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## A LIST OF THE BUTTERFLIES OF MICHIGAN

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In the *Fourteenth Report* of the Michigan Academy of Science, 1912, there was published a "Check List of Michigan Rhopalocera," by W. W. Newcomb. This is the only comprehensive record of Michigan butterflies that has appeared. It contains 101 species. As more than twenty-five years have elapsed since its publication, during which time twenty-three additional species have been taken in Michigan, it has seemed desirable to issue a new list and to give the known distribution of each species in the state.

There have been several lists published for parts of the state. In 1893 R. H. Wolcott<sup>1</sup> recorded the butterflies of Grand Rapids, and in 1915 Paul S. Welch<sup>2</sup> listed twenty-six butterflies in Cheboygan County. W. S. McAlpine<sup>3</sup> noted thirty-eight species in Chippewa County, and I<sup>4</sup> published a list of sixty-eight from northern Michigan and one<sup>5</sup> of forty-five from the Beaver Islands (Charlevoix County).

<sup>1</sup> "The Butterflies of Grand Rapids, Mich.," *Can. Ent.*, 25(1893): 98-107.

<sup>2</sup> "The Lepidoptera of the Douglas Lake Region, Northern Michigan," *Ent. News*, 26(1915): 115-19.

<sup>3</sup> "A Collection of Lepidoptera from Whitefish Point," *Occ. Papers Mus. Zool. Univ. Mich.*, 54(1918): 1-26, 1 map.

<sup>4</sup> "A List of Northern Michigan Lepidoptera," *Occ. Papers Mus. Zool. Univ. Mich.*, 114(1922): 1-28.

<sup>5</sup> "Lepidoptera of the Beaver Islands," *ibid.*, 214(1930): 1-28.

Expeditions of the Museum of Zoology to Isle Royale, to the the Porcupine Mountains in Gogebic County, and to Berrien, Schoolcraft, Alger, and Marquette counties, have brought back some butterflies, and Wayne, Oakland, Washtenaw, and Livingston counties have been well covered. In the Port Huron Public Library there is a good collection from St. Clair County made by Edward Lohrstorfer. I have collected extensively in Schoolcraft and Mackinac counties, and on the Beaver Islands in Lake Michigan. The records from other counties have been obtained on short trips by members of the Museum staff and by collectors from the Detroit area.

There are large expanses in the state in which no collecting has been done. In twenty-five of the eighty-three counties no specimens have been taken, and from only thirty-six counties have ten or more species been recorded. These thirty-six counties are shown on Map 1 by circles; the number within the circle indicates the number of species taken in that county. Isle Royale and the Beaver Islands have been treated as separate counties.

The present list is based upon all previously published records, upon the collection in the Museum of Zoology, University of Michigan, upon my own collection, and upon the collections of George W. Rawson, Walter C. Stinson, William VanDeurs, and Edward Lohrstorfer, all of which I have examined. So called "sight records," unsupported by specimens, have, as a rule, been omitted. There are undoubtedly many locality and date records that I have not seen. The collections of W. W. Newcomb and of W. S. McAlpine have not been available in their entirety. The most serious omission is that of the records contained in the collection at Michigan State College.

The present list contains 124 species known from the state, and three doubtful records which have not been numbered. Austin H. Clark<sup>6</sup> states that in the collection in the U. S. National Museum there is a male specimen of *Enodia creola* labeled as having been taken by Bruce in Michigan. The specimen came from the collection of E. T. Owen, which was rich in

<sup>6</sup> *Proc. Ent. Soc. Wash.*, 37(1935), No. 5.



southern material, and it is probable that the labels have become mixed. Several specimens of *Phyciodes* collected by G. W. Rawson in Michigan apparently agree perfectly with specimens in the U. S. National Museum marked *P. batesi*. As *P. tharos* is variable in Michigan, and as many specimens are intermediate between what appears to be *batesi* and typical *tharos*, it has seemed best to exclude the name until its status is better understood. A number of specimens of a *Thanaos*, which seem to be neither *persius* nor *lucilius* and may be *baptisiae*, have been taken in the state. The last species should occur in the state, but the specimens now at hand cannot be definitely determined as this species.

Of the species listed, I have seen Michigan specimens of all but three. *Chlorippe clyton* was reported from Grand Rapids by Wollcott, and H. B. Baker says that he reared it from larvae taken at East Lansing about 1892. Specimens that he reared should be in the collection at Michigan State College. *Libythea bachmani* was also reported from Grand Rapids by Wollcott. No specimens have been taken since, but it is too distinct to admit the possibility of misidentification. *Goniurus proteus* is admitted to the record on the authority of W. W. Newcomb who saw the specimens, which were taken on Belle Isle, Detroit. They probably had been imported on shipments from the south.

The arrangement and nomenclature adopted for the following list is that of Barnes and McDunnough.<sup>7</sup> The counties in which each species has been taken are recorded, with the earliest and latest date of capture in each county. In some instances the month only is known, and, particularly for the species listed from Kent County by Wollcott, a few dates are not given.

1. *Papilio philenor* Linn.

Washtenaw, July–Sept.; Wayne, Oct.

2. *Papilio polyxenes asterius* Cram.

Ingham, May; Iosco, May 26; Kent; Livingston, May 28–Aug. 24; Midland, Sept.; Oakland, May–July; Oceana, July

<sup>7</sup> William Barnes and J. McDunnough, *Check List of the Lepidoptera of Boreal America* (Decatur, Ill., 1917), viii + 392 pp.

25; Schoolcraft, June 12; St. Clair, May 25; Washtenaw, July; Wayne, May 17-Aug. 8.

3. *Papilio cresphontes* Cram.

Berrien, Aug.; Kent; Livingston, July 30; Macomb, Aug. 6; Oakland, June 14; St. Clair; Washtenaw, June 10-Sept.; Wayne, July-Aug. 8.

4. *Papilio glaucus* Linn.

Benzie, June; Berrien, June-Aug.; Cass, July 5; Charlevoix, June 20-July; Cheboygan, June 3; Chippewa, June 2-July 8; Clare, July 13; Crawford, June 30; Dickinson, July 10; Huron, June; Iosco, May 26-30; Jackson, June; Kent; Keweenaw (Isle Royale), June 12; Leelanau, June 26; Livingston, June-Aug. 16; Mackinac, May 29-July 1; Midland, July 14; Montmorency, May 29; Oakland, June 10-Aug.; Oceana, July 25; Oscoda, May 30-July 10; Schoolcraft, May 20-July 16; St. Clair; Washtenaw, June 10; Wayne, July-Aug. 8.

The melanic female has been taken in Berrien and Livingston counties.

