NOTES ON THE DISTRIBUTION AND BIOLOGY OF SOME FLORIDA LEAF BEETLES (COLEOPTERA: CHRYSOMELIDAE)

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ABSTRACT

New host plant associations and distribution data are given for 45 species of Florida Chrysomelidae. Eleven species or subspecies are newly recorded from the state: Babia quadriguttata (Olivier), Cryptocephalus mutabilis Melsheimer, Diachus chlorizans (Suffrian), Brachypnoea puncticollis (Say) [new combination]; Brachypnoea clypealis (Horn) [new combination], Glyptoscelis albicans Baly, Metachroma zayasi Blake, Microtheca picea (Guerin), Disonycha alternata (Illiger), Disonycha d. discoidea (Fabricius), Disonycha d. abbreviata Melsheimer). Metachroma zayasi Blake represents a new U.S. record. Spintherophyta igneicollis (Baly) is removed from the Florida fauna list.

Blatchley (1923b, 1924) published a list of Chrysomelidae from Florida, giving host plant records for a few species. Since then very little has been published either about feeding habits or new Florida records for this important beetle family. This paper gives data on foodplants and ranges not found in Blatchley or in more recent generic revisions that have treated the Florida chrysomelid fauna. In the following, collections and observations by individual authors are designated by that author's initials, and numbers in parentheses following dates refer to numbers of specimens collected. Specimens are deposited in the collections of Florida A&M University [FAMU], the Florida State Collection of Arthropods [FSCA], the personal collection of David Furth [DGFC], the Peabody Museum of Natural History, Yale University [YPM], and Cornell University [CU].

CLYTRINAE

ANOMOEA LATICLAVIA (FORSTER). During successive springs, RWF observed mating swarms of this beetle on saplings of persimmon (*Diospyros virginiana* L., Ebenaceae) in Leon Co., Tallahassee, 17-V-1987 (22), RWF [FAMU]. Other

records from the same plant are from Alachua Co., Gainesville, 10-V-1971 (16), F.W. Mead; 23-IV-1960 (7) H. V. Weems Jr.; Baker Co. Glen Saint Mary, 23-V-1957 (30), E. W. Holder Jr. [FSCA]. Beetles congregated on the new unfolding leaves and caused substantial damage from their feeding. Monrós (1953) reported similar mating aggregations for other genera of the Clytrinae.

BABIA QUADRIGUTTATA (OLIVIER). Neither Blatchley nor Moldenke (1970) listed this species from Florida, although it is known from Georgia and Alabama. In Florida it has been found in *Marion Co.*, Ocala Nat. For., Grassy Pond Campground, 31-IV-1986 (1), J. K. Liebherr [CU] (new state record).

CRYPTOCEPHALINAE

BASSAREUS LITURATUS (FABRICIUS). Blatchley (1923b:55) reported this and two subspecies from "sweeping natal grass... on oak sprouts, ferns in dense hammocks and dwarf huckleberry... [and] sweeping grass on low herbage on old pond sites." Kirk (1969) reported it from wheat and oats in South Carolina. MCT collected this species on beggar's tick, Desmodium sp. (Fabaceae), in Marion Co., Ocala, 12-VII-1977 (6), MCT [FSCA].

CRYPTOCEPHALUS BISPINUS SUFFRIAN. White (1968) recorded this species from sugarcane, in cotton fields, and on Stillingia sylvatica Garden ex L. (Euphorbiaceae). RWF found the species to be moderately common in open second growth flatwoods on Quercus laevis Walt. (Fagaceae) in Leon Co., Apalachicola Nat. For., Leon Sinks Trail, 14-VIII-1988 (3), RWF; on dogfennel (Eupatorium leptophyllum DC., Asteraceae), Apalachicola Nat. For., Lost Lake, 9-VII-1989 (2), RWF; and on Quercus falcata Michx., Springhill, Fischer Cr., 31-VII-1988 (1), RWF, C. A. Flowers [FAMU].

CRYPTOCEPHALUS GUTTULATUS OLIVIER. White (1968) recorded this species from cotton, okra, and honey locust, while Kirk (1970) also listed okra as a South Carolina host. Blatchley (1923b, 1928) recorded the species from oak and hickory in Florida. We found it on Salix (Salicaceae) in Gadsden Co., Rocky Comfort Cr., 5.3 mi SW of Quincy, on 10-VII-1987 (1), RWF, M. L. Pescador, J. Jones; on Diospyros virginiana L. (Ebenaceae), Leon Co., Tallahassee, 6-VII-1988 (1), RWF [FAMU]; and on Quercus, Lake Co., Camp McQuarrie, 12-IV-1976 (1), MCT [FSCA]. It has also been taken at light in Marion Co., Ocala, 21-V-1977 (1), blacklight trap, MCT [FSCA].

