

THE OCCURRENCE OF *Achilus flammeus* Kirby IN NEW ZEALAND

(Homoptera; Fulgoroidea; Achilidae)

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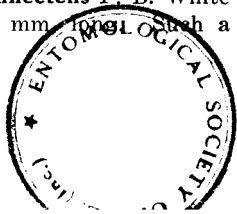
The presence of this Australian species **Achilus flammeus** W. Kirby (1818), in Auckland has been known for some years, and it is considered a record should be made so that others might be induced to search for it more extensively and help to define the limits of its present dispersal and trace any later spread. We have no records of its feeding; information on biology and life history would be of much interest. All the specimens known to us were captured in buildings in Queen Street, in the City of Auckland, frequently on windows. Further details are as follows:

? xii-46 (floor of restaurant), coll. A. Cummings (4 specimens).

10-xii-47, coll. S. R. Salter (1).

xi-50 (2); 30-xi-50 (1); 1950 (7); early 51 (1); 15-ii-51 (1); 28-ii-51 (1); 2-xi-51 (4); 6-xi-51 (1); 5-xii-51 (1); 18-viii-53 (6); 10-x-53 (2); 28-xi-53 (2); 5-xii-53 (1); all coll. E. D. Willis.

The species is rather conspicuous being bright red and up to about 16 mm. in total length with the wings closed (the Auckland specimens examined ranged from 11 mm. to 13mm.). It is figured by Tillyard (1926). The only other Achilid recorded from New Zealand is the apparently endemic **Agandecca annectens** F. B. White 1879, a yellowish brown species only about 5 mm. long. Such a



colourful insect as **Achilus flammeus** could scarcely have been overlooked by earlier collectors so that its introduction must have been quite recent. Its apparent restriction to an area not far from the wharves in Auckland supports this. It is rather curious that all the Auckland specimens so far examined are females; it would be interesting to know whether there are any factors of behaviour or life history that might account for this.

One or both of the females caught on 10-x-53 laid 39 eggs in captivity, while several mature eggs are still adhering to the slightly disrupted abdomen of one of the females captured on 2-xi-51. The eggs are white, of a simple elliptical form, without surface sculpture, but with small, spherical, internal granulations showing through in the ovarian eggs. They are ca. 0.7 mm. long and 0.4 mm. wide.

For our specimens we wish to thank the collectors listed above and particularly Mr. E. D. Willis, who has caught and supplied us with material over a period of several years.

We are also very grateful to Mr. A. Musgrave, of the Australian Museum, Sydney, for confirming provisional identifications (first made by E.G.T.) and for the following interesting information kindly given by him (in litt.):

"This Fulgoroid does not appear to be associated with any 'food plant' in the strict sense. I have a note in my catalogue that in Oct.-Nov. 1947, this species emerged in a house in South Strathfield, near Sydney, from underneath skirting boards, and flew thence to curtains near windows or electric light or would settle on walls. They came from underneath the house, averaging about 18 a day. McKeown (1942) suggests that it 'appears to be in some way associated with termites, and its nymphs have been found in their mounds.'

"As certain Australian species of termites have been recorded from New Zealand, perhaps the Fulgoroid has been introduced with them."

This information is very suggestive in its possible implications to the situation in Auckland, and we should like to make a plea, particularly to those concerned with the examination and destruction of termite nests in this area, to keep an eye out for nymphs and adults of **Achilus**. If such an association is found, several interesting problems could be investigated, such as the species of termites involved, the nature of the relations with the termites, feeding habits, and whether copulation may take place before the females leave the nest.

REFERENCES

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