

# Curculionoidea of southern Florida: An annotated checklist (Coleoptera: Curculionoidea [excluding Curculionidae; Scolytinae, Platypodinae])

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## Abstract

The fauna of Curculionoidea (exclusive of the subfamilies Scolytinae and Platypodinae of the Curculionidae) is surveyed for Dade and Monroe Counties in southern Florida. Numbers of genera and species represented are as follows: Anthribidae (12 genera, 22 species), Belidae (1 genus, 2 species), Attelabidae (3 genera, 3 species), Brentidae (6 genera, 14 species) and Curculionidae (115 genera, 249 species). No Nemonychidae are recorded from southern Florida. Included in the totals are 25 species considered as introduced to the region and 5 species likely not established in the region.

Twenty apparently undescribed species are recorded. Fifteen are assignable to genera as follows; *Ormiscus* (2) (Anthribidae), and *Podapion* (1) (Brentidae), and *Prosaldius* (1), *Acalles* (6), *Calles* (1), *Zascelis* (1), *Notolomus* (1), *Lixus* (1), and *Conotrachelus* (1) (Curculionidae). The generic placement of 5 undescribed species of Curculionidae is uncertain and descriptions of new genera may be required.

New generic records for the United States of America are *Homocloeus* Jordan (Anthribidae), and *Stenotrupis* Wollaston (Curculionidae; Cossoninae) and *Heilus* Kuschel (Curculionidae; Curculioninae). New species records for the United States are *Homocloeus distentus* Frieser and *Homocloeus sexverrucatus* (Suffrian) (Anthribidae) and *Stenotrupis acicula* Wollaston, *Caulophilus rufotestaceus* (Champion), *Micromimus minimus* (Boheman) (Curculionidae; Cossoninae), and *Anthonomus rubricosus* Boheman and *Heilus bioculatus* (Boheman) (Curculionidae; Curculioninae).

Particularly well-represented in terms of species diversity is the anthribid genus *Ormiscus* (6), the brentid genus *Apion* (9) and the curculionid genera *Listronotus* (21), *Anthonomus* (14), *Acalles* (13), *Conotrachelus* (11), *Tyloderma* (10) and *Sphenophorus* (10).

## Introduction

Southern Florida is a naturalist's paradise; however, like the rest of Florida this paradise is being threatened by rampant development that is rapidly destroying natural habitats, upsetting a precarious ecological balance and leading to the potential extirpation of rare and endangered species, some of which occur in the United States nowhere else but extreme southern Florida. Twenty-eight of the 218 endangered invertebrates in Florida occur in the United States only in southern Florida (Franz 1982).

Although a great portion of mainland south Florida is preserved in Everglades National Park, the park has not been immune to the changes taking place throughout the rest of southern Florida (Alper 1992). Development in areas outside the park boundaries has had significant effects on the biota of the park

itself. Diversion of water flowing south out of Lake Okeechobee to eastern coastal resort areas and surrounding agricultural lands, through the use of canals, has markedly affected water levels within the park; altered the region's ecology; and is threatening species, supposedly protected within the park, with extinction. Extensive hardwood hammocks and pineland which extended along a ridge west of Miami are largely gone, now preserved only in small, disjunct parks situated amongst the hotels, houses and highways. The Florida Keys also have undergone significant development and yet, even though already considered as ecologically stressed to the limit by the more than 80,000 people who reside there (not to mention the more than 2 million tourists who visit the Keys each year), there is still pressure from local business and other groups for further economic growth (Laycock 1991).

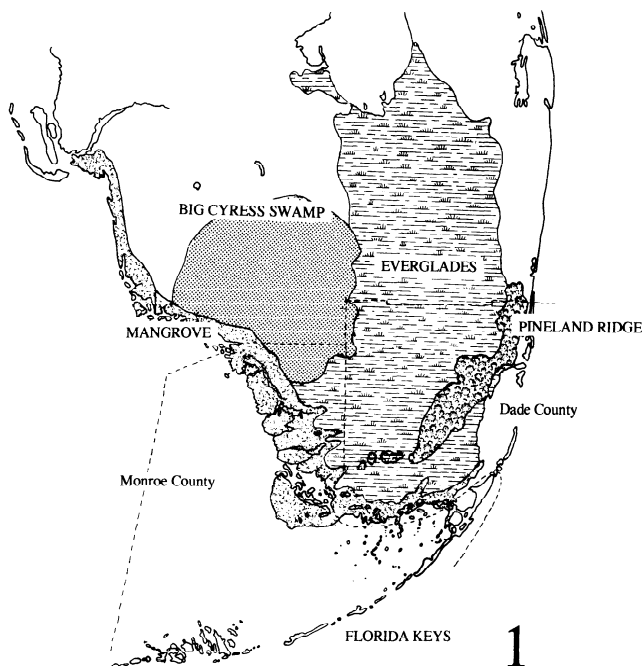
With the primary goal of establishing baseline data documenting the insect fauna of the Florida Keys, Peck (1989) conducted an extensive sampling program in Dade and Monroe Counties in southern Florida from 1981 to 1986 in the belief that there was much to learn about this fauna. Because insects probably comprise over 75% of known species diversity, an inventory could be valuable to resource management specialists for recognition and evaluation of changes in insect species composition and distribution, to plan and implement conservation efforts, and to critically assess sustainable development plans in a manner consistent with the region's fragile ecology.

Based on floral diversity, Peck (1989) proposed that at least some 5,000 insect species would occur in south Florida and presented six general hypotheses concerning diversity, endemism, biogeographic origins, and natural history attributes of the constituent species such as vagility and degree of host plant specificity. Tests of these hypotheses based on a more complete analysis of the curculionoid data contained here are presented in another paper (Anderson and Peck in press).

Surveys of south Florida Scolytinae and Platypodinae (Atkinson and Peck in press), scavenging beetles of the family Scarabaeidae (Peck and Howden 1985), flat bark beetles (Thomas and Peck 1991), ants (Deyrup *et al.* 1988), cockroaches, mantids and walkingsticks (Peck and Benninger 1989), and butterflies (Schwartz 1987) recently have been conducted. Studies of Orthoptera (S.B. Peck) and chrysomelid leaf beetles (E.G. Riley) of south Florida also are currently underway. Recent preliminary checklists of Carabidae (Choate 1990) and Staphylinidae (Frank 1986) of Florida also are available.

## Geographic setting

**Geography.** Florida is a north-south oriented peninsula that extends from about 31° to 24°30' N latitude, its southern tip being just north of the Tropic of Cancer. It is about 230 km wide at its widest point and 600 km from east to west across a slender east-west panhandle. Topographic relief is low, with the highest point being 120 m, immediately south of the Florida-Alabama state line near Paxton. Southern Florida generally is considered to be the region south of Lake Okeechobee. It is made up of seven counties, the most southern of which are Dade and Monroe Counties, which together comprise the southern tip of Florida, including the Florida Keys.



**Figure 1.** Map of southern Florida showing major physiographic regions (redrawn after Tomlinson 1980).

Five physiographic regions are recognized in Florida south of 27°N, on the basis of a combination of vegetation, surface geology, relief and hydrology (Fig. 1; see also Tomlinson 1980).

1. The Big Cypress Swamp is a low-lying basin which occupies most of Collier County but extends into Monroe and Dade Counties in the extreme north. Drainage from the underlying limestone is poor and wetlands, in particular cypress swamps, are numerous.

2. The Everglades are the most characteristic and famous feature of southern Florida. These are flat, poorly drained wetlands on a limestone base. Essentially a broad shallow river, the Everglades drains most of Florida from Lake Okeechobee south through Dade County then southwest into Monroe County, where it empties into the mangroves along the Gulf of Mexico. Sawgrass (*Cladium jamaicensis* Crantz) dominates these wetlands, hence the popular name "river of grass"; however, to the north, scattered bay heads and cypress domes occur, and further south, tree islands (hammocks) associated with rock outcrops, are found. Ecologically the Everglades is a freshwater swamp with naturally high water levels in summer and low levels in winter and early spring.



**Table 1:** South Florida localities sampled by SBP from 1981-1986 (Peck 1989, figures 1 & 2). Numbers refer to localities as given herein; numbers in Peck (1989) differ. Localities were sampled with combination malaise/flight intercept traps and by berlese sampling of organic debris (primarily leaf litter).

No.	Locality	Habitat
1	Miami, Matheson Hammock	hardwood hammock
2	Miami, Charles Deering Estate Park	hardwood hammock
3	Miami, Old Cutler Hammock	hardwood hammock/pineland
4	Everglades N.Pk., Long Pine Key	pineland
5	Everglades N.Pk., Palma Vista Hammock	hardwood hammock/pineland
6	Everglades N.Pk., Royal Palm Hammock	hardwood hammock
7	Chekika State Recreation Area	hardwood hammock
8	Key Largo, north end; section 36	hardwood hammock
9	Key Largo, John Pennekamp State Park	hardwood hammock
10	Lignum Vitae Key	hardwood hammock
11	Windley Key	hardwood hammock
12	Long Key	hardwood hammock
13	Fat Deer Key	hardwood hammock
14	Vaca Key, Marathon, section 1	hardwood hammock
15	Ohio Key	hardwood hammock
16	Bahia Honda Key	hardwood hammock
17	No Name Key	hardwood hammock/pineland
18	Big Pine Key, section 4, No Name Road	hardwood hammock/mangrove
19	Big Pine Key, Watson's Hammock	hardwood hammock
20	Big Pine Key, Cactus Hammock	hardwood hammock/coastal scrub
21	Big Pine Key, Watson Blvd.	pineland
22	Middle Torch Key	hardwood hammock
23	Big Torch Key	hardwood hammock
24	Cudjoe Key	hardwood hammock
25	Sugarloaf Key, section 25	hardwood hammock
26	Sugarloaf Key, section 23	hardwood hammock/pineland
27	Stock Island, Botanical Garden	hardwood hammock

Development, in the form of canals and dyke-like roads, has severely altered the region's natural patterns of water flow.

3. The Pinelands Ridge extends from southern Broward County through Dade County in a northeast-southwest direction. Limits are determined by the outcropping ridge of oolitic limestone which forms the eastern ridge of the Everglades and diverts drainage to the southwest. Soils are limey, and pineland dominate. In southwestern Dade County the ridge is discontinuous and forms islands of pineland surrounded by wetlands in Everglades National Park. It is this same limestone formation which is exposed in the Lower Florida Keys, especially Big Pine Key. In addition to the predominant pineland, hardwood hammocks are also found. Both plant communities have been cleared extensively for urban development or agriculture.

4. The Mangrove region fringing southern Florida is delimited largely by the extent of saltwater intrusion but also is dependent on the land-wards dispersal capabilities of mangrove seedlings. This region is most extensive on the west coast where the Everglades drain into the Gulf of Mexico and on the southern coast. Along the east coast, the mangrove zone is narrow and discontinuous.

5. The Florida Keys are a series of low islands usually not exceeding 3 m in elevation, extending in a gentle curve southwest from Biscayne Bay and eventually almost directly west to Key West. The Keys are divided generally into two groupings. The Upper Keys are a series of northeast-southwest oriented islands from Key Largo south to Knight Key or Pigeon Key. The Lower Keys, from Ohio and Bahia Honda Keys southwest to Key West and the Dry Tortugas approximately 110 km west of Key West, are oriented northwest-southeast. The Keys are drier than the mainland and rainfall decreases westward toward Key West. The Upper Keys are especially well-drained, whereas the Lower Keys, because of their oolite base, trap and hold freshwater from rains. Much of the native vegetation throughout the Keys (especially Key West) has been destroyed by urban development.

**Geology.** Southern Florida is very young and has experienced a dynamic geological history (Hoffmeister 1974). The mainland is composed almost entirely of Miami limestone with an oolitic and bryozoan facies. In the Florida Keys, the Lower Keys, like the mainland, consist of Miami limestone, whereas the Upper Keys are formed of Key Largo limestone, an ancient coral reef. In these formations, the uppermost oceanic limestones and oolites were deposited about 100,000 years BP, during the Sangamon interglacial period at a time of high sea level when southern Florida was submerged. Lowered sea levels during the Wisconsinan glaciation (80,000-15,000 years BP) exposed southern Florida (including the Florida Keys and Dry Tortugas) as a broadly continuous land mass. During this time, freshwater marls and other organic deposits accumulated. As sea levels rose in the last 10,000 years following deglaciation, the present islands and coastlines were formed.

**Climate.** The climate of southern Florida is subtropical and seasonal. The summer (May-September) is hot and wet and in contrast, the winter and spring (October-April) are cool and dry. Temperatures range between a July mean of 27.6°C and a January mean of 20°C at Miami; however, temperatures may reach the freezing point in any one year. Distributions of tropical plants, and thus the insects which feed on them, are clearly limited by the 12°C January isotherm (Tomlinson 1980). Rainfall is very seasonal, with a mainland yearly average of 1524 mm; the Florida Keys are drier with a yearly average of 965 mm at Key West (Tomlinson 1980). Eighty

percent of the rainfall occurs from the beginning of May to the end of October.

**Plant communities.** Despite a young history, the combination of climate, soils, drainage and geographic location have produced a diverse array of ecological conditions in southern Florida. Plant diversity is high with approximately 1650 species of uncultivated vascular plants known (Long and Lakela 1971). About 150 plant species in southern Florida are endemic to Florida. Aside from the Lakes Region of central Florida, which has the highest number of endemics, a second area of relatively high plant endemism is southern Florida. Collectively, elements in the flora of southern Florida arrived from three directions: 1, from the Caribbean region or tropical America; 2, from the northern temperate regions of the mainland United States, northern and central Florida; and, 3, from Pleistocene refugia within central Florida or the Atlantic Coastal Ridge.

Plant communities of southern Florida can be summarized as follows (Long and Lakela 1971; Tomlinson 1980).

**Hardwood hammock** (Figs. 2-3). This community is composed of a high diversity of broadleaved trees and shrubs, often with associated palms, that form dense forests in relatively restricted areas. Floristic affinities of the constituent taxa are typically tropical although some temperate elements, particularly oak species, extend southward into hammocks on the mainland. Whereas the hardwood hammock is the typical climax vegetation of most areas of northern and central Florida, the tropical hardwood hammock is the climax assemblage for most of the uplands of extreme southern Florida. Mature tropical hardwood hammocks are best developed in the Everglades National Park (e.g., Royal Palm Hammock [=Paradise Key, Royal Palm State Park], Mahogany Hammock), as small disjunct parks in the southern portion of the greater Miami area into Coral Gables (Old Cutler Hammock, Matheson Hammock, Charles Deering Estate Park, Camp Mahachie), in Chekika State Recreation Area (Grossman Hammock), on Upper

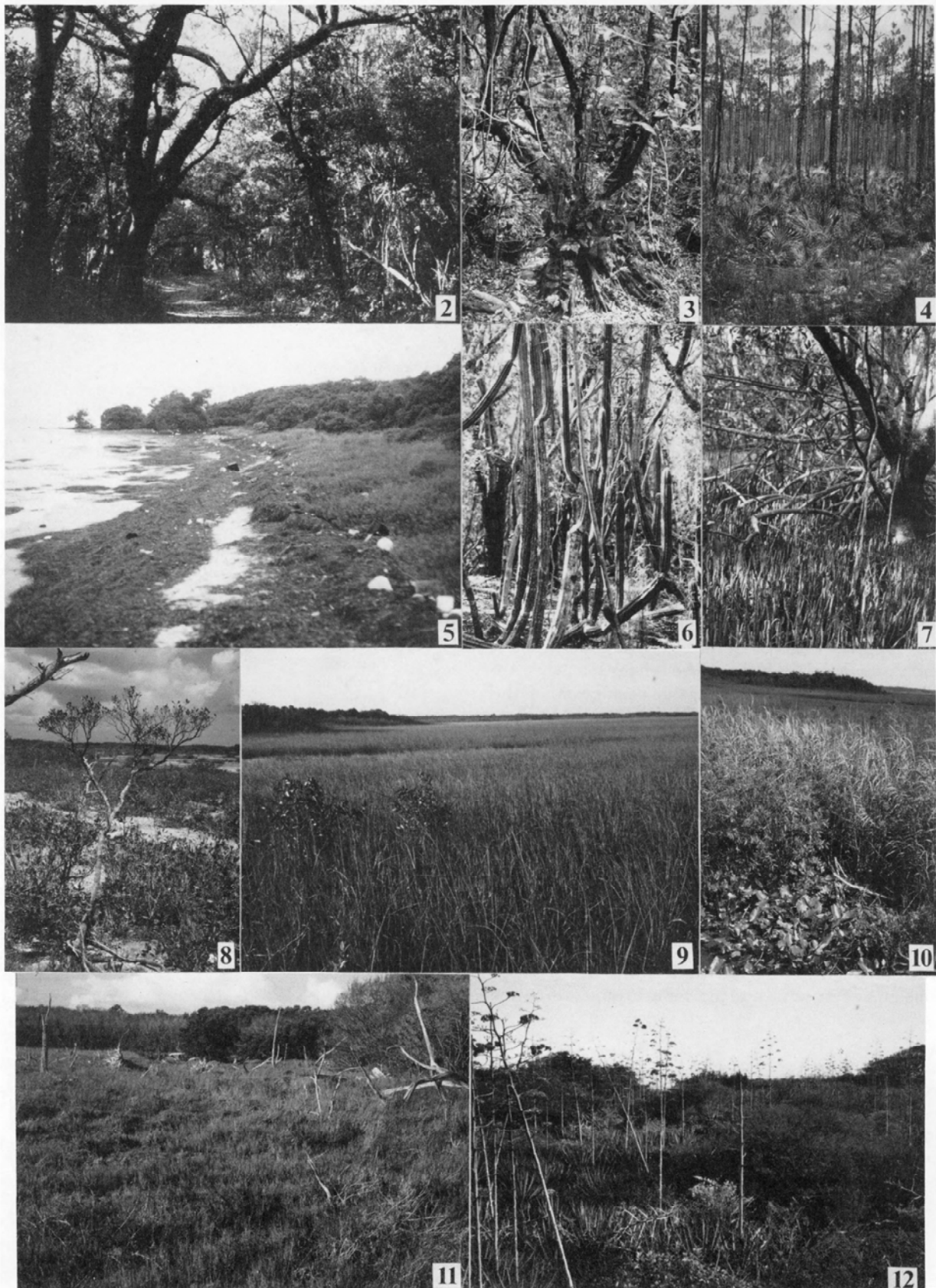
and Lower Key Largo and on Big Pine Key (Watsons Hammock). Tree species typical of tropical hammocks are *Bursera simaruba* (L.) Sarg. (gumbo-limbo), *Lysiloma latisiliqua* (L.) Benth. (wild tamarind), *Eugenia* spp. (stoppers), *Ficus aurea* Nutt. (strangler fig), *F. citrifolia* Mill. (wild Banyan), *DipholissalCIFolia* (L.) A. DC (bustic), *Mastichodendron foetidissimum* (Jacq.) Cronquist (wild mastic), and *Coccoloba diversifolia* Jacq. (tie tongue). Distributions in the United States of a number of tree species such as *Swietenia mahagoni* (L.) Jacq. (mahogany), *Hippomane mancinella* L. (manchineel), *Guaiacum sanctum* L. (lignum vitae), *Zanthoxylum flavum* Vahl., and *Thrinax parviflora* Sw. (thatch palm), are restricted to this habitat in south Florida.

**Pineland** (Fig. 4). This fire-climax community is found on the marly flatlands and rocklands of extreme southern Florida. It is characterized by an overstory of *Pinuselliotti* Engelm. (slash pine) often interspersed with *Serenoa repens* (Bartr.) Small (saw palmetto). Tropical shrubby and herbaceous components are frequently found in the understory. The community is generally dry and quite open with grasses and a variety of herbaceous plants dominating. Wet pineland occurs in low-lying situations that are occasionally flooded. Understory plants can differ quite substantially in the two extremes and wet pineland frequently possesses many plant taxa also found in wet prairies. Extensive pineland occurs in Everglades National Park (Long Pine Key) and on Big Pine Key, otherwise a mixed pineland-hardwood hammock assemblage is found on Sugarloaf Key and No Name Key. On the Keys, pines only grow in areas with an underlying freshwater lens.

**Coastal scrub** (Figs. 5-6). This community is developed as a narrow band on sandy beaches and coastal dunes throughout south Florida. Driftwood and other washup debris frequently border this habitat or are scattered in the understory. Typical plants are *Coccoloba uvifera* (L.) L., *Uniola paniculata* L., *Sesuvium portulacastrum* (L.) L., *Opuntia* spp.,

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**Figures 2-12.** Terrestrial habitats in southern Florida. Figure 2. Hardwood hammock (Everglades National Park, Royal Palm Hammock). Figure 3. Hardwood hammock (Big Pine Key, Watson's Hammock). Figure 4. Pineland (Everglades National Park, Long Pine Key). Figure 5. Coastal scrub (Big Pine Key, Long Beach). Figure 6. Coastal scrub (Big Pine Key, Cactus Hammock). Figure 7. Mangrove (Everglades National Park). Figure 8. Mangrove; *Jacquinia keyensis* Mez. (Big Pine Key). Figure 9. Prairie (Everglades National Park, near Royal Palm Hammock). Figure 10. Wetland margins (Everglades National Park, near Royal Palm Hammock). Figure 11. Salt marsh/coastal prairie (Everglades National Park, near Flamingo). Figure 12. Introduced/commercial; *Agave sisalana* Perrine (Everglades National Park).



*Solanum* spp., *Tournefortia gnaphaloides* (L.) R. Brown and *Suriana maritima* L. More to the inland side, in situations where the band of vegetation is wide, plants more typical of hardwood hammocks intrude. These plants are *Bursera simaruba*, *Eugenia* spp., *Zanthoxylum flavum* and *Z. fagara* (L.) Sarg. Vegetation differs little from that found in the same habitat throughout most of the Caribbean area. The best examples of this habitat are on the southeastern shores of Big Pine Key (Long Beach), Bahia Honda Key and Long Key.

**Mangrove** (Figs. 7-8). Mangrove swamps occur extensively along the south Florida coasts where wave-energy is low. Three species of trees typically dominate this assemblage. Red mangrove, *Rhizophora mangle* L. is located on the outermost edge with the most exposure to salt water; black mangrove, *Avicennia germinans* (L.) and white mangrove, *Laguncularia racemosa* Gaertn. are found more inland. Another common tree in this habitat, buttonwood, *Conocarpus erecta* L., is found above the furthest reaches of the tides. In dryer and more inland situations, understory plants are frequently those of coastal scrub or salt marsh habitats. Where the mangroves are growing on exposed coral flats, *Jacquinia keyensis* Mez. is a common associate. Mangrove swamps are developed best along the western and southern mainland coasts, and throughout the Keys. Although present, they are narrow and disjunct along the east coast of the mainland.

**Prairie** (Fig. 9). As with pineland, freshwater prairie habitats in south Florida grade from dry to wet. Wet prairies in southern Florida are best developed in the Everglades National Park, but are also present on Big Pine Key, the only key with significant and persistent freshwater wetlands. Saw grass, *Cladium jamaicensis* Crantz is the dominant plant, particularly in the Everglades. Grasses and sedges are also abundant, less so *Typha latifolia* L., *Sagittaria* spp., *Polygonum* spp. and *Pontederia lanceolata* Nutt. Dry prairies appear to be ecotonal and marginal to pineland or wet prairies.

**Wetland margins** (Fig. 10). This category includes freshwater marshes and swamps and is characterized by more of the large emergent plants than is the wet prairie, and in many instances also by deeper water such as that of lakes, ponds and rivers which is subject to less significant seasonal variation. This habitat occurs extensively on the mainland in the Everglades National Park and on the Florida Keys only on Big

**Table 2:** Curculionoidea of southern Florida. Classification follows Kuschel (in press).

	No. genera	No. species
<b>Anthribidae (12; 22)</b>		
Choraginae		
Araecerini	2	2
Choragini	2	2
Anthribinae		
Discotenini	1	1
Eupariini	1	2
Anthribini	1	3
Ormiscini	1	6
Platyrhinini	1	2
Platystomini	2	3
Piesocorynini	1	1
<b>Belidae (1; 2)</b>		
Oxycoryninae	1	2
<b>Attelabidae (3; 3)</b>		
Attelabinae	1	1
Rhynchitinae	2	2
<b>Brentidae (6; 14)</b>		
Apioninae		
Apionini	2	10
Brentinae		
Brentini	3	3
Cyladinae	1	1
<b>Curculionidae (115; 249)</b>		
Brachycerinae		
Entimini	1	2
Polydrosini	9	11
Rhytirrhini	2	22
Cossoninae		
Cossonini	3	7
Cotasterini	5	6
Onycholipini	1	4
Rhyncolini	3	3
Curculioninae		
Anthonomini	5	19
Baridini	17	32
Ceutorhynchini	6	9
Cryptorhynchini	24	52
Curculionini	1	1
Eriirrhini	8	16
Gymnetrini	1	1
Lixini	2	5
Molytini	11	27
Otidoccephalini	3	5
Prionomerini	1	1
Rhynchaenini	2	2
Tychiini	2	4
Zygopini	2	2
Rhynchophorinae		
Rhynchophorini	1	1
Sitophilini	1	2
Sphenophorini	4	15

**Fine Key.** Larger plant species, some of which occur only on the mainland, typically include *Salix caroliniana* Michx., *Cephalanthus occidentalis* L., *Myrica cerifera* L., *Ludwigia* spp., *Typha latifolia* L., *Nuphar luteum* (L.) Sibth. & Sm., *Chrysobalanus icaco* L. and the fern *Acrostichum daneaeifolium* Langsd. & Fisch.

**Salt marsh-coastal prairie** (Fig. 11). These communities cover large parts of coastal southern Florida, generally inland of coastal scrub or mangrove habitats. They can be found around tidal estuaries, inland bays and inlets and may be covered with shallow brackish water. Extensive coastal prairie is found west of Flamingo on Cape Sable in Everglades National Park, and on Big Pine and No Name Keys, and further north, in Collier-Seminole State Park. Typical plants are *Spartina* spp., *Borrchia* spp., *Batis maritima* L. and the chenopods *Suaeda linearis* (Ell.) Moq., *Salicornia* spp. and *Atriplex* spp.

**Ruderal-roadsides.** These are weedy communities found along the sides of trails and roadways or on disturbed or abandoned lands. Typical plants are *Amaranthus hybridus* L., *Bidens pilosa* L., *Desmodium* spp., *Flaveria linearis* Lag., and *Ipomoea acuminata* (Vahl) R & S.

**Commercial-ornamental** (Fig. 12). This category is reserved for those plants cultivated for their ornamental or commercial value. Some species are frequent escapees and may now be found in some natural habitats. Examples are avocado, various palms, tamarind, yucca, agave and various citrus.

## Superfamily Curculionoidea

The superfamily Curculionoidea is composed of six families; Anthribidae, Nemomychidae, Belidae, Attelabidae, Brentidae and Curculionidae (Kuschel in press). Although not treated here, Scolytinae and Platypodinae are considered to be subfamilies of Curculionidae following Kuschel (in press); the species of these two subfamilies in Florida are currently under review by T.H. Atkinson. Aspects of diversity, distribution and biology of these six families are summarized very briefly following.

Nemomychidae is a small family of some 70 world species; adults and larvae of most species are associated with male flowers of conifers. No species has been found yet in southern Florida although two species of *Cimberis*, *C. elongatus* (LeConte) and *C. pilosa*

(LeConte) are known from central and northern Florida where they are associated with species of *Pinus* (Kuschel 1989).

Anthribidae are the fungus weevils although some species feed on pollen of Asteraceae and some are predators of scale insects. There are slightly more than 3000 species in the world but only 87 are recorded from North America (Valentine 1960). The Anthribidae of the Bahamas were reviewed by Valentine (1955).

Belidae is a small family which exhibits a relictual distribution, with most species found in temperate regions of the southern hemisphere and the islands of the Pacific Ocean. There are slightly more than 300 species in the world. Only two species are known in North America.

Attelabidae are the leaf-rolling weevils and their relatives. Approximately 2000 species are known in the world, but only 50 species are found in North America.

Brentidae is a family composed of taxa with a variety of habits. Brentinae are associated with dead wood where they live under bark; Cyladinae (sweet-potato weevils) are associated with the plant family Convolvulaceae; and Apioninae, composed mostly of species placed in the genus *Apion*, are associated with a wide variety of plants. Some 4500 species comprise the world fauna; slightly less than 175 species are known in North America.

