

SIZE VARIATION IN *EUPTOIETA CLAUDIA* IN MISSISSIPPI (NYMPHALIDAE)¹

BRYANT MATHER²

213 Mt. Salus Drive, Clinton, Mississippi 39056

Variation in size of individuals of *Euptoieta claudia* (Cramer) has been reported, but no quantitative data have been found in the literature. Mather & Mather (1958) wrote of Mississippi that, "February specimens are characteristically very small." Harris (1972) wrote of Georgia that, "The individuals of *E. claudia* vary in size, and an interesting series may

¹ Contribution No. 271, Bureau of Entomology, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Gainesville, Florida 32601.

² Research Associate, Florida State Collection of Arthropods, Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Gainesville.

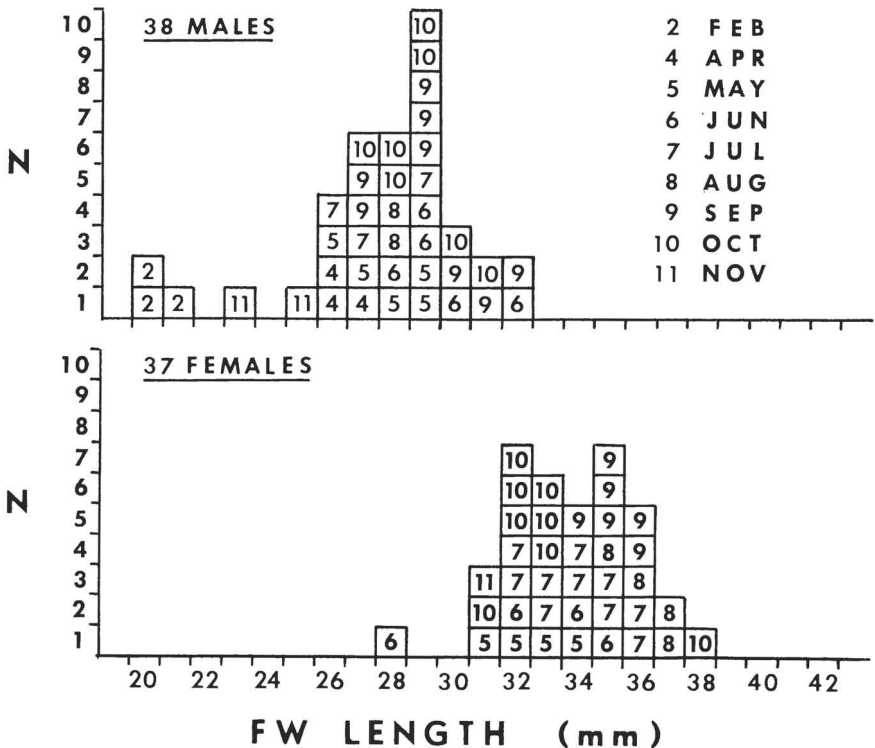


Fig. 1. Forewing-length distribution of 75 Mississippi specimens of *Euptoieta claudia*.

TABLE 1. Data on 75 specimens of *Euptoieta claudia* from Mississippi.

