


An Asian moth, *Chabula acamasalis* (Walker, 1859) (Lepidoptera: Crambidae), collected in Monroe County, Florida, USA

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Introduction

Chabula acamasalis (Walker, 1859) (Lepidoptera: Crambidae) is native to India, East Asia, and northern Australia (Shaffer et al. 1996; Singh et al. 2022; GBIF.org 2023). It has recently appeared in the State of Florida, United States; specimens were observed in 2020 (1, Davie, Broward County) and 2022–2023 (1, Vero Beach, Indian River County and 2, Ft. Lauderdale, Broward County) (Nanz 2020). All specimens were photographed, but only those from Ft. Lauderdale were collected (Fig. 1) (Hayden 2022). A fifth specimen was collected in Monroe County in a carbon dioxide-baited miniature light trap during routine surveillance for mosquitoes.

Results and Discussion

A single female *Chabula acamasalis* was collected on 7 November 2023 on Angelfish Key, Monroe County, Florida, USA, in the trap at a residence (Fig. 2). Angelfish Key is located off the northern tip of Key Largo and is part of the Ocean Reef Club development. The islands of Biscayne National Park lie just across the channel to the north. The specimen was deposited in the Florida State Collection of Arthropods (FDACS-DPI sample # E6371-01-11272023-12020). Specimen data are available through the Florida Museum of Natural History's online database (Florida Museum Lepidoptera Collection 2023; Catalog #13853).

Chabula acamasalis can be unambiguously identified by wing pattern; the distal broad white band of the forewing is B-shaped and meets the costa broadly, and the tornus of the forewing has a white patch (Inoue 1982). Adults are known pollinators of Cucurbitaceae (Barman et al. 2023). Larvae have been found feeding on tree roots (probably *Brachychiton* sp. or *Ficus* sp.) in

Australia (Howarth 1988) and on aerial roots of *Ficus microcarpa* L.f. in Hong Kong, China (Ritafoo 2023). It has now been recorded from the following Florida counties: Broward, Indian River, and Monroe. Although the moth was previously collected from the mainland of Florida, this record is the first from the Florida Keys. The distance between the sightings of this moth raises questions about its dispersal. Are these geographically separate records distinct introductions or secondary dispersal from a single initial event? There are no other known records from the Americas. How is this moth moving from one site to another? One interesting possibility is human transfer of host plant material. For over a century it has been recognized that moving plants often means also moving insects, e.g., Lowe (1897). Simonsen et al. (2008) studied the dispersal of the cactus moth, *Cactoblastis cactorum* (Berg), in the United States and determined that the moth had been introduced to the USA at least twice, and that human transport of host plants was the likely mechanism for dispersal. Both *Brachychiton* sp. and *Ficus* spp. trees are used in landscaping in Florida (Anonymous 2020; Brown undated). The trap site is directly adjacent to two banyan trees, *Ficus (Urostigma)* sp., raising the possibility that the moth was attracted to the trees rather than the trap.

Acknowledgments

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Material

https://data.canadensys.net/micropublications/resource?r=specimen_22



Figure 1: Male *Chabula acamasalis*, Fort Lauderdale, FL, September 2022, Ted and Barbara Center. MGCL Catalog #4. Scale bar = 5 mm.



Figure 2: Female *Chabula acamasalis*, Angelfish Key, FL, December 2023, A. Loftus leg. MGCL 13853.