5. *Papilio troilus* Linn.

Berrien, July-Aug.; Gogebic, July 30; Kent; Lake, Aug. 1; Lapeer, Sept. 6; Livingston, May 19-Aug. 28; Muskegon, June 19; Oakland, May-Aug. 8; Oceana, July 25-27; St. Clair; Washtenaw, May 15-Aug.; Wayne, June 1-Aug. 8.

6. *Papilio marcellus* Cram.

Allegan, July 18; Berrien, June-Aug.; Branch, July 9; Huron, July; Kent; St. Clair; Washtenaw, June 17-Sept.; Wayne, May-Aug.

7. *Pieris protodice* Bdv. and Lec.

Bay, July 16; Berrien, July 22-Aug.; Cass, July 8; Cheboygan, May 12; Chippewa, July; Crawford, July 24; Grand Traverse, July 15; Hillsdale, July 9; Ingham, June 11; Kalkaskia, Aug. 4; Kent; Livingston, April 26-Aug. 16; Mackinac, Aug. 21-Oct. 14; Midland, July 14; Oakland, Apr. 23-Sept.; Oceana, July 23; Otsego, July 29; St. Clair; Washtenaw, Apr. 26-Sept.; Wayne, June 10.

The form *vernalis* Edw. occurs in April and May. The records have not been separated.

8. *Pieris napi* Linn.

Alger, July; Arenac, July 17; Benzie, Apr.–June; Cass, July 8; Charlevoix, May 26–Aug. 4; Cheboygan, May 12; Chippewa, July–Aug.; Crawford, May 29; Dickinson, July 24–Aug. 20; Emmet, July 27; Jackson, June; Gogebic, July 15; Kent; Keweenaw (Isle Royale), June 4; Livingston, June–July 26; Mackinac, May 12–Sept. 8; Oakland, Apr. 23; Otsego, July 29; Schoolcraft, June 17–July 26; Washtenaw, Aug. 17.

In the northern part of the state the spring form, *oleracea* Harris, and the summer form, *cruciferarum* Bdv., are distinctly separable. Specimens from the southern counties frequently appear to be intermediate.

9. *Pieris rapae* Linn.

Alger, July; Bay, July 16; Benzie, Apr.; Berrien, Aug; Cass, July 4; Charlevoix, May 29–Sept. 1; Cheboygan; Chippewa, July–Aug.; Clare, July 13; Dickinson, June 29–Aug. 14; Grand Traverse, July 15; Huron, May 7–30; Kent; Livingston, June–Aug. 17; Mackinac, May 29–Sept. 3; Marquette, July; Oakland, May–June 10; Oceana, July 23; Otsego, Aug. 19; Roscommon, May 28; Schoolcraft, May 30; St. Clair, Oct. 2; Washtenaw, May–Sept.; Wayne, Aug. 8.

The form *immaculata* Ckll. is of frequent occurrence in early spring.

10. *Nathalis iole* Bdv.

Gogebic, July 29; Ottawa, Oct. 13; Wayne, Aug.

This butterfly usually occurs as a fall migrant from the south, but the records in midsummer indicate that it may occasionally breed here.

11. *Zegris olympia* Edw.

Berrien, May; Cheboygan, May 12; Crawford, May 28–30; Huron, May 14; Iosco, May 26–30; Montmorency, May 29–31; Oscoda, May 30; Roscommon, May 29; Schoolcraft, May.

Michigan specimens seem to be intermediate between typical *olympia* and form *rosa*.

12. *Catopsilia eubule* Linn.

Chippewa, July; Kalamazoo, Aug.; Livingston, Oct. 13.

Probably a straggler of more frequent occurrence in the state than the records indicate.

13. *Zerene caesonia* Stoll.

Berrien, Aug. ; Kent ; Livingston, June 9 ; St. Clair.

14. *Eurymus eurytheme* Bdv.

Cheboygan ; Chippewa, June 21–July 9 ; Dickinson, July 24 ; Kent ; Keweenaw, Sept. 10 ; Livingston, May 15–Oct. 16 ; Mackinac, July 4–Oct. 15 ; Oakland, June 15–Sept. 10 ; Roscommon, Sept. 3 ; Schoolcraft, July 12 ; St. Clair ; Washtenaw, July–Oct. 2 ; Wayne, May 28–Oct.

15. *Eurymus philodice* Godt.

Alger, July ; Benzie, July ; Berrien, July ; Cass, July 8 ; Charlevoix, May 29–Oct. 1 ; Cheboygan ; Chippewa, June 24–Sept. ; Dickinson, June 30–Aug. 14 ; Emmet, May 29 ; Gogebic ; Iosco, July 23 ; Kent ; Keweenaw (Isle Royale) ; Lapeer, Sept. 6 ; Livingston, May 28 ; Mackinac, May 29–Oct. 14 ; Montmorency, May 31 ; Oakland, June 10 ; Oceana, July 25 ; Otsego, July 29 ; Roscommon, Sept. 3 ; Schoolcraft, June–Sept. 22 ; St. Clair, Oct. 2 ; Washtenaw, May–Oct. ; Wayne, May 17–Nov. 9.

16. *Eurymus interior* Scud.

Alger, July 10 ; Alpena, July 10 ; Benzie, May ; Charlevoix, July ; Cheboygan, May 28 ; Chippewa, July–Aug. ; Dickinson, June 30–Aug. 20 ; Emmet, June–July ; Iosco, July 2–24 ; Kalkaskia, Aug. 4 ; Mackinac, June 21–Aug. 5 ; Marquette, July ; Montmorency, July ; Oscoda, June 22 ; Presque Isle, July 23 ; Schoolcraft, July 12–26 ; Washtenaw, July 18.

17. *Eurema lisa* Bdv.

Alger, July 10 ; Charlevoix, July 15–Aug. 15 ; Chippewa, June 24–July ; Emmet, July 26–30 ; Huron, July 20 ; Jackson, June ; Kent ; Livingston Co., July 3 ; Mackinac, June 18–Sept. 4 ; Macomb, June 20 ; Marquette, July 8 ; Presque Isle, July 28 ; Washtenaw, July 19 ; Wayne, Aug. 8.

18. *Danaus archippus* Fabr.

