

**New Host and Distribution Records for *Zadiprion rohweri* (Middleton) (Hymenoptera: Diprionidae), a Pinyon Pine Sawfly**

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NOTE

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*Zadiprion* includes six species and is distributed from southwestern United States to Guatemala where they feed on various pines (Smith et al. 2012). *Zadiprion rohweri* (Middleton, 1931) is restricted to pinyon pines in the western United States where it feeds on *Pinus edulis* Engelm. and *P. monophylla* Torr. & Frém. It has been recorded from California, Nevada, Utah, Colorado, Arizona, and New Mexico (Smith 1971; Smith et al. 2012; USDA Forest Service 1999; Fairweather et al. 2006). Though known to be a pest of pinyon pines, little has been published on its life history. Furniss and Carolin (1977) provided some brief notes, stating that the larvae feed on old needles, sometimes completely defoliating small trees, and there are apparently two generations a year. Here, we give distribution records for Arizona, report it for the first time from Mexico, add a new host record, and report the first known parasitoid for the species. Females and males of *Z. rohweri* are separated from other species of the genus in Smith et al. (2012: figs. 5, 11, 17, 22).

Arizona was not recorded for *Z. rohweri* by Smith (1971) and Smith et al. (2012). It was mentioned by USDA Forest Service (1999) defoliating some 52,000 acres of *P. edulis* on the Navajo Indian Reservation and Canyon de Chelly National Monument, Arizona, in 1998, and defoliated *P. edulis* in Mesa Verde National Park, Colorado, between 2006 and 2008. We have examined specimens

from the following localities: ARIZONA: Canyon de Chelly, Apache Co., VI.6.1997, series reared from *Pinus edulis*, extensive defoliation; Sunset Crater, Coconino Co., VII.20.1984, on *Pinus edulis*.

*Zadiprion rohweri* has not previously been recorded from south of the United States. The following is the first record from Mexico, together with a new host plant record: MEXICO: Cañón de San Lorenzo, Saltillo, Coahuila, VII.13.2015, J. C. A. Hernández, pino, 25°19'44.7"N, 100°59'44.4"W. The pine host is *Pinus cembroides* Zucc., also of the pinyon pine group. Young larvae (Fig.) were collected July 13, 2015 and put into 500 ml plastic containers covered with a fine mesh for rearing. Larvae were fed foliage of the host plant for 21 days until the larvae matured and spun cocoons. Most cocoons were formed in the forest litter, but a few were in the foliage. The time from cocoon formation to adult was 85 days. Adults emerged October 27, 2015.

One parasitoid, *Chetogena (Diplostichus)* sp. (Diptera: Tachinidae), emerged from cocoons while rearing. It is very near *C. (D.) lophyri* (Townsend), a widespread species in North America recorded as a parasitoid of other Diprionidae. Parasitoids have not been recorded previously from *Z. rohweri*.

The above specimens are deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC.

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Fig. 1. *Zadiprion rohweri*, young larvae on *Pinus cembroides*, Coahuila, Mexico.

Washington, DC, for identification and information on the tachinid. Mention of trade names or commercial products in this publication is solely for the purpose of providing specific information and does not imply recommendation or endorsement by the USDA. USDA is an equal opportunity provider and employer.

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