CRYPTOCEPHALUS MUTABILIS MELSHEIMER. Neither Blatchley (1923b), Schwarz (1878), nor White (1968) recorded this species from Florida. MCT collected it on the foliage of an unidentified shrub in a dense hammock in Marion Co., Ocala, 2-VII-1977 (1), 5-VII-1977 (1), MCT [FSCA] (new state record).

CRYPTOCEPHALUS NANUS FABRICIUS. White (1968) and Blatchley (1923a) recorded this species from Florida but neither gave any data on plant associations. RWF collected it on southern wax myrtle (Myrica cerifera L., Myricaceae) in Duval Co., Jacksonville, 21-IV-1988 (1), RWF; and on willow (Salix, Salicaceae) in GEORGIA: Decatur Co., Attapulgus, Attapulgus Cr., 23-VI-1988 (2), RWF, M. L. Pescador, J. Jones [FAMU].

CRYPTOCEPHALUS OCHRACEUS FALL. White (1968) saw only one specimen of this species when he revised the genus Cryptocephalus. In the past several years MCT has collected or seen six specimens tentatively identified by White as C. ochraceus in Indian River Co., St. John's Marsh, 24-30-IX-1975 (1), W. L. Bidlingmayer; on Myrica cerifera L., Myricaceae, Vero Beach, IX-1977 (1), MCT; and Marion Co., Ocala, IX/XI-1977 (4), MCT [FSCA]. The specimen

from the St. John's Marsh was in a mosquito suction trap, and four specimens from Ocala were in ultraviolet light traps.

DIACHUS AURATUS (FABRICIUS). MCT found this species on Lepidium virginicum L. (Brassicaceae) in Marion Co., Ocala, 18-XII-1976, 8-I-1977 (3), MCT [FSCA]. Previously recorded host plants for the species include "dwarf huckleberry in open pine wood" (Blatchley 1923a:54); Sambucus canadensis L. (Caprifoliaceae) and Salix sp. (Salicaceae) (Balsbaugh and Hays 1972); hickory, evening primrose, oak, "mums," pasture grasses and lespedeza (Kirk 1969, 1970).

DIACHUS CHLORIZANS (SUFFRIAN). RWF collected this species on Rhus copallina L. (Anacardiaceae) in Gadsden Co., Rocky Comfort Cr., 5.3 mi SW Quincy, 10-VII-1987 (2), RWF, M. L. Pescador, J. Jones (new state record). Rhus sp. was recorded previously from Georgia as a host for the species (Schaeffer 1934).

TRIACHUS CERINUS LECONTE. This species has been collected on black titi (Cliftonia monophylla (Lam.) Britt. ex Sarg.; Cyrillaceae) in Gadsden Co. Ocklawaha Cr., Hwy. C-65, 6.6 mi N Hosford, 14-VI-1988 (2), RWF, M. L. Pescador, J. Jones; and on titi (Cyrilla racemiflora L., Cyrillaceae), same locality and collectors, 14-VI-1988 (4) [FAMU]. Blatchley (1923b) also listed oak and wax myrtle.

TRIACHUS POSTREMUS LECONTE. Blatchley (1923a) noted only one state record (St. Augustine) which he considered doubtful. This species has been collected on Baccharis halimifolia L. (Asteraceae) in Duval Co., Jacksonville, 21-VI-1988 (1), RWF; on B. angustifolia Michx., Hernando Co., Hwy. S-595, W of Weekee Wachee, 5-VIII-1988 (5), RWF, M. L. Pescador; in Liberty Co., Telogia Cr., Hwy. C-271, 6.6 mi NW Hosford, 8-X-1986 (1), RWF, M. L. Pescador, J. Jones; Monroe Co., Flamingo Camp Ground, 23-IV-1973 (1), C. W. & L. B. O'Brien [FAMU].

LAMPROSOMATINAE

Oomorphus Floridanus (Horn). Blatchley (1928:71) collected this species at Dunedin, Pinellas Co., and at Royal Palm Park, Dade Co., and noted, "It occurs in spring on the foliage of young pine and in December was beaten from dead limbs and vines in the hammock." MCT collected a large series of specimens on Ficus citrifolia Mill. (Moraceae) in Dade Co., Fuch's Hammock, 27-IV-1982 (40) [FSCA]. It has been collected in Monroe Co., Key Largo, 15-V-1977 (4), R. Turnbow, blacklight trap; Key Largo, IV-VII [no other data] (9) [FSCA]; Upper Key Largo [no further data] (5) [FAMU]. There are also specimens collected in dung in the nest of a packrat, Neotoma floridana smalli Sherman, in Monroe Co., Key Largo, 22-III-1960 (2), R. E. Woodruff [FSCA].