Alger, July ; Alpena, June 18 ; Benzie, July ; Berrien, July–Aug. ; Cass, July 8 ; Charlevoix, Aug. 3–Sept. 9 ; Cheboygan ; Chippewa, Aug. 7 ; Dickinson, Aug. 18 ; Emmet, July ; Huron, June–Aug. ; Iosco, July 23–Aug. 26 ; Kent ; Keweenaw (Isle Royale), Aug. ; Lapeer, Sept. 6 ; Livingston, July 13–Sept. 17 ; Mackinac, May 20–Sept. 9 ; Macomb, Aug. 8 ; Midland, Aug. ; Oakland, June 1–Aug. 3 ; Oceana, July 24 ; Otsego, Aug. 19 ;

Ottawa, Oct. 13; Rosecommon, Sept. 3; Schoolcraft, June 10–Sept. 26; St. Clair; Washtenaw, June 20–Sept. 1; Wayne, Aug. 2–Sept. 21.

19. *Enodia portlandia* Fabr.

Alger, July; Arenac, July 17; Chippewa, July 8; Dickinson, July 5–Aug. 5; Huron, July 20; Iosco, July 2–24; Livingston, July 11–21; Mackinac, June 30–July 8; Oakland, June 29–July 20; Presque Isle, July; Schoolcraft, July; Washtenaw, July 13; Wayne.

*Enodia creola* Skin.

Michigan, in National Museum. Probably an erroneous label.

20. *Cissia mitchelli* French.

Cass, July 4–8; Kalamazoo, July 12; Kent, July; Washtenaw, July 11.

21. *Cissia eurytus* Fabr.

Arenac, July 17; Benzie, July; Berrien, July; Cass, July 8; Chippewa, June 24; Dickinson, June 29–July 26; Grand Traverse, June 7; Huron, June 26–July 23; Kent; Livingston, June 4–July 17; Muskegon, June 19; Oakland, May 31–July 17; Oscoda, June 21; Saginaw, July 1; St. Clair; St. Joseph, July 10; Washtenaw, May–July.

22. *Satyrodes canthus* Linn.

Arenac, July 17; Benzie; Cass, July 8; Charlevoix, July 10–Aug. 12; Chippewa, July 8; Clare, July 13; Dickinson, July 1–Aug. 6; Grand Traverse, July 15; Huron, June 23–July 20; Iosco, July 2–6; Jackson, June; Kent; Livingston, June 20–Aug. 16; Mackinac, June 30–Aug. 15; Macomb, July 9; Muskegon, July 21; Oakland, July 16–Aug. 4; Oceana, July 25; Otsego, July 29; Schoolcraft, July–Aug.; St. Clair; Washtenaw, June 21–Aug. 10; Wayne, Aug.–Sept.

23. *Coenonympha inornata* Edw.

Charlevoix, July 17; Chippewa, June 23–July 8; Mackinac, June 18–30; Schoolcraft, June 27–Aug. 2.

24. *Cercyonis alope nephele* Kirby

Alger, July; Arenac, July 17; Benzie, Aug.; Charlevoix, July 10–Aug. 22; Cheboygan, July; Dickinson, July 13–Aug.



20; Emmet, July 27; Gogebic, July; Grand Traverse, July 15–Aug. 7; Ingham, Aug.; Iosco, July 12–Aug. 29; Kalkaskia, Aug. 4; Kent; Lapeer, Sept. 6; Leelanau, July 6; Livingston, July 12–Aug. 16; Mackinac, June 25–Aug. 20; Manistee, Aug. 12; Marquette, July; Midland, July 14; Muskegon, July 20; Oakland, July 10–Aug. 3; Oscoda, Aug.; Otsego, July 29; Schoolcraft, July–Aug.; St. Clair, Aug. 6; Washtenaw, July–Aug.; Wayne, July 11–Aug. 12.

Although all Michigan specimens have been listed under form *nephele*, occasional specimens are very close to typical *alope*. Specimens which agree exactly with form *ariane* have been taken.

25. *Oeneis chryxus* Dbldy. and Hew.

Crawford, May 31; Emmet, May; Iosco, May 26; Montmorency, May 29; Roscommon, May 28; Schoolcraft, May 27–June 12.

McDunnough states that Michigan specimens are near form *strigulosa*.

26. *Oeneis jutta* Hbn.

Dickinson, June 29.

27. *Euptoieta claudia* Cram.

Berrien, Aug.; Chippewa, July; Kent; Livingston, July 26; Oakland, Sept. 10; Schoolcraft; St. Clair; Wayne, Aug. 8.

28. *Argynnis idalia* Dru.

Berrien, July–Aug.; Kent; Livingston, July 10–31; Oakland, Aug.; St. Clair; Washtenaw, July 19–Sept.

29. *Argynnis cybele* Fabr.

Alcona, July; Alger, July 10; Allegan, July; Arenac, July 2–17; Benzie; Berrien, June–Aug.; Cass, July 8; Charlevoix, July; Cheboygan, July; Chippewa, July 8; Dickinson, July 5–Aug. 26; Emmet, Aug.; Gogebic, July 10; Huron, June–July; Iosco, July 4; Jackson, June; Kent; Keweenaw, July; Lapeer, Sept. 6; Leelanau, June 23–July 6; Livingston, June 25–Aug. 16; Mackinac, June 24–Aug. 11; Macomb, June; Marquette, July; Montmorency, July; Muskegon, July 21; Oakland, July 3–Aug. 3; Otsego, July 29; Presque Isle, July 28; Schoolcraft, July 20–Aug. 15; St. Clair; Washtenaw, June 20–July 28; Wayne, Aug. 8.

30. *Argynnis aphrodite* Fabr.

Alcona, July; Alger, July 10; Arenac, July 2-17; Benzie; Charlevoix, July; Chippewa, June 24-Aug. 4; Crawford, July; Dickinson, July 24; Emmet, July; Huron, July; Iosco, July 3-Aug. 9; Jackson, June 29; Kalamazoo, July; Kalkaskia, Aug. 4; Kent; Keweenaw (Isle Royale), July-Aug.; Leelanau, July 6; Livingston, July 24-Aug. 17; Mackinac, July 8-Aug. 11; Marquette; Midland, July 14; Montmorency, July; Muskegon, July 21; Oakland, July 20; Otsego, July 29; Schoolcraft, Aug.; St. Joseph, July; Washtenaw, June 21-Aug. 19; Wayne, June-Aug. 8.

Many specimens run close to form *alcestis*.

31. *Argynnis atlantis* Edw.

Alcona, July; Alger, July; Alpena, July; Benzie; Charlevoix, Aug. 2; Cheboygan; Chippewa, June 24-Aug. 4; Crawford; Dickinson, Aug. 18; Gogebic, July 5-Aug.; Iosco, July 6-10; Keweenaw (Isle Royale), July-Aug.; Luce, June 26-Aug. 10; Mackinac, June 20-July 31; Marquette, July-Aug.; Osceola, Aug.; Otsego, July; Presque Isle, July 22; Schoolcraft, July 12-Sept. 10.

