

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

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SUMMARY

Hylaeus hilaris is a cleptoparasitic coastal bee endemic to the islands of Molokai, Lanai, and Maui in Hawaii. It is distinguished by the reddish abdomen with white apical hair bands and the mostly yellow face of the male. Never abundant, it is now extremely rare and has been recently collected only at a single site on Molokai.

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

SPECIES PROFILE

DESCRIPTION

Males: Face marks yellow, covering most of the face and the scape. Abdomen red to reddish brown, with apical bands of white hairs on the segments.

Females: Clypeus and scape reddish brown, abdomen dark but with hair bands on the apical segments.

Hylaeus hilaris is the most beautiful species of Hawaiian bee. The hair bands, reddish color, and extremely large facial mark are unmistakable.

TAXONOMIC STATUS

Hylaeus hilaris was described as *Prosopis hilaris* 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 hilaris is only found in coastal strand. It is a cleptoparasite, laying its eggs in the nests of *H. anthracinus* and *H. longiceps*. It is part of a clade of five Hawaiian species with this habit, but these are the only cleptoparasites in the family Colletidae.

DISTRIBUTION

Hylaeus hilaris was historically found on Lanai and at the Wailuku sand dunes on Maui. The latter was an important site for bees, but has now been largely destroyed by development or covered by exotic plants. Recent collections consist of two specimens from Moomomi on Molokai, from 1993 and 2000.

THREATS

The greatest threat to *H. hilaris* is habitat loss. Native coastal strand vegetation is now extremely rare. As a parasite, this species is necessarily found in much lower numbers than its hosts, which themselves are not found in abundance.

CONSERVATION STATUS

This species was formerly widespread, but is now restricted to a single small, highly vulnerable population.

U.S. Federal listings of rare and endangered species classed *H. hilaris* 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 known population of *H. hilaris* on Molokai is protected by the Nature Conservancy. The population may extend further east onto National Park Service land at Kalaupapa. The sites are not in danger from development and are managed for conservation, but are potentially susceptible to fire and invasive plants. Maintenance of remaining habitat is the highest priority.

RESEARCH NEEDS

Determine population size and extent on Molokai, find additional populations on other islands.

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.

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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 Extinct Species – Insects

<http://hbs.bishopmuseum.org/angered/ext-insects.html>

Lists *H. hilaris* as extinct. Updated March 21, 2002.