Curculionidae, with slightly less than 50,000 described species, is the largest family of organisms known; hypothesized reasons for this diversity are discussed in Anderson (in press a). Virtually all weevil species are associated with plants, particularly a wide variety of angiosperms, and various plant products. Through 1971, slightly fewer than 2200 species were recorded from North America (O'Brien and Wibmer 1978) but this number is probably now closing in on 2500. Not surprisingly this is the most diverse family of Curculionoidea in southern Florida.

At present relatively accurate estimates of the known fauna of Curculionoidea (excluding Anthribidae, Scolytinae and Platypodinae) of Florida can be made from O'Brien and Wibmer (1982), recent publications since 1982 and this study. A less accurate estimate can be made of the diversity of Anthribidae using Arnett (1983). Estimated numbers of genera and species are as follows (particularly diverse genera are noted): Nemomychidae (1;2), Anthribidae (15;32), Belidae (1;2), Attelabidae (8;13), Brentidae (8;37, *Apion* [30]), Curculionidae (174;508, *Listronotus* [40], *Anthonomus* [31], *Conotrachelus* [29], *Sphenophorus* [23], *Tyloderma* [22], *Baris* [19], and *Bagous* [17]). These totals do not include undescribed taxa or

unnamed species included in this study or otherwise known.

### Early studies of Curculionoidea in south Florida

**Eugene A. Schwarz (1844-1928).** Schwarz was probably the first person to collect beetles in an intensive manner in southern Florida. He first collected in Florida in 1875 and 1876 but spent all of his time in the central portion of the state and did not collect "at the southern extremity of the peninsula" (Schwarz 1878). In April of 1887 he had opportunity to return to Florida and, recognizing the paucity of information on the fauna of the extreme southern part of the state, "proceeded at once to Key West" (Schwarz 1888a) where he spent but 5 days and then began to work his way back north. At this time, Key West was a small colony, occupying only the western third of the island. The middle of the island was "occupied by an extremely thick growth of shrub-like trees, not higher than 15 feet, but without much undergrowth. This shrubbery represents what is known as the semi-tropical forest of southern Florida" (Schwarz 1888b). He found collecting to be poor under rocks, sifting leaves and on the "sparse vegetation of herbaceous plants". Rather he found that "the bulk of the fauna is represented by species living in or on the trees of the semi-tropical forest" (ibid.). He noted the lack "of predaceous, rhyphagous and coprophagous Coleoptera and an equally striking preponderance of certain phytophagous families" (ibid.). Curculionoidea were "by far the best represented family in the numbers of species as well as specimens" (ibid.) with Cerambycidae next, and, surprisingly, Ptinidae (mostly now placed as Anobiidae and Bostrichidae) third. He collected 36, 18 and 13 species, respectively, of each group. Of the entire fauna of the island, 36 species were "of general distribution in the more southern portion of the United States; 70 are not found north of Florida, and 52 represent the semitropical fauna" (ibid.). One-fourth of the species he collected were not recorded previously from the United States. He suspected some of the species to be undescribed but cautioned that they were likely to be of West Indian origin and perhaps previously described from that region or at least found to occur there. He concluded that the fauna was of "West Indian origin, and that the region I shall hereafter circumscribe as semitropical Florida does not contain any endemic forms" (Schwarz 1888a). His only mention of weevils was of finding *Cossonus* under the bark of decaying gumbo-limbo (*Bursera*

**Table 3.** Distribution of species of Curculionoidea (excluding Curculionidae) in southern Florida. Species considered not established in southern Florida are not included.

		Mainland	Upper Keys	Lower Keys	Mainland & Upper Keys	Mainland & Lower Keys	Upper & Lower Keys	Mainland, Upper & Lower Keys	Totals
South Florida	temperate	2	--	--	--	1	--	--	3
	tropical	1	--	1	--	--	--	--	2
Florida	temperate	4	--	--	--	1	--	--	5
	tropical	1	--	--	--	--	--	--	1
S.E. U.S.A.		4	--	--	--	2	--	--	6
Widespread N.A.		6	--	--	--	2	--	4	12
Widespread Neotropical		--	--	--	1	--	--	1	2
Florida & West Indies		1	1	--	--	--	1	4	7
Introduced (tropical)		--	--	--	--	1	--	1	2
Introduced (temperate)		--	--	--	--	--	--	--	--
Introduced (cosmopolitan)		1	--	--	--	--	--	--	1
		20	1	1	1	7	1	10	41

*simaruba* (L.) Sarg.); and *Pseudomus inflatus*, *Lembodes* and *Erodiscus* on cocoa-plum (*Chrysobalanus icaco* L. [actually, likely a misidentification of *Coccoloba uvifera* (L.) L. or *C. diversifolia* Jacq.]) (Schwarz 1888c).

After leaving Key West he appears to have headed north and spent a few weeks on the shores of Biscayne Bay. Here as well as on Key Largo and Elliott's Key, he noted that the "Floridian fauna largely infringes upon the semitropical forest" (Schwarz 1888a). Based on the findings of H.G. Hubbard, he reported the occurrence of insect species of West Indian origin "exclusively in small and isolated thickets of hammock land found at wide intervals in the dense shrubbery back of the ocean beach" along the eastern Florida coast between Capron and Jupiter (ibid.). We now know that the tropical element in southern Florida also extends north along the western coast but in 1888 this area was "the most unknown and least accessible portion of the whole United States" (ibid.).

He published just one description of a weevil species from Florida, *Anchonus floridanus*, in 1894 but various other specimens he collected were described as new species by Linell (1897).



**Table 4.** Distribution of species of Curculionidae in southern Florida. Species considered not established in southern Florida are not included.

		Mainland	Upper Keys	Lower Keys	Mainland & Upper Keys	Mainland & Lower Keys	Upper & Lower Keys	Mainland, Upper & Lower Keys	Totals
South Florida	temperate	11	--	1	--	--	1	1	14
	tropical	4	3	2	3	2	1	6	21
Florida	temperate	11	--	--	--	1	1	2	15
	tropical	2	--	1	1	3	--	10	17
S.E. U.S.A.		20	--	2	1	3	--	5	31
Widespread N.A.		57	1	4	4	4	1	2	73
Widespread Neotropical		11	--	1	3	3	--	9	27
Florida & West Indies		4	3	1	2	2	5	9	26
Introduced (tropical)		14	--	1	--	1	--	--	16
Introduced (temperate)		1	--	--	--	--	--	--	1
Introduced (cosmopolitan)		1	--	--	--	2	--	--	3
		136	7	13	14	21	9	44	244

Even in 1888 he recognized the impact of development on the natural habitats of southern Florida: "During my stay on the shores of Biscayne Bay I witnessed myself the destruction by cultivation of some of the prettiest pieces of semi-tropical hammock land, and if on the island of Key West the building boom, which flourished at the times of my visit, holds on for only three or four more years, not the slightest trace will then be left of the hammock, and the semitropical insect fauna of that island will be a thing of the past" (Schwarz 1888a). Unfortunately, he underestimated the extent to which development would eventually take place: "Still, there is no danger that this fauna will become entirely extinct in southern Florida, since many spots covered with semitropical forest are situated in the most inhospitable and inaccessible parts of the country which will never have any attraction to the settler" (ibid.).

**Willis S. Blatchley (1859-1940).** Although Schwarz was the pioneer, it was truly Blatchley who made known the insects of Florida, especially the Coleoptera. His "autobiography", comprising *Blatchleyana* and *Blatchleyana-II* was published in 1930 and 1939,

respectively. Blatchley was born in 1859 in Connecticut, and the next year his parents moved to Indiana. He attended Indiana University from 1883-1887 and following graduation taught high school science until 1894. In 1894 he resigned from his teaching position and became State Geologist for Indiana until 1911. During this period as a teacher and geologist he published extensively on a variety of subjects, including entomology. His initial visit to Florida, prompted by illness, was made to Ormond for 6 weeks, beginning in March of 1899. He does not appear to have returned to Florida until January of 1911. He remained there until April 17 and collected insects at a variety of places including Lake Okeechobee where he noted that there were "but three houses on the shores of the lake" (Blatchley 1930). In 1911 he also visited Key West but does not appear to have done any insect collecting during his very short stay there (Blatchley 1930, 1932). In contrast to the situation encountered by Schwarz (1888b), he noted (Blatchley 1932) that "there is scarcely a tree of any size on the island and the shrubs are mostly dwarf and much bent by the wind"; even by 1911 the prophecy of Schwarz (1888a) had come to pass. He returned north via Miami where he spent a week collecting in and around Little River.

Blatchley returned to Florida in 1913 and purchased land, on which he later built a house at Dunedin. The place was to become his winter residence from that year forward and the base for his collecting activities. In 1912 he published his first paper on Coleoptera in Florida and continued to do so, publishing 23 in all, until 1930. From 1913 to 1916 he and C.W. Leng worked on the "Rhynchophora or weevils of Northeastern America" which was published in 1916. Contrary to the geographic limits conveyed by the title of the work, it included treatment of many species restricted in their distributions to Florida, and remains today the best source for identification of the Curculionoidea of Florida.

Blatchley spent most of his time in Florida in the vicinity of Dunedin and central Florida and eventually visited extreme southern Florida again in 1919. On this trip he visited Cape Sable, where he spent a week, and Key West, where he spent 5 days. In 1921 he made his first visit to the Everglades. He returned to Royal Palm Park (later to become a portion of Everglades National Park) in 1924 and again in 1925, 1927, 1929 and 1930.

In all, Blatchley described 67 species and subspecies of Curculionoidea (excluding Scolytinae and Platypodinae) from Florida. Most of these were from Dunedin but included are four (*Hyperodes*

**Table 5.** Plant associations of species of southern Florida Curculionidae (excluding Scolytinae and Platypodinae). Species considered not established in southern Florida are not included. Sequence and numbering of plant families follows Long and Lakela (1971).

	Brachycerinae				Curculioninae															
	Entimini	Polydrosini	Rhytirrhini	Cossolinae	Anthonomini	Baridini	Ceutorhynchini	Cryptorhynchini	Curculionini	Erirrhini	Gymnetrini	Lixini	Molytini	Otidocephalini	Piazorhinini	Rhynchaenini	Tychini	Zygopini	Rhynchophorinae	
Unknown	--	3	15	8	6	21	3	30	--	6	--	1	8	3	--	--	--	2	2	105
"generalist"	--	6	--	9	--	--	--	4	--	--	--	--	4	--	--	--	--	--	7	31
12. Pteridaceae	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
20. Pinaceae	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1
26. Potamogetonaceae	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1
30. Alismataceae	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3
32. Poaceae	--	--	--	--	--	1	--	--	--	1	--	--	--	--	--	--	--	--	2	4
33. Cyperaceae	--	--	--	--	--	2	--	--	--	--	--	--	1	--	--	--	--	--	2	5
35. Arecaceae	--	--	--	2	--	1	--	--	--	4	--	--	--	1	--	--	--	--	1	9
39. Bromeliaceae	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
41. Pontederiaceae	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
45. Agavaceae	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
50. Musaceae	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1
58. Salicaceae	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1	1	--	--	2
59. Myricaceae	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1
62. Fagaceae	--	--	--	--	--	--	--	--	1	--	--	--	2	--	--	--	--	--	--	3
70. Polygonaceae	--	--	1	--	--	--	--	4	--	--	--	3	--	--	1	--	--	--	--	9
71. Chenopodiaceae	--	--	1	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	2
72. Amaranthaceae	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	2
75. Aizoaceae	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	--	2
76. Portulacaceae	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1
79. Nymphaeaceae	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	2
85. Lauraceae	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	1
95. Fabaceae	2	--	--	--	1	--	--	1	--	--	--	--	2	--	--	--	--	--	--	6
100. Zygophyllaceae	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1
101. Rutaceae	--	--	--	--	2	3	--	--	--	--	--	--	--	--	--	--	--	--	--	5
106. Malpighiaceae	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
118. Vitaceae	--	--	--	--	--	1	1	--	--	--	--	--	--	--	--	--	--	--	--	2
121. Malvaceae	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2
123. Hypericaceae	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	2
135. Cactaceae	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1
138. Rhizophoraceae	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	2
140. Myrtaceae	--	--	--	--	4	1	--	--	--	--	--	--	--	--	--	--	--	--	--	5
143. Onagraceae	--	--	--	--	--	--	4	3	--	--	--	--	--	--	--	--	--	--	--	7
149. Theophrastaceae	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1
--- Umbelliferae	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
153. Sapotaceae	--	--	--	--	--	--	--	--	--	--	--	--	2	1	--	--	--	--	--	3
160. Convolvulaceae	--	--	--	--	--	--	--	1	--	--	--	--	1	--	--	--	--	--	--	2
164. Avicenniaceae	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	1
167. Solanaceae	--	--	--	--	2	--	--	3	--	--	--	--	--	--	--	--	--	--	--	5
173. Rubiaceae	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	3
177. Campanulaceae	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1
179. Asteraceae	--	--	1	--	--	1	--	--	--	1	--	--	1	--	--	--	--	--	--	4

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*carinatus* [= *Listronotus carinatus*], *Baris seminola*, *Baris palmensis*, *Perigaster alternans*) from Royal Palm Park, four (*Bagous pictus*, *Acalles sablensis*, *Pseudoacalles maculatus* [= *Acalles subhispidus* LeConte], *Pentarthrinus brevisrostris* [= *Pseudopentarthrum brevisrostris*]) from Cape Sable, two (*Anthonomus bicorostris*, *Euscepes deceptus* [= *Neoulusomus laticaudis* (Suffrian)]) from Miami, and one (*Smicronyx halophilus*) from Key West. A number of the species he described from central Florida are also found in southern Florida. His collection is presently housed in the Entomological

Collections of Purdue University, West Lafayette, Indiana.

## Materials and Methods

This paper presents the results of extensive sampling of the fauna of Curculionoidea (excluding Scolytinae and Platypodinae) of southern Florida. The primary specimen base for this work was the extensive survey of the insect fauna of south Florida conducted by Peck (1989). These collections were supplemented by field work conducted by myself and Edward G. Riley (Texas A&M University) from 7-27



May, 1990 and again by me from 12-24 October, 1990. Specimens collected during these periods are deposited in the Canadian Museum of Nature Collection, Ottawa (CMNC) and the Texas A&M University Collection, College Station (TAMU). Specimens were also examined from the following collections: Canadian National Collection of Insects (CNCI); Field Museum of Natural History (FMNH); Florida State Collection of Arthropods (FSCA); Museum of Comparative Zoology (MCZC); Entomological Collections of Purdue University (PURC); and the personal collections of Charles W. O'Brien (CWOB) and Henry F. and Anne T. Howden (HAHC). Representatives of each undescribed or unnamed taxon are deposited in CMNC.

An annotated list of the Curculionoidea of south Florida is presented. This list follows the classification of the Curculionoidea by Kuschel (in press) and nomenclature follows O'Brien and Wibmer (1982, 1984) and Wibmer and O'Brien (1989). Included is information on natural history (including habitat and host plant associations); and distribution (based on specimens collected in the sampling program of Peck [Table 1]; collected by me or field associates; and examined from selected collections known to house significant series of southern Florida specimens). Literature records cited are only those from Dade and Monroe Counties; records from other portions of the species range may be found in various references, particularly those of Blatchley (1914-1928) and Blatchley and Leng (1916). All questionable south Florida literature records are noted herein. Attempts have been made to substantiate all such records by personal examination of specimens. Misidentifications are noted, but when no specimens were examined, some records have been necessarily left as unconfirmed (indicated in text of annotated list by an \*). Also given is the entire known distribution of each species in categorized form (summarized in Tables 3-4). These categories are as follows: **Southern Florida**, restricted to Dade and Monroe Counties (species are considered as of temperate or tropical affinity based on distributions of related species); **Florida**, restricted to Florida (species are considered as of temperate or tropical affinity based on distribution of related species); **Southeastern United States**, Florida and bordering Gulf coastal states west to Texas or northern Mexico; **Widespread North American**, throughout most of North America (some species extend south into Mexico, West Indies or elsewhere but are of temperate affinity); **Widespread Neotropical**, throughout most of Neotropical Region (some species extend marginally into southern U.S.A. but are of

tropical affinity); **Florida and West Indies**, Florida and various West Indies (including Bahama Islands, Greater Antilles and Lesser Antilles). These distributions are taken primarily from O'Brien and Wibmer (1982, 1984), Wibmer and O'Brien (1989) and recent revisionary works, but are supplemented by additional specimen records seen by me which represent noteworthy range extensions. These range extensions are cited in a section "Distributional notes".

Natural history information, unless otherwise noted, refers to the species in south Florida; however, an attempt has been made to assemble known information from throughout the species range and to present this information in an appropriate geographical context. In some instances, where no natural history information is available for that species, natural history information is given for congeneric species or close relatives, with the notion that the species in question may have similar habits. All natural history information presented without citation indicates label data associated with specimens of that species examined by me. Plant associations are summarized in Table 5 and were determined based on knowledge of habits of immature stages, reared adult specimens, repeated collection of adults, and plant associations of related species. Generalists are considered species associated with more than one plant family. Plant classification and nomenclature follows Long and Lakela (1971) for plants found in south Florida and follows a variety of sources for plants found elsewhere.

No new species or generic descriptions or nomenclatural changes are included here. These will be published elsewhere or ideally, left for future monographic treatment with a phylogenetic rather than geographical focus. A section, "Taxonomic notes", summarizes the basis for the identification of those taxa left as undetermined to genus and/or species.

Names of some localities cited herein may be difficult to locate on current maps. For some of these, the names as cited in literature or on old specimen labels have changed in recent times. For others, the localities are not noted on most generally available maps and in some instances require detailed directions to find. Rather than note each in the text these localities are given below:

**Brickell Hammock.** This was a hardwood hammock which extended from the mouth of the Miami River south to Coconut Grove along Biscayne Bay in the city of Miami (Blatchley 1932). Most of this approximately 100 acre hammock has been developed and no longer exists. Three small parks preserve remnants of the

hammock; Simpson's Park, Alice Wainwright Park, and the grounds of the Vizcaya Museum; I have not seen insect specimens from any of these three locations.

**Charles Deering Estate Park.** This is a Metropolitan Dade County park on the coast of Biscayne Bay located at 167 St. S.W. and 72 Avenue, in South Miami. The park comprises over 358 acres and preserves excellent hardwood hammock, pineland and mangrove habitat.

**Camp Mahachie.** This is a girl scout camp located immediately south of, and continuous with, the inland portion of Matheson Hammock on Old Cutler Road in South Miami. Habitat is hardwood hammock.

**Grossman Hammock.** This is the central hardwood hammock in Chekika State Recreation Area, 168 St., and S.W. 237 Avenue, west of the city of Miami.

**Little River.** This site was on the northern outskirts of the city of Miami just south of North Miami where the John F. Kennedy Causeway now crosses Biscayne Bay to the barrier islands; Blatchley collected here in 1911 (Blatchley 1932). The area has been extensively developed and little if any natural habitat remains. The closest existing natural area is probably Greynolds Park.

**Matheson Hammock.** This is a Metropolitan Dade County park on the coast of Biscayne Bay in South Miami at 9800 Old Cutler Road. The park is composed of two portions; a coastal portion which is largely developed for recreational use, and an excellent hardwood hammock located south of the main park entrance on the inland side of Old Cutler Road.

**Old Cutler Hammock.** This is a small Metropolitan Dade County park at 7900 S.W. 176 St. in South Miami. Habitat is hardwood hammock.

**Owaissa Bauer Campground.** This is a girl scout camp in Homestead at S.W. 264 St., and S.W. 167 Avenue.

**Paradise Key or Royal Palm Park.** This is the area surrounding the Royal Palm Visitor Center of Everglades National Park. It was once the site of Royal Palm State Park and the name Royal Palm Park still is used frequently today. Blatchley collected here quite extensively from 1924-1930. Two habitat types are found here: 1) mature hardwood hammock through which the Gumbo Limbo Trail winds, and 2) wet sawgrass prairie bordered by a variety of wetland

margin habitats along the Anhinga Trail, a raised boardwalk used by tourists to view alligators and birds.

**Ross Castellow Hammock.** This is a Dade County park located near Homestead.

## Checklist of Curculionoidea of south Florida

### Anthribidae

#### Choraginae

##### Araecerini

*Acaromimus americanus* (Motschulsky)

*Araecerus fasciculatus* (DeGeer)\*

#### Choragini

*Choragus* species 1

*Euxenulus piceus* (LeConte)

### Anthribinae

#### Discotenini

*Ischnocerus infuscatus* Fahraeus

#### Euparini

*Euparius marmoreus* (Olivier)

*Euparius paganus* Gyllenhal

### Anthribini

*Trigonorhinus rotundatus* (LeConte)

*Trigonorhinus sticticus* (Boheman)

*Trigonorhinus tomentosus* (Say)

#### Ormiscini

*Ormiscus floridanus* (Leng)

*Ormiscus pusillus* (LeConte)

*Ormiscus quadrimaculatus* (Pierce)

*Ormiscus schwarzi* (Pierce)

*Ormiscus* new species 1

*Ormiscus* new species 2

#### Platyrhinini

*Homocloeus distentus* Frieser\*

*Homocloeus sexverrucatus* (Suffrian)\*

#### Platystomini

*Phoenicobiella chamaeropis* (LeConte)

*Toxonotus cornutus* (Say)

*Toxonotus fascicularis* (Schoenherr)

#### Piesocorynini

*Brevibarra rectus* (LeConte)

### Belidae

#### Oxycoryninae

*Rhopalotria mollis* (Sharp)\*

*Rhopalotria slossoni* (Schaeffer)

**Attelabidae****Attelabinae***Homeolabis analis* (Illiger)**Rhynchitinae***Auletobius cassandrae* (LeConte)*Eugnamptus striatus* LeConte**Brentidae****Apioninae****Apionini***Apion carinatum* Smith*Apion desolatum* Smith*Apion gulare* Fall*Apion lividum* Smith*Apion minutum* Smith*Apion perminutum* Smith*Apion sinuirostrum* Fall*Apion tenuiforme* Fall*Apion varicorne* Smith*Podapion* new species 1**Brentinae****Brentini***Brenthus anchorago* Linell*Paratrachelizus uncimanus* (Boheman)*Stereodermus exilis* Suffrian**Cyladinae***Cylas formicarius* (Fabricius)\***Curculionidae****Brachycerinae****Entimini****Promecopina***Eudiagogus maryae* Warner*Eudiagogus pulcher* Fahraeus**Polydrosini****Barynotina***Epicaerus formidolosus* Boheman*Lachnopus argus* (Reiche)#*Lachnopus floridanus* (Horn)*Lachnopus hispidus* (Gyllenhal)#**Naupactina***Artipus floridanus* Horn*Asynorychus godmanni* Crotch\***Otiorhynchina***Neoptochus adspersus* (Boheman)**Tanymecina***Pachnaeus litus* (Germar)*Pandeleiteius nodifer* Champion\**Scalaventer subtropicus* (Fall)*Tanymecus lacaena* Herbst**Rhytirrhini****Listroderina***Lixellus lutulentus* (Boheman)*Listronotus appendiculatus* (Boheman)*Listronotus blandus* Henderson*Listronotus blatchleyi* Henderson*Listronotus borrichiae* O'Brien*Listronotus callosus* LeConte*Listronotus carinatus* (Blatchley)*Listronotus cryptops* (Dietz)*Listronotus delumbis* (Gyllenhal)*Listronotus fasciatus* O'Brien*Listronotus hornii* (Dietz)*Listronotus humilis* (Gyllenhal)*Listronotus latinasus* (Blatchley)*Listronotus lodingi* (Blatchley)*Listronotus marshalli* O'Brien*Listronotus novellus* (Blatchley)*Listronotus oregonensis* (LeConte)*Listronotus porcellus* (Say)*Listronotus salicorniae* O'Brien*Listronotus setosus* LeConte*Listronotus sordidus* (Gyllenhal)*Listronotus wallacei* (Stockton)**Cossoninae****Cossonini***Cossonus corticola* Say*Cossonus hamiltoni* Slosson*Cossonus impressifrons* Boheman*Cossonus impressus* Boheman*Cossonus spathula* Boheman#*Himatium errans* LeConte*Stenotrupis acicula* Wollaston+**Cotasterini***Caulophilus oryzae* (Gyllenhal)\**Caulophilus rufotestaceus* (Champion)+*Dryotribus mimeticus* Horn*Micromimus minimus* (Boheman)+*Paralicus minyops* O'Brien*Stenomimus* species 1**Onycholipini***Pseudopentarthrum anonus* (Blatchley)*Pseudopentarthrum atrolucens* (Casey)*Pseudopentarthrum brevirostris* (Blatchley)*Pseudopentarthrum dissimilis* (Blatchley)**Rhyncolini***Eucoptus depressus* Wollaston*Macrancylus linearis* LeConte*Stenancylus colomboi* Casey**Curculioninae****Anthonomini***Anthonomopsis mixta* (LeConte)\*#*Anthonomus agerochus* Clark*Anthonomus alboannulatus* Boheman

*Anthonomus bicorostris* Blatchley  
*Anthonomus costulatus* Suffrian  
*Anthonomus elongatus* LeConte  
*Anthonomus eugenii* Cano\*  
*Anthonomus malpighiae* Clark & Burke\*  
*Anthonomus rubricosus* Boheman  
*Anthonomus rutilus* (Boheman)  
*Anthonomus sexguttata* Dietz  
*Anthonomus solarii* Champion  
*Anthonomus subfasciatus* LeConte  
*Anthonomus trisicifer* Clark  
*Anthonomus varipes* Jaquelin du Val  
*Atractomerus punctipennis* (Gyllenhal)  
*Ephelops triguttata* Dietz  
 New genus 1, new species 1  
 New genus 1, new species 2

### Baridini

#### Baridina

*Aulobaris anthracinus* Boheman  
*Aulobaris ibis* (LeConte)  
*Baris aeneomicans* Casey  
*Baris blatchleyi* Hustache  
*Baris nitida* LeConte  
*Baris palmensis* Blatchley  
*Baris scintillans* Casey  
*Baris seminola* Blatchley  
*Baris splendens* Casey  
*Baris* species 1  
*Pseudobaris gibbistrostris* Casey  
*Pseudobaris nigrina* (Say)  
*Stenobaris avicenniae* Linell

### Centrinina

*Barinus confusus* Sleeper  
*Barinus robustus* Blatchley  
*Catapastus albonotatus* Linell  
*Catapastus signatipennis* Linell  
*Geraeus perscillus* (Gyllenhal)  
*Geraeus* species 1  
*Myctides imberbis* Lea\*  
*Nicentrus grossulus* Casey  
*Nicentrus saccharinus* Marshall\*  
*Odontocorynus salebrosus* Casey  
*Oomorphidius laevicollis* LeConte  
*Pachybaris porosa* LeConte  
*Prosaldius denudatus* (Casey)  
*Prosaldius* new species 1  
*Sibariops concinna* (LeConte)  
*Sibariops confusa* (Boheman)  
*Zygobarinus coelestinus* (Linell)  
*Zygobaris nitens* LeConte

### Madarina

*Madarellus undulatus* Say

### Ceutorhynchini

#### Ceutorhynchina

*Calosirus floridanus* (Leng)

### Cnemogonina

*Auleutes epilobii* (Paykull)  
*Auleutes nebulosus* (LeConte)  
*Craponius inaequalis* (Say)  
*Pelenosomus cristatus* Dietz  
*Perigaster alternans* Blatchley  
*Perigaster cretura* (Herbst)  
*Perigaster obscura* (LeConte)

### Hypurina

*Hypurus bertrandi* (Perris)\*

### Cryptorhynchini

#### Cryptorhynchina

*Acalles clavatus* (Say)  
*Acalles crassulus* LeConte  
*Acalles granosus* LeConte  
*Acalles minimus* Blatchley  
*Acalles sablensis* Blatchley  
*Acalles subhispidus* LeConte  
*Acalles sylvosus* Blatchley  
*Acalles* new species 1  
*Acalles* new species 2  
*Acalles* new species 3  
*Acalles* new species 4  
*Acalles* new species 5  
*Acalles* new species 6  
*Apteromechus ferratus* (Say)  
*Apteromechus longus* (LeConte)  
*Apteromechus pumilus* (Boheman)  
*Calles* new species 1  
*Cophes fallax* (LeConte)  
*Cophes oblongus* (LeConte)  
*Cophes obtentus* (Herbst)  
*Eubulus bisignatus* (Say)  
*Eubulus obliquus* (Say)  
*Euscepes porcellus* Boheman  
*Eutinobothris pilosellus* (Boheman)  
*Faustinus cubae* (Boheman)\*  
*Gerstaeckeria fasciata* Pierce  
*Lembodes solitarius* (Boheman)  
*Neoulosomus laticaudis* (Suffrian)  
*Paracamptus floridanus* Sleeper  
*Paracamptus subtropicus* Casey  
*Phrydenus divergens* (Germar)  
*Phrydenus muriceus* Germar\*  
*Pseudoacalles nuchalis* (LeConte)  
*Pseudomopsis inflata* (LeConte)  
*Pseudomus sedentarius* (Say)  
*Rhynchus apiculatus* (Gyllenhal)  
*Sudus floridanus* Kissinger  
*Troezone lutosus* (LeConte)  
*Tyloderma aeneotinctum* Champion  
*Tyloderma aereoides* Wibmer  
*Tyloderma aquaticum* Wibmer  
*Tyloderma capitale* Wibmer  
*Tyloderma circumcaribbeum* Wibmer  
*Tyloderma contusum* Casey  
*Tyloderma foveolatum* (Say)