32. *Brenthis myrina* Cram.

Alger, July 10; Benzie, July; Charlevoix, June 15-Aug. 20; Cheboygan, May 28; Chippewa, June 27-July; Dickinson, July 29-Aug. 20; Gogebic, July 17-Aug.; Huron, Aug.; Kalamazoo, July 9; Kent; Keweenaw (Isle Royale), July-Aug. 14; Lake, Aug. 3; Leelanau, June 6-23; Livingston, June 3-Sept. 1; Mackinac, June 6-Aug. 15; Manistee, Aug. 12; Menominee, Aug. 26; Muskegon, July 20; Oakland, July 20; Oceana, July 27; Oscoda, May 15-Aug. 26; Schoolcraft, June 12-Aug. 24; St. Clair, Sept. 8; Washtenaw, June 10-Aug. 17; Wayne, July-Aug. 17.

33. *Brenthis bellona* Fabr.

Alcona, Aug. 8; Arenac, July 2-17; Cheboygan, May 28; Chippewa, July; Crawford, Aug. 3; Dickinson, June 29-Aug. 21; Emmet, May 30; Gogebic, July; Iosco, July 24; Kent; Keweenaw (Isle Royale), July; Livingston, Aug. 17; Mackinac, May 30-July 29; Macomb, June-Aug.; Muskegon, July 21; Oakland, May 11-July 8; Otsego, July 29; Schoolcraft, May 30-Aug. 20; St. Clair, May 7; Washtenaw, Aug. 17; Wayne, May-July.

34. *Euphydryas phaeton* Dru.

Arenac, July 17; Cass, July 8; Clare, July 13; Dickinson, July 6; Kent; Lenawee; Livingston, July 7-24; Mackinac, June 20-30; Macomb, June; Muskegon, June 19; Oakland, June 17-July 16; Washtenaw, June 21-July 11.

35. *Melitaea harrisi* Scud.

Arenac, July 2; Dickinson, July 6; Iosco, June 26-July 6; Jackson, June; Kent; Livingston, June 12-30; Oscoda, May 21-June 26; Washtenaw, June 10-26.

36. *Phyciodes gorgone* Hbn.

Dickinson, July 24-Aug. 7; Iosco, May 26; Kent; Oscoda, May 31-June 2.

37. *Phyciodes nycteis* Dbldy. and Hew.

Benzie, June; Cass, July 8; Charlevoix, June 14-20; Chippewa, June 25; Crawford, June 27; Dickinson, June 30; Grand Traverse, June 7; Huron, July; Iosco, June 26-July 4; Jackson, June; Kent; Leelanau, June 19-26; Livingston, June 25-July 10; Mackinac, June 8-July 3; Midland, July 15; Oakland, July 7-20; Oscoda, June 23-26; Saginaw, July; Schoolcraft, July 2-16; St. Clair; Washtenaw, July 4-19; Wayne, June 24.

38. *Phyciodes tharos* Dru.

Alcona, Aug.; Alger, July; Arenac, July 17; Benzie; Berrien, July-Aug.; Cass, July 8; Charlevoix, June-July; Cheboygan; Chippewa, June 25-July; Clare, July 13; Crawford, July 18; Dickinson, June 29-Aug. 20; Emmet, July; Gogebic; Huron, June 26-July 4; Iosco, June 26-July 23; Kalamazoo, July 9; Kent; Keweenaw (Isle Royale); Lake, Aug. 3; Leelanau, June 19-23; Livingston, June 30-Aug. 19; Mackinac, June 7-Aug. 25; Midland, June; Montmorency, May 31; Muskegon, July 21; Oakland, May 31-Aug. 3; Oceana, July 24-27; Oscoda, June 23-26; Otsego, July 29; Presque Isle, July 23; Roscommon, June 29; Schoolcraft, June 14-Aug. 26; St. Clair; St. Joseph, July 10; Washtenaw, July 4-Aug.; Wayne, June 16-Aug. 8.

*Phyciodes batesi* Reak.

Presque Isle, July 23; Montmorency, May 31.  
Probably not distinct from *tharos*.

39. *Polygonia interrogationis* Fabr.

Benzie, July; Berrien, June-Aug.; Cheboygan; Kent; Livingston, June 30-Oct. 13; Oakland, July-Sept.; Oceana, July 27; Presque Isle, July 23; Schoolcraft, July; St. Clair; Washtenaw, July 18-Sept.; Wayne, June 2-Sept. 20.

40. *Polygonia comma* Harris.

Alger, July; Arenac, July 17; Benzie, May-July; Berrien, Aug.; Charlevoix, July 8; Cheboygan; Chippewa, July; Dickinson, July 6-Aug. 14; Gogebic, July 10-15; Huron, May 7-Aug. 10; Iosco, July 10-24; Kent; Livingston, March-Oct. 15; Marquette, July 13; Oakland, Apr. 17-June 20; Oscoda, June 25-July 10; Schoolcraft, July; St. Clair; Washtenaw, Aug.-Sept.; Wayne, Apr. 18-Oct. 11.

41. *Polygonia satyrus* Edw.

Alger, July; Mackinac, July 6; Marquette, July; Schoolcraft, Sept. 18.

42. *Polygonia faunus* Edw.

Alger, July; Charlevoix, July 20; Cheboygan, July 24; Chippewa, July-Aug.; Dickinson, July 24-Aug. 18; Keweenaw, Aug. 18; Mackinac, July 14-Sept. 12; Marquette, July 10; Oscoda, July 24; Presque Isle, July 23; Schoolcraft, Aug. 18-Sept. 2.

43. *Polygonia gracilis* G. and R.

Chippewa, July.

44. *Polygonia progne* Cram.

Alger, July; Alpena, July 10; Benzie, July; Charlevoix, July 11-Sept. 25; Cheboygan, May 12; Chippewa, July 9; Dickinson, July 6-Aug. 20; Emmet, May; Gogebic, Aug.; Huron, Aug. 30; Iosco, May 26-July 10; Kent; Lapeer, Sept. 6; Mackinac, June 30-Oct. 3; Marquette, July; Muskegon, July 21; Oakland, July-Sept.; Oscoda, July 24; Otsego, July; Schoolcraft, July-Sept. 24; St. Clair; Washtenaw, July; Wayne, May 12-Oct. 11.

45. *Aglais j-album* Bdv. and Lec.

Alger, July; Arenac, July 17; Benzie, March-Aug.; Charlevoix, Aug. 10-31; Cheboygan, June 24-Aug. 21; Chippewa, July-Aug. 27; Crawford, Sept. 2-13; Gogebic, Aug.; Huron; Iosco, June 24-Aug. 24; Kent; Keweenaw (Isle Royale), Aug.

