MORE BUTTERFLIES FROM ALASKA AND THE HIGHWAY

by MARION E. SMITH

The article by P. S. REMINGTON on butterfly collecting along the Alaska Highway (*Lepid. News* 6: 103-106) appeared in print just as I was compiling this list of the species collected during the summer of 1952 in the same area. Since we were able to collect in several areas (notably in Mt. McKinley National Park) not visited by Mr. REMINGTON, we obtained many additional species and further records of others.

Our party of five (with Dr. C. P. ALEXANDER, DAVID L. CARSON, and myself doing the entomological collecting) left Edmonton, Alberta, in two cars on June 21, covered most of Alaska's highways, and returned through Dawson Creek, B. C., by August 11. We travelled slowly, camping en route, and collecting (when the weather permitted) at every likely spot. Although we did considerable general collecting, we were concentrating on Diptera, and the butterflies did not receive as much attention as did, for instance, the craneflies and mosquitoes, of which there was no dearth. Hence the records are spotty, with many gaps due to lack of collecting and observation and not necessarily to the absence of the species.

The best collecting, resulting in nine species (*Parnassius, Oeneis, Erebia, Boloria,* and *Pieris*), was near Sable Pass, in Mt. McKinley National Park, Alaska. This was typical tundra country, at an altitude of between 3000 and 4000 feet. Here a small stream, a foot or two wide, and a foot deep in occasional pools, drained a boggy hillside (and yielded one Arctic Grayling per pool). The banks of the stream, and the low, wet places which it drained, were vivid with a mass of flowers in bloom—Forget-me-not, Shooting Star, saxifrages, legumes, and many others, with occasional thickets of shrubby willows. Only a small number of the butterflies seen in this area were taken, although representatives were probably secured of most or all of the species. It is surprising, however, according to a note from Dr. A. B. KLOTS, that *Boloria pales* D. & S. was not taken here.

Liard Hot Springs, B. C., at mile 496.5 of the Alaska Highway, yielded only three species, but butterflies and Odonata were very abundant over the great stretches of shallow open swamp, and intensive collecting should give good results for the boreal forest species. Very conspicuous were scores of the little Geometrid, *Eulype hastata* L., which was active along the paths and at the edges of the woods. Here in this isolated area of Hot Springs and the accompanying lush and tropical-like vegetation, which is in such marked contrast to the surrounding spruce forests, occur species of plants which are some hundreds of miles north of their normal range. Indications are that insect species may likewise be isolated here, far north of their known habitats. *Boloria toddi* Holl., which occurs in the United States and in southern Canada, is a case in point. So is the small damselfly, *Ischnura damula* Calvert, which was taken in numbers at the Springs; Dr. E. M. WALKER writes that the species is known in Canada only from Manitoba and Saskatchewan, and that its presence in northern British Columbia is of great interest, presenting somewhat of a problem in distribution. Dr. C. P. ALEXANDER suggests that such species as these may be relicts of a one-time northward extension of a more tropical climate, much as *Oeneis melissa*

semidea (Say) and other mountain Arctics are thought to be relicts of a former southern extension of the cold climate of the last Ice Age. Further collecting at these Hot Springs is certainly indicated.

On the trip southward in August, Swede Johnson Creek, at mile 1119, Yukon Territory, yielded good results (8 species, mostly Blues and Yellows). This was a gravel bank area, with typical late summer flowers such as Fireweed, Yarrow, and Wild Carrot.

Dr. KLOTS, who kindly identified most of the specimens and arranged for the identification of the others, and to whom we are greatly indebted, writes: "Some of the specimens show, even with the few specimens caught, the transition from one subspecies to another that I have been suspecting all along . . . In going up the Alaska Highway you went from one subspecific area to another, and, of course, got material from intermediate locations. This simply means something of a clinal nature, but we have not yet seen enough material to be sure of these clines; in some cases there may be different species involved. We will have to wait for revisionary work."