EUMOLPINAE

BRACHYPNOEA CLYPEALIS (HORN), new combination. The Nearctic species of this large, mostly Neotropical genus were reviewed by Schultz (1980). Recent literature has treated them under the generic name Nodonota Lefèvre. Schultz (1980) incorrectly invoked the "50 year rule" and declared Brachypnoea, the senior synonym of Nodonota, a nomen oblitum. Monrós and Bechyné (1956) correctly noted that Brachypnoea Gistel, 1848, has priority over Nodonota Lefèvre, 1885.

Blatchley (1928) did not list this genus from Florida but RWF found this and the following species in the Panhandle on Eupatorium capillifolium (Lam.)

Small in Gadsden Co., Attapulgus Cr., Hwy. C-159, 4 mi NW Havana, 29-VI-1987 (1), RWF, M. L. Pescador, J. Jones; Willacoochee Cr., Hwy C-141, 6 mi N Quincy, 11-VI-1987 (9), RWF, M. L. Pescador; Rocky Comfort Cr., 5.3 mi SW Quincy, 14-VI-1988 (7), RWF, M. L. Pescador, J. Jones; Camp Cr., 8 mi SW Quincy, Hwy. C-274, 10-VI-1987 (3), RWF, M. L. Pescador, J. Jones; and on Ambrosia sp., Leon Co., Tallahassee, Florida A&M campus, 15-VI-1987 (7), RWF; also in Liberty Co., Bristol, 1-VII-1987 (10), RWF, M. L. Pescador; Santa Rosa Co., Berrydale, 28-VII-1987 (1), RWF, K. I. Ketchem [FAMU] (new state record). Brachypnoea clypealis is widespread and found on a wide variety of plants but Eupatorium and Ambrosia (Asteraceae) appear to be its true host plants.

BRACHYPNOEA PUNCTICOLLIS (SAY), new combination. RWF collected this species on Salix (Salicaceae) in GEORGIA: Decatur Co., Attapulgus, Attapulgus Cr., 23-VI-1988 (12), RWF, M. L. Pescador, J. Jones. It has also been collected in Gadsden Co., Willacoochee Cr., 6 mi N Quincy, Hwy. C-141, 11-VI-1987 (8), RWF, M. L. Pescador [FAMU] (new state record).

COLASPIS PSEUDOFAVOSA E. G. RILEY (=Colaspis favosa auct.). This species is not uncommon and has been swept, or beaten from a wide variety of plants. In August, 1988, an outbreak of this species occurred in Highlands Co., Brighton, on wax myrtle, 24-VIII-1988 (11), J. E. Eger [FAMU] where it defoliated wax myrtle (Myrica cerifera L., Myricaceae) plants in a Dow Chemical research plot. Ironically, Dow was growing the plants for the purpose of testing herbicides to control wax myrtle! The Colaspis caused a 30% reduction in growth of unsprayed plants (J. E. Eger, pers. comm.).

GLYPTOSCELIS ALBICANS BALY. A single specimen collected early in this century from Calhoun Co., Ocheesee, 9-IV-1927 (1), det. H. Dietrich [CU, labeled Glyptoscelis liebecki Blatchley] (new state record) represents the second species of Glyptoscelis known from Florida.

GLYPTOSCELIS PUBESCENS (FABRICIUS). Flowers (1990) published three records of this species, which at the time were the only known occurrences of Glyptoscelis in Florida. More recently it has been collected at Leon Co., Tall Timbers Res. Sta., 23-30-III-1986 (1), E. R. Hoebeke [CU].

METACHROMA LONGICOLLIS AENEICOLLIS HORN. RWF collected large numbers from a pure stand of Bahia grass (Paspalum notatum Fluegge, Graminae) which was planted along a state highway and kept closely mowed in Gadsden Co., Quincy Cr., 1 mi. E Quincy, Hwy. S-12, 23-IV-1988 (13), and 25-V-1988 (6), RWF, M. L. Pescador, J. Jones [FAMU].

METACHROMA ZAYASI BLAKE. Specimens of this species, previously known only from Cuba, were collected by beating buttonwood, Conocarpus erecta L. (Combretaceae), in Monroe Co. Key Largo, 12-XII-1991 (4), MCT [FSCA] (new U.S. record).