18; Mackinac, July 13–Oct. 21; Manistee, Aug. 12; Marquette, July; Oakland, Nov. 20; Oscoda, June 24–Sept.; Ostego, July 29; Presque Isle, July 23; Schoolcraft, Aug. 21–Oct. 1; St. Clair, Sept.; Washtenaw, July–Sept. 10; Wayne, July 2–Sept. 9.

46. *Aglais milberti* Godt.

Alger, July; Benzie, June; Charlevoix, June 20–July 15; Cheboygan; Chippewa, July; Dickinson, Aug. 20; Gogebic, Aug.; Iosco, July 2; Kent; Keweenaw (Isle Royale), Aug. 15–18; Livingston, March–Oct. 13; Mackinac, June 26–Sept. 9; Marquette, July; Montmorency, May 31; Oakland, Apr. 17–Sept. 10; Otsego, July 29; Schoolcraft, July–Oct. 2; St. Clair; Washtenaw, July 19–Sept.; Wayne, June 6–Aug. 12.

47. *Aglais antiopa* Linn.

Arenac, July 17; Benzie, May; Berrien, Aug.; Charlevoix, June 22–Oct. 29; Cheboygan, May 26–Aug.; Chippewa, May 12–July; Dickinson, June 29–Aug. 7; Emmet, July 27; Gogebic, July; Grand Traverse, July–Aug.; Huron, May 7–July; Iosco, May 26–Aug. 26; Kent; Keweenaw (Isle Royale), Aug. 18–Sept. 10; Lake, Aug. 1; Livingston, June 14–Oct. 13; Mackinac, June 2–Oct. 13; Marquette, July; Oakland, Apr. 17–May 31; Oscoda, July 24; Otsego, July 1–29; Schoolcraft, June–Oct.; St. Clair, Oct. 2; Washtenaw, Apr.–July 11; Wayne, Apr. 13–Sept. 15.

48. *Vanessa atalanta* Linn.

Alger, July; Arenac, July 17; Benzie, June; Berrien, June–Aug.; Charlevoix, June 18–Aug. 5; Cheboygan; Chippewa, June 25–July; Crawford, Aug. 3; Huron, July 21; Ingham, Aug.; Iosco, July 23; Kalkaskia, Aug. 4; Kent; Keweenaw (Isle Royale), July; Lapeer, Sept. 6; Leelanau, June 15; Livingston, July 13–Oct. 13; Mackinac, May 21–Oct. 13; Macomb, June 21; Marquette, July; Oakland, May 31–July 5; Oceana, July 27; Osceola, Aug.; Schoolcraft, July; St. Clair, Oct. 2; Washtenaw, May–Sept.; Wayne, May 7–Sept. 12.

49. *Vanessa virginiensis* Dru.

Benzie; Berrien, June–Aug.; Charlevoix, June 22–July 30; Cheboygan; Chippewa, June 21–July; Emmet, May; Huron, May 7; Iosco, July 23; Kent; Keweenaw (Isle Royale); Livingston, July 4–Oct. 15; Mackinac, June 10–Oct. 12; Marquette, July; Montmorency, May 31; Oakland, May; Schoolcraft, May

30-Sept.; St. Clair; Washtenaw, May-Oct. 2; Wayne, May 17-Sept.

50. *Vanessa cardui*, Linn.

Charlevoix, July 24-Sept. 17; Cheboygan; Chippewa, July 8; Kent; Keweenaw (Isle Royale), July-Aug.; Lapeer, Sept. 6; Livingston, July 7; Mackinac, July 27-Oct. 12; Macomb, July 7; Schoolcraft, Aug. 20-Oct. 15; St. Clair; Washtenaw, Aug. 22-Oct. 2; Wayne, June-Oct. 11.

51. *Junonia coenia* Hbn.

Charlevoix, Sept. 11; Chippewa, July; Mackinac, June 1-Sept. 6; Marquette, July; Ottawa, Oct. 13; Schoolcraft, July 31; St. Clair; Washtenaw, Oct. 2; Wayne, Oct. 5.

52. *Basilarchia astyanax* Fabr.

Berrien, June; Cheboygan; Huron, June-Aug.; Iosco, July 17-Aug. 26; Kent; Livingston, June-Aug. 2; Macomb, June 21-Aug. 6; Montmorency; Oakland, June 15-Aug. 26; Oscoda, June 25; Roscommon, June 30; St. Clair, Aug. 6; Washtenaw, June 20-Aug.; Wayne, June-Aug. 25.

The records above refer to typical *astyanax* only.

53. *Basilarchia arthemis* Dru.

Alger, July; Alpena, July 10; Benzie, July 23; Charlevoix, June 25-July 24; Cheboygan, Aug. 11; Chippewa, June 22-July; Dickinson, June 29-Aug. 20; Gogebic, July 10-Aug.; Iosco, July 4-10; Keweenaw (Isle Royale), July; Luce, June 26; Mackinac, June 15-Sept. 4; Manistee, Aug. 12; Marquette, July; Montmorency; Oscoda, June 25-July 10; Presque Isle, July 23; Schoolcraft, July 26-Aug. 3.

There seems to be but little doubt but that this and the preceding are the same species. Intermediate forms intergrade completely. The records above include all intermediate forms as well as typical *arthemis*.

54. *Basilarchia archippus* Cram.

Alcona, Aug. 8; Arenac, July 17; Benzie, June; Berrien, Aug.; Charlevoix, June-Aug.; Cheboygan, July; Chippewa, July 8; Crawford, Aug. 3; Dickinson, June 29-Aug. 20; Emmet, Aug.; Huron, July 23; Iosco, July 5-Aug. 26; Kalamazoo, Aug. 9; Kent; Lapeer, Sept. 6; Livingston, June 12-Aug. 29; Mackinac, June 26-Aug. 27; Montmorency, July; Oakland, Aug. 4-10; Oceana, July 27; Otsego, Aug. 19; Ros-

common, Sept. 3; Saginaw, July; Schoolcraft, July 16–Sept. 16; St. Clair, July 9; Washtenaw, May–Sept.; Wayne, July 7–Aug. 20.

55. *Chlorippe clyton* Bdv. and Lec.

Ingham; Kent.

56. *Anaea andria* Scud.

Washtenaw, May 8.

57. *Libythea bachmani* Kirt.

Kent (Wollcott).

58. *Calephelis muticum* McA.

Kent, listed by Wollcott as *borealis*, but probably this species; Livingston, July 10–26; Oakland, June 30–Aug. 10; Washtenaw, July 11–19.

59. *Strymon cecrops* Fabr.

