

CHECKLIST OF MANITOBA BUTTERFLIES (RHOPALOCERA)

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ABSTRACT. A list of butterflies (*Rhopalocera*) occurring in Manitoba is compiled from records of resident and non-resident collectors, published literature, museums, university collections and the author's collection.

It has been forty years since the last published checklist of Manitoba butterflies (*Rhopalocera*) by G. Shirley Brooks in "A Revised Check List of the Butterflies of Manitoba" (1942). Since that list is out-dated and not readily available, the present list has been prepared, including a number of species not previously recorded.

Many parts of Manitoba have been collected very sparingly, and I am afraid the habitat will be destroyed before these areas have been studied. There is very little virgin prairie left in this province, and some of that is not accessible to collectors. Some species in this habitat are threatened. Most of the province, however, is largely undeveloped, and there are large tracts of virgin forests, marshes, bogs, taiga and tundra untouched by the bulldozer. This will hopefully remain so for a long time.

It is hoped that this checklist will encourage more study of the fascinating butterfly fauna of Manitoba. Any comments and criticism of this list and the notes following it will be appreciated.

The sequence of taxa follows the order of the Miller and Brown Catalogue/Checklist (1981), and the species are numbered accordingly.

DISTRIBUTION

Most of Manitoba is covered by boreal forest including many lakes, rivers and bogs. The southern part, especially toward the west, consists of grasslands changing to an aspen parkland region farther north. The area bordering the coast of Hudson Bay contains some tundra.

For practical reasons the following definitions are used:

FN = Far North. An area just southwest of Hudson Bay. Here Churchill and vicinity have been collected quite intensively and most far north records are from here.

N = North. Northern third of the province excepting the far north. This area consists of boreal forest with many lakes, rivers and bogs. Not much collecting has been done in this area.

NW = Northwest. The western half of "N".

NE = Northeast. The eastern half of "N".

C = Central. The middle third of the province running north and south. Geographically this area is like the north. Very little collecting has been done here.

WC = West Central. The western half of "C".

EC = East Central. The eastern half of "C".

S = South. The southern third of the province.

SW = Southwest. The western half of "S". This area consists of dry prairie in the southwest turning to moist prairie farther north and east. A large part of this is in the parkland or transition zone and is broken up by the Turtle Mountain in the extreme south and the Riding and Duck Mountains to the north. Lake Manitoba is east of Riding Mountain. Most of this area is agricultural land with very little virgin prairie left.

SE = Southeast. The eastern half of "S". This area consists of boreal forest in the north, mixed forest farther south with moist prairie along the Red River valley. The southern end of Lake Winnipeg is included in this area. Most of the prairie is now in agriculture.

G = General Distribution. Covers the whole province.

Note: Only those areas for which there are actual records of butterflies have been listed. Some species probably cover a much larger area than is indicated in the checklist below.

CHECKLIST OF MANITOBA BUTTERFLIES (RHOPALOCERA)

Hesperiidae Latreille

<i>Epargyreus</i> Hübner	
<i>clarus clarus</i> (Cramer)—S, C	7a.
<i>Thorybes</i> Scudder	
<i>pylades</i> (Scudder)—G (except FN)	48.
<i>Erynnis</i> Schrank	
<i>icelus</i> (Scudder & Burgess)—G (except FN)	83.
<i>brizo brizo</i> (Boisduval & Leconte)—S, C	84a.
<i>juvenalis juvenalis</i> (Fabricius)—S	85a.
<i>martialis</i> (Scudder)—SE	92.
<i>lucilius</i> (Scudder & Burgess)—S	96.
<i>persius persius</i> (Scudder)—SW, NE, FN	99a.
<i>Pyrgus</i> Hübner	
<i>centaureae freiya</i> (Warren)—SE, WC, N, FN	100a.
<i>communis</i> (Grote)—S	104.
<i>Pholisora</i> Scudder	
<i>catullus</i> (Fabricius)—S	115.
<i>Carterocephalus</i> Lederer	
<i>palaemon mandan</i> (Edwards)—S, C	120a.
<i>Ancyloxypha</i>	
<i>numitor</i> (Fabricius)—S, C	142.
<i>Oarisma</i> Scudder	
<i>poweshiek</i> (Parker)—S	144.
<i>garita</i> (Reakirt)—S	145.
<i>Thymelicus</i> Hübner	
<i>lineola</i> (Ochsenheimer)—SE	150.
<i>Hesperia</i> Fabricius	
<i>uncas uncas</i> Edwards—SW	156a.
<i>comma assiniboia</i> (Lyman)—S	158b.
<i>c. borealis</i> Lindsey—NE, FN	158d.
<i>ottoe</i> Edwards—S	160.
<i>leonardus</i> Harris—SE	161.
<i>pawnee</i> Dodge—SW	162.
<i>dacotae</i> (Skinner)—S	169.
<i>sassacus manitoboides</i> (Fletcher)—SE	171b.
<i>nevada</i> (Scudder)—SW	173.

