

MIGRANT LEPIDOPTERA IN NEW ZEALAND

1970 - 1971

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SUMMARY

Previous papers and records of migrant Lepidoptera in New Zealand emphasised the fact that strong westerly winds were the most important factor responsible for the arrival of Australian butterflies and moths (see bibliography below). Absence of these winds from October 1970 to March 1971 resulted in complete absence of migration records for this period except for a few records in early February after Cyclone Rosie reached the west coast of the North Island. However, records of some Australian species were frequent during this period, and it would appear that some of these migrants are now established and breeding in restricted areas close to the west coast of New Zealand.

Species included in this paper are: **Hypolimnas bolina nerina** (F.), **Lampides boeticus** (L.), **Gonitis sabulifera** (Guen.), **Hypocala deflorata** (F.), **Achaea janata** (L.), **Ectopatria aspera** (Walker), **Agrotis infusa** (Boisd.), **Prodenia litura** (F.), **Spodoptera exempta** (Walker), and **Plusia oxygramma** (Hubn.).

The records in this paper follow on from those in my previous paper on this topic (**N.Z. Ent. Vol. 4, No. 4.**)

Hypolimnas bolina nerina (F.) (Nymphalidae)

The Blue Moon Butterfly was recorded in fairly large numbers on the west coast of both islands this autumn (1971). As with the last large invasion in 1956 the maximum number of records were in late April and early May. See Ramsay and Ordish 1966). Analysis of the full details awaits information from the N.Z. Meteorological Office.

Lampides boeticus (Linnaeus) (Lycaenidae)

The Long-Tailed Blue Butterfly was found in large numbers in Nelson during May 1971. (See Harding, this issue).

Gonitis sabulifera (Guen.) (Noctuidae, Ophiderinae)

One specimen of this tropical species was caught by the author at Manaia on the night of 4.6.71, after four days of strong north-easterly winds. To my knowledge this is only the second specimen to be caught in New Zealand. (See Hudson 1928). Zimmerman (1958 : 379) reports it as widespread from Africa to Malaysia, Australia and east to the Marquesas Is.

Hypocala deflorata (Fabricius) (Noctuidae, Ophiderinae) (Fig. 1)

Three specimens of this conspicuous moth were caught in New Plymouth on 5.2.71 by Mr. E. McCutcheon. The previous day Cyclone Rosie had been stationary off Taranaki, having come from the north, and was presumably responsible for the sudden arrival

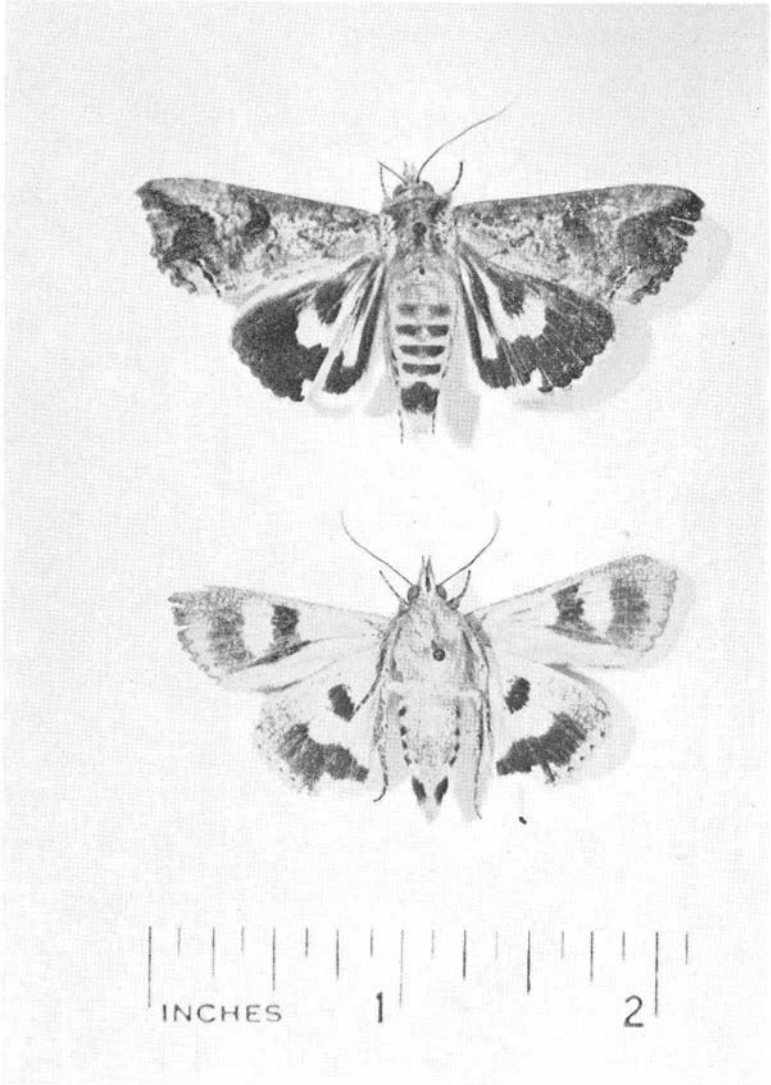


Fig. 1: **Hypocala deflorata**, New Plymouth, 5 Feb., 1971. Above: dorsal; below: ventral. Photo, E. McCutcheon.