Berrien, Aug.

60. *Strymon melinus* Hbn.

Charlevoix, July 29; Iosco, May 26–June 1; Livingston, July 26–Aug. 1; Montmorency, May 30.

61. *Strymon titus* Fabr.

Berrien, Aug.; Cass, July 8; Crawford, Aug. 3; Dickinson, July 24–Aug. 7; Hillsdale, July 9; Huron, July; Iosco, July 20–Aug. 26; Kalkaskia, Aug. 4; Kent; Livingston, July 10–26; Mackinac, Aug. 1–15; Midland, July 15; Muskegon, July 21; Oakland, July 4–20; Oceana, July 24; Oscoda, Aug.; St. Clair; Washtenaw, July 19; Wayne, July 9.

62. *Strymon acadica* Edw.

Benzie; Berrien, Aug.; Cass, July 8; Charlevoix, July; Clare, July 13; Dickinson, July 24–Aug. 6; Ingham, July; Iosco, July 23; Kent; Livingston, July 1–26; Muskegon, July 21; Oakland, July 3; Oscoda, July 10; Otsego, July 29; St. Clair, July 12; Washtenaw, July 2–17; Wayne, June 29–Aug. 8.

63. *Strymon edwardsi* Saund.

Huron, June 26–July; Iosco, July 10; Kent; Livingston, July 1–19; Muskegon, July 20; Oakland, July 3.

64. *Strymon calanus* Hbn.

Charlevoix, June 20–July 26; Dickinson, July 10; Huron, June; Iosco, July 5–20; Jackson, June–July; Kent; Livingston, June 26–July 17; Marquette, July 12; Oakland, June–July 15; Oceana, July; Ottawa, July; St. Clair; Washtenaw, June–July; Wayne, June 25–July 22.

65. *Strymon liparops strigosa* Harris.

Charlevoix, July 27; Dickinson, July 6; Huron, July; Iosco, July 20; Kent; Livingston, July 1–10; Mackinac, Aug. 5; Montmorency, July; Oakland, July 4–9; Saginaw, July 1; St. Clair; Washtenaw, July.

66. *Incisalia augustus* Kirby.

Charlevoix, May 15–30; Cheboygan, May 25; Crawford, May 28; Emmet, May; Huron, Apr. 18; Iosco, May 26–30; Livingston, May 11–June 5; Mackinac, May 19–June 5; Montmorency, May 30; Oakland, May; Oscoda, May 30; Schoolcraft, May 30–July 16.

67. *Incisalia irus* Godt.

Iosco, June 1; Oakland, May.

68. *Incisalia henrici* G. and R.

Crawford, May 28.

69. *Incisalia polios* C. and W.

Chippewa, May 15; Crawford, May 28–30; Emmet, May; Huron, Apr. 18–May 14; Iosco, May 26–30; Mackinac, May 19–30; Montmorency, May 31; Oscoda, May 30–31; Schoolcraft, May 27–30.

70. *Incisalia niphon* Hbn.

Crawford, May 31; Iosco, May 26; Kent; Mackinac, May 18–30; Oakland, Apr. 26–May; Oscoda, May 29; Schoolcraft, May.

There may be two species included under this name, and neither of them may be true *niphon*. Specimens from the Upper Peninsula seem to be indistinguishable from western *eryphon*; those from the southern part of the state are very different, but do not agree well with eastern specimens of *niphon*. Insufficient material is at hand to clear up the question definitely.



71. *Feniseca traquinius* Fabr.

Cheboygan, July 22; Chippewa, Aug.; Crawford, May 31; Dickinson, July 1–Aug. 6; Emmet, May; Grand Traverse, July 25; Iosco, July 20; Mackinac, June 18–23; Montmorency, May 30; Oscoda, May 31; Schoolcraft, July; St. Clair; Washtenaw, June; Wayne, May.

72. *Heodes thoe* Bdv.

Alger, July; Arenac, July 2; Charlevoix, June 28–July; Huron, June 26; Ingham, Aug.; Kent; Leelanau, June 30; Livingston, July 1–Aug. 29; Mackinac, July 18–Aug. 11; Oakland; Otsego, July; Schoolcraft, July 8–Sept. 16; St. Clair, Oct. 2; Washtenaw, July–Aug.; Wayne, June 15–Aug. 8.

73. *Heodes helloides* Bdv.

Alger, July; Cheboygan, June 28–Aug. 24; Chippewa, July; Dickinson, June 29–Aug. 18; Kalkaskia, Aug. 4; Leelanau, June 21; Livingston, July 14–Sept. 1; Mackinac, June 17–Aug. 31; Oakland, July 4–Aug. 24; Schoolcraft, June 18–Sept. 16.

74. *Heodes dorcas* Kirby.

Alger, July; Dickinson, July 24–Aug. 9; Gladwin, Aug. 4; Kent (listed by Wollcott as *epixanthe*, but probably this species); Keweenaw (Isle Royale); Livingston, July 7–31; Mackinac, July 2–Aug. 18; Oakland, July 16–Aug. 12; Washtenaw, July 17–28.

75. *Heodes epixanthe* Bdv. and Lec.

Alger, July 25; Chippewa, July; Dickinson, July 10–Aug. 18; Keweenaw (Isle Royale); Oakland; Schoolcraft, Aug. 21.

76. *Heodes hypophlaeas* Bdv.

Alger, July; Alpena, June 18; Benzie, June; Berrien, July 22–Aug.; Cass, July 8; Charlevoix, May 21–Aug. 22; Cheboygan; Chippewa, July–Aug.; Crawford, May 28; Dickinson, June 29–Aug. 18; Huron, Aug.; Iosco, July 23; Kalamazoo, July; Kalkaskia, Aug. 4; Kent; Livingston, May 17–July 24; Mackinac, June 4–Sept. 24; Midland, July 14; Oakland, May 31–July 16; Oceana, July 23–27; Otsego, Aug. 19; Schoolcraft, June 13–Oct. 1; St. Clair; Washtenaw, May–Aug. 9; Wayne, May 28–Sept. 21.

77. *Everes comyntas* Godt.

Alger, July; Arenac, July 6; Berrien, July–Aug.; Cass, July 4–8; Cheboygan; Dickinson, July 6; Iosco, July 23; Kent; Liv-

ingston, May 14–Sept. 17; Mackinac, May 31–Oct. 2; Oakland, May–Aug. 10; Oceana, July 24; Oscoda, May 30; Roscommon, Sept. 3; Saginaw, July 1; Schoolcraft, July 30–Sept. 20; St. Clair, Aug. 10; Washtenaw, May 8–Oct. 16; Wayne, May–Oct. 16.