<i>Polites</i> Scudder	
<i>coras</i> (Cramer)—S	174.
<i>themistocles</i> (Latreille)—S	179.
<i>mystic dacotah</i> (Edwards)—S, WC	181b.
<i>Atrytone</i> Scudder	
<i>logan lagus</i> (Edwards)—SW	189b.
<i>Poanes</i> Scudder	
<i>hobomok</i> (Harris)—S	197.
<i>Euphyes</i> Scudder	
<i>ruricola metacomet</i> (Harris)—S, C	217b.
<i>Atrytonopsis</i> Godman	
<i>hianna hianna</i> (Scudder)—S	219a.
<i>Amblyscirtes</i> Scudder	
<i>hegon</i> (Scudder)—SE	235.
<i>vialis</i> (Edwards)—S	245.
	Papilionidae Latreille
<i>Papilio</i> Linnaeus	
<i>polyxenes asterius</i> Stoll—SE	303a.
<i>bairdii</i> Edwards—SW	308.
<i>kahli</i> F. & R. Chermock—SW	306.
<i>machaon hudsonianus</i> Clark—SW, WC, N	310b.
<i>crephontes</i> Cramer—S	314.
<i>glaucus canadensis</i> Rothchild & Jordan—G	320b.
<i>troilus troilus</i> Linnaeus—SE(?)	325a.
	Pieridae Duponchel
<i>Pieris</i> Schrank	
<i>protodice</i> Boisduval & Leconte—S	334.
<i>occidentalis occidentalis</i> Reakirt—S, FN	335a.
<i>napi oleracea</i> Harris—G	336d.
<i>rapae</i> (Linnaeus)—S, FN	338.
<i>Euchloe</i> Hübner	
<i>ausonides mayi</i> F. & R. Chermock—G	341c.
<i>olympia</i> (Edwards)—SW	344.
<i>Colias</i> Fabricius	
<i>philodice philodice</i> Godart—S, C	351a.
<i>eurytheme</i> Boisduval—S, FN	352.
<i>alexandra christina</i> Edwards—SW, WC	355e.
<i>hecla hela</i> Strecker—FN	357b.
<i>boothii</i> Curtis—FN	358.
<i>nastes moina</i> Strecker—FN	360c.
<i>gigantea gigantea</i> Strecker—FN	362a.
<i>g. mayi</i> F. & R. Chermock—SW	362c.
<i>pelidne pelidne</i> Boisduval & Leconte—FN	363a.
<i>interior interior</i> Scudder—S, WC	364a.
<i>palaeno chippewa</i> Edwards—FN	365a.
<i>cesonia</i> (Stoll)—SW	368a.
<i>Eurema</i> Hübner	
<i>mexicana</i> (Boisduval)—SW	380.
<i>Nathalis</i> Boisduval	
<i>iole</i> Boisduval—S	389.
	Lycaenidae Leach
<i>Feniseca</i> Grote	
<i>tarquinius tarquinius</i> (Fabricius)—S	391a.
<i>Lycaena</i> Fabricius	
<i>xanthoides dione</i> (Scudder)—S	395b.

