

Literature Cited

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Notable rediscoveries of *Megalagrion* species on Maui (Odonata: Coenagrionidae)

DAN A. POLHEMUS⁶ (Dept. of Entomology, MRC 105, Smithsonian Institution, Washington, D.C. 20560, USA; email: bugman@bpbm.org), HANK OPPENHEIMER (Maui Pineapple Co., Ltd., Honolulu Division, Pu'u Kukui Watershed Dept., 4900 Honoapi'ilani Hwy., Lahaina, Hawai'i, 96761, USA), FOREST STARR & KIM MARTZ (3572 Baldwin Ave., Makawao, Hawai'i, 96788, USA)

Among the species of endemic *Megalagrion* damselflies in Hawai'i, particular concern in recent years has centered on the fate of two taxa, *M. pacificum* (McLachlan) and *M. xanthomelas* (Selys-Longchamps), which formerly occupied lowland habitats throughout the state. Based on surveys conducted in the early 1990s, the former species was known to occur only as scattered populations on the windward flanks of Haleakalā and eastern Moloka'i, while a distributional review of the latter species by Polhemus (1996) noted that it had not been taken on the island of Maui in this century. It is therefore significant that additional colonies of both these species have been located on Maui during the past two years; these records are reported below.

Voucher specimens are housed in the Bishop Museum, Honolulu (BPBM).

Megalagrion pacificum* (McLachlan)*Notable rediscovery**

Although colonies of this species are scattered along the Hāna Coast of eastern Maui, there have been no records of *M. pacificum* from the West Maui Mountains since 1902, when R.C.L. Perkins took a short series in 'Īao Valley (BPBM collection database). In early 1998, however, one of us (Oppenheimer) located a population in the middle reaches of Honokohau Valley, a narrow, deeply incised canyon that cuts nearly to the center of the West Maui volcano (Fig. 1). Subsequently, a second population was located along the midreach of Honolua Valley, further to the west. The presence of these colonies indicates that additional populations may exist in other remote West Maui catchments, such as Kahakuloa Stream or the upper reaches of the Waihe'e River.

Material examined. MAUI: 1, West Maui Mountains, Honokohau Stream, below dam and ditch house, 250 m [820 ft], 17 Mar 1998, H. Oppenheimer (BPBM); 1, West Maui Mountains, Honolua Valley, above dam, 275 m [900 ft], 10 Jul 1998, H. Oppenheimer & S. Meidell (BPBM).

Megalagrion xanthomelas* (Selys)*Notable rediscovery**

The only previous records of *M. xanthomelas* on Maui were a few specimens taken by Perkins in the "West Maui Mountains" in 1894 and 1895, probably at or near 'Īao Valley. Surveys of suitable lowland habitats on Maui between 1991 and 1996 did not locate the species, leading Polhemus (1996) to speculate that it might have been extirpated on the island. This conjecture was disproven in 1997, when two of us (Starr & Martz)

