

lights—always excepting mosquitoes, which were terrible, and very often at sugar the moths were so wild that they would hardly allow me to get near enough the trees to net or bottle them, and as well as I could judge, by the faint light of my collecting lamp, one or two new species in single examples got away from me, and left me lamenting.

Butterflies of all genera were scarce during the year. Even the common prairie species were not so plentiful as usual. The *Blues* were in much smaller numbers. Hardly a *Grapta* came to my sugared trees. I saw very few *P. atalanta*, and not a single *Vanessa californica*, so different from 1898. Even *Antiopa* was scarce. I did not see a single *Pieris protodice*, and the *Pamphilas* belonging to the autumnal species were very scarce.

Throughout the summer, at intervals of a week or ten days, my sugared trees were visited by single specimens of *Scoliopteryx libatrix*, Linn., all freshly evolved from the pupa. With such a wide distribution, in point of time, and irregular appearance, it is a wonder that the species manages to reproduce itself in any number.

Ufeus plicatus, Grt., was not quite so numerous as usual. I have never seen it outside my house, either at light or at sugar, but I have had in some years two or three in one evening commit suicide in my lamps.

When the examination of my captures is completed I purpose sending a list of my novelties for insertion in the CAN. ENT., as supplementary to Mr. Hanham's catalogue.

SOME NEW NORTH AMERICAN SPIDERS.

BY NATHAN BANKS, EAST END, VA.

Sergiolus bicolor, n. sp.

Length, ♀, 8 mm. Cephalothorax and legs pale reddish-yellow, mandibles and sternum scarcely darker, basal half of abdomen pale gray, apical half and spinnerets jet black, the line separating the two slightly convex in front; venter pale gray except the apical two-fifths, which is black, but broadly indented by the gray in the middle. Cephalothorax rather slender, about one and three-fourths as long as broad, plainly longer than patella plus tibia IV., not much narrowed in front, no trace of a dorsal groove. Posterior eye-row plainly recurved, the P. M. E. round, about twice their diameter apart, and about as far from the scarcely larger P. S. E. Anterior eye-row much shorter than posterior, nearly straight, the A. M. E. slightly smaller than P. M. E., more than their diameter

apart, and rather nearer to the slightly larger A. S. E., several stiff black bristles in eye-region. Mandibles stout, hardly porrect, with many long, stiff, black bristles in front; palpi with many stout bristles, especially toward tip and on the under side; legs short and stout, metatarsus I. much shorter than tibia I., with but few hairs; three black spines above on femora I. and II., none below on tibia I., one pair at tip below on tibia II., two pairs below on metatarsi I. and II., one pair near base, other at tip; hind legs with more spines on tibiæ, one above near base. Sternum narrow, broadest in middle, pointed behind. The abdomen is about twice as long as broad, rather rounded at base and pointed at tip, slightly depressed, spinnerets prominent; epigynum small, in a reddish area, showing two circular cavities connate on the middle line, each opening behind into a dark cavity beneath the surface.

Covington, Louisiana; May. (Hugo Soltaw.)

Callilepis insularis, n. sp.

Black. Resembling *C. pluto*, Bks., but legs paler (rather yellowish-brown), the two rows of eyes closer together, the P. M. E. oval and not half their diameter apart, A. M. E. smaller and about their diameter apart, closer to the A. S. E.; sternum rather longer than broad, narrowed in front and pointed behind; abdomen depressed; no spines under tibia nor metatarsus I., many on hind pairs; epigynum very different from *C. pluto*; a cavity rather longer than broad, slightly indented on each posterior side, and divided by a septum, narrow at base and twice as broad near tip; the tip not quite reaching hind border of cavity; each side of the cavity at base is a dark line with the tip recurved toward the middle. Length 6.5 mm.

Two specimens from Guadeloupe Isle, off California; June, 1897. (Leland Stanford, Jr. Univ. Coll.)

Euryopis 5-maculata, n. sp.

Length, ♀, 2.7 mm. Cephalothorax black, palpi black, sternum rather paler in the middle, mandibles yellowish, black on tips, legs pale yellowish, with black stripes on each side of anterior coxæ, and a black stripe on fore side of femora I., II., and III., and on apical part of IV., and on hind part of patellæ and tibiæ III. and IV.; abdomen black above and below, rather paler in middle of venter, and a pale spot on region of epigynum; above are five clear white spots: one on each anterior side, one each side near middle of length, and a median one at tip just above spinnerets, all subequal in size. Cephalothorax one and one-fourth times

