THREE SPECIES OF COLEOSOMA FROM FLORIDA
(ARANEÆ; THERIDIIDÆ) ¹

BY ELIZABETH B. BRYANT

Among material recently sent the Museum of Comparative Zoology by Mr. George Nelson from Sebastian, Florida, were specimens of Coleosoma flavipes O.P.-Cambridge, described from males, and known only from the type localities in Mexico and Guatemala. Impressed by this discovery, I wrote to Dr. William M. Barrows, who has collected in Florida, and was gratified to receive in response Coleosoma collected by him at various times.

Among this material, I have identified not only Coleosoma floridanum Banks, the only species of the genus previously known from the state, but also both males and females of Cambridge's C. flavipes together with a male and females of an undescribed species, C. normale spec. nov. Of this material, C. flavipes Camb. and C. normale were taken in Florida in early summer. Cambridge does not mention dates in his descriptions. C. floridanum Banks proves to have a wide seasonal distribution, having been taken in mid-summer at Soledad, Cuba, and in November at Floreana in the Galapagos.

The female of C. flavipes is very unlike the male, as the abdomen extends in a prolongation above the spinnerets. In this respect it suggests Keyserling's figures of Achaea in his "Theridiidae, 1884, 1, pl. 5."

The genus Coleosoma was based by O.P.-Cambridge in 1882 on the species blandum Camb. from Ceylon, also known only from the type, a male. Simon synonymized the genus with Theridion, a fact which has been the cause of some confusion. In 1884, Keyserling described and figured males, as Coleosoma blandum from the Marx Coll. taken at Enterprise, Florida. Mr. Banks noted the difference of his Florida specimens from the original description and in 1900, named the former floridanum. And in 1897, Simon reported as Theridion blandum, the

¹Published with the aid of a grant from the Museum of Comparative Zoology, at Harvard College.
Ceylon species, from St. Vincent, and casually stated that it was found in the tropics around the world. It is not improbable, that the species found on St. Vincent is either new, or one of the species found in Florida.

I wish to express here, my thanks to Mr. George Nelson for collecting at Sebastian; to Dr. William M. Barrows for generously allowing me to examine his collections from Fort Myers and to Mr. N. Banks for his encouragement and help.

Genus Coleosoma O.P.-Cambridge

_**Cephalothorax**_ longer than broad, moderately convex, sloping gradually from eye area to posterior margin, thoracic groove punctiform; _eyes_ rather small, anterior row recurved, eyes sub-equal and equidistant, posterior row procurved, lateral eyes touching; _clypeus_ very high, convex; _mandibles_ vertical, small and weak; _labium_ wider than long; _maxillae_ narrow, inclined over labium; _abdomen_ in male, long, usually constricted about middle, with a thin, bilobed, chitinized plate at anterior end that extends onto cephalothorax and continues on venter to about the middle of the abdomen; in female, the abdomen may be cylindrical, or produced in a tubercle above the spinnerets, the chitinized plate found in male, missing; _legs_ in male, first pair very long.

Genotype; _Coleosoma blandum_ Cambridge, male, Ceylon.

_Coleosoma_ is separated from _Lithyphantes_ by the higher, convex clypeus, slender mandibles, and the abdominal plate longer both on dorsum and venter. At present the genus consists of the genotype from Ceylon, and the three species described in this paper.

_Colesosoma flavipes_ O.P.-Cambridge
Figures, 1, 4, 7, 9

_Biol. Centr. Amer., 1895, 1:154, pl. 19, fig. 12._ "♀ Teapa, in Tabasco, Mexico; Guatemala."

Male. Length, 2.1 mm., ceph. 0.6 mm., abd. 1.5 mm. long, 0.4 mm. wide.

_Cephalothorax_ grayish-brown, more than two-thirds as wide as long, (4.0:5.5), posterior margin about one half that of
anterior, sides evenly rounded, slopes gradually from eye area to posterior margin, thoracic groove punctiform, posterior margin indented with a chitinized hump on each lateral lobe, probably on which the abdomen rubs; eyes cover two-thirds of head, seen from above, anterior row recurved, eyes small, sub-equal and equidistant, posterior row slightly procurved, so that lateral eyes touch, eyes subequal and equidistant; quadrangle narrower in front and as high as width behind; clypeus strongly convex, more than twice as high as eye area, with no groove below anterior eye row; mandibles small, weak, vertical; labium wider than long; maxillae more than twice as long as labium, inclined, tips almost touching; sternum brown, more than two-thirds as wide as long, convex, triangular, widest between I coxae; abdomen cylindrical, black, constricted posterior to middle with constriction marked by a narrow white band, anterior portion larger, at base a thin, chitinized plate or sheath that extends in two blunt points over cephalothorax, and is continued on venter to fold, which is posterior to middle, dorsum with a few long colorless hairs, venter black, spinnerets at tip; legs, 1-4-2-3, long and very slender, I pair more than twice as long as entire spider, yellow with a black line on femora, tip of IV tibia and base of metatarsus dark, no spines but lines of colorless hairs; palpus longer than cephalothorax, dark, terminal joint very broad, embolus starts from lateral margin above in distal half, and almost completes a circle, tip with an abrupt turn, at end, a wide dark piece with an uneven tip.

