them in good condition, however, may render it of value to workers concerned with various aspects of noctuid ecology.

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LIFE HISTORY OF DRYAS JULIA DELIA (HELICONIINAE)

#### MIKE A. RICKARD

#### 4628 Oakdale, Bellaire, Texas

Although *Dryas julia* (Fabricius) is at times abundant in southern Texas and Florida, little seems to have been published concerning the early stages other than that the larval foodplant is *Passiflora*. Sietz (1921: 400) says, "larva pale grey or grey-brown, the incisions darker, the fore part of the head marked with darker, the spines blackish." He remarks that the pupa is similar in color. Klots (1951) is admittedly even more indefinite: "larva—poorly known; possesses long branching spines." It is the purpose of this paper to give a more exact description. While collecting near San Antonio, Bexar County, on 24 October, 1966, four strange larvae were found feeding on *Passiflora lutea* (L.) var. glabriflora (Fern). The larvae differed in several aspects from those of the *Passiflora*-feeding species known from the area, *Euptoieta claudia* (Cramer), *Agraulis vanillae incarnata* (Riley), and *Heliconius charitonius vasquezae* (Comstock & Brown). An indication as to the identity of the larvae was found when a  $\Im D$ . *julia delia* (Fabricius) was collected later that day. Subsequent emergence of reared adults proved the larvae to be of this species.

### LARVA

Head white, with three black triangular spots arranged in an "eyes and nose" pattern, the upper two triangles being inverted, and with two short black protruding spines; thoracic segments with ten spines dorsally, in two tightly-bunched rows of five each; remaining segments with six rows of long, branching, black spines. First three instars similar in color, being light brown with four transverse light bands. Fourth (and final) instar dark brown, marked transversely with a number of fine black lines and spots, and with a light brown stripe mid-dorsally; a broad white stripe laterally, branching diagonally on the fifth, seventh, ninth, and anal segments; stripe further broken by crimson red diagonals on each abdominal segment and by the aforementioned black transverse lines.

## Pupa

Similar to A. v. incarnata in shape and color, being depressed dorsally and protruding ventrally at the wing cases, and mottled cream-gray-brown; two rows of rectangular, fin-like projections dorsally on the abdominal segments, much more prominent than the conical projections of *incarnata*. Furthermore, *delia* has silver spots in the thoracic depression.

Two of the larvae were first instar and two were second instar when first collected. The latter pupated on 3 November and yielded two females on 12 November. The other two pupated on 6 and 7 November, yielding, respectively, a male on 16 November and a female on 17 November. All of these were reared on *Passiflora incarnata* (L.), *lutea* being unavailable in Houston. A second instar larva found by Roy O. Kendall of San Antonio on 23 October pupated on 6 November and produced a female on 17 November. A mature larva collected by Joseph F. Doyle III of San Antonio on 7 November pupated on 10 November and produced a male on 19 November. Each of these was reared on the original foodplant (*P. lutea*).

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