

FLORIDA CITRUS WEEVILS^{1/}
(COLEOPTERA: CURCULIONIDAE)

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INTRODUCTION: A previous circular (Woodruff, 1962), now out-of-print, treated some of the weevils on Florida citrus. The introduction of the West Indian Diaprepes abbreviatus (Linnaeus) (Woodruff, 1964, 1968), nomenclatural changes, and the addition of another native species now bring the total to 6 species which are distinguished here. The coffee bean weevil, Araecerus fasciculatus (Degeer), although a citrus pest, is not a true weevil, has been previously treated (Woodruff, 1972), and therefore is not included here. The photographs and the key should permit easy recognition of the 6 species with the aid of a hand lens. Although many species of weevils may be found on citrus, only these 6 have been found consistently on citrus and are known to cause damage in Florida.

The short-nosed weevils have been placed in various taxonomic groups (Blatchley & Leng, Buchanan, Champion, Kissinger, Schwarz & Barber, van Emden, and Vaurie), but these are not yet satisfactory or natural. Even the placement to subfamilies or tribes appears to be arbitrary and requires exceptions for existing keys. The key provided here is artificial (not meant to show affinities). Space does not permit further discussion here, but future circulars will treat these individual species in greater details of biology, taxonomy, economic importance, and distribution.

Larvae of Diaprepes abbreviatus, Pantomorus cervinus (Boheman), Pachnaeus opalus (Olivier), and P. litus (Germar) were distinguished in a previous circular (Beavers and Woodruff, 1971). As far as known, the larvae of Artipus floridanus (Horn) and Tanymechus lacaena Herbst have not been described.

KEY TO FLORIDA CITRUS WEEVILS

1. Larger species (11-22 mm); dorsum of elytra with pattern composed of areas with scales alternating with bare black areas, resembling stripes, introduced from the West Indies (fig. 8, 11).-----Diaprepes abbreviatus (L.)
- 1'. Smaller (7-14 mm); dorsum nearly uniformly clothed with scales; if a pattern, it is only faint and composed of different colored scales (fig. 1-7, 9-10, and 12).-----2
- 2(1'). Prothorax with long, fine setae projecting anteriorly from front margin behind the eye (fig. 13).-----subfamily Tanymecinae-----3
- 2'. Prothorax without cluster of long, fine setae projecting anteriorly from front margin behind the eye (fig. 14).-----subfamily Thylacitinae-----4
- 3(2). Color green, blue-green, grey-green; averaging larger (8-14 mm); tibia 3 with corbel closed (fig. 15), lacking ascending comb of spines (fig. 16)-----citrus root weevils; (fig. 1, 4, 7, 10) genus Pachnaeus-----5
- 3'. Color brown, to tan, or agouti with whitish lateral margin of pronotum and elytra; averaging smaller (8-11 mm); tibia 3 with corbel open (fig. 17), with ascending comb of spines about as long as width of tibia at apex (fig. 18)----- (fig. 9, 12) Tanymechus lacaena Herbst

