

AN ATTEMPTED INTERFAMILIAL MATING
(LYCAENIDAE, NYMPHALIDAE)

Interspecific courtships and matings are seldom reported in butterflies (Downey 1962, J. Lepid. Soc. 16: 235-237). The rarity of such reports involving phenotypically similar sympatric species suggests the widespread occurrence of effective prezygotic reproductive isolating mechanisms, at least some of which may have evolved as a result of selection against deleterious hybridization (Remington 1968, Evol. Biol. 2: 321-428). Although species from widely different groups might be expected to differ in so many ways as to make courtship and mating very unlikely, it is conceivable that such taxonomically wide behavioral "mistakes" may be at least as frequent as those between sympatric congeners. The actual records are far too fragmentary to allow a conclusion one way or the other. This note reports a mistaken courtship involving representatives of two butterfly families which, however, did not result in copulation.

On 26 May 1972 a fresh male *Lycaena helloides* (Boisduval) (Lycaenidae) was seen courting a fresh female *Cynthia annabella* Field (= *Vanessa carye* auct.) (Nymphalidae) in a vacant lot at Southport, Yolo County, California. The pair was first encountered at 1357 hours. The male fluttered behind the female, which sat on a leaf just above the ground. Repeated attempts at genital contact elicited only a shuffling sideways movement in the female, which finally flew desultorily some ten feet and lit on the ground, only to be overtaken at once by the male. This sequence was repeated four times in nine minutes. The courtship was terminated when the observer's shadow was inadvertently passed over the female and she left the area. The behavior of the female *C. annabella* was in no way dissimilar to that shown by the species when being courted by its own males, but not disposed to mating. However, *C. annabella*, like most "Vanessas," seems to mate principally in the late afternoon and at dusk.

Lycaena helloides was abundant in the area and several unsuccessful courtships within that species were seen during the early afternoon; female *L. helloides* invariably fanned their wings intermittently in response to the activity of the male, differing in this respect from the response of the *C. annabella*. The female *annabella* approached was the only individual of its species in the field during most of the afternoon. The pheromones, if any, of neither species have been studied. The *C. annabella* was fully twice the size of an *L. helloides* female, and resembled it superficially only in general color.

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ISSIKI COLLECTION OF MICROLEPIDOPTERA TO THE
SMITHSONIAN INSTITUTION

With considerable assistance and cooperation from the United States Department of Agriculture and the United States Forest Service, the Smithsonian Institution has recently acquired the finest collection of Japanese and Formosan Microlepidoptera ever assembled. The collection represents the lifelong effort of Professor Syuti Issiki, a renowned Japanese entomologist, who, with his famous teacher S. Matsumura, pioneered the study of Oriental Microlepidoptera.

The total size of the Issiki Collection is not unusually large, numbering 16,236 moths, but the rich representation of Eastern Palearctic and Oriental species makes the collection an extremely valuable research tool. Probably 95% of the known