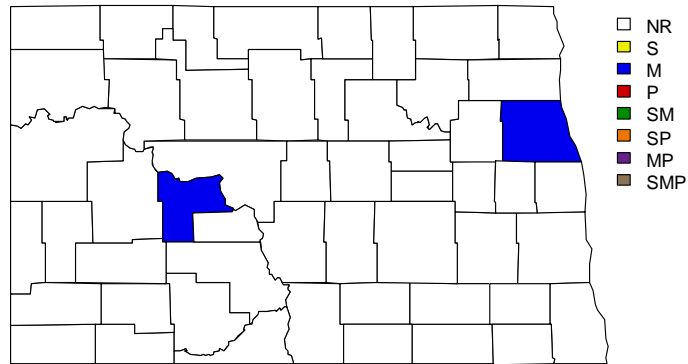
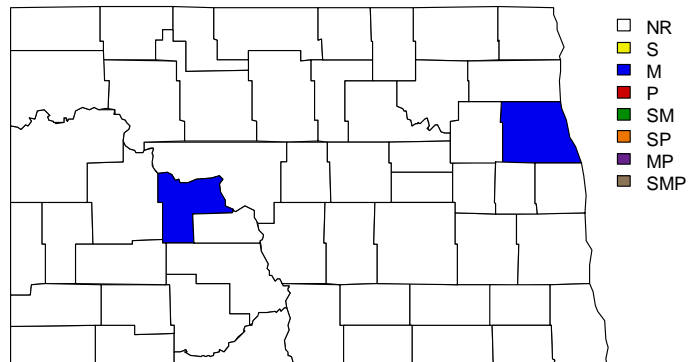


Lasioglossum lineatulum (=Dialictus lineatulus)

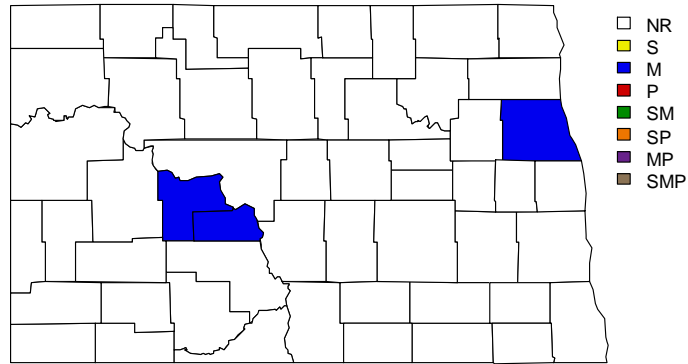


Lasioglossum semibrunneum (=Dialictus oleosus)

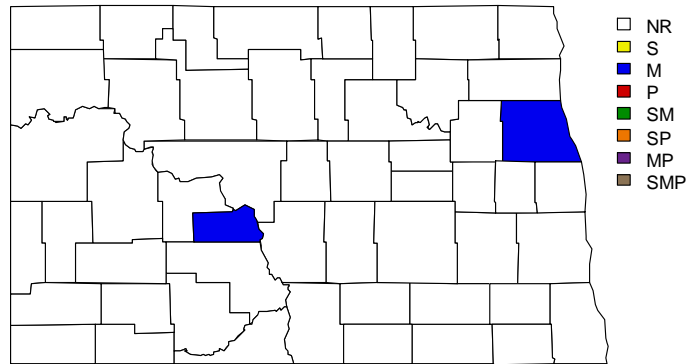


Lasioglossum perpunctatum (= *Dialictus perpunctatus*)*Lasioglossum* (= *Dialictus*) *pilosus**Lasioglossum pruinatum* (= *Dialictus pruinatum*)

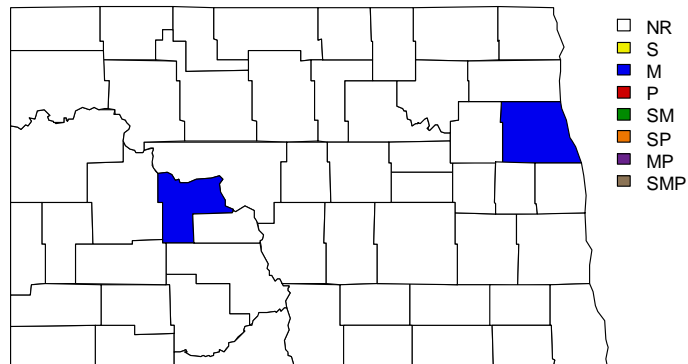
Lasioglossum semicaeruleum (=Dialictus pruiniformis)



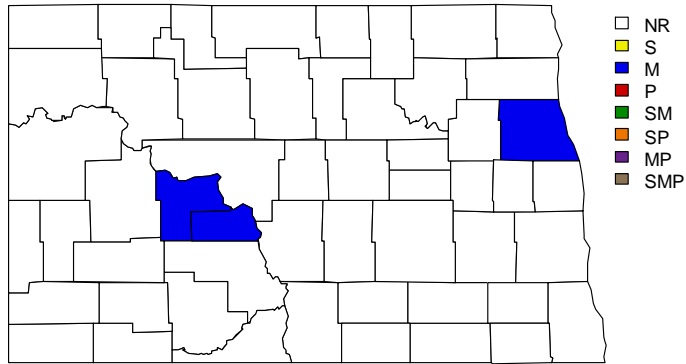
Lasioglossum (=Dialictus) *tegularis*



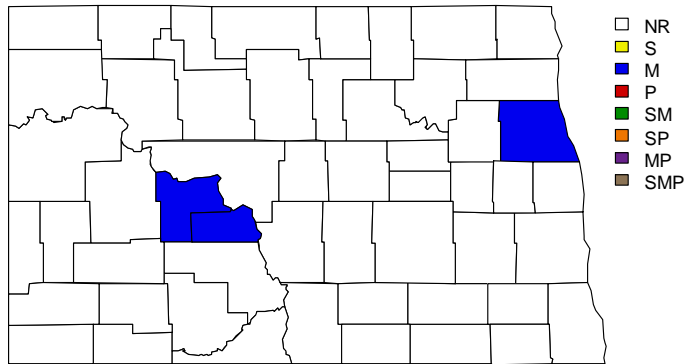
Lasioglossum (=Dialictus) *versans*



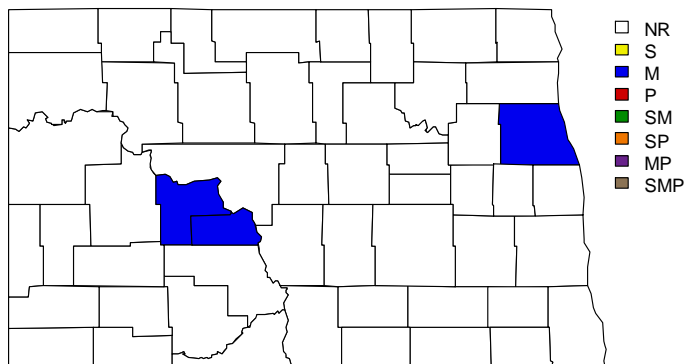
Lasioglossum zephyrum (=Dialictus zephyrus)



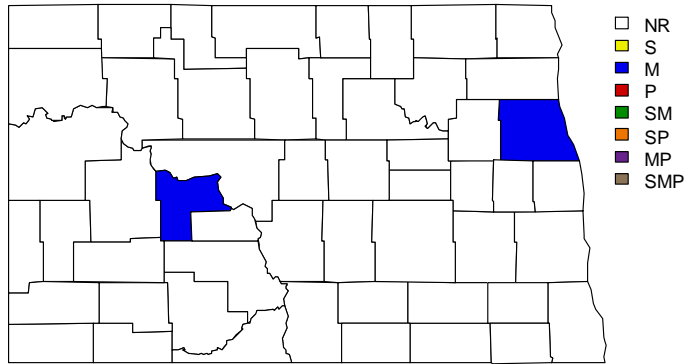
Halictus confusus



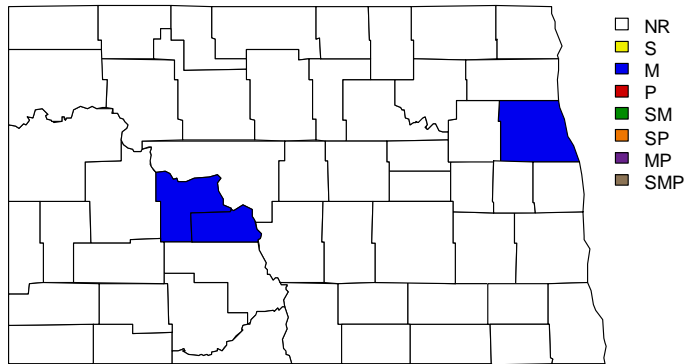
Halictus ligatus



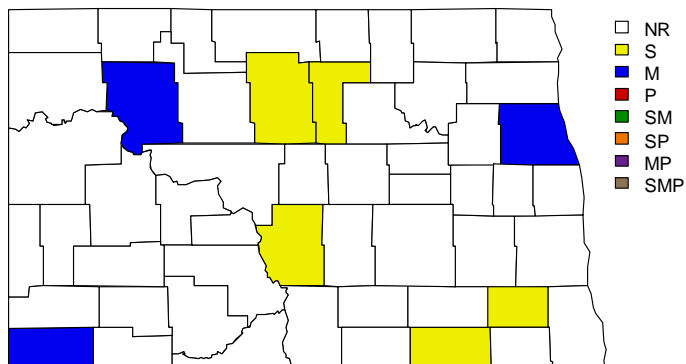
Halictus parallelus



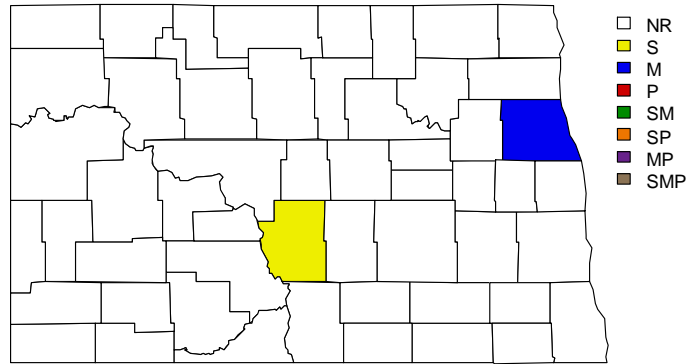
Halictus rubicundus



Lasioglossum paraforbesii

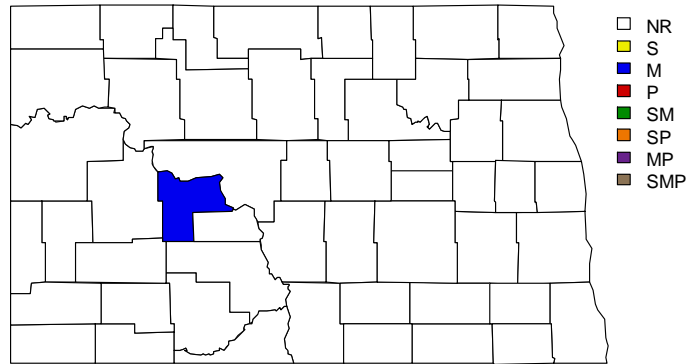


Lasioglossum zonulum

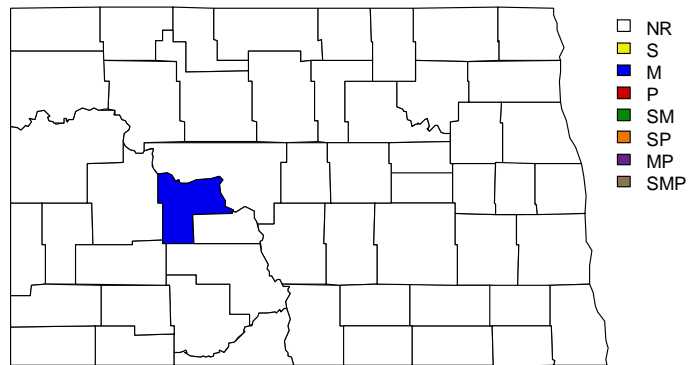


Family: Megachilidae (Mason Bees, Leafcutter Bees)

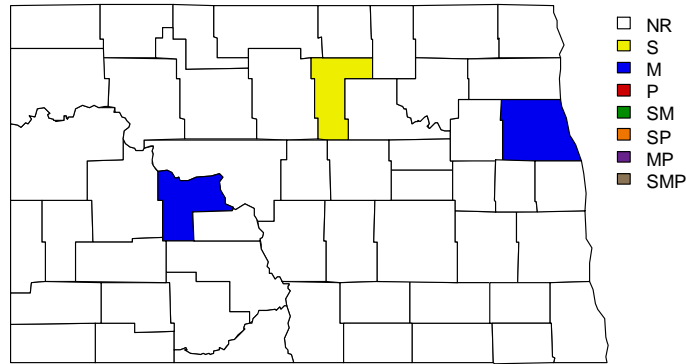
Heriades carinata



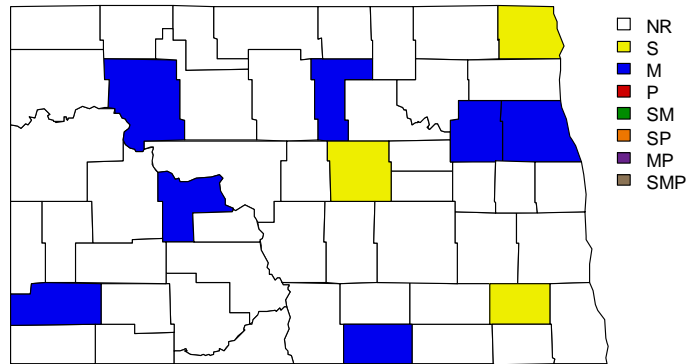
Hoplitis producta



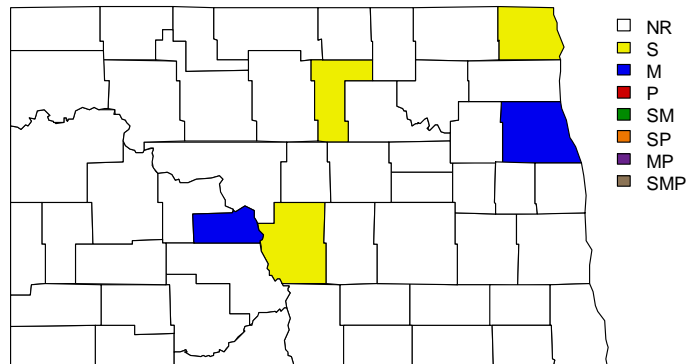
Megachile brevis



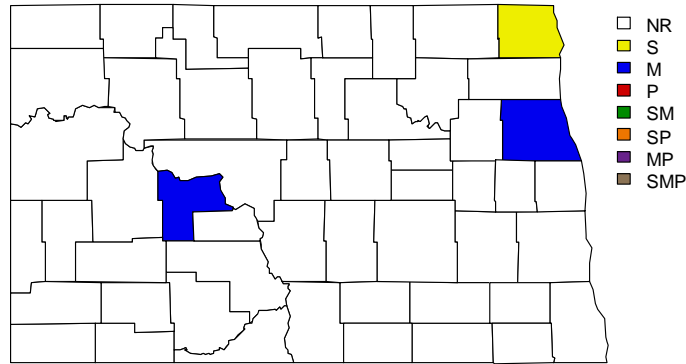
Megachile frigida



Megachile latimanus

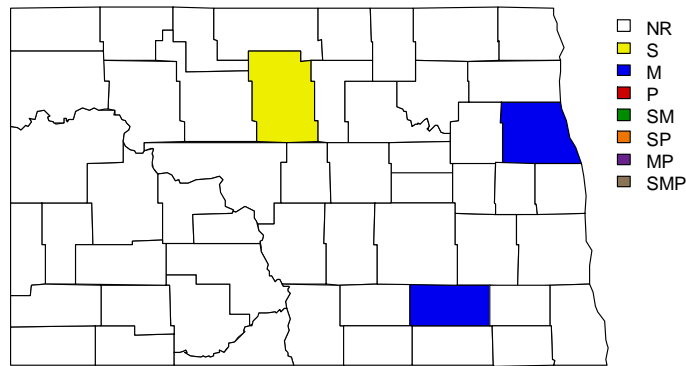


Stelis submarginata

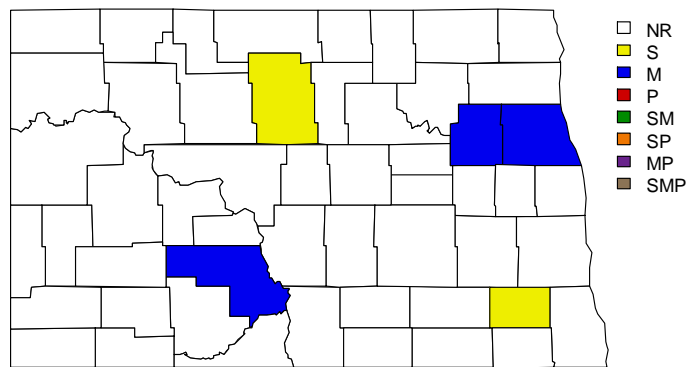


Family: Crabronidae (Mud Daubers)

