# Hylaeus longiceps (Perkins, 1899) (Hymenoptera: Colletidae: Hylaeinae)

Profile Prepared by Karl Magnacca, USGS-BRD, Kilauea Field Station.

# **SUMMARY**

Hylaeus longiceps is a coastal bee endemic to the islands of Oahu, Molokai, Lanai, and Maui in Hawaii. It is distinguished by its long head and large facial marks. It can be found relatively abundantly where it exists, but habitat destruction has caused its range to contract significantly. Hylaeus longiceps is restricted to small, widely scattered sites, and populations are vulnerable to extinction.

#### **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 entirely yellow below the antennae, with broad lateral marks extending dorsally. Head long, supraclypeal area longer than wide; scape narrow, twice as long as wide. Hairs of abdominal apex brown, appressed.

**Females:** Entirely black, lacking coloration. From with distinct, well-defined punctation.

Hylaeus longiceps is a member of the flavipes species group. Males can be easily distinguished by the long head and extensive facial marks; females can be told apart only by details of sculpture. Separation of this species and *H. finitimus* (if indeed they are distinct species) is uncertain due to loss of the only male specimen of the latter and ambiguous descriptions.

RED LIST OF POLLINATOR INSECTS. Species profile: *Hylaeus longiceps* 

# TAXONOMIC STATUS

Hylaeus longiceps was described as Nesoprosopis longiceps 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 longiceps inhabits coastal strand and dry shrubland. It can be found on a wide variety of plants. Nesting habits are unknown, but it probably nests in the ground like related species.

#### DISTRIBUTION

Found on Oahu, Molokai, Lanai, and Maui. Although it is the most abundant coastal species on the middle islands, it is still restricted to small patches of habitat. The largest area is probably on Molokai, where an area of sand dunes stretching from Moomomi to Kalaupapa may support a large population. Elsewhere it is found at Kaena Point on Oahu; Polihua and Shipwreck Beach on Lanai; and Waikapu and Waiehu on Maui. Additional sites may exist, but it is likely that they too will be small areas.

#### **THREATS**

The biggest threat to *H. longiceps* is habitat loss. Although the species can be found in relative abundance in some areas, native coastal strand vegetation is now extremely rare and usually limited to small sites.

#### **CONSERVATION STATUS**

This species is restricted to small, scattered populations.

Originally, U.S. Federal listings of rare and endangered species classed *H. longiceps* 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**

Populations of *H. longiceps* on Oahu and Molokai are protected under the auspices of the State of Hawaii and the Nature Conservancy. Those on Maui are potentially threatened by development; there is little such risk on Lanai but they may face habitat degradation due to erosion and other factors. All sites are suceptible to fire. Maintenance of remaining habitat is the highest priority.

# RESEARCH NEEDS

Search for additional 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.

# WEBSITES

Bishop Museum Arthropod Species of Concern checklist http://hbs.bishopmuseum.org/endangered/soc-artho.html

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