<i>hyllus</i> (Cramer)—S	398.
<i>epixanthe michiganensis</i> Rawson—SE	402b.
<i>dorcas dorcas</i> Kirby—G	403a.
<i>helloides</i> (Boisduval)—S	404.
<i>Harkenclenus</i> dos Passos	
<i>titus titus</i> (Fabricius)—S	417a.
<i>Satyrium</i> Scudder	
<i>acadica acadica</i> (Edwards)—SE	420a.
<i>a. watrini</i> (Dufrane)—SW	420d.
<i>edwardsii</i> (Grote & Robinson)—S	423.
<i>calanus falacer</i> (Godart)—S	424b.
<i>liparops fletcheri</i> (Mitchener & dos Passos)—S	427c.
<i>Incisalia</i> Scudder	
<i>augustus augustus</i> (Kirby)—S, C, N	464a.
<i>polios polios</i> Cook & Watson—S, C, N	466a.
<i>henrici henrici</i> (Grote & Robinson)—SE	468a.
<i>niphon clarki</i> Freeman—S, C	470b.
<i>eryphon eryphon</i> (Boisduval)—N	471a.
<i>Strymon</i> Hübner	
<i>melinus humuli</i> (Harris)—S	478b.
<i>Everes</i> Hübner	
<i>comyntas comyntas</i> (Godart)—S, C	503a.
<i>amyntula albrighti</i> Clench—SW, WC, N, FN	504c.
<i>Celastrina</i> Tutt	
<i>ladon lucia</i> (Kirby)—G (except FN)	505b.
<i>l. argentata</i> (Fletcher)—SW	505c.
<i>Glaucopsyche</i> Scudder	
<i>lygdamus couperi</i> Grote—G (except FN)	514b.
<i>l. afra</i> (Edwards)—SW	514c.
<i>Plebejus</i> Kluk	
<i>Argyrognomon scudderii</i> (Edwards)—SW, WC, FN	516e.
<i>a. nabokovi</i> Masters—SE	516l.
<i>melissa melissa</i> (Edwards)—SW	517b.
<i>m. samuelis</i> Nabokov—SE	517a.
<i>saepiolus amica</i> (Edwards)—G	518a.
<i>optilete yukona</i> (Holland)—C, N, FN	525a.
<i>franklinii franklinii</i> (Curtis)—FN	526a.
<i>f. lacustris</i> (Freeman)—C, N	526b.
<i>f. rustica</i> (Edwards)—S	526e.

Heliconiidae Swainson

<i>Agraulis</i> Boisduval & Leconte	
<i>vanillae incarnata</i> (Riley)—SW	555b.

Nymphalidae Swainson

<i>Euptoieta</i> Doubleday	
<i>claudia</i> (Cramer)—S	562.
<i>Speyeria</i> Scudder	
<i>cybele pseudocarpenteri</i> (F. & R. Chermock)—S	565d.
<i>aphrodite aphrodite</i> (Fabricius)—SE	566a.
<i>a. manitoba</i> (F. & R. Chermock)—S	566d.
<i>idalia</i> (Drury)—S	567.
<i>edwardsii</i> (Reakirt)—SW	569.
<i>callippe calgariana</i> (McDunnough)—S	572p.
<i>atlantis atlantis</i> (Edwards)—SE	574a.
<i>a. hollandi</i> (F. & R. Chermock)—S, WC	574c.