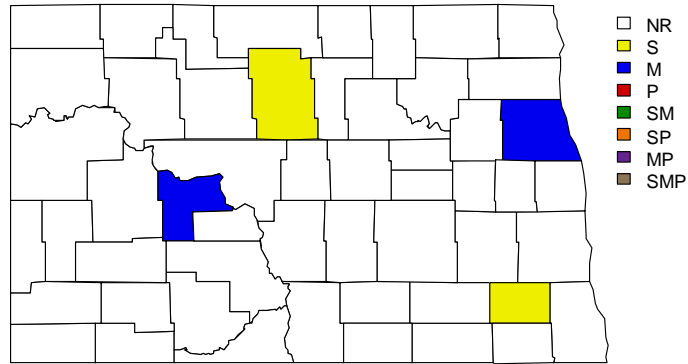
Bembix spinolae



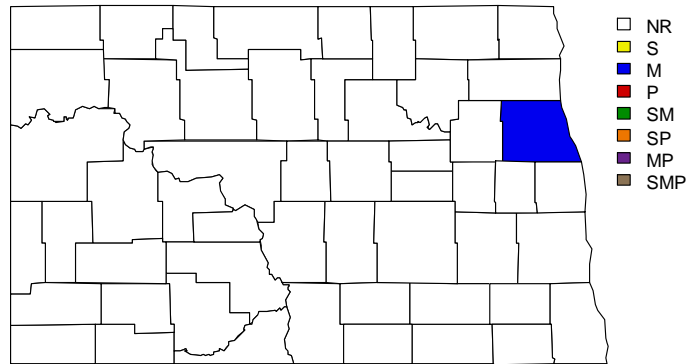
Bembix nubilipennis



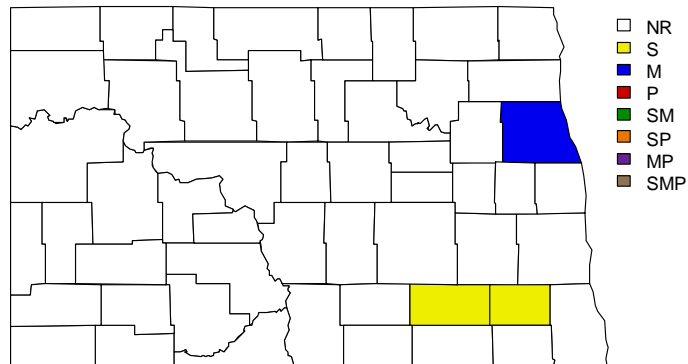
Bembix sayi



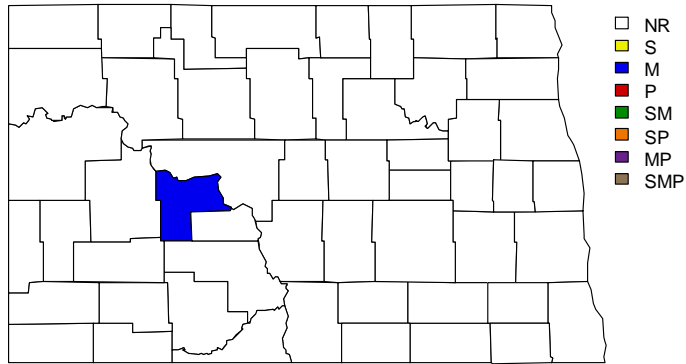
Bicyrtes quadrifasciata



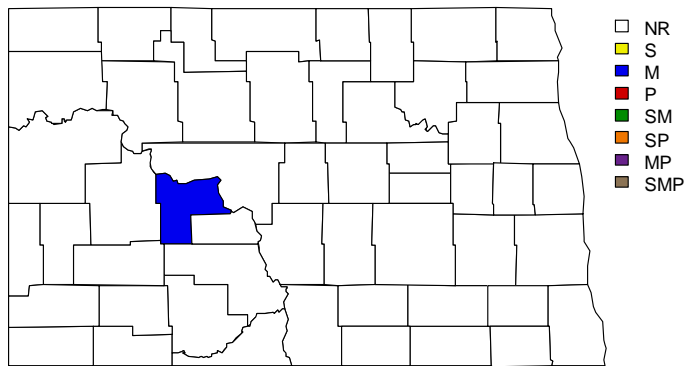
Bicyrtes ventralis



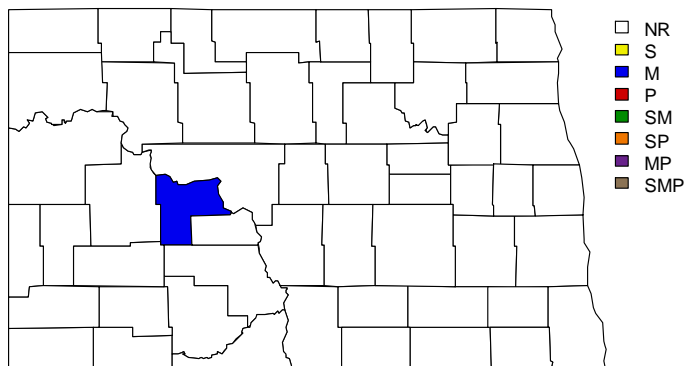
Diodontus bidentatus



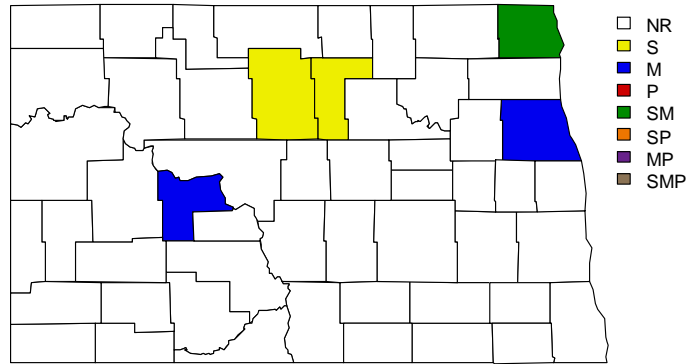
Diodontus occidentalis



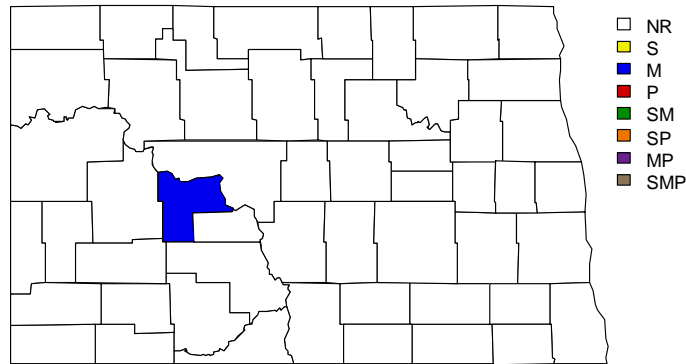
Diodontus striatus



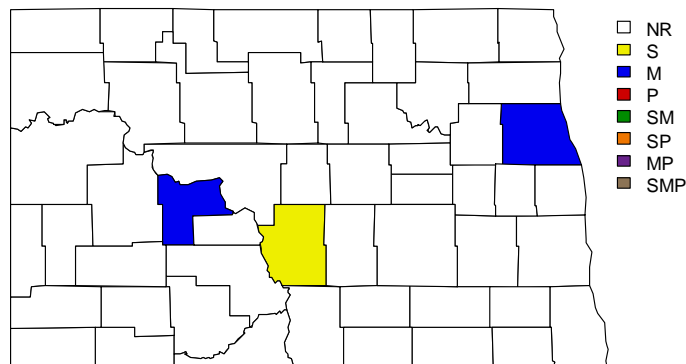
Ectemnius borealis (=corrugatus)



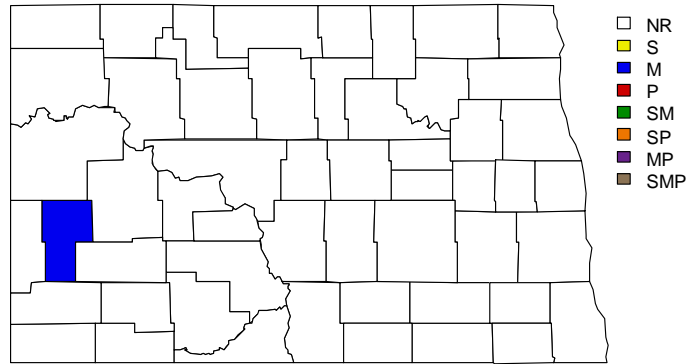
Ectemnius dives



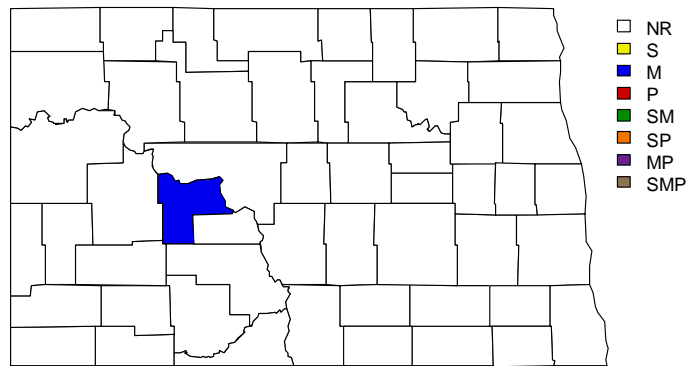
Ectemnius lapidarius



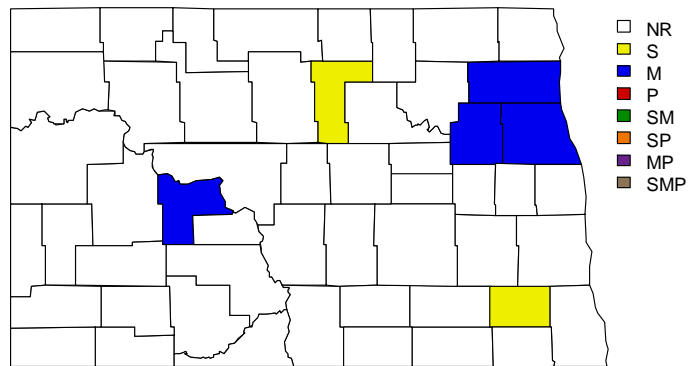
Eucerceris superba



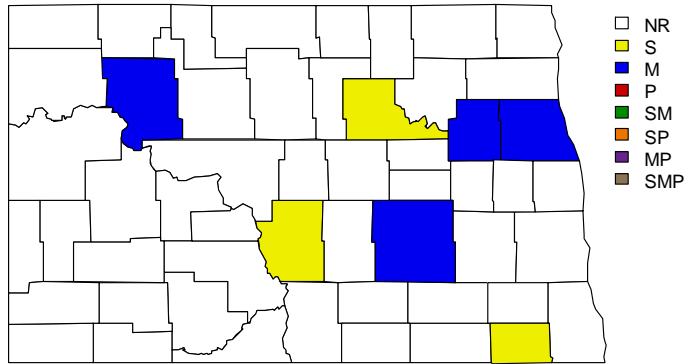
Gorytes simillimus



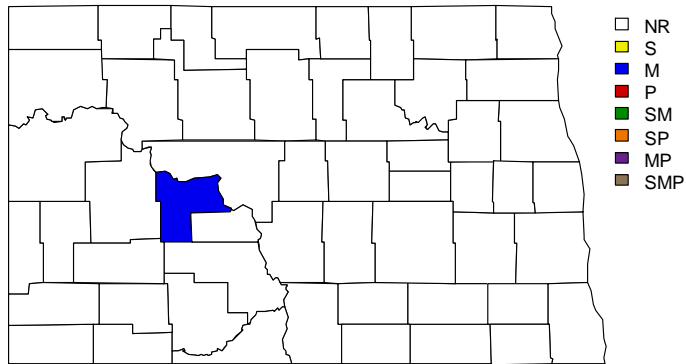
Larropsis (=Ancistromma) distincta



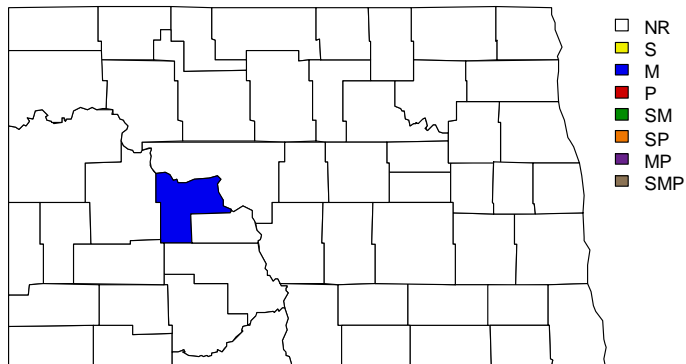
Lyroda subita



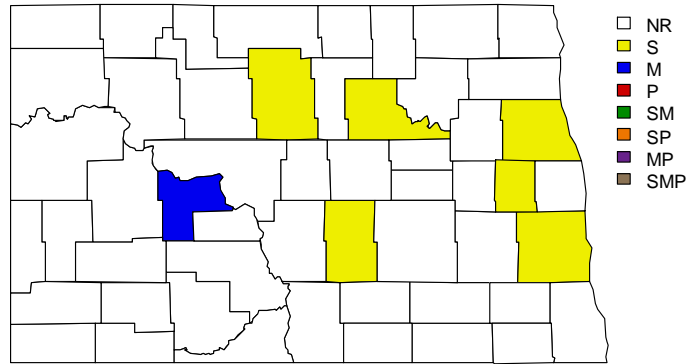
Mimesa lutaria (=basirufa)