SPINTHEROPHYTA IGNEICOLLIS (BALY). This species was reported from south Florida as a probable incidental stray from South America (Flowers 1990). It has since come to our attention that a technician at FSCA inadvertently mixed specimens from Fuch's Hammock (the Florida locality) with South American specimens. Therefore, this and all other FSCA records from Fuch's Hammock taken in April 1980 must be considered suspect.

CHRYSOMELINAE

CHRYSOLINA SUBOPACA (ROGERS). Including this species in the genus Chrysomela, Blatchley (1924:4) reported that "adults occur on cacti and thistle [and]

rape...." No host plants for this species were recorded by Wilcox (1972) or Balsbaugh and Hays (1972). It has been taken on the blooms of Pennyroyal, Satureja rigida Bartr. ex Benth., (Labiatae) in Indian River Co. in pine flatwoods south of Vero Beach, 18-I-1975 (I), MCT [FSCA]. Numerous chrysomelid larvae also were present in the dense flower heads of the plants. On 7 January 1976, MCT collected 6 more adults on the same plant or crawling on the sandy soil nearby at the same location [FSCA]. Satureja rigida is a precinctive Florida shrub (Baker 1938). While all the northern U.S. species of Chrysolina seem to feed on Artemisia and related Asteraceae, it is possible that the three southern species feed on Labiatae, like the corresponding European species (P. Jolivet, pers. comm.).

MICROTHECA OCHROLOMA STÅL. This species was apparently introduced from South America and is known from Louisiana, Alabama, and Florida and has been recorded as feeding on a variety of Brassicaceae as well as corn, Irish Potato, and roses (Balsbaugh, 1978). DGF collected a large series feeding on Rumex pulcher L. (Polygonaceae) in Sarasota Co., Myakka River State Park area, 5-IV-1985, DGF [YPM].

MICROTHECA PICEA (GUÉRIN). This Neotropical species has been recorded previously in the U.S. only from Alabama (Balsbaugh 1978). MCT found it on Lepidium virginicum L. (Brassacaceae) in Hernando Co., Richloam Tract, Withlacoochee State Forest, 18-IV-1992 (2), MCT (new state record).

PHAEDON VIRIDIS (MELSHEIMER). Apparently no host plants have been recorded for this beetle in Florida; Blatchley (1924:4) stated "Habit not known . . . rare." MCT collected the species on Lepidium virginicum L. (Brassacaceae) in Marion Co., Ocala, 11-XII-1976 (2); 16-XII-1976 (3); 12-III-1977 (1); 17-III-1976 (2); 27-III-1977 (2), MCT [FSCA].

GALERUCINAE

MONOXIA BATISIA BLATCHLEY. Blatchley (1924) reported this species on saltwort (Batis maritima L., Bataceae). A more recent collection was made on Lycium carolinianum Walt. (Solenaceae) in Wakulla Co., nr. Newport, 24-IV-1986 (4), D. Futuyma [CU].

ORTHALTICA COPALINA (FABRICIUS). Blatchley (1924), quoting an earlier publication of Horn, listed this species but cited no definite state records. It occurs in Alachua Co., 3 mi W of Archer, sweeping oak, 23-III-1953 (1); 24-III-1953 (1), B. K. Dozier [FSCA]; Gadsden Co., Torreya St. Pk. at UV light, 22-IV-1981 (1), J. K. Liebherr [CU]. Although long considered a flea beetle, the genus Orthaltica Crotch is more properly placed in the Galerucinae (Furth 1988).

ALTICINAE

ALTICA MAREVAGANS HORN. Blatchley (1924:20) said that this species is found "along the sea coast region from Florida to New Jersey," in "Gainesville on Oenothera," "also on Jussiaea (Onagraceae) Apr. Sept.," "maple June, Helenium (Asteraceae) July, Solidago (Asteraceae) Oct.," "on the sea purslane, Sesuvium maritimum Walt. (Aizoaceae)." DGF has collected and bred this species on various Onagraceae: Oenothera humifusa Nutt. in Sarasota Co., Lido Beach, 16-IV-1975, 9-12-V-1981, 14-IV-1985, IV-1990, DGF; on Obiennis L. in Liberty Co., Apalachicola River, 1 mi W. Bristol, 17-VI-1987, DGF; on Oenothera sp. in Broward Co., Hollywood, 12-XII-1985, DGF; on Gaura angustifolia Michx. (Onagraceae) in Manatee Co., Anna Maria Key,

Coquina Beach, 4-IV-1985, DGF; and on Ludwigia octovalvis (Jacq.) Raven in Palm Beach Co., 23-II-1987, DGF [DGFC].