<i>a. dennisii</i> dos Passos & Grey—SW	574u.
<i>mormonia eurynome</i> (Edwards)—SW	576i.
<i>Boloria</i> Moore	
<i>eunomia dawsoni</i> (Barnes & McDunnough)—G	578c.
<i>selene atrocostalis</i> (Huard)—S, WC, FN	579f.
<i>bellona bellona</i> (Fabricius)—S, WC, N	580a.
<i>frigga saga</i> (Staudinger)—G	581a.
<i>improba improba</i> (Butler)—FN	582a.
<i>polaris stellata</i> Masters—FN	585b.
<i>freiija freiija</i> (Thunberg)—G	586a.
<i>titania boisduvalii</i> (Duponchel)—FN	589a.
<i>t. grandis</i> (Barnes & McDunnough)—G (except FN)	589c.
<i>chariclea arctica</i> (Zetterstedt)—N	590a.
<i>Chlosyne</i> Butler	
<i>gorgone carlota</i> (Reakirt)—S	605b.
<i>nycteis nycteis</i> (Doubleday)—S	606a.
<i>n. reversa</i> (F. & R. Chermock)—SW	606c.
<i>harrisii harrisii</i> (Scudder)—S	607a.
<i>h. hanhami</i> (Fletcher)—S, WC	607c.
<i>Phyciodes</i> Hübner	
<i>tharos tharos</i> (Drury)—G	623b.
<i>batesii</i> (Reakirt)—S, C	624.
<i>Euphydryas</i> Scudder	
<i>phaeton phaeton</i> (Drury)—SE	635a.
<i>Polygonia</i> Hübner	
<i>interrogationis</i> (Fabricius)—S	636.
<i>comma</i> (Harris)—S	637.
<i>satyrus neomarsayas</i> dos Passos—S	638b.
<i>faunus faunus</i> (Edwards)—S, WC	639a.
<i>gracilis</i> (Grote & Robinson)—N, FN	643.
<i>progne</i> (Cramer)—S, N, FN	645.
<i>Nymphalis</i> Kluk	
<i>vau-album j-album</i> (Boisduval & Leconte)—S	646a.
<i>californica californica</i> (Boisduval)—S	647a.
<i>antiopa antiopa</i> (Linnaeus)—G	648a.
<i>milberti milberti</i> (Godart)—S, WC, FN	649b.
<i>Vanessa</i> Fabricius	
<i>virginiensis</i> (Drury)—S, FN	650.
<i>cardui</i> (Linnaeus)—S, WC, FN	651.
<i>atalanta rubria</i> (Fruhstorfer)—S, C, N	653a.
<i>Junonia</i> Hübner	
<i>coenia</i> Hübner—S	656.
<i>Limenitis</i> Fabricius	
<i>arthemis arthemis</i> (Drury)—SE	663a.
<i>s. rubrofasciata</i> (Barnes & McDunnough)—S, C	663b.
<i>archippus archippus</i> (Cramer)—S, WC	664a.
Satyridae Boisduval	
<i>Lethe</i> Hübner	
<i>antheson</i> Clark—S	711.
<i>eurydice eurydice</i> (Johansson)—S	713a.
<i>Euptychia</i> Hübner	
<i>cymela cymela</i> (Cramer)—S, C	723a.
<i>Coenonympha</i> Hübner	
<i>inornata inornata</i> Edwards—SW, C	728d.
<i>i. benjamini</i> McDunnough—S	728e.

<i>Cercyonis</i> Scudder	
<i>pegala olympus</i> (Edwards)—S	732e.
<i>Erebia</i> Dalman	
<i>rossi ornata</i> Leussler—FN	737a.
<i>disa mancinus</i> Doubleday & Hewitson—G	738a.
<i>discoidalis discoidalis</i> (Kirby)—G	741a.
<i>theano sofia</i> Strecker—FN	742a.
<i>episodea freemani</i> Ehrlich—SW, WC	744b.
<i>Neominois</i> Scudder	
<i>ridingsii ridingsii</i> (Edwards)—SW	748a.
<i>Oeneis</i> Hübner	
<i>macounii</i> (Edwards)—S	751.
<i>chryxus calais</i> (Scudder)—C	752b.
<i>uhleri varuna</i> (Edwards)—SW	753a.
<i>alberta alberta</i> Elwes—S	754a.
<i>bore</i> ssp.—FN	756.
<i>jutta ascerta</i> Masters & Sorensen—SE	757b.
<i>j. ridingiana</i> F. & R. Chermock—SW, WC	757c.
<i>j. harperi</i> Chermock—N, FN	757d.
<i>melissa semplei</i> Holland—FN	758c.
<i>polixenes polixenes</i> (Fabricius)—FN	759a.
Danaiidae Duponchel	
<i>Danaus</i> Kluk	
<i>plexippus</i> (Linnaeus)—S, WC	760.

NOTES

C. palaemon mandan—Type-locality—"Lake Winnipeg", restricted to Pine Ridge by F. M. Brown and L. Miller, is common in most wooded areas of southern Manitoba.

T. lineola, first recorded from Manitoba in the early 1970's, is now firmly established in Winnipeg and east of there (Preston and Westwood, 1981).

H. comma borealis from Churchill, should perhaps have another subspecific name.

P. asterius polyxenes is rare in southeastern Manitoba.

P. kahli—Type-locality—"Riding Mtns., Man.", is found mostly in the Riding Mountain and Duck Mountain area, but some are found as far east as the Red River. There seems to be some intergradation between this and the latter species and *P. machaon*.