78. *Hemiargus isola* Reak.

Allegan (Round Lake), July 18. F. W. Case.

79. *Plebeius scudderi* Edw.

Allegan, July 19; Muskegon, July 21; Newaygo, July 26.

80. *Plebeius saepiolus* Bdv.

Alger, July; Alpena, June 18; Charlevoix, June 18–July 20; Cheboygan, June 8; Chippewa, June 24; Iosco, June–July 2; Keweenaw (Isle Royale), July; Leelanau, June 19–25; Mackinac, June 5–28; Oscoda, May 31; Schoolcraft, June 17–July 24.

81. *Glaucopsyche lygdamus* Dbldy.

Chippewa, June 24; Iosco, May 26; Kent; Livingston, May 15–30; Mackinac, May 25–June 28; Marquette; Oakland, May 31; Washtenaw, May 1–21.

82. *Lycaenopsis pseudargiolus* Bdv. and Lec.

Arenac, July 2–12; Berrien, Aug.; Charlevoix, May 15–Aug. 2; Cheboygan, May 12–28; Chippewa, May 11–22; Crawford, May 28; Emmet, May; Hillsdale, July 9–19; Huron, May 14–June 23; Iosco, May 26–July 23; Jackson, June; Kent; Leelanau, May 26–June 22; Lenawee, May; Livingston, Apr. 26–July 4; Mackinac, May 18–Oct. 2; Montmorency, May 30; Muskegon, June 19; Oakland, May 2–Aug. 3; Oceana, July 26; Schoolcraft, May 27–Aug. 13; St. Clair, July 12–Aug. 13; Washtenaw, Apr.–July 18; Wayne, Apr.–Aug. 8.

83. *Goniurus proteus* Linn.

Wayne. Probably imported.

84. *Epargyreus tityrus* Fabr.

Berrien, July; Cass, July 5–8; Dickinson, July 6; Kent; Livingston, June–July 28; Oakland, June; St. Clair; Washtenaw, June 10–July 28; Wayne, June 16–24.

85. *Achalarus lycidas* A. and S.

Berrien, Aug.

86. *Cocceius pylades* Scud.

Bay, May; Benzie, June; Cass, June; Charlevoix, May 20; Chippewa, June 25-27; Dickinson, July 3; Kent; Livingston, May 28-July 31; Mackinac, May 29-June 26; Oakland, May 31-July 3; St. Clair; Washtenaw, June-July 4; Wayne, June 20.

87. *Thorybes daunus* Cram.

Livingston, June 4-July 7; Oakland, July 3; Ottawa, July; Washtenaw, June 10-21.

88. *Hesperia centaureae* Ramb.

Crawford, May 28; Emmet, May 23; Montmorency, May 31.

89. *Pyrgus tessellata* Scud.

Berrien, July 25; Ingham, Sept.; Livingston, July 31-Oct. 15; Oakland, Sept. 20; Ottawa, Oct. 13.

90. *Pholisora catullus* Fabr.

Berrien, July-Aug.; Crawford, May 30; Kent; Livingston, May 28-July 31; Oceana, July 25; St. Clair; Washtenaw, July 18; Wayne, May 24-Aug. 22.

91. *Thanaos icelus* Lint.

Charlevoix, May 27-June 27; Clare, June 8; Crawford, May 28-30; Dickinson, July 6; Emmet, May; Iosco, May 26-30; Kent; Livingston, May 27-June 2; Mackinac, May 18-July 4; Montmorency, May 30; Oscoda, May 31-June 23; Roscommon, May; Schoolcraft, May 30-July 4; St. Clair, June 13-20; Washtenaw, June 21; Wayne, June.

92. *Thanaos brizo* Bdv. and Lec.

Berrien, July; Crawford, May 28; Iosco, May 26; Kent; Livingston, May 13-June 4; Mackinac, July 4; Roscommon, May; Washtenaw, May 2; Wayne.

93. *Thanaos lucilius* Lint.

Charlevoix, Aug. 1; Grand Traverse, July 25; Iosco, May 26; Livingston, May 27; Oakland, May 12-23; Washtenaw, July 19.

*Thanaos baptisiae* Forbes.

A number of specimens have been taken which may be members of this species, but no positive determination has as yet been made.

94. *Thanaos persius* Scud.

Chippewa, July 12; Iosco, Aug. 15; Livingston, May 27; Oakland, May 11–Aug. 23.

95. *Thanaos martialis* Scud.

Crawford, May 28; Iosco, May 26–30; Lake, Aug. 3; Oakland, June 9–July 24; Oscoda, May 30–June 23; St. Clair.

96. *Thanaos juvenalis* Fabr.

Crawford, May 28–30; Iosco, May 26–30; Kent; Livingston, Apr. 26–June 3; Montmorency, May 31; Oakland, May 11–31; Oscoda, May 31–June 2; Roscommon, May 29; Schoolcraft, June 21; St. Clair, May 30; Washtenaw, May 2–21; Wayne, Apr. 28–May 11.

97. *Thanaos horatius* Scud. and Burg.

Berrien, July 28–Aug. 10; Livingston, May 16–Aug. 6; Washtenaw, July 15–31.

98. *Carterocephalus palaemon* Pall.

Charlevoix, June 18; Crawford, May 28–30; Iosco, May 30; Mackinac, June 4–28; Montmorency, May 31; Oscoda, June.

99. *Adophaea lineola* Ochs.

Macomb, July 3; Oakland, June 27; Wayne, June 4–July 13.  
A European species introduced into Ontario in 1910, and first taken in Michigan in 1927.

100. *Ancyloxypha numitor* Fabr.

Bay, Aug. 8; Berrien, Aug.; Charlevoix, July 13; Chippewa, July 8–Sept.; Clare, July 13; Dickinson, July 18; Emmet, July–Aug.; Grand Traverse, July 25; Huron, June 26–Aug.; Kent; Livingston, June 14–Sept. 17; Mackinac, June 20–Aug. 23; Macomb, June 21–Aug. 6; Oakland; Oceana, July 25; Roscommon, June 29; Schoolcraft, July 26; St. Clair, Aug. 10; Washtenaw, June 10–Aug.; Wayne, June 24–Aug. 8.

101. *Oarsima powescheik* Parker.

Kent, July 12.

102. *Pamphila metaea* Scud.

Crawford, May 28–30; Iosco, May 26; Oscoda, May 30.

103. *Pamphila comma manitoba* Scud.

Alger, July-Aug. 15; Charlevoix, July 20-Aug. 22; Chippewa, Aug.; Emmet, Aug.; Gogebie, Aug. 23; Keweenaw, Aug. 15; Mackinac, July 19-Aug. 24; Schoolcraft, Aug. 3-20.

