

Robinson (1971, *Lepidoptera Genetics*, Pergamon, New York, 687 p.) has discussed male-deficient broods in several species of Lepidoptera. In *Abraxas grossularia* L. (Geometridae), a karyotypic aberration in females gives a tendency to produce nearly unisex but normally viable broods. In *Hypolimnna misippus* L. (Nymphalidae), females from some small island populations produce all female broods with reduced embryonic viability. Here a dominant sex-linked gene has been postulated.

Owen (1966, *Heredity* 21: 443-451) has investigated East African populations of *Acraea encedon* L. (Acraeidae), some of which contained only 0.6 to 6.2% males. Eggs produced by wild-collected females showed normal viability. Parthenogenesis was ruled out, and the genetic basis of the unisexual broods remains unknown.

The present case in *P. tharos* appears to be similar to that in *H. misippus*. Presumably, in both cases the disadvantage of heavy selection against male progeny is offset by some selective advantage to the females carrying the tendency toward unisexual broods.

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#### OVIPOSITION BEHAVIOR OF COLONIZED *HYALOPHORA GLOVERI GLOVERI* (SATURNIIDAE)

Efficient collection of eggs is an important aspect of maintaining small colonies of giant silkworm moths as breeding stock. This can be accomplished by establishing an oviposition profile for the species being reared and collecting eggs only during the period of peak oviposition. Experience in rearing many species of Nearctic giant silkworm moths has shown that most eggs are deposited during the first few nights after mating. Oviposition profiles reported for *Hyalophora cecropia* (Linnaeus) (Taschenberg & Roelofs 1970, *Ann. Entomol. Soc. Amer.* 63: 107-111) and *Callosamia promethea* (Drury) (Miller & Cooper, 1977, *J. Lepid. Soc.* 31: 282-283) are specific examples of this pattern. This paper reports oviposition data for a small breeding-stock colony of *Hyalophora gloveri gloveri* (Strecker) maintained on wild black cherry (*Prunus serotina*) in Frederick County, Maryland. Because of the small size of the colony ( $\leq 12$  individuals) observations were limited to five individuals.

Five female moths, each of which mated on the first night after emergence, were placed in brown paper bags (lunch size) on the first night after mating; and were transferred to new paper bags each night thereafter until death. After a period of time sufficient to allow all eggs to hatch, the bags were opened to record the number of eggs deposited and the number hatched.

The average longevity of the females after mating was 6.6 days; two individuals lived for 6 days and three lived for 7 days. The females deposited a total of 776 eggs during the study. The maximum number of eggs deposited by a single female was 198; the minimum number was 114. The average number of eggs deposited per female was 155.2. Percent hatch was moderate for eggs deposited during the first 4 nights after mating, the average ranging from 60.7% to 78.4%. The total number of larvae produced per female ranged from 60 to 137; the average being 103.2. The

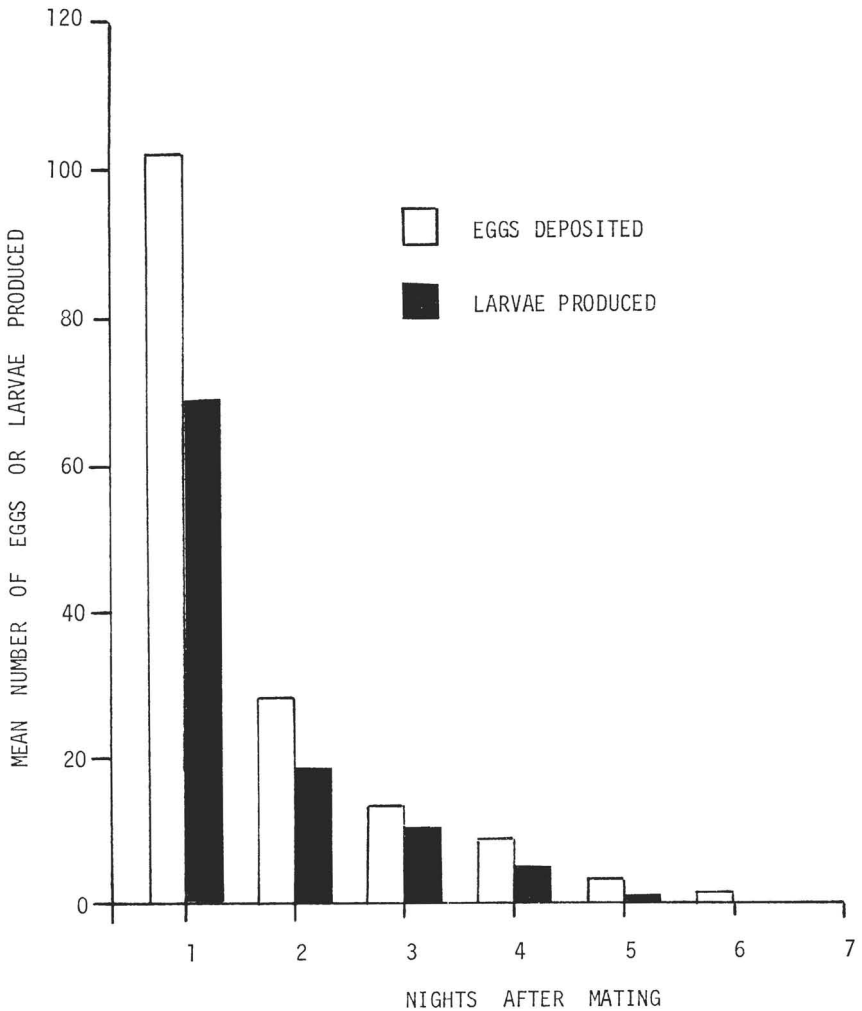


Fig. 1. Oviposition profile for colonized *Hyalophora gloveri gloveri* females.

oviposition profile shown in Fig. 1 indicates that *H. gloveri gloveri* follows the general pattern reported for other species; and that the optimum time for collecting eggs to maintain small colonies for breeding stock is during the first night after mating.

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