SCIENTIFIC NOTE

FIRST RECORDS OF THE PARASITOID

TEMELUCHA SINUATA CUSHMAN
(HYMENOPTERA: ICHNEUMONIDAE)
IN MISSISSIPPI AND FLORIDA, U.S.A.¹

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Larvae of the native eastern blue cactus borer Melitara prodenialis Walker (Lepidoptera: Pyralidae) were collected on single occasions from cladodes of prickly-pear cactus (Opuntia spp.) at Sweetwater (Liberty Co.), Florida (30.50483N, 84.95512W), in April 2009 and Town Creek Campground, West Point (Clay Co.), Mississippi (33.60667N, 88.49195W) in July 2011. A total of 91 larvae were collected from the Mississippi location, but the total number of Florida larvae collected is unknown. The larvae from Florida were provisioned with wild-collected cladodes of O. humifusa var. humifusa and reared at 26.7°C, whereas the Mississippi larvae were provisioned with wild-collected O. pusilla and reared at 28°C. Both collections were maintained at ~70% relative humidity and on a 12:12 day-night cycle. Two female and 28 mixed sex (20 male, 8 female) parasitoid wasps eclosed from the M. prodenialis pupae reared from the Florida and Mississippi collections, respectively. The wasps from Florida were identified as Temelucha sinuata Cushman (Hymenoptera: Ichneumonidae) by Robert Kula, USDA-ARS Systematic Entomology Laboratory. The wasps from Mississippi were identified as T. sinuata by R. Brown, Mississippi Entomological Museum, based on their similarity to the Florida specimens. Wasps from both collections have similar body size and color, and a sinuous ovipositor consistent with the descriptions of Cushman (1926) and Dasch (1979). Voucher specimens from the Florida and Mississippi collections have been deposited in the Mississippi Entomological Museum (Fig. 1). The previous known distribution of T. sinuata has been reported as ranging from California, Arizona, Texas, and Arkansas to the Yucatan of Mexico (Dasch 1979, Carlton and Kring 1994, Gonzalez-Moreno and Bordera 2011). This report represents the first records of T. sinuata from Mississippi and Florida.

Parasitoids of the subfamily Cremastinae, of which T. sinuata is a member, frequently parasitize pyralid moths, as well as other lepidopterans (Cushman 1926, Dodd 1940, Dasch 1979). Temelucha sinuata has only been collected from pyralid hosts: Cactobrosis strigalis and Rumatha glaucatella (Dasch 1979), in

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addition to *M. prodenialis*. Parasitism rates by *Temelucha* spp. (presumably not *T. sinuata*) on South American pyralids appear to vary by host, ranging from 5 to 30% (Zimmermann, et al., 1979). We observed a similar level of parasitism (31%, or 28 individuals) from *T. sinuata* on the single cohort of 91 *M. prodenialis* larvae collected in Mississippi. Adult *T. sinuata* eclosed from this collection over a period of 25 days, beginning 34 days after the onset of *M. prodenialis* pupation. Male *T. sinuata* wasps eclosed earlier on average than females: 9/20 of the males eclosed over a period of 10 days before the first of 8 females eclosed. The greatest number of individuals to eclose in any single day was three.

![Specimen photograph of female Temelucha sinuata collected from Florida M. prodenialis. Vouchered specimen is deposited in the Mississippi Entomological Museum. Photograph taken by Joe MacGown.](image)

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**LITERATURE CITED**


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