

HOSTS AND EGGS OF *BLEPHARIDA DOROTHEA*  
(COLEOPTERA: CHRYSOMELIDAE)

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ABSTRACT

*Blepharida dorothea* Mignot, a species described in 1971, is more southern in distribution than the only other North American species, *Blepharida rhois* (Forster). Previously no published information was available on the habits of *B. dorothea*. The food plants, larval and adult types of feeding, and prolific egg laying habits of *Blepharida dorothea* are discussed.

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The genus *Blepharida*, of approximately 50 species, is world wide in distribution and well represented in South America, Central America, and Mexico. According to Blackwelder (1946), 15 species occur in Mexico, 2 in Guatemala, 1 in Chile, 1 in French Guiana, and 3 in the West Indies. Only 2 species occur in North America. *Blepharida rhois* (Forster) has a northern distribution, and *Blepharida dorothea* Mignot has a southern distribution.

Both species feed on sumac, although *B. dorothea* has a wider range of food plants. I reported in 1972 that *B. dorothea* was not collected on sumac, but further observations revealed that eggs, larvae, and adults are common on *Rhus copallina* as well as Brazilian pepper, *Schinus* sp. Both plants belong to the *Anacardiaceae* as do mango, cashew, and poison ivy. Attempts were made to rear *B. dorothea* on some of these hosts. In 12 tests, adults were offered the leaves of mango on which they did not feed. The young tender leaves of mango quickly wilted and were apparently undesirable. Older leaves are tough and possibly objectionable to the insects. In 10 tests, the leaves of poison ivy were offered, but in only 1 case did an adult feed, and then sparingly. Cashew leaves were not available for tests. Mignot (1971) listed *Rhus vernix*, pine, and strawberry as hosts. I reared it on leaves of *R. typhina* and *R. glabra*.

Rearing was conducted in 4-oz jars with lids to prevent evaporation from the leaves. A little soft tissue paper was placed in each jar to absorb excessive moisture. Rearing jars were examined, and fresh leaves were supplied at least every other day. In Florida, the leaves of *R. copallina* were used. When the cultures were transferred to Pennsylvania, *R. glabra* and *R. typhina* were used, and both larvae and adults fed freely on these hosts.

It is possible that *B. dorothea* may have come to Florida from Central America or Mexico where a number of species occur. Although Brazilian pepper is indigenous to Brazil, *Blepharida* has not been reported from this area. Species of sumac are common in Mexico and *B. dorothea* may have originated on sumac and adapted to Brazilian pepper, an introduced species now common in Florida.

The eggs of *B. dorothea* are laid in small masses of fecula deposited on the leaves of the host. These masses are common on sumac and Brazilian pepper from late January to the end of April. They are oval, from 3 to 4 mm long, with a short tail-like terminal. Ten to 12 eggs are the average number in each mass

TABLE 1. LENGTH OF LIFE AND OVIPOSITION OF ADULTS OF *Blepharida dorothea* MIGNOT

Males		Females		
Period of activity	Number of days	Period of activity and oviposition	Number of days	Number of egg masses
Feb. 14 — April 15	31	March 16 — June 24	106	170
Feb. 25 — March 31	36	March 15 — May 6	53	63
March 15 — June 29	107	March 16 — June 10	87	110
March 18 — June 11	86	March 16 — June 29	108	166
March 24 — June 22	91	March 18 — July 2	117	73
March 26 — June 22	69	March 25 — July 29	96	64
March 27 — June 22	88	March 26 — July 2	99	77
April 7 — May 21	45	April 6 — April 24	18	31
		April 7 — June 25	79	118
Average	61.5		84.6	94.1

except towards the end of the oviposition period. Then the egg masses are irregular, smaller, and fewer eggs are laid in each mass. The males deposit their fecula as small flecks scarcely 1/10th the size of those deposited by the females. This difference was useful in separating the males from the females. Characteristics of the pygidia may also be used. Mignot (1971) reported that the first segment of the pro- and meso-tarsi are more developed in the male. Young larvae are dark green, with black heads and thoracic legs. They are naked, but, within a day or two, cover themselves with soft black fecula. The feeding of the larvae is irregular, and they tend to skeletonize the leaves. The adults eat large areas from the edges of the leaves. The larval period lasts about 28 days. As the larvae mature, they become more elongate in form, and, before entering the ground to pupate, they lose their fecular covering. When mature larvae were placed on the soil they almost immediately penetrated to form their cocoons. These are figured by Frost (1972). Pupation requires 15 to 30 days.

Adults were first noticed in the field on 5 December. At that time sumac was in winter condition. Leaves were either red, dried, or absent. I surmise that this first beetle was one of the last of the previous season's generation. Adults were not common until mid-February. From then until the end of April adults were abundant on sumac and Brazilian pepper. Many adults were active until June and July. Adults generally rest on the upper leaf surface and are quite conspicuous because of their bright shining colors. Like *B. rhois*, adults of *B. dorothea* are jumpers and often escape capture. This species also has the habit of feigning death. Males and females have relatively long periods of activity. Females are very prolific, a single female laying approximately 900 eggs. The length of life of the males and females and the number of eggs laid by the females are presented in Table 1.

#### LITERATURE CITED

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