6. Research Associate, Hawaii Biological Survey, Bishop Museum, 1525 Bernice Street, Honolulu, Hawai'i 96817-2704, USA.

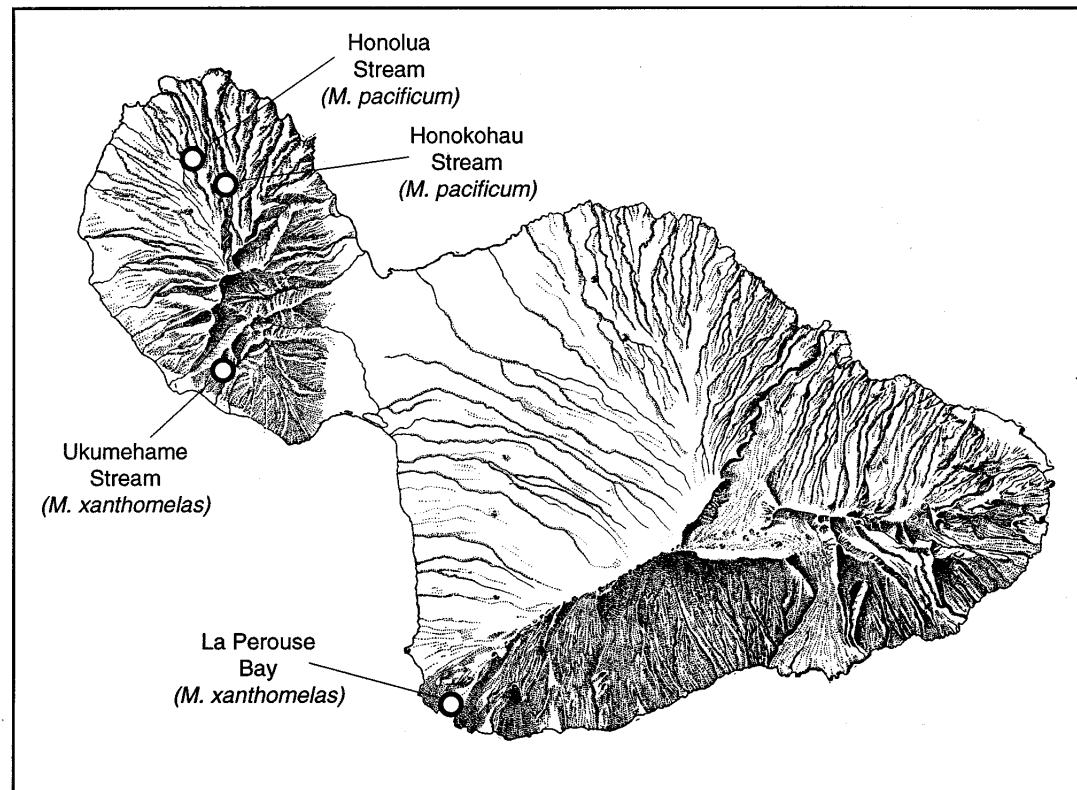


Fig. 1. Map of Maui showing collection locations of *Megalagrion* spp. discussed in the text.

located populations at separate sites on the leeward sides of both the West Maui Mountains and Haleakalā.

The first specimen was taken at a native plant enclosure upslope from La Perouse Bay in February 1997. A subsequent visit to this site in January 1998 revealed that the species was breeding further downslope, in anchialine ponds near the La Perouse light-house. This habitat is similar to that recorded for the species on the Kona Coast of Hawai'i Island by Polhemus (1996). The West Maui specimen was captured along the midreach of Ukumehame Stream, in the deep canyon downstream of its bowl-like upper valley.

Despite these discoveries, it is clear that *M. xanthomelas* remains highly localized on Maui, and must be considered a rare and potentially threatened insect species on the island.

Material examined. MAUI. 1, native plant enclosure upslope of La Perouse Bay, 55 m. (180 ft), 8 Feb 1997, F. Starr & K. Martz (BPBM); 1, West Maui Mountains, Ukumehame Stream, 120 m. (400 ft), 23 Feb 1997, F. Starr & K. Martz (BPBM).

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***Cassida circumdata* Herbst established in the Hawaiian Islands (Coleoptera: Chrysomelidae)**

G.A. SAMUELSON (Department of Natural Sciences, Bishop Museum, Honolulu, Hawai'i 96817-2704, USA; email: alsam@bishopmuseum.org), BERNARR KUMASHIRO (Hawaii State Department of Agriculture, 1428 South King Street, Honolulu, Hawai'i 96814, USA), & D.W. JAMIESON⁷ (National Tropical Botanical Garden, Lawa'i, Hawai'i 96765, USA; email: djamie@hgea.org).

In 1994, the Hawaii State Department of Agriculture (via Kumashiro) sent specimens of a *Cassida* species to Samuelson at Bishop Museum for identification. All specimens were from the Waimānalo area, O'ahu and were keyed by Samuelson to *Cassida papuana* (Spaeth) in Borowiec (1990), but they also compared with some question to *C. circumdata* Herbst (the latter was not included in the Borowiec key). The Waimānalo specimens also varied to some extent (discussed below). Specimens from this series were then sent to Lech Borowiec, who identified it as *Cassida circumdata* Herbst, 1790. In 1998, specimens collected on Kaua'i by Jamieson were sent to Samuelson for confirmation. The Oahu records were initially reported by Kumashiro in Hawaii Department of Agriculture Plant Pest Control (PPC) Branch reports: "PPC Highlights" for March 1994 and again for September 1994. We felt, however, that these records should be formally published here. This, too, would also provide a basis for Jamieson's new records for Kaua'i.

Voucher specimens are deposited in Hawaii State Department of Agriculture, Honolulu (HDOA) and Bishop Museum, Honolulu (BPBM).

***Cassida circumdata* Herbst New state record**

Cassida circumdata Herbst, 1790, *Natursyst. Kaf.* 8: 268, pl. 132, fig. 11.

Cassida trivittata Fabricius, 1801, *Syst. Eleuth.* 1: 397.

Metriona circumdata: Weise, 1901, *Dtsch. Entomol. Z.* 1901: 53.

7. Research Associate, Hawaii Biological Survey, Bishop Museum, 1525 Bernice Street, Honolulu, Hawai'i 96817-2704, USA.