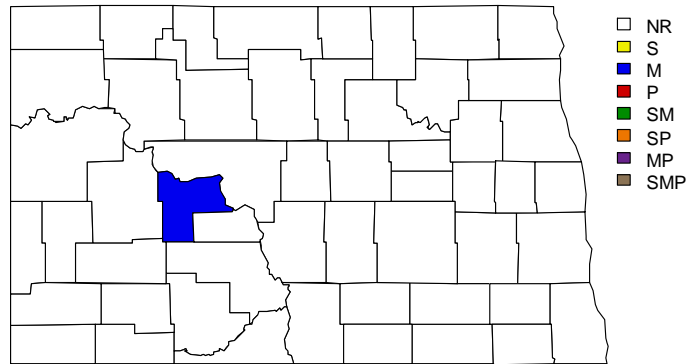
Mimesa cressonii



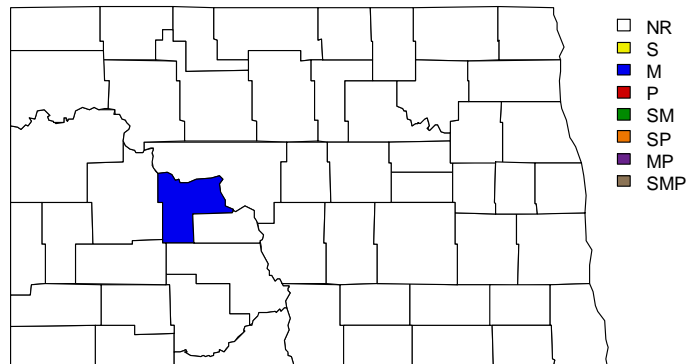
Mimesa pauper



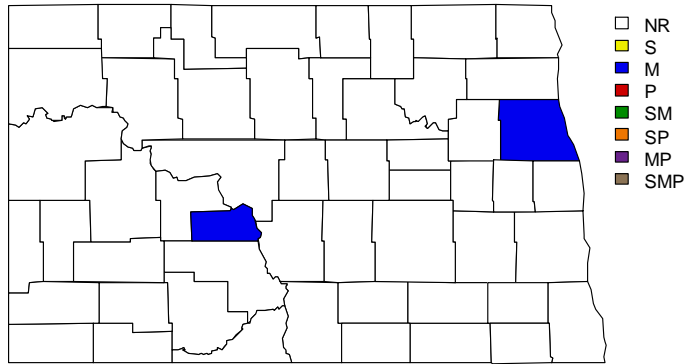
Clitemnestra (=Ochleroptera) bipunctata



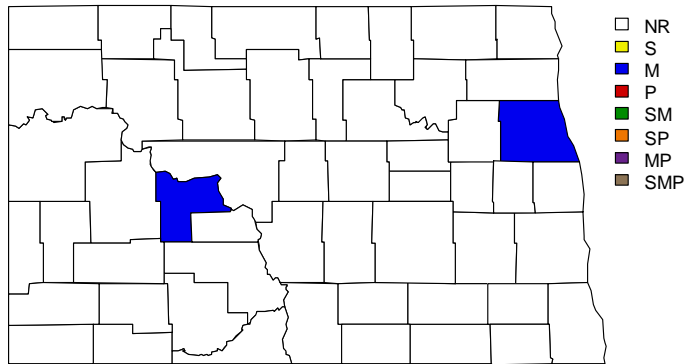
Oxybelus decorosus



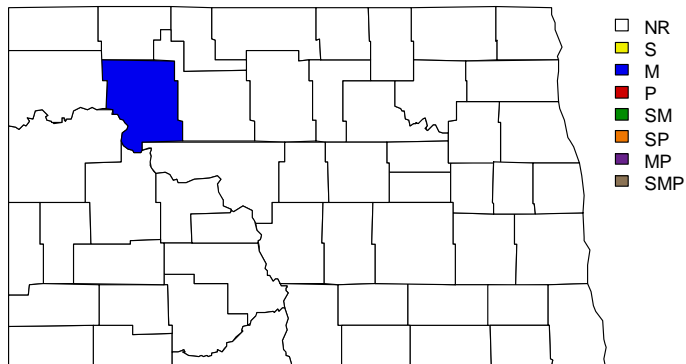
Pemphredon inornatus



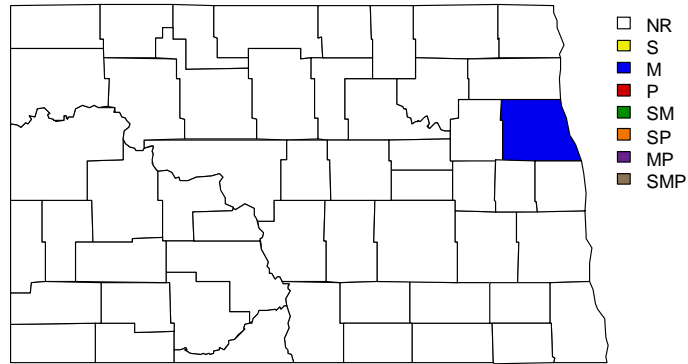
Philanthus bilunatus



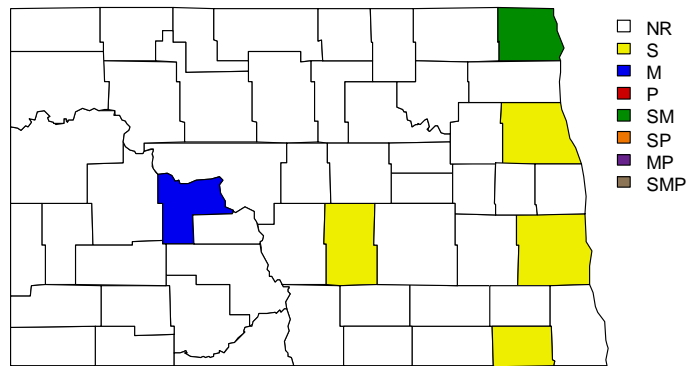
Philanthus crabroniformis



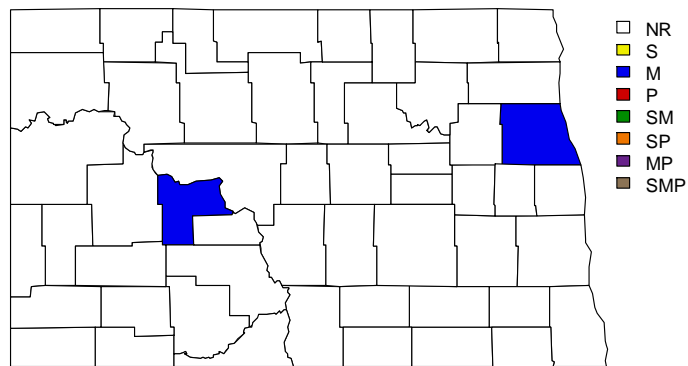
Philanthus gibbosus



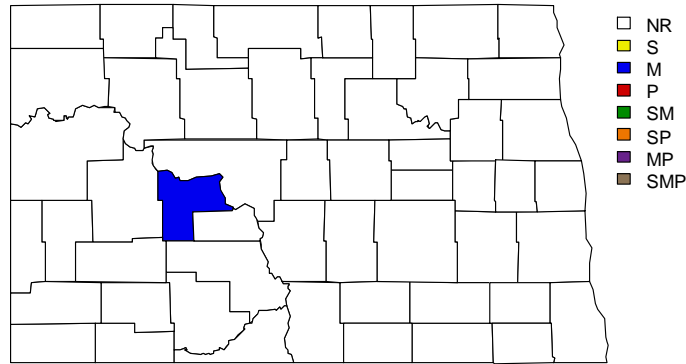
Solierella plenoculoides



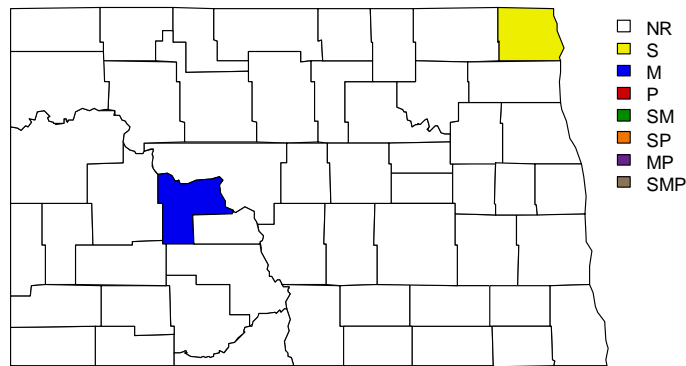
Tachysphex tarsatus



Tachysphex terminatus

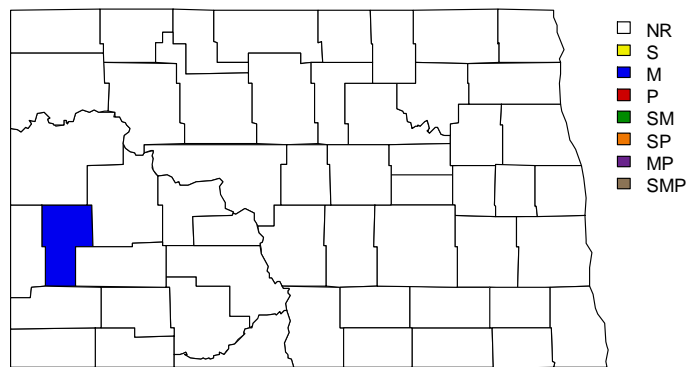


Tachytes aurulentus

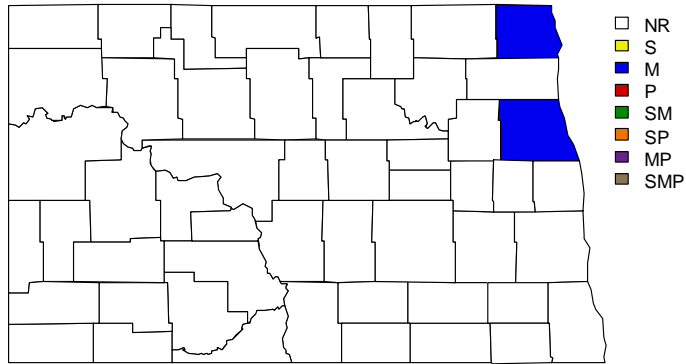


Family: Sphecidae (Thread-waisted Wasps)

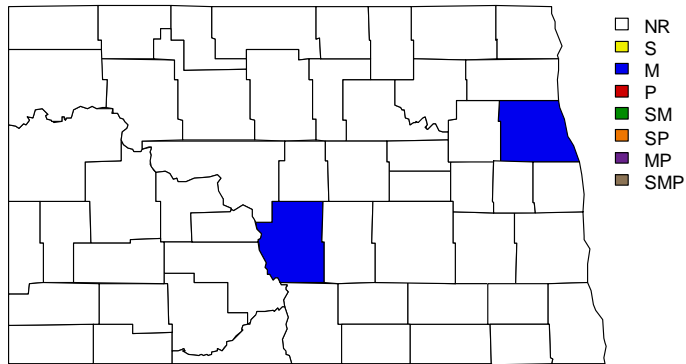
Ammophila aberti



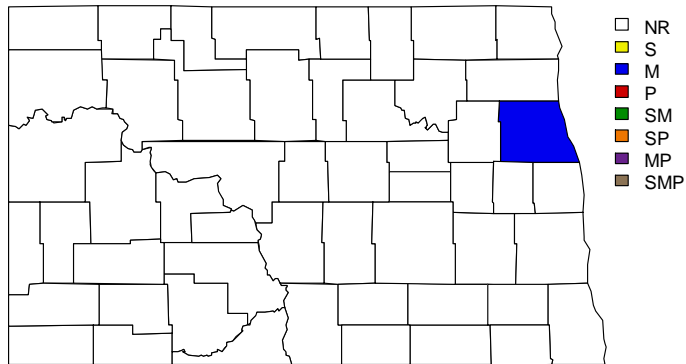
Ammophila azteca



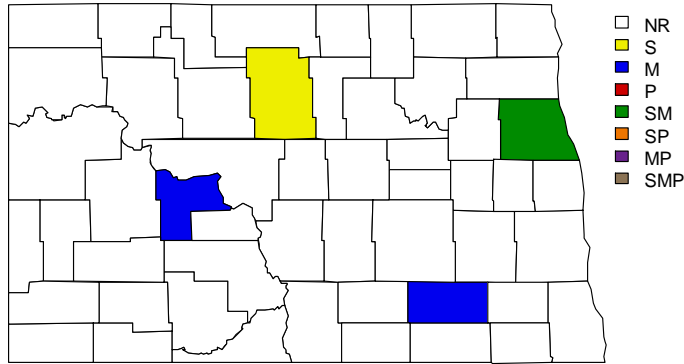
Ammophila cleopatra



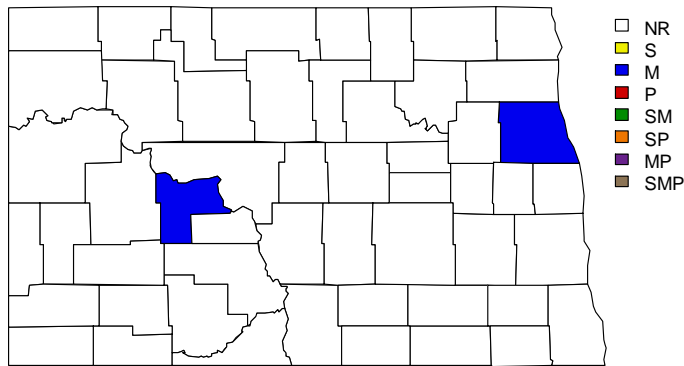
Ammophila fernaldi



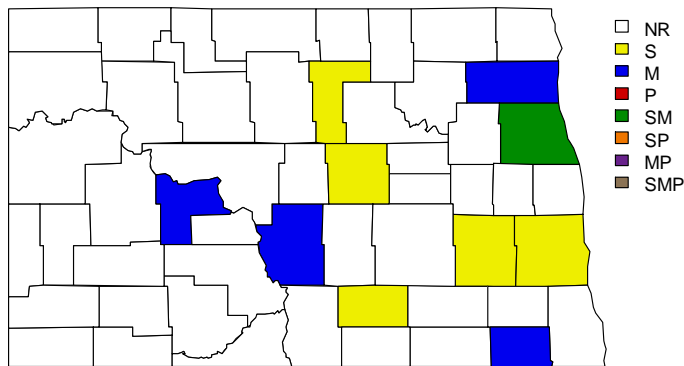
Ammophila harti



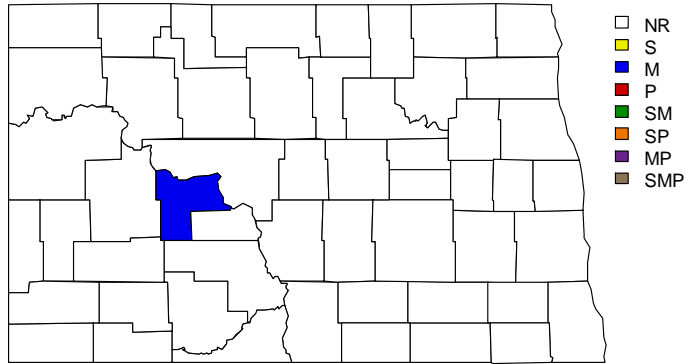
Ammophila kennedyi



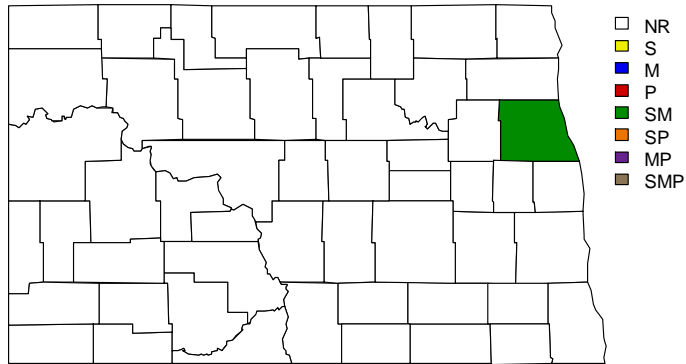
Ammophila procera
(Common Thread-waisted Wasp)