E. ausonides mayi—Type-locality—"Riding Mtns., Manitoba".

C. hecla hecla—Type-locality—"above Fort Churchill".

C. nastes moina—Type-locality—"above Fort Churchill".

C. g. gigantea—Type-locality—"west coast of Hudson Bay above Fort York".

C. g. mayi—Type-locality—"Riding Mtns., Manitoba".

L. d. dorcas—Type-locality—"Lat. 54", restricted to The Pas, Manitoba, by Ferris.

H. t. titus—In southwestern Manitoba some specimens perhaps belong to *immaculatus*.

S. a. acadica flies in the southeast and *watrini* in the southwest.

S. liparops fletcheri—Type-locality—"Manitoba".

C. ladon argentata—Type-locality—"Cartwright, Manitoba", flies in southwestern Manitoba, while *lucia* is found in most of the rest of the province.

G. lygdamus afra—Type-locality—"Deer River country", restricted to vic. Brandon, Man. by F. M. Brown, flies in southwestern Manitoba with *couperi* in the rest of the province. They are quite hard to tell apart as they are variable in size and in the ventral spots and color.

P. argyrognomon scudderii—Type-locality—"Lake Winnipeg, Manitoba", flies in western Manitoba. The bands of submarginal orange lunules, both ventral and dorsal, are on the average more complete than in *nabokovi* which is found in the southeastern part of the province. The subspecies are very variable and so difficult to tell apart.

P. m. melissa flies in south and central Manitoba with *samuelis* in the southeastern corner.

P. f. franklinii is found in the Churchill area.

P. f. lacustris—Type-locality—"Norway House", is in central Manitoba.

P. f. rustica occurs in southern Manitoba.

S. aphrodite manitoba—Type-locality—"Sand Ridge", which is east of Riding Mountain. These formerly went under the name of *mayae* and occupy most of southern Manitoba. *S. a. aphrodite* is in the extreme southeast.

S. a. atlantis is sometimes found in the extreme southeast.

S. a. hollandi—Type-locality—"Riding Mtns., Manitoba", flies in most of southern Manitoba.

S. a. dennisi—Type-locality—"Beulah, Manitoba", closely resembles *lais* from Saskatchewan. It was known by that name for some time. It probably intergrades with that subspecies. In the Riding Mountain area, *hollandi* flies in the wetter areas and *dennisi* in the drier, more open areas, but adults feed at flowers in the same places. Should these belong to different species?

B. polaris stellata—Type-locality—"Churchill, Manitoba", flies in the Churchill area in odd-numbered years.

B. titania grandis flies in southern and central Manitoba.

B. t. boisduvalii from the north is abundant at Churchill.

C. nycteis reversa—Type-locality—"Riding Mountains, Manitoba", refers to most specimens from Manitoba, however some are like subspecies *nycteis* in facies.

C. harrisii hanhami—Type-locality—"Bird Hill, near Winnipeg, Manitoba", flies in southern Manitoba. There seems to be some intergradation with the subspecies *harrisii*, as some specimens are like the ones from Ontario in facies.

L. arthemis rubrofasciata—Type-locality—"Manitoba, Saskatchewan, Alberta", is common in southern Manitoba with some *artemis* found in the eastern part, where they intergrade.

L. eurydice, formerly known as *transmontana* in this area, is quite distinct as the ground color very pale, almost white in some specimens, as compared to the dark specimens found in eastern Ontario.

C. i. inornata—Type-locality—"Lake Winnipeg", emended to "Saskatchewan River between Lake Winnipeg and The Pas, Man.", by F. M. Brown, flies mostly in the parklands area and *benjamini* on the prairies in southern Manitoba. *C. ochracea* probably does not fly in the province.

E. rossii ornata—Type-locality—"Churchill", is abundant in the Churchill area most years.

E. theano sofia—Type-locality—"Fort Churchill, Manitoba" was formerly known as *canadensis*, is locally common at Churchill most years.

O. bore ssp., flies at Churchill in even-numbered years. It is quite rare most years, but locally more common, in some. It is quite variable and has a darker ground color than bore *hanburyi* from Baker Lake, N. W. Territories, Canada.