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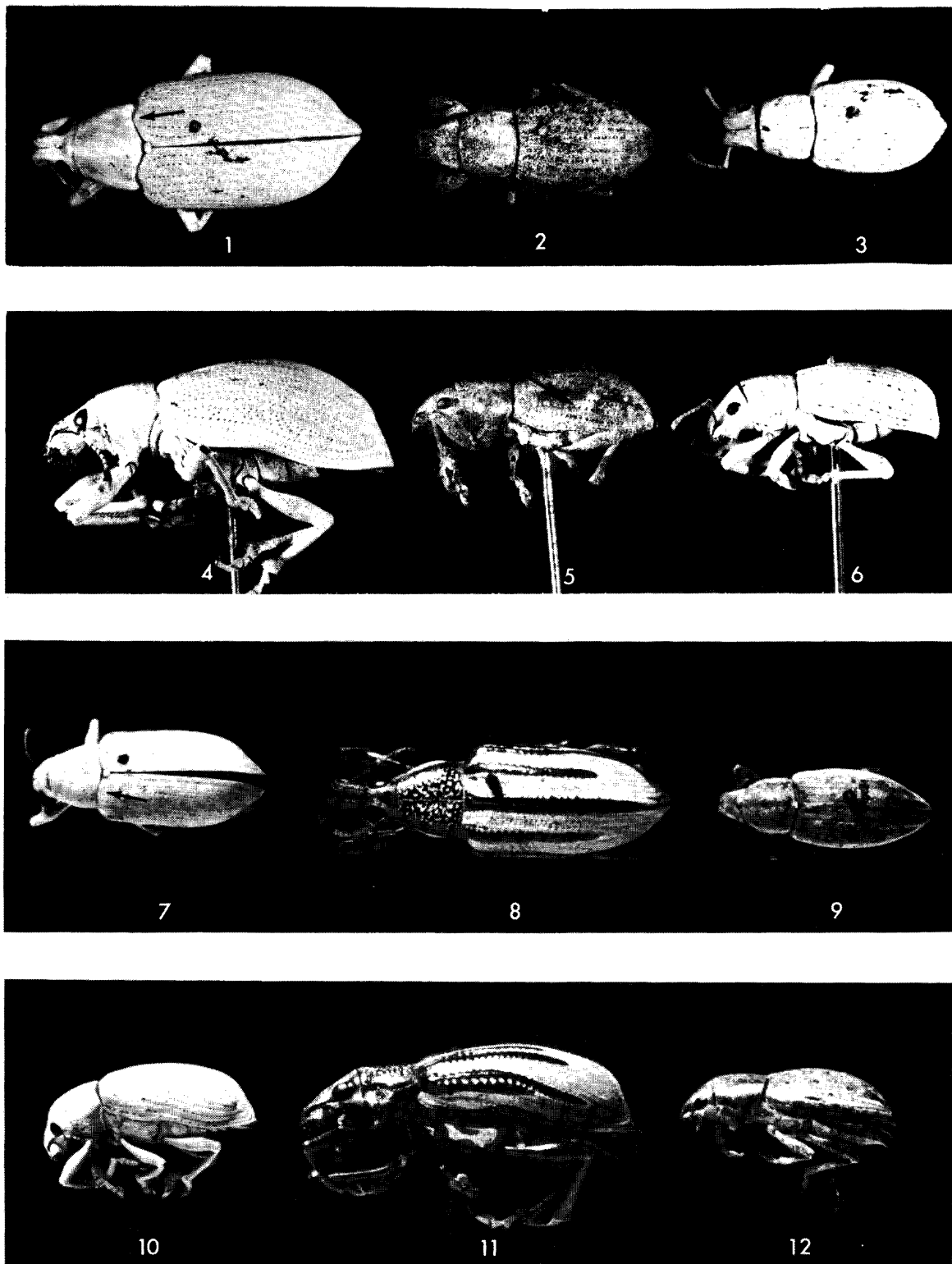


Fig. 1-12, Florida citrus weevils: 1, 4) Pachnaeus litus; 2, 5) Pantomorus cervinus; 3, 6) Artipus floridanus; 7, 10) Pachnaeus opalus; 8, 11) Diaprepes abbreviatus; 9, 12) Tanymechus lacaena.

KEY (cont'd.)

- 4(2'). Corbel of tibia 3 as in fig. 19; elytra ovate, humeral angles not noticeable; color pattern of brown and whitish scales, laterally the white elytral scales forming a diagonal bar (arrow, fig. 2); Fuller rose weevil (fig. 2, 5); widely distributed in Florida.-----Pantomorus cervinus (Boheman)
- 4'. Corbel of tibia 3 closed as in fig. 20; elytra more elongate, humeral angles prominent; color nearly uniformly whitish with occasional pale violet reflections, no lateral bar of different color; found primarily in southern half of Florida peninsula (fig. 3, 6).-----Artipus floridanus (Horn)
- 5(3). Elytron produced forward at basal center, appearing bisinuate (arrow, fig. 1); elytra more convex; color often bright green or aqua; found only in southern half of Florida peninsula (fig. 1, 4).-----Pachnaeus litus (Germar)
- 5'. Elytron gently, smoothly rounded at base, not noticeably produced forward medially, not appearing sinuate (arrow, fig. 7); elytra less convex; color rarely bright green or aqua, but usually grey-green and duller; distributed from Lake Okeechobee northward to New Jersey (fig. 7, 10)----Pachnaeus opalus (Olivier)

