The
Florida Entomologist
Official Organ of the Florida Entomological Society

VOL. XXIII JUNE, 1940 No. 2

FIVE NEW WOLF-SPIDERS FROM FLORIDA

W. J. GERTSCH

The author is indebted to Dr. H. K. Wallace of the University of Florida for the privilege of studying the fine lot of material in the genus *Pirata* in his collection along with that contained in the collections of The American Museum of Natural History. The types of the new species diagnosed below and numerous paratypes are deposited in the American Museum. Many paratypes are retained in the collection of Dr. Wallace.

Pirata apalacheus, new species

Figs. 3 and 4

FEMALE.—Total length, 3.50 mm. Carapace, 1.70 mm. long, 1.25 mm. wide. Carapace dull yellowish brown, marked with a longitudinal black stripe on each side from the sides of the head to the caudal margin, the interval between these stripes pale and enclosing the usual Y-shaped black maculation. Sides of the carapace with a broad marginal pale stripe and a narrow marginal black seam. Dorsal eyes broadly ringed with black. Clothing of the carapace sparse, made up of short procumbent black hairs. Sternum pale yellow, with or without a narrow to broad marginal dusky band, sometimes uniformly dusky. Mouth parts and coxae pale yellowish, evenly clothed with erect black hairs. Legs dull yellowish brown, sometimes dusky, indistinctly annulate in black. Abdomen mostly black above, with a pale hastate maculation at the base and broken chevrons in the caudal half. Venter of the abdomen mostly pale, with a more or less distinct dusky median band which goes back from the epigynum nearly to the spinnerets.

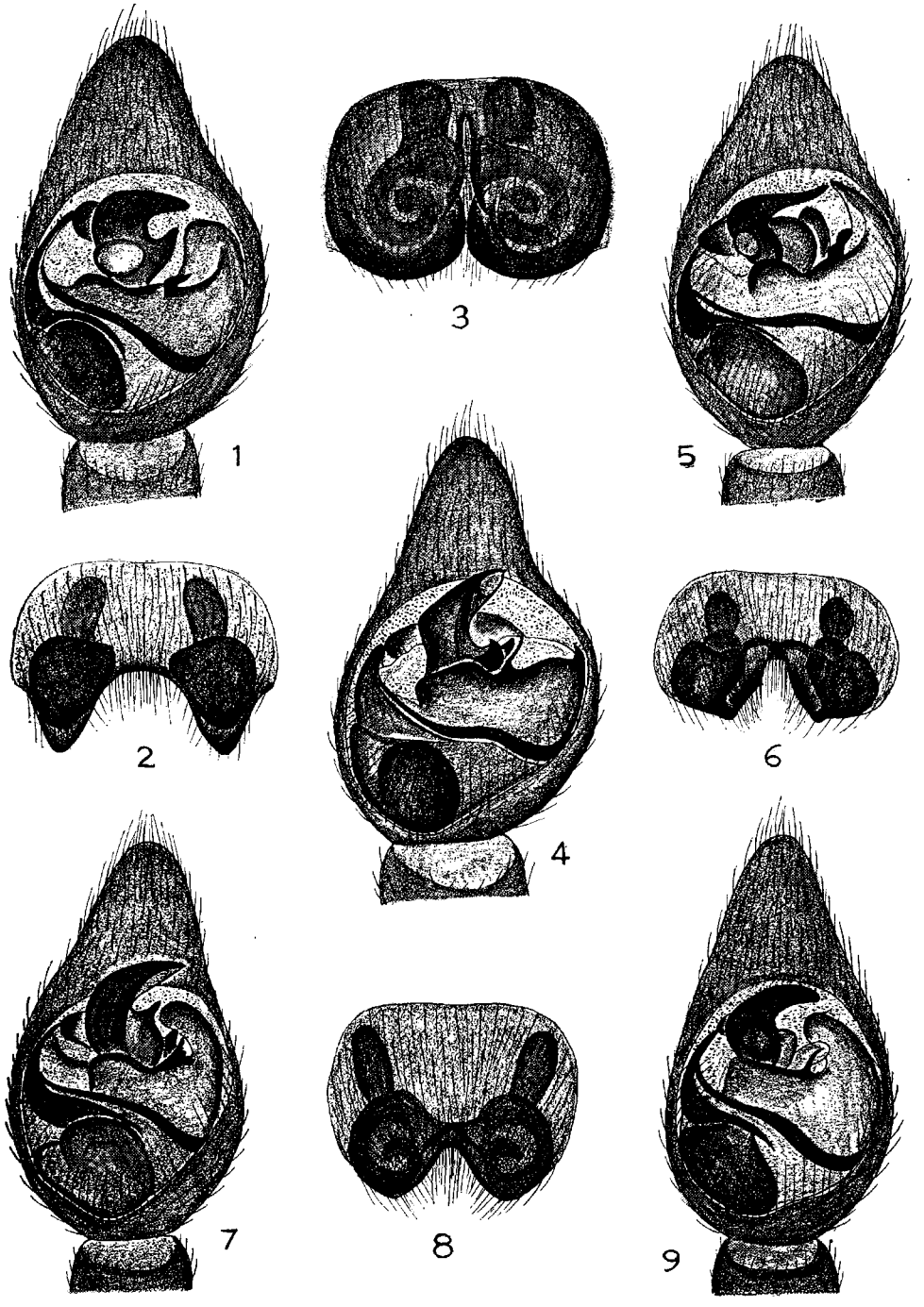
Structure essentially typical. First row of eyes gently procurved, subequidistantly spaced and subequal in size. Eyes of second row narrower than the third in the ratio 50:64, separated by two-thirds their diameter. Dorsal ocular quadrangle broader than long (64/48). Lower margin of the furrow of the chelicera with three teeth.