*Tyloderma minimum* Blatchley  
*Tyloderma punctatum* Casey  
*Tyloderma rufescens* (Casey)  
*Zascelis* new species 1\*  
 New genus 1, new species 1  
 New genus 2, new species 1  
 New genus 3, new species 1

### Curculionini

*Curculio pardalis* (Chittenden)

### Erirrhini

### Derelomina

*Elaeidobius subvittatus* (Faust)\*  
*Notolomus basalis* LeConte  
*Notolomus bicolor* LeConte  
*Notolomus* new species 1

### Smicronychina

*Smicronyx halophilus* Blatchley

### Stenopelminina

*Bagous blatchleyi* Tanner  
*Bagous magister* LeConte  
*Bagous pictus* Blatchley  
*Bagous transversus* LeConte  
*Brachybamus electus* Germar  
*Lissorhoptrus lacustris* Kuschel  
*Lissorhoptrus longipennis* Kuschel  
*Lissorhoptrus oryzophilus* Kuschel  
*Lissorhoptrus simplex* (Say)  
*Notiodes ovalis* (LeConte)  
*Onychylis nigrirostris* (Boheman)

### Gymnetrini

### Mecinina

*Miarus hispidulus* LeConte

### Lixini

### Lixina

*Lixus fossus* LeConte  
*Lixus punctinatus* LeConte  
*Lixus terminalis* LeConte  
*Lixus* new species 1  
*Microlarinus lypriformis* (Wollaston)\*

### Molytini

### Anchonina

*Anchonus blatchleyi* Sleeper  
*Anchonus duryi* Blatchley  
*Anchonus floridanus* Schwarz

### Cleogonina

*Rhyssomatus palmarum* (Say)

### Conotrachelina

*Conotrachelus belfragei* LeConte  
*Conotrachelus biscaynensis* Fall  
*Conotrachelus coronatus* LeConte

*Conotrachelus floridanus* Fall  
*Conotrachelus maritimus* Blatchley  
*Conotrachelus naso* LeConte  
*Conotrachelus posticatus* Boheman  
*Conotrachelus seniculus* LeConte  
*Conotrachelus tuberosus* LeConte  
*Conotrachelus serpentinus* Boheman  
*Conotrachelus* near *histrion* Boheman  
*Conotrachelus* new species 1  
*Micralcinus cribratus* LeConte  
*Micralcinus maculatus* (Blatchley)  
*Pheloconus hispidus* (LeConte)  
*Pheloconus infector* (Boheman)

### Cycloterina

*Gononotus angulicollis* (Chevrolat)

### Hylobiina

*Heilipus apiatus* (Olivier)  
*Heilus bioculatus* (Boheman)\*\*  
*Pachylobius picivorus* (Germar)

### Lymantina

*Caecossorus dentipes* Gilbert

### Sternechina

*Chalcodermus aeneus* Boheman  
*Chalcodermus collaris* Horn

### Otidoccephalini

### Erodiscina

*Sicoderus tinamus* (LeConte)

### Otidoccephalina

*Micromyrmex cavirostris* Casey  
*Micromyrmex poeyi* Chevrolat  
*Myrmex dichrous* (LeConte)  
*Myrmex floridanus* (Casey)

### Prionomerini

### Piazorhinina

*Piazorhinus tuberculatus* Blatchley

### Rhynchaenini

*Isochnus populicola* (Silfverberg)\*#  
*Tachyerges niger* (Horn)

### Tychiini

### Elleschina

*Elleschus ephippiatus* (Say)

### Lignyodina

*Plocetes bahamaensis* (Casey)  
*Plocetes clarki* Anderson  
*Plocetes ulmi* LeConte

### Zygopini

### Lechriopina

*Copturus floridanus* (Fall)



*Cylindrocopturus nanulus* LeConte

### Rhynchophorinae

#### Rhynchophorini

*Rhynchophorus cruentatus* (Fabricius)

#### Sitophilini

*Sitophilus linearis* (Herbst)\*

*Sitophilus oryzae* (Linnaeus)\*

#### Sphenophorini

*Cosmopolites sordidus* (Germar)\*

*Metamasius callizona* (Chevrolat)\*

*Metamasius hemipterus* (Linnaeus)\*

*Metamasius mosieri* Barber

*Scyphophorus acupunctatus* Gyllenhal\*

*Sphenophorus australis australis* (Chittenden)

*Sphenophorus callosus* (Olivier)

*Sphenophorus cariosus* (Olivier)

*Sphenophorus cubensis* Buchanan

*Sphenophorus minimus* Hart

*Sphenophorus necydaloidea* (Fabricius)

*Sphenophorus pontederiae* Chittenden

*Sphenophorus velutinus* (LeConte)

*Sphenophorus venatus vestitus* Chittenden

*Sphenophorus zeae* Walsh

\* Introduced or likely introduced into south Florida.

# Likely not established in south Florida.

+ New records for the United States of America.

## Annotated Checklist

### Family Anthribidae

#### Subfamily Choraginae

##### Tribe Araecerini

*Acaromimus americanus* (Motschulsky). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected beating miscellaneous dead vegetation in hardwood hammocks; under bark gumbo limbo, *Bursera simaruba* (L.) Sarg.; and in hardwood hammock litter berlese samples. **SBP localities:** 19; vi-viii. **Other localities:** Dade Co.: Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 8.v., 15.x.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Pine Key, Watsons Hammock, 18.x.; Key West, iv. **Literature records:** Biscayne\* (Blatchley and Leng 1916); Cape Sable\* (Blatchley 1920, as *Euxenus piceus* LeConte [see Valentine 1960]).

*Araecerus fasciculatus* (DeGeer). **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Cosmopolitan. **Natural history:** This is the "coffee-bean weevil". Larvae feed in seeds of a variety of plants. Woodruff (1972a) reports this species as damaging oranges in Lake County, Florida. In south Florida, adults have been collected in seeds of *Phoenix roebelenii* and reared from seeds of Royal Palm, *Roystonea elata* (Bartr.) F. Harper. (Arecaceae). **SBP localities:** 6; xi-iii. **Other localities:** Dade Co.: Homestead, 21-22.vi., 9.xi.; Miami, 22.xi.

##### Tribe Choragini

*Choragus* species 1. **Range:** Southern Florida. **Distribution in south Florida:** Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected in flight intercept traps in hardwood hammocks. **Taxonomic notes:** This species currently is not identifiable to species (B.V. Valentine pers. comm.). **SBP localities:** 19, 24; vi-vii, xi-iii.

*Euxenus piceus* (LeConte). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, one specimen was collected in a flight intercept trap in a hardwood hammock; Blatchley (1922) notes catching specimens at the "edge of a mangrove swamp". **Distributional notes:** Previously known only from southern Florida, a specimen has been examined from Lake Poinsett, Florida (MCZC). **SBP localities:** 2; viii-xii.

### Subfamily Anthribinae

#### Tribe Discotenini

*Ischnocerus infuscatus* Fahraeus. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected on dead branches and in flight intercept traps in hardwood hammocks. **SBP localities:** 6, 9; throughout year. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 10.v., 3.vii.; Everglades National Park, Royal Palm Park, 18.iii., 10-11.v., 25.v.; Chekika State Recreation Area, 9.v.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 29.iii., 27.vi.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v.; Upper Key Largo, 25-27.iv., 26.v. **Literature records:** Key Largo\*, Key West\*, Biscayne Bay\* (Blatchley and Leng 1916).

#### Tribe Eupariini

*Euparius marmoreus* (Olivier). **Range:** Widespread North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected beating and in flight intercept traps in hardwood hammocks. The species has been associated with dead oak trees and fungus in Texas and Louisiana (Pierce 1930). **SBP**

**localities:** 2, 3, 13, 14, 17; throughout year. **Other localities:** Dade Co.: Miami, Matheson Hammock, 15.x.; Everglades National Park, Gumbo Limbo Trail, 25.iii.; Everglades National Park, Royal Palm Park, 13.x. Monroe Co.: John Pennekamp State Park, 14.vi..

*Euparius paganus* Gyllenhal. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, pineland. **Natural history:** In south Florida, adults were collected beating in hardwood hammock and in flight intercept trap in pineland. **SBP localities:** 4; vi-viii. **Other localities:** Dade Co.: Miami, Matheson Hammock, 27.vi.

### Tribe Anthribini

*Trigonorhinus rotundatus* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie, wetland margins. **Natural history:** This species occurs in swampy meadows, and on the flowers of huckleberry (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 22.iii. **Literature records:** This species is noted as "very common in south Florida" (Blatchley 1928) but no exact locality information is given.

*Trigonorhinus sticticus* (Boheman). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie, wetland margins. **Natural history:** Throughout its range, adults have been collected sweeping low herbage, sifting woody debris and on flowers of *Cephalanthus occidentalis* L. (Rubiaceae); the species is reported to breed in the smut of corn and wheat (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 18.iii., 22.iii., 24.iii., 5.iv. **Literature records:** This species is noted as "very common in south Florida" (Blatchley 1928) but no exact locality information is given.

*Trigonorhinus tomentosus* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, pineland. **Natural history:** Adults have been collected sweeping herbage (Blatchley 1928). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.iv. **SBP localities:** 4; viii. **Literature records:** Royal Palm Park (Blatchley 1928).

### Tribe Ormisciini

*Ormiscus floridanus* (Leng). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, wet/dry prairie. **Natural history:** Adults were collected beating dead vegetation in hardwood hammocks in south Florida, on poke berry (Blatchley and Leng 1916), and on ferns in hammocks (Blatchley 1919, 1932). **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Royal Palm Park, 30.iii.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson

Hammock, 8.v. **Literature records:** Royal Palm Park (Blatchley 1925).

*Ormiscus pusillus* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Wet/dry prairie, wetland margins, salt marsh-coastal prairie. **Natural history:** Adults were collected near Dunedin, Florida sweeping tall grasses and herbage growing along the margins of ponds (Blatchley 1925). In southern Florida adults were beaten from dead branches (Blatchley 1920) and were collected sweeping *Salicornia bigelovii* Torr. and *Suaeda linearis* (Ell.) Moq. (Chenopodiaceae) in coastal prairie habitat. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.; Chekika State Recreation Area, 9.v.; Miami, Matheson Hammock, 8.v. Monroe Co.: Cape Sable, 23.ii.; Everglades National Park, Flamingo, 12.v.; Key West, 3.iii.; No Name Key, 18.v.; Sugarloaf Key, 15.v. **Literature records:** Cape Sable, Key West (Blatchley 1920 [as *Ormiscus saltator* LeConte], 1925; Pierce 1930).

*Ormiscus quadrimaculatus* (Pierce). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults were collected beating dead vegetation in hardwood hammock habitat. **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7.v.; Miami, Old Cutler Hammock, 9.v.

*Ormiscus schwarzi* (Pierce). **Range:** Southern Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock, pineland. **Natural history:** In south Florida, adults were collected beating and in flight intercept trap in hardwood hammock, and sweeping in pineland. **SBP localities:** 19; xi-iii. **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7-8.v.; Miami, Matheson Hammock, 8.v., 20.vi., 27.vi. Monroe Co.: Big Pine Key, Watson's Hammock, 15.v., 19.v. **Literature records:** Key West\* (Pierce 1930).

*Ormiscus* new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected beating and in flight intercept trap in hardwood hammock. **Taxonomic notes:** This species is considered undescribed (B.V. Valentine pers. comm.). **SBP localities:** 5, 6, 7; xi-iii, vii-xi, xi-iii. **Other localities:** Dade Co.: Chekika State Recreation Area, 25.v., 12.x.; Everglades National Park, Royal Palm Park, 13.x.

*Ormiscus* new species 2. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, wet/dry prairie. **Natural history:** Adults were collected beating dead vegetation in hardwood hammocks, and sweeping sawgrass prairie. **Taxonomic notes:** This species is considered undescribed based on attempts by me to match the species with type specimens and identified specimens of North American *Ormiscus*

species in MCZC, USNM and PURC. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v., 12.x.

### Tribe Platyrhinini

*Homocloeus distentus* Frieser. **Range:** Florida and Cuba. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland. **Natural history:** In south Florida, adults are commonly collected in flight intercept traps and by beating dead vines and twigs in hardwood hammocks. The mention of *Piesocorynus moestus* LeConte as "rare on dead branches in Florida" (Pierce 1930) may be in reference to this species as the two are very similar in superficial appearance. **Distributional notes:** This is the first record of this species in the United States. With the next species, these are the first records of the genus *Homocloeus* in North America. **Taxonomic notes:** Despite a similar habitus and dorsal pattern of vestiture, this species is not *Phaenotheriopsis vaurei* Valentine described from the Bahamas (Valentine 1955; Frieser 1983). **SBP localities:** 2, 3, 4, 6, 7, 9, 13, 14, 17, 19, 23, 24, 25, 26; most, v-viii, xi-iii. **Other localities:** Dade Co.: Biscayne, no date; Chekika State Recreation Area, 9.v., 12.x.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 19.v., 20.v.

*Homocloeus sexverrucatus* (Suffrian). **Range:** Southern Florida and Cuba. **Distribution in south Florida:** Upper Keys. **Habitat:** Hardwood hammock. **Distributional notes:** This is the first record of this species in the United States; one specimen was examined (MCZC). **Other localities:** Monroe Co.: Key Largo, near Basin Hills, 14.viii.

### Tribe Platystomini

*Phoenicobiella chamaeropsis* (LeConte). **Range:** Southeastern United States, Bahamas. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Pineland. **Natural history:** Adults are common on dead leaves of *Sabal palmetto* (Walt.) Lodd. (Arecaceae) (Blatchley and Leng 1916; Blatchley 1922; Pierce 1930) and have been collected in south Florida by beating dead fronds of *Serenoa repens* (Bartr.) Small (Arecaceae). **Other localities:** Dade Co.: Everglades, 14.iii.; Everglades National Park, Long Pine Key, 13.x.; Everglades National Park, Royal Palm Park, 14.iii., iii.; Homestead, 9.iii.; Miami, Charles Deering Estate Park, 7.v. Monroe Co.: Big Pine Key, 26.iii., 11.xi. **Literature records:** Everglades (Blatchley 1922).

*Toxonotus cornutus* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults have been collected beating dead branches in hardwood hammocks, and sweeping coastal prairie at night. **SBP localities:** 4, 14, 17; most vi-viii.

**Other localities:** Dade Co.: Everglades, 14.iii.; Everglades National Park, Royal Palm Park, 21.iii., 27.iii.; Chekika State Recreation Area, 12.x.; Miami, Charles Deering Estate Park, 7.v. Monroe Co.: Cape Sable, 22.ii.; Everglades National Park, Flamingo, 24.v.; Big Pine Key, Cactus Hammock, 18.x.; Big Pine Key, Watson's Hammock, 19.v.; Upper Key Largo, 24.v., 9.xi. **Literature records:** Everglades, Cape Sable, Royal Palm Park (Blatchley 1928).

*Toxonotus fascicularis* (Schoenherr). **Range:** Florida, Bahamas and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, coastal scrub. **Natural history:** In south Florida, adults have been collected commonly in flight intercept traps and beating in hardwood hammocks. They have also been found under bark of dead Caribbean pine (Blatchley 1925) and on dead branches of *Bumelia celastrina* var. *angustifolia* (Nutt.) R.W. Long (Blatchley 1920, 1932). **SBP localities:** 2, 4, 5, 6, 7, 9, 13, 14, 17, 18, 20, 23, 24, 26; throughout year. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 16.iii., iii., 13.x.; Chekika State Recreation Area, 25.v., 12.x.; Miami, 11.iii.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 20.vi., 15.x. Monroe Co.: Big Pine Key, Long Beach, 15.v.; Cape Sable, 22.ii.; John Pennkamp State Park, 23.v.; Key West, ii.; Upper Key Largo, 11.ii., 25-27.iv., 1-7.v. **Literature records:** Key West, Biscayne Bay\* (Blatchley and Leng 1916; Pierce 1930), Everglades, Royal Palm Park (Blatchley 1925), and Cape Sable (Blatchley 1920, 1932).

### Tribe Piesocorynini

*Brevibarra rectus* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults were found on dead leaves, branches and twigs (Blatchley and Leng 1916; Blatchley 1928), and on dead vines (Blatchley 1922, 1932). **Other localities:** Monroe Co.: Everglades National Park, Flamingo, 25-27.iii.; Upper Key Largo, 26.vi. **Literature records:** Paradise Key\*, Royal Palm Park\* (Blatchley 1928, 1932); Key West\* (Pierce 1930).

### Family Belidae

#### Subfamily Oxycoryninae

*Rhopalotria mollis* (Sharp). **Range:** Mexico and southern Florida (introduced). **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Commercial/ornamental. **Natural history:** Adults and larvae live in male flowers of the introduced *Zamia furfuracea* L. (Cycadaceae) (Norstog et al. 1986; Norstog and Fawcett 1989); adults may be involved in cycad pollination. **Other localities:** Dade Co.: Coral Gables, Fairchild Tropical Gardens, 8.vii.; Miami, 26.viii. Monroe Co.: Big Pine Key, Key Deer Blvd., vii, viii; Middle Torch Key, Lazelle Place, viii.



*Rhopalotria slossoni* (Schaeffer). **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** Adults and larvae live in male flowers of the native *Zamia pumila* L. (Cycadaceae) (Norstog et al. 1986; Blatchley and Leng 1916 [as *Zamia integrifolia* L.]); adults may be involved in cycad pollination. **SBP localities:** 5, 6; xi-iii. **Other localities:** Homestead, 1.xii. **Literature records:** Biscayne Bay\* (Blatchley and Leng 1916).

## Family Attelabidae

### Subfamily Attelabinae

*Homeolabis analis* (Illiger). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected by beating *Quercus* spp. (Fagaceae). Larvae develop in leaf rolls made from oak leaves. **SBP localities:** 3; xii. **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 10-11.v.; Everglades National Park, Royal Palm Park, 19.iii.; Miami, Matheson Hammock, 8.v.; Miami, Old Cutler Hammock, 9.v.

### Subfamily Rhynchitinae

*Auletobius cassandrae* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** Adults have been collected in flight intercept traps in hardwood hammocks in south Florida, and on red bay foliage (winter) and huckleberry flowers (spring) (Blatchley and Leng 1916). **SBP localities:** 6, 17, 18, 19, 20, 22, 24, 25; throughout year. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 4.vi. Monroe Co.: Big Pine Key, Cactus Hammock, 15.v.

*Eugnamptus striatus* LeConte. **Range:** Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults have been caught on scrub oaks (Blatchley and Leng 1916; Blatchley 1914), on *Quercus* spp., *Ostrya virginiana* (Mill.) and *Vaccinium* sp. (Hamilton 1989). Larvae of *Eugnamptus angustatus* (Herbst) mine dead leaves, apparently of a variety of plants (Hamilton 1980, 1989). **Literature records:** Key West\* (Blatchley and Leng 1916; Hamilton 1989), Dade County (Hamilton 1989).

## Family Brentidae

### Subfamily Apioninae

#### Tribe Apionini

*Apion carinatum* Smith. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** In south Florida, adults have been collected on *Desmodium* spp. (Fabaceae) in an avocado plantation and along roadsides (Kissinger 1968). **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7.v.

*Apion desolatum* Smith. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Unknown. **Literature records:** Cape Sable\* (Blatchley and Leng 1916).

*Apion angulare* Fall. **Range:** Florida, West Indies and Mexico. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults are very common in flight intercept traps in hardwood hammocks. Larvae develop in the seed pods of Jamaican Dogwood, *Piscidia piscipula* (L.) Sarg. (Fabaceae) (Kissinger 1968). **SBP localities:** 8, 9, 13, 14, 17, 18, 19, 20, 22, 23, 24, 25, 26; throughout year. **Other localities:** Monroe Co.: Big Pine Key, Cactus Hammock, 15.v.; Big Pine Key, Long Beach, 20.x.; Big Pine Key, Watsons Hammock, 19.v., 18.x.; Everglades National Park, Flamingo, 14.x.; Marathon, 26.vii.; No Name Key, 20.x.; Stock Island, 26.vi. **Literature records:** Miami\*, Key West\*, Biscayne Bay\* (Blatchley 1925).

*Apion lividum* Smith. **Range:** Florida and Mexico. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins, dry/wet prairie. **Natural history:** In Florida adults were found commonly on dead vines of wild cucumber, *Melothria pendula* L. (Cucurbitaceae) (Blatchley 1914; Kissinger 1968). **Literature records:** Matheson Hammock\*; Everglades National Park, Paradise Key\* (Kissinger 1968).

*Apion minutum* Smith. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins, dry/wet prairie. **Natural history:** Adults (from an unstated locality) were swept from flowers of *Ptilimnium* sp. (Umbelliferae) (Kissinger 1968). **Other localities:** Dade Co.: Hialeah, 22.iv. **Literature records:** Miami, Matheson Hammock State Park\* (Kissinger 1968).

*Apion perminutum* Smith. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Unknown. **Natural history:** Adults (from an unstated locality) were collected from flowers of climbing hempweed, *Mikania* sp., and also recorded (and probably reared) from seeds of *Mikania* sp. (Asteraceae) (Kissinger 1968). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 18.iii., 22.iii., 24.iii., 26.iii. **Literature records:** Hialeah\*, Homestead\*; Everglades National Park, Royal Palm Park (Kissinger 1968).

*Apion sinuirostrum* Fall. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Dry/wet prairie. **Natural history:** In south Florida, adults were collected sweeping sawgrass prairie at night. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v. **Literature records:** Paradise Key\* (Kissinger 1968).

*Apion tenuiforme* Fall. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Unknown. **Literature records:** Dade County\* (Kissinger 1968).

*Apion varicorne* Smith. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Unknown. **Natural history:** Adults from an unstated locality were reared from seeds of *Petalostemon feayi* Chapm. (Fabaceae). **Literature records:** Biscayne\* (Kissinger 1968).

*Podapion* new species 1. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** Larvae of *Podapion gallicola* Riley develop in galls on twigs of *Pinus* spp. (Pinaceae) (Kissinger 1968). **Taxonomic notes:** This species is very similar to the widespread North American *P. gallicola* and may prove not to be specifically distinct when more specimens become available for study. **Distributional notes:** This species is also known from the Archibald Biological Station, Florida (CWOB). **Other localities:** Dade Co.: Miami, 26.iv.

### Subfamily Brentinae

#### Tribe Brentini

*Brenthus anchorago* Linell. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults have been collected on flowers, under bark of various trees (Blatchley and Leng 1916), especially gumbo limbo, *Bursera simaruba* (L.) Sarg. (Blatchley 1932). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 23.iii., 28.iii.; Miami, 12.iv.; Miami, Matheson Hammock, 24-25.v.; Ross Castellow Hammock, 27.iv. Monroe Co.: Elliot's Key, no date; Key Largo, 1.i., 25.iv., 7.vi., 24.v., 14.vii.; Upper Key Largo, 3.iv., 30.v., 23.vii. **Literature records:** Florida Keys, Miami, Biscayne Bay\* (Blatchley and Leng 1916; Blatchley 1932).

*Paratrachelizus uncimanus* (Boheman). **Range:** Florida and West Indies. **Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected in flight intercept traps in hardwood hammocks. Two adults collected on Key Largo were feeding on fruits of *Solanum erianthum* D. Don (M.C. Thomas, pers. comm.). **SBP localities:** 9, 13, 14, 19, 20, 24, 26; most viii-xii. **Other localities:** Monroe Co.: Big Pine Key, Watson's Hammock, 19.v.; Key Largo, 1.i., 23.iii., 13-15.v.; Upper Key Largo, 23.vii. **Literature records:** Key Largo, Elliot's Key\* (Blatchley and Leng 1916).

*Stereodermus exilis* Suffrian. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected in blacklight traps, flight intercept traps in hardwood hammocks, and in berlese samples of leaf litter in hardwood hammocks. **SBP localities:** 19; vi-viii. **Other localities:**

Dade Co.: Miami, Camp Mahachie, 15.vi., 23.viii., 14.ix. Monroe Co.: Key Largo, 15.v.; Long Key State Recreation Area, 22.v. **Literature records:** Key West\* (Warner 1960).

### Subfamily Cyladinae

*Cylas formicarius* (Fabricius). **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults were collected on a sandy beach on *Ipomoea pes-caprae* (L.) R. Brown. This species is a widespread pest of sweet potato, *Ipomoea batatas* (L.) Lam. (Convolvulaceae). **Other localities:** Dade Co.: Homestead, 23.vii.; Miami, Fuch's Hammock, 19-20.x. Monroe Co.: Bahia Honda State Park, 16.v.; Dry Tortugas, Garden Key, 10.vii.; Grassy Key, 9.iv.

### Family Curculionidae

#### Subfamily Brachycerinae

##### Tribe Entimini

##### Subtribe Promecopina

*Eudiagogus maryae* Warner. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins, dry/wet prairie. **Natural history:** Adults are recorded as defoliating species of *Sesbania* (Fabaceae) (Warner 1979); larvae likely feed on roots of *Sesbania*. Larvae of two other species of *Eudiagogus* in Texas feed on the roots of *Sesbania* spp. (Kovarik and Burke 1989). **SBP localities:** 4; vi-viii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.; Chekika State Recreation Area, 12.x.; Miami, Fuch's Hammock, 27-28.viii. **Literature records:** Dade County (Warner 1979).

*Eudiagogus pulcher* Fahraeus. **Range:** Widespread Neotropical and southern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults feed on foliage and larvae feed on roots of *Sesbania* spp. (Fabaceae) (Kovarik and Burke 1989). **Other localities:** Dade Co.: Florida City, 24.iv. **Literature records:** Southern Florida (Warner 1979; Fig. 36).

##### Tribe Polydrosini

##### Subtribe Barynotina

*Epicaerus formidosus* Boheman. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Commercial/ornamental. **Natural history:** Further north in Florida this weevil is of considerable economic importance. It is said to injure a variety of crops (Watson 1921). **Other localities:** Key Biscayne, 23.iv.

*Lachnopus argus* (Reiche). **Range:** Florida and Cuba. **Distribution in south Florida:** Lower Keys. **Habitat:** Coastal scrub. **Natural history:** Two adults were collected on a beach on Sugarloaf Key (Sleeper 1957). This species is doubtfully established in Florida. **Literature records:** Sugarloaf Key\* (Sleeper 1957).

*Lachnopus floridanus* (Horn). **Range:** Florida and Cuba. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, wet/dry prairie, mangrove, salt marsh/coastal scrub. **Natural history:** In south Florida, adults were collected sweeping emergent semiaquatic plants and coastal prairie at night, on *Borreria frutescens* (L.) DC. and *Pluchea purpurascens* (Sw.) DC. They are also recorded from *Solanum torvum* (Sleeper 1957). **Distributional notes:** The Cuba record is new (CMNC). **SBP localities:** 4, 14, 17, 18, 19, 21, 26; most viii. **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Royal Palm Park, 10.v.; Florida City, 29.vii.; Homestead, 1.vi.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Pine Key, Blue Hole, 24.x.; Big Pine Key, Watson's Hammock, 14.v, 20.v.; Big Torch Key, 4.ix.; Everglades National Park, Flamingo, 5.v., 12.v., 20.vii., 14.x.; Everglades National Park, Rowdy Bend Trail, 12.v.; Key Vaca, 15.vi.; Key West, 18.v., 18.x.; No Name Key, 10.vi.; Stock Island, 18.vi., 30.viii.; Sugarloaf Key, 3-5.vii. **Literature records:** Cape Sable\*, Key West (Blatchley and Leng 1916).

*Lachnopus hispidus* (Gyllenhal). **Range:** Florida (perhaps introduced) and Cuba. **Distribution in south Florida:** Mainland. **Habitat:** Unknown. **Natural history:** This species is doubtfully established in Florida. **Other localities:** Dade Co.: Miami, 4.v.

