Micromus swezeyi. Photo: Brendan Wang.

Terrestrial Invertebrates

Lacewings and Antlions
Neuroptera

ORDER INCLUDES:
3 Native Families
5 Native Genera
50 Endemic Species and subspecies

GENERAL INFORMATION:
Family Chrysopidae- 22 speices and subspecies
Family Coniopterygidae- 1 species
Family Hemerobiidae- 25 species and subspecies
Family Myrmeleonidae- 2 species and subspecies

Lacewings and antlions are predators, feeding on other insects in both their immature and adult stages. Most adult species in the genus have four large, net-veined, wings. Species in the Chrysopidae are bright green and colorful, while species in the Hemerobiidae are mostly brown. A few species are flightless (e.g., *Micromus lobipennis* and *M. haleakalae*). The largest number of Hawaiian endemic species are found in the genera *Anomalochrysa* (Chrysopidae) and *Micromus* (Hemerobiidae). Many native species of brown lacewings (Hemerobiidae: *Micromus*) are relatively common, but others – particularly those with highly modified or reduced wings – are rare. The native antlions (Myrmeleontidae: *Distoleon*) are rare and very poorly known; it is unclear if there are multiple endemic species present, or if they are indigenous variants of the widespread *D. bistrigatus*.

DISTRIBUTION: Neuropterans are known from all the MHI except for Kahoʻolawe and Niʻihau. Members of this order also are known from the NWHI.

ABUNDANCE: Unknown. A lack of systematic surveys prevents any population estimate. However, the loss of native habitats likely means that species within the order are declining.

LOCATION AND CONDITION OF KEY HABITAT: Mostly unknown. However, lacewings and antlions appear to occur in a wide range of habitats.

THREATS:
- Loss or degradation of habitat.
- Insufficient information for species assessments.

CONSERVATION ACTIONS: The goals of conservation actions are not only to protect current populations and key breeding habitats but also to establish additional populations,

thereby reducing the risk of extinction. In addition to common statewide and island conservation actions, specific management directed toward lacewings and antlions should include:

- Conduct surveys to determine the distribution and abundance of known lacewings and antlions and to document and identify new species.
- Preserve, maintain, and restore habitats supporting existing populations.

MONITORING:

- Continue monitoring the status of known populations.

RESEARCH PRIORITIES:

- Conduct studies to document the biology, habitat requirements, and life history of native species.
- Conduct and support systematic and taxonomic assessments of poorly known and understudied taxa. Review and revise genera in need of taxonomic scrutiny. Work to identify and describe new species to science.

References:

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