104. *Pamphila leonardus* Harris.

Crawford, Aug.; Huron, Aug.-Sept. 8; Kalkaskia, Aug. 4; Kent; Livingston, Aug. 28-Sept. 17; Manistee, Aug. 12; Oscoda, Aug.; Otsego, Aug. 19; Roscommon, Sept. 3; St. Clair, Aug. 23-31; Washtenaw, Sept.; Wayne, July 7.

105. *Pamphila sassacus* Harris.

Charlevoix, June 18; Emmet, June 22; Grand Traverse, June 7; Kent; Schoolcraft, June 17; Washtenaw, June 4-10.

106. *Hylephila phylaeus* Dru.

Huron, Aug.; Washtenaw, Oct. 2; Wayne, Aug. 5.

107. *Polites cernes* Bdv. and Lec.

Alger, July; Arenac, July 17; Benzie; Charlevoix, June 17-July 13; Chippewa, June 24-July 8; Dickinson, July 6-26; Huron, July 23; Iosco, July 19-23; Jackson, June; Kent; Keweenaw (Isle Royale), July; Leelanau, June 14; Livingston, June 3-July 16; Mackinac, June 8-July 24; Marquette, July; Oakland, May 31-June 15; Schoolcraft, July 5-Aug. 2; St. Clair; Washtenaw, June 9-Aug. 13; Wayne, May 24-July.

108. *Polites manataqua* Scud.

Jackson, June; Kent; Livingston, June 3-July 31; Oakland, July 1-24; St. Clair, July 12; Washtenaw, July; Wayne, July 4.

109. *Polites mystic* Scud.

Alger, July; Benzie, June; Charlevoix, June 8; Chippewa, June 24-July 8; Dickinson, July 6; Emmet, June 22; Huron, July 21; Iosco, June 26; Jackson, June; Kent; Leelanau, June 21-23; Livingston, June 7-Aug. 28; Mackinac, June 15-July 11; Oakland, May 31-June 15; Oscoda, June 21; Schoolcraft, July 4-24; St. Clair, June 18-20; Washtenaw, June 10-Aug. 13; Wayne, June 15-July.

110. *Polites peckius* Kirby.

Alger, July; Arenac, July 17; Bay, Aug. 8; Berrien, Aug.; Cass, July 8; Cheboygan; Chippewa, July; Dickinson, July

6-26; Grand Traverse, July 15; Iosco, July 19-23; Kent; Leelanau, June 23; Livingston, June 12-Aug. 17; Mackinac, June 30-July 7; Midland, July 15; Muskegon, July 20; Oakland, July 7; Oceana, July 24; Otsego, July 29; Schoolcraft, July 26; St. Clair, July 12-19; Washtenaw, May-July 8; Wayne, May 24-Aug. 8.

111. *Atalopedes campestris* Bdv.

Wayne.

112. *Catia otho egeremet* Scud.

Berrien, July 28-Aug.; Cass, July 4; Huron, July 23; Kent; Lake, Aug. 1; Livingston, July 1-21; Manistee, July 12; Muskegon, July 21; Oakland, June 30-July 26; St. Clair, July 12-19; Washtenaw, July 18-28; Wayne, June-July 13.

113. *Poanes massasoit* Scud.

Cass, July 8; Livingston, July 1-Aug. 19; Oakland, July 24-Aug. 4; Washtenaw, July 4-28; Wayne, July 13-18.

114. *Poanes hobomok* Harris.

Alger, June; Benzie; Charlevoix, June 2-30; Cheboygan; Chippewa, June 24-July; Crawford, May 28; Dickinson, July 3; Huron, June; Iosco, May 30; Kent; Leelanau, June 14; Livingston, May 28-June 14; Mackinac, June 1-27; Montmorency, May 31; Oakland, May 31-July 7; Oscoda, June 2-26; Schoolcraft, July 13; St. Clair; Washtenaw, May 27-June 10; Wayne, May 26-June 16.

Form *pocahontas* Scud. is occasionally taken.

115. *Atrytone logan* Edw.

Allegan, July 23; Berrien, July; Huron, July 20-23; Iosco, July 19-24; Kent; Livingston, July 1-26; Muskegon, July 21; Oakland, July 3-16; St. Clair, July 19-27; Washtenaw, July 4-17; Wayne, July 22.

116. *Phycanassa viator* Edw.

Livingston, July 10-31; Oakland, July 24-Aug.; Wayne.

117. *Euphyes vestris* Bdv.

Alger, July; Arenac, July 17; Berrien, July-Aug.; Cass, July 8; Charlevoix, July 1-Aug. 3; Chippewa, Aug.; Crawford, July 18; Dickinson, July 6; Huron, June-July 23; Iosco,

July 19-22; Kent; Lake, Aug. 3; Leelanau, June 23; Livingston, July 1-17; Mackinac, June 30-Aug. 3; Midland, July 14; Muskegon, July 20; Oakland, July 5-Aug. 11; Oceana, July 27; Roscommon, June 29; Schoolcraft, July 20-Aug. 2; St. Clair; Washtenaw, July 28; Wayne, July 23-Aug. 8.

118. *Euphyes bimacula* G. and R.

Alger, July; Kent; Livingston, July 4; Montmorency, July 6; Washtenaw; Wayne, July 1-22.

119. *Euphyes dion* Edw.

Cass, July 4-8; Jackson, June; Kent; Livingston, July 10-30; Oakland, July 3; Washtenaw, July 7; Wayne, July 16-Aug. 8.

120. *Euphyes conspicua* Edw.

Berrien, Aug. 2; Kent; Livingston, July 9-29; Muskegon, July 21; Oakland, July 14-Aug.; Washtenaw, July 19-28; Wayne, July 13.

121. *Atrytonopsis verna* Edw.

Berrien, July 31-Aug. 3; Cass, July 4-8; Livingston, July 1; Oakland, June 29-July 20; St. Clair, July 12; Washtenaw, July 4-17; Wayne, June-July 4.

122. *Atrytonopsis hianna* Seud.

Crawford, May 30; Iosco, May 30-June 1; Montmorency, May 31; Newaygo, June 3.

123. *Amblycirtes vialis* Edw.

Charlevoix, June 18; Cheboygan, June 1-3; Chippewa, June 24; Crawford, May 28; Dickinson, July 3; Emmet, May; Iosco, May 26-30; Mackinac, May 30-July 27; Montmorency, May 31; Oscoda, June 2; Schoolcraft, June-July.

124. *Amblycirtes hegon* Seud.

Crawford, May 29; Oscoda, May 30.