of this moth in Taranaki. Previous records of members of this genus in New Zealand have been made near ports and could have been artificially introduced with shipments of bananas, but there have been no such shipments to New Plymouth this year.

The only previous record of *Hypocala deflorata* in New Zealand was one specimen caught at the Orongorongo Valley Field Station over December 1969 and January 1970.

This tropical species is most unlikely to establish itself in New Zealand due to lack of food plants and lack of a suitable climate. Zimmerman (1958 : 387) gives *Diospros*, *Maba* and *Sapota* as hosts. *Achaea janata* (Linn.) (Noctuidae, Catocalinae)

Six specimens of this species were recorded in summer and autumn 1971: Nelson 4.2.71 (1 female), 30.4.71 (2 females) (W. K. McGavin); Opunake 2.5.71 (1) (F. Chambers); Manaia 8.5.71 (1 very worn) (K. J. Fox); Nelson 21.5.71 (1 female) (K. McGavin). Mayor I., April 1971 (several, 1 male caught (B. W. Thomas).

It is interesting to note that the first specimen arrived with Cyclone Rosie on 4.2.71, and the others at the end of April and early May after several days of westerlies and at the same time as the Blue Moon Butterflies.

Ectopatria aspera (Walker) (Noctuidae)

Many records of this species have been made at Port Hills, Nelson, by Mr. Keith McGavin in his M.V. trap: 7.5.70 (1 male), 13.9.70 (1 male), 23.9.70 (1 female), 22.10.70 (1 male, 1 female), 26.10.70 (1 male, 1 female), 30.12.70 (1 female) 20.1.71 (1 female), 21.3.71 (1 male).

In addition other specimens have been seen in Nelson by Mr. John Dugdale, and it seems that this species has now established itself in the Nelson district as a breeding species.

Agrotis infusa (Boisd.) (Noctuidae)

In 1967, 1968 and 1969 several specimens of this species were taken in Manaia, South Taranaki during late October and November and one or two specimens were found in the January months following these records. (See Fox 1969 and 1970). It has been assumed that these specimens had been on their way to aestivating colonies in the mountains of south-east Australia and had been caught up in strong westerly winds and thus carried to New Zealand.

Records this season followed a similar pattern, in the complete absence of strong westerly winds:—

Manaia 23.10.70 (1 male); 24.10.70 (1 female); 25.10.70 (1 male, 1 female); 9.11.70 (1 male); 23.1.71 (1 male); 8.5.71 (2 males) (K. J. Fox).

The female specimen caught on 25.10.70 was kept in captivity and on 28.10.70 laid about 300 fertile ova. Had this been an Australian specimen it would have been most unlikely for it to have been fertile at this time of year (see Common 1954). The larvae hatched on 9.11.70 and fed readily on many garden weeds and

grasses, particularly Compositae. About thirty specimens were reared to maturity, and these adults emerged at the end of January at the same time as a "wild" specimen was caught.

I feel therefore that it is almost certain that this species is established as a resident breeding species in Taranaki, and that there are three generations each summer.

Prodenia litura (Fabr.) (Noctuidae)

Two more specimens of this tropical pest were caught in Nelson: 6.5.71 (1 male); 8.5.71 (1 male) (Keith McGavin). This species seems to crop up frequently in the north-west of the South Island (see Fox 1970).

Spodoptera exempta (Walker) (Noctuidae)

One male specimen of this tropical pasture pest, common in the north and east of Australia was taken by K. McGavin in Nelson on 7.5.70.

Plusia oxygramma (Hubn.) (Noctuidae)

This species which is widely distributed throughout Asia, Australia and the Pacific Islands is of sporadic appearance in New Zealand.

However it has recently been recorded frequently in Nelson: 15.5.70 (1 female); 28.2.71 (1 male); 4.3.71 (1 female); 15.5.71 (1 male); 21.5.71 (1 female) (Keith McGavin).

It seems likely from the frequency and widely spread records from Nelson, and the complete absence of records from elsewhere, that this species, as with **Ectopatria aspera**, is now a resident breeding species there.

ACKNOWLEDGMENTS

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