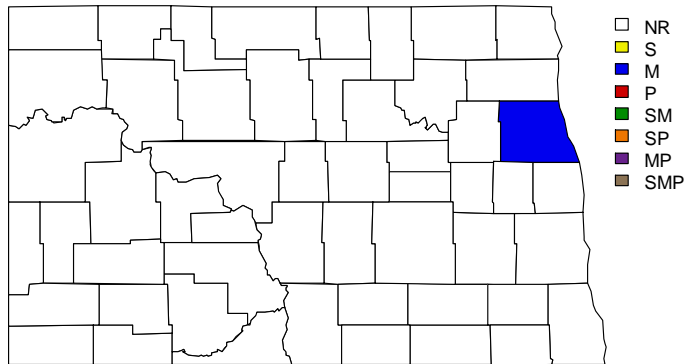
Ammophila pruinosa



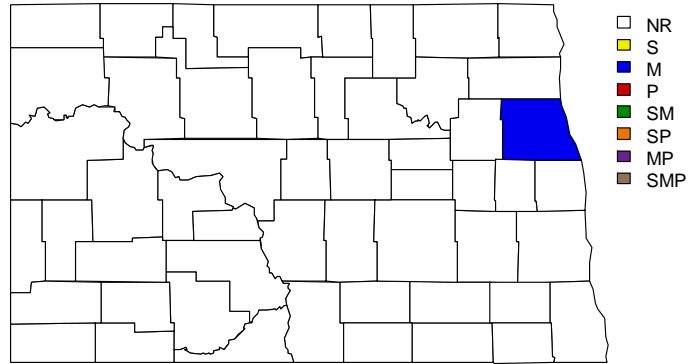
Ammophila urnaria



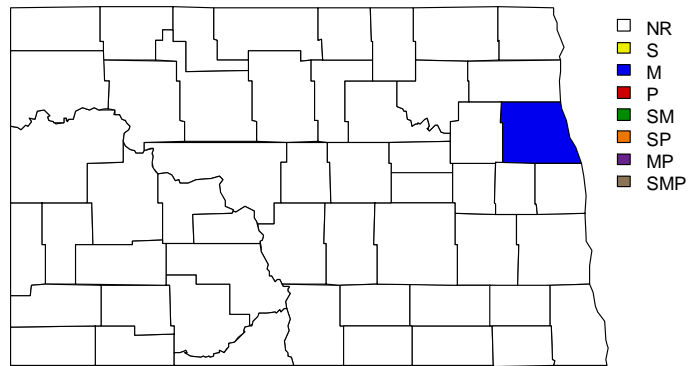
Cerceris alaope



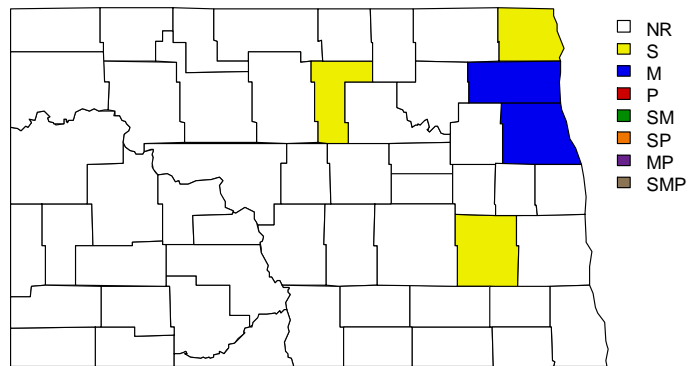
Cerceris derserta



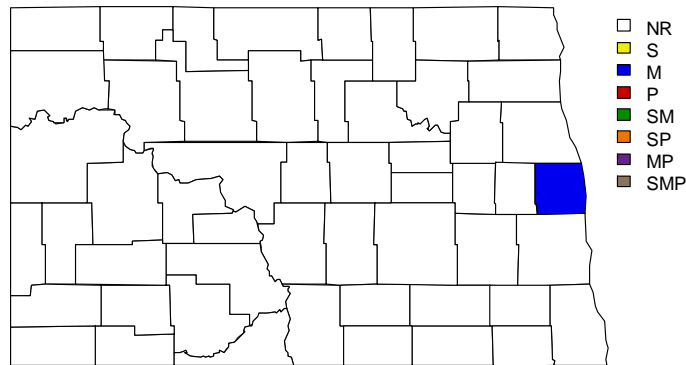
Cerceris echo



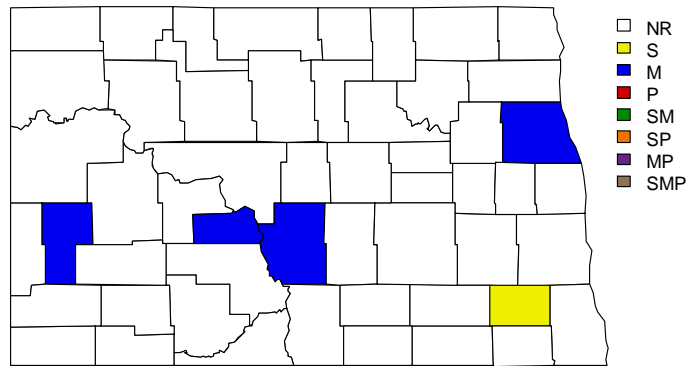
Cerceris nigrescens



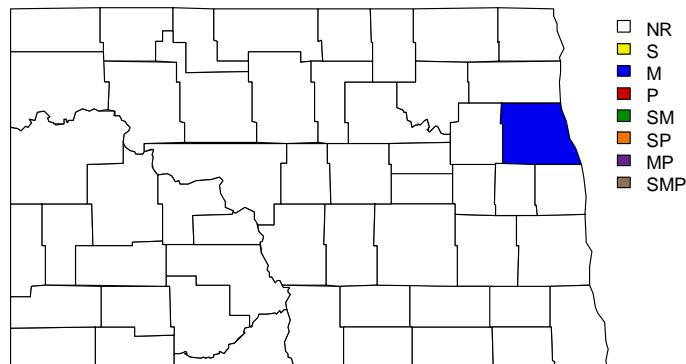
Chalybion californicum



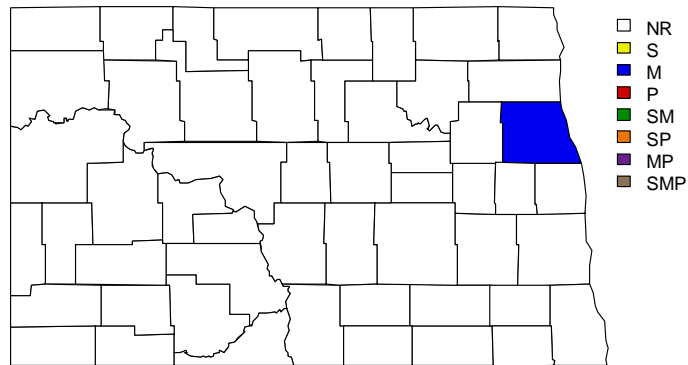
Chlorion aerarium
(Steel Blue Cricket Hunter)



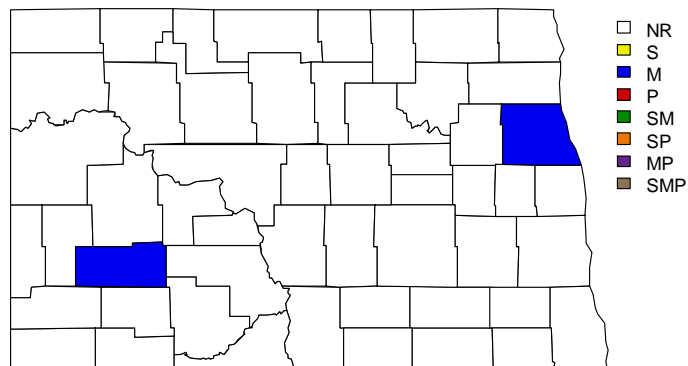
Isodontia mexicana
(Grass-carrying Wasp)



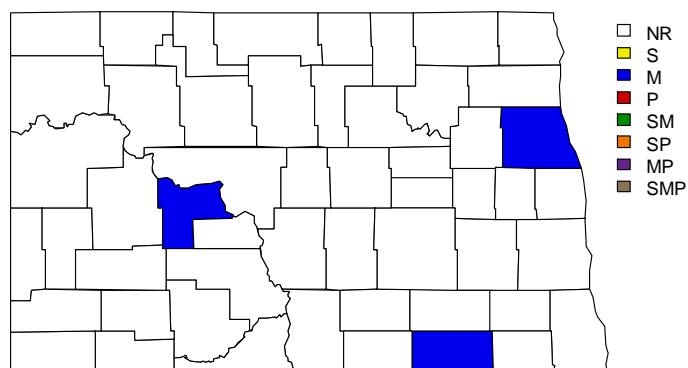
Podalonia robusta



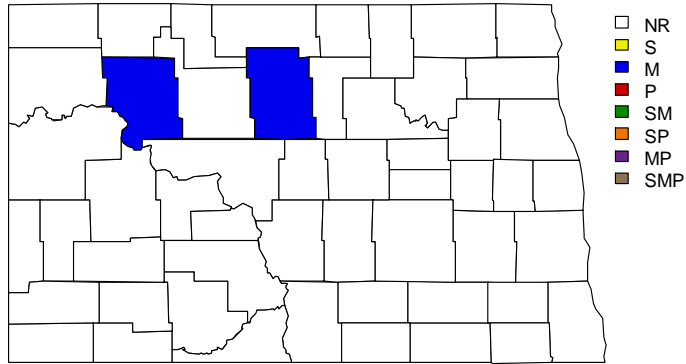
Podalonia valida



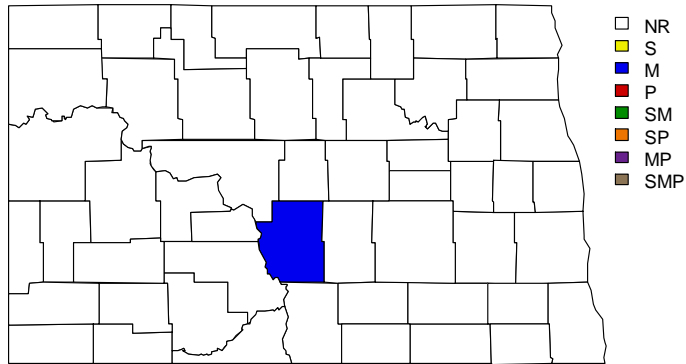
Podalonia violaceipennis



Prionyx atratus

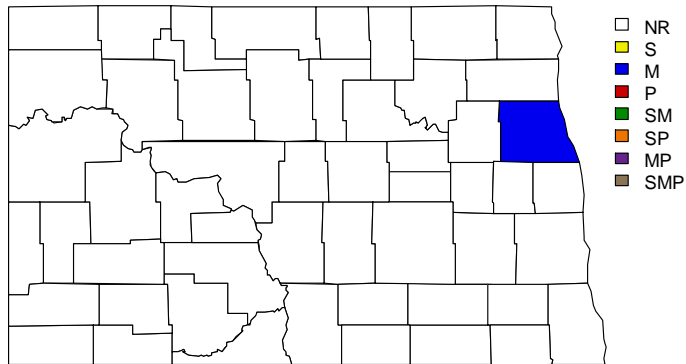


Prionyx canadensis

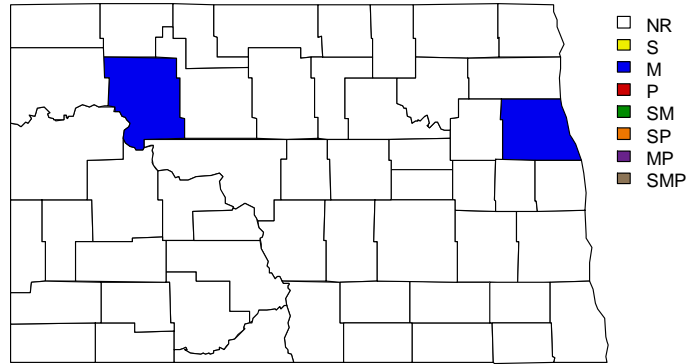


Sceliphron caementarium

(Black and Yellow Mud Dauber)

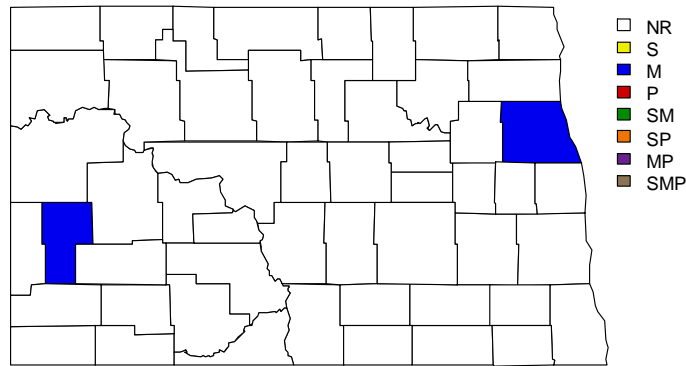


Sphex ichneumoneus
(Great Golden Digger Wasp)

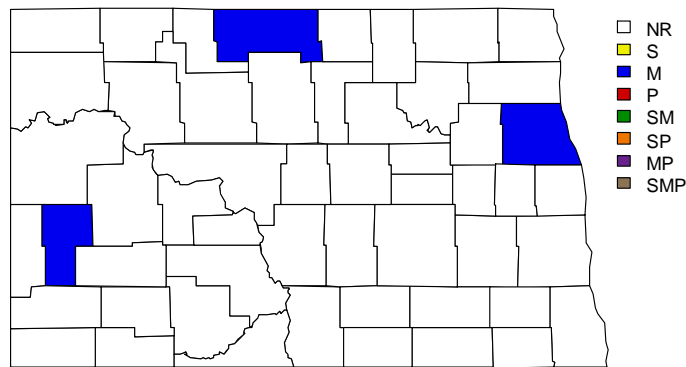


Family: Chrysididae (Cuckoo Wasps)

