Nannolene sp. (undescribed). Photo: Mike Slay

Terrestrial Invertebrates

Millipedes

Orders Polyxenida, Spirostreptida

ORDER INCLUDES:
2 Native Families
2 Native Genera
>16 Native Species
>16 Endemic Species

GENERAL INFORMATION: Most millipedes (Class Diplopoda) are detritivores (i.e., feeding on decaying organic material) and play a role in breaking down decaying plant material. A few species are carnivorous, and a few others eat moist, living plant material. Millipedes hatch from eggs and molt as they grow, obtaining more segments and legs with each molt (i.e., anamorphic growth). Millipedes do not bite, but many will emit poisonous or foul-smelling substances to deter predators. Of the 15 orders of millipedes found worldwide, only two are found in Hawai‘i, and both are poorly known.

DISTRIBUTION: Millipedes are known from all the MHI except for Ni‘ihau. An undescribed cave-adapted species has been found in lava tubes on Hawai‘i.

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

LOCATION AND CONDITION OF KEY HABITAT: Mostly unknown. Several blind species inhabit caves. Other species occur along shorelines.

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 millipedes should include:

- Conduct surveys to determine distribution of known millipedes 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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