### Subtribe Naupactina

*Artipus floridanus* Horn. **Range:** Florida and Bahamas. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, mangrove, coastal scrub. **Natural history:** In south Florida, adults are found on many plants and appear to be general feeders although preferring citrus over all others; larvae feed on roots in the soil but do not appear to be associated with citrus to the same extent as do the adults (Woodruff 1982; McCoy et al. 1985; Syvertsen and McCoy 1985; Tarrant and McCoy 1985). **SBP localities:** 2, 3, 4, 8, 9, 13, 17, 19, 20, 24, 27; throughout year, but most common vi-viii. **Other localities:** Monroe Co.: Big Pine Key, 5.xii. **Literature records:** Dry Tortugas\* (Wickham 1895), Cape Sable\*, Key West\* (Blatchley and Leng 1916; Blatchley 1932), numerous records (Woodruff 1982; Fig. 3).

*Asynonychus godmanni* Crotch. **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** This species is a widely distributed pest of a broad range of plants. Larvae feed in soil on roots of a variety of plants,

particularly roses and citrus; adults feed on foliage of many different plants (Woodruff and Bullock 1979). **Taxonomic notes:** Lanteri (1986) has demonstrated that this species and *A. cervinus* (Boheman) are distinct. **Other localities:** Dade Co.: Homestead, 16.vi.

### Subtribe Otiorhynchina

*Neoptochus adspersus* (Boheman). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, adults were collected sweeping mixed oak/pineland. Adults were especially abundant on *Baptisia* sp. (Fabaceae) near Archer, Florida (A.T. Howden pers. comm.). **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7.v. Monroe Co.: Cape Sable, 20.ii.

### Subtribe Tanymericina

*Pachnaeus litus* (Germar). **Range:** Florida, West Indies and Mexico. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, wet/dry prairie, mangrove, salt marsh/coastal prairie, coastal scrub. **Natural history:** Adults of this species are general feeders. They have been associated with 70 different species of plants throughout Florida although commercial citrus are the predominant records (Woodruff 1981b). Larvae feed on roots (Woodruff 1981b). **SBP localities:** 2, 4, 5, 6, 7, 13, 17, 19, 20, 22, 23, 24, 25, 27; most, v-viii. **Other localities:** Dade Co.: Homestead, 3.xi.; Miami, Chapman Field, 18.xi.; Miami, Charles Deering Estate Park, 7.v.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Coppet Key, 20.iii.; Big Pine Key, 5.xii.; Big Pine Key, Blue Hole, 31.iii.; Big Torch Key, 3.ix.; Crawl Key, 12.vii.; Everglades National Park, Flamingo, 12.v.; Grassy Key, 21.vii.; Key Largo City, 15mi.N.E., 15.vi.; Key West, Smathers Beach, 10.i.; Marathon, 18.xii.; Middle Torch Key, 12.vi.; No Name Key, 20.vi.; Tavernier, 17.vi. **Literature records:** Dade and Monroe Counties (Woodruff 1981b; Fig 5). Key West, Cape Sable and Miami records of *Pachnaeus opalus* (Olivier) (Blatchley and Leng 1916) are *P. litus* (Blatchley 1932).

*Pandeleiteius nodifer* Champion. **Range:** Widespread Neotropical (perhaps introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** In south Florida, adults have been collected on *Pithecellobium flexicaule* (Benth.) Coult., *Acacia auriculaeformis*, *Enterolobium cyclocarpum*, *Pithecellobium* sp., *Lysiloma latisiliqua* (L.) Benth. (Fabaceae), and guava. **Other localities:** Dade Co.: Coconut Grove, 28.ii.; Coral Gables, 8.iii.; Homestead, 17.vii.; Key Biscayne, 21.xii.; Miami, 9.xi.; Miami, Chapman Field, 18.xi.; Miami, Old Cutler Hammock, 16.x. Perrine, 14.i.

*Scalaventer subtropicus* (Fall). **Range:** Florida and Cuba. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, many adults were collected on *Bumelia celastrina* H.B.K. but also on a



variety of other trees in hardwood hammocks. **Distributional notes:** Howden (1970) erroneously recorded this species from Baja California. **SBP localities:** 9, 17, 19, 20, 25, 26, 27; throughout year. **Other localities:** Dade Co.: Miami, 11.iii.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v., 17.vi. Monroe Co.: Big Pine Key, Cactus Hammock, 15.v., 18.x., 20.x.; Big Pine Key, Long Beach, 15.v.; Big Pine Key, Watson's Hammock, 14.v., 19.v., 23.v., 18.x.; John Pennkamp State Park, 23.v.; Key Largo, north end, 13.v.; Key West, 2.iv.; Marathon, 17.v.; No Name Key, 20.x.; Plantation Key, 27.iii.; Stock Island, 30.viii. **Literature records:** Brickell Hammock\*, Key West (Blatchley 1925), Key West (Blatchley and Leng 1916).

*Tanymecus lacaena* Herbst. **Range:** Southeastern United States. **Distribution in south Florida:** Lower Keys. **Habitat:** Coastal scrub, ornamental/commercial. **Natural history:** In the Florida Keys, adults have been collected by sweeping *Sesuvium portulacastrum* (L.) L. (Aizoaceae) on a sandy beach. Elsewhere, adults have been collected from a variety of plants (Woodruff 1981a). The species has been recorded as a minor pest of a variety of crops (Woodruff 1981a). **Other localities:** Monroe Co.: Bahia Honda St. Park, 16.v.

## Tribe Rhytirrhini

### Subtribe Listroderina

*Lixellus lutulentus* (Boheman). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Adults have been collected on flowers of *Saururus cernuus* L. at Gainesville, Florida (Blatchley 1922), at Dunedin and Royal Palm Park, Florida on arrowhead (*Sagittaria* sp.) and on pickerel weed (*Pontederia lanceolata* Nutt.) (Blatchley 1925), and swept from sedges in Indiana (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Pa-ha-ow-kee, 24.v.; Everglades National Park, Paradise Key, 5.iv.; Everglades National Park, Royal Palm Park, 10.v., 21.vii. **Literature records:** Biscayne Bay\* (Blatchley 1922; as *Anchodemus angustus* LeConte), Royal Palm Park (Blatchley 1925; as *Anchodemus angustus* LeConte).

*Listronotus appendiculatus* (Boheman). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** In south Florida, adults have been collected sweeping sawgrass prairie. They are common on flowers of *Sagittaria* spp. (Alismataceae) during day and night (Blatchley 1932; O'Brien 1977). Larvae feed in male flower buds and stems of *Sagittaria lancifolia* L. (C.W. O'Brien pers. comm.). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 4.vi., 12.xii.; Chekika State Recreation Area, 9.v. **Literature records:** Royal Palm Park (Blatchley 1928; as *L. floridensis* Blatchley).

*Listronotus blandus* Henderson. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** In south Florida, adults have been collected on *Polygonum hydropiperoides* Michx. (O'Brien 1981) and sweeping sawgrass prairie at night. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, 19.vii.; Pa-ha-ow-kee, 14.x.; Everglades National Park, Royal Palm Park, 10.v., 13.x.; Homestead, vi., 10.vii.; Jct. 41&98, 4mi.N., 21.vii.

*Listronotus blatchleyi* Henderson. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** In south Florida, adults have been collected sweeping sawgrass prairie at night. **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, 5mi.W. Jct. Pa-ha-ow-kee, 24.vi., Everglades National Park, Pa-ha-o-kee, 24.v., 14.x.; Everglades National Park, Royal Palm Park, 10.v., 24.vi., 13.x. **Literature records:** Homestead\*, Paradise Key\*, Royal Palm Park (Henderson 1940).

*Listronotus borrichiae* O'Brien. **Range:** Southeastern United States and Mexico. **Distribution in south Florida:** Mainland. **Habitat:** Salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults have been collected at night beating *Borrichia frutescens* (L.) DC. (Asteraceae) (O'Brien 1981). **Other localities:** Monroe Co.: Everglades National Park, Flamingo, 25.iii., 10.xi., 29.xi. **Literature records:** Everglades National Park, Flamingo (O'Brien 1981).

*Listronotus callosus* LeConte. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Literature records:** Royal Palm Park\* (Blatchley 1928).

*Listronotus carinatus* (Blatchley). **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Adults have been found in sifted weed debris (Blatchley 1928). A single adult also was collected sweeping emergent semiaquatic plants at night at Royal Palm Park. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 31.iii., 10.v. **Literature records:** Royal Palm Park (Blatchley 1928).

*Listronotus cryptops* (Dietz). **Range:** Widespread Neotropical and southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie, wetland margins. **Natural history:** In south Florida, adults have been collected on flowers and foliage of pickerel weed and arrowhead (Blatchley 1925), on flowers of *Sagittaria* (Blatchley 1920) and sweeping *Sagittaria* sp. and on *Sagittaria lancifolia* L. (Alismataceae). Larvae feed in female flower buds and seed heads of *Sagittaria lancifolia* L. (C.W. O'Brien pers. comm.). **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Anhinga Trail, 17.v.; Everglades National

Park, Hole-in-Donut, 29.xi.; Everglades National Park, Pa-ha-o-kee, 24.v., 14.x.; Everglades National Park, Royal Palm Park, 19.iii., 26.iii., 4.vi., 14.x.; Miami, 28.iv., 29.v., 15.vi. **Literature records:** Royal Palm Park (Blatchley 1925).

*Listronotus delumbis* (Gyllenhal). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Adults have been collected on flowers of arrowhead, *Sagittaria* sp. (Blatchley 1928). **Literature records:** Royal Palm Park\* (Blatchley 1928).

*Listronotus fasciatus* O'Brien. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** In south Florida, adults have been collected sweeping emergent semiaquatic plants. **Other localities:** Dade Co.: Everglades National Park, Pa-ha-ow-kee, 24.v.; Everglades National Park, 5mi.W. Pa-ha-ow-kee, 24.v.; Everglades National Park, Royal Palm Park, 10.v. **Literature records:** Everglades National Park, Royal Palm Park, 5mi.W. Pa-ha-ow-kee, Pa-ha-ow-kee (O'Brien 1981).

*Listronotus hornii* (Dietz). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 14.iv., 24.vi., 10.v., 24.v.; Pa-ha-ow-kee, 24.v.; Pa-ha-ow-kee, 5mi.W., 24.v.

*Listronotus humilis* (Gyllenhal). **Range:** Widespread North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Pineland, wet/dry prairie, salt marsh/coastal prairie. **SBP localities:** 4; vii-xii, vi-viii. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 10.v.; Everglades National Park, Pa-ha-ow-kee, 24.v.; Homestead, 22.vi.; Miami, 8.iv., 27.vi. Monroe Co.: Big Pine Key, 27.v.; Everglades National Park, Flamingo Prairie, 28.iii., 8.iv., 20.vii.; Tavernier, 2mi.N., 17.vi.

*Listronotus latinasus* (Blatchley). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Adults have been collected about roots of *Pontederia* in a dry pond at Fort Myers, Florida (Blatchley 1922, 1932). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 24.v., 4.viii. Monroe Co.: Everglades National Park, Flamingo, 25.iii.. **Literature records:** Royal Palm Park (Blatchley 1925, 1932).

*Listronotus lodingi* (Blatchley). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Other localities:** Dade Co.: Everglades National Park, 19.vii.; Everglades National Park, Anhinga Trail, 17.vii.

*Listronotus marshalli* O'Brien. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** In south Florida, adults have been collected sweeping emergent semiaquatic plants. **Other localities:** Dade Co.: Everglades National Park, 5mi.W. Jct. Pa-ha-ow-kee, 24.v.; Everglades National Park, Royal Palm Park, 10.v.; Miami, 27.vi. **Literature records:** Miami, Everglades National Park, Royal Palm Park, 5mi.W. Jct. Pa-ha-ow-kee (O'Brien 1981).

*Listronotus novellus* (Blatchley). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie, wetland margins. Adults have been collected under boards around ponds in Dunedin and Sarasota, Florida (Blatchley and Leng 1916) and by sweeping (Blatchley 1928). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v., 24.v., 4.viii. **Literature records:** Royal Palm Park (Blatchley 1928).

*Listronotus oregonensis* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Larvae mine roots of various Umbelliferae including carrot and parsley (Henderson 1940). **Other localities:** Dade Co.: Chekika State Recreation Area, 25.v.; Everglades National Park, Pa-ha-ow-kee, 24.v.

*Listronotus porcellus* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** Adults have been collected on oats and *Echinochloa crusgalli* (L.) Beauv. in Canada, and also on rice at Markham, Texas (Blatchley and Leng 1916). **Other localities:** Monroe Co.: Everglades National Park, Flamingo, 10.xi.

*Listronotus salicorniae* O'Brien. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Salt marsh/coastal prairie. **Natural history:** In south Florida, adults have been collected sweeping *Salicornia* spp. at night. The presumed larval hosts are *Salicornia* spp. (Chenopodiaceae); adults feed extensively on these plants (O'Brien 1981). **Other localities:** Monroe Co.: Big Pine Key, 26.x.; Big Pine Key, Key Deer Blvd., end, 15.v., 24.v., 17.x; Big Pine Key, Long Beach, 15.v.; Everglades National Park, Flamingo, 25.iii., 12.v., 20.vii., 10.xi.; No Name Key, 18.v. **Literature records:** Everglades National Park, Flamingo (O'Brien 1981).

*Listronotus setosus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Adults have been collected on flowers of *Sagittaria* at Sarasota and Dunedin, Florida (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Pa-ha-ow-kee, 24.v. **Literature records:** Homestead\* (Henderson 1940).

*Listrionotus sordidus* (Gyllenhal). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v.; Everglades National Park, Pa-ha-ow-kee, 24.v.; Everglades National Park, Royal Palm Park, 24.vi., 10.v.; Homestead, vi. **Literature records:** Royal Palm Park (Blatchley 1928).

*Listrionotus wallacei* (Stockton). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** Adults have been collected at light in North Carolina and Florida and have been swept from grass in south Florida (Stockton 1963). **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v.; Everglades National Park, Royal Palm Road, 24.v., 24.vi.

## Subfamily Cossoninae

### Tribe Cossonini

*Cossonus corticola* Say. **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 24.iii.; Homestead, 16.v.; Kendall, 13.ii.

*Cossonus hamiltoni* Slosson. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults have been collected under bark of dead *Ficus aurea* Nutt. (Blatchley and Leng 1916). **Literature records:** Miami\* (Blatchley and Leng 1916).

*Cossonus impressifrons* Boheman. **Range:** Widespread North America. **Distribution in south Florida:** Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults occur beneath bark of various trees (Blatchley and Leng 1916). **Other localities:** Monroe Co.: John Pennekamp State Park, 23.v.

*Cossonus impressus* Boheman. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected under bark of gumbo limbo, *Bursera simaruba* (L.) Sarg. (Burseraceae) (Blatchley 1932). **SBP localities:** 2, 6, 9, 19, 20, 22, 25; throughout year. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 28.iii.; Miami, Charles Deering Estate Park, 7.v.15-16.x.; Miami, Matheson Hammock, 24.i., 30.i., 14.vi. Monroe Co.: Bahia Honda State Park, 1-4.vii.; Big Pine Key, Long Beach, 18.x.; John Pennekamp State Park, 23.v.; Key Largo, 11-17.vi., 25.vi.-1.vii.; Upper Key Largo, 9.xi. **Literature records:** "S. Florida" (Blatchley and Leng 1916), Brickell Hammock\* (Blatchley 1932).

*Cossonus spathula* Boheman. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Two adults were found beneath the bark of dead gumbo limbo (*Bursera simaruba* (L.) Sarg.) at Cape Sable (Sleeper 1957). This species is doubtfully established in Florida. **Literature records:** Cape Sable\* (Sleeper 1957).

*Himatium errans* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Hardwood hammock, mangrove. **Natural history:** In south Florida, adults have been collected in berlese samples of *Thrinax parviflora* Sw. litter and of mixed palm/buttonwood/hardwood hammock litter. In Indiana, adults have been reared from dead branches of *Acer saccharum* L. **SBP localities:** 19, 26; ii-viii. **Other localities:** Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 20.v., 18.x.; Key Vaca, Marathon, Crane Point Hammock, 17.v.; Key West, 6.iv.

*Stenotrupis acicula* Wollaston. **Range:** Florida and West Indies. **Distribution in south Florida:** Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults are found in dead frond stalks of *Thrinax parviflora* Sw. (Arecaceae). **Distributional notes:** This is the first record of this genus and species in the United States. **SBP localities:** 13, 14; vi-xii. **Other localities:** Monroe Co.: Key Vaca, 1mi. N. Key Colony Beach, 21.x., 23.x.; Marathon, 17.v.

### Tribe Cotasterini

*Caulophilus oryzae* (Gyllenhal). **Range:** Widespread Neotropical (perhaps introduced). **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, ornamental/commercial. **Natural history:** In south Florida, adults have been reared from avocado seed and larvae and adults have been found in rotten avocado fruit, *Persea americana* Mill. (Lauraceae). Blatchley (1932) notes that larvae feed on dried cereals, indian corn and the seeds of alligator pear, *Annona glabra* L. **SBP localities:** 7; xi-iii. **Other localities:** Dade Co.: Homestead, 9.xi., 20.xi.; Miami, 3.ii., 10.vi.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.

*Caulophilus rufotestaceus* (Champion). **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected at UV light. **Distributional notes:** This is the first record of this species in the United States. **Other localities:** Dade Co.: Miami, Camp Mahachie, 5.v., 12.v., 16.viii., 23.viii., 14.ix.

*Dryotribus mimeticus* Horn. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Mangrove, salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults are very commonly found under boards and driftwood



washup along the coastline. The species breeds in old boards and roots washed up on beaches (Blatchley and Leng 1916; Blatchley 1932). **SBP localities:** 17; xi. **Other localities:** Dade Co.: Cape Florida State Park, 26.xi.; Miami, Matheson Hammock, 20.vi., 17.vii., 11.xi. Monroe Co.: Bahia Honda Key, 22.xi.; Big Pine Key, 22.v., 18.vii.; Big Pine Key, Long Beach, 14.v., 15.v., 18.x., 20.x.; Cape Sable 21.ii., 26.ii., 8.iii.; Dry Tortugas, Loggerhead Key, 8.v. **Literature records:** Dry Tortugas (Wickham 1895), Biscayne Bay\*, Key West\* (Blatchley and Leng 1916), Cape Sable (Blatchley 1920).

*Micromimus minimus* (Boheman). **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected under bark of dead *Lysiloma latisiliqua* (L.) Benth. and under bark of gumbo limbo, *Bursera simaruba* (L.) Sarg. **Distributional notes:** This is the first record of this species in the United States. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.; Miami, Charles Deering Estate Park, 7.v., 15-16.x. Monroe Co.: Upper Key Largo, 30.v., 23.vii., 9.xi.

*Paralicus minyops* O'Brien. **Range:** Florida and Bahamas. **Distribution in south Florida:** Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults have been collected under driftwood (O'Brien 1984) and under driftwood underneath *Coccoloba uvifera* (L.) L. in the upper beach zone. **Other localities:** Monroe Co.: Big Pine Key, 22-27.v., 13.vi., 5.xii.; Big Pine Key, Long Beach, 18.x., 20.x. **Literature records:** Big Pine Key (O'Brien 1984).

*Stenomimus* species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected at UV light. **Taxonomic notes:** This species is unknown to me but it is premature to consider it undescribed. Hustache (1932) described many species from Guadeloupe and there are likely many others throughout the rest of the West Indies. **Other localities:** Dade Co.: Miami, Camp Mahachie, 23.viii.; Ross Castellow Hammock, 17.vi.

### Tribe Onycholipini

*Pseudopentarthrum anonus* (Blatchley). **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** In south Florida, adults have been collected on dead limbs of *Annona glabra* L. (Blatchley and Leng 1916). Numerous adults were found on dead moon-vine, *Ipomoea tuba* (Schlect.) G. Don and this is the suspected larval host (Blatchley 1925, 1932). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 16.iii., 17.iii., 22.iii. **Literature records:** Royal Palm Park (Blatchley 1925).

*Pseudopentarthrum atrolucens* (Casey). **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Mangrove, coastal scrub, wetland margins. **Natural history:** In south Florida, adults were reared from *Rhizophora mangle* L. (Rhizophoraceae), and were collected from inside the stems of dead palmetto fronds, in dune crest hardwood litter berlese samples, beating *Tournefortia gnaphalodes* (L.) R. Brown (Boraginaceae), beating dead limbs of *Annona glabra* L., and beating dead *Suriana maritima* L. (Surianaceae). They have been collected also on dead leaves of cabbage palmetto (Blatchley 1922). **SBP localities:** 9, 13, 14, 20; vi-ii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.; Ross Castellow Hammock, 17.iv. Monroe Co.: Big Pine Key, 23.v., 11.xi.; Big Pine Key, Cactus Hammock, 18.x.; Big Pine Key, Long Beach, 15.v., 19.v., 18.x., 20.x.; Crane Keys, various dates; Everglades National Park, Flamingo, 27.iii.; nr. Galden Key, Island G1, 8.vi.; John Pennekamp State Park, 20.vi.; Key Largo, 11-20.iii.v., 1-10.v.; Key Vaca, Marathon, 17.v.; Loggerhead Key, Dry Tortugas, 11.i., 3.v., 5.vi., 15.vi., 11.vii.; Ocean Reef, Key Largo, 14mi.S., 2.xii.; Squirrel Key, opposite E-1, 9.viii. **Literature records:** Biscayne Bay\* (Blatchley and Leng 1916).

*Pseudopentarthrum brevirostris* (Blatchley). **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Mangrove. **Natural history:** Adults were collected on dead limbs of buttonwood, *Conocarpus erecta* L. (Combretaceae) (Blatchley 1922, 1932). **Other localities:** Monroe Co.: Cape Sable, 20.ii. **Literature records:** Cape Sable (Blatchley 1922, 1932).

*Pseudopentarthrum dissimilis* (Blatchley). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults were collected on spanish moss and dead vines in dense hammocks; in spring under debris on beach (Blatchley 1925) and beating miscellaneous dead vegetation in a hardwood hammock. **Other localities:** Dade Co.: Miami, Matheson Hammock, 8.v., 20.vi., 2.ix., 15.x. **Literature records:** Cape Sable\* (Blatchley 1925).

### Tribe Rhyncolini

*Eucoptus depressus* Wollaston. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected beneath leaf sheaths of *Roystonea elata* Bartr. (F. Harper) (Sleeper 1960) and in dead frond stalks of *Roystonea elata* (Arecaceae). **Other localities:** Dade Co.: Coral Gables, 16.xi.; Goulds, 18.iv.; Miami, Charles Deering Estate Park, 15-16.x.; Miami, Matheson Hammock, 15.x. Monroe Co.: Lignum Vitae Key, 1.vi. **Literature records:** Big Pine Key\* (Sleeper 1960).

*Macrancylus linearis* LeConte. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults are found on beaches under boards (Blatchley 1922; Blatchley and Leng 1916), and very commonly under driftwood washup. The species likely breeds in driftwood. **Other localities:** Monroe Co.: Big Pine Key, 22.v., 25.vi., 11.xi., 5.xii.; Big Pine Key, Long Beach, 14.v., 15.v., 18.x.; Big Pine Key, Ocean Bluff Beach, 17.xii.; Cape Sable, 26.ii.; Key West, 1.ii.; Long Key State Recreation Area, 23.v. **Literature records:** Dry Tortugas\* (Wickham 1895), Cape Sable, Key West (Blatchley 1922).

*Stenancylus colomboi* Casey. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, wet/dry prairie, wetland margins, mangrove, coastal scrub. **Natural history:** In south Florida, adults have been collected in roots of *Acrostichum aureum* L. (Blatchley and Leng 1916); in dead fronds of *Acrostichum danaeaeifolium* L. & F. (Pteridaceae); on foliage of *Conocarpus erecta* L. (Blatchley 1922); on *Dracaena marginata*; and in dune crest hardwood litter berlese samples. **SBP localities:** 17, 19; vi-xii. **Other localities:** Dade Co.: Biscayne, 5.vi.; Chekika State Recreation Area, 9.v.; Everglades National Park, Mahogany Hammock, 12.v.; Goulds, 7.viii.; Miami, Camp Mahachie, 23.viii., 17.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Perrine, 2.vi.; Ross Castellow Hammock, 17.iv. Monroe Co.: Big Pine Key, 18-26.iii., 23.v., 13.vi., 5.xii.; Big Pine Key, Long Beach, 15.v., 18.x., 20.x.; Everglades National Park, Flamingo, 24.v., 20.vii., 29.xi.; Key Largo, 15.v.; Key Vaca, Marathon, 17.v.; Upper Key Largo, various dates. **Literature records:** Biscayne Bay, Cape Jupiter\* (Blatchley and Leng 1916).

## Subfamily Curculioninae

### Tribe Anthonomini

*Anthonomopsis mixta* (LeConte). **Range:** Widespread North America (perhaps introduced into south Florida). **Distribution in south Florida:** Lower Keys. **Habitat:** Ornamental/commercial (questionable). **Natural history:** Adults are recorded from *Crataegus crugalli* L. in New Jersey and have been beaten from wild plum (Rosaceae) in Ohio (Blatchley and Leng 1916). It is not known if the south Florida specimens were collected from native ornamental plants. This species is doubtfully established in southern Florida. **Other localities:** Monroe Co.: Big Pine Key, 10-11.iv.

*Anthonomus agerochus* Clark. **Range:** Florida and Dominican Republic. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Literature records:** Paradise Key\* (Clark 1991b).

*Anthonomus alboannulatus* Boheman. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, mangrove. **Natural history:** Adults have been collected on foliage of *Conocarpus erecta* L. (Blatchley 1919); on buttonwood and *Rhizophora mangle* L. (Blatchley 1920); on flowering *Conocarpus erecta* L., *Eugenia* spp., *Eugenia axillaris* (Sw.) Willd., *Myrtus verucosa* Berg., *Bumelia celastrina* H.B.K. and *Laguncularia racemosa* Gaertn. Clark (1991a) states that fruits of a variety of Myrtaceae are larval hosts. Adults also have been reared from seeds of white mangrove, *Laguncularia racemosa* (Combretaceae). **SBP localities:** 13, 17, 18, 19, 20, 22, 23, 24, 25, 26; throughout year, most viii-xii. **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 15.v., 19.v., 20.v., 25.v., 18.x.; Boot Key, 16.vi.; Dry Tortugas, Bush Key, 9-12.vii.; Key Largo, 8.ix.; Long Key State Recreation Area, 23.x.; No Name Key, 17.v., 18.v., 20.x.; Stock Island, various dates. **Literature records:** Key West\*, Biscayne Bay\* (Blatchley and Leng 1916); Biscayne\* (Burke 1984; as *A. irroratus* Dietz); common along coasts and keys of Florida (Blatchley 1920); Dade and Monroe Counties, various (Clark 1991a).

*Anthonomus bicorostris* Blatchley. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults have been collected on foliage of *Solanum verbascifolium* L. (Blatchley 1925, 1932); dead branches elder, *Solanum verbascifolium* L. (Blatchley 1928); and on *Eugenia axillaris* (Sw.) Willd., *Eugenia myrtoidea* Poir., *Eugenia* spp., and *Bumelia celastrina* H.B.K. Adults are common on *Eugenia* spp. (Myrtaceae) and may breed in berries. **SBP localities:** 17, 19, 20; viii-xii, vi. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 25.iii.; Miami, 11.iii. Monroe Co.: Big Pine Key, Cactus Hammock, 15.v., 18.x., 20.x.; Big Pine Key, Long Beach, 15.v.; Big Pine Key, Watson's Hammock, 14.v., 15.v., 19.v., 20.v., 23.v., 18.x.; Islamorada 30.iv.; John Pennekamp State Park, 23.v., 14.vi.; No Name Key, 26.vii., 20.x.; Upper Key Largo, 14.v., 26.vi., 9-11.xi. **Literature records:** Miami, Brickell Hammock\*, Royal Palm Park (Blatchley 1925, 1932); Miami, Royal Palm Park (Blatchley 1928); Dade and Monroe Counties, various (Clark 1991b).