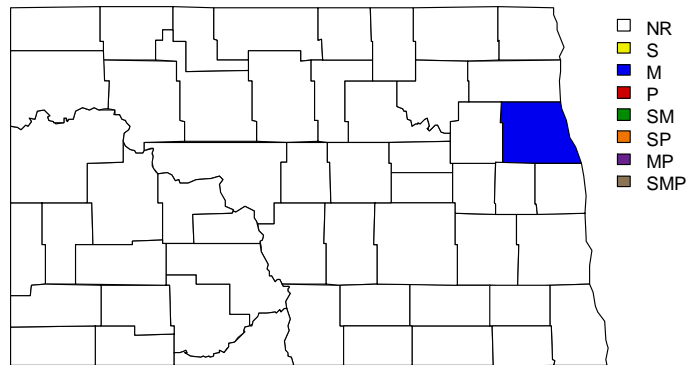
Chrysis coeruleans



Hedychridium dimidiatum

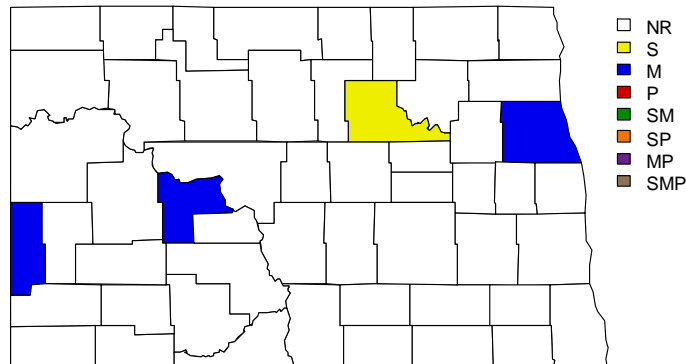


Caenochrysis (=Trichrysis) doriae

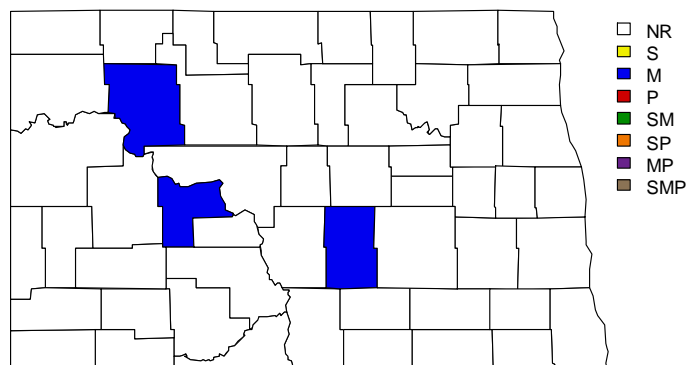


Family: Pompilidae (Spider Wasps, Pompilid Wasps)

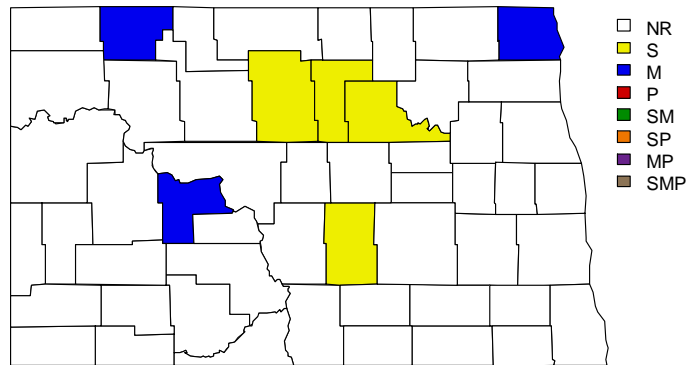
Anoplius marginatus



Paracyphononyx funereus

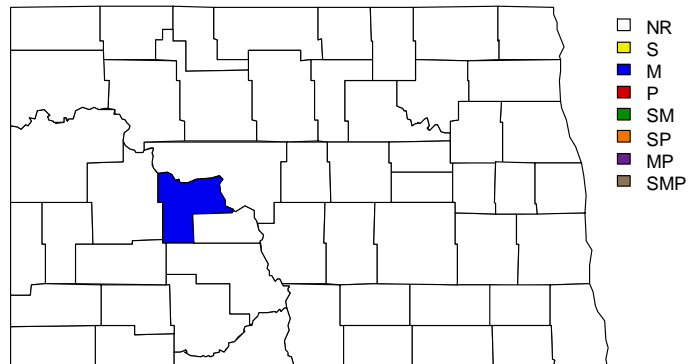


Pompilus arctus

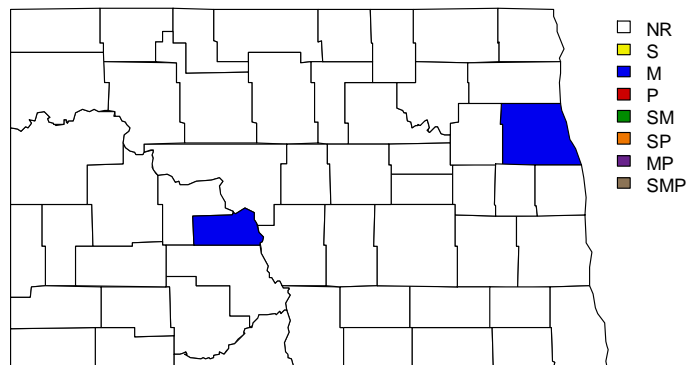


Family: Tiphidae (Tiphid Wasps, Flower Wasps)

Myrmosa unicolor

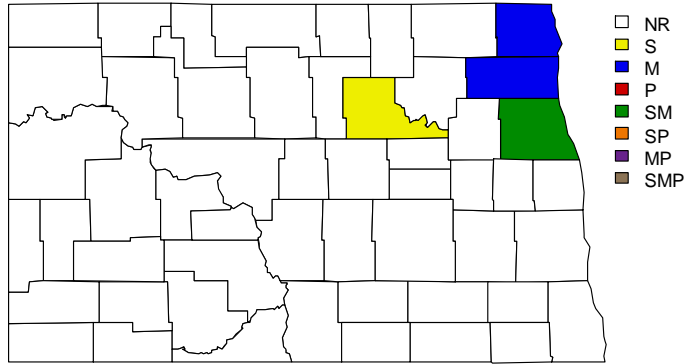


Tiphia tegulina

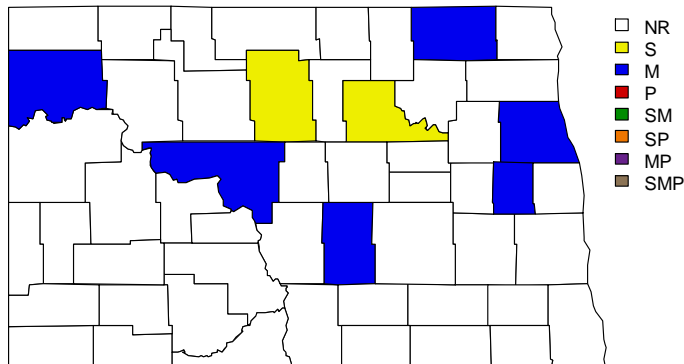


Family: Vespidae (Paper and Potter Wasps, Yellowjackets, Hornets)

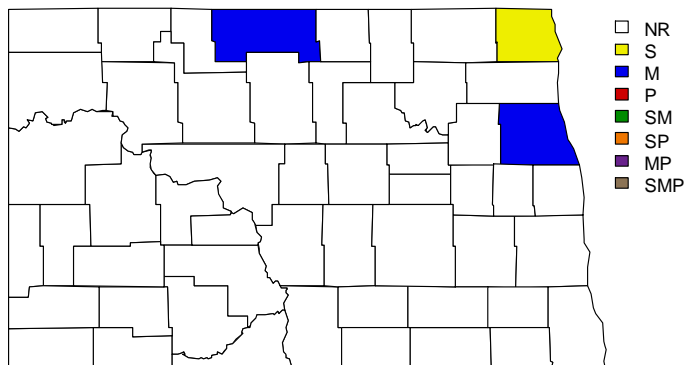
Dolichovespula (=Vespula) maculata
(Bald-faced Hornet)



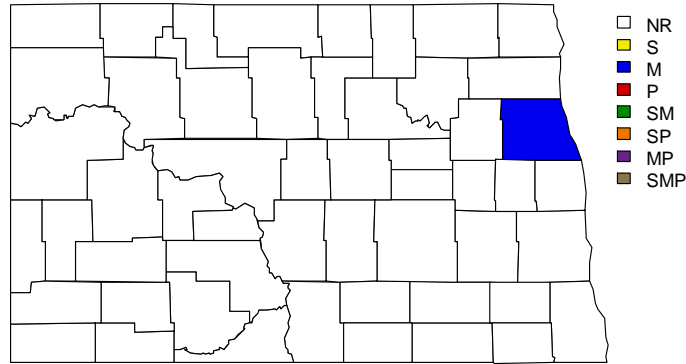
Dolichovespula (=Vespula) arenaria
(Aerial Yellowjacket)



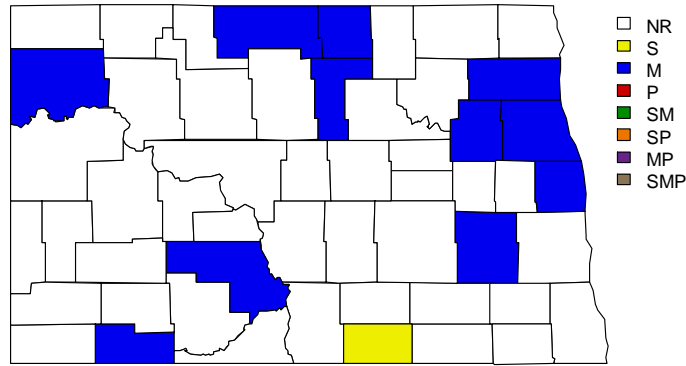
Vespula maculifrons
(Eastern Yellowjacket)



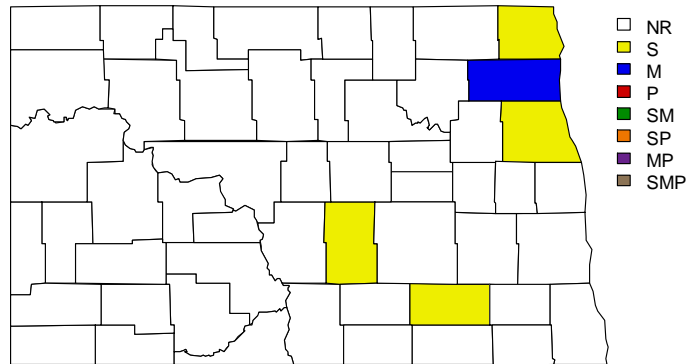
Vespula pensylvanica
(Western Yellowjacket)



Vespula vulgaris
(Common Yellowjacket)



Polistes annularis
(Jack Spaniard Wasp)



Site Checklists

For each sample site I report the list of species found. This is restricted to specimens that could be identified to genus or species by a non-specialist. For many of the sites the bulk of the specimens could not be identified either due to condition of the specimen or difficulty in determining species. These lists should not be considered as complete species lists but just the identifiable species found during a small sampling window at each site. Given the small window of sampling at each site, further sampling over longer time frames would be necessary to develop more complete species lists for each site.

Art Brazda WMA

Art Brazda WMA			
Order	Family	Species	Common name
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hymenoptera	Crabronidae	<i>Ectemnius lapidarius</i> <i>Lasioglossum paraforbesii</i>	
Hymenoptera	Halictidae	<i>Lasioglossum zonulum</i>	
Hymenoptera	Halictidae	<i>Lasioglossum zonulum</i>	
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Enallagma ebrium</i>	Marsh Bluet
Odonata	Libellulidae	<i>Libellula pulchella</i>	Twelve-spotted Skimmer
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper

Baron WMA

Baron WMA			
Order	Family	Species	Common name
Coleoptera	Chrysomelidae	<i>Disonycha pennsylvanica</i>	Multicolored Asian Lady Beetle
Coleoptera	Coccinellidae	<i>Harmonia axyridis</i>	Beetle
Coleoptera	Curculionidae	<i>Otiorhynchus ovatus</i>	Strawberry Root Weevil
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
Hemiptera	Miridae	<i>Lygus</i> sp.A	
Hemiptera	Pentatomidae	<i>Holcostethus limbolarius</i>	
Hymenoptera	Andrenidae	<i>Calliopsis andreniformis</i>	
Hymenoptera	Apidae	<i>Bombus borealis</i>	Northern Amber Bumble Bee
Hymenoptera	Crabronidae	<i>Ectemnius borealis</i>	

Baron WMA			
Order	Family	Species	Common name
Hymenoptera	Crabronidae	<i>Tachytes aurulentus</i>	
Hymenoptera	Ichneumonidae	<i>Netelia ocellata</i>	
Lepidoptera	Arctiidae	<i>Ctneuca virginica</i>	Virginia Ctenucha Moth
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Western Forktail
			Keeler's Spur-throat
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Grasshopper

Beaver Lake State Park

Beaver Lake State Park			
Order	Family	Species	Common name
Hymenoptera	Andrenidae	<i>Andrena medionitens</i>	
		<i>Pseudopanurgus</i>	
Hymenoptera	Andrenidae	<i>nebrascensis</i>	
Hymenoptera	Ichneumonidae	<i>Cratichneumon signatipes</i>	
Lepidoptera	Noctuidae	<i>Catocala parta</i>	Mother Underwing
Lepidoptera	Nymphalidae	<i>Speyeria aphrodite</i>	Aphrodite Fritillary
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Odonata	Libellulidae	<i>Sympetrum corruptum</i>	Variegated Meadowhawk
Odonata	Libellulidae	<i>Sympetrum occidentale</i>	Western Meadowhawk
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper

Billings WMA

Billings WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
			Spotted Cucumber
Coleoptera	Chrysomelidae	<i>Diabrotica undecimpunctata</i>	Beetle
			Thirteen-spotted Lady
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Beetle
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Hemiptera	Alydidae	<i>Alydus conpersus</i>	
Hemiptera	Belostomatidae	<i>Belostoma flumineum</i>	Giant Water Bug
Hemiptera	Lygaeidae	<i>Ligyrocoris diffusus</i>	
Hemiptera	Membracidae	<i>Campylenchia rugosa</i>	Western Thornhopper