First tibia with three pairs of ventral spines, lacking distal spines. First metatarsus with three pairs of ventral spines, the last pair apical. Tibia and patella I, 1.60 mm.; IV, 1.94 mm. long.

Epigynum as illustrated in Fig. 3.

MALE.—Total length, 3.25 mm. Carapace, 1.70 mm. long, 1.25 mm. wide. Coloration and structure in close agreement with the female. Spination of legs as in the female. Tibia and patella I, 1.50 mm.; IV, 2.00 mm.

Palpus as illustrated in Fig. 4.



PALPI AND EPIGYNA OF SPECIES OF PIRATA

Figs. 1 and 2. *Pirata suwaneus*, new species
Figs. 3 and 4. *Pirata apalacheus*, new species
Figs. 5 and 6. *Pirata mayaca*, new species
Figs. 7 and 8. *Pirata nanatus*, new species
Fig. 9. *Pirata allapahae*, new species

Type Locality.—Male holotype, female allotype, and male and female paratypes from a rotten log in a hammock (Station 9C) in Alachua County, Florida, June 19, 1937 (H. K. Wallace). Three male and four female paratypes from same station, taken June 5, 1937 (H. K. Wallace). Several male and female paratypes from Torreya Ravine, Liberty County, Florida, April 16, 1938 (W. J. Gertsch). Two female paratypes from Albany, Daugherty County, Georgia, July 19, 1938 (H. K. Wallace, 1036).

This fine species is easily separated from all others from the United States by reference to the genitalia. The relatively large epigynum of the female is strongly sclerotized, dark brown in color, and presents two subcontiguous lobes which are broadly rounded at the caudal end and which are separated by a narrow groove. The male palpus is armed with a median apophysis which is angled on the prolateral surface and grooved on the retrolateral side. The details of this apophysis and the smaller supporting spurs at the base are distinctive.

Pirata nanatus, new species

Figs. 7 and 8

FEMALE.—Total length, 2.55 mm. Carapace, 1.42 mm. long, 0.95 mm. wide. Carapace dull yellowish brown, strongly marked in black. Dorsum with a black longitudinal band on each side from the side of the head to the caudal margin, the interval between relatively narrow, especially behind, obliterated for the most part in the ocular region and enclosing the characteristic Y-shaped black maculation. Sides of the carapace with a broad submarginal pale stripe and with a narrow marginal black seam. Mouth parts, coxae, and sternum pale yellowish brown, unmarked, clothed evenly with erect black hairs. Legs light yellowish brown, more or less dusky but showing no signs of darker annulae. Abdomen nearly all black, with a pale hastate maculation at the base and a small series of pale spots behind, the remnants of pale chevrons. Sides of abdomen black or nearly so, the venter pale yellow, without markings.

