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A POPULATION OF ANAEA RYPHEA (NYMPHALIDAE) AND ITS LARVAL FOOD PLANT AT CAMPINAS, BRAZIL

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The butterfly Anaea ryphea (Cramer 1775) (Nymphalidae) occurs from Mexico to subtropical South America, although its host plant is unknown (De Vries, P. 1987, The butterflies of Costa Rica and their natural history, Princeton Univ. Press, Princeton, New Jersey, 327 pp.). From September 1988 to March 1990 I studied a population of Anaea ryphea in a small reserve at Campinas, São Paulo State, Brazil (22°54′S and 47°05′W, elevation 650 m, annual rainfall 1500 mm, mean annual temperature 22°C) where it uses Croton floribundus Spreng (Euphorbiaceae) as its larval food plant.

Other species of Anaea are known to feed on Euphorbiaceae, such as Anaea andria Scudder which uses Croton capitatus Michx. as its primary host plant in the southern United States (Riley, T. J. 1988, J. Lepid. Soc. 42:263–268). Feeding on Croton may be a common feature of the genus, since Croton has a wide distribution in the tropics (Schnell, R. 1971, Introduction a la phytogeographie des pays tropicaux, Gauthier-Villars, Paris, 951 pp.), but other families are also used. Muyshondt found immatures of Anaea (Zaretts) itys Cramer on a species of Flaucortiaceae (also known as Samydaceae) (Muyshondt, A. 1973, J. Lepid. Soc. 27:294–302) and eggs and larvae of Anaea (Consul) fabius Cramer on three species of Piperaceae (Muyshondt, A. 1974, J. Lepid. Soc. 28:81–89). W. P. Comstock (1961, Butterflies of the American tropics: The genus Anaea, American Museum of Natural History, New York, 214 pp., 30 pls.) lists food plant records from seven plant families, with Euphorbiaceae (especially Croton) and Piperaceae being the most frequently used.

A species of Anaea can use more than one plant species as larval food plant (Muyshondt 1973, 1974, op. cit.). At Campinas I observed A. ryphea feeding on a second plant species (an unidentified Euphorbiaceae) at times when C. floribundus plants were completely defoliated or when they had only old leaves at the end of the wet season. At this time the larval population was decreasing rapidly from its maximum peak of 136 larvae on 186 plants in the study area.

Another species of Nymphalidae, *Hypna clytemnestra* (Cramer 1777) also was observed feeding on *Croton floribundus*. Its larvae and those of *A. ryphea* were sometimes found together on the same individual plant, but the number of *A. ryphea* immatures was always greater than that of *H. clytemnestra*, whose measured population density was never more than 10% of that of *A. ryphea*.

Larvae of *H. clytemnestra* are larger than *A. ryphea*, and in the laboratory they proved to be more voracious feeders; as a consequence, they cause heavy defoliation on *C. floribundus*, sometimes leading to starvation of *A. ryphea* larvae, which cannot move to other nearby plants.

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