Female. Length, 1.7 mm., ceph. 0.7 mm., abd. 1.0 mm. Cephalothorax not as wide as in male, a dull brown, with a narrow black marginal line; eyes same as in male; abdomen a dull gray, with a median dark stripe from pedicel to tip, sides a dull gray, abdomen prolonged in a slender conical projection, so that height above spinnerets equals length on venter from pedicel to spinnerets, venter dull gray from pedicel to spinnerets, fold much nearer pedicel than in male; legs, long, slender, pale; epigynum, area not quite as long as wide, two dark tubes beneath the skin, close together at anterior end, but separating near fold where a short median dark tube can be seen.

Allotype ♀ Florida; Fort Myers, 25 June 1941, M. C. Z. Coll. 2 ♂ Florida; Sebastian, March 1944, (Nelson) ♂ s ♀ s Florida; Fort Myers, 25 June 1941, Barrows Coll.
The specimens collected by Dr. Barrows at Fort Myers, show great variation in color among the males. Some have the cephalothorax pale yellow and the abdomen almost white with parallel stripes of gray; these have the legs about the same color as the cephalothorax, and either no dark stripe on the femora, or the stripes very indistinct. Other males are very dark, with the abdomen black as described by Cambridge, and the legs with dark lateral lines on the femora. All however, have the abdomen constricted just beyond the middle and a very broad palpus with the same corresponding parts. The females vary as much as the males. In some the abdominal tubercle above the spinnerets is reduced to a slight hump, while in others the tubercle is long, slender and pointed. All have the median dark line on the abdomen and the epigynum is the same. The coloring also varies. Some are quite dark with a darker median line on the abdomen; others are pale with the dark median line. The legs are usually white.

A lateral view of the abdomen of the female suggests some of the figures of *Achaea* given by Keyserling in the Theridiidae, 1884, vol. 1, pl. 5.

**Coleosoma floridanum** Banks

Figures, 3, 6

Can. Ent., 1900, 32: 98. “2 ♂ Florida; Punta Gorda.”

*Theridion interruptum* Banks, Can. Ent., 1908, 40: 205, fig. 9. “♀ Miami; Florida.” (immature)

Male. Length, 2.0 mm., ceph. 0.6 mm., abd. 1.6 mm.

*Cephalothorax* brown, about two-thirds as wide as long, anterior and posterior margins about equal in width, sides evenly rounded, rather flat, slopes gradually from eye area to posterior margin, two small dark lobes near posterior margin, thoracic groove punctiform; *eyes* about cover anterior margin, anterior row slightly recurved, eyes equidistant, a.m.e. smallest of the eight, posterior row straight, eyes equidistant, lateral eyes touching on a low tubercle; *quadrangle* narrower in front, and as high as wide behind; *clypeus* vertical, slightly convex, with a groove below anterior eye row, about twice as high as eye area; *mandibles* vertical, small, weak; *labium* wider than long, fused to sternum; *maxillae* fully twice as long as labium, inclined but tips not touching; *sternum* as wide as long, convex, dark about
Three Species of Coleosoma from Florida

Margins; abdomen more than twice as long as wide, constricted posterior to middle, but constriction not as deep as in C. flavipes and divisions not as globose, anterior portion largest, pale brown, with lateral dark stripes which end before the constriction, a pair of irregular cream-color blotches on posterior slopes, constriction pale, posterior portion black with no markings, at the base, a thin, chitinized plate or sheath that extends in two blunt points over cephalothorax and extends on venter to fold which is posterior to middle, venter pale; legs much broken, 1–4–2–3, pale, a dark line on posterior femora, tip of IV tibia and base of IV metatarsus dark, I pair about one and a half times length of spider, no spines, but lines of long hairs; palpus not as long as cephalothorax, pale, embolus much shorter than in C. flavipes, embolus starts from near base and completes about half a circle, the dark piece at tip quite narrow, extends beyond the cavity, below a larger pale piece also extends beyond the cavity.

Female. Length, 1.8 mm.

