

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

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**SUMMARY**

*Hylaeus psammobius* is a coastal bee endemic to the islands of Maui and Hawaii in Hawaii. It is distinguished by the facial marks and the unusual process of the male 8th sternum. It is known from very few historic collections, and from only one recent one on Maui.

**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:	None
USA – state status:	None
NatureServe:	GNR
IUCN Red List:	N/A

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**SPECIES PROFILE**

**DESCRIPTION**

**Males:** Black; head mostly yellow below the antennae, the paraocular marks usually longer than the clypeal one and with an indentation in the middle. Scape moderately but not extremely dilated. Process of the 8th sternum unusual: dilated at the base and very narrow on the apical half. Punctures of scutum close, less than one pit width apart.

**Females:** Face unmarked or with up to three irregular marks: a pair of stripes along the eye and/or a transverse mark at the clypeal apex. Supraclypeal area relatively long, only about twice as wide as long. Scutum as in the male.

*Hylaeus psammobius* is an unusual species that is probably most closely related to *H. anthracinus* and *H. flavifrons*. It differs from the former by the usually larger facial marks

and from the latter by the narrower scape, and from both by the close punctuation of the scutum and the process of the 8th sternum.

#### **TAXONOMIC STATUS**

*Hylaeus psammobius* was described as *Nesoprosopis psammobius* 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 psammobius* is the only Hawaiian *Hylaeus* to inhabit windward coastal strand. Recent collections were made on flowers of *Bacopa monnieri* and *Sesuvium portulacastrum*. It probably nests in crevices in rocks.

#### **DISTRIBUTION**

*Hylaeus psammobius* is restricted to the coasts of Maui and Hawaii. It has been recently collected only Eleilei Point on Maui, but is probably found scattered along the north coast of East Maui. There are historical collections from Hilo on the island of Hawaii, and there may be populations in Puna or Kohala.

#### **THREATS**

Habitat destruction is the greatest threat to *H. psammobius*. Windward coastal sites with diverse native vegetation such as required by this species is extremely rare, due to development and invasive plants. The population discovered on Maui is very small in area and located in a narrow area between the high-tide line and cliffs; a single major storm could completely destroy it.

#### **CONSERVATION STATUS**

This species is extremely rare; it has been found only at one small site.

U.S. Federal listings of rare and endangered species classed *H. psammobius* as a “Category 3A” Candidate Species, considered “probably extinct”. It currently has no status as a “Species of Concern” at the federal or state level.

#### **CONSERVATION NEEDS**

The top priority is to identify extant populations and document the continued existence of the species. The single known locality for it is not protected and receives recreational use. The extent of native shoreline habitat on windward coasts is not well documented, and it has received much less attention than dry coastal areas.

#### **RESEARCH NEEDS**

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

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

## **WEBSITES**

This bee has no web presence.