Structure typical. First row of eyes gently procurved, subequidistantly spaced, the median eyes somewhat larger. Eyes of second row narrower than the third in the ratio 40:53, separated by two-thirds their diameter. Dorsal ocular quadrangle broader than long (53/37), narrower in front. Lower margin of the furrow of the chelicera with three teeth.

Spines as in *apalacheus*. Tibia and patella I, 1.35 mm.; IV, 1.65 mm.

Epigynum as illustrated in Fig. 8.

MALE.—Total length, 2.35 mm. Carapace, 1.35 mm. long, 0.97 mm. wide. Coloration in complete agreement with the female. Structure essentially as in the female. Legs spined as in the female but the spines, especially the most distal pair, less robust. Tibia and patella I, 1.17 mm.; IV, 1.40 mm.

Palpus as illustrated in Fig. 7.

Type Locality.—Male holotype, female allotype, and nine female paratypes from Turner County, Georgia, May 6, 1937 (H. K. Wallace, 606). Two female paratypes from Columbia County, Florida, April 27, 1935 (H. K. Wallace, 402). Three female paratypes from Alachua County, Florida, April 19, 1937 (H. K. Wallace, Station 1, vic.); one female paratype from same station taken January 30, 1937 (H. K. Wallace). One female paratype from Alachua County, Florida, March 18, 1938 (W. J. Gertsch).

This species has been confused with *Pirata seminola* Gertsch and Wallace. It is very much smaller, averaging about 3.00 mm. as compared with 4.50 mm., has the marginal black seam on the carapace very much narrower, and lacks any trace of black annulae on the legs. The median apophysis of the male palpus is a heavy curved spur which has a conspicuous prong on the retrolateral side at the base, whereas in *seminola* the basal region is rounded.

Pirata suwaneus, new species

Figs. 1 and 2

FEMALE.—Total length, 3.50 mm. Carapace, 1.80 mm. long, 1.50 mm. wide. Clothing of the carapace rather sparse, made up of procumbent black hairs and a few erect black setae. Carapace light yellowish brown, marked with a longitudinal dark stripe on each side from the sides of the head to the caudal margin, the interval between pale and as wide as the black stripes behind, somewhat wider in front where the pale stripe encloses the characteristic Y-shaped black maculation. Sides of the carapace with a submarginal pale band scarcely as wide as the dark band and with a rather narrow, often irregular, marginal dark stripe. Dorsal eyes on black patches. Mouth parts and coxae light yellow, unmarked. Sternum concolorous but usually marked along the margins with a row of black spots opposite the coxae or a distinct narrow black band. Clothing of the underside short black hairs. Legs light yellowish brown, strongly annulate in black. Abdomen black above, marked with a series of pale spots over most of the dorsum, the sides mostly black. Venter pale, sometimes unmarked but usually with a median irregular black band from the epigynum to near the spinnerets.

Structure typical. First row of eyes gently procurved, the larger median eyes separated by their radius, somewhat nearer the lateral eyes. Clypeus equal in height to a diameter of an anterior lateral eye. Eyes of second row narrower than the third in the ratio 36:54, separated by two-thirds their diameter. Dorsal ocular quadrangle broader than long (54/37), narrower in front. Lower margin of the furrow of the chelicera with three teeth.

First tibia with two ventral pairs and a single subventral spine on the retrolateral side, without spines at the apex. First metatarsus with three pairs of ventral spines, the last pair apical. Tibia and patella I, 1.50 mm.; IV, 1.87 mm.

Epigynum as illustrated in Fig. 2.

MALE.—Total length, 2.80 mm. Carapace, 1.55 mm. long, 1.05 mm. wide. Coloration in complete agreement with the female. Structure closely approximating that of the female. First tibia with three pairs of ventral spines and occasional one spine or a distal pair of weak spines. Tibia and patella I, 1.46 mm.; IV, 1.70 mm.

Palpus as illustrated in Fig. 1.