APHTHONA SCHAEFFERI BLATCHLEY. Blatchley (1927:144) described this species from Royal Palm Park (Dade Co.) "Sweeping flowers of herbage along the margins of swales...." DGF collected many feeding adults on Sebastiana fruticosa (Bartr.) Fern (Euphorbiaceae) in Wakulla Co., Waicissa, 10 mi S, 16-VI-1987 [DGFC].

ARGOPISTES SCYRTOIDES LECONTE. This endemic Florida species was reported by Horn (1889) only from Biscayne Bay. Blatchley (1924) added Jupiter and Miami, and reported the larvae mine the leaves of Forestiera porulosa (Michx.) (Oleaceae). It is not uncommon in the salt marshes south of Vero Beach in *Indian River Co.*, S of Vero Beach, sweeping, 16-VII-1975 (1); 28-VII-1975 (1); 7-XI-1975 (1); 19-III-1976 (2), MCT [FSCA].

Argopistes scyrtoides has also been found in Forestiera segregata (Jacq.) in Flagler Co., Flagler Beach State Recreation Area, 14-VIII-1987 (11), RWF; 2-I-1988 (3), R. W. & M. P. Flowers; 8-VIII-1989 (7), RWF [FAMU]. Adults apparently occur year round if its host plant retains leaves: the January specimens were swept from a plant growing in a sheltered area which was one of a few that had not dropped its leaves. Flagler County is the northernmost record for this species. Oleaceae is the hostplant family for both New and Old World Argopistes (Blake 1934).

CAPRAITA OBSIDIANA (FABRICIUS). Blake (1927) noted this species (together with the variety C. o. flava Blake) as occurring on Ilex (Aquifoliaceae), Vaccinium (Ericaceae), Euonymus (Celastraceae), and oak. The species (including the variety) occurs on beautyberry (Callicarpa americana L., Verbenaceae) in Gadsden Co., Little River, Hwy. S-12, 5 mi N Havana, 14-VIII-1987 (1), RWF, M. L. Pescador; Gadsden Co., Rocky Comfort Cr., Hwy. S-267, 6.7 mi S Quincy, 2-IX-1987 (2), RWF, M. L. Pescador; on Cephalanthus occidentalis L. (Rubiaceae), Liberty Co., Telogia Cr., Hwy. S-20, 2.5 mi E Bristol, 29-XI-1988 (4), RWF, M. L. Pescador; and on Fraxinus pennsylvanica Marsh., (Oleaceae), same locality and collectors, 24-XI-1988 (5), RWF, M. L. Pescador, R. G. Flowers [FAMU]. Only plants growing in moderate to dense shade seemed to be attacked; plants growing in full sun showed little evidence of beetle damage.

CAPRAITA SALTATOR (CSIKI). This species was originally described as Oedionychis saltatra Blatchley (1923a) from Dunedin and Sanford (Volusia Co.) from 20 February until 10 June, but with no foodplant information. DGF found it feeding on Ampelopsis arborea (L.) Koehne (Vitaceae) in Alachua Co., Gainesville, 19-VI-1987, DGF [DGFC].

CAPRAITA SPILONOTA (BLAKE). Blake (1927) saw only three specimens of this species when she described it and, apparently, it has not been reported since. MCT collected the species by sweeping in dense hardwood hammocks in Marion Co., Ocala, 27-III-1977 (1), 4-V-77 (1), MCT; Alachua Co., San Felasco Hammock Nature Preserve, 20-IV-1980 (1), MCT; Gainesville, 5-IV-1981 (3), MCT [FSCA]. A further record is from Liberty Co., Apalachicola Bluffs and Ravines Preserve, 2 mi N Bristol, 24-III-1986 (1) J. D. Oswald [CU].

DIBOLIA BOREALIS CHEVROLAT. Parry (1974), in his revision of the genus, saw only one specimen from Florida which had no specific locality. The following are more complete records: Alachua Co., Gainesville, at light, 1-IV-1962 (4), H. V. Weems, Jr. [FSCA]; Gadsden Co. Quincy Cr., SR-12, 1 mi E of Quincy, 17-XII-1987 (1), RWF & M. L. Pescador; Holmes Co., Hwy 177A,

NW of Bonifay, 27-IV-1987 (13), R. G. Flowers & RWF; 2 mi NW of Gitney, 27-IV-1987 (1), R. G. Flowers & RWF [FAMU].

