

## Some structural characteristics of *Erebia inuitica* Wyatt

By B. C. S. WARREN, F.R.E.S.

In 1966 Mr. Colin W. Wyatt published a brief description of an unrecognised species of *Erebia* from Alaska. (Zeit. Wiener Ent. Gesell. Jg. 51, pp. 93, 94, 1966.) He only possessed one male specimen which was among a number of butterflies collected for him by an Eskimo boy. When Mr. Wyatt came to set the specimen he recognised that it was an undescribed species and kindly sent it to me to examine with permission to dissect it. This readiness to make use of a unique specimen in order to obtain accurate knowledge of its true nature, rather than retain it intact in his collection as "probably"—is characteristic of Mr. Wyatt.

On looking at the specimen of *E. inuitica* I at first wondered if it could be an Alaskan form of the little-known Asiatic *E. kindermanni*. The resemblance was suggested by comparison of the specimen with the photographs of the female *E. kindermanni* in my Monograph of the genus (see figs. 1630 and 1631). These photos are practically the same size as the male *E. inuitica*. The figure of the latter with the original description was considerably enlarged, which I feel was unfortunate, for in my experience such enlargement always gives a somewhat misleading impression and hinders recognition. Dissection, however, showed *E. inuitica* to be a species close to *E. christi*! The body of the specimen had been somewhat damaged and the genitalia broken, but I was able to make a serviceable mount of it, a photograph of which is shown on the plate accompanying this note. The magnification of the photograph is  $\times 18$  diameters, the same as used in my works for all photographs of the complete (entire) male genitalia (when taken by myself), regardless of the size of the species.

On comparing the photograph of *E. inuitica* with fig. 279 in my Monograph (*E. christi*), the similarity of the two will be obvious. Had the new species been found anywhere in the European Alps one could scarcely have done other than accept it as a race of *E. christi*. Yet I feel this would have been mistaken. It is a case which points to the importance of the less obvious structural differences in the genitalia of the *Erebia*. The two species belong to the "*Epiphron*-Group," of which there are only two Asiatic representatives: *E. kefersteini* and *E. kindermanni*. Both are clearly distinct from *E. inuitica*, their claspers are shorter with the terminal neck thicker and blunter, the spine "system" of the claspers markedly different; the last a most important character in *Erebia*. The dorsal structures are also distinctive. Only two species of the group have a somewhat similar spine system to *E. inuitica*, of these, as noted, *E. christi* is the most so. The spines in *E. inuitica* are all of a coarse type, and are distinctly separated everywhere. In the two Asiatic species the spines situated proximally are coarse and well separated, those distally are extremely fine and practically touching: the latter feature is characteristic of very fine spines in all species of the group. The variation that always is present in the actual sizes and forms of the spines never affects the nature of the system, which remains constant. This holds in all groups of *Erebia*.

*E. inuitica* differs from *E. christi* by the greater length of the combined head and neck of the claspers, which is also narrower and terminates more rounded. In *E. christi* the termination is broad. The uncus in *E. inuitica* is slightly heavier, blunter and thicker at the tip, while the brachia curve sharply up at their extremities, a feature that does not appear in any other species of the group. These characters may be considered slight to uphold the two species as distinct, but it must be remembered that the characteristic differences in many species of the group are not visibly extreme, but they have been proved constant when we have plenty of specimens to examine. Further one must remember the immense geographical distance that separates the two species and the very restricted distribution of *E. christi* in the Alps and the fact that no intermediate form exists (so far as known), in Asia.

I have thought it well to publish this photograph of the genitalia of the holotype of *E. inuitica*, in spite of the slight damage, for it is more than likely that other specimens of this species will be found in other districts of Alaska or the N.W.T., or may actually exist in some museum collection or even in private collections. There is no possibility that after dissection *E. inuitica* could be mistaken for any other species. I may add that there is also no possibility this specimen could be an hybrid, for all the species known to occur with *E. inuitica* (i.e. *E. rossi*, *E. fasciata*, *E. disa*, *E. youngi*), have genitalia of a very specialised formation, a cross between any of these could not result in structures making the least approach to those characteristic of the *epiphron*-group species.

## *Maruca testulalis* (Geyer): "The Bean Pod Borer" (Lep.: Pyralidae) bred out at East Malling from French Beans

By J. M. CHALMERS-HUNT.

Dr. G. H. L. Dicker of East Malling Research Station, showed me two specimens of a Pyralid moth which were bred from larvae feeding on the immature seeds in pods of French beans. He informs me that the beans had been imported as a trial consignment of out-of-season fresh vegetable from Malawi, Africa, and that he received the larvae on April 3, 1967, when they were in the final instar. The adults emerged three weeks later. Dr. Dicker adds that being an internal feeder, the Pyralid was overlooked, and it also survived whatever disinfestation treatment was applied whilst the consignment was in quarantine.

I submitted the moths to Mr. P. E. S. Whalley (British Museum, Natural History), who kindly determined them as *Maruca testulalis* (Geyer), a pest species of cosmopolitan distribution, but so far as is known, not previously noticed in Britain, Zimmerman (*Insects of Hawaii*: 56-58), who figures the insect well, and gives an informative account of the species, cites the following host plants: *Cajanus indicus*, cowpea, garden beans, garden peas, *Gliricidia sepium*, hyacinth bean, lime beans, *Maoma urens*, pigeon peas, (also blossoms), *Sesbania grandiflora* (in fresh and without flowers), *S. tomentosa* (in flowers), and probably a number of other legumes.

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