

***Hylaeus hula* (Perkins, 1911)**
(Hymenoptera: Colletidae: Hylaeinae)

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SUMMARY

Hylaeus hula is a small bee endemic to the island of Hawaii in Hawaii. It is superficially similar to *H. flavifrons*, differing by the narrower yellow-marked scape and other details. Most collection records are from the Kilauea area, and like other dry-mesic species it is now rare.

CONSERVATION STATUS

Xerces Red List Status: Imperiled

Other Rankings:

Canada – Species at Risk Act:	N/A
Canada – provincial status:	N/A
Mexico:	N/A
USA – Endangered Species Act:	Species of Concern
USA – state status:	HI: Species of Concern
NatureServe:	GNR
IUCN Red List:	N/A

SPECIES PROFILE

DESCRIPTION

Males: Black; head nearly all yellow below the antennae, scape with a distinctive yellow stripe on the lateral margin. Hairs at the apex of the abdomen black, erect.

Females: Face with narrow stripes along the eye. Supraclypeal area relatively long, only about twice as wide as long.

Hylaeus hula is an unusual species that does not fit into any of the well-defined species groups. It is apparently related to *H. kokeensis* and *H. unicus*.

TAXONOMIC STATUS

Hylaeus hula was described as *Nesoprosopis hula* by Perkins (1911). *Nesoprosopis* was reduced to a subgenus of *Hylaeus* by Meade-Waldo (1923). The most recent taxonomic treatment was Daly and Magnacca (2003).

LIFE HISTORY

Hylaeus hula inhabits dry to mesic forests. All recent collections have come from *Chamaesyce olowaluana* (akoko) and *Santalum paniculatum* (iliahi, sandalwood) trees. Nesting habits are not known, but based on related species it probably nests in wood.

DISTRIBUTION

Hylaeus hula is restricted to upper-elevation dry and mesic forest. Two disjunct populations are known, at Kilauea and at Puu Waawaa Wildlife Sanctuary. However, much of the intervening area has not been fully searched.

THREATS

The rarity of *H. hula* and lack of knowledge about its requirements make it difficult to assess threats. Unlike other, more common species, it is never found in dry shrubland, a much more common habitat than dry or mesic forest. The latter have been heavily impacted by grazing and other factors, but the large potential area and lack of access makes it difficult to assess how much remains, or what the true distribution of *H. hula* is. Lack of nest sites due to declines in the populations of wood-boring *Plagithmysus* longhorn beetles may also be a factor, but has not been investigated.

CONSERVATION STATUS

This species is extremely rare; it has been found only at two small sites and in low numbers.

Originally, U.S. Federal listings of rare and endangered species classed *H. hula* as a “Category 2” Candidate Species about which more information was needed before it could be considered for listing. This status was based on recognition that Hawaiian bees in general were becoming rarer and little was known about their conservation status. Data were never gathered to document whether or not this species should be proposed for listing. It is currently considered to be a “Species of Concern” or a “Special Status Species” by U.S. Fish and Wildlife Service and Hawaii Division of Forestry and Wildlife.

CONSERVATION NEEDS

The top priority is to identify extant populations and document the continued existence of the species. Both sites where *H. hula* is known to be found are protected under the auspices of the State of Hawaii and the National Park Service, though they may not be actively managed for habitat conservation; other populations may be found on private or U.S. Army land. The trees that *H. hula* were collected on at Puu Waawaa lie just outside a sheep fence; including them in the fenced area and/or planting *C. olowaluana* within the enclosure would help greatly. All areas are highly vulnerable to fire.

RESEARCH NEEDS

Identify reasons for rarity and habitat requirements, and locate new populations.

RESOURCES

CONTACTS

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REFERENCES

Daly, H. V., and K. N. Magnacca. 2003. *Insects of Hawaii, Vol. 17: Hawaiian Hylaeus (Nesoprosopis) Bees (Hymenoptera: Apoidea)*. University of Hawaii Press, Honolulu. 234 pp.

Magnacca, K. N. 2005. Evolution of *Hylaeus (Nesoprosopis)* Bees in Hawaii. Ph.D. dissertation, Cornell University.

Meade-Waldo, G. 1923. Hymenoptera, fam. Apidae, subfam. Prosopidae, fasc. 181. Pp. 1-45 in P. Wytsman (ed.), *Genera Insectorum*. L. Desmet-Verteneuil, Brussels.

Perkins, R. C. L. 1911. New species of Hawaiian Hymenoptera, with notes on some previously described. *Trans. Entomol. Soc. Lond.* 1911:719-727.

WEBSITES

Bishop Museum Arthropod Species of Concern checklist

<http://hbs.bishopmuseum.org/endangered/soc-artho.html>

Lists *H. hula* as a Species of Concern. Updated February 21, 2000.