DISONYCHA ALTERNATA (ILLIGER). Neither Blake (1933) nor Blatchley (1924) recorded this species from Florida. MCT collected it on Salix (Salicaceae) in Liberty Co., Torreya State Park, 6-VI-1982 (8), MCT [FSCA] (new state record).

DISONYCHA CONJUGATA (FABRICIUS). Blatchley (1924) recorded this species from northern Florida south to Ft. Myers (Lee Co.) on various species of Polygonum sp. (Polygonaceae). Blake (1933) recorded this species south to Miami (Dade Co.) also from Polygonum. DGF collected this species in abundance feeding on Polygonum punctatum Ell. in Sarasota Co., Myakka River State Park area, 5-IV-1985, DGF [DGFC].

DISONYCHA DISCOIDEA DISCOIDEA (FABRICIUS). Neither Blake (1933) nor Blatchley (1924) recorded this species from Florida. It has been found on Passiflora incarnata L. (Passifloraceae) in 29-VI-1935 (1) E. West [FSCA]. Other records are from Alachua Co. Gainesville, 16-IV-1937 (2), A. N. Tissot; 14-VII-1936 (1) E. West; Alachua Co., [no locality or collector] 6-VIII-1936 (1) [FSCA]; Holmes Co., Pittman boat ldg., 27-IV-1987 (1), RWF, R. G. Flowers [FAMU]; Liberty Co., Apalachicola R., 1 mi W. Bristol, 17-VI-1987 (2), DGF [DGFC]; Marion Co., Ocala, dense hammock, 27-III-1977 (1), MCT [FSCA]; "Santa Fe River," 9-III-1975 (1), A. E. Graham (new state record).

DISONYCHA D. ABBREVIATA MELSHEIMER. This variety is also a recent addition to the Florida fauna list, having been collected in Alachua Co., Gainesville, 15-VII-1984 (1), MCT [FSCA]; Gadsden Co., Ocklawaha Cr., Hwy. S-267, 10 mi S Quincy, 2-IV-1987 (1), and 6-V-1987 (3), RWF, M. L. Pescador [FAMU] (new state record).

DISONYCHA PENSYLVANICA (ILLIGER). Blatchley (1924) considered D. conjugata (Fab.) and D. parva Blatchley to be subspecies/varieties of D. pensylvanica. Although he considered the nominate form to be also found throughout Florida, he gave no foodplant information. Blake (1933) gave the foodplant as Polygonum and also recorded the species as occurring throughout Florida. DGF collected the species feeding on Polygonum setaceum Baldw. (Polygonaceae) in Alachua Co., Gainesville, 19-VI-1987, DGF [DGFC].

EPITRIX FASCIATA BLATCHLEY. Blatchley (1918) described this species from very few specimens from Dunedin (Pinellas Co.). Blatchley (1924:22) mentioned a few other south Florida localities and said only that it is a "submaritime species found in spring on low herbage along the margins of salt water lagoons." He also listed E. parvula (Fabricius) as the "tobacco flea beetle" common around Dunedin in March and April. White and Barber (1974) pointed out that the "tobacco flea beetle" is actually E. hirtipennis (Melsheimer), that E. parvula is a synonym of E. fasciata, and that foodplants of E. fasciata include eggplant, tomato, tobacco, potato, Physalis (Solanaceae), squash, okra, and wild mustard. All except the last three are assumed to be true foodplants. DGF collected a large series in the type of habitat described by Blatchley (1918), feeding on Solanum nigrescens M. Martens and Galeotti in Sarasota Co., Lido Beach, 16-IV-1975, DGF [DGFC].

EPITRIX SP., NEAR SOLANI BLATCHLEY. A series of an Epitrix feeding on Physalis angustifolia Nutt. in Manatee Co., Anna Maria Key, Coquina Beach, 4-IV-1985, DGF [DGFC] was at first thought to be E. solani Blatchley, known only from the original description (as Crepidodera) (Blatchley 1925), found commonly on Solanum verbascifolium L. in Dade Co. DGF has compared these specimens with the type of E. solani and determined that they are not conspecific.