Type Locality.—Male holotype, female allotype and paratypes from Port Mayaca, Lake Okeechobee, Florida, March 29, 1938 (W. J. Gertsch). The following examples are all designated as paratypes: Males and females from Dade County, July 12, 1937 (F. N. Young). Male and females from Levy County, August 9, 1937 (H. K. Wallace, 591); males and females, May 9, 1937 (H. K. Wallace, 494); two males, April 9, 1937 (H. K. Wallace, 593). Females from Columbia County, April 27, 1935 (H. K. Wallace, 402). Male and female from Cocoa, Florida, February 23, 1925 (W. M. Barrows). Males and females from Fort Myers, Florida, November 12, 1937 (W. M. Barrows). Males and females from Blountstown, Florida, April 18, 1938 (W. J. Gertsch). Male and female from St. Johns River, near Geneva, Florida, April 11, 1938 (W. J. Gertsch). Females from Englewood, Florida, April 1-5, 1938 (W. J. Gertsch). Males and females from Winter Park, Florida, March 21, 1938 (W. J. Gertsch). Females from Okeechobee, Florida, March 26, 1938 (W. J. Gertsch). Males and females from Peace River, west of Arcadia, Florida, March 30, 1938 (W. J. Gertsch). Males and females from DeLand, Florida, March 26, 1939 (F. E. Lutz). Numerous male and female paratypes from various stations in Alachua County, Florida.

This common species is most easily identified by reference to the genitalia. The epigynum of the female presents two widely separated, narrowly rounded lobes which are much longer than in *mayaca* and *nanatus*. The median apophysis of the male palpus is geniculate, is terminated in a stout, pointed spur, and armed on the retrolateral side near the base with a stout prong nearly as large as the principal spur. The legs are always marked with black annulae.

Pirata mayaca, new species

Figs. 5 and 6

FEMALE.—Total length, 3.50 mm. Carapace, 1.80 mm. long, 1.30 mm. wide. Carapace yellowish brown, marked with a longitudinal dark stripe on each side from the sides of the head to the caudal margin, the interval between forming a pale longitudinal stripe which is narrowest at the

posterior declivity, is somewhat broadened in front and encloses a Y-shaped black maculation. Sides of the carapace with a submarginal pale band half as wide as the dorsal band and a marginal dark band which is fully as wide as the pale band. Eye tubercles black. Clothing of carapace sparse, inconspicuous, made up of procumbent black hairs and a few erect black bristles, these latter confined to the pars cephalica. Mouth parts and coxae clear yellow, clothed evenly with erect black hairs. Sternum concolorous with the coxae but with a black seam or series of black spots opposite the coxae. Legs dull yellowish brown, clear to dusky, without indication of darker spots or annulae. Abdomen light brown above and on the sides, the dorsum with a pale hastate maculation at the base and an irregular median pale area, comprised of spots, behind. Venter pale yellow, rarely with contrasting markings.

Structure typical. First row of eyes gently procurved, the much larger median eyes separated by one-third their diameter, about half as far from the lateral eyes. Clypeus equal in height to the diameter of an anterior lateral eye. Eyes of the second row narrower than the third in the ratio 24:30, separated by one-half their diameter. Dorsal ocular quadrangle broader than long (30/20), narrowed in front. Lower margin of the furrow of the chelicera with three teeth.

First tibia with two ventral pairs and a single subventral spine on the prolateral side, lacking apical spines. First metatarsus with three pairs of ventral spines, the last pair apical. Tibia and patella I, 1.61 mm.; IV, 2.00 mm.

Epigynum as illustrated in Fig. 6.

MALE.—Total length, 3.00 mm. Carapace, 1.76 mm. long, 1.20 mm. wide. Coloration and structure in close agreement with the female. Spination of legs as in the female but the tibia with a single apical spine beneath. Tibia and patella I, 1.60 mm.; IV, 2.00 mm.

Palpus as illustrated in Fig. 5.

Type Locality.—Male holotype, female allotype and male and female paratypes from Port Mayaca, Lake Okeechobee, Florida, March 29, 1938 (W. J. Gertsch). Two male paratypes from Peace River, west of Arcadia, Florida, March 30, 1938 (W. J. Gertsch). Male paratype from Alachua County, June 14, 1937 (H. K. Wallace, Station 15); male paratype, February 2, 1937 (H. K. Wallace, Station 6-C); female paratype, April 19, 1937 (H. K. Wallace, Station 1). Male and female paratypes from Levy County, Florida, April 9, 1937 (H. K. Wallace, 593).