Billings WMA			
Order	Family	Species	Common name
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus</i> sp.A	
Hemiptera	Miridae	<i>Trigonotylus caelestialium</i>	Rice Leaf Bug
Hemiptera	Nabidae	<i>Nabis</i> sp.A	
Hemiptera	Pentatomidae	<i>Euschistus servus</i>	Brown stink bug
Hemiptera	Pentatomidae	<i>Euschistus tristigmus</i>	Dusky Stink Bug
			Northern Amber
Hymenoptera	Apidae	<i>Bombus borealis</i>	Bumble Bee
Hymenoptera	Apidae	<i>Bombus rufocinctus</i>	Red-belted Bumble Bee
Hymenoptera	Apidae	<i>Bombus ternarius</i>	Tri-colored Bumble Bee
Hymenoptera	Halictidae	<i>Agapostemon texanus</i>	
Hymenoptera	Megachilidae	<i>Megachile frigida</i>	
Hymenoptera	Megachilidae	<i>Megachile latimanus</i>	
Hymenoptera	Vespidae	<i>Polistes annularis</i>	Jack Spaniard Wasp
Lepidoptera	Nymphalidae	<i>Nymphalis antiopa</i>	Mourning cloak
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Neuroptera	Hemerobiidae	<i>Micromus subanticus</i>	
			Velvetstriped
Orthoptera	Acrididae	<i>Eritettix simplex</i>	Grasshopper
			Two-striped
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Grasshopper
			Tiny Spur-throat
			Grasshopper
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.D	
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket
Orthoptera	Gryllidae	<i>Allonemobius allardi</i>	Allard's Ground Cricket
Orthoptera	Gryllidae	<i>Gryllus veletis</i>	Spring Field Cricket
Orthoptera	Tettigonidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid
			Slender Meadow
Orthoptera	Tettigonidae	<i>Conocephalus fasciatus</i>	Katydid

Buffalo Lake NWR

Buffalo Lake NWR			
Order	Family	Species	Common name
Diptera	Asilidae	<i>Leptogaste</i> sp.A	

Buffalo Lake NWR			
Order	Family	Species	Common name
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.A	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.B	
Hemiptera	Pentatomidae	<i>Euschistus tristigmus</i>	Dusky Stink Bug
Hemiptera	Reduviidae	<i>Barce</i> sp.A	
Hemiptera	Scutelleridae	<i>Homaemus aeneifrons</i>	Shield-backed Bug
Hemiptera	Scutelleridae	<i>Homaemus bijugis</i>	
Hymenoptera	Colletidae	<i>Hylaeus ellipticus</i>	
		<i>Lasioglossum</i>	
Hymenoptera	Halictidae	<i>paraforbesii</i>	
Hymenoptera	Megachilidae	<i>Megachile brevis</i>	
Hymenoptera	Megachilidae	<i>Megachile latimanus</i>	
Hymenoptera	Megachilidae	<i>Stelis submarginata</i>	Common Thread-waisted Wasp
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	
Hymenoptera	Sphecidae	<i>Cerceris nigrescens</i>	
Lepidoptera	Nymphalidae	<i>Vanessa atalanta</i>	Red Admiral
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Libellulidae	<i>Sympetrum occidentale</i>	Western Meadowhawk
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
			Tiny Spur-throat
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Grasshopper
			Keeler's Spur-throat
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Grasshopper
Orthoptera	Gryllacrididae	<i>Camptonotus carolinensis</i>	Carolina Leaf-roller
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	

Clausen Springs WMA

Clausen Springs WMA			
Order	Family	Species	Common name
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	Widefooted Treehopper, Eastern Thornhopper
Hemiptera	Membracidae	<i>Campylenchia latipes</i>	
Hymenoptera	Apidae	<i>Bombus borealis</i>	Northern Amber Bumble Bee
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	Common Thread-waisted Wasp
Hymenoptera	Sphecidae	<i>Cerceris nigrescens</i>	
Lepidoptera	Nymphalidae	<i>Danaus plexippus</i>	Monarch

Clausen Springs WMA			
Order	Family	Species	Common name
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Odonata	Coenagrionidae	<i>Ischnura posita</i>	Fragile Forktail
Orthoptera	Acrididae	<i>Cordillacris occipitalis</i>	Spotted Wing Grasshopper
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper
Orthoptera	Tettigoniidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid
Orthoptera	Tettigoniidae	<i>Orchelimum gladiator</i>	Gladiator Meadow Katydid

Cottonwood Creek WMA

Cottonwood Creek WMA			
Order	Family	Species	Common name
Hemiptera	Belostomatidae	<i>Belostoma flumineum</i>	Giant Water Bug
Hemiptera	Lygaeidae	<i>Ligyrocoris diffusus</i>	
		<i>Amaurochrous cinctipes</i>	
Hemiptera	Podopidae		
Hymenoptera	Apidae	<i>Bombus borealis</i>	Northern Amber Bumble Bee
Hymenoptera	Crabronidae	<i>Bicyrtes ventralis</i>	
Hymenoptera	Vespidae	<i>Polistes annularis</i>	Jack Spaniard Wasp
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
		<i>Sympetrum vicinum</i>	Yellow-legged Meadowhawk,
Odonata	Libellulidae		Autumn Meadowhawk
		<i>Melanoplus infantilis</i>	
Orthoptera	Acrididae		Tiny Spur-throat Grasshopper
		<i>Camptonotus carolinensis</i>	
Orthoptera	Gryllacrididae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid

Dawson WMA

Dawson WMA			
Order	Family	Species	Common name
Coleoptera	Staphylinidae	<i>Philonthus politus</i>	
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.B	

Dawson WMA			
Order	Family	Species	Common name
Hemiptera	Cicadellidae	<i>Draeculacephala noveboracensis</i>	Brown stink bug
Hemiptera	Pentatomidae	<i>Euschistus servus</i>	
Hemiptera	Scutelleridae	<i>Eurygaster alternatus</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Hymenoptera	Crabronidae	<i>Solierella plenoculoides</i>	
Hymenoptera	Halictidae	<i>Agapostemon texanus</i>	
Hymenoptera	Halictidae	<i>Lasioglossum semibrunneum</i>	
Hymenoptera	Pompilidae	<i>Pompilus arctus</i>	
Hymenoptera	Vespidae	<i>Polistes annularis</i>	Jack Spaniard Wasp
Lepidoptera	Lycinidae	<i>Satyrium titus</i>	Coral Hairstreak
Lepidoptera	Nymphalidae	<i>Danaus plexippus</i>	Monarch
Lepidoptera	Nymphalidae	<i>Coenonympha tullia</i>	Common Ringlet
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Ischnura verticalis</i>	Eastern Forktail
Odonata	Coenagrionidae	<i>Nehalennia irene</i>	Sedge Sprite
Odonata	Libellulidae	<i>Leucorrhinia intacta</i>	
Orthoptera	Acrididae	<i>Eritettix simplex</i>	Velvetstriped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper
Orthoptera	Acrididae	<i>Melanoplus sanguinipes</i>	Migratory Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius sp.C</i>	
Orthoptera	Gryllidea	<i>Allonemobius allardi</i>	Allard's Ground Cricket
Orthoptera	Tettigoniidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid
Orthoptera	Tettigoniidae	<i>Orchelimum gladiator</i>	Gladiator Meadow Katydid

D.L. Thompson WMA

D.L. Thompson WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	Striped Willow Leaf Beetle
Coleoptera	Chrysomelidae	<i>Disonycha alternata</i>	
Coleoptera	Chrysomelidae	<i>Disonycha pennsylvanica</i>	
Diptera	Micropezidae	<i>Compsobata sp.A</i>	

D.L. Thompson WMA			
Order	Family	Species	Common name
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	White-margined Burrower Bug
Hemiptera	Cydnidae	<i>Sehirus cinctus</i>	
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus</i> sp.A	
Hymenoptera	Apidae	<i>Apis mellifera</i>	European Honey Bee
Hymenoptera	Crabronidae	<i>Ectemnius borealis</i>	
Lepidoptera	Noctuidae	<i>Catocala coccinata</i>	Scarlet Underwing
Lepidoptera	Nymphalidae	<i>Polygonia interrogationis</i>	Question Mark
Lepidoptera	Nymphalidae	<i>Phyciodes selesis</i>	Northern Crescent
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Western Forktail
Odonata	Lestidae	<i>Lestes disjunctus</i>	Northern Spreadwing
Odonata	Libellulidae	<i>Libellula quadrimaculata</i>	Four-spotted Chaser
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Tiny Spur-throat Grasshopper
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper

Ed Bry WMA

Ed Bry WMA			
Order	Family	Species	Common name
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	

Fort Ransom WMA

Fort Ransom WMA			
Order	Family	Species	Common name
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteen-spotted Lady Beetle
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.A	
Hemiptera	Lygaeidae	<i>Ligyrocoris diffusus</i>	
Hemiptera	Pentatomidae	<i>Euschistus servus</i>	Brown stink bug
Hymenoptera	Crabronidae	<i>Larropsis distincta</i>	

Fort Ransom WMA			
Order	Family	Species	Common name
Hymenoptera	Crabronidae	<i>Bicyrtes ventralis</i>	
Hymenoptera	Halictidae	<i>Agapostemon texanus</i>	
Hymenoptera	Megachilidae	<i>Megachile frigida</i>	
Hymenoptera	Sphecidae	<i>Chlorion aerarium</i>	Steel Blue Cricket Hunter
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Odonata	Coenagrionidae	<i>Enallagma hageni</i>	Hagen's Bluet
Odonata	Lestidae	<i>Lestes rectangularis</i>	Slender Spreadwing
			Spotted Wing
Orthoptera	Acrididae	<i>Cordillacris occipitalis</i>	Grasshopper
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper

Golden Lake WMA

Golden Lake WMA			
Order	Family	Species	Common name
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteen-spotted Lady Beetle
Ephemeroptera	Baetidae	<i>Callibaetis sp.A</i>	
Hymenoptera	Apidae	<i>Melissodes subagilis</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Odonata	Lestidae	<i>Lestes disjunctus</i>	Northern Spreadwing
Orthoptera	Gryllacrididae	<i>Camptonotus carolinensis</i>	Carolina Leaf-roller
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket

Hamilton Wills WMA

Hamilton Wills WMA			
Order	Family	Species	Common name
Coleoptera	Coccinellidae	<i>Coleomegilla fuscilabris</i>	Spotted Lady Beetle
Diptera	Micropezidae	<i>Compsobata sp.A</i>	
Diptera	Tabanidae	<i>Chryops sp.B</i>	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
			White-margined Burrower Bug
Hemiptera	Cydnidae	<i>Sehirus cinctus</i>	Bug
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus sp.A</i>	
Hemiptera	Miridae	<i>Trigonotylus caelestialium</i>	Rice Leaf Bug
Hemiptera	Nabidae	<i>Nabis sp.A</i>	

Hamilton Wills WMA			
Order	Family	Species	Common name
Hemiptera	Nabidae	<i>Nabis</i> sp.B	
Hemiptera	Pentatomidae	<i>Euschistus variolarius</i>	One Spotted Stink Bug
Hemiptera	Pentatomidae	<i>Holcostethus limbolarius</i>	
Hemiptera	Pentatomidae	<i>Podisus serieventris</i>	
Hymenoptera	Andrenidae	<i>Andrena medionitens</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Hymenoptera	Crabronidae	<i>Solierella plenoculoides</i>	
Hymenoptera	Ichneumonidae	<i>Netelia ocellata</i>	
			Common Thread-waisted Wasp
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	
Lepidoptera	Nymphalidae	<i>Vanessa atalanta</i>	Red Admiral
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Ischnura verticalis</i>	Eastern Forktail
			Keeler's Spur-throat
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.D	
Orthoptera	Gryllidea	<i>Allonemobius allardi</i>	Allard's Ground Cricket

Hooreart WMA

Hooreart WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
Coleoptera	Scarabaeidae	<i>Onthophagus hecate</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
			Yellowbanded Bumble Bee
Hymenoptera	Apidae	<i>Bombus terricola</i>	
Hymenoptera	Ichneumonidae	<i>Cratichneumon signatipes</i>	
Hymenoptera	Ichneumonidae	<i>Pristomerus euryptychiae</i>	
Lepidoptera	Hesperiidae	<i>Hesperiidae dakotae</i>	Dakota Skipper
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Orthoptera	Tettigonidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid

Horseshoe Lake WMA

Horseshoe Lake WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus decorus</i>	
Coleoptera	Staphilinidae	<i>Staphylinus vulpinus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hemiptera	Miridae	<i>Collaria meilleurii</i>	
		<i>Trigonotylus</i>	
Hemiptera	Miridae	<i>caelestialium</i>	Rice Leaf Bug
Hemiptera	Pentatomidae	<i>Euschistus tristigmus</i>	Dusky Stink Bug
Hemiptera	Podopidae	<i>Amaurochrous cinctipes</i>	
Hemiptera	Scutelleridae	<i>Homaemus bijugis</i>	
Hymenoptera	Crabonidae	<i>Larropsis distincta</i>	
Hymenoptera	Crabronidae	<i>Ectemnius borealis</i>	
Hymenoptera	Megachilidae	<i>Megachile latimanus</i>	
Hymenoptera	Pompillidae	<i>Pompilus arctus</i>	
Lepidoptera	Nymphalidae	<i>Boloria bellona</i>	Meadow Fritillary
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Hemerobiidae	<i>Micromus angulatus</i>	
Odonata	Aeshnidae	<i>Aeshna interrupta</i>	Variable Darner
Odonata	Coenagrionidae	<i>Enallagma boreale</i>	Boreal Bluet
Odonata	Coenagrionidae	<i>Enallagma ebrium</i>	Marsh Bluet
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Western Forktail
Odonata	Coenagrionidae	<i>Ischnura verticalis</i>	Eastern Forktail
Odonata	Lestidae	<i>Lestes rectangularis</i>	Slender Spreadwing
Orthoptera	Acrididae	<i>Cordillacris occipitalis</i>	Spotted Wing Grasshopper
Orthoptera	Acrididae	<i>Eritettix simplex</i>	Velvetstriped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
			Tiny Spur-throat
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Grasshopper
			Keeler's Spur-throat
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
			Granlated Pygmy
Orthoptera	Tetrigidae	<i>Tetrix subulata</i>	Grasshopper
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid
Orthoptera	Tettigoniidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid

Hyatt Slough WMA

Hyatt Slough WMA				
Order	Family	Species	Common name	
Coleoptera	Carabidae	<i>Diplocheila major</i>	Thirteen-spotted Lady Beetle	
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>		
Coleoptera	Scarabidae	<i>Onthophagus pennsylvanicus</i>		
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	Brown stink bug One Spotted Stink Bug	
Diptera	Tabanidae	<i>Chryops</i> sp.B		
Hemiptera	Nabidae	<i>Nabis</i> sp.A		
Hemiptera	Pentatomidae	<i>Euschistus servus</i>		
Hemiptera	Pentatomidae	<i>Euschistus variolarius</i>		
Hymenoptera	Halictidae	<i>Lasioglossum paraforbesii</i>		
Hymenoptera	Ichneumonidae	<i>Netelia ocellata</i>		
Lepidoptera	Hesperiidae	<i>Atrytone arogos</i>		Arogos Skipper
Lepidoptera	Pieridae	<i>Colias eutyheme</i>		Orange Sulphur
Neuroptera	Hemerobiidae	<i>Micromus angulatus</i>		Boreal Bluet Familiar Bluet Marsh Bluet Western Forktail Fragile Forktail Keeler's Spur-throat Grasshopper Black-sided Meadow Katydid
Odonata	Coenagrionidae	<i>Enallagma boreale</i>		
Odonata	Coenagrionidae	<i>Enallagma civile</i>		
Odonata	Coenagrionidae	<i>Enallagma ebrium</i>		
Odonata	Coenagrionidae	<i>Ischnura perparva</i>		
Odonata	Coenagrionidae	<i>Ischnura posita</i>		
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>		
Orthoptera	Tettigonidae	<i>Conocephalus nigropleurum</i>		
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid	