In the following list, abbreviations are used as follows:
AH—Alaska Highway; BC—British Columbia; Cr.—creek; DLC—DAVID L. CARSON; H—highway; L—Lake; McK. Park—Mt. Mckinley National Park, Alaska; MES—the author; Spr.—springs; YT—Yukon Territory; numbers such as AH 1363 refer to mile-posts along the highway.

SATYRIDAE—(det. C. F. DOS PASSOS, except *Erebia,* det. P. R. EHRLICH)

1. *Coenonympha mixturata* Alph.—AH 1143 YT, July 7 (MES).
2. *Cercyonis oetus* Edw.—Blueberry, AH 102 BC, Aug. 10 (MES).
3. *Oeneis chryxus chryxus* D. & H.—Whirlpool Canyon, AH 538.5 BC, June 28 (MES); Marshall Creek, AH 1006 YT, July 4 (MES).
4. *Oeneis jutta alaskensis* Holl.—Liard Hot Springs, AH 496.5 BC, June 28 (DLC)—2; Miles Canyon, Whitehorse, AH 915 YT, July 4 (DLC).
5. *Oeneis brucei yukonensis* Gib.—Sable Pass, McK.Park, July 20 (MES).
6. *Oeneis mckinleyensis* dos Passos—same—9.
7. *Erebia theano alaskensis* Holl.—same—3.
8. *Erebia youngi rileyi* dos Passos—same—2.
9. *Erebia rossii gabrieli* dos Passos—Polychrome Pass, McK. Park, July 16 (MES)—male topotype; Kantishna, near McK. Park, July 17, (DLC).
10. *Erebia disa* near *mancina* Westw.—Loblolly Swamp, AH 848.5 YT, July 3 (DLC)—2; AH 1146 YT, July 7 (MES).
11. *Erebia epipsodea remingtoni* Ehrlich—Bear Cr., AH 1363, Alaska, July 9 (DLC).

NYMPHALIDAE—(det. A. B. KLOTS)

12. *Boloria eunomia denali* Klots—Sable Pass, Mck. Park, July 20 (MES)—3.
13. *Boloria chariclea "butleri"* Edw.—same—5.
14. *Boloria freija* Thunb.—same; Haines H 70 BC, July 5 (MES).
15. *Boloria frigga gibsoni* B. & B.—Loblolly Swamp, AH 848.5 YT, July 3 (DLC).

16. *Boloria toddi* Holl.—Liard Hot Spr., AH 496.5 BC, June 28 (MES)—("a very far northern record"—ABK).
17. *Boloria titania grandis* B. & McD.—Swede Johnson Cr., AH 1119 YT, Aug. 4 (DLC)—3.
18. *Phyciodes campestris*—same—(DLC,MES)—4. *Phyciodes campestris* subsp.?—Tagish L (Carcross road) YT, July 3 (MES); AH 1357 Alaska, July 9 (MES)—3; Bear Cr., AH 1363 Alaska, July 9 (DLC).
19. *Phyciodes tharos* subsp.—Liard Hot Spr., AH 496.5 BC, June 28 (MES)—2.
20. *Nymphalis j-album watsoni* Hall—same (DLC)—2.
21. *Polygonia gracilis* G. & R.—Marshall Cr., AH 1006 YT, July 4 (MES).
22. *Limenitis arthemis rubrofasciata* B. & McD.—AH 263 BC, June 26 (DLC); Bear Cr., AH 1363 Alaska, July 9 (DLC).

LYCAENIDAE—(det. A. B. KLOTS)

23. *Lycaena helloides dorcas* Kby.—Swede Johnson Cr., AH 1119 YT, Aug. 4 (MES).
24. *Plebeius aquilo bryanti* Leuss.—same.
25. *Lycaeides melissa scudderii* Edw.—same; Gulkana R., Richardson H., Alaska, Aug. 2 (MES)—(det. verified by V. NABOKOV).
26. *Plebeius saepiolus* Bdv.—AH 195 BC, June 25 (DLC); AH 340 BC, June 26 (DLC); AH 932 YT, July 4 (DLC); Haines H 93 BC, July 5 (MES); Dezadeash L., Haines H 123 YT, July 5 (MES); Tagish L. (Carcross road) YT, July 3 (MES)—2; Bear Cr., AH 1363 Alaska, July 9 (DLC).