This species resembles *Pirata sedentarius* Montgomery in coloration and general structure. It is easily differentiated by the genitalia as shown in the figures. The median apophysis of the male is broadly rounded on the prolateral side and the main element is a spur which is much longer and more slender than in *sedentarius*. The base of the apophysis is armed on the prolateral side with a rounded lamella.

Pirata allapahae, new species
Fig. 9

MALE.—Total length, 3.40 mm. Carapace, 1.80 mm. long, 1.30 mm. wide. Carapace yellowish brown, with a dark brown longitudinal stripe on each side from the side of the head to the caudal margin, the interval between forming a pale median longitudinal band which is very narrow on the posterior declivity, is widened somewhat in front of the median groove, and which encloses a Y-shaped dark maculation. Sides of the carapace with a broad marginal pale band a black marginal seam or narrow band. Eye tubercles black. Carapace clothed with the usual covering of inconspicuous procumbent black hairs and with erect black setae on the pars cephalica. Mouth parts, coxae and sternum clear yellow, covered evenly with short black hairs, the sternum usually with a series of black spots opposite the coxae. Legs clear yellow to brown, dusky, without contrasting markings or annulae. Abdomen dark brown above and on the sides, the dorsum with a pale hastate maculation at base and a pale area or irregular spots behind. Venter pale yellow, unmarked or with a faint indication of an inconspicuous median stripe.

Structure typical. First row of eyes gently procurved, the larger medians separated by scarcely their radius, nearer the lateral eyes. Clypeus equal in height to a diameter of an anterior lateral eye. Eyes of the second row narrower than the third in the ratio 47:64, separated by one-half their diameter. Dorsal ocular quadrangle broader than long (64/44), narrowed in front. Lower margin of the furrow of the chelicera with three teeth.

First tibia with two ventral pairs and a single subventral spine on the prolateral side, without apical spines. First metatarsus with three pairs of ventral spines. Tibia and patella I, 1.70 mm.; IV, 2.05 mm.

Palpus as illustrated in Fig. 9.

Type Locality.—Male holotype from Alachua County, Florida, February 7, 1937 (H. K. Wallace, Station 7B). Male paratype from Alachua County, Florida, February 13, 1938 (H. K. Wallace, 1016). Male paratype from Spring Creek, Lake County, Florida, April 22, 1933 (H. K. Wallace, 201).

This species is nearest *Pirata sedentarius* Montgomery but is only half as large. The median apophysis is broadly rounded, more erect, and provided with a rounded lobe at the base on the retrolateral side.

The

FLORIDA ENTOMOLOGIST

Official Organ of the Florida Entomological Society
Gainesville, Florida

VOL. XXIII JUNE, 1940 No. 2

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Issued once every three months. Free to all members of the Society.

Subscription price to non-members is $1.00 per year in advance; 35 cents per copy.

DOCTOR W. S. BLATCHLEY

Doctor W. S. Blatchley, Geologist, Entomologist, and Naturalist, died at his summer home in Indiana in May, 1940, in his 81st year. He was a member of the Florida Entomological Society since its organization and a frequent attendant at its meetings, also contributing a number of articles to the FLORIDA ENTOMOLOGIST.

Dr. Blatchley is well known through his many publications. His book "Coleoptera or Beetles Known to Occur in Indiana" is the book to which we first turn when we wish to learn something of the beetles. His "Orthoptera of Northeastern America", "Rhynchophora or Weevils of North Eastern America" in cooperation with C. W. Leng, and "Heteroptera of Eastern North America" are classics. Of his popular works, three deal with Nature in Florida. "A Nature Wooing at Ormond by the Sea" is a treasure of "facts and fancies concerning the animals and plants" of the region where he spent his first winters in Florida. "My Nature Nook" tells of his observations and experiences in the neighborhood of Dunedin, his winter home, where he spent parts of every winter since 1913. "In Days Agone" he deals with life in extreme southern Florida as he saw it on six trips into that part of the state.

No man had a wider knowledge of the insects of Indiana, than Dr. Blatchley, and he knew the insects of Florida equally well. This gave him the unique opportunity of comparing the faunas of the two widely separated regions. His interests were wide

and varied. For sixteen years he was State Geologist of Indiana. He has long been a winter resident of Florida, having spent a portion of every year save one since 1911 in the state. While here he spent practically all his time collecting, studying, and writing about our insects, plants, and other wild life. He made an extensive survey of the insect fauna of the Everglades National Park for the Florida Women's Federation of Clubs. The results of this survey are still unpublished.