Cephalothorax and eyes same as in male; abdomen cylindrical, three-quarters as wide as long, overlapping cephalothorax, but with no chitinized plate as in male, two widely separated, parallel dark stripes broken about middle, with paired white flecks in area between, pale flecks on sides; legs, 1–2–4–3, pale, with a dark ring at distal end of tibiae and distal end of IV femur, rows of bristles on all joints and a long dorsal bristle on tibiae; epigynum, a broad median septum with large openings each side.

Holotype 2 ♂ Florida; Punta Gorda, (Mrs. Slosson), Banks Coll.

Allotype ♀ pullus, Florida; Miami, February-March 1903, (Comstock), Banks Coll.

3 ♂s 1 ♀ Florida; Fort Myers, February 1930, Barrows Coll.

♂s ♀s Cuba; Havana, Banks Coll.; Soledad, July-August, 1931, (Banks and Worley)

1 ♂ ♀s Galapagos Islands; Floreana, 12–14 November, (Norge Exped.)

The male of Coleosoma floridanum is easily separated from the other two species of the genus, as the embolus completes about half a circle instead of almost a complete circle. The
female can be separated from the other two, by the much simpler epigynum. The parts of the epigynum are very lightly chitinized in all the specimens seen but apparently are the same in all specimens from Cuba or from the Galapagos Islands. The specimen figured is from Fort Myers, Florida.

*Coleosoma normale* spec. nov.

Figures, 2, 5, 8, 10

Male. Length, 1.5 mm., ceph. 0.5 mm., abd. 1.1 mm.

_Cephalothorax_ pale, with a narrow dark marginal line and shaded with gray posterior to eyes, rather low and flat, three-quarters as wide as long, anterior margin much narrowed; _eyes_ about cover anterior margin, anterior row recurved, eyes sub-equal, a.m.e. diurnal, separated by less than a diameter, little nearer to a.l.e., posterior row about straight, eyes equidistant, p.m.e. largest separated by more than a diameter, lateral eyes touching; _clypeus_ vertical, only slightly convex, less than twice the eye area; _mandibles_ pale, vertical, weak; _labium_ pale, wider than long; maxillae inclined; _sternum_ triangular, dark about margins; _abdomen_ pale, with two parallel dark stripes from base to spinnerets, stripes quite narrow about middle and heavier at ends, cylindrical, about half as wide as long, no indication of a constriction, chitinized basal plate narrow but divided at base into two blunt points and extends on venter to about the middle, venter pale yellow, margined with black, black about spinnerets; _legs_, broken, pale, with no indications of dark stripes or rings, no spines; _palpus_ about as long as cephalothorax, pale, terminal joint very large, broad, embolus starts from side near tip, follows contour to tip, forming almost a complete circle, a pale club-shaped piece opposite bulb rests against the large black conspicuous piece at tip of bulb.

Female. Length, 1.6 mm., ceph. 0.5 mm., abd. 1.3 mm.

_Cephalothorax_ and _legs_ same as in male; _abdomen_ cylindrical, with no indication of the chitinous plate found in male, pale, with two widely separated parallel dark stripes from base to spinnerets as in male, venter with median dark gray spot that reaches spinnerets; _epigynum_ large for the size of the spider, a convex chitinized plate, beneath which can be seen the convolute tubes that almost touch at anterior end and are widely separated at posterior.
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Holotype ♂ Florida; Fort Myers, 25 June 1941, M. C. Z. Coll.
Allotype ♀ Florida; Fort Myers, 25 June 1941, M. C. Z. Coll.
Paratype ♀ Florida; Fort Myers, 25 June 1941, Barrows Coll.

The male of this species has no constriction of the abdomen and the thin chitinous plate at the anterior end of the abdomen is much shorter in proportion than in the other two species. The female has the same markings on the abdomen and lacks the chitinized plate at the anterior end. The epigynum is similar to that of C. flavipes Cambr. but the openings are widely separated.

LITERATURE CITED


EXPLANATION OF PLATE I

Fig. 1. Coleosoma flavipes Camb., epigynum.
Fig. 2. Coleosoma normale spec. nov., epigynum.
Fig. 3. Coleosoma floridanum Banks, epigynum.
Fig. 4. Coleosoma flavipes Camb., left palpus.
Fig. 5. Coleosoma normale spec. nov., left palpus.
Fig. 6. Coleosoma floridanum Banks, left palpus.
Fig. 7. Coleosoma flavipes Camb., lateral view of abdomen, female.
Fig. 8. Coleosoma normale spec. nov., lateral view of abdomen, female.
Fig. 9. Coleosoma flavipes Camb., lateral view of abdomen, male.
Fig. 10. Coleosoma normale spec. nov., lateral view of abdomen, male.
Bryant — *Coleosoma*
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