

THE BLUE MOON BUTTERFLY HYPOLIMNAS BOLINA NERINA IN NEW ZEALAND DURING AUTUMN, 1971

G. W. RAMSAY.

The last major appearance of the Australian Blue Moon Butterfly (*Hypolimnas bolina nerina* (F.)) in New Zealand occurred during April and May 1956 when 697 sightings were made. This was reported by Ramsay and Ordish (1966) who also summarised preceding records and the records of 1957 and 1962. Since then there have been few records as follows:—

1962	24th April	Rotorua	one male	J. S. Dugdale
1963	16th June	New Plymouth	one female	P. Fitzgerald
1963	16th June	Motuaronia Is., Bay of Islands	one male	Col. W. E. Browne
1965	27th Feb.	Wakatu, Hastings	one specimen	T. H. Davies
1966	3rd March	Mangateretere, Hastings	one specimen	T. H. Davies
1969	February	Bluff Hill, Napier	one male	Col. W. E. Browne

During April and May of 1971 another invasion occurred. This time 77 sightings were made involving 96 specimens — (see Table 1).

TABLE 1

Nth. Auckland	3	7-29 April	Manawatu	1	15 May
Auckland	2	3 May	Wellington	13	23 April
Mayor I.	1	April			-24 May
Te Awamutu	1	29 April	Nelson	49	20 April
Waiouru	1	1 May			-24 May
Taranaki	18	24 April	Golden Bay	3	23 April
		-26 June			-6 May
			West Coast	4	29 April
					-2 May

Table 1: Numbers of butterflies sighted and time of occurrence during April-May 1971.

A detailed list of these sightings is filed with the records of the D.S.I.R. Entomology Division, Nelson. The relatively high number of sightings in the Nelson area is probably the result of greater publicity through the local news media than occurred elsewhere, as it seems unlikely that Nelson should receive so many more butterflies than other places. It is probable that these figures rep-

resent only a fraction of the total number of butterflies present and, further, that individual butterflies have been included more than once in some cases. However there is no doubt that an invasion of some magnitude occurred although we can have only an approximate idea of its size.

As with the 1956 invasion, butterflies appeared more or less simultaneously in all areas from which they were reported. One butterfly was caught on April 7th and another was seen on April 20th. Following this two were seen on 22nd, five on 23rd and a total of 45 on April 24th and 25th. Thereafter up to eight were seen on any one day until May 11th. Only a few survived beyond this, two being seen on May 24th and the last at New Plymouth on June 26th.

Comments on the near perfect condition of many of the butterflies and therefore the improbability of their Australian origin were frequent, but battered specimens also occurred. The situation was similar with the butterflies of the 1956 invasion and Gibbs (1968) also found the same with the *Vanessa kershawi* (McCoy) migrants. In general the butterflies were not exhausted, in fact most reports indicated that they were alert and difficult to catch. Many people noted butterflies basking in the sun and feeding at flowers, particularly *Zinnia*, the most common flower at the time. In some cases a particular butterfly remained in the same area for a number of days. One report included a description of two Monarch Butterflies (*Danaus plexippus* (L.)) attempting to drive off three *Hypolimnas* which were basking and fluttering in the sun high up on a cypress tree. Butterflies were sometimes seen in pairs and no doubt some eggs were laid but, as with all previous invasions, it is unlikely that there will be any progeny. Of the sightings 35 were recognised as male and 25 as female. In localities where the butterfly has been reported the following plants, listed as food plants of the larva in Australia, would be worth searching for eggs and caterpillars: Acanthaceae (*Asystasia*, *Pseuderanthemum*, *Ruellia*), Amarantaceae (*Alternanthera*), Aroideae (*Richardia*), Malvaceae (*Sida*), Portulacaceae (*Portulaca*), Compositae (*Synedrella*).

Australian immigrant Lepidoptera are becoming more and more frequently recognised in New Zealand. Dugdale (1969), Fox (1969, 1970, and in this issue), Gaskin (1970), Gibbs (1969), Harding (in this issue), Holloway (1954, 1962), Ramsay (1954), Ramsay and Ordish (1966), Wise (1958, 1969) all list and discuss Australian species occurring in New Zealand. Of particular interest is the widespread spring occurrence of *Vanessa kershawi* (McCoy) described by Gibbs. This followed an increase and migration of the species in Australia combined with favourable meteorological conditions, as has been the case with all previous known invasions. The present one is no exception. According to Dr. C. N. Smithers (pers. comm.) the 1971 season in Australia was unusual in that "a lot of northern species" of butterflies were seen around Sydney, in

other words their range extended further south than normal. Although the weather conditions prevailing at the time of the start of the invasion, 23rd-25th April 1971, do not at first sight appear favourable for butterflies to be carried from Australia, it was possible for butterflies to reach the Nelson area from the south-east of Australia, in two or three days (Met. Office data). The actual meteorological conditions involved will be considered later.

It is appropriate here to mention the origin of the name Blue Moon Butterfly for *Hypolimnas* in New Zealand. In Australia it is called the Common Eggfly. Johannes Andersen (1924) writing about a specimen of this butterfly which had been caught in Westland says: "I have called it the 'blue-moon butterfly' because it is so rare; it is found only 'once in a blue moon'. Besides, it carries the blue moon on its wings, and it is like other blue moons—it is there all the time, but it is only when you are in certain positions that you see it." Further, it is interesting to consider that this species must have been known to the Maori although we know of no name specifically applied to it. Amongst the Maori names for butterfly listed by Miller (1952) there is one—kahukura—which is also the Maori name for a rainbow. There is no butterfly of the New Zealand fauna to which this name could be more appropriately applied than to the female *Hypolimnas*.

REFERENCES

(Additional to those listed in Ramsay & Ordish (1966))

- ANDERSON, Johannes C., 1924: Rare Moths and Butterflies and some wasps. *New Zealand School Journal* (Part III August, September): 207-213, 247-255.
- DUGDALE, J. S., 1969: A Note: Some Records of Australian Noctuidae in New Zealand. *New Zealand Entomologist* 4 (2): 13-14.
- FOX, K. J., 1969: Recent Records of Migrant Lepidoptera in Taranaki. *New Zealand Entomologist* 4 (2): 6-10.
- 1970: More Records of migrant Lepidoptera in Taranaki and the South Island. *New Zealand Entomologist* 4 (4): 63-66.
- GASKIN, D., 1970: Migrant Lepidoptera at Palmerston North in 1968. *New Zealand Entomologist* 4 (3): 111-112.
- GIBBS, G. W., 1969: A Large Migration of the Australian Painted Lady Butterfly, *Vanessa kershawi* (McCoy) to New Zealand. *New Zealand Entomologist* 4 (2): 14-21.
- MILLER, D., 1952: Insect People of the Maori. *Journal of the Polynesian Society*. 61 (1 & 2): 1-61.
- RAMSAY, G. W. and ORDISH, R. G., 1966: The Australian Blue Moon Butterfly, *Hypolimnas bolina nerina* (F.) in New Zealand. *New Zealand Journal of Science* 9 (3): 719-729.
- WISE, K. A. J., 1969: Three New Insect Records for the Auckland Area, New Zealand. *Records of the Auckland Institute and Museum* 6 (4-6): 423-426.