GLYPTINA BRUNNEA HORN. RWF found this species to be abundant in the Panhandle area feeding on the shrub Sebastiana fruticosa (Bartr.) Fern. (Euphorbiaceae) in Gadsden Co., Little River, Hwy. S-12, 5 mi NW Havana, 19-VIII-1987 (4), RWF, M. L. Pescador, J. Jones; Rocky Comfort Cr., Hwy. C-56B, 8.5 mi S Quincy, 2-IX-1987 (1), RWF, M. L. Pescador, J. Jones; Willacoochee Cr., 6 mi N Quincy, Hwy. C-141, 18-XI-1987 (2), RWF, M. L. Pescador; Holmes Co., Pittman boat ldg., 27-IV-1987 (1), R. G. & RWF; Liberty Co., Telogia Cr., Hwy. S-28, 2.5 mi E Bristol, 11-II-1987 (8), 4-III-1987 (16), 2-IV-1987 (11), and 29-IV-1987 (8), RWF, M. L. Pescador, J. Jones [FAMU].

HORNALTICA ATRIVENTRIS (MELSHEIMER). Balsbaugh and Hays (1972) mentioned that although Wilcox (1954) gave its foodplant as Acalypha spp. (Euphorbiaceae), this species was collected in Alabama on Vicia sp. (Fabaceae) and Brassica sp. (Brassicaceae). These are certainly not true foodplants. DGF collected this species, and tested it to be certain of its feeding, on Acalypha gracilens A. Gray, Alachua Co., Gainesville, 11-VI-1987, DGF [DGFC]. DGF has also collected the species in Connecticut feeding on Acalypha sp.

KUSCHELINA DISCICOLLIS (CROTCH). RWF collected this species from Penestemon multiflorus Chapm. ex Benth. (Scrophulariaceae) in Leon Co., Apalachicola Nat. For., Lost Lake, 9-VII-1989 (2), RWF, C. A. Flowers [FAMU].

KUSCHELINA MINIATA (FABRICIUS). RWF collected this species on Seymeria cassioides (Walt.) Blake (Scrophulariaceae) in Franklin Co., St. Teresa Bch., 2-VII-1989 (4), RWF; Liberty Co., Apalachicola Nat. For., sweeping, 30-IX-1990 (3), RWF; Wakulla Co., Spring Creek, 19-IX-1992 (4), 10-X-1992 (30) RWF [FAMU]. Blatchley (1924) also listed dwarf huckleberry as a host of the species.

KUSCHELINA FALLAX (MELSHEIMER). RWF found and tested this species on Agalinis fasciculata (Ell.) Raf. (Scrophulariaceae) in Leon Co., Tallahassee, IX-1988 (6), RWF; Liberty Co., Apalachicola Nat. For., sweeping, 30-IX-1990 (3), RWF; on Agalinis sp.: Wakulla Co., Spring Creek, 19-IX-1992 (5), RWF [FAMU].

KUSCHELINA THORACICA (FABRICIUS). This species was collected on Trichostema dichotonum L. (Scrophulariaceae) in Volusia Co., Tomoka River St. Pk., 8-VIII-1989 (1), RWF [FAMU].

LONGITARSUS COTULUS BLATCHLEY. Blatchley (1924:34) recorded this species "on May weed or dog fennel, Anthemis cotula L. and allied Compositae" and "May Dec., on Eupatorium, Cephalanthus, velvet beans, chinquapin, etc..." DGF collected and tested specimens feeding on dog fennel, Eupatorium capillifolium (Lam.) Small (Asteraceae) in Wakulla Co., Waicissa, 10 mi S, 16-VI-1987, DGF; Taylor Co. Salem, 1 mi N, 18-VI-1987, DGF [DGFC]. The report by Blatchley on diverse foodplants is misleading because this species certainly feeds only on Eupatorium and possibly a few other Asteraceae.

Longitarsus tenuicornis Blatchley. Blatchley (1924:34) stated that this species is "common on low vegetation about the borders of ponds and lakes and at Dunedin on the fleshy crucifer, Cakile edentula, along the Bay front." DGF and RWF collected the species, always feeding on Phyla (formerly Lippia) nodiflora (L.) E. L. Greene (Verbenaceae), from 23 February through 19 June, at a variety of localities in Sarasota Co. Lido Beach, 13-IV-1975, 12-V-1981; Longboat Key, 15-IV-1975, 4-IV-1985; Myakka River State Park area, 5-IV-1985; Alachua Co., Gainesville, 19-VI-1987; Manatee Co., Anna Maria Key, Coquina Beach, 4-IV-1985; Palm Beach Co., Loxahatchee Nat. Wildlife Refuge, 23-II-1987 (all DGF, DGFC); Franklin Co., St. Joseph St. Pk., 13-V-1990

(11), RWF [FAMU]. The food plant is a very low ground cover which is often mixed in with landscaped lawns in Florida. Records on Brassicaceae were certainly only chance occurrences.

