

Recent introductions of Dolichopodidae (Diptera) in the Hawaiian Islands¹

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Recent surveys of Dolichopodidae in the Hawaiian Islands for various projects have revealed two new introductions that are recorded here. Vouchers of specimens from both records are deposited in the Bishop Museum; while a number of specimens of *Sympycnus turbidus* Becker have been sent to the University of California, Berkeley, for DNA analysis as part of a grant-funded project dealing with speciation patterns in Hawaiian Diptera.

Family Dolichopodidae Subfamily Sympycninae

Sympycnus turbidus Becker, 1922

New state record

Sympycnus is a commonly found genus, occurring virtually worldwide; however, this is the first record of the genus in the Hawaiian Islands. *Sympycnus turbidus* was originally described by Becker (1922) from India. It has since been recorded from a number of localities in the Oriental and Australian Regions including Nepal, Sri Lanka, Philippines, Papua New Guinea, Solomon Islands, Australia, China, Macao, Hong Kong, Taiwan, and Japan (Yang *et al.*, 2006; D.J. Bickel, unpublished data).

The specimens recorded here were all collected on the island of Kaua'i by aerial sweeping nets and in yellow pan traps in various locations in the Koke'e area, all above 1200 m [ca. 4000 ft]. Collecting in the area previous to the initial collection in 2010 did not reveal any specimens. That fact, combined with the large numbers of specimens collected in 2011 at a number of different sites lends support to the presumption that this species was introduced to this area within the last few years and has successfully established stable and flourishing populations on the island of Kaua'i. An introduction to an island at such a high elevation without any records below this elevation is perplexing but may have occurred through pupae or larvae coming in via importation from Asia of mud or potting soil containing ornamental or medicinal plants.

Material Examined: HAWAIIAN ISLANDS: **Kaua'i:** 1♂, Pu'u O Kila Road, sweeping, 22.148°N, 159.633°W, 25 Jul 2010, K.N. Magnacca [m0296-05]; 5♂, 2♀, Koke'e State Park, Kawai Koi Stream crossing road at intersection, pan trap in seep leading to stream, 19–20 Sep 2011, K.R. Goodman [KRG1138a, KRG1153a]; 2♂, 2♀, same data except general sweeping [KRG1131a]; 1♂, 2♀, same data except collected from stream [KRG1139a]; 1♂, 5♀, Koke'e State Park, Kawai Koi Stream, 19–20 Sep 2011, K.R. Goodman [KRG1133b, KRG1150]; 5♀, Koke'e State Park, board-

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walk on trail to Kawaikoi Stream, K.R. Goodman [KRG1142a]; 5♂,2♀, Koke'e State Park, Pihea Trail, 18 Sep 2011, P.M. O'Grady [702.6]; 42♂,37♀, Koke'e State Park, Mohihi Road at Kawaikoi Camp, 19–20 Sep 2011, P.M. O'Grady [704.4, 705.1, 711.1, 711.2]; 1♂, Mohihi Road at stream crossing, 19 Sep 2011, P.M. O'Grady [711.1]; 7♂,14♀, Koke'e State Park, Mohihi Road at Kawaikoi Stream Trail, 19 Sep 2011, P.M. O'Grady [707.1]; 7♂,14♀, Koke'e State Park, Pihea Trail in stream, 19 Sep 2011, P.M. O'Grady [708.1]; 2♂,5♀, Koke'e State Park, Pihea Trail, Kawaikoi Stream, 19 Sep 2011, P.M. O'Grady [709.1]; 5♂,10♀, Koke'e State Park, Kahua Ridge Trail, Mohihi Stream, 20 Sep 2011, P.M. O'Grady [712.2].

Subfamily Diaphorinae

Achradocera shannoni (Van Duzee, 1930) **New state record**

Previous to this record, only one species of *Achradocera* (*A. arcuata* Van Duzee, 1924) was known from the Hawaiian Islands (Bickel, 2000). This marks the first record of *Achradocera shannoni* (Van Duzee, 1930) from these islands. Both species are introduced. *Achradocera shannoni* was originally described by Van Duzee (1930) from Lima, Peru and has since been recorded from Panama and Costa Rica (D.J. Bickel, unpubl. data). Further concentrated collecting may show it to be much more widespread in the lowland Neotropics.

This species was collected from a wet seep on the Bishop Museum grounds, the seep deriving from a dripping irrigation pipe. Dozens of specimens were observed throughout the week water skating and landing on mud and rocks around the algae-covered seep.

Material Examined: HAWAIIAN ISLANDS: **O'ahu:** 4♂, 2♀, Bishop Museum grounds, 15–18 Nov 2008 (N.L. Evenhuis).

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