*Anthonomus costulatus* Suffrian. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** Adults (some perhaps representing misidentifications) have been recorded from a variety of plants (Blatchley and Leng 1916; Blatchley 1920, 1925) but the species occurs most commonly if not exclusively on *Zanthoxylum fagara* (L.) Sarg. (Rutaceae). Other related *Anthonomus* species also are associated with *Zanthoxylum* species (Clark 1990); larvae of *A. costulatus* are likely in fruit of *Zanthoxylum fagara*. **SBP localities:** 7; xi-iii. **Other localities:** Dade Co.: Chekika St. Recreation Area,



30.iii., 9.v., 25.v., 12.x.; Miami, Camp Mahachie, 14.ix.; Miami, Charles Deering Estate Park, 7.v.; Miami, Old Cutler Hammock, 9.v., 16.x. Monroe Co.: Everglades National Park, Flamingo, 24.v.; Islamorada, 9.iii.; John Pennekamp State Park, 23.v.; Key Largo, 30.xii.; Upper Key Largo, 25-27.iv., 28.iv. **Literature records:** Biscayne Bay\* (Blatchley and Leng 1916), Royal Palm Park\*, Miami (Blatchley 1925), Cape Sable\* (Blatchley 1920), Everglades National Park\*, Miami, Matheson Hammock\*, Key Largo (Clark 1990).

*Anthonomus elongatus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet prairie. **Natural history:** In south Florida, adults were collected sweeping sawgrass prairie at night. Plant associations given by Blatchley and Leng (1916) likely represent misidentifications. **Other localities:** Dade Co.: Everglades National Park, Pa-ha-ow-kee, 5mi.W., 24.v., 14.x.; Everglades National Park, Royal Palm Park, 1.iv., 18.iv., 10-11.v.

*Anthonomus eugenii* Cano. **Range:** Widespread Neotropical and southern United States (perhaps introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** This species is associated with cultivated peppers (Solanaceae) (Watson 1935; Burke and Woodruff 1980). **Literature records:** Miami\* (Burke and Woodruff 1980).

*Anthonomus malpighiae* Clark & Burke. **Range:** West Indies and Florida (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** In south Florida, adults and larvae were collected on the introduced *Malpighia glabra* L. (Malpighiaceae), the larvae in the fruits (Stegmaier and Burke 1974 [as *A. flavus* Boheman]). **Other localities:** Dade Co.: Hialeah, 21.v., 13.vi.; Homestead, 14.vi., 10.viii. **Literature records:** Miami, Fairchild Tropical Gardens (Clark and Burke 1985).

*Anthonomus rubricosus* Boheman. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** Plant associations for this species are not known but related species have been associated with Malvaceae. **Distributional notes:** This is the first record of this species in the United States. **Other localities:** Dade Co.: Miami, 1.ii.; Homestead, 7.vi.

*Anthonomus rutilus* (Boheman). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults were collected commonly on foliage and fruits of *Hypericum aspalathoides* Willd. (Hypericaceae) at a number of sites in Florida (Blatchley 1928; as *A. uniformis* Blatchley). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 26-27.iii. **Literature records:** Royal Palm Park (Blatchley 1928; as *A. uniformis* Blatchley).

*Anthonomus sexguttata* Dietz. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland. **Natural history:** Adults are recorded as swept from huckleberry (Blatchley and Leng 1916) and on foliage and flowers of *Xolisma ferruginea* Walt. in sandy soil (Blatchley 1919). Adults have been collected also on *Erithalis fruticosa* L. (Rubiaceae); in galls on *Eugenia myrtilloides* Poir. (Myrtaceae); on leaves *Amyris elemifera* L. (Rutaceae); and in south Florida are very common on flowering *Sophora tomentosa* L. (Fabaceae). **SBP localities:** 20, 22, 24, 25; ii-xi. **Other localities:** Dade Co.: Biscayne, 24.v.; Miami, 3.iv. Monroe Co.: Big Pine Key, 23.vii.; Blue Hole, 24.x.; John Pennekamp State Park, 23.vii.; Key Largo, 14.xi., 20.xi.; Sugarloaf Key, N.W., MacKay Tract, 18.v., 19.x. **Literature records:** Biscayne (Burke 1984).

*Anthonomus solarii* Champion. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** In south Florida, adults were collected by sweeping *Malvastrum corchorifolium* (Desc.) Britt. (Malvaceae) at night in an abandoned avocado grove. Adults have been collected in large numbers on *Malvastrum coromandelianum* (L.) Garcke in south Texas (Burke 1968). **Distributional notes:** This is the first record of this species in Florida. **Other localities:** Dade Co.: Hialeah, 17.iv.; Miami, 11.ix.; Miami, Charles Deering Estate Park, 7.v.

*Anthonomus subfasciatus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults have been collected on holly in New Jersey and by beating in a hammock in Florida (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 2.ii., 27.iii., 29.iii., 10.iv.; Miami, Fuch's Hammock, 27.iv.; Ross Castellow Hammock, 17.iv.

*Anthonomus trisicifer* Clark. **Range:** Florida and Dominican Republic. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected in flight intercept traps and in berlese samples of litter in hardwood hammocks; other species in the *A. triensis* species group have been associated with *Eugenia* spp. (Myrtaceae) (Clark 1991a). **SBP localities:** 3, 5, 17; viii-xii. **Other localities:** Dade Co.: Miami, Camp Mahachie, 14.ix. **Literature records:** Dade and Monroe Counties, various (Clark 1991a).

*Anthonomus varipes* Jaquelin du Val. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Coastal scrub, ruderal/roadsides. **Natural history:** In south Florida, adults have been collected on *Solanum torvum* (Blatchley and Leng 1916); *S. verbascifolium* L. (Blatchley 1925, 1932); *S. bahamense* L., *S. melogena*, *S. quitoense* and *S. erianthum* D. Don. Larvae are likely in reproductive structures of various species of *Solanum* (Solanaceae). **SBP localities:**

25; vi. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 18.iii., 22.iii.; Homestead, 9.iv., 11.iv.; Miami, 11.ii., 3.iii. Monroe Co.: Bahia Honda State Park, 1-4.vii.; Big Pine Key, 26.viii-5.ix.; Big Pine Key, Long Beach, 15.v., 23.v.; Cape Sable, 26.ii.; Everglades National Park, Flamingo, 3.vi., 20.vii.; Everglades National Park, Snake Bight, 14.x.; Key Largo, 15.v., 26.xii.; Key Largo, Jct. US1/905, 2.vi.; Key West, 25.ii.; Plantation Key, 8.iv.; Upper Key Largo, 25.iii., 30.iv. **Literature records:** Biscayne Bay\*, Key West (Blatchley and Leng 1916), Miami, Royal Palm Park (Blatchley 1925, 1932), Cape Sable, Key West (Blatchley 1920, 1932).

*Atractomerus punctipennis* (Gyllenhal). **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults were found on leaves of *Eugenia* in Cuba (Clark 1989), and in south Florida, commonly on *Eugenia axillaris* (Sw.) Willd. (Myrtaceae). Larvae are likely in berries of *Eugenia axillaris*. **SBP localities:** 17, 19, 23, 24, 25; v-xii, most viii. **Other localities:** Dade Co.: Homestead, 8.i., 10.iii.; Miami, Charles Deering Estate Park, 7.v. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 15.v., 23.v., 18.x.; Crawl Key, 22.vii.; Cudjoe Key, 20.x.; John Pennekamp State Park, 15.viii.; Key Largo, 17.vii.; Stock Island, 24.ix. **Literature records:** Matecumbe Key\* (Blatchley and Leng 1916); Matcumbe Key\* (Burke 1984; as *Anthonomus julichi* Dietz); 13mi. N.E. Key Largo City\*, Plantation Key\*, Upper Matecumbe Key\*, Stock Island (Clark 1989).

*Ephelops triguttata* Dietz. **Range:** Southern Florida. **Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected commonly in flight intercept traps in hardwood hammocks. The species may breed in Jamaican dogwood, *Piscidia piscipula* (L.) Sarg. (Fabaceae). **SBP localities:** 13, 14, 17, 19, 20, 24, 25, 26; throughout year, most vi-viii. **Other localities:** Monroe Co.: Key West, 1.iii.; Key Vaca, 15.vi.; Sugarloaf Key N.W., MacKay Tract, 16.v. **Literature records:** Key West (Blatchley and Leng 1916).

New genus 1, new species 1. **Range:** Florida and West Indies. **Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults are common on *Zanthoxylum flavum* Vahl. (Rutaceae) plants in the flower bud-stage. Larvae are suspected to be in the flower buds but as yet have not been found. **Taxonomic notes:** Descriptions of this genus and species are currently in press (W.E. Clark pers. comm.). **SBP localities:** 17, 20, 23; most vii-ii. **Other localities:** Monroe Co.: Big Pine Key, Cactus Hammock, 18.x., 20.x.; Big Pine Key, Long Beach, 18.x., 20.x.; Long Key State Recreation Area, 23.x.

New genus 1, new species 2. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected in a flight intercept trap in a hardwood hammock. **Taxonomic notes:** Descriptions of this genus and species are currently in press (W.E. Clark pers. comm.). **SBP localities:** 2; vi-viii.

## Tribe Baridini

### Subtribe Baridina

*Aulobaris anthracinus* Boheman. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Other localities:** Dade Co.: Everglades National Park, 20.x.; Miami, 9.vi.

*Aulobaris ibis* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, wet/dry prairie. **Natural history:** In south Florida, adults have been collected sweeping meadows (Blatchley and Leng 1916), sweeping sawgrass prairie and emergent aquatic plants at night, and on *Hyptis pectinata* (L.) Poir in pineland. **SBP localities:** 3, 4; most viii. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Long Pine Key, 11.v., 13.x.; Everglades National Park, Hole-in-Donut, 29.xi.; Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Pineland Trail, 12.v.; Everglades National Park, Royal Palm Park, 4.iii., 2.iv., 10.v., 24.vi., 13.x.; Homestead, 28.vii., 15.x.; Jct. 48/98, 4mi. N.W., 21.vii.

*Baris aeneomicans* Casey. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In south Florida, adults were collected by sweeping emergent semiaquatic plants in sawgrass prairie. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Pa-ha-ow-kee, 14.x.; Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Royal Palm Park, 10.v.

*Baris blatchleyi* Hustache. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** In Florida, adults were collected by sweeping huckleberry and other low shrubs along the margins of ponds (Blatchley 1920; as *Baris australis* Blatchley). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 28.iii.

*Baris nitida* LeConte. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Unknown. **Literature records:** Biscayne Bay\* (Blatchley and Leng 1916).

*Baris palmensis* Blatchley. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins (questionable). **Natural history:** A single adult was collected by beating leaves of cabbage palmetto (Blatchley 1928). **Other localities:** Dade Co.:

Everglades National Park, Royal Palm Park, 28.iii.  
**Literature records:** Royal Palm Park (Blatchley 1928).

*Baris scintillans* Casey. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** In south Florida, adults were collected by sweeping vegetation around lake (Blatchley 1919), and on *Pluchea purpurea* (Sw.) DC. (Asteraceae). **Other localities:** Monroe Co.: Everglades Nat. Park, Flamingo Prairie, 14.x., 10.xi.

*Baris seminola* Blatchley. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins, pineland. **Natural history:** A single adult was collected sweeping roadside herbage (Blatchley 1928). **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Royal Palm Park, 8.iv. **Literature records:** Royal Palm Park (Blatchley 1928).

*Baris splendens* Casey. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In Florida, adults were frequent on the flowers and in the axils of the leaves of *Cirsium horridulum* Michx. (Blatchley and Leng 1916; as *Carduus spinosissimus* Walt.) (Asteraceae). Adults also have been collected on goldenrod, *Grindelia*, *Vernonia* and other Asteraceae (Watson 1921). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 7.iv.

*Baris* species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, adults were collected sweeping at night in pineland. **Taxonomic notes:** I have been unable to name this species but given the current state of taxonomy of the genus *Baris* it is uncertain if it is undescribed. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key Cpgd., 11.v.; Everglades National Park, Palma Vista Hammock, 11.v.

*Pseudobaris gibbistrois* Casey. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Other localities:** Dade Co.: Everglades National Park, 19.vii.; Royal Palm Park, sawgrass area, 24.v. Florida (locality unrecorded; Casey 1920).

*Pseudobaris nigrina* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Lower Keys. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults were collected on goldenrod in New Jersey and on herbage in damp meadows in Indiana (Blatchley and Leng 1916). **Literature records:** Key West\* (Blatchley 1928).

*Stenobaris avicenniae* Linell. **Range:** Florida. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Mangrove. **Natural history:** In south Florida, adults have been collected on black mangrove,

*Avicennia germinans* (L.) (Avicenniaceae) (Linell 1897; Blatchley and Leng 1916; Blatchley 1932). **Other localities:** Dade Co.: Miami, Virginia Key, 3.xii.; Miami, 25.vi. Monroe Co.: Cape Sable, 20.ii.; Marathon, 26.vii. **Literature records:** Cape Sable (Blatchley 1922, 1932).

### Subtribe Centrinina

*Barinus confusus* Sleeper. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In south Florida, adults were collected from the bases of clumps of sawgrass, *Cladium jamaicensis* Crantz (Cyperaceae) (Sleeper 1956). **Other localities:** Dade Co.: Everglades National Park, Pa-ha-o-kee, 24.v. **Literature records:** Florida City, 7 mi.E.\* (Sleeper 1956).

*Barinus robustus* Blatchley. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** Sleeper (1956) notes this species as distributed throughout central Florida where sawgrass, *Cladium jamaicensis* Crantz (Cyperaceae), is present. **Other localities:** Dade Co.: Everglades National Park, Paradise Key, 5.iv, 6.iv, 10.iv.

*Catapastus albonotatus* Linell. **Range:** Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults have been collected on *Zanthoxylum fagara* (L.) Sarg. (Rutaceae). Other species of this genus are found on *Zanthoxylum* in Ohio (Blatchley and Leng 1916) and in Texas. **Other localities:** Dade Co.: Everglades National Park, Everglades Prairie, 4.v. Monroe Co.: Cape Sable, 21.iii., 23.ii.; Everglades National Park, Flamingo Prairie, 24.v. **Literature records:** Key West\* (Linell 1897; Blatchley and Leng 1916; Blatchley 1932), Cape Sable (Blatchley 1920, 1932).

*Catapastus signatipennis* Linell. **Range:** Southern Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Other species of *Catapastus* are associated with *Zanthoxylum* spp. (Rutaceae). **SBP localities:** 7, 20; xi-ii. **Other localities:** Monroe Co.: Big Pine Key, 24.ii.; Key West, iv. **Literature records:** Key West (Linell 1897; Blatchley and Leng 1916).

*Geraeus perscillus* (Gyllenhal). **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Pineland. **Natural history:** Adults were collected in flight intercept traps in pineland. **SBP localities:** 4, 19, 21; viii-xi.

*Geraeus* species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, adults were collected sweeping open pineland. **Taxonomic notes:** I have been unable to name this species at present, but given the present state



of taxonomy of the genus *Geraeus* and relatives it is premature to consider it undescribed. **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 11.v.; Miami, Charles Deering Estate Park, 7-8.v.; Miami, Old Cutler Hammock, 9.v.

*Myctides imberbis* Lea. **Range:** Australia and Florida (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** Larvae develop in seeds of rose-apple, *Syzygium jambos* Alston (Myrtaceae) and rarely in other Myrtaceae (Woodruff 1977). **Other localities:** Dade Co.: Homestead, 2.v.; Miami, 12.iv., 19.vii., 29.x.; Miami Springs, 28.vi. **Literature records:** Dade Co., various (Woodruff 1977). Woodruff (1977) treated this genus and species as unidentified.

*Nicentrus grossulus* Casey. **Range:** Southeastern United States. **Distribution in south Florida:** Lower Keys. **Habitat:** Pineland, salt marsh/coastal prairie. **Natural history:** In south Florida, adults were commonly swept from various plants in wet pineland and salt marshes. Adults have also been collected on *Batis maritima* L. (Blatchley 1919) and *Fimbristylis castanea* (Michx.) Vahl (Blatchley 1928). In Texas what has been identified as this species has been swept on *Abutilon holosericeum* Scheele (Blatchley and Leng 1916). **SBP localities:** 18, 19, 22, 25, 26; most viii. **Other localities:** Monroe Co.: Bahia Honda State Park, 16.v.; Big Pine Key, Key Deer Blvd., end, 14.v.; Big Pine Key, Watson's Hammock, 14.v., 15.v.; Big Torch Key, 4.ix.; Sugarloaf Key, N.W., MacKay Tract, 23.v.

*Nicentrus saccharinus* Marshall. **Range:** Widespread Neotropical (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides, ornamental/commercial. **Natural history:** In south Florida, adults and larvae are found on various grasses (Poaceae) and larvae have been recorded as pests of sugarcane (Woodruff 1972b). **Other localities:** Dade Co.: Miami, 20.viii., 28.ix. **Literature records:** Dade Co. (Woodruff 1972b).

*Odontocorynus salebrosus* Casey. **Range:** Widespread North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Pineland, wet/dry prairie. **Natural history:** Adults were swept from huckleberry at Dunedin, Florida and have been collected from a variety of other plants from throughout the species range (Blatchley and Leng 1916). In south Florida, adults also have been collected sweeping emergent semiaquatic plants and sweeping sawgrass prairie. **SBP localities:** 3, 19; most v, vi-viii. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Long Pine Key, 11.v.; Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Royal Palm Park, 10.v. Monroe Co.: Big Pine Key, Key Deer Refuge nature trail, 14.v.; Big Pine Key, Watson's Hammock, 14-15.v.; Lower Matecumbe Key, 14.iv.

*Oomorphidius laevicollis* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Lower Keys. **Habitat:** Unknown. **Other localities:** Monroe Co.: No Name Key, 6.v.

*Pachybaris porosa* LeConte. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, adults were collected on palmetto blossoms (Blatchley and Leng 1916) and on flowers of *Serenia repens* (Bartr.) Small (Arecaceae). **SBP localities:** 4; vi-viii. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 10.v.; Everglades National Park, Palma Vista Hammock, 11.v.; Miami, Charles Deering Estate Park, 7.v. **Literature records:** Biscayne Bay\* (Blatchley and Leng 1916).

*Prosaldius denudatus* (Casey). **Range:** Southern Florida. **Distribution in south Florida:** Lower Keys. **Habitat:** Pineland. **Natural history:** In south Florida, adults were collected sweeping in wet pineland. **Other localities:** Monroe Co.: Big Pine Key, 13.vi.

*Prosaldius* new species 1. **Range:** Florida. **Distribution in south Florida:** Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults were collected under driftwood washup on beach. **Taxonomic notes:** I have examined type specimens of various genera and species of Baridina in MCZC, USNM and PURC and consider this species as undescribed. The specimen from Palm Beach mentioned following from the H.C. Fall collection, bears a label "*Anacentrinus* n.sp." **Distributional notes:** This species is also known from Palm Beach, Florida (MCZC). **Other localities:** Monroe Co.: Big Pine Key, Long Beach, 15.v., 18.x.

*Sibariops concinna* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Lower Keys. **Habitat:** Pineland, wet/dry prairie. **Natural history:** In south Florida, adults were collected sweeping in wet prairie. **Other localities:** Monroe Co.: Big Pine Key, 16.vii.; Big Pine Key, Watson's Hammock, 14.v.;

*Sibariops confusa* (Boheman). **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** Adults were collected sweeping dead grasses; they are frequent in marshy meadows in Florida (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 22.iii.; Hialeah, 25.vi.

*Zygobarinus coelestinus* (Linell). **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected by sweeping (Blatchley 1925) and in a flight intercept trap in a hardwood hammock. **SBP localities:** 7; xi-iii. **Other localities:** Dade Co.: Biscayne, no date; Chekika State Recreation Area, 25.v.; Chekika State Recreation Area, Grossman Hammock, 17.v.; Everglades National Park, Paradise Key, 4.iv.; Everglades

National Park, Royal Palm Park, 18.iii., 23.iii. **Literature records:** Cocconut Grove (on inner shore of Biscayne Bay) (Linell 1897), Royal Palm Park (Blatchley 1925).

*Zygobaris nitens* LeConte. **Range:** Southern Florida. **Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults have been collected on flowers of *Zanthoxylum flavum* Vahl. (Rutaceae) in hardwood hammock and coastal scrub habitat. A related species breeds in berries of *Zanthoxylum* in Texas (Blatchley and Leng 1916). **SBP localities:** 20; vii-ii. **Other localities:** Big Pine Key, Cactus Hammock, 18.x.; Long Key State Recreation Area, 23.x. **Literature records:** Key West\* and other unstated localities (Blatchley and Leng 1916).

### Subtribe Madarina

*Madarellus undulatus* Say. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults have been collected on wild grape, poison ivy, virginia creeper (Vitaceae) throughout the species range (Blatchley and Leng 1916) and on *Parthenocissus quinquefolia* (L.) Planchon (Vitaceae) in south Florida. **SBP localities:** 3; ii-viii. **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v., 12.x.; Everglades National Park, Royal Palm Park, 30.iii.; Miami, 12.iv.; Miami, Camp Mahachie, 12.v., 27.v., 23.viii., 14.ix.; Miami, Matheson Hammock, various dates.

### Tribe Ceutorhynchini

#### Subtribe Ceutorhynchina

*Calosirus floridanus* (Leng). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 18.vi.; Homestead, 28.ii.

#### Subtribe Cnemogonina

*Auleutes epilobii* (Paykull). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, wet/dry prairie, wetland margins. **Natural history:** In south Florida, adults have been collected on *Ludwigia octovalvis* (Jacq.) Raven (Onagraceae). **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Everglades National Park, Hole-in-Donut, 29.xi.; Everglades National Park, Pa-ha-ow-kee, 14.x.; Everglades National Park, Royal Palm Park, 13.x. Monroe Co.: Everglades National Park, Eco Pond, 14.x.

*Auleutes nebulosus* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on miscellaneous vegetation near water throughout the species range (Blatchley and Leng 1916). **SBP localities:** 4; viii-

ix. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 21.vii.

*Craponius inaequalis* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** Adults have been collected on both wild and cultivated grapes (Vitaceae) throughout the species range; adults feed on foliage, larvae feed on fruits (Blatchley and Leng 1916). **SBP localities:** 3; xii.

*Pelenosomus cristatus* Dietz. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, a single adult was collected in a flight intercept trap in pineland. **SBP localities:** 6; v-viii.

*Perigaster alternans* Blatchley. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** The type specimen was collected in weed debris (Blatchley 1928). *Perigaster cretura* (Herbst) is associated with species of *Ludwigia* (Onagraceae) (Clark 1976) and this species may be similarly associated. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 4.iv. **Literature records:** Royal Palm Park (Blatchley 1928; Buchanan 1931).

*Perigaster cretura* (Herbst). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults are associated with species of *Ludwigia* (Onagraceae) in Texas; larvae feed externally on the leaves (Clark 1976). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 2.iv., 21.vii.

*Perigaster obscura* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, wetland margins. **Natural history:** Adults have been collected under boards around ponds and lakes (Blatchley and Leng 1916). *Perigaster cretura* (Herbst) is associated with species of *Ludwigia* (Onagraceae) (Clark 1976) and this species may be similarly associated. **SBP localities:** 4; v-xii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 2.iv.

#### Subtribe Hypurina

*Hypurus bertrandi* (Perris). **Range:** Widespread (perhaps introduced). **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** The natural host of this species is *Portulaca oleracea* L. (Portulacaceae) in Europe, but other genera of Portulacaceae and *Boussaingaultia baselloides* H.B.K. (Basellaceae) are suitable hosts in laboratory experiments (Tempère 1967). Adults in south Florida were caught in flight intercept traps in wet pineland. **Distributional notes:** This is the first record of this species in Florida and the only United States record except California (O'Brien and Wibmer 1982). **SBP localities:** 4; vii-xii.

## Tribe Cryptorhynchini

### Subtribe Cryptorhynchina

*Acalles clavatus* (Say). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, mangrove, coastal scrub. **Natural history:** In south Florida, adults have been collected on dead branches, under lake shore debris (Blatchley and Leng 1916), by beating in hardwood hammocks, and commonly in berlese samples of litter in various habitats as noted above. **SBP localities:** 1, 2, 3, 4, 5, 6, 7, 9, 13, 14, 16, 17, 18, 19, 20, 23, 24, 25, 26; throughout year, most vi-xi. **Other localities:** Dade Co.: Biscayne, 14.v.; Chekika State Recreation Area, 12.x.; Everglades National Park, Gumbo Limbo Trail, 17.vii.; Everglades National Park, Palma Vista Hammock, 5.i., 29.iii., 1-31.vii.; Everglades National Park, Paradise Key, 31.iii.; Everglades National Park, Royal Palm Park, 21.iii., 26.iii., 1.iv., 4.iv., 29.vi., 1-31.vii., 13.x., 6.xii., 9.xii.; Homestead, 9.xi.; Miami, 7.viii.; Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 8.v., 27.vi., 15.x. Monroe Co.: Big Pine Key, Watson's Hammock, 15.v., 20.v., 30.vii., 18.x.; Big Pine Key, Long Beach, 19.v., 21.v.; Cudjoe Key, 15.vii.; Everglades National Park, Flamingo, 20.vii.; Key Vaca, Marathon, 17.v.; Long Key State Recreation Area, 22.v.; No Name Key, 20.x.; Ocean Reef, Key Largo, 2.xii.; Sugarloaf Key, N.W., MacKay Tract, 18.v.; Upper Key Largo, 24.v., 26.vi.; Upper Key Largo, 7.6mi.N. #1/905, 17.x., 21.x.

*Acalles crassulus* LeConte. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, coastal scrub. **Natural history:** In south Florida, adults of this species are commonly collected in berlese samples of litter from various habitats as noted above, and including *Neotoma* pack rat nest debris. **SBP localities:** 1, 2, 3, 4, 6, 7, 9, 13, 14, 16, 19, 20, 23, 24, 25, 27; most vii-xii. **Other localities:** Dade Co.: Everglades National Park, Mahogany Hammock, 9.vii.; Everglades National Park, Palma Vista Hammock, 19.vi., 1-31.vii.; Everglades National Park, Royal Palm Park, 1-31.vii.; Homestead, Owaissa Bauer Cpgd., 17.x.; Miami, Charles Deering Estate Park, 15-16.x.; Miami, Matheson Hammock, 15.x. Monroe Co.: Big Pine Key, Long Beach, 19.v., 21.v., 23.v., 20.x.; Big Pine Key, Watson's Hammock, 15.v., 30.vii., 18.x.; Cudjoe Key, 12-15.vii.; Lignum Vitae Key, 1.vi.; Long Key State Recreation Area, 22.v.; No Name Key, 5.viii.; Sugarloaf Key, 9.viii.; Upper Key Largo, 24.iii., 24.v.; Upper Key Largo, 7.6mi.N. #1/905, 21.x.; Windley Key State Geological Site, 24.v.

*Acalles granosus* LeConte. **Range:** Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** At more northerly Florida localities, adults have been collected from foliage of cabbage palmetto (Blatchley 1925) and under saw palmetto stems on beach (Blatchley 1920). Adults were collected in berlese samples of hardwood hammock litter.

**SBP localities:** 2, 19; viii-xii, xi-ii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 20, iii.; Miami, 9.iv. **Literature records:** Royal Palm Park (Blatchley 1925).

*Acalles minimus* Blatchley. **Range:** Florida. **Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults were collected under driftwood washup and by sweeping *Borrhchia* and *Sesuvium* on a sandy beach. **Other localities:** Monroe Co.: Big Pine Key, Long Beach, 27.v., 27.vi., 18.x.; Long Key State Recreation Area, 23.x. **Literature records:** The Paradise Key (Blatchley 1928) and Cape Sable (Blatchley 1920) records are *Acalles* new species 5.

*Acalles sablensis* Blatchley. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults were collected sweeping *Borrhchia* spp. in coastal scrub habitat and on mangrove zone border at night. Blatchley (1920) collected this species by beating dead branches in dense hammocks and (1932) from a dead branch of saffron plum, *Bumelia celastrina* var. *angustifolia*. **Other localities:** Monroe Co.: Bahia Honda St. Park, 16.v.; Big Pine Key, Long Beach, 20.x.; Cape Sable, 21.ii.; Long Key State Recreation Area, 22.v., 23.x. **Literature records:** Cape Sable (Blatchley 1920, 1932).

*Acalles subhispidus* LeConte. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Pineland, salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults were collected sweeping pineland at night, sweeping *Borrhchia* spp. near mangrove zone border at night, and under driftwood washup on sandy beaches. Blatchley (1932; as *Pseudoacalles maculatus* Blatchley) collected an adult by sweeping herbage at Cape Sable. **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 10.v. Monroe Co.: Bahia Honda St. Park, 16.v.; Big Pine Key, 25.iii., 13.vi., 25.vi.; Big Pine Key, Key Deer Blvd., n. end, 19.v.; Big Pine Key, Key Deer Refuge, Nature Trail, 14.v.; Big Pine Key, Long Beach, 18.x., 20.x.; Big Pine Key, Watson's Hammock, 14.v., 20.v.; Everglades National Park, Flamingo, 27.iii.; Key Largo, 7.xii.; Long Key State Recreation Area, 22.v. **Literature records:** Cape Sable\* (Blatchley 1920, 1932); the Royal Palm Park (Blatchley 1932) record is *Acalles sylvosus* Blatchley.

