THE TAXONOMIC IDENTITY OF
MELITAEA (ATHALIAEFORMIA)¹ MAYI GUNDER
(LEPIDOPTERA, NYMPHALIDAE)

BY NICHOLAS W. GILHAM
Harvard University

Ever since mayi was described by Gunder (1929) as a new species it has been suspected of being closely related to the Melitaea species of the athalia group, which is primarily Palearctic. However, heretofore nobody appears actually to have compared specimens of mayi with any of the Palearctic members of the group. In his original description Gunder, I.c., expresses the belief that mayi is very close to M. (A.) athalia latefascia Fixsen, basing his conviction on the insect figured on plate 66i of Seitz (1906) under the latter name. Verity (1941) concludes that the name latefascia is probably not applicable to Korean specimens previously listed under that name and that these specimens should be assigned to M. (A.) coreae Verity. This is important because he goes on to state that the species which Seitz, I.c., figured is the same thing as coreae. Therefore it can be seen that both Verity and Gunder equated mayi with the same species.

I have made quite a number of genitalic preparations, male and female, of mayi and of several of the Asian species

¹Verity (1950) proposed the subgeneric name Athaliaeformia to include those members of the genus Melitaea belonging to the athalia group. He specifically lists Melitaea mayi as belonging to this subgenus.

Explanations of Plate 2

Fig. 1. Dorsal view of the male genitalia of Melitaea (Athaliaeformia) ambigua (=mayi) from Banff, Alberta (Genitalic Preparation 166). Fig. 2. Left lateral view of the genitalia in Fig. 1. Fig. 3. Dorsal view of the male genitalia of M. (A.) ambigua from Hsiolin, Manchuria (Genitalic Preparation 217). Fig. 4. Left lateral view of the genitalia in Fig. 3. Fig. 5. Dorsal view of the male genitalia of another specimen from Hsiolin, Manchuria (Genitalic Preparation 218). Fig. 6. Left lateral view of the genitalia in Fig. 5. All figures drawn to the same scale. The aedeagus has been removed and is not shown in any of the figures.
of the *althalia* group. The preparations as well as the facies of *mayi* indicate that it does not belong to the same specific complex as *coreae*, as Verity thought, but is instead conspecific with another species, *M. (A.) ambigua* Ménétries. I have figured the male genitalia of *mayi* (figs. 1 and 2) and of two specimens of *ambigua* (figs. 3, 4, 5, and 6) to show that they represent the same thing within the limits of individual variation. I have not figured the female genitalia because I can find no publication where the female genitalia of related species of the *althalia* group have been figured or studied other than for group characters as a whole. However, my preparations of the female genitalia of both *mayi* and *ambigua* show no real differences. The genitalia of *coreae*, on the other hand, appear to be quite distinct from those of *ambigua* and indeed the male genitalia indicate that this species is extremely close if not conspecific with what Verity, I.c., considers to be *M. (A.) britomartis* Assmann. The male genitalia of *coreae* that I have examined agree quite well with those of *britomartis* figured by Petersen (1945). I must admit that on the basis of my studies I strongly doubt the distinctness of *coreae* from *britomartis* but since I do not have the material available to confirm my doubts I must leave the question open. Lastly it should be noted that *coreae* has an earlier flight period (late May to the middle of June) than does *ambigua* or its Nearctic representative *mayi* (late June to early August).

The synonomy of *mayi* with *ambigua* provides us with a very interesting case of geographical distribution. My own examination of specimens and references in the literature indicate that *ambigua* ranges from Japan west to the Eastern Sayansk Mountains in Siberia and between the fourtieth and fiftieth parallels in the north-south direction in the Palearctic region. In the Nearctic region its distribution is drastically reduced and the only records that I can

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find are for the area around Banff, Alberta, and Smithers, British Columbia.

References

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PETERSEN, B.

SEITZ, A.

VERITY, R.