Date	Locality	Collector	FW length (mm)	Sex
17 Feb 52	Clinton, Hinds	B. Mather	21	♂
22 Feb 49	Clinton, Hinds	B. Mather	20	♂
22 Feb 49	Clinton, Hinds	B. Mather	20	♂
15 Apr 52	Brooklyn, Forrest	B. D. Valentine	26	♂
19 Apr 59	Clinton, Hinds	M. & E. Roshore	26	♂
26 Apr 52	Jackson, Hinds	B. Mather	27	♂
3 May 59	Vicksburg, Warren	B. Mather	33	♀
3 May 59	Vicksburg, Warren	B. Mather	26	♂
8 May 48	Clinton, Hinds	B. Mather	31	♀
9 May 59	Jackson, Hinds	B. Mather	29	♂
15 May 48	Clinton, Hinds	B. Mather	27	♂
20 May 60	Jackson, Hinds	B. Mather	28	♂
20 May 65	Bynum Mounds, Chickasaw	M. & E. Roshore	29	♂
21 May 65	Thrasher, Prentiss	M. & E. Roshore	32	♀
25 May 58	Brownsville, Hinds	M. & E. Roshore	34	♀
5 Jun 70	Gulfport, Harrison	B. Mather	28	♀
6 Jun 70	Bay St. Louis, Hancock	B. Mather	28	♂
9 Jun 57	Clinton, Hinds	M. & E. Roshore	29	♂
9 Jun 57	Clinton, Hinds	M. & E. Roshore	32	♂
9 Jun 57	Clinton, Hinds	M. & E. Roshore	29	♂
9 Jun 57	Clinton, Hinds	M. & E. Roshore	30	♂
9 Jun 57	Clinton, Hinds	B. Mather	32	♀
12 Jun 60	Clinton, Hinds	B. Mather	35	♀
29 Jun 47	Clinton, Hinds	B. Mather	34	♀
3 Jul 55	Clinton, Hinds	B. Mather	27	♂
3 Jul 55	Clinton, Hinds	B. Mather	29	♂
3 Jul 55	Clinton, Hinds	B. Mather	36	♀
6 Jul 57	Jackson, Hinds	B. Mather	35	♀
7 Jul 54	Clinton, Hinds	B. Mather	36	♀
13 Jul 58	Brownsville, Hinds	B. Mather	33	♀
15 Jul 51	Clinton, Hinds	B. Mather	26	♂
16 Jul 55	Jackson, Hinds	B. Mather	34	♀
19 Jul 52	Clinton, Hinds	B. Mather	34	♀
20 Jul 58	Clinton, Hinds	B. Mather	32	♀
21 Jul 57	Clinton, Hinds	M. & E. Roshore	35	♀
22 Jul 59	Tishomingo St. Pk., Tishomingo	M. & E. Roshore	32	♀
31 Jul 55	Bovina, Warren	B. Mather	33	♀
3 Aug 57	Jackson, Hinds	B. Mather	28	♂
3 Aug 57	Jackson, Hinds	B. Mather	28	♂
11 Aug 57	Clinton, Hinds	B. Mather	35	♀
14 Aug 49	Clinton, Hinds	B. Mather	37	♀
16 Aug 59	Clinton, Hinds	B. Mather	36	♀
24 Aug 57	Brownsville, Hinds	B. Mather	37	♀
1 Sep 46	Clinton, Hinds	B. Mather	32	♂
1 Sep 57	Bolton, Hinds	B. Mather	30	♂
1 Sep 57	Clinton, Hinds	M. & E. Roshore	36	♀

TABLE 1. (Continued)

Date	Locality	Collector	FW length (mm)	Sex
2 Sep 56	Brownsville, Hinds	B. Mather	29	♂
2 Sep 57	Bolton, Hinds	M. & E. Roshore	31	♂
5 Sep 49	Clinton, Hinds	B. Mather	29	♂
12 Sep 71	Clinton, Hinds	B. Mather	35	♀
19 Sep 53	Waynesboro, Wayne	B. Mather	29	♂
23 Sep 72	Jackson, Hinds	B. Mather	35	♀
25 Sep 54	Jackson, Hinds	B. Mather	34	♀
26 Sep 68	Hattiesburg, Forrest	E. Reid	36	♀
26 Sep 68	Hattiesburg, Forrest	E. Reid	27	♂
26 Sep 68	Hattiesburg, Forrest	E. Reid	27	♂
28 Sep 58	Jackson, Hinds	B. Mather	35	♀
3 Oct 59	Clinton, Hinds	M. & E. Roshore	31	♀
5 Oct 52	Clinton, Hinds	B. Mather	38	♀
5 Oct 58	Brownsville, Hinds	M. & E. Roshore	28	♂
6 Oct 51	Clinton, Hinds	B. Mather	29	♂
6 Oct 51	Clinton, Hinds	B. Mather	33	♀
9 Oct 51	Ridgeland, Madison	B. Mather	29	♂
11 Oct 69	Ft. Adams, Wilkinson	B. Mather	32	♀
12 Oct 52	Clinton, Hinds	B. Mather	28	♂
12 Oct 52	Clinton, Hinds	B. Mather	27	♂
12 Oct 69	Pinckneyville, Wilkinson	B. Mather	31	♂
12 Oct 69	Pinckneyville, Wilkinson	B. Mather	32	♀
13 Oct 56	Vicksburg, Warren	B. Mather	32	♀
13 Oct 56	Jackson, Hinds	B. Mather	33	♀
15 Oct 55	Jackson, Hinds	B. Mather	30	♂
23 Oct 71	Jackson, Hinds	B. Mather	33	♀
4 Nov 51	Clinton, Hinds	B. Mather	31	♀
7 Nov 48	Clinton, Hinds	B. Mather	25	♂
11 Nov 51	Hermanville, Claiborne	B. Mather	23	♂