Icelandic State Park

Icelandic State Park			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Pasimachus elongatus</i>	Convergent Lady Beetle
Coleoptera	Coccinellidae	<i>Hippodamia convergens</i>	
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteenspotted Lady Beetle
Diptera	Tipulidae	<i>Tipula cunctans</i>	

Icelandic State Park			
Order	Family	Species	Common name
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.A	
Hemiptera	Nabidae	<i>Nabis</i> sp.A	
Hemiptera	Scutelleridae	<i>Homaemus aeneifrons</i>	Shield-backed Bug
Hemiptera	Scutelleridae	<i>Neottiglossa undata</i>	
Hymenoptera	Andrenidae	<i>Andrena platyparia</i>	
Hymenoptera	Apidae	<i>Melissodes subagilis</i>	
Hymenoptera	Colletidae	<i>Hylaeus ellipticus</i>	
Hymenoptera	Crabronidae	<i>Solierella plenoculoides</i>	
Hymenoptera	Halictidae	<i>Agapostemon virescens</i>	
Hymenoptera	Ichneumonidae	<i>Hoplismenus rutilus</i>	
Hymenoptera	Megachilidae	<i>Megachile latimanus</i>	
Hymenoptera	Sphecidae	<i>Cerceris nigrescens</i>	
Hymenoptera	Vespidae	<i>Vespula maculifrons</i>	Eastern Yellowjacket
Lepidoptera	Nymphalidae	<i>Limenitis archippus</i>	Viceroy
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Neuroptera	Hemerobiidae	<i>Micromus subanticus</i>	
Orthoptera	Acrididae	<i>Hypochlora alba</i>	Sage Grasshopper
Orthoptera	Acrididae	<i>Melanoplus femurrubrum</i>	Red-legged Grasshopper
			Tiny Spur-throat
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
			Slender Meadow
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Katydid
			Gladiator Meadow
Orthoptera	Tettigoniidae	<i>Orchelimum gladiator</i>	Katydid

Johnson's Gulch WMA

Johnson's Gulch WMA			
Order	Family	Species	Common name
Coleoptera	Cerambycidae	<i>Prionus imbricornis</i>	Tile-horned Prionus
Coleoptera	Scarabaeidae	<i>Phyllophaga anxia</i>	
Hemiptera	Reduviidae	<i>Sinea</i> sp.A	
Hemiptera	Scutelleridae	<i>Neottiglossa undata</i>	
		<i>Pseudopanurgus</i>	
Hymenoptera	Andrenidae	<i>nebrascensis</i>	
Hymenoptera	Halictidae	<i>Agapostemon virescens</i>	
Lepidoptera	Lycinidae	<i>Satyrium titus</i>	Coral Hairstreak

Johnson's Gulch WMA			
Order	Family	Species	Common name
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Neuroptera	Hemerobiidae	<i>Micromus subanticus</i>	
Odonata	Coenagrionidae	<i>Enallagma civile</i>	Familiar Bluet
Odonata	Lestidae	<i>Lestes unquiculatus</i>	Lyre-tipped Spreadwing
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket
Orthoptera	Gryllidea	<i>Gryllus veletis</i>	Spring Field Cricket

Knox Slough WMA

Knox Slough WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
Coleoptera	Chrysomelidae	<i>Disonycha alternata</i>	Striped Willow Leaf Beetle
Coleoptera	Curculionidae	<i>Sitona scissifrons</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.A	
Hemiptera	Membracidae	<i>Campylenchia rugosa</i>	Western Thornhopper
Hemiptera	Miridae	<i>Collaria meilleurii</i>	
Hemiptera	Nabidae	<i>Dolichonabis propinquus</i>	
		<i>Cratichneumon</i>	
Hymenoptera	Ichneumonidae	<i>signatipes</i>	
Hymenoptera	Ichneumonidae	<i>Hoplismenus rutilus</i>	
Hymenoptera	Ichneumonidae	<i>Netelia ocellata</i>	
Hymenoptera	Pompilidae	<i>Anoplius marginatus</i>	
Hymenoptera	Pompilidae	<i>Pompilus arctus</i>	
Lepidoptera	Hesperiidae	<i>Hesperia coma</i>	Common Banded Skipper
Lepidoptera	Nymphalidae	<i>Phyciodes tharos</i>	Pearl crescent
Lepidoptera	Nymphalidae	<i>Vanessa atalanta</i>	Red Admiral
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Enallagma boreale</i>	Boreal Bluet
Odonata	Lestidae	<i>Lestes disjunctus</i>	Northern Spreadwing
Odonata	Lestidae	<i>Lestes unguiculatus</i>	Lyre-tipped Spreadwing
Odonata	Libellulidae	<i>Sympetrum internum</i>	Cherry-faced Meadowhawk
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
			Tiny Spur-throat
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Grasshopper

Knox Slough WMA			
Order	Family	Species	Common name
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper
Orthoptera	Gryllacrididae	<i>Camptonotus carolinensis</i>	Carolina Leaf-roller
Orthoptera	Gryllidae	<i>Allonemobius sp.A</i>	
Orthoptera	Gryllidae	<i>Allonemobius sp.C</i>	

Lake Washington WMA

Lake Washington WMA			
Order	Family	Species	Common name
Hymenoptera	Apidae	<i>Bombus borealis</i>	Northern Amber Bumble Bee
Hymenoptera	Ichneumonidae	<i>Cratichneumon signatipes</i>	
Odonata	Coenagrionidae	<i>Enallagma boreale</i>	Boreal Bluet
Odonata	Lestidae	<i>Lestes rectangularis</i>	Slender Spreadwing

Logan County WMA

Logan County WMA			
Order	Family	Species	Common name
Coleoptera	Scrabidae	<i>Diplotaxis obscura</i>	
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	Common Thread-waisted Wasp
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Western Forktail
Odonata	Lestidae	<i>Lestes rectangularis</i>	Slender Spreadwing

Lehr WMA

Lehr WMA			
Order	Family	Species	Common name
Coleoptera	Curculionidae	<i>Otiorhynchus ovatus</i>	Strawberry Root Weevil
Odonata	Lestidae	<i>Lestes rectangularis</i>	Slender Spreadwing

Lone Tree WMA

Lone Tree WMA			
Order	Family	Species	Common name
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Nabidae	<i>Nabicola subcoleoprata</i>	
Hymenoptera	Apidae	<i>Nomada pygmaea</i>	
Hymenoptera	Ichneumonidae	<i>Cratichneumon signatipes</i>	
Hymenoptera	Ichneumonidae	<i>Hoplismenus rutilus</i>	
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	Common Thread-waisted Wasp
Lepidoptera	Hesperiidae	<i>Anatrytone logan</i>	Delaware Skipper
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Odonata	Coenagrionidae	<i>Enallagma ebrium</i>	Marsh Bluet
Odonata	Libellulidae	<i>Libellula quadrimaculata</i>	Four-spotted Chaser
Odonata	Libellulidae	<i>Sympetrum costiferum</i>	Saffron-winged Meadowhawk

McKenzie Slough WMA

McKenzie Slough WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus decorus</i>	
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
Coleoptera	Chrysomelidae	<i>Disonycha triangularis</i>	
Coleoptera	Chrysomelidae	<i>Erynephala puncticollis</i>	Beet Leaf Beetle
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteen-spotted Lady Beetle
Coleoptera	Melodidae	<i>Epicauta pennsylvanica</i>	Black Blister Beetle
Coleoptera	Staphilinidae	<i>Staphylinus vulpinus</i>	
Coleoptera	Staphylinidae	<i>Philonthus politus</i>	
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.B	
Hemiptera	Alydidae	<i>Alydus eurinus</i>	
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus</i> sp.A	
Hemiptera	Nabidae	<i>Dolichonabis propinquus</i>	
Hemiptera	Pentatomidae	<i>Chinavia hilaris</i>	Green stink bug

McKenzie Slough WMA			
Order	Family	Species	Common name
Hemiptera	Phymatidae	<i>Phymata</i> sp.A	
Hymenoptera	Crabronidae	<i>Lyroda subita</i>	
Hymenoptera	Ichneumonidae	<i>Netelia ocellata</i>	
Hymenoptera	Megachilidae	<i>Megachile latimanus</i>	
Lepidoptera	Nymphalidae	<i>Phyciodes tharos</i>	Pearl crescent
Lepidoptera	Pieridae	<i>Colias philodice</i>	Clouded Sulphur
Lepidoptera	Pieridae	<i>Pieris rapae</i>	CabbageWhite
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Aeshnidae	<i>Aeshna umbrosa</i>	Shadow Darner
Odonata	Coenagrionidae	<i>Ischnura verticalis</i>	Eastern Forktail
Odonata	Coenagrionidae	<i>Nehalennia irene</i>	Sedge Sprite
Odonata	Lestidae	<i>Lestes unquiculatus</i>	Lyre-tipped Spreadwing
			Velvetstriped
Orthoptera	Acrididae	<i>Eritettix simplex</i>	Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
Orthoptera	Gryllidea	<i>Oecanthus nigricornis</i>	Black-horned Tree Cricket
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid

Meszaros Slough WMA

Meszaros Slough WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus decorus</i>	
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
Coleoptera	Chrysomelidae	<i>Charidotella sexpunctata</i>	Golden Tortoise Beetle
Coleoptera	Coccinellidae	<i>Coleomegilla fuscilabris</i>	Spotted Lady Beetle
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
		<i>Draeculacephala</i>	
Hemiptera	Cicadellidae	<i>noveboracensis</i>	
Hemiptera	Nabidae	<i>Nabis</i> sp.A	
Hemiptera	Pentatomidae	<i>Euschistus servus</i>	Brown stink bug
Hemiptera	Reduviidae	<i>Sinea</i> sp.A	
Hymenoptera	Crabronidae	<i>Lyroda subita</i>	
Hymenoptera	Crabronidae	<i>Solierella plenoculoides</i>	

Meszaros Slough WMA			
Order	Family	Species	Common name
Lepidoptera	Hesperiidae	<i>Atrytone arogos</i>	Arogos Skipper
Lepidoptera	Nymphalidae	<i>Phyciodes tharos</i>	Pearl crescent
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Neuroptera	Hemeroptera	<i>Micromus subanticus</i>	
Odonata	Libellulidae	<i>Libellula quadrimaculata</i>	Four-spotted Chaser
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Tetrigidae	<i>Nomotettix cristatus</i>	Northern Crested Grouse Locust

Mirror Pool WMA

Mirror Pool WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Pasimachus elongatus</i> <i>Diabrotica</i>	
Coleoptera	Chrysomelidae	<i>undecimpunctata</i>	Spotted Cucumber Beetle
Coleoptera	Curculionidae	<i>Otiorhynchus ovatus</i>	Strawberry Root Weevil
Coleoptera	Tenebrionidae	<i>Eleodes tricostatus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hemiptera	Acanaloniidae	<i>Acanalonia bivittata</i>	Two-striped Planthopper
Hemiptera	Dictyopharidae	<i>Scolops sulcipes</i>	Partridge Bug
Hemiptera	Lygaeidae	<i>Ligyrocoris diffusus</i>	
Hemiptera	Miridae	<i>Collaria meillearii</i>	
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus</i> sp.A	
Hemiptera	Nabidae	<i>Nabis</i> sp.A	
Hemiptera	Nabidae	<i>Pagasa fusca</i>	
Hemiptera	Pentatomidae	<i>Euschistus servus</i>	Brown stink bug
Hemiptera	Pentatomidae	<i>Holcostethus limbolarius</i>	
Lepidoptera	Nymphalidae	<i>Vanessa atalanta</i>	Red Admiral
Odonata	Coenagrionidae	<i>Enallagma civile</i>	Familiar Bluet
Odonata	Coenagrionidae	<i>Enallagma hageni</i>	Hagen's Bluet
Odonata	Gomphidae	<i>Gomphus graslinellus</i>	Pronghorn Clubtail
Odonata	Libellulidae	<i>Leucorrhinia intacta</i>	
Orthoptera	Gryllacrididae	<i>Camptonotus carolinensis</i>	Carolina Leaf-roller
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket

Mirror Pool WMA			
Order	Family	Species	Common name
Orthoptera	Tettigonidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid

Mud Lake WMA

Mud Lake WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	Thirteen-spotted Lady Beetle
		<i>Hippodamia tredecimpunctata</i>	
		<i>Ilybius</i> sp.A	
Coleoptera	Coccinellidae		
Coleoptera	Dytiscidae		
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hemiptera	Pentatomidae	<i>Euschistus variolarius</i>	One Spotted Stink Bug
Hymenoptera	Apidae	<i>Bombus fervidus</i>	Yellow Bumble Bee
Lepidoptera	Hesperiidae	<i>Hesperia leonardus</i>	Leonard's Skipper
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Ischnura posita</i>	Fragile Forktail
Odonata	Libellulidae	<i>Leucorrhinia intacta</i>	
Odonata	Libellulidae	<i>Libellula luctuosa</i>	Widow Skimmer
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	

Oahe-Burleigh County WMA

Oahe-Burleigh County WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Diplocheila major</i>	Thirteenspotted Lady Beetle
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
Coleoptera	Cerambycidae	<i>Trigonarthris minnesotana</i>	
		<i>Hippodamia tredecimpunctata</i>	
Coleoptera	Coccinellidae		Strawberry Root Weevil
Coleoptera	Curculionidae	<i>Otiorhynchus ovatus</i>	
Coleoptera	Staphilinidae	<i>Staphylinus vulpinus</i>	
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.A	
Ephemeroptera	Ephemeridae	<i>Hexagenia bilineata</i>	
Hemiptera	Miridae	<i>Irbisia</i> sp.A	
Hemiptera	Miridae	<i>Trigonotylus caelestialium</i>	Rice Leaf Bug
Hemiptera	Nabidae	<i>Nabis</i> sp.B	

Oahe-Burleigh County WMA			
Order	Family	Species	Common name
Hemiptera	Pentatomidae	<i>Euschistus variolarius</i>	One Spotted Stink Bug
Hymenoptera	Apidae	<i>Bombus borealis</i>	Northern Amber Bumble Bee
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Libellulidae	<i>Leucorrhinia intacta</i>	
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper
Orthoptera	Acrididae	<i>Melanoplus sanguinipes</i>	Migratory Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius sp.C</i>	
Orthoptera	Tetrigidae	<i>Tetrix subulata</i>	Granlated Pygmy Grasshopper

Oakville Prairie (UND)

Oakville Prairie (UND)			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	Striped Willow Leaf Beetle
Coleoptera	Chrysomelidae	<i>Disonycha alternata</i>	Goldenrod Leaf Miner
Coleoptera	Chrysomelidae	<i>Microrhopala vittata</i>	
Coleoptera	Staphilinidae	<i>Staphylinus vulpinus</i>	
Hymenoptera	Apidae	<i>Bombus borealis</i>	Northern Amber Bumble Bee
Hymenoptera	Apidae	<i>Nomada pygmaea</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing

Sand Hill WMA

Sand Hill WMA			
Order	Family	Species	Common name
Coleoptera	Curculionidae	<i>Otiorhynchus ovatus</i>	Strawberry Root Weevil
Coleoptera	Silphidae	<i>Nicrophorus tomentosus</i>	Tomentose Burying Beetle
Diptera	Tabanidae	<i>Chryops sp.B</i>	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
Ephemeroptera	Ephemeridae	<i>Hexagenia bilineata</i>	
Hemiptera	Cicadellidae	<i>Draeculacephala</i>	

