

NEW RECORDS AND ACCOUNTS

***Daphnis placida*, a New Species of Sphinx Moth
for Guam, U.S.A.****Daniel Rubinoff¹ and Ian Kitching²**¹310 Gilmore Hall, Department of Plant and Environmental Protection Sciences,
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Guam, the largest of the Mariana Islands, has been the subject of a long series of invasions, dating back to human colonization and our commensals almost 4,000 years ago. The invasion of the Brown Tree Snake (*Boiga irregularis*) in the 1940s led to the extermination of virtually all of Guam's native birds. The more recent invasion of the Coconut Rhinoceros Beetle (*Oryctes rhinoceros*) is devastating native and ornamental palms across the island. Thus, understanding the nature of any invasion in Guam may be helpful in preventing future challenges to its beleaguered ecosystems.

On April 7, 2015, while conducting biological surveys on Andersen Air Force Base, the first author encountered a pair of sphinx moths that were perched on a fence, facing each other, strongly suggesting that they had been in copula the night before. Only the female was captured, and subsequently identified by the second author as *Daphnis placida* (Walker, 1856), a species not previously recorded from Guam. The specimen is deposited in the University of Hawaii Insect Museum.

D. placida is widespread across Australasia, though it rarely comes to light, making it uncommonly seen by those not specifically searching for it. Thus, it is not clear whether this species represents a new, recent invasion of Guam, or a native species that has previously gone undetect-

ed. The Ritidian Point area where the *D. placida* was found is shared with *Hasora chromus* (Cramer, [1780]), Hesperiiidae, a skipper butterfly that is also widespread across southeast Asia but is only found in the Mariana islands at Ritidian point on Guam (Schriener and Nafus, 1997). This skipper was, in fact, sighted the same day by the first author, not far from where the *D. placida* was found. It is possible that the Ritidian Point area serves as a refuge for some native Guamanian insects which are now, or always were, highly restricted on the island. Unless *D. placida* becomes much more common and widespread in coming years, it is conceivable that a small population has been resident on Ritidian Point for a very long time and that, rather than representing a new invasion, this species is yet another isolated native species that has until now escaped notice.

The larval host plants of *D. placida* on Guam are unknown. In Australia and the Solomon Islands, the recorded plants are *Alstonia*, *Ochrosia*, *Tabernaemontana* (all Apocynaceae) and *Alangium* (Cornaceae) (Bigger, 1988; Moulds, 1998). There are no Cornaceae on Guam but there are the endemic *Ochrosia mariannensis* and *Tabernaemontana rotensis*, the latter of which is only found on northern Guam and, sparsely, on the island of Rota, just to the north. *T. rotensis* is quite rare and has been proposed for listing as threatened

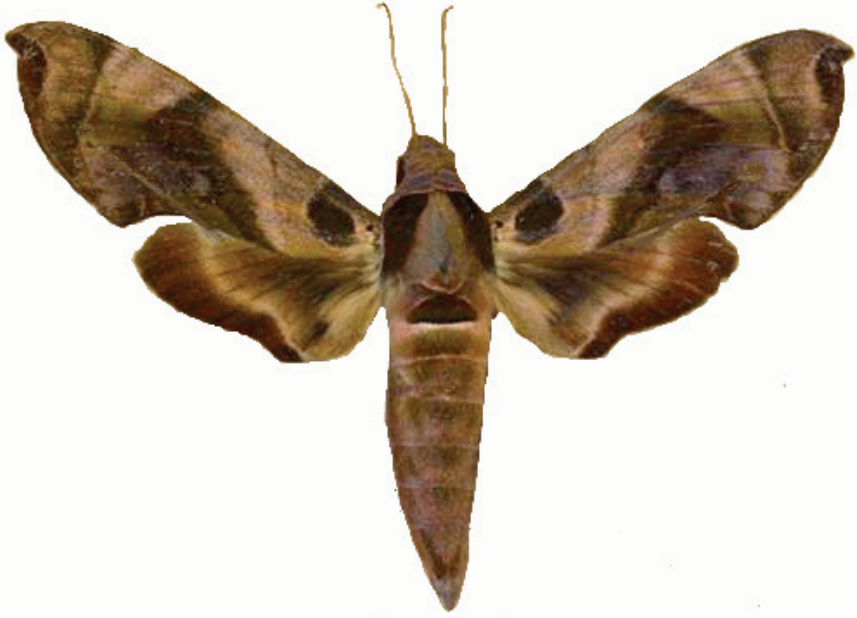


Figure 1. Dorsal view of *Daphnis placida* female from Guam.



Figure 2. Ventral view of *Daphnis placida* female from Guam.

under the United States Endangered Species Act. If *D. placida* is native to Guam, then it is unlikely to threaten *T. rotensis*; however if it is a new arrival, then it could pose a threat to this rare plant.

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