*Acalles sylvosus* Blatchley. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, coastal scrub. **Natural history:** In south Florida, adults were collected under rubbish on stream banks (Blatchley and Leng 1916), on dead branches (Blatchley 1925), sweeping (Blatchley 1928), under bark dead *Lysiloma latisiliqua* (L.) Benth., beating dead vegetation in hardwood hammocks, and in berlese samples of litter from various



habitats as noted above, and including *Neotoma* pack rat nest debris. **SBP localities:** 1, 2, 5, 6, 8, 9, 13, 19, 23; throughout year, most vi-xii. **Other localities:** Dade Co.: Chekika State Recreation Area, 25.v.; Everglades National Park, Gumbo Limbo Trail, 25.iii.; Everglades National Park, Palma Vista Hammock, 1-31.vii.; Everglades National Park, Royal Palm Park, 21.iii., 23.iii., 10.v., 1-31.vii., 13.x.; Homestead, Owaissa Bauer Cpgd., 17.x.; Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 11.iv., 10.vi., 20-21.vi., 27.vi., 1.vii., 15.x. Monroe Co.: Big Pine Key, Watson's Hammock, 30.vii., 18.x.; Key Largo, 1mi.S., 1.xii.; No Name Key, 5.viii.; Upper Key Largo, 24.iii., 27.iii., 24.v., 26-27.vi., 9-10.xi.; Upper Key Largo, 7.6mi.N. #1/905, 17.x., 21.x. **Literature records:** Little River\* (Blatchley and Leng 1916), Paradise Key\* (Blatchley 1925), Royal Palm Park (Blatchley 1932; as *Acalles subhispidus* LeConte).

*Acalles* new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected in berlese samples of *Neotoma* pack rat nest debris and hardwood hammock litter. **Taxonomic notes:** This species presently is considered undescribed; it may prove to have been described from elsewhere in the West Indies. **SBP localities:** 8, 9; iii-iv, viii-xii. **Other localities:** Monroe Co.: Upper Key Largo, 24.v.; Upper Key Largo, 7.6mi.N. #1/#905, 21.x.

*Acalles* new species 2. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults were collected sweeping *Salicornia bigelovii* Torr. and *Suaeda linearis* (Ell.) Moq. (Chenopodiaceae) at night, by sweeping *Borreria* spp. near mangrove zone border at night, and under driftwood washup. **Taxonomic notes:** This species presently is considered undescribed; it may prove to have been described from elsewhere in the West Indies. **Other localities:** Monroe Co.: Bahia Honda St. Park, 16.v.; Big Pine Key, Long Beach, 15.v., 18.x., 20.x.; Everglades National Park, Flamingo, 12.v.; Long Key State Recreation Area, 22.v., 23.x.

*Acalles* new species 3. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, coastal scrub. **Natural history:** In south Florida, adults have been collected only in berlese litter samples of various habitats as noted above, including *Neotoma* pack rat nest debris. **Taxonomic notes:** This species presently is considered undescribed; it may prove to have been described from elsewhere in the West Indies. **SBP localities:** 2, 3, 9, 14, 16, 19, 20, 25, 27; throughout year. **Other localities:** Dade Co.: Miami, 9.iv.; Miami, Charles Deering Estate Park, 15-16.x. Monroe Co.: Big Pine Key, Long Beach, 19.v., 21.v., 23.v.; Big Pine Key, Watson's Hammock, 15.v., 20.v.; Islamorada, 30.vii.; Key Vaca, Marathon, 17.v.; Layton, 30.vii.; Lignum Vitae Key,

1&13.vii.; Long Key State Recreation Area, 22.v.; Upper Key Largo, 8.ii., 24.iii., 24.v., 26.vi.; Upper Key Largo, 7.6mi.N. #1/905, 17.x., 21.x.; Windley Key State Geol. Site, 24.v.

*Acalles* new species 4. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected by beating low shrubs (especially wild coffee, *Psychotria* sp.) at night in hardwood hammocks and by berlese samples of hardwood hammock litter and *Neotoma* pack rat debris. **Taxonomic notes:** This species presently is considered undescribed; it may prove to have been described from elsewhere in the West Indies. **SBP localities:** 1, 2, 3, 4, 5, 6, 8, 9, 13, 14, 17; throughout year. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v., 12.x.; Everglades National Park, Gumbo Limbo Trail, 25.iii.; Everglades National Park, Palma Vista Hammock, 29.iii., 19.vi., 1-31.vii., 26.xi.; Everglades National Park, Royal Palm Park, 26.iii., 7.iv., 10.v., 29.vi., 1-31.vii.; Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 10.iii., 26.v., 21.vi., 3.vi. Monroe Co.: Big Pine Key, Watson's Hammock, 18.x.; Upper Key Largo, 18.ii., 24.v.; Upper Key Largo, 7.6mi.N. #1/905, 17.x., 21.x.

*Acalles* new species 5. **Range:** Southern Florida. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock, mangrove. **Natural history:** Adults were collected on dead branches at Chokoloskee, Florida (Blatchley 1922; as *Acalles minimus* Blatchley). In south Florida, adults were commonly collected during the day by general beating of dead limbs and vines in hardwood hammocks and on *Rhizophora mangle* L. in mangrove zone. Simberloff and Wilson (1969) record *Cryptorhynchus minutissimus* LeConte as breeding in dead branches of *Rhizophora mangle*; these records are *Acalles* new species 5. **Taxonomic notes:** This species presently is considered undescribed; it may prove to have been described from elsewhere in the West Indies. **SBP localities:** 6; v-xi. **Other localities:** Dade Co.: Miami, Brickell Hammock, 1.xii.; Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 8.v., 27.vi., 17.vii., 15.x.; Everglades National Park, Gumbo Limbo Trail, 18.ii., 27.iii.; Everglades National Park, Royal Palm Park, 15.iii., 21.iii., 2.iv., 6.iv., 10.v., 13.x., 6.xii., 12.xii. Monroe Co.: Cape Sable, 23.ii.; Islet E-9, near Palusa Keys, 27.ii.; Ocean Reef, Key Largo, 2mi.S., 2.xii.; Upper Key Largo, 24.v. **Literature records:** Paradise Key (Blatchley 1928; as *Acalles minimus* Blatchley), Cape Sable (Blatchley 1920; as *Acalles minimus* Blatchley), Islands E-1, E-2, E-3, E-9 (Simberloff and Wilson 1969; as *Cryptorhynchus minutissimus* LeConte).

*Acalles* new species 6. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Mangrove. **Natural history:** In south Florida, adults and larvae are found in branches of

*Rhizophora mangle* L. (Rhizophoraceae) (Simberloff and Wilson 1969; as *Pseudoacalles* sp.). Adults have been reared from larval and pupal cells in propagules of red mangrove, *Rhizophora mangle* L. and are very common on decaying apices of maturing propagules. **Taxonomic notes:** This species presently is considered undescribed; it may prove to have been described from elsewhere in the West Indies. It is extremely close to *A. sablensis* but can be separated by natural history information and examination of male genitalia. **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7.v.15-16.x.; Miami, Matheson Hammock, 8.v., 12.xi. Monroe Co.: Bahia Honda St. Park, 16.v.; Big Pine Key, Long Beach, 14.v., 15.v.; Big Pine Key, No Name Rd., end, 13.v.; Big Pine Key, Watson's Hammock, 20.v.; Big Torch Key, 19.v.; Cudjoe Key, 19.v.; Islet E-1, 7-8.iii.; Islet E-9, near Palusa Keys, 27.ii.; Key Largo, 13-19.viii.; Key West, 20.x.; Long Key State Recreation Area, 22.v., 23.x.; Sugarloaf Key, N.W., MacKay Tract, 23.v. **Literature records:** E-1, E-2, E-3, St-2, E-7, E-9 (Simberloff and Wilson 1969; as *Pseudoacalles* sp.).

*Apteromechus ferratus* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected by beating dead limbs and vines in hardwood hammocks. **SBP localities:** 3, 7; most xi-iii. **Other localities:** Dade Co.: Chekika State Recreation Area, 12.x.; Everglades National Park, Royal Palm Park, 21.iii., 24.iii., 29-30.iii., 8.iv., 24.v.; Homestead, 2.vi.; Miami, Camp Mahachie, 12.v.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 26.v., 26-27.vi., 17.vii., 12.xi. Monroe Co.: Everglades National Park, Flamingo, 8.iv., 10.xi.

*Apteromechus longus* (LeConte). **Range:** Southeastern United States and Cuba. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock, mangrove. **Natural history:** A single adult was collected on *Jacquinia keyensis* Mez. on Big Pine Key. Blatchley (1932) collected a specimen from under buttonwood, *Conocarpus erecta* L. and one from moonflower, *Ipomoea alba* L. **Other localities:** Dade Co.: Biscayne, 4.v.; Everglades National Park, Paradise Key, 7.iv.; South Miami, 18.xii. Monroe Co.: Big Pine Key, end No Name Rd., 23.x. **Literature records:** Biscayne Bay (Blatchley and Leng 1916), Cape Sable (Blatchley 1920, 1932).

*Apteromechus pumilus* (Boheman). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected on *Persea palustris* (Raf.) Sarg. (Blatchley 1928) and by beating dead branches in hardwood hammocks. **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v., 12.x.; Everglades National Park, East Entrance, 4 mi.NE., 6.xii.; Everglades National Park, Paradise Key, 11.ii.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 26.vi.; Pinecrest, 5.5 mi.E., 16.v. **Literature records:** Miami (Blatchley 1928).

*Calles* new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults were collected sweeping *Salicornia bigelovii* Torr and *Suaeda linearis* (Ell.) Moq. (Chenopodiaceae) at night in coastal prairie habitat, sweeping *Salicornia* spp. at night, handpicked on *Suaeda linearis*, and under driftwood washup. **Taxonomic notes:** This species presently is considered undescribed (C.W. O'Brien pers. comm.); it may prove to have been described from elsewhere in the West Indies but not properly recognized as a species of *Calles*. **Other localities:** Monroe Co.: Big Pine Key, 26.iii., 23.v.; Big Pine Key, Key Deer Blvd., end, 14.v., 15.v., 24.v.; Big Pine Key, Long Beach, 15.v., 23.v., 20.x.; Everglades National Park, Flamingo, 12.v., 20.vii., 10.ix.; No Name Key, 18.v.

*Cophes fallax* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults from throughout the species range have been reared from hickory limbs and stems of *Cassia* (Blatchley and Leng 1916) and were collected by beating in hardwood hammocks in southern Florida. **SBP localities:** 2, 3, 4, 7; vi-viii, vii-xi, xii. **Other localities:** Dade Co.: Andytown, 1 mi.S., 23-31.x.; Everglades National Park, Royal Palm Park, 21.iii.; Miami, 27.v., 15.vii.; Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 26-27.vi., 17.vii., 15.x. Monroe Co.: Upper Key Largo, 11.vi.

*Cophes oblongus* (LeConte). **Range:** Widespread North America, Bahamas and Cuba. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults were collected in spanish moss in winter (Blatchley 1922), and in south Florida, very commonly in flight intercept traps and by beating in hardwood hammocks. **Distributional notes:** The Bahamas record is new (CMNC). **SBP localities:** 2, 3, 4, 5, 6, 7, 8, 9, 13, 14, 17, 19, 20, 22, 23, 24; throughout year, most vi-xii. **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 1-31.vii.; Everglades National Park, Royal Palm Park, 26.iii., 1-31.vii.; Miami, Charles Deering Estate Park, 15-16.x.; Miami, Matheson Hammock, 8.v.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Boot Key, 16.vi.; Cape Sable, 20.iii.; Lignum Vitae Key, 1-31.vii.; Long Key State Recreation Area, 22.v.; Marathon, 17.v.; Middle Cape Sable, 7.iv.; Pennekamp St. Park, 23.v.; Stock Island, various dates; Tavernier, 4.iv.; Upper Matecumbe Key, no date. **Literature records:** Biscayne\* (Blatchley and Leng 1916), Cape Sable (Blatchley 1922).

*Cophes obtentus* (Herbst). **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults have been collected on dead twigs (Blatchley and Leng 1916) and by beating dead limbs in dense hammocks, and have been reared from limbs of *Betula*



*lenta* L. in Pennsylvania (Blatchley 1925). **SBP localities:** 3; vi-viii. **Other localities:** Dade Co.: Chekika State Recreation Area, 12.x.; Homestead, 2.vi.; Miami, 3.vi.; Ross Castellow Hammock, 17.iv. **Literature records:** Biscayne Bay\*, Royal Palm Park\* (Blatchley 1925).

*Eubulus bisignatus* (Say). **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults from throughout the species range have been collected on chestnut, beech, oak, birch (Blatchley and Leng 1916); larvae likely mine branches of various dead trees. **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Paradise Key, 4.iv.; Miami, Fuch's Hammock, 27.iv., 12-13.v. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v.; Upper Key Largo, 11.xi.

*Eubulus obliquus* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** In south Florida, a single adult was collected on *Myrica cerifera* L. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.

*Euscepes porcellus* Boheman. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, wetland margins, coastal scrub, ruderal/roadsides. **Natural history:** In south Florida, adults are commonly collected on morning glory, *Ipomoea* spp., including *Ipomoea prob. acuminata* (Vahl.) R. & S. (Convolvulaceae). They have also been collected under decaying stems *Piaropus crassipes* Mart. (Blatchley and Leng 1916). The larvae of *Euscepes postfasciatus* (Fairmaire) feed in tubers of sweet-potato, *Ipomoea batatas* (L.) Lam. (Pierce 1918). **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v., 12.x.; Everglades National Park, 25.iii.; Everglades National Park, Royal Palm Park, 10.v., 13.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 8.v., 26.v., 27.vi., 15.x. Monroe Co.: Bahia Honda Key, 12.ix.; Big Pine Key, 5.xii.; Everglades National Park, Flamingo Prairie, 25-27.iii., 12.v., 29.xi.; Everglades National Park, Snake Bight, 14.x.; Long Key State Recreation Area, 22.v.; Plantation Key, 2.xii.; Windley Key, N. end, 24.v. **Literature records:** Biscayne Bay\*, Miami, Cape Sable\* (Blatchley and Leng 1916).

*Eutinobothris pilosellus* (Boheman). **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, ruderal/roadsides. **Natural history:** In south Florida, adults have been collected on morning glory, *Ipomoea* sp. (Convolvulaceae). **Other localities:** Dade Co.: Miami, 11.ix.; Miami, Charles Deering Estate Park, 7.v. Monroe Co.: Everglades National Park, Flamingo, 27.iii., 20.vii.

*Faustinus cubae* (Boheman). **Range:** Cuba and Florida (perhaps introduced). **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Ruderal/roadsides, commercial/ornamental. **Natural history:** In south Florida, adults have been associated with a variety of plants. Larvae mine stems of cultivated pepper (Solanaceae) (Watson 1934). **Other localities:** Dade Co.: Florida City, 28.iv.; Goulds, 28.iv., 3.v.; Hollywood, 6.v.; Homestead, 3.v.; Miami, 9.vi., 9.viii.; Miami, Matheson Hammock, 20.vi. Monroe Co.: Key West, 19.ii.

*Gerstaeckeria fasciata* Pierce. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** Adults are associated with *Opuntia* spp. (Cactaceae) (Woodruff 1969a). In south Florida, at night they have been found on *Opuntia cubensis* Britt. & Rose and on *Opuntia stricta* Haw. **Other localities:** Monroe Co.: Big Pine Key, Long Beach, 15.v.; Big Pine Key, Watson's Hammock, 14.v., 20.v.; Everglades National Park, Flamingo, 25.iii.; John Pennekamp State Park, 17.vi.; Long Key State Recreation Area, 22.v.; Upper Key Largo, 11.xi. **Literature records:** Buck Key\* (Blatchley and Leng 1916; Sleeper 1960), Key Largo, Cape Sable\* (Sleeper 1960), John Pennekamp State Park, Middle Cape Sable\* (Woodruff 1969a; O'Brien 1970).

*Lembodes solitarius* (Boheman). **Range:** Florida, Bahamas and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, mangrove, coastal scrub. **Natural history:** Adults have been collected on the foliage of *Coccoloba wifera* L. (Blatchley 1922, 1932), on dead *Bumelia celestrina* var. *angustifolia* (Nutt.) R.W. Long (Blatchley 1920) and beating dead vegetation in the habitats mentioned above. Schwarz (1888c) noted collecting this species on *Chrysobalanus icaco* but this was likely a misidentification of *Coccoloba wifera* or *C. diversifolia* (see treatment of *Pseudomopsis inflata*). **Distributional notes:** The Bahamas record is new (CMNC). **SBP localities:** 8, 9, 13, 14, 17, 19, 20, 23, 24, 25, 26; throughout year, most vi-xii. **Other localities:** Monroe Co.: Big Pine Key, Cactus Hammock, 18.x.; Big Pine Key, Long Beach, 15.v., 18.x.; Big Pine Key, No Name Rd., end, 13.v., 23.x.; Big Pine Key, Watson's Hammock, 15.v., 19.v., 20.v.; Cape Sable, 25.ii.; Crawl Key, 15.vii.; Everglades National Park, Flamingo, 20.vii., 29.xi.; Everglades National Park, Rowdy Bend Trail, 12.v.; Grassy Key, 5.xii., 21.vii.; John Pennekamp State Park, 17-20.vi.; Key West, 1.iii., iv.; Long Key, 27.ii.; Long Key State Recreation Area, 22.v., 23.x.; Ocean Reef, Key Largo, 14 mi.S., 2.xii.; Plantation Key, 2.xii.; Stock Island, 30.viii.; Upper Key Largo, 11.xi. **Literature records:** Key West (Schwarz 1888c; Blatchley and Leng 1916), Cape Sable (Blatchley 1920, 1932).

*Neoulosomus laticaudis* (Suffrian). **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected

beating dead limbs and vines in hardwood hammocks.

**Taxonomic notes:** *Euscepes deceptus* Blatchley known only from the holotype collected in Brickell Hammock (Blatchley 1925), which is now lost, is considered this species (Anderson in press b). **SBP localities:** 2, 9, 13, 14; vi-ix. **Other localities:** Dade Co.: Everglades National Park, Gumbo Limbo Trail, 27.iii.; Everglades National Park, Royal Palm Park, 12.iv., 15.iv.; Miami, 12.iv.; Miami, Brickell Hammock, 30.xi.; Miami, Matheson Hammock, 8.v., 21.vi., 2.ix., 15.x.; Monroe Co.: John Pennekamp State Park, 23.v.; Key Largo, 13.v., 15.v., no date. **Literature records:** Brickell Hammock (Blatchley 1925; as *Euscepes deceptus* Blatchley), Royal Palm Park (Blatchley 1928; as *Paracamptus subtropicus* Casey).

*Paracamptus floridanus* Sleeper. **Range:** Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected in flight intercept traps and by beating dead vegetation in hardwood hammocks. **Distributional notes:** Previously only known from southern Florida, a specimen has been examined from Lake Worth, Florida (MCZC). **SBP localities:** 17, 19; vi-ii. **Other localities:** Dade Co.: Biscayne, 19.v., no date.; Miami, Matheson Hammock, 20.vi., 15.x. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 15.v., 19.v., 23.v.; No Name Key, 13.v. **Literature records:** Big Pine Key\* (Sleeper 1954).

*Paracamptus subtropicus* Casey. **Range:** Florida, West Indies and Mexico. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Mangrove. **Natural history:** Adults in southern Florida have been collected commonly on dead *Rhizophora mangle* L. (Rhizophoraceae) branches and occasionally on *Avicennia germinans* (L.) (Avicenniaceae). **Other localities:** Dade Co.: Miami, 15.vi.; Miami, Charles Deering Estate Park, 7.v.; Miami, Virginia Key, 22.vi. Monroe Co.: Big Pine Key, No Name Rd., end, 13.v.; Everglades National Park, Rowdy Bend Trail, 12.v.; No Name Key, 13.v.; Tavernier, 19-21.vi. **Literature records:** The Blatchley (1928) record from Royal Palm Park is *Neoulosomus laticaudis* (Suffrian).

*Phrydenus divergens* (Germar). **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults from an unstated locality have been collected on *Solanum nigrum* L. (Solanaceae) (Blatchley and Leng 1916) and by beating in hardwood hammocks in southern Florida. **Other localities:** Dade Co.: Coral Gables, 2.v.; Everglades National Park, Royal Palm Park, 7.iii.; Florida City, 3.iv., 2.v.; Homestead, 29.i.; Miami, 9.viii.; Miami, Matheson Hammock, 20.iv.

*Phrydenus muriceus* Germar. **Range:** Widespread Neotropical (possibly introduced). **Distribution in south Florida:** Lower Keys. **Habitat:** Ornamental/commercial. **Natural history:** In Arizona, larvae mine roots and stems of tomato and eggplant (Solanaceae) (O'Brien 1961).

**Literature records:** Key West\* (Blatchley and Leng 1916).

*Pseudoacalles nuchalis* (LeConte). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland, coastal scrub. **Natural history:** In south Florida, adults have been collected in berlese samples of sifted Sabal Palm hardwood scrub, dune crest hardwood litter in coastal scrub, pine/palmetto/hammock litter and hardwood hammock litter, and by sweeping pineland. **SBP localities:** 2, 4, 13, 14, 16, 18, 19, 20, 24, 25, 26; throughout year, most vi-xii. **Other localities:** Dade Co.: Biscayne, 16.v.; Everglades National Park, Gumbo Limbo Trail, 27.iii.; Everglades National Park, Long Pine Key, 10.v.; Everglades National Park, Royal Palm Park, 14.iii. Monroe Co.: Big Pine Key, Long Beach, 15.v., 21.v., 23.v., 20.x.; Big Pine Key, Watson's Hammock, 20.v.; Cudjoe Key, 15.vii.; Islamorada, 30.viii.; Lignum Vitae Key, 1&13.vii.; Long Key State Recreation Area, 22.v., 23.x.; No Name Key, 5.viii.; Sugarloaf Key, N.W. MacKay Tract, 18.v. **Literature records:** Biscayne Bay (Blatchley and Leng 1916).

*Pseudomopsis inflata* (LeConte). **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults are very common on foliage of *Coccoloba uvifera* L. (Blatchley 1920, 1932) and *Coccoloba diversifolia* Jacq.; larvae likely feed in fruits of both *Coccoloba* species (Polygonaceae). Schwarz (1888c) mentions that the only food plant of this species appeared to be *Chrysobalanus icaco*; this was likely a misidentification of *Coccoloba uvifera* or *C. diversifolia* as these are the only two plants this species has been collected on in numbers. **SBP localities:** 2, 8, 9, 13, 14, 17, 19, 20, 22, 23, 24, 25, 26; throughout year. **Other localities:** Dade Co.: Biscayne Bay, 13.viii.; Chekika State Recreation Area, 9.v., 12.x.; Everglades National Park, Royal Palm Park, 12.iv., 24.v., 13.x.; Key Biscayne, 23.viii.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v., 26.v., 20.vi. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 15.v., 20.v., 23.v., 18.x.; Duck Key, 4.vi.; Everglades National Park, Flamingo, 13.v.; John Pennekamp State Park, various dates; Key Vaca, Marathon, 17.v.; Key West, 1.iii., 9.vi., 27.vii.; Ocean Reef, Key Largo, 14mi.S., 2.xii.; Plantation Key, 2.xii.; Stock Island, 30.viii.; Upper Key Largo, various. **Literature records:** Royal Palm Park (Blatchley 1928), Key West (Schwarz 1888c; Blatchley 1920, 1932).

*Pseudomus sedentarius* (Say). **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Blatchley (1932) notes adults have been collected from spanish moss, holly and from a decaying leaf of Royal Palm, *Roystonea elata* at Royal Palm Park. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 8.iii. **Literature records:** Royal Palm Park (Blatchley 1932).

*Rhynchus apiculatus* (Gyllenhal). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults have been collected on dead branches in wet hammocks (Blatchley 1919, 1932), at lights (Blatchley 1925), and on *Myrica cerifera* L. (Myricaceae). Larvae mine in trunks and larger branches of dead *Myrica cerifera* (Ford 1985). **SBP localities:** 7; v-viii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v., 13.x; Homestead, 4mi.N., 2.v.; Hwy. 41, 1.5mi.S. Jct. 951, 15.iv.; Miami, 7.ii.

*Sudus floridanus* Kissinger. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, a single adult was collected in a flight intercept trap in pineland. **SBP localities:** 4; vi-viii.

*Troeon lutosus* (LeConte). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults were collected on *Dalbergia ecastophyllum* (L.) Benth. (Fabaceae). Larvae breed in flower disks of *Dalbergia ecastophyllum* (= *Ecastophyllum brownei*) (Blatchley and Leng 1916). **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 7.v., 15-16.x. **Literature records:** Miami, Biscayne Bay\* (Blatchley and Leng 1916).

*Tyloderma aeneotinctum* Champion. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on *Ludwigia peruviana* (L.) Hara (Onagraceae) and *Polygonum hydropiperoides* Michx. (Polygonaceae) (Wibmer 1981). **Literature records:** Everglades National Park, Anhinga Trail\*; Homestead\*, Miami\* (Wibmer 1981).

*Tyloderma aereoides* Wibmer. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on *Ludwigia* sp. and *Myriophyllum heterophyllum* Michx. (Wibmer 1981). **Literature records:** Everglades National Park, Anhinga Trail\*; Everglades National Park, Royal Palm Park\* (Wibmer 1981).

*Tyloderma aquaticum* Wibmer. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults, pupae and larvae have been found in stems of *Ludwigia repens* Forst. (Onagraceae) (Wibmer 1981). **Literature records:** Everglades National Park, Anhinga Trail\*; Everglades National Park, Royal Palm Park\*; Homestead\* (Wibmer 1981).

*Tyloderma capitale* Wibmer. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In south Florida and elsewhere, adults have been collected sweeping

*Polygonum* sp. at night. Hosts are likely a variety of *Polygonum* spp. (Polygonaceae) (Wibmer 1981). **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v. **Literature records:** Everglades National Park, Pa-ha-ow-kee\*; Everglades National Park, Pa-ha-ow-kee, 5mi.W.\*; Everglades National Park, Royal Palm Park\*; Hialeah, 18mi.N.W.\*; Homestead\*; Krome Road\* (Wibmer 1981).

*Tyloderma circumcaribbeum* Wibmer. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on *Ludwigia* spp. (Wibmer 1981) and in south Florida, on *Pontedaria lanceolata* Nutt. and *Ludwigia octovalvis* (Jacq.) Raven. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Eco Pond, 14.x.; Everglades National Park, Royal Palm Park, 10.v. **Literature records:** Miami\*, Krome Road\* (Wibmer 1981).

*Tyloderma contusum* Casey. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Literature records:** Everglades National Park, Royal Palm Park\*; Everglades National Park, East Entrance, 3.6mi.E.\*; Loop Road\* (Wibmer 1981).

*Tyloderma foveolatum* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Lower Keys. **Habitat:** Ruderal/roadsides. **Natural history:** Larvae mine stems of *Oenothera* spp. (Onagraceae) (Wibmer 1981). **Literature records:** Key West\* (Wibmer 1981).

*Tyloderma minimum* Blatchley. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on *Polygonum* spp., *Ludwigia* spp., *Rhexia mariana* L., and saw-grass (Wibmer 1981). In south Florida, adults have been swept from *Polygonum* sp. at night. Blatchley (1932) notes that water purslane, *Portulaca oleracea* L. is the host plant. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Royal Palm Park, 26.iii., 10-11.v.; Miami, 22.vii. **Literature records:** Everglades National Park, Anhinga Trail\*; Everglades National Park, Royal Palm Park; Everglades National Park, Paradise Key\*; Homestead\*; Loop Road\* (Wibmer 1981).

*Tyloderma punctatum* Casey. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on *Ludwigia* spp. and *Rhexia mariana* L. (Wibmer 1981). **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v.



*Tyloderma rufescens* (Casey). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected sweeping *Polygonum* sp. at night; adults have been reared from *Polygonum* spp. (Polygonaceae) (Wibmer 1981). **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v., 12.x.; Everglades National Park, Royal Palm Park, 10.v. **Literature records:** Everglades National Park, Anhinga Trail\*; Everglades National Park, Long Pine Key\*; Everglades National Park, Pa-ha-ow-kee\*; Everglades National Park, Pa-ha-ow-kee, 5mi.W.\*; Everglades National Park, Royal Palm Park; Everglades National Park, East Entrance, 3.6mi.E.\*; Goulds\*; Hialeah, 18mi.N.W.\*; Homestead\*; Loop Road\* (Wibmer 1981).