The writer is indebted to Dr. Blatchley for many enjoyable days in the fields and woods. Dr. Blatchley was never so happy as when sweeping or beating for insects. He, with his wide interest in both taxonomy and field work, was one of the rapidly diminishing number of naturalists who took a broad and philosophical view of the whole of nature.

The members of the Florida Entomological Society will sorely miss him as a fellow entomologist and a friend.

—EDITOR.

DR. J. H. MONTGOMERY

Dr. J. H. Montgomery, Assistant Plant Commissioner of the State Plant Board of Florida and head of the Quarantine Department of that organization, died on the morning of February 16, 1940. His death followed a cerebral hemorrhage that had occurred on the preceding evening. Interment was at Chambersburg, Pennsylvania, the place of his birth.

Born on March 23, 1875, he graduated in medicine from the Medico-Chirurgical College, Philadelphia, in time to serve in the army as assistant surgeon during the Spanish-American War, 1898-99. He later practiced medicine at the place of his birth with his father and brother.

The writer first met Dr. Montgomery at his home in Lemon City, Florida, at which place and near Miami he had property interests, sometime during 1912. He met him again early in the volunteer Citrus Canker Eradication Campaign in May, 1914, in the Redlands area of south Dade County where he owned grove property. He had come to Florida about 1903.

As the Citrus Canker Campaign progressed, Dr. Montgomery's thoughtful procedure in discussing and solving the many knotty problems involved, soon became apparent and his counsel was highly regarded. It became apparent, also, that he would be a valuable addition to the administrative force of the

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State Plant Board, which had been established by the Plant Act of 1915.

Dr. Montgomery became an employee of the Plant Board on March 1, 1916. On May 10, 1918, he became Quarantine Inspector and later, also Assistant Plant Commissioner, moving to Gainesville, where he joined the colony of Plant Board employees having their headquarters at the University of Florida. He held the latter two positions until the time of his death.

Mrs. Montgomery (nee Margaret Singleton of Macon, Georgia) preceded her husband in death on the 25th of October, 1939, by slightly less than four months.

W. E. Montgomery of Harrisburg, Pennsylvania, and J. C. Montgomery of Washington, D. C., nephews, are the only surviving close relatives of Dr. Montgomery.

Quoting from a statement made by Dr. Wilmon Newell, Plant Commissioner of the State Plant Board: "For some years past Doctor Montgomery has been recognized as one of the country's outstanding authorities on matters relating to plant quarantine and his advice and counsel was frequently sought by both state and federal officials in this field. He was Secretary-Treasurer of the Southern Plant Board from 1931 to 1937, and for some years prior to his death was a member of the National Plant Board. He was President of the Florida Entomological Society during 1939, and was a member of the Florida State Horticultural Society. For many years he had been a member of George Washington Lodge No. 143, F. & A. M., of Chambersburg, Pennsylvania."

E. W. B.

PECAN FOLIAGE AS FOOD FOR THE PECAN NUT CASEBEARER

Acrobasis caryae Grote

BY S. O. HILL [1]
Bureau of Entomology and Plant Quarantine
U. S. Department of Agriculture

In connection with experiments to control the pecan nut casebearer *(Acrobasis caryae* Grote), biological investigations were undertaken to determine more of the insect's life history and habits as a basis on which artificial control experiments could be planned. Among other points, it was desired to obtain information as to the insect's ability to carry over from year to year when there were no nuts on the trees on which it could feed. It was known that the immature overwintering larvae complete their growth the following spring on the young tender buds and shoots, and laboratory experiments were conducted during the summers of 1938 and 1939 to determine whether this insect could complete a generation on pecan foliage alone.

Newly hatched larvae for these tests were obtained by collecting pecan nut casebearer pupae in the field and permitting the adults to emerge in an oviposition cage, from which the eggs were obtained. The size of this cage was 18 by 18 by 18 inches, and the frame was covered with white domestic cloth. A glass window pane which opened horizontally in grooves at the top and bottom was used for a door. This glass front permitted the making of observations without disturbing the moths. In the later series of tests pupae were obtained from the feeding experiments. During 1938 the cage was kept inside the laboratory building, and during 1939 it was placed in an outdoor insectary, where the best results were obtained.