PIERIDAE—(det. A. B. KLOTS)

27. *Euchloe ausonides* subsp.—Kukshu Cr., Haines H. 118 YT, July 5 (MES)—3.
28. *Colias hecla* subsp. ?—same (DLC); Swede Johnson Cr., AH 1119 YT, Aug. 4 (MES).
29. *Colias philodice vitabunda* Hov.—Swede Johnson Cr., AH 1119 YT, Aug. 4 (DLC)—2 (including a white female); Bear Cr., AH 1363 Alaska, July 9 (DLC); Haines H. 93 BC, July 5 (DLC); Gulkana R., Richardson H., Alaska, Aug. 2 (MES); Kantishna, nr. McK. Park, Aug. 17 (DLC).
30. *Colias christina* subsp.?—Swede Johnson Cr., AH 1119 YT, Aug. 4 (DLC & MES)—3.
31. *Colias palaeno chippewa* Kby.—AH 1346 Alaska, July 9 (DLC).
32. *Colias nastes alaskae* B.-H.—Toklat R., McK. Park, July 20 (MES).
33. *Colias boothii* Curt.—same.
34. *Pieris napi hulda* Edw.—Haines H. 93 BC, July 5 (MES); Eagle Summit, Steese H 107 Alaska, July 12 (DLC)—4; Sable Pass, McK. Park, July 20 (MES); Kantishna, nr. McK. Park, July 17 (MES)—2; Anchor R., Sterling H., Alaska, July 25 (MES)—4.
35. *Pieris bryoniae pseudobryoniae* Verity ?—Kern Cr., Seward-Anchorage H., Alaska, July 23 (MES).

PAPILIONIDAE—(det. A. B. KLOTS)

36. *Papilio glaucus canadensis* R. & J.—AH 253 BC, June 25 (MES); AH 588 BC, June 28 (DLC)—many: 20 in one sweep.
37. *Papilio machaon aliaska* Scud.—Kukshu Cr., Haines H 118 YT, July 5 (MES); Polychrome Pass, McK. Park, July 20 (MES).
38. *Parnassius eversmanni thor* Hy. Edw.—Sable Pass, McK. Park, July 20 (MES)—3; a few others seen here, but not abundant.

HESPERIIDAE—(det. A. B. KLOTS)

39. *Erynnis persius avinoffi* Holl.—Bear Cr., AH 1363 Alaska, July 9 (DLC).

In conclusion, we are all anxious to return for further collecting in this region. True, the roads leave much to be desired, and the continual cloudy weather or drizzle ("most unusual", according to some; "quite typical", according to others!) proved most aggravating. But the scenery, the plant and animal life, and the long daylight hours make this a wonderful vacation country—particularly for the bug-collecting entomologist!

This is a contribution from the Department of Entomology, University of Massachusetts.

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NOMINATIONS FOR SOCIETY OFFICERS FOR 1954

The Nominating Committee reports the following slate of nominees for officers of The Lepidopterists' Society for 1954:

President—A. DIAKONOFF, Leiden
1st Vice President—FRANK M. JONES, Wilmington
Vice President—N. D. RILEY, London
Vice President—ANNETTE F. BRAUN, Cincinnati

Executive Council (terms expire Dec. 1956)—
JEAN BOURGOGNE, Paris
DON B. STALLINGS, Caldwell, Kansas.

The terms of the Secretary, Treasurer, and four Councillors do not expire this year. The Nominating Committee is composed of ERNEST L. BELL, AUSTIN H. CLARK, and GEORGE W. RAWSON (Chairman). Ballots will be mailed to all Society members in November.

FREDERICK H. RINDGE, Secretary