

Metamorphosis of *Dynastor macrosiris* Westw. (Lepidoptera Brassolidae)

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ON December 20, 1979, an exciting event in the butterfly world occurred at the home of the senior author, F.C. (Clive) Urich at Sangre Grande — the emergence of a male specimen of the extremely rare Brassolid butterfly, *Dynastor macrosiris* Westw. Approximately two months before, a female attracted to the lights of his home was caught and killed for his collection, but before committing the specimen to the setting board, one egg was carefully squeezed from her abdomen. The ovum was remarkably large for a butterfly, 3.50 mm in diameter as compared to .75 mm for the genus *Caligo*, and ribbed as is normal in the family Brassolidae. It was white at first, turning to pink as the larva developed.

A brief history of this species is in order. The genus *Dynastor* consists of only three known species. Two of these, *macrosiris* and *darius* Fab. are known from our Island; the other, *napoleon* Westw., plus the two other species previously mentioned occur in South America. Of the three, *macrosiris* is the least known. As far as can be ascertained, international museums have very few specimens. Books have very little to say on the genus, except that they are primitive and rare, especially *macrosiris*, which we have found to be crepuscular with only the females attracted to light. In addition to the dozen or so females collected in Trinidad in the last 100 years, we know of only one previous male being collected by Gordon Govia at Fondes Amandes flying rapidly along the trail at dusk so much so that at first he thought he had netted a bat! Two specimens are pictured in Barcant's *Butterflies of Trinidad and Tobago*. The one identified as a male is an error as can be seen by comparing the illustration with the photograph of the male in this article. The males are smaller than the females and have much more angular wings. Also of interest is the discovery that the adults have a rudimentary proboscis like that of the genus *Brassolis* ("coconut bark" *B. sophorae* L.) and, like this species and some moths, do not feed during their adult lives, making it impossible to bait them to traps with rotting fruit.

After a few days it became apparent that the egg might be fertile, because of the gradual change of colour, and a frantic search in the literature for possible larval foodplants was started, help being sought from all the local enthusiasts. Finally, at the Commonwealth Institute of Biological Control, Drs. Fred Bennett and Matthew Cock produced a reference to the breeding of *D. darius* on bromeliads ("wild pines") in a book written in Portuguese on foodplants of insects in Brazil. With this clear, we felt we had a chance to raise the larva. We had failed twice before with another Brassolid *Catoblepia berecynthia* Cr. by not knowing the larval foodplant. (Subsequently this species was successfully raised.) Naturally, we were rather anxious not to miss this once-in-a-lifetime opportunity.

On 23rd October, 1979 (after 13 days incubation), the egg hatched, and the larva, after causing much consternation

by refusing to feed on offerings of fresh banana and palm leaves, settled down and fed on a species of Bromeliaceae, *Aechmea nudicaulis* L. consuming to our surprise, leaves, spins and all! The larva fed and grew without further problems, shedding its skin three times before pupation. The perfect protective colouration makes a description of the larva next to impossible. Of interest is that contrary to Barcant's description, the larva, as can be seen in the photograph, has two "tails" and is quite different from the tailless larva of *B. sophorae* L. The pupa was quite remarkable, resembling a snake poised to strike or a swallow about to take off.

The figures below are the important dates:

Eggs deposited — 11th October 1979
Hatched — 23rd October 1979
First moult — 2nd November 1979
Second moult — 10th November 1979
Third moult — 19th November 1979
Ceased feeding on — 30th November 1979
Pupated on — 4th December 1979
Adult ♂ emerged — 20th December 1979
Time from deposition of ovum to emergence — 70 days

Thanks are due to Mrs. F.C. Urich for putting up with the frequent telephone calls, intrusion on her privacy for inspection and photography of the "baby"; to Mr. Hans Boos for the photography; to Mrs. J. Boos for typing and re-typing the manuscript; to Drs. Bennett and Cock for their invaluable help in locating references to the foodplants of this genus and to Dr. C.D. Adams and Mr. Bhorai Kallou of the National Herbarium housed at the University of the West Indies, St. Augustine, for their service in identifying the larval foodplant.

A further article for an international magazine is planned when more information currently being sought on this species is obtained. The specimen is housed in the collection of the senior author at Sangre Grande.

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● See front cover for illustrations.