Three days after adult emergence began, a pecan twig bearing both nuts and foliage was placed in the center of the cage, and this was done each evening. The base of the twig was placed in a beaker containing water to delay desiccation of the nuts and foliage. The twigs were removed each morning and if eggs had been laid were tagged with the date of oviposition. The cage was sprayed with water from a hand spray gun three or four times daily to lower the inside temperature and provide humidity. A sponge saturated with a sugar-water solution was

[1] In charge of Cooperative Laboratory, Pecan Insect Investigations, of the Bureau of Entomology and Plant Quarantine, U. S. Department of Agriculture, and the Florida Agricultural Experiment Station, located at Monticello, Fla.

kept inside the cage to provide food for the moths, which fed freely on this solution and lived longer when it was provided. The moths oviposited freely on the nuts, foliage, and twigs, most of the eggs being deposited on the nuts. In the later series twigs containing foliage alone were used for this purpose.

Records were obtained on over 200 eggs, and the average period required for incubation was 5 days. When the eggs were 4 days old they were placed in an air-tight glass container until they hatched, in order to confine the young larvae. Fresh leaves were placed in the container and the larvae were usually located on the leaves.

This experiment was conducted without the use of rearing cabinets regulating temperature and humidity, and a substitute method was devised. Three pathological culture dishes were utilized for each rearing cage, which consisted of two of the large covers and one small or bottom dish. A large cover dish was inverted and the small dish was placed inside it, which left a space of approximately one-eighth inch between the rims. This space was filled with water and the small dish floated. The food and larvae were placed in this floating dish. The remaining large cover dish was placed over these and the edges of the two large dishes fitted flush. When the top was put in position the water rose by capillary attraction and had a tendency to seal the union. This method provided humidity which retarded desiccation of the food. Without the use of this method the food had to be changed daily, which caused high mortality of the larvae as the result of mechanical injury from handling.

The newly hatched larvae were removed from the glass container by means of a camel's-hair brush and placed on the underside of a leaflet. This leaflet was then folded over the young larvae and held in position by means of a clothes pin. It was found from experience that the larvae will not leave so readily when placed in this position as otherwise. The folded leaflet excludes light to some extent. The food was changed every third day. The larvae did not attempt to escape very often when fresh food was supplied at that interval. It was observed when changing food that if the entire feeding case was removed with the larva a new feeding case would not be constructed on the fresh food. This method eliminated actual contact with the larvae, and reduced the mortality.

The larvae construct feeding cases adjacent to the midrib near the crease made by folding the leaflet. When feeding on leaves or stems the larva constructs a feeding case similar to those made when feeding on the nut. In doing this the larva first covers its body with silken threads, and these threads are reinforced by bits of leaf tissue. This habit of first constructing a feeding case from bits of leaf before feeding is probably responsible for the ineffectiveness of arsenicals when applied to the nuts at low concentrations, as most of the poison would be removed in constructing the case. The young larvae consume the under surface of the leaf, and the case is extended when that portion within reach of the case is consumed. When the larvae are one-half grown or more, they consume the entire portion of the leaf, and the case is extended along the midrib.

In 1938 three larvae from a series of 20 were reared to the adult stage on pecan twigs. Similar results were obtained with the first series reared on pecan leaves. The low percentage that reached the adult stage in the earlier tests was attributed to faulty laboratory technique, as 25 percent of the larvae were reared to the adult stage in the later tests on leaves that year. In the tests during 1939, the laboratory technique was improved and 55 percent of the larvae were reared to the adult stage. It is believed that a higher percentage would have reached the adult stage if insect-rearing cabinets providing controlled temperature and humidity had been available. The larvae reared on leaves and twigs completed their growth in the same period of time as those reared on pecan nuts. This experiment explains to some extent why the pecan nut casebearer larvae can survive in orchards when there are no nuts on the trees.

Among the interesting observations made during the course of these tests was that the state or condition of the food is the predominant factor that governs the migration of the larvae to over-wintering locations. In this test, when the food became dry and hard the larvae migrated to the sides of the container and constructed hibernacula similar to those in which the winter is normally passed. During August and September it was almost impossible to confine the larvae to their food, as the leaves at that period were not so succulent as they were earlier in the season. This condition was also observed in the field.

