

Evidence of Competitive Displacement of Toxorhynchites Brevipalpis Theobald  
By T. Amboinensis Doleschall in Hawaii

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During the course of a study of Toxorhynchites amboinensis (Doleschall) from its type locality, Ambon Island, Indonesia, and comparisons with populations introduced into Hawaii from the Philippines (Steffan 1968), T. amboinensis only was found on Oahu although another species, T. brevipalpis Theobald from South Africa, was also considered to be established on Oahu (Hu 1955; Nakagawa 1963).

Toxorhynchites brevipalpis Theobald was introduced into Hawaii in August, 1950 (Bonnet and Hu 1951) and has subsequently been released on all the major Hawaiian islands.

I have made intensive collections from numerous localities on Oahu and so far have found only T. amboinensis. In Hawaii, both species apparently breed in the same niches (Nakagawa 1963) and if T. brevipalpis is no longer found here, competitive displacement of brevipalpis by amboinensis could be considered as a cause for the disappearance of brevipalpis. However, a more thorough study needs to be done of the Toxorhynchites in Hawaii, correlated with laboratory studies, before the cause of the disappearance of T. brevipalpis can be determined.

Literature Cited

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