Sand Hill WMA			
Order	Family	Species	Common name
		<i>noveboracensis</i>	
Hemiptera	Lygaeidae	<i>Ligyrocoris diffusus</i>	
Hemiptera	Miridae	<i>Collaria meilieurii</i>	
Hemiptera	Miridae	<i>Lygus</i> sp.A	
Hemiptera	Nabidae	<i>Nabis</i> sp.A	
Hemiptera	Nabidae	<i>Nabis</i> sp.B	
Hemiptera	Pentatomidae	<i>Chlorochroa faceta</i>	
Hemiptera	Reduviidae	<i>Barce</i> sp.A	
Hemiptera	Scutelleridae	<i>Homaemus aeneifrons</i>	Shield-backed Bug
Hemiptera	Scutelleridae	<i>Homaemus bijugis</i>	
Hemiptera	Thyreocoridae	<i>Galgupha ovalis</i>	
Hymenoptera	Apidae	<i>Bombus fervidus</i>	Yellow Bumble Bee
Hymenoptera	Crabronidae	<i>Bembix nubilipennis</i>	
Hymenoptera	Crabronidae	<i>Bembix sayi</i>	
Hymenoptera	Crabronidae	<i>Bembix spinolae</i>	
Hymenoptera	Crabronidae	<i>Ectemnius borealis</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Hymenoptera	Halictidae	<i>Lasioglossum paraforbesii</i>	
Hymenoptera	Ichneumonidae	<i>Therion morio</i>	
Hymenoptera	Pompilidae	<i>Pompilus arctus</i>	
Hymenoptera	Sphecidae	<i>Ammophila harti</i>	
Hymenoptera	Vespidae	<i>Dolichovespula arenaria</i>	Aerial Yellowjacket
Hymenoptera	Vespidae	<i>Vespula vulgaris</i>	Common Yellowjacket
			Scarletwinged Lichen
			Moth
Lepidoptera	Arctiidae	<i>Hypoprepia miniata</i>	
Lepidoptera	Nymphalidae	<i>Phyciodes tharos</i>	Pearl crescent
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Coenagrionidae	<i>Enallagma boreale</i>	Boreal Bluet
Odonata	Coenagrionidae	<i>Ischnura verticalis</i>	Eastern Forktail
Odonata	Lestidae	<i>Lestes congener</i>	Spotted Spreadwing
Odonata	Lestidae	<i>Lestes unguiculatus</i>	Lyre-tipped Spreadwing
			Spotted Wing
Orthoptera	Acrididae	<i>Cordillacris occipitalis</i>	Grasshopper
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
			Tiny Spur-throat
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	

Sand Hill WMA			
Order	Family	Species	Common name
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.D	
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket
Orthoptera	Gryllidae	<i>Oecanthus nigricornis</i>	Black-horned Tree Cricket
Orthoptera	Tettigoniidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid
Orthoptera	Tettigoniidae	<i>Orchelimum gladiator</i>	Gladiator Meadow Katydid

Silver Lake WMA

Silver Lake WMA			
Order	Family	Species	Common name
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hymenoptera	Megachilidae	<i>Megachile frigida</i>	
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Common Wood Nymph
Odonata	Aeshnidae	<i>Aeshna interrupta</i>	Variable Darner
Odonata	Coenagrionidae	<i>Enallagma ebrium</i>	Marsh Bluet
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Western Forktail
Odonata	Lestidae	<i>Lestes rectangularis</i>	Slender Spreadwing
Odonata	Libellulidae	<i>Libellula quadrimaculata</i>	Four-spotted Chaser
Orthoptera	Acrididae	<i>Cordillacris occipitalis</i>	Spotted Wing Grasshopper
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid

Sheyenne National Grassland

Sheyenne National Grassland			
Order	Family	Species	Common name
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteenspotted Lady Beetle
Coleoptera	Lycidae	<i>Calopteron discrepans</i>	Banded Net-winged Beetle
Coleoptera	Scarabidae	<i>Eucanthus lazarus</i>	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
Hemiptera	Cicadellidae	<i>Draeculacephala antica</i>	
Hemiptera	Flatidae	<i>Metcalfa pruinosa</i>	Citrus Flatid Planthopper
Hemiptera	Miridae	<i>Lygus lineolaris</i>	Tarnished Plant Bug
Hemiptera	Miridae	<i>Lygus</i> sp.A	

Sheyenne National Grassland			
Order	Family	Species	Common name
Hemiptera	Nabidae	<i>Pagasa fusca</i>	
Hemiptera	Scutelleridae	<i>Homaemus aeneifrons</i>	Shield-backed Bug
Hymenoptera	Crabronidae	<i>Bembix nubilipennis</i>	
Hymenoptera	Crabronidae	<i>Bembix sayi</i>	
Hymenoptera	Halictidae	<i>Lasioglossum paraforbesii</i>	
Hymenoptera	Ichneumonidae	<i>Hoplismenus rutilus</i>	
Lepidoptera	Nymphalidae	<i>Phyciodes tharos</i>	Pearl crescent
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Orange Sulphur
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Odonata	Libellulidae	<i>Sympetrum occidentale</i>	Western Meadowhawk
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
Orthoptera	Acrididae	<i>Melanoplus infantilis</i>	Tiny Spur-throat Grasshopper
Orthoptera	Acrididae	<i>Melanoplus keeleri</i>	Keeler's Spur-throat Grasshopper
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.B	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.C	
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.D	
Orthoptera	Gryllidea	<i>Allonemobius allardi</i>	Allard's Ground Cricket
Orthoptera	Gryllidea	<i>Gryllus veletis</i>	Spring Field Cricket
Orthoptera	Gryllidea	<i>Oecanthus nigricornis</i>	Black-horned Tree Cricket
Orthoptera	Tettigonidae	<i>Scudderia furcata</i>	Fork-tailed Bush Katydid
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	Slender Meadow Katydid
Orthoptera	Tettigoniidae	<i>Orchelimum gladiator</i>	Gladiator Meadow Katydid

Stack Slough WMA

Stack Slough WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	
Coleoptera	Chrysomelidae	<i>Microrhopala vittata</i>	Goldenrod Leaf Miner
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteenspotted Lady Beetle
Coleoptera	Curculionidae	<i>Sitona scissifrons</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Diptera	Tipulidae	<i>Tipula cunctans</i>	
Ephemeroptera	Baetidae	<i>Callibaetis</i> sp.A	
Hemiptera	Reduviidae	<i>Sinea</i> sp.A	

Stack Slough WMA			
Order	Family	Species	Common name
Odonata	Coenagrionidae	<i>Enallagma ebrium</i>	Marsh Bluet
Odonata	Lestidae	<i>Lestes disjunctus</i>	Northern Spreadwing
Odonata	Lestidae	<i>Lestes dryas</i>	Emerald Spreadwing
Odonata	Lestidae	<i>Lestes unquiculatus</i>	Lyre-tipped Spreadwing
Orthoptera	Gryllacrididae	<i>Camptonotus carolinensis</i>	Carolina Leaf-roller
Orthoptera	Gryllidae	<i>Allonemobius</i> sp.A	

Sully's Hill NGP NWR

Sully's Hill NGP NWR			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Pasimachus elongatus</i>	
Coleoptera	Cerambycidae	<i>Dectes sayi</i>	
Coleoptera	Melodidae	<i>Epicauta pennsylvanica</i>	Black Blister Beetle
Coleoptera	Tenebrionidae	<i>Eleodes extricatus</i>	
Hemiptera	Cicadellidae	<i>Gypona melanota</i>	
Hemiptera	Membracidae	<i>Stictocephala taurina</i>	
Hemiptera	Pentatomidae	<i>Euschistus servus</i>	Brown stink bug
			Brown-belted Bumble Bee
Hymenoptera	Apidae	<i>Bombus griseocollis</i>	
Hymenoptera	Apidae	<i>Bombus ternarius</i>	Tri-colored Bumble Bee
Hymenoptera	Crabronidae	<i>Lyroda subita</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Hymenoptera	Halictidae	<i>Agapostemon texanus</i>	
Hymenoptera	Ichneumonidae	<i>Cratichneumon signatipes</i>	
Hymenoptera	Vespidae	<i>Dolichovespula arenaria</i>	Aerial Yellowjacket
Hymenoptera	Vespidae	<i>Dolichovespula maculata</i>	Bald-faced Hornet
Lepidoptera	Lycinidae	<i>Glaucoopsyche lygdamus</i>	Silvery Blue
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Cabbage white
Odonata	Aeshnidae	<i>Aeshna umbrosa</i>	Shadow Darner
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Western Forktail
Odonata	Coenagrionidae	<i>Nehalennia irene</i>	Sedge Sprite
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket

Turtle River State Park

Turtle River State Park			
Order	Family	Species	Common name

Turtle River State Park			
Order	Family	Species	Common name
Coleoptera	Chrysomelidae	<i>Disonycha alternata</i>	Striped Willow Leaf Beetle
Coleoptera	Chrysomelidae	<i>Disonycha pennsylvanica</i>	
Coleoptera	Coccinellidae	<i>Hippodamia tredecimpunctata</i>	Thirteenspotted Lady Beetle
Coleoptera	Scarabidae	<i>Serica intermixta</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.A	Red-banded Leafhopper
Hemiptera	Cicadellidae	<i>Graphocephala coccinea</i>	
Hymenoptera	Crabronidae	<i>Mimesa pauper</i>	
Hymenoptera	Crabronidae	<i>Solierella plenoculoides</i>	
Hymenoptera	Halictidae	<i>Lasioglossum semibrunneum</i>	
Hymenoptera	Sphecidae	<i>Ammophila harti</i>	
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	
Hymenoptera	Sphecidae	<i>Ammophila urnaria</i>	
Hymenoptera	Tiphiidae	<i>Tiphia tegulina</i>	Bald-faced Hornet
Hymenoptera	Vespidae	<i>Dolichovespula maculata</i>	
Hymenoptera	Vespidae	<i>Polistes annularis</i>	Jack Spaniard Wasp
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Golden-eyed Lacewing
Orthoptera	Acrididae	<i>Cordillacris occipitalis</i>	Spotted Wing Grasshopper
Orthoptera	Acrididae	<i>Melanoplus bivittatus</i>	Two-striped Grasshopper
Orthoptera	Gryllidae	<i>Gryllus pennsylvanicus</i>	Fall Field Cricket
Orthoptera	Tettigonidae	<i>Conocephalus nigropleurum</i>	Black-sided Meadow Katydid
Plecoptera	Chloroperlidae	<i>Haploperla orpha</i>	Quadrate Sallfly

Wells County WMA

Wells County WMA			
Order	Family	Species	Common name
Coleoptera	Carabidae	<i>Platynus hypolithos</i>	Northern Amber Bumble Bee
Coleoptera	Chrysomelidae	<i>Disonycha pennsylvanica</i>	
Coleoptera	Staphilinidae	<i>Staphylinus vulpinus</i>	
Diptera	Tabanidae	<i>Chryops</i> sp.B	
Hymenoptera	Andrenidae	<i>Pseudopanurgus nebrascensis</i>	
Hymenoptera	Apidae	<i>Bombus borealis</i>	
Hymenoptera	Apidae	<i>Bombus borealis</i>	

Wells County WMA			
Order	Family	Species	Common name
Hymenoptera	Apidae	<i>Nomada illinoensis</i>	
Hymenoptera	Megachilidae	<i>Megachile frigida</i>	Common Thread-waisted Wasp
Hymenoptera	Sphecidae	<i>Ammophila procera</i>	Orange Sulphur
Lepidoptera	Pieridae	<i>Colias eutyheme</i>	Cabbage white
Lepidoptera	Pieridae	<i>Pieris rapae</i>	Common Wood Nymph
Lepidoptera	Satyridae	<i>Cercyonis pegala</i>	Golden-eyed Lacewing
Neuroptera	Chrysopidae	<i>Chrysopa oculata</i>	Western Forktail
Odonata	Coenagrionidae	<i>Ischnura perparva</i>	Saffron-winged Meadowhawk
Odonata	Libellulidae	<i>Sympetrum costiferum</i>	Fork-tailed Bush Katydid
Orthoptera	Tettigoniidae	<i>Scudderia furcata</i>	Slender Meadow Katydid
Orthoptera	Tettigoniidae	<i>Conocephalus fasciatus</i>	

References

- Fauske, G.A. 1997. Orthoptera of the Northern Great Plains. North Dakota State University. http://www.ndsu.edu/ndmoths/hopper/orthoptera_home.htm (Version 05JAN2007)
- Fauske, G.A. 2009. Moths of North Dakota: an online identification guide. North Dakota State University. <http://www.ndsu.nodak.edu/ndsu/ndmoths/> (Version 14APR2009)
- Guenther, J.L. & W.P. McCafferty. 2005. Mayflies (Ephemeroptera) of the Great Plains. III: North Dakota. *Transactions of the American Entomological Society* 131(3-4):491-508.
- Hanley, G.A. 2005. Cerambycidae of North Dakota: An atlas and identification guide. *Cyril Moore Science Center Science Monograph #3*, Minot State University.
- Helgesen, R.G. & R.L. Post. 1967. Saprophagous Scarabaeidae (Coleoptera) of North Dakota. *North Dakota Insects Publication #7*. North Dakota State University.
- Kondratieff, B.C. (coordinator). 2000a. Mayflies of the United States. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/distr/insects/mfly/index.htm> (Version 12DEC2003).
- Kondratieff, B.C. (coordinator). 2000b. Dragonflies and Damselflies (Odonata) of the United States. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/distr/insects/dfly/index.htm> (Version 12DEC2003).
- Kondratieff, B.C. & R.W. Baumann. 1999. Studies on stoneflies of North Dakota with the description of a new *Perlesta* species (Plecoptera: Perlidae). *Proceedings of the Entomological Society of Washington* 101(2):325-331.
- Rider, D.A. 2012. The Heteroptera (Hemiptera) of North Dakota I: Pentamorpha: Pentatomoidea. *The Great Lakes Entomologist* 45(3-4):312-380.
- Royer, R.A. 1988. Butterflies of North Dakota: An atlas and guide (1st Edition). Minot State University Science Monograph 1. 192pp.
- Royer, R.A. 2003. Butterflies of North Dakota: An atlas and guide (2nd Edition). Minot State University Science Monograph 2. 192pp.
- Royer, R.A. 2004. Atlas of North Dakota Butterflies. Jamestown ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/insects/bflynd/index.htm> (Version 29MAR2004).
- U.S. Fish and Wildlife Service. 1995. North Dakota's federally listed endangered, threatened, and candidate species - 1995. U.S. Fish and Wildlife Service, Bismarck, ND. Jamestown, ND: Northern Prairie Wildlife Research Center Online.

<http://www.npwrc.usgs.gov/resource/wildlife/nddanger/index.htm> (Version 16JUL1997).

U.S. Fish and Wildlife Service. 2014. U.S. Fish and Wildlife Service Species Profile: American Burying beetle (*Nicrophorus americanus*). U.S. Fish and Wildlife Service, Environmental Conservation Online System.

<http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?sPCODE=I028> (Version 18JUN2014).