



Terrestrial Invertebrates

Springtails Order Collembola

ORDER INCLUDES:
5 Native Families
32 Native Genera
95 Native Species
95 Endemic Species

GENERAL INFORMATION: Springtails are primitive, wingless hexapods related to insects. They are typically scavengers or fungivores; some also feed on living plant material. They go through a slight metamorphosis and usually grow to less than five millimeters (0.2 inches), and are often much smaller. Long-legged flies (Dolichopodidae), ants, and spiders are known to prey on springtails. The order is poorly known in Hawai‘i.

DISTRIBUTION: Springtails are known from all MHI except Kaho‘olawe and Ni‘ihau, and a few are found in the NWHI.

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

LOCATION AND CONDITION OF KEY HABITAT: Because they are often sensitive to desiccation, springtails are most often found in damp habitats. However, they occur in a wide range of habitats, primarily in soil and leaf litter. Species also can be found in trees, lava tubes, and in the desert-like habitat at the summit of Mauna Kea and on coral atolls.

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 springtails should include:

- Conduct surveys to determine the distribution and abundance of known springtails 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:

Christiansen K, Bellinger P. 1992. Insects of Hawaii: Volume 15 Collembola. Honolulu: University of Hawai'i Press.

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Zimmerman EC. 2001. Insects of Hawaii: Volume 1 Introduction. Honolulu: University of Hawai'i Press.