**Hylaeus (Nesoprosopis) akoko** (Magnacca and Daly, 2003)
(*Hymenoptera: Colletidae: Hylaeinae*)

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

**SUMMARY**

*Hylaeus akoko* is a large bee endemic to the island of Hawaii in Hawaii. It is closely related to the common wet forest species *H. fuscipennis* and *H. pubescens*, differing by the presence of facial marks. It was first collected in 2002, and is still known from only a few specimens from a single locality.

**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:** Black; clypeus with small irregular ivory marks near the apex (possibly sometimes absent), scape broadly ivory on the lateral margin, fore and mid tibiae and femora orange anteriorly, hind tibia and all basitarsi ivory for their entire length. Punctuation of abdomen distinct.

**Females:** Unknown; may be indistinguishable from *H. fuscipennis*.

*Hylaeus akoko* is larger and more robust than most Hawaiian species. It is a member of a group of species with distinct punctuation of the abdomen, including *H. anomalus* and *H. satelles*. It is most similar to *H. pubescens* of the island of Hawaii, which has dense reddish hairs on the apex of the abdomen and a distinctly humped T2; and *H. fuscipennis*, which differs in the genitalia and is found on Maui Nui and Oahu. Both of these species
lack facial marks and orange on the legs and are found in wet to mesic forest, while *H. akoko* has facial marks and has only been found in mesic forest.

**Taxonomic Status**

*Hylaeus akoko* was first collected in 2002 and described in Daly and Magnacca (2003).

**Life History**

So far as known, *H. akoko* inhabits mesic forests. All collections so far have come from *Chamaesyce olowaluana* (akoko) trees.

**Distribution**

*Hylaeus akoko* is apparently restricted to mesic forests in the Puu Waawaa area at an elevation of approximately 4100 ft. Less than 10 specimens have been collected.

**Threats**

The rarity of *H. akoko* and lack of knowledge about its requirements make it difficult to assess threats. In general, *Chamaesyce olowaluana* appears to support a much larger bee fauna than is found in nearby forest. It is also extremely vulnerable to grazing by sheep, which prevents reproduction. As a result, there are relatively few trees in the Puu Waawaa area. Dependence on *C. olowaluana* may therefore be an important factor in its distribution. Although *C. olowaluana* is found scattered throughout the area from Puu Waawaa to the Humuula saddle, the area where *H. akoko* was found is transitional between dry and mesic forest, a relatively rare habitat. Lack of nest sites due to declines in the populations of wood-boring *Plagiithmysus* longhorn beetles may also be a factor, but has not been investigated.

**Conservation Status**

This species is extremely rare; it is found in very low numbers and has a very narrow range.

**Conservation Needs**

Currently, the top priority is to identify extant populations and document the continued existence of the species. All areas where *H. akoko* is likely to be found are protected under the auspices of the State of Hawaii or the U.S. Army, though they may not be actively managed for habitat conservation. The trees that *H. akoko* were collected on lie just outside a sheep fence; including them in the fenced area and/or planting *C. olowaluana* within the exclosure would help greatly.

**Research Needs**

Identify reasons for rarity, determine dependence on *C. olowaluana*, and locate new populations.
CONTACTS
Karl Magnacca, USGS-BRD, Kilauea Field Station, Hawaii National Park, HI 96718

REFERENCES

WEBSITES
This bee has no web presence.