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SCIENTIFIC NOTE

REDISCOVERY OF TWO NEOTROPICAL BARK BEETLES (COLEOPTERA: SCOLYTIDAE) FROM SOUTHERN FLORIDA

The Neotropical genus *Cnemonyx* (Scolytinae, Scolytini) includes 46 species, two of which have been reported from southern Florida (Wood 1986). *Cnemonyx ficus* (Schwarz) was described from specimens collected on Key West from "*Ficus*" (Moraceae) in the 1890's. *Cnemonyx vagabundus* (Wood) was described more recently (Wood 1961) from specimens collected at the same time and locality, purportedly from *Piscidia piscipula* (L.) Sarg. (= *Ichthyomethia piscipula* (L.) Hitch., Leguminosae). A small number of specimens of both species have been found in other Caribbean areas (Wood 1982; Atkinson *et al.* 1991), but none had been encountered again from Florida until very recently when one specimen of each was collected by Stewart Peck in flight intercept traps in Watson's Hammock on Big Pine Key (Atkinson *et al.* 1991).

The "absence" of these species was perplexing to knowledgeable collectors who had examined *Piscidia piscipula* and native and introduced species of *Ficus* throughout southern Florida without success. The absence of *C. ficus* was particularly bewildering because two other scolytids, *Pycnarthrum hispidum* (Ferrari) and *Scolytodes schwarzi* (Hopkins), have been collected in *Ficus* frequently and over a wide area in southern Florida.

Hosts of most species of *Cnemonyx* are unknown. Most Mexican and Mesoamerican species breed in hosts in the family Euphorbiaceae including species of *Euphorbia*, *Sapium*, *Hura*, and *Hippomane*. Other species breed in hosts in the Myristicaceae and Guttiferae (Wood 1982). What all of the known hosts have in common is abundant latex in stems and trunks. The only naturally occurring tree species of any of these families in southern Florida with milky latex is *Hippomane mancinella* L., the machineel tree, a member of the family Euphorbiaceae.

During a recent visit to the Lower Keys I was able to examine *H. mancinella* for signs of beetle activity. The results exceeded my expectations in that both *C. ficus* and *C. vagabundus* were found in large numbers in this host. Both species are monogynous (egg galleries normally constructed by a single mated pair) and typically make a 2-branched, horizontally-oriented egg gallery with a prominent, vertically-oriented entrance tunnel and turning niche in the middle. *Cnemonyx ficus* was found breeding in larger branches

and trunks ranging from 3–25 cm in diameter. *Cnemonyx vagabundus* was found in smaller branches from 1–3 cm in diameter. Specimens of both species were collected from the same host from two widely separated localities on Big Pine Key. Most dead and dying branches and trunks showed evidence of galleries of one or both species. Specimens of both species have been deposited in the Florida State Collection of Arthropods and the U.S. National Museum of Natural History with the following data: Florida: Monroe Co., Big Pine Key, Watson Hammock, 18-V-92, ex. *Hippomane mancinella*, T. H. Atkinson.

The apparent rarity of these beetles in southern Florida is probably due to the localized distribution of the host tree and habits of the beetles. Manchineels are normally found on dry land immediately inland from the mangrove fringe but seldom at any distance from the shoreline or submerged vegetation. Because of the extreme toxicity of all plant parts, this tree has been actively eradicated from many areas where it formerly occurred and is now considered threatened in southern Florida. Consequently the trees would not usually have been encountered by casual collectors and probably would have been avoided by anyone familiar with their toxic properties. Based on host associations of other species of *Cnemonyx*, the lack of specimens in the reported hosts despite frequent attempts by knowledgeable collectors, and the large numbers of specimens and galleries observed here, I have no doubt that *Hippomane mancinella* is the true host of *C. ficus* and *C. vagabundus* in southern Florida. The manchineel is (or was) found on most of the larger keys and coastal areas of the southern tip of peninsular Florida (Dade and Monroe Cos.) It is widely distributed around the Caribbean (Long and Lakela 1971) and its distribution is consistent with the known distributions of *C. ficus* and *C. vagabundus*. It is possible that the original host record for *C. ficus* was based on a confusion of *H. mancinella* with *Ficus citrifolia* Mill., a tree native to the Keys that it superficially resembles.

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THOMAS H. ATKINSON, *Department of Entomology, University of California, Riverside, CA 92521, U.S.A.*

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