PSYLLIODES CONVEXIOR LECONTE. Blatchley (1924) recorded only radish as a host plant for this species. Kirk (1969) reported South Carolina records from "button clover" and sweeping pasture grasses. MCT found the species to be common on Lepidium virginicum L. (Brassicaceae) in Marion Co., Ocala, 11-XII-1976 (7); 16-XII-76 (15); 17-III-1977 (2); 22-III-1977 (14), MCT [FSCA]. A number of these Ocala specimens have blue-green elytra and appear to be color intergrades between P. convexior LeConte and P. elegans Horn. This, and the evidence of a common host plant suggests that the status of the two species should be more closely investigated.

PSYLLIODES ELEGANS HORN. Horn (1889) listed no host plants or specific localities when he described this species from Florida and Kansas. Blatchley (1924) reported it from a number of mostly coastal localities in peninsular Florida and stated that it occurs on Rumex acetosella L. (Polygonaceae) and "fleshy sea rocket" (? Cakile lanceolata (Willd.) O. Schultz, Brassicaceae). The normal foodplants of the species are Brassicaceae. It has been collected on Lepidium virginicum L. in Indian River Co., S. of Vero Beach, 19-III-1976 (12), MCT [FSCA]; and on Cakile lanceolata (Willd.) O. Schultz ssp. fusiformis (Greene) Rodman (Brassicaceae), Sarasota Co., Lido Beach, 16-IV-1975, DGF [DGFC].

SPHAERODERMA OPIMA (LECONTE). The species known by this name in the literature is not at all like the true (Old World) Sphaeroderma Stephens. Furth (1989) suggested that the species is closest to Heikertingerella Csiki or Pseudodibolia Jocoby and we currently consider it to be closest to Heikertingerella. DGF collected and tested many adults feeding on Ruella caroliniensis (Walt. ex Gmel.) Steud. (Acanthaceae) in Hamilton Co., Suwanee River State Park, 13-IV-1987, DGF [DGFC].

STRABALA RUFA FLORIDANA BLAKE. Blake (1953) recorded this subspecies from several vegetables; RWF and DGF found it on buttonweed (Diodia virginiana L., Rubiaceae) in Gadsden Co., Willacoochee Cr., Hwy. C-141, 6 mi N Quincy, 19-VIII-1987 (1), RWF, M. L. Pescador, J. Jones; Little R., Hwy. S-12, 5 mi SW Havana, 23-IX-1987 (2), RWF, M. L. Pescador, J. Jones; Little R., Hwy. S-12, 5 mi SW Havana, 23-VI-1988 (91), RWF, M. L. Pescador; Attapulgus Cr., Hwy. C-159, 4 mi NW Havana, 18-XI-1989 (18), RWF, M. L. Pescador, J. Jones; Liberty Co., Telogia Cr., Hwy. C-271, 6.6 mi NW Hosford, 30-VII-1987 (1), RWF, K. I. Ketchem; Telogia Cr., Hwy. C-65, 1.5 mi S Hosford, 29-VI-1988 (1), RWF, M. L. Pescador, J. Jones [FAMU]; Taylor Co., Salem, 1 mi N, 18-VI-1987, DGF [DGFC]. At Attapulgus Creek, the buttonweed plants were growing prostrate on wet ground very near the water. Following heavy rains in 1989, the plants were under water and numerous Strabala had climbed up stalks of grass to wait out the flood.

SYSTENA FRONTALIS (FABRICIUS). Blatchley (1924) recorded this species on *Polygonum* (Polygonaceae) from Gainesville in July, and elsewhere. DGF collected and tested the species feeding on *Diodia teres* Walt. (Rubiaceae) in *Taylor Co.*, Salem, 1 mi N, 18-VI-1987 [DGFC].

SYPHREA NANA (CROTCH). Blatchley (1924) recorded this species (as Haltica) from Gainesville on Eupatorium sp., and Balsbaugh and Hays (1972) recorded it from Crotonopsis (Euphorbiaceae). DGF collected large numbers feeding on

Croton glandulosus L. var. septendrionalis (Euphorbiacae) in Hamilton Co., Suwanee River State Park, 13-VI-1987, DGF [DGFC].

SYPHREA NIGRITULA (LINELL). RWF found this species feeding on Croton glandulosus L. (Euphorbiaceae) in Gadsden Co., Oklawaha Cr., Hwy. C-45, 4.6 mi N Hosford, 11-VII-1990 (15), RWF, M. L. Pescador, J. Jones [FAMU].

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