DESCRIPTION OF A NEW DYTISCID FROM FLORIDA

(Coleoptera; Dytiscidae)*

By FRANK N. YOUNG

The determination of the species of *Bidessus* described below puzzled me for some time until finally I sent it along with other specimens to the late Dr. H. C. Fall. He returned the specimen with the note that it was entirely unknown to him and probably represented a distinctive new species. In appreciation of his aid in identifying Coleoptera for me I take pleasure in naming it

Bidessus falli, sp. nov.

Diagnosis: Similar to *B. floridanus* Fall, but differing in the more broadly ovate form, finer punctation of the elytra, pronotum and head and in having the basal elytral plicae slightly longer than the thoracic plicae. The species is more broadly ovate than any of the other sparsely pubescent species known to me, except *B. granarius* (Aubé) in which the elytral plicae are considerably longer than the thoracic and the coloration and general shape is also different. The dark immaculate elytra and broad, flattened form should make the determination of this species rather easy.

Holotype: Broadly ovate, widest about the middle. Dorsum flattened between the pronotal and elytral plicae. Elytra uniformly dark fuscous; pronotum light testaceous with anterior margin fuscous; head fuscous; epipleurae testaceous; antennae, mouthparts, and legs light testaceous; thorax and abdomen mostly fuscous on the ventral surface. Pronotum finely and sparsely punctate; elytra somewhat more coarsely and closely punctate than the pronotum; head sparsely and finely punctate; hind coxal plates finely and sparsely punctate without scattered larger punctures. Dorsum highly polished, shining, almost without pubescence. Basal elytral plicae slightly longer than the thoracic plicae. Length 1.7mm.; width .8mm.

The holotype and only known specimen was collected by Mr. Lewis Berner and the writer from leaf debris in the West Branch of Hogtown Creek, at Gainesville, Alachua County, Florida, on April 21, 1937. It remains in my collection.

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*Contribution from the Department of Biology, University of Florida, Gainesville.

THE JAPANESE BEETLE TAKEN IN FLORIDA

According to reports from the U. S. Bureau of Entomology and Plant Quarantine and the State Plant Board five specimens of the Japanese Beetle have been taken in Florida; two each in Jacksonville and Miami and one in Tampa.

—EDITOR.

DESCRIPTION OF A NEW DYTISCID FROM FLORIDA

(Coleoptera; Dytiscidae)*

By FRANK N. YOUNG

The determination of the species of *Bidessus* described below puzzled me for some time until finally I sent it along with other specimens to the late Dr. H. C. Fall. He returned the specimen with the note that it was entirely unknown to him and probably represented a distinctive new species. In appreciation of his aid in identifying Coleoptera for me I take pleasure in naming it

Bidessus falli, sp. nov.

Diagnosis: Similar to *B. floridanus* Fall, but differing in the more broadly ovate form, finer punctation of the elytra, pronotum and head and in having the basal elytral plicae slightly longer than the thoracic plicae. The species is more broadly ovate than any of the other sparsely pubescent species known to me, except *B. granarius* (Aubé) in which the elytral plicae are considerably longer than the thoracic and the coloration and general shape is also different. The dark immaculate elytra and broad, flattened form should make the determination of this species rather easy.

Holotype: Broadly ovate, widest about the middle. Dorsum flattened between the pronotal and elytral plicae. Elytra uniformly dark fuscous; pronotum light testaceous with anterior margin fuscous; head fuscous; epipleurae testaceous; antennae, mouthparts, and legs light testaceous; thorax and abdomen mostly fuscous on the ventral surface. Pronotum finely and sparsely punctate; elytra somewhat more coarsely and closely punctate than the pronotum; head sparsely and finely punctate; hind coxal plates finely and sparsely punctate without scattered larger punctures. Dorsum highly polished, shining, almost without pubescence. Basal elytral plicae slightly longer than the thoracic plicae. Length 1.7mm.; width .8mm.

The holotype and only known specimen was collected by Mr. Lewis Berner and the writer from leaf debris in the West Branch of Hogtown Creek, at Gainesville, Alachua County, Florida, on April 21, 1937. It remains in my collection.

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