

***Hylaeus facilis* (F. Smith, 1879)**
(Hymenoptera: Colletidae: Hylaeinae)

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SUMMARY

Hylaeus facilis is a formerly widespread bee endemic to the islands of Oahu, Molokai, Lanai, and Maui in Hawaii. It is distinguished by its single, central face mark and unusually large gonoforceps. One of the most common species collected in the early 1900's, it has been found very rarely in recent decades.

CONSERVATION STATUS

Xerces Red List Status: Critically 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: Face marks yellow, consisting of a single large spot covering the entire clypeus and a narrow stripe in the paraocular area; otherwise unmarked. Process of the eighth sternum thin, not dilated; apices of gonoforceps very long, visible in situ. Hairs of abdominal apex brown, appressed.

Females: Entirely black, lacking coloration. Indistinguishable from females of *H. difficilis* and *H. simplex*.

Hylaeus facilis is a member of the *difficilis* species group, possessing the characteristic facial marks and 8th sternum of that group. The large gonoforceps are unmistakable; its sister species, *H. simplex*, also has them enlarged, but they are not visible externally.

TAXONOMIC STATUS

Hylaeus facilis was described as *Prosopis facilis* by F. Smith (1879), and transferred to the new genus *Nesoprosopis* by Perkins (1899). *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 facilis has been collected from all habitats from the coast to wet forest, but probably prefers dry to mesic forest and shrubland. Nesting habits are unknown, but it probably nests in the ground like related species.

DISTRIBUTION

Historic collections of *H. facilis* are from Oahu, Molokai, Lanai, and Maui, and it was very widely distributed. Only three individuals have been collected in the last 50 years: one from Oahu (1975) and two from Maui (1967 and 1993).

THREATS

The cause of the sharp decline in *H. facilis* is not clear, but it is probably due to habitat loss. Dry areas on Oahu and Maui Nui have been especially hard-hit by the combination of feral ungulates (especially goats) and subsequent invasion by exotic plants, as well as direct human modification. Although other related species (notably *H. difficilis* and *H. laetus*) are among the most common *Hylaeus*, they are abundant mainly on the islands of Kauai and Hawaii, where dry shrubland is relatively abundant; on the middle islands these species are rare as well.

CONSERVATION STATUS

This species was found widely and abundantly, especially on Oahu, in the early period of Hawaiian insect collecting (1892-1930). It is now extremely rare and possibly in danger of extinction.

Originally, U.S. Federal listings of rare and endangered species classed *H. facilis* 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 the U.S. Fish and Wildlife Service and the Hawaii Division of Forestry and Wildlife.

CONSERVATION NEEDS

The actual locations of remnant populations, if any, are not known. Although the 1993 collection gives hope that the species persists at least on Maui, it was taken in a residential area without native plants, and was probably a straggler from elsewhere. More intensive searching needs to be done to determine if cohesive populations exist in intact habitat, especially the small areas of dry forest on the leeward slope of Haleakala.

RESEARCH NEEDS

Search for extant populations, especially on Oahu and Maui.

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.

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. 1899. Hymenoptera, Aculeata. Pp. 1-115 in D. Sharp (ed.), *Fauna Hawaiiensis*, Vol. 1. Cambridge University Press, Cambridge, United Kingdom.

Smith, F. 1879. Descriptions of new species of Aculeate Hymenoptera collected by the Rev. Thos. Blackburn in the Sandwich Islands. *J. Linn. Soc.* 14:674-685.

WEBSITES

Bishop Museum Arthropod Species of Concern checklist

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

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