be obtained. Very small specimens may be found at times, especially in early spring, and unusually large ones may be found in the summer." Rahn (1972) reported on five specimens taken 18–21 August 1970 in North and South Dakota. He stated that these showed a "wing span range from 1½" to 2". Measurements made on the figure in his paper, adjusted for scale reduction in reproduction, indicate forewing lengths of 20, 24, 30, 30, and 32 mm.

A group of 75 Mississippi specimens was examined; results are given in Table 1. Forewing-length distributions for males and females are shown in Fig. 1. As previously noted, very small specimens have been taken in February. Other small specimens were taken in November; but there does not appear to be the progressive increase in size through the season that characterises such species as *Colias eurytheme* Boisduval or *Papilio glaucus* Linnaeus. The major factors affecting size in *E. claudia* appear

to be (a) sex, females are typically significantly larger than males; and (b) winter, November and February specimens are characteristically smaller than average. The size range of the Mississippi series is 20 to 38 mm (1 to 1.9). The range of the series of five August specimens reported by Rahn (1972) was 20 to 32 mm (1 to 1.6). The size range for six Mississippi August specimens was 28 to 37 mm (1 to 1.3).

LITERATURE CITED

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MATHER, B. & K. MATHER. 1958. The butterflies of Mississippi. Tulane Stud. Zool. 6: 63-109.
RAHN, R. A. 1972. A dwarf form of *Euptoieta claudia* (Lepidoptera: Nymphalidae). Great Lakes Entomol. 5: 101. (Reproduced, with minor editorial changes and reversal of the figure, in J. Res. Lepid. 11: 174.)

PHYCIODES MYLITTA (NYMPHALIDAE) ON VANCOUVER ISLAND

In Jones' "Annotated Check List of the Macrolepidoptera of British Columbia" (1951), *Phyciodes mylitta* is listed as occurring in a number of localities in mainland British Columbia including the coast adjacent to Vancouver Island, but there were at the time no records for Vancouver Island. I have myself collected intensively over a large part of Vancouver Island during the past 30 years, without encountering *P. mylitta* before 1972.

In August of that year *P. mylitta* turned up in Bright Angel Park near Duncan. The first specimens were handed to me by a friend, Mrs. Betty McKinnon, who said that they were then quite plentiful in the park area. Looking at the butterflies through the semi-transparent envelopes in which they were packed, I took them for *Phyciodes campestris* Behr. which I have often taken on Vancouver Island, though I was surprised at the late date, 10 August. I did not examine them more closely until late the following winter, when I at once saw that they were not *P. campestris*. Later, I sent some examples to Dr. dos Passos, who pronounced them typical *Phyciodes mylitta*.

The following April, *P. mylitta* showed up in a number of localities from Victoria on the southern tip of the Island north about 40 miles to Chemainus. Either the species had maintained itself in such small numbers as to escape detection, and then suddenly exploded; or it had gained access to Vancouver Island two years ago and built up a large population with amazing speed. In some respects the case resembles that of *Coenonympha tullia*, which after being confined to the immediate vicinity of Victoria until about 1965, suddenly started to spread northward, again coming to a stop near Chemainus. The latter species, however, was always very common near Victoria.

I cannot account for the flight season for *P. mylitta* as given by Jones, he states merely "June." Last year I observed a spring brood starting to fly very early in April, followed by a summer flight in July and August. *P. campestris* here is single brooded, flying in June and early July.

RICHARD GUPPY, *Thetis Island, British Columbia, Canada.*