O. jutta ascerta flies in eastern Manitoba. It is dark and the orange bands are less developed or even lacking in some males. It is found in the odd-numbered years with the rare exception.

O. j. ridingiana—Type-locality—"Riding Mountains, Manitoba", is found mostly in even-numbered years in western Manitoba, but some fly every year. The orange bands are well developed.

O. j. harperi—Type-locality—"Gillam, Manitoba", is a little smaller than the two preceding subspecies. It is quite variable with the orange bands in some females well developed to faint in others. It resembles *alaskensis*. It is common at Churchill every year.

Some butterflies have, over a number of years, been taken very rarely in Manitoba. The following are probably strays from the south: *P. cresphontes*, *P. t. troilus*, *C. cesonia*, *E. mexicana*, *N. iole*, *A. vanillae*, *S. idalia* and *N. californica*.

There are also some species that, although rare, apparently breed in the province. Some of these may be seen to be more common after the areas have been more exten-

sively collected. Here is a list of these: *P. catullus*, *O. poweshiek*, *H. ottoe*, *H. dacotae*, *H. nevada*, *A. logan*, *P. bairdii*, *E. olympia*, *L. epixanthe*, *I. eryphon*, *S. melinus*, *S. edwardsii*, *S. callippe*, *E. phaeton*, *P. gracilis*, *J. coenia* and *N. ridinsii*.

A small number have been included that maybe should be deleted from the list. *Papilio bairdii* is included based on records from Beulah and Birtle and records of *bairdii oregonia* from Beulah. The author suspects that these may be misidentified specimens of *machaon* or *kahli*. The latter is quite variable. *C. boothii*, *C. pelidne* and *B. improba* have been recorded from "north Manitoba". *C. boothii* and *B. improba* could occur northwest of Churchill and *C. pelidne* could be found east of there. *B. chariclea* is recorded from Kettle Rapids. Formerly *Boloria titania* from Manitoba were called *chariclea titania*. As there is no proven reason to the contrary, the above specimens are all included in the checklist.

The following species, included in older lists, have been deleted: *H. comma manitoba*, no records for Manitoba.

P. zelicaon probably does not occur in the province. The records possibly refer to *machaon* or forms of *kahli*.

E. ausonides coloradensis is supposed to fly in southeastern Manitoba. I cannot see any difference between the *mayi*, type-locality, "Riding Mtns., Man.", and the *ausonides* from the rest of the province.

P. zephyrus recorded from Aweme and Beulah probably were misidentified *Polygonia*.

S. cypris = *ethene* and *S. a. columbia* included in older lists probably are *S. a. manitoba*, which they closely resemble.

S. lais, included in old lists flies in Saskatchewan and Alberta and intergrades with *dennisi* in Manitoba.

S. calanus calanus recorded as *calanus* is deleted as the subspecies that flies in the province is *falacer*.

S. heathii, also omitted, because it is an aberration of the latter.

S. liparops strigosa does not occur in the province. Although some specimens of *fletcheri* from Manitoba closely resemble *strigosa* with no orange spots on the fore-wings, these occur in the same populations together with specimens having orange patches covering one-half of the front wings. This subspecies is very variable.

Mitoura spinetorum probably does not fly in Manitoba.

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LITERATURE CITED

- BROOKS, G. SHIRLEY. 1942. A check list of the butterflies of Manitoba. *Can. Entomol.* 74:31-36.
- MILLER, LEE D. & F. MARTIN BROWN. 1981. A Catalogue/Checklist of the Butterflies of America North of Mexico. *The Lepid. Soc. Memoir No. 2.* 280 pp.
- PRESTON, W. B. & A. R. WESTWOOD. 1981. The European Skipper, *Thymelicus lineola* (Lepidoptera: Hesperiidae), in Manitoba and Northwestern Ontario. *Can. Entomol.* 113:1123-1124.
- WALLIS, J. B. 1927. A Colour Key to the Manitoban Butterflies. *Nat. Hist. Soc. Man.* 31 pp.



Klassen, P. 1984. "CHECKLIST OF MANITOBA CANADA BUTTERFLIES RHOPALOCERA." *Journal of the Lepidopterists' Society* 38, 32–39.

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