

## THE PELORIDIIDAE OF LORD HOWE ISLAND

(Homoptera, Coleorrhyncha)

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(Figures 1-5)

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For a considerable time it has been known that a representative of the archaic Homopterous family, the Peloridiidae, occurred on Lord Howe Island since a single nymph has been recorded from there (Bergroth, 1924). This had been collected by A. M. Lea.

Although during the intervening years several entomologists have visited the island, so far as is known no additional specimens have been collected. This is not surprising, as the insects are seldom found unless specially sought.

Because of their particular interest and because of their significance from the point of view of zoogeography, a visit was paid to the island during March, 1959, specially to search for these insects.

Lord Howe Island, which has a total area of approximately 5 square miles and is 7 miles long, is situated in the south-west Pacific, 300 miles east of Port Macquarie on the Australian coast. Port Macquarie is 100 miles north of Sydney. There are several islets adjacent to the island, one group in particular, the Admiralty Islands, being well known as the breeding place of numerous sea birds. About 18 miles to the south of Lord Howe Island is a remarkable pinnacle-shaped rock, 1,816 ft. in height, known as Ball's Pyramid.

The island is approximately crescentic in shape, the apices of the crescent being linked by a coral reef which encloses a shallow lagoon. This is the most southerly occurrence of reef coral in the world.

There are three groups of basaltic hills, linked together by sandy lowlands. The group at the southern end of the island consists of two precipitous mountains which rise to a height of 2,840 ft. (Mt. Gower) and 2,504 ft. (Mt. Lidgbird). The two other groups consist of hills ranging between 400 and 700 feet in height.

As is well known, the Peloridiidae occur only in moss which is permanently wet, and as the only place on the island where moss is known to occur in such a condition is on the top of Mt. Gower the search was narrowed to a restricted area.

The top of Mt. Lidgbird, like that of Mt. Gower, is frequently concealed by cloud and hence might be supposed capable of supporting vegetation with high moisture requirements, but while the summit of Mt. Gower consists of an undulating plateau several acres in extent, that of Mt. Lidgbird is a narrow crest.

In order to ascend Mt. Gower not only is fine weather necessary but also the services of a guide, as there is no readily recognisable track. Moreover, without an experienced guide it would be difficult to find one's way to the top in a morning's climb, since much of the mountain is precipitous.

Three attempts were made at an ascent, but the two first had to be abandoned because of bad weather. The third, which was made on the last day spent on the island, was successful.

The vegetation on the top of Mt. Gower, which is considerably different from that growing on the rest of the island, includes tree ferns, two of the four species of endemic palms, *Dracophyllum fitzgeraldi*, and various small trees and shrubs. Oliver (1916) has described how "almost every available space, whether on standing or prostrate stems and branches of trees, tree ferns and palms, appears to be thickly covered with ferns, mosses and lichens".

Three hours were spent on the top of Mt. Gower, and a search of moss made by my wife, our guide, Mr. R. Payten, and myself yielded a total of 24 adult Peloridiids and seven nymphs.

These, on examination, proved to represent what appear to be two species which, though having affinities with *Hemiodoecus leai* China and *H. veitchi* Hacker, are nevertheless sufficiently distinctive to merit the creation of a new genus for their reception.