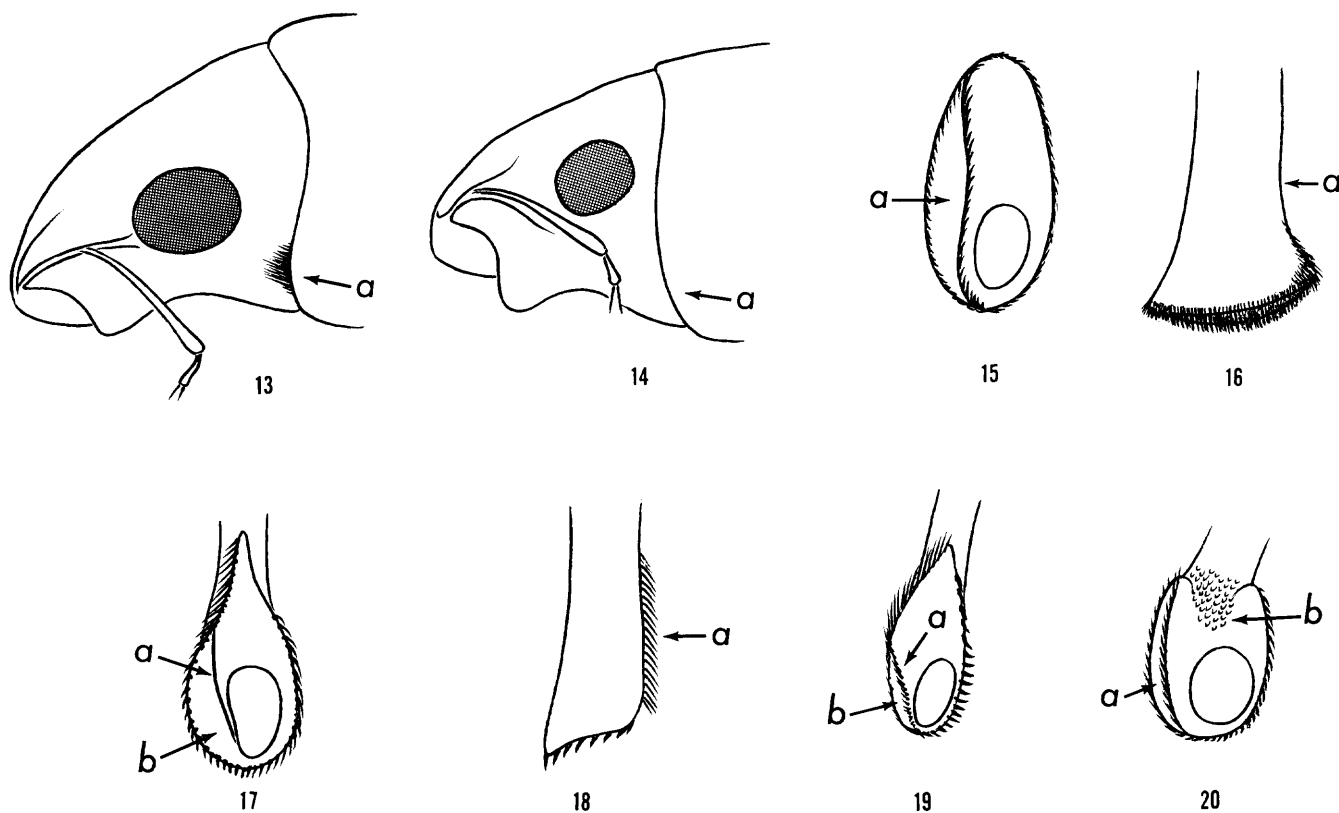


Fig. 13-20, Key characters (diagrammatic): 13) Tanymechus lacaena, lateral view, showing fine setae behind the eye (a); 14) Artipus floridanus, lateral view, note absence of fine setae at "a"; 15) Pachnaeus spp., caudal view of tibia 3 apex (tarsi removed) with corbel (a) closed (surrounded by setae); 16) Pachnaeus spp., lateral view, tibial apex with no ascending comb of spines (a); 17) Tanymechus lacaena, caudal view of tibia 3 apex with corbel (b) open, carina without spines at "a"; 18) Tanymechus lacaena, lateral view, ascending comb of spines (a); 19) Pantomorus cervinus, caudal view of tibia 3, corbel (b) long and closed, the carina (a) with setae, no scales indenting base; 20) Artipus floridanus, caudal view of tibia 3, corbel (a) closed, indentation at base (b) with scales nearing tarsal juncture.

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