*Zascelis* new species 1. **Range:** Florida (likely introduced from Neotropical Region). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** Adults were collected at UV light near the United States Department of Agriculture tropical fruits research grounds in Homestead. **Taxonomic notes:** This species is presently known only from south Florida but is likely to be an introduced undescribed neotropical species. **Other localities:** Dade Co.: Homestead, Owaissa Bauer Campground, 17.x.

New genus 1, new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, a single adult was collected in a flight intercept trap in a hardwood hammock. **Taxonomic notes:** This species is known from a single specimen. At present I consider it representative of an undescribed genus and species. **Other localities:** Monroe Co.: Lignum Vitae Key, 1-31.vii.

New genus 2, new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults are commonly collected by beating dead vegetation in hardwood hammocks. **Taxonomic notes:** This species is quite common in hardwood hammocks in southern Florida. At present I consider it representative of an undescribed genus and species close to *Acalles*. **SBP localities:** 8; throughout year. **Other localities:** Dade Co.: Chekika State Recreation Area, 25.v.; Everglades National Park, Gumbo Limbo Trail, 25.iii.; Everglades National Park, Mahogany Hammock, 28.i., 9.vii.; Everglades National Park, Palma Vista Hammock, 18.vi.; Everglades National Park, Paradise Key, 31.iii.; Everglades National Park, Royal Palm Park, 29.iii., 10.v., 1-31.vii.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v., 26.v., 20.vi., 26.vi., 17.vii., 15.x.

New genus 3, new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Lower Keys. **Habitat:** Mangrove. **Natural history:** On the Lower Florida Keys, adults are common on dead limbs of *Jacquinia keyensis* Mez. (Theophrastaceae) growing on exposed coral in

association with mangroves. **Taxonomic notes:** This species is locally common in the Lower Florida Keys on its host plant. At present I consider it representative of an undescribed genus and species close to *Pseudomopsis*. **SBP localities:** 25, 26; iii-iv, vi-viii. **Other localities:** Monroe Co.: Big Pine Key, No Name Rd., end, 13.v., 23.x.; Cudjoe Key, 19.v.; Sugarloaf Key, N.W., MacKay Tract, 16.v.

## Tribe Curculionini

*Curculio pardalis* (Chittenden). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Adults are associated with *Quercus* spp. (Fagaceae); larvae feed in acorns of a variety of *Quercus* spp. (Gibson 1969). **SBP localities:** 2; viii-xii.

## Tribe Eirrhiniini

### Subtribe Derelomina

*Elaeodobius subvittatus* (Faust). **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** Adults and larvae are found on male flowers of *Elaeis guineensis* Jacquin (African oil palm) (Arecaceae) (O'Brien and Woodruff 1986). **Other localities:** Dade Co.: Miami, 5.xi. **Literature records:** Miami and vicinity (O'Brien and Woodruff 1986).

*Notolomus basalis* LeConte. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland. **Natural history:** Adults are found on blossoms of saw and cabbage palmettos and also (especially) flowers of *Asimina parviflora* Michx. (Blatchley and Leng 1916; Blatchley 1932). Adults have been reared from larvae collected from flower buds of *Serenoa repens* (Bartr.) Small (Arecaceae) in late May at Archer, Florida (A.T. Howden pers. comm.). **SBP localities:** 2, 3, 4, 19, 24; vi-xii. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 10.v.; Everglades National Park, Royal Palm Park, 27.iii.; Homestead, 22.vi., 13.xi.; Miami, Charles Deering Estate Park, 7.v.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Pine Key, Key Deer Refuge, Nature Trail, 14.v.; Cape Sable, 23.ii., 8.iii.; Sugarloaf Key, N.W., MacKay Tract, 16.v.; Upper Key Largo, 23.vii.

*Notolomus bicolor* LeConte. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland. **Natural history:** Adults are found on blossoms of cabbage palmetto (Blatchley and Leng 1916), flowers of *Coccothrinax argentea* (Lodd.) (Blatchley 1928), and flowers of *Serenoa repens* (Bartr.) Small. Larvae likely breed in flowers of palmettos (Arecaceae). **SBP localities:** 2, 6; v, v-viii. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 10.v.; Everglades National Park, Royal Palm Park, 4.iv., 6.iv., 8.iv.; Miami, 28.v.; Miami, Charles Deering Estate Park, 7.v.; Perrine, 19.iv. Monroe Co.:



Stock Island, 18.i., 23.vii.; Upper Key Largo, 14.v., 3.vi.  
**Literature records:** Royal Palm Park (Blatchley 1928).

*Notolomus* new species 1. **Range:** Southern Florida.  
**Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected at lights. They are suspected to be associated with flowers of palms, possibly *Roystonea elata* (Bartr.) F. Harper (Arecaceae), as one was flowering immediately adjacent to the location of the light trap. **Taxonomic notes:** This apparently undescribed species is quite unlike other North American *Notolomus* and may prove closer to the genus *Andranthobius*. For the present, it is best left as placed in *Notolomus*. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.

### Subtribe Smicronychina

*Smicronyx halophilus* Blatchley. **Range:** Florida.  
**Distribution in south Florida:** Upper and Lower Keys. **Habitat:** Mangrove, ruderal/roadsides. **Natural history:** Adults were collected sweeping herbage along tidal lagoons (Blatchley 1920, 1932), frequently on *Flaveria linearis* Lag. (Asteraceae) (Anderson 1962). Some other *Smicronyx* species breed in species of Asteraceae. **SBP localities:** 18; viii-ix, xii. **Other localities:** Monroe Co.: Big Pine Key, Key Deer Blvd., end, 14.v., 19.v.; Big Pine Key, Watson's Hammock, 14.v.; Key Largo, 26.xii.; Key West, 3.iii.; Saddlebunch Keys, 29.xii.; Stock Island, 22.v., 10.ix., 2.x., 27.xii. **Literature records:** Key West (Blatchley 1920, 1932), Key West, Big Pine Key, Saddlebunch Keys\*, Crescent City\* (Anderson 1962).

### Subtribe Stenopelmina

*Bagous blatchleyi* Tanner. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In south Florida, adults were collected by sweeping emergent semiaquatic plants. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.

*Bagous magister* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected on water lilies, in dry ponds under leaves *Nymphaea odorata* Ait. (Nymphaeaceae), and beating *Nymphaea odorata* (O'Brien and Marshall 1979), and by sweeping sawgrass prairie. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Royal Palm Park, 25.iii., 6-7.xii.; Homestead, 20.vii.; Miami, 7.vi.

*Bagous pictus* Blatchley. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** In south Florida, adults are common on *Sesuvium portulacastrum* (L.) L. (Aizoaceae) on sandy beaches; larvae develop in leaves of this plant (O'Brien and Marshall 1979). Blatchley (1920)

collected specimens by sweeping low plants along beach. **Other localities:** Monroe Co.: Big Pine Key, 22.v.; Big Pine Key, Long Beach, 14.v., 15.v.; Cape Sable, 24.ii.; John Pennekamp State Park, 22.v.; Long Key State Recreation Area, 22.v., 23.x. **Literature records:** Cape Sable (Blatchley 1920, 1932).

*Bagous transversus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** This species appears to be associated with *Potamogeton* (Potamogetonaceae). Adults have been collected in berlese samples of *Potamogeton pusillus* L. in Utah and swept from mixed *P. foliosus* Raf. and *P. pusillus* in Minnesota (O'Brien and Marshall 1979). **Literature records:** Paradise Key (Tanner 1943; as *Bagous carinatus* Blatchley).

*Brachybamus electus* Germar. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** In south Florida, adults were collected by sweeping emergent semiaquatic plants. **Other localities:** Dade Co.: Everglades National Park, Pa-ha-ow-kee, 24.v.; Everglades National Park, Royal Palm Park, 10.v., 22.v., 13.x.; Miami, Matheson Hammock, 8.v.

*Lissorhoptrus lacustris* Kuschel. **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Wet/dry prairie. **Natural history:** Adults were collected on *Cladium jamaicensis* Crantz. (sawgrass; Cyperaceae) (Kuschel 1951). **Other localities:** Dade Co.: Everglades National Park, Pa-ha-ow-kee, 24.v.; Everglades National Park, 5mi.N. Pa-ha-ow-ke, 24.v.; Everglades National Park, Royal Palm Park, 24.vi.; Miami, Loop Road, 17.vi.; Pinecrest, 27.xii. **Literature records:** Big Pine Key\* (Kuschel 1951).

*Lissorhoptrus longipennis* Kuschel. **Range:** Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** Adults were collected in "sh. grass marsh" (Kuschel 1951). **Taxonomic notes:** Kuschel (1951) recognizes two subspecies from proximal localities in southern Florida; one subspecies is described from a female, one from a male. **Literature records:** Everglades National Park, Paradise Key\* (Kuschel 1951).

*Lissorhoptrus oryzophilus* Kuschel. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, wet/dry prairie. **Natural history:** In south Florida, adults were collected at UV lights in pineland. This species is a primary pest of cultivated rice; larvae feed on roots and kill growing plants (C.W. O'Brien pers. comm.). **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 11.v.; Everglades National Park, Royal Palm Park, 24.vi.

*Lissorhoptrus simplex* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected from throughout the species range on *Oryza sativa* L. (rice) (Poaceae) (Kuschel 1951). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 6.iv., 14.xii.

*Notiodes ovalis* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Pineland, wet/dry prairie, wetland margins. **Natural history:** In south Florida, adults were collected by sweeping in sawgrass prairie and in wet pineland. **SBP localities:** 19, 25; vi. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Royal Palm Hammock, 10.v. Monroe Co.: Big Pine Key, 26.v.; Big Torch Key, 4.ix.

*Onychylis nigrirostris* (Boheman). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** In south Florida, adults were collected on *Nuphar luteum* (L.) Sibhorn & Smith (Nymphaeaceae) at night. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 10.v.; Florida City, S.E., 1.vii.

### Tribe Gymnetrini Subtribe Mecinina

*Miarus hispidulus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In south Florida, adults were collected by sweeping sawgrass prairie at night. Larvae breed in seed capsules of *Lobelia inflata* L., *L. syphilitica* L. and *L. cardinalis* L. (Campanulaceae) (Blatchley and Leng 1916). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 14.x.

### Tribe Lixini Subtribe Lixina

*Lixus fossus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** Adults, perhaps misidentifications, are recorded as damaging smartweed (*Polygonum* spp.; Blatchley 1932) and also from spanish moss (Blatchley and Leng 1916). Adults have been collected on *Pluchea purpurescens* (Sw.) DC. (Asteraceae) at Flamingo in Everglades National Park; this plant is the suspected larval host. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 6.iii., 2.iv., 10-11.v. Monroe Co.: Cape Sable, 23.ii.; Everglades National Park, Flamingo Prairie, 25.iii., 12.v., 14.x., 10.xi.

*Lixus punctinasus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Larvae of this species have been recorded as mining the stems of *Polygonum pennsylvanicum* L.

(Polygonaceae) in Texas in August and September (Pierce 1907; as *L. musculus* Say). Blatchley and Leng (1916; as *L. musculus* Say) note that adults were reared from *Polygonum amphibium* L. in Michigan. In south Florida, adults have been collected sweeping sawgrass prairie. **Taxonomic notes:** This species appears to have been confused with and variously called *L. marginatus* Say and/or *L. musculus* Say by various authors (Pierce 1907; Blatchley and Leng 1916). Kingsolver (1972) considered both of these Say species as unrecognized; types of both species are lost and descriptions are too vague to permit positive recognition. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Miami, 4.v.

*Lixus terminalis* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been reared from smartweed, *Polygonum pennsylvanicum* (Polygonaceae) (Blatchley and Leng 1916). **Other localities:** Chekika State Recreation Area, 9-10.v.

*Lixus* new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** In south Florida, adults were collected sweeping sawgrass prairie at night. **Taxonomic notes:** I have examined type specimens of *Lixus* species in MCZC, USNM and PURC and consider this species as undescribed. **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v.; Everglades National Park, Paradise Key, 8.iv.; Everglades National Park, Royal Palm Park, 14.x.

*Microlarinus lypriformis* (Wollaston). **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** Adults and larvae are associated with *Tribulus cistoides* L. (Stegmaier 1973); larvae mine stems. *Tribulus terrestris* L. (Zygophyllaceae) is the host of this species in California (Kirkland and Goeden 1978). This species has been used widely as a biological control agent of various *Tribulus* species. **Other localities:** Dade Co.: Miami, 26.iii.

### Tribe Molytinini Subtribe Anthonina

*Anthonus blatchleyi* Sleeper. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected in leaf litter berlese samples and in flight intercept traps in hardwood hammocks. **SBP localities:** 1, 2, 3, 9, 27; most vii, xi. **Other localities:** Dade Co.: Homestead, 20.xi.; Miami, 27.iv.; Miami, Brickell Hammock, 6.xii.; Miami, Charles Deering Estate Park, 15-16.x.; Miami, Matheson Hammock 11.ix., 15.x. Monroe Co.: Big Pine Key, 23.v.; Big Pine Key, Weston's Hammock, 18.x.; Stock Island, 25.ix. **Literature records:** Dade Co., near Miami, Matheson Hammock\* (Sleeper 1954).

*Anchonus duryi* Blatchley. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, mangrove, salt marsh/coastal prairie, coastal scrub. **Natural history:** Adults are common under seaweed, logs and boards on the beach (Blatchley and Leng 1916); under chunks dead saw palmetto (Blatchley 1917). Larvae likely breed in driftwood. In south Florida, adults have also been collected in leaf litter berlese samples and in flight intercept traps in hardwood hammocks. **SBP localities:** 1, 6, 17, 24, 25; most xi. **Other localities:** Dade Co.: Cape Florida State Park, 26.xi.; Miami, Matheson Hammock 17.vii., 15.x. Monroe Co.: Big Pine Key, 23.v., 13.vi.; Big Pine Key, Long Beach, 14.v., 15.v., 19.v., 23.v., 18.x., 20.x., 17.xii.; Boca Chica Key, 1.v.; Cudjoe Key, 18.v.; Everglades National Park, Rowdy Bend Trail, 12.v.; Key Vaca, Marathon, 17.v.; Key West, 11.vi.; Long Key State Recreation Area, 23.v.; No Name Key, 20.x.; Upper Matecumbe Key, Islamorada, 30.viii.; John Pennekamp State Park, 20.vi.; Upper Sugarloaf Key, 4.iii.

*Anchonus floridanus* Schwarz. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Mangrove, salt marsh/coastal prairie, coastal scrub. **Natural history:** Adults are collected under deep layers of seaweed (Blatchley and Leng 1916), under bamboo on beach (Blatchley 1925), under driftwood and in berlese samples of beach washup debris and upper beach litter. Like *A. duryi*, larvae of this species likely breed in driftwood. **SBP localities:** 17; xi. **Other localities:** Dade Co.: Cape Florida State Park, 26.xi.; Miami, 12.ii.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 20.vi., 11-12.xi. Monroe Co.: Big Pine Key, Long Beach, 14.v., 18.x.; Big Pine Key, Ocean Bluff Beach, 17.xii.; Everglades National Park, Flamingo, 0.5mi.S., 27.viii.; Everglades National Park, Rowdy Bend Trail, 12.v.; Key Largo, 31.iii.; Key West, xii. **Literature records:** Cocconut Grove\* (Schwarz 1894; Blatchley and Leng 1916).

### Subtribe Cleogonina

*Rhyssomatus palmarcolis* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock, ruderal/roadsides. **Natural history:** In south Florida, adults have been collected on *Ipomoea* prob. *acuminata* (Vahl.) R. & S. (Convolvulaceae). Adults have been reared from galls caused by fungus (*Cystopus*) on *Ipomoea pandurata* L. (Blatchley and Leng 1916) and recorded as breeding in seed pods of *Ipomoea sinuata* Ort. in Texas (Pierce 1916). **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 13.x.; Everglades National Park, Royal Palm Park, 10.v., 13.x.; Everglades National Park, 2mi.E. East Entrance, 13.v.; Homestead, 22.v.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 21.vi. Monroe Co.: Everglades National Park, Snake Bight, 14.x.; Key Largo, 7.v., 15.v., 29.viii.; Long Key State Recreation Area, 22.v., 23.x.; Lower Matecumbe Key, 11.vii.; Upper Key Largo,

25.iii. **Literature records:** Miami, Royal Palm Park (Blatchley 1928).

### Subtribe Conotrachelina

*Conotrachelus belfragei* LeConte. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults are recorded from pine at Eustis, Florida (Blatchley and Leng 1916) and on *Coccoloba uvifera* (L.) L. (Blatchley 1919). Adults were collected on *Conocarpus erecta* L. (Combretaceae) at Cape Sable (Blatchley 1932) and on *Bumelia celastrina* H.B.K. (Sapotaceae) on Big Pine Key and in Texas. **Other localities:** Monroe Co.: Big Pine Key, Watson's Hammock, 15.v., 19.v.; Cape Sable, 20.ii. **Literature records:** Cape Sable (Blatchley 1920, 1932).

*Conotrachelus biscaynensis* Fall. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults were collected in flight intercept traps in hardwood hammocks. **SBP localities:** 3, 5, 17, 24, 26; throughout year. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 6.xii.; Miami, 11.iii., 21.iii.; Miami, Camp Mahachie, 23.viii., 14.ix.; Miami, Charles Deering Estate Park, 7.v. Monroe Co.: Ocean Reef, Key Largo, 2.xii.; Upper Key Largo, 9.xi. **Literature records:** Miami, Royal Palm Park, Biscayne\* (Blatchley 1925).

*Conotrachelus coronatus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wet/dry prairie. **Natural history:** Adults were collected sweeping sawgrass prairie at night and on sawgrass (Blatchley 1920). Blatchley (1932) collected adults between the basal leaves and the stem of sawgrass, *Cladium jamaicensis* Crantz. (Cyperaceae) at Moore Haven. **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v.; Everglades National Park, Royal Palm Park, 10.v., 24.vi., 13.x.; Miami, Matheson Hammock, 8.v.

*Conotrachelus floridanus* Fall. **Range:** Florida, Texas and Bahamas. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, pineland. **Natural history:** In south Florida, adults were collected on *Bumelia celastrina* var. *angustifolia* (Nutt.) R.W. Long (Blatchley 1920, 1922, 1932), on *Bumelia celastrina* H.B.K. (Sapotaceae), and in flight intercept traps in hardwood hammocks and pineland. **Distributional notes:** The Texas and Bahamas records are new (CMNC). **SBP localities:** 2, 4, 5, 6, 7, 9, 23; iii-xii. **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v., 25.v.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v., 20.vi.; Everglades National Park, Palma Vista Hammock, 11.v.; Everglades National Park, Royal Palm Park, 13.x.; Everglades National Park, Gumbo Limbo Trail, 27.iii. Monroe Co.: Big Pine Key, Watson's Hammock, 14.v., 20.v., 25.v., 18.x.; Cape Sable,



23.ii., 26.ii.; Key Largo, 2.ii.; Sugarloaf Key, N.E., 18.v.; Upper Key Largo, 25.iii., 28.iv., 19.vii. **Literature records:** Miami (Blatchley and Leng 1916), Cape Sable (Blatchley 1920, 1932).

*Conotrachelus maritimus* Blatchley. **Range:** Florida, Bahamas and Virgin Islands. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, mangrove, coastal scrub. **Natural history:** Adults were collected on *Bumelia celastrina* var. *angustifolia* (Nutt.) R.W. Long (Sapotaceae) (Blatchley 1922, 1932), under chunks and dead stems of saw palmetto (Blatchley 1917), in dune crest hardwood litter and mangrove litter berlese samples, and in flight intercept traps in hardwood hammocks. Specimens from the Bahamas were collected on rotting fruits of *Clusia rosea* Jacq. (Hypericaceae). **Distributional notes:** The Bahamas (CMNC) and Virgin Islands (CWOB) records are new. **SBP localities:** 2, 4, 13, 14, 17, 19, 20, 23, 24; throughout year, most xi. **Other localities:** Dade Co.: Biscayne National Park, no date; Homestead, 17.x.; Miami, 11.ix.; Miami, Camp Mahachie, 16.viii., 6.ix.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 12.xi.; Perrine, 2.vi. Monroe Co.: Everglades National Park, Flamingo, 28.iii., 8.iv., 24.v.; Big Pine Key, Key Deer Blvd., end, 14.v.; Big Pine Key, Long Beach, 15.v., 18.x.; Big Pine Key, Watson's Hammock, 15.v., 20.v., 23.v., 30.vii., 18.x.; Key Largo, 4mi.N., 24.vi.; Long Key State Recreation Area, 22-23.v., 23.x.; Marathon, 17.v.; Stock Island, 30.iv., 29.ix., 13.x.; Upper Key Largo, 7.6mi.N. #1/905, 17.x. **Literature records:** The Everglades (Blatchley 1925) record is *Conotrachelus posticatus* (Boheman).

*Conotrachelus naso* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Larvae breed in acorns of a variety of species of *Quercus* spp. (Fagaceae) (Blatchley and Leng 1916; Schoof 1942; Gibson 1964). Adults also have been recorded as reared from fruit *Crataegus* (Rosaceae) (Blatchley and Leng 1916) but this record is questionable (Gibson 1964). **SBP localities:** 2, 3, 6; most vi-xii. **Other localities:** Dade Co.: Everglades National Park, Paradise Key, 1.iv.; Everglades National Park, Royal Palm Park, 6.iii., 20.iii., 13.x., 5.xii.; Miami, Matheson Hammock, 28.iv., 26.vi.

*Conotrachelus posticatus* Boheman. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** Larvae breed in acorns of variety of *Quercus* spp. (Fagaceae) (Schoof 1942; Gibson 1964). Adults have been reported as reared from fruit *Crataegus* (Rosaceae) and from hickory nuts, and as living in *Phylloxera* galls on hickory leaves; these records are misidentifications (Schoof 1942, Gibson 1964). **SBP localities:** 2, 3, 4, 5, 6, 7, 9; most xi-xii. **Other localities:** Dade Co.: Everglades National Park, Mahogany Hammock, 9.vii.; Everglades National Park, Paradise Key, 1.iv.; Everglades National Park, Royal Palm Park, 21.iii., 26.iii., 17.iv., 29.vi., 1-31.vii., 13.x.; Homestead,

17.x.; Merritt Island, 5.vi.; Miami, Charles Deering Estate Park, 15-16.x.; Miami, Matheson Hammock, 15.x. **Literature records:** Everglades (Blatchley 1925; as *Conotrachelus maritimus* Blatchley).

*Conotrachelus seniculus* LeConte. **Range:** Widespread North America and Mexico. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** Adults from throughout the species range have been collected by sweeping and at lights (Blatchley 1919). Larvae mine in crowns and roots of *Amaranthus* spp. (Amaranthaceae) (Schoof 1942). **Literature records:** Cape Sable\* (Blatchley 1920).

*Conotrachelus serpentinus* Boheman. **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected on *Persea borbonia* L. (Lauraceae) (Blatchley 1920), especially on the fruits. This species is not generally regarded as a pest of commercial avocado, but attacks various native species of *Persea* (Barber 1919; Whitehead 1979). **SBP localities:** 5, 6, 7; vii-ii. **Other localities:** Dade Co.: Biscayne Bay, 14.v.; Chekika State Recreation Area, 9.v., 12.x.; Everglades National Park, Gumbo Limbo Trail, 25.iii.; Everglades National Park, Royal Palm Park, 13.x.; Miami, 11.iii., 27.ix.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 15.x.; Pincrest, 5.5mi.E., 16.v.; Ross Castellow Hammock, 17.iv. Monroe Co.: John Pennekamp State Park, 20.vi.; Key Largo, 15.v.; Upper Key Largo, 28.iv., 13.v. **Literature records:** Biscayne Bay (Blatchley and Leng 1916).

*Conotrachelus tuberosus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** Adults have been collected on *Urtica* (Blatchley 1922; Schoof 1942) and very commonly on *Bidens pilosa* L. (Asteraceae) in south Florida. **SBP localities:** 4; vi-xii. **Other localities:** Dade Co.: Chekika State Recreation Area, 12.x.; Homestead, 2.vi., 25.viii.; Miami, Camp Mahachie, various dates; Miami, Charles Deering Estate Park, 7.v.; Miami, 9.x.; Fuch's Hammock, 12-13.v.

*Conotrachelus* near *histrion* Boheman. **Range:** Southern Florida, Bahamas and Cuba. Mainland. **Habitat:** Unknown. **Natural history:** A single adult was collected at light in Miami. **Taxonomic notes:** This species is close to *C. histrion* and may prove to be that species; however, this cannot be determined with confidence at present. **Other localities:** Dade Co.: Miami, 19.v.; Miami, Matheson Hammock, 10.iv.

*Conotrachelus* new species 1. **Range:** Southern Florida. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Unknown. **Taxonomic notes:** This species is unknown to me, and is considered here as undescribed. **SBP localities:** 9; viii. **Other localities:** Dade Co.:



Everglades National Park, Royal Palm Park, 30.vii.; Miami, 11.ix.

*Micralcinus cribratus* LeConte. **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** Sleeper (1955) noted the capture of adults on *Amaranthus* sp., *Amaranthus cannabinus* (L.) Sauer (as "*Acnidia cuspidata*") and specimens from Alabama were collected on *Amaranthus retroflexus* L. (Amaranthaceae). **Distributional notes:** Previously only known from Florida, specimens have been examined from Blakely Island, Alabama (MCZC). **Other localities:** Dade Co.: Florida City, 1.v.; Miami, 5.v. **Literature records:** Florida City, Miami (Sleeper 1955).

*Micralcinus maculatus* (Blatchley). **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Coastal scrub. **Natural history:** Numerous adults have been collected on *Sesuvium portulacastrum* (L.) L. (Aizoaceae) on sandy beaches in the Florida Keys and this plant is the likely larval host. **Other localities:** Monroe Co.: Bahia Honda State Park, 16.v.; Big Pine Key, 13.vi.; Big Pine Key, Long Beach, 18.x., 20.x.; Key Vaca, Marathon, 17.v.; Long Key State Recreation Area, 22.v., 23.x. **Literature records:** Little River\* (Blatchley and Leng 1916), Florida City\*, Little River\*, Miami\* (Sleeper 1955).

*Phelocorus hispidus* (LeConte). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Ruderal/roadsides. **Natural history:** In south Florida, adults were collected commonly by sweeping *Malvastrum corchorifolium* (Desc.) Britt. (Malvaceae) in an abandoned avocado plantation at night. **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Chekika State Recreation Area, 12.x.; Chekika State Recreation Area, Grossman Hammock, 17.v.; Everglades National Park, Royal Palm Park, 13.x.; Hialeah, 17.iv.; Homestead, 18.iv., 2.vi., 16.x.; Miami, 24.ix.; Miami, Charles Deering Estate Park, 7.v.

*Phelocorus infector* (Boheman). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** In south Florida, adults were collected in flight intercept traps and by sweeping in pineland. **SBP localities:** 4; v. **Other localities:** Dade Co.: Everglades National Park, Long Pine Key, 11.v.

### Subtribe Cycloterina

*Gononotus angulicollis* (Chevrolat). **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Mangrove, salt marsh/coastal prairie, coastal scrub. **Natural history:** In south Florida, adults are very common under boards on beaches, under driftwood washup, sifting turtle grass washup and other beach organic debris, and by sifting litter under *Sesuvium portulacastrum* (L.) L. (Aizoaceae). The species

breeds in boards and roots washed up on shore (Blatchley and Leng 1916). **SBP localities:** 7, 13, 14, 17, 19, 24, 25, 26; most xii. **Other localities:** Dade Co.: Cape Florida State Park, 26.xi.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 20.vi. Monroe Co.: Bahia Honda State Park, 19.i.; Big Pine Key, Long Beach, 14.v., 15.v., 19.v., 23.v., 18.x., 20.x.; Cape Sable, 26.ii.; Dry Tortugas, Loggerhead Key, 9.i., 11.vii.; Grassy Key, 29.iv.; Key Vaca, Marathon, 17.v.; Long Key, 27.ii., 14.viii.; Lower Matecumbe Key, 23.iii.; 18.vi.; Sugarloaf Key N.W., MacKay Tract, 18.v.; Summerland Key, 1.v. **Literature records:** Key West\*, Biscayne Bay\* (Blatchley and Leng 1916), Cape Sable (Blatchley 1920).

### Subtribe Hylobiina

*Heilipus apicatus* (Olivier). **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, pineland, ornamental/commercial. **Natural history:** Adults have been collected under pine bark (Blatchley and Leng 1916); larvae bore in cambium near base of avocado trees (*Persea americana* Mill.; Lauraceae) and the adults feed on fruits (Woodruff 1963). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 11.iii.; Homestead, 14.x.; Miami, 10.ii.; Richmond, iv. **Literature records:** Dade Co., various (Woodruff 1963: Fig. 1).

*Heilus bioculatus* (Boheman). **Range:** Widespread Neotropical (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, ornamental/commercial. **Natural history:** In south Florida, adults have been associated with *Poinciana regia* Bojer and collected at lights. Adults also have been collected on *Bursera simiruba* in Castellow Hammock and a single larva was dug out of the trunk of the same fallen gumbo limbo (M.C. Thomas, pers. comm.). **Distributional notes:** This is the first record of this genus and species in the United States. **Other localities:** Dade Co.: Goulds, 7.x.; Homestead, Owaissa Bauer Campground, 17.x.; Ross Castellow Hammock, 17.iv., 27.iv.

*Pachylobius picivorus* (Germar). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** Larvae mine the inner bark of roots and stumps of recently felled dying and injured *Pinus* spp. (Pinaceae) (Blatchley and Leng 1916; Franklin and Taylor 1970). **Other localities:** Dade Co.: Homestead, 7.vi.; Miami, 12.xii.; Perrine, 30.iii.

### Subtribe Lymantina

*Caecossorus dentipes* Gilbert. **Range:** Southern Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults are common in berlese samples of hardwood hammock litter, *Neotoma* nest debris, *Thrinax parviflora* litter, mangrove and upper beach washup litter, and in soil washings from various habitats. **SBP localities:** 3, 6, 9, 13, 14, 17, 19, 20, 25, 27;

vii-iii. **Other localities:** Dade Co.: Miami, Charles Deering Estate Park, 15-16.x. Monroe Co.: Big Pine Key, Cactus Hammock, 15.v.; Big Pine Key, Long Beach, 18.x.; Big Pine Key, Watsons Hammock, 18.x.; John Pennkamp State Park, Tamarind Trail, 21.x.; Key Vaca, Marathon, 17.v.; Long Key State Recreation Area, 22.v.; No Name Key, 20.x.; Upper Key Largo, 14.vi.; Upper Key Largo, 7.6mi.N. #1/905, 21.x. **Literature records:** Dade and Monroe Counties, various (Howden 1992).

### Subtribe Sternechina

*Chalcodermus aeneus* Boheman. **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** In south Florida, adults are found on *Vigna luteola* (Jacq.) Benth. (Fabaceae); larvae develop in seed pods of cow-peas (*Vigna* spp.) and closely related legumes (Ainslie 1910; Blatchley and Leng 1916). **Other localities:** Dade Co.: Chekika State Recreation Area, 9.v., 12.x.; Everglades National Park, Pa-ha-ow-kee, 29.xi.; Everglades National Park, Royal Palm Park, 24.vi., 13.x.; Homestead, 14.ii., 4.iv., 21.vii., 11.x.; Miami, Charles Deering Estate Park, 7.v.; Miami, Matheson Hammock, 8.v. Monroe Co.: Everglades National Park, Flamingo, 12.v., 24.v.; Key West, vii-viii.; Stock Island, 1.v., 15.x.

*Chalcodermus collaris* Horn. **Range:** Widespread North America and Mexico. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Pineland, ruderal/roadsides. **Natural history:** Adults have been reared from seed pods of *Cassia chamaechrista* L. (Fabaceae) at Urbana, Illinois (Alsterlund 1937a,b). **Other localities:** Dade Co.: Biscayne, no date; Miami, 17.ix. Monroe Co.: Big Pine Key, near N. end SR940, 23.vi.; Big Pine Key, Watson's Hammock, 15.v.

### Tribe Otidoccephalini

#### Subtribe Erodiscina

*Sicoderus tinamus* (LeConte). **Range:** Florida and Bahamas. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock, coastal scrub. **Natural history:** In south Florida, adults are found on dead branches, especially of *Bumelia celastrina* var. *angustifolia* (Nutt.) R.W. Long (Sapotaceae) (Blatchley 1920, 1932). Schwarz (1888c) noted collecting this species on *Chrysobalanus icaco* but this was likely a misidentification of *Coccoloba uvifera* or *C. diversifolia* (see treatment of *Pseudomopsis inflata*). **SBP localities:** 3, 6, 8, 13, 14, 17, 19, 20, 23; throughout year, most viii-xii. **Other localities:** Dade Co.: Biscayne, 14.v.; Biscayne Bay, 16.v.; Everglades National Park, Royal Palm Park, 23.i., 6.iii., 14.iii., 23-24.iii.; Homestead, 16.x., 28.x.; Miami, 2.iv.; Miami, Camp Mahachie, 17.x.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Matheson Hammock, 8.v. Monroe Co.: Big Pine Key, Cactus Hammock, 15.v.; Big Pine Key, Long Beach, 15.v., 20.x.; Big Pine Key, Watson's Hammock, 19.v.; Everglades National Park,

Cape Sable, 21-22.ii., 20.xii.; Grassy Key, 14.viii.; Key Largo, 3.iv., 7.xii., 30.xii.; Long Key State Recreation Area, 22.v., 23.x.; Marathon, 17.v.; Upper Key Largo, 24.v. **Literature records:** Key West\* (Schwarz 1888c), Biscayne Bay (Blatchley and Leng 1916), Cape Sable (Blatchley 1920, 1932).

### Subtribe Otidoccephalina

*Micromyrmex cavirostris* Casey. **Range:** Southern Florida. **Distribution in south Florida:** Upper Keys. **Habitat:** Unknown, probably hardwood hammock. **Other localities:** Key Largo, no date. **Literature records:** southern Florida (Blatchley and Leng 1916).

*Micromyrmex poeyi* Chevrolat. **Range:** Florida and Cuba. **Distribution in south Florida:** Upper Keys. **Habitat:** Unknown, probably hardwood hammock. **Other localities:** Key Largo, no date. **Literature records:** Key Largo (Blatchley and Leng 1916).

*Myrmex dichrous* (LeConte). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock, pineland. **Natural history:** In Florida, adults have been collected on dead palmetto leaves (Blatchley and Leng 1916) and on foliage of cabbage palmetto (Blatchley 1925) (Arecaceae). Larvae likely mine in dead palmetto fronds. **SBP localities:** 4; vi-viii. **Other localities:** Dade Co.: Coral Gables, 21.vi.; Everglades National Park, Mahogany Hammock, 26.iv.; Everglades National Park, Royal Palm Park, iii.; Hwy. 41, 1.5mi.S.Jct. 951, 15.iv.; Homestead, 9.iii.; Miami, Matheson Hammock, 29.iii. **Literature records:** Royal Palm Park (Blatchley 1925).

*Myrmex floridanus* (Casey). **Range:** Florida. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** Adults are reported on oaks (Blatchley and Leng 1916). On Big Pine Key adults were common on *Bumelia celastrina* H.B.K. (Sapotaceae). **SBP localities:** 17, 19; vi. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 22.iii.; Miami, Fuch's Hammock, 9-10.iv. Monroe Co.: Big Pine Key, Long Beach, 15.v.; Big Pine Key, Watson's Hammock, 14.v., 15.v., 19.v., 20.v., 23.v., 25.v.

### Tribe Prionomerini

#### Subtribe Piazorhinina

*Piazorhinus tuberculatus* Blatchley. **Range:** Florida. **Distribution in south Florida:** Mainland, Upper and Lower Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults are very abundant on foliage of *Coccoloba diversifolia* Jacq. (Polygonaceae); larvae likely mine the leaves. **SBP localities:** 2, 17, 19; most vi-viii. **Other localities:** Dade Co.: Miami, Brickell Hammock, 8.vii.; Miami, Charles Deering Estate Park, 7.v., 15-16.x.; Miami, Old Cutler Hammock, 9.v. Monroe Co.: Big Pine Key, Watson's Hammock, 15.v., 19.v.; John Pennkamp State Park, 14.vi.; Key Largo, 7.xii.; Ocean Reef, Key

Largo, 14mi.S., 2.xii.; No Name Key, 20.x.; Upper Key Largo, 9.xi. **Literature records:** Biscayne Bay\* (Blatchley and Leng 1916).

### Tribe Rhynchaenini

*Isochnus populicola* (Silfverberg). **Range:** Europe, Asia, northeastern North America and Florida (introduced). **Distribution in south Florida:** Lower Keys. **Habitat:** Ornamental/commercial. **Natural history:** Larvae mine the leaves of *Salix* spp. (Salicaceae) (Anderson 1989). This species is very doubtfully established in southern Florida. **SBP localities:** 26; ii-vi.

*Tachyerges niger* (Horn). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults are found on a variety of species of *Salix* (Salicaceae); larvae likely mine leaves (Anderson 1989). Only *Salix caroliniana* Michx. occurs in southern Florida. **Other localities:** Dade Co.: Chekika State Recreation Area, 14.vi.

### Tribe Tychiini

#### Subtribe Elleschina

*Elleschus ephippiatus* (Say). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults are associated with *Salix* spp. (Salicaceae) and have been reared from galls of *Rhabdophaga strobiloides* O.S. on *Salix* sp. (Blatchley and Leng 1916). Only *Salix caroliniana* Michx. occurs in southern Florida. **SBP localities:** 7; xi-iii. **Other localities:** Dade Co.: Everglades National Park, Paradise Key, 8.iv.

#### Subtribe Lignyodina

*Plocetes bahamaensis* (Casey). **Range:** Florida, Bahamas and Mexico. **Distribution in south Florida:** Lower Keys. **Habitat:** Hardwood hammock, pineland, mangrove, coastal scrub. **Natural history:** Adults have been collected on *Erithalis fruticosa* L. (Rubiaceae) in May (Anderson 1991) and on *Chiococca pinetorum* Britt. (Rubiaceae) in October in the Florida Keys. They have been collected also on *Chiococca phaenostemon* Schlecht. in Chiapas, Mexico (Clark 1983). Larvae probably feed in reproductive structures of these plants. **SBP localities:** 22, 24, 25, 26; throughout year, most vi. **Other localities:** Monroe Co.: Bahia Honda State Park, 16.v.; Big Pine Key, 2.vi.; Big Pine Key, Cactus Hammock, 18.x.; Big Pine Key, Watsons Hammock, 18.x.; Cudjoe Key, 19.v.; Key West 3.iii.; Sugarloaf Key, N.W., MacKay Tract, 18.v., 22.v. **Literature records:** Key West (Blatchley 1920, 1922, 1932; Clark 1981).

*Plocetes clarki* Anderson. **Range:** Southern Florida. **Distribution in south Florida:** Lower Keys. **Habitat:** Pineland. **Natural history:** In the Florida Keys, adults have been collected on flowering *Guettarda scabra* Vent. (Rubiaceae) (Anderson 1991); larvae probably feed in

reproductive structures of this plant. **Other localities:** Monroe Co.: No Name Key, 17.v.; Sugarloaf Key, N.W., MacKay Tract, 16.v., 22.v.

*Plocetes ulmi* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Wetland margins. **Natural history:** Adults are found on *Cephalanthus occidentalis* L. (Rubiaceae) (Clark 1982; Anderson 1991); larvae probably feed in reproductive structures of this plant. **Other localities:** Dade Co.: Chekika State Recreation Area, 9-10.v.; Homestead, 20.vii. Monroe Co.: Upper Key Largo, 11.vi.

### Tribe Zygopini

#### Subtribe Lechriopina

*Copturus floridanus* (Fall). **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults have been collected on mahogany, *Swietenia mahagoni* (L.) Jacq. (Meliaceae). Larvae bore just under the bark of branches of living mahogany trees (Butcher and Goldweber 1957). **Other localities:** Dade Co.: Miami, 10.i., 20.ii., 25.v.; Miami Springs, 2.x.; Port Everglades, 3.iv. Monroe Co.: Key Largo, 1mi.S., 1.xii.; Upper Key Largo, 26.vi. **Literature records:** Key Largo; Elliot's Key\* (Blatchley and Leng 1916).

*Cylindrocopturus nanulus* LeConte. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, ruderal/roadsides. **Natural history:** Adults have been collected on foliage of *Ampelopsis* (Blatchley 1922) and on *Myrica cerifera* L. at Dunedin, Florida (Blatchley 1925). **SBP localities:** 4; viii. **Other localities:** Dade Co.: Hialeah, 25.vi.; Homestead, 17.x.

### Subfamily Rhynchophorinae

#### Tribe Rhynchophorini

*Rhynchophorus cruentatus* (Fabricius). **Range:** Widespread Neotropical. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Hardwood hammock, ornamental/commercial. **Natural history:** In south Florida, this species is associated with a variety of palms where the larvae can do extensive damage, often killing the tree (Blatchley and Leng 1916, Woodruff 1967). All stages have been found in bases of leaves of the date palm, *Phoenix dactylifera* L. (Arecaceae) (Blatchley 1925). Blatchley (1932) notes collecting an adult of this species from the mass of scales and fibres overlapping the terminal bud of a cabbage palmetto. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 16.viii. **Literature records:** Royal Palm Park (Blatchley 1928), Homestead\*, Miami\*, Key Largo\* (Woodruff 1967).



### Tribe Sitophilini

*Sitophilus linearis* (Herbst). **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Ornamental/commercial. **Natural history:** In south Florida, adults have been collected in dried seed pods of tamarind, *Tamarindus indica* L. (Fabaceae). **Other localities:** Dade Co.: Homestead, 22.iii., 4.x.; Miami, 17.ii. Monroe Co.: Stock Island, 15.x.

*Sitophilus oryzae* (Linnaeus). **Range:** Widespread (introduced). **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Ornamental/commercial. **Natural history:** In south Florida, adults have been collected in dried seed pods of tamarind, *Tamarindus indica* L. (Fabaceae). This species is commonly known as the "rice weevil"; it breeds in a variety of stored grains. **Other localities:** Dade Co.: Coral Gables, various dates; Everglades National Park, Royal Palm Park, 24.v.; Miami, various dates. Monroe Co.: Key West, various dates.

### Tribe Sphenophorini

*Cosmopolites sordidus* (Germar). **Range:** Widespread tropical (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** This species is associated with banana trees (*Musa sapientum* L.); larvae mine stem and corm (Woodruff 1969b). **Other localities:** Dade Co.: Homestead, 8mi.E., 22.v.; Miami, various dates. **Literature records:** Flamingo\* (Sleeper 1957); Miami, Flamingo\*, Larkin\*, Key West\*, Coral Gables\*, Cutler\*, Homestead (Woodruff 1969b).

*Metamasius callizona* (Chevrolat). **Range:** Widespread Neotropical (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial, hardwood hammocks. **Natural history:** In Florida, this species attacks native and introduced bromeliads, especially native species of *Tillandsia* (*T. utriculata* L., *T. fasciculata* Sw., and *T. paucifolia*) (O'Brien and Thomas 1990; O'Brien, et al. 1990; Frank and Thomas 1991a, b). Immature stages develop in the base of green, healthy plants, which they kill. **Literature records:** Castellow Hammock\* (Frank and Thomas 1991b).

*Metamasius hemipterus* (Linnaeus). **Range:** Widespread Neotropical (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Ornamental/commercial. **Natural history:** Adults have been found on *Chamaedorea cataractum*, in rotten roots *Manihot esculenta* Crantz, in palm seed, and in roots of cassava (*Manihot esculenta* Crantz) (Woodruff and Baranowski 1985). This species is primarily a pest of bananas (*Musa sapientum* L.) and sugarcane (*Saccharum officinarum* L.) (O'Brien and Thomas 1990). **Other localities:** Dade Co.: Homestead, 2.iii., 22.x., 27.ix., 1.xii. **Literature records:** Homestead (Woodruff and Baranowski 1985; introduced but not

established); southern Dade Co., near Homestead (O'Brien and Thomas 1990).

*Metamasius mosieri* Barber. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland. **Habitat:** Hardwood hammock. **Natural history:** In south Florida, adults of this native species have been collected on dead branches of cabbage palmetto, *Sabal palmetto* (Walt.) Lodd. (Blatchley 1922), on dead leaves cabbage palmetto, on dead *Tillandsia utriculata* L. (Blatchley 1925), on fern growth near crown of *Sabal palmetto* and on oak (Barber 1920), and on *Bumelia celastrina* var. *angustifolia* (Blatchley 1932). Adults also have been reared from a bromeliad (Bromeliaceae) (O'Brien and Thomas 1990). **Other localities:** Dade Co.: Everglades National Park, Paradise Key, 1.iv.; Everglades National Park, Royal Palm Park, 7.iii., 20.iii., 23.iii., 4.iv. Monroe Co.: Cape Sable, 21.ii. **Literature records:** Paradise Key (Barber 1920), Cape Sable (Blatchley 1922, 1932), Royal Palm Park (Blatchley 1925, 1932).

*Scyphophorus acupunctatus* Gyllenhal. **Range:** Widespread Neotropical, western United States (introduced). **Distribution in south Florida:** Mainland. **Habitat:** Coastal scrub, ornamental/commercial. **Natural history:** Larvae mine the roots and stems of *Agave*, *Furcraea* and *Yucca* (Agavaceae) (Woodruff and Pierce 1973). Sleeper (1957) recorded a single specimen from Cape Sable on flowers of *Agave sisalana* Perrine. **Literature records:** Cape Sable\* (Sleeper 1957; Woodruff and Pierce 1973).

*Sphenophorus australis australis* (Chittenden). **Range:** Widespread Neotropical and North America. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Hosts from throughout the species range are *Typha latifolia* L. (Typhaceae) and *Sparganium eurycarpum* Engelm. (Sparganiaceae) (Vaurie 1951). **SBP localities:** 7; xi-iii. **Other localities:** Dade Co.: Coral Gables, 19.v.; Homestead, 24.v., 1.xii.; Miami, 23.v.; Port Everglades, 13.v. Monroe Co.: Key Largo, 27.xi.

*Sphenophorus callosus* (Olivier). **Range:** Widespread North America and Mexico. **Distribution in south Florida:** Mainland. **Habitat:** Pineland, wetland margins. **Natural history:** *Cyperus esculentus* L. (Cyperaceae) is the preferred host of this species but other sedges and grasses (Poaceae) are also recorded as hosts (Vaurie 1951). This species is especially destructive to corn in the southern United States and the adults also do great damage to rice and peanuts. **SBP localities:** 4; vi-viii. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 28.iii., 13.xii. **Literature records:** Biscayne Bay\* (Vaurie 1951)



*Sphenophorus cariosus* (Olivier). **Range:** Widespread North America, Mexico and Guatemala. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** This species has been associated with various species of Cyperaceae including nine species of *Cyperus* and *Scirpus*, and *Rhynchospora corniculata* (Lam.) Gray (Vaurie 1951). It also has damaged corn in Missouri (Vaurie 1951). **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 17.iii., 12.xii. Monroe Co.: Cape Sable, 24.ii. **Literature records:** Biscayne Bay\* (Vaurie 1951).

*Sphenophorus cubensis* Buchanan. **Range:** Florida and West Indies. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** This species is noted as breeding in *Cyperus rotundus* L. (Cyperaceae) in Cuba (Vaurie 1951). **Other localities:** Dade Co.: Homestead, 20.i., 12.iv.; Miami Springs, 3.iii. Monroe Co.: Key West, 25.viii. **Literature records:** Miami, Homestead (Vaurie 1951).

*Sphenophorus minimus* Hart. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins, ruderal/roadsides. **Natural history:** A variety of grasses (Poaceae) are the common hosts for this species although it has also been recorded from other plants (Vaurie 1951). **Other localities:** Miami, 15.i.

*Sphenophorus necydaloides* (Fabricius). **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** *Panicum repens* L. (Poaceae) is the only known host plant (Vaurie 1951). **SBP localities:** 4; vii-xii. **Literature records:** Coral Gables\*, Miami\* (Vaurie 1951).

*Sphenophorus pontederiae* Chittenden. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Wetland margins. **Natural history:** Adults of this species have been reared from roots of *Pontederia cordata* L. (Pontederiaceae) in Louisiana (Vaurie 1951). **Other localities:** Dade Co.: Miami, 19.xii.

*Sphenophorus velutinus* (LeConte). **Range:** Southeastern United States. **Distribution in south Florida:** Mainland and Upper Keys. **Habitat:** Wet/dry prairie, wetland margins. **Natural history:** Adults have been collected sifting roots of dead wire grass (Blatchley 1928). **SBP localities:** 6; vii-xi. **Other localities:** Dade Co.: Everglades National Park, Royal Palm Park, 14.xii.; Jct. 41/98, 4mi.N.W., 21.vii. **Literature records:** Royal Palm Park (Blatchley 1928), Homestead\*, Upper Matecumbe Key\*, Paradise Key\* (Vaurie 1951).

*Sphenophorus venatus vestitus* Chittenden. **Range:** Widespread North America, Mexico, West Indies. **Distribution in south Florida:** Mainland and Lower Keys. **Habitat:** Wet/dry prairie, coastal scrub. **Natural history:** Hosts of this species throughout the species range

are various grasses (Poaceae), *Cyperus esculentus* and *Scirpus validus* (Woodruff 1966, Vaurie 1951). **Other localities:** Dade Co.: Chekika State Recreation Area, 12.x.; Coral Gables, 3.vi.; Dade City, 17.x.; Everglades National Park, Pa-ha-ow-kee, 5mi.W., 24.v.; Everglades National Park, Royal Palm Park, 21.iii.; Miami, 12.v.; South Miami, 20.i. Monroe Co.: Big Pine Key, 13.vi., 16.vii.; Dry Tortugas, Garden Key, 10.vii.; Bush Key, 14.vii. **Literature records:** Dade County (Woodruff 1966; Fig. 1), Miami, Miami Beach\*, Biscayne Bay\*, Everglades (Vaurie 1951).

*Sphenophorus zae* Walsh. **Range:** Widespread North America. **Distribution in south Florida:** Mainland. **Habitat:** Pineland. **Natural history:** The primary hosts of this species are *Poa pratensis* L. and *Phleum pratense* L. (Poaceae) (Vaurie 1951). **SBP localities:** 4; vii-xii. **Other localities:** Dade Co.: Miami, 7.ii.

## An overview of the fauna

A total of 290 species of Curculionioidea (excluding Scolytinae and Platypodinae) are recorded from Dade and Monroe Counties in southern Florida (Table 2). Known ranges of these species and their distributions within south Florida are summarized in Tables 3 and 4. A summary of host plant associations also is presented (Table 5). A more comprehensive analysis of the fauna, addressing diversity, host plant associations and specificity, distributional patterns and endemism, biogeographic relationships and origins, speciation patterns, and habitat associations and specificity will be presented elsewhere (Anderson and Peck in press).

No species of Nemonychidae is recorded, although 2 species of *Cimberis* are known from central and northern Florida where they are associated with pines (Kuschel 1989). Their range may eventually be found to extend south into Dade County in pineland habitat.

The family Anthribidae is represented by 22 species placed in 12 genera (Table 2). Species of Anthribidae generally are associated with fungi, and most were collected from dead plants or plant parts, or were collected in berlese samples of leaf litter. Of particular note is the first United States record for the genus *Homocleous* Jordan and the Cuban species *H. distentus* Frieser and *H. sexverrucatus* (Suffrian). Only *Phoenicobiella chamaeropsis*, which is associated with Arecaceae, shows any degree of host plant specificity. Four of the anthribid species recorded in south Florida are endemic to southern Florida, and an additional 3 are restricted to Florida. Eight of the species are widespread North American in distribution, 2 are found throughout the southeastern United

States (1 also in the Bahamas), 1 is widespread Neotropical, 3 are found in Florida and the West Indies, and 1 is an introduced cosmopolitan species, *Araecerus fasciculatus*. Three unnamed species are recorded; 1 unnamed species in the genus *Choragus* and 2 undescribed species in the genus *Ormiscus*.

The family Belidae is represented by 2 species of *Rhopalotria*, *R. mollis* and *R. slosoni*, both of which are restricted in their North American distributions to extreme southern Florida. *Rhopalotria slosoni* is endemic and native to southern Florida and is associated with *Zamia pumila* L., a native cycad in pineland habitat; *R. mollis* is introduced from Mexico and is associated with *Z. furfuracea* L., an introduced, ornamental cycad.

The family Attelabidae is poorly represented in southern Florida; only 3 species in 3 genera are known. Only 1 species, *Homeolabus analis*, associated with species of *Quercus* (Fagaceae), demonstrates host plant specificity. One species, *Eugnamptus striatus*, is endemic to Florida (but closely related to a widespread North American species), and 2 species are widespread North American.

The family Brentidae is represented by 14 species in 6 genera; 9 are species in the genus *Apion*. Known hosts are: Fabaceae for 3 species of *Apion*; Cucurbitaceae and Asteraceae for 1 species each of *Apion*; Pinus (Pinaceae) for 1 species of *Podapion*; and Convolvulaceae for *Cylas formicarius*. One species each of *Apion* and *Podapion* are endemic to Florida (but the latter may prove conspecific with a widespread North American species, *P. gallicola* Riley), 4 species are found in the southeastern United States, 2 are widespread in North America, 1 is widespread Neotropical, 4 are found in Florida and the West Indies, and 1 is an introduced tropical species, *Cylas formicarius*. One species of *Podapion* presently is considered undescribed.

The family Curculionidae is represented by 249 species in 115 genera. Especially well-represented are the genera *Listronotus* (21 species), *Anthonomus* (14 species), *Acalles* (13 species), *Conotrachelus* (11 species), *Tyloderma* (10 species), *Sphenophorus* (10 species) and *Baris* (8 species). Of these, all but *Acalles* are among the most diverse curculionid genera in Florida.

Five undescribed species are unassigned to genus; 2 are Anthonomina, 3 are Cryptorhynchina. Another 3 species, 1 in each of *Stenomimus*, *Baris*, and *Geraeus*, are unnamed. Species considered as undescribed are recorded for the following genera: *Prosaldius* (1), *Acalles* (6), *Calles* (1), *Zascelis* (1), *Notolomus* (1), *Lixus* (1), and *Conotrachelus* (1). Nineteen of these 20

unnamed and undescribed species (excepting *Acalles* new species 6) are known presently only from Florida.

Host plant associations (Table 5) are unknown for 105 species of Curculionidae. Thirty-one species, largely Polydrosini, Cossoninae, and Rhynchophorinae, are considered generalists found in association with a range of plant families. For Rhynchophorinae considered generalists (excluding species of *Sitophilus*), the range of host plant families is restricted to Liliopsida (monocotyledons). Only 2 curculionid species are associated with gymnosperms, 1 each with Pteridaceae and Pinaceae. Twenty-three species are associated each with a family of Liliopsida; 8 are Rhynchophorinae, all species of which (excluding species of *Sitophilus*) are associated with Liliopsida. Other species of Curculionidae are associated each with 1 of 30 families of Magnoliopsida. Nine species are associated with Polygonaceae and 7 with each of Onagraceae and Fabaceae.

Distribution patterns exhibited by south Florida Curculionidae are summarized in Table 4. Given the relatively young geological age of south Florida, a surprisingly large number of endemics are known; 35 species (14%) are restricted in their known distributions to this region. Of these, 14 are of temperate affinity, 21 of tropical affinity. A further 32 species (12%) found in south Florida are endemic to Florida; 15 of these are of temperate affinity, 17 of tropical affinity. Other distributions are as follows: 31 species (13%) are found in the southeastern United States; 73 species (30%) are widespread North American; 27 species (10%) are widespread Neotropical; and 26 species (10%) are found in Florida and the West Indies. Twenty species (8%) are introduced, 16 from tropical regions, 1 from temperate regions, and 3 are cosmopolitan.

## Concluding statements

Despite extensive field sampling and examination of specimens in collections, it is clear that much still remains to be documented about the southern Florida fauna of Curculionoidea. Although the area is known to be relatively young in geological age, there is a surprising number of weevil species endemic to southern Florida. Is this endemism real or an artifact of an incomplete knowledge of the West Indian fauna? Only further field work will assist in addressing this question. Host plant relationships are poorly documented with hosts of 105 species of Curculionidae not known with any degree of confidence. Again, further field work proves necessary.

This study is one of the more complete and intensive regional surveys conducted and published for Curculionoidea. Twenty apparently undescribed species were recorded, 5 of problematical generic placement. If nothing else, the current rudimentary state of our knowledge for many groups of insects, even in North America, must be underscored.

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