as long as broad, sides rounded, head high, projecting over clypeus; eyes subequal, posterior eye-row recurved, P. M. E. one and one-half their diameter apart rather farther from the equal P. S. E., A. M. E. smaller, about twice their diameter apart and scarcely so far from the barely larger A. S. E., which latter are only slightly separated from the P. S. E., the A. M. E. are in the upper anterior margin of the elevated head; mandibles small, weak, slightly divergent; palpi large and hairy, last joint heavy; maxillæ including labium; sternum convex, broadest at middle, truncate between hind coxæ, legs of moderate length, IV. pair longest, no spines, but with many scattered stiff bristly hairs, one almost spinelike, erect near tip of patellæ; tibia III. scarcely longer than patella III.; abdomen nearly twice as long as broad, rounded at base, pointed behind, convex above, and with many scattered pale hairs. Two specimens of this very pretty and distinct species: one collected by Mr. Pratt in April, at Washington, D. C., is not quite adult; the other taken at Falls Church, Va., in June.

Coleosoma floridana, n. sp.; *C. blanda*, Keys., nec Cambr.

This is very evidently not Cambridge's species, which has a shorter cephalothorax, more prominent clypeus, differently marked abdomen, less constricted, and the palpus is different. Otherwise it is similar. Keyserling's description is very good. It would seem very strange for a spider to be described from Ceylon and then recorded from Florida without being known from any other tropical regions. One male was collected by Mrs. A. T. Slosson in Florida.

Argyrodes floridana, n. sp.

Length, 2.6 mm. Cephalothorax dark brown; mandibles pale at base, blackish towards tips; palpi black, except pale tips; sternum blackish; legs pale uniform whitish; abdomen blackish, jet black around spinnerets, paler above; cone pale. Cephalothorax of moderate length; eyes scarcely elevated; clypeus sloping; palpi enlarged; sternum convex; legs slender, of moderate length; abdomen very high at base, continuing nearly straight back and at tip with a prominent blunt-pointed cone behind, vertical to the spinnerets; abdomen one and one-half longer than broad, higher than broad.

One female from Punta Gorda, Florida. (Mrs. Slosson.) Readily known by shape of abdomen, dark coloured abdomen and pale legs.

Crustulina borealis, n. sp.

Length, ♂, 1.8 mm. Similar to *C. sticta*, but the abdomen wholly

black, the size smaller, and the femur of palpus less swollen at tip, the two projections of the tarsus are more equal than in *C. sticta*, the P. M. E. are about their diameter apart, the small conic elevations under femora I. and II. are not as large as in *C. sticta*.

Two males from Washington State, Olympia. (Trevor Kincaid.)

Our four species of this genus may be tabulated as follows:

1. Silvery spots on dorsum, cephalothorax reddish.....*guttata*.
No silvery spots, cephalothorax nearly black..... 2.
2. Abdomen yellowish, metatarsi and tarsi dark.....*lascivula*.
Abdomen darker, legs uniform pale..... 3.
3. Abdomen reddish.....*sticta*.
Abdomen black.....*borealis*.

Philodromus inaequipes, n. sp.

Length, ♀, 3 mm.; femur II. 1.5 mm. Cephalothorax pale yellowish, on sides more brownish, abdomen grayish white, near tip on each side is a short red-brown stripe. legs and palpi pale, there is a black line on the posterior under side of the coxæ, femora and tibiæ of legs I. and II., on both sides of leg III., and on the anterior under side of leg IV. The P. M. E. are nearer to the A. S. E. than to any other eyes. The sternum is very wide in front, and the hind coxæ widely separated. The legs are very long, especially the second pair. The abdomen is about one and one-half times as long as the cephalothorax; the sternum is very wide, and almost as wide in front as anywhere, hind coxæ separated by half their length; femur II. longer than the cephalothorax; legs very long; body and legs closely pilose. Washington, D. C. Separated from our other species by black lines on legs, broader sternum, and longer legs, especially the second pair.

Runcinia californica, n. sp.

Length, 5.5 mm.; tibia plus patella I., 4 mm. Cephalothorax dull yellowish, with an even straight brown stripe each side and a narrow median one reaching only to end of pars cephalica, all connected through the eye-region, but the ridge under the S. E. is white; clypeus with a brown spot each side connected to a stripe that runs down the outer side of each mandible and covers its tip; legs pale yellowish, leg I. with an oblique mark at tip of femur, an apical band on patella, basal and apical bands on tibia and a preapical band on metatarsus, brown; leg II. with the under side of femur brown, otherwise as leg I.; hind legs unmarked; sternum yellowish. Abdomen yellowish, with

a brown stripe on each anterior side, and a pair of brown stripes above, which are widely separated in the middle, but united at either end; these on the posterior sides throw off oblique marks running down the sides; venter pale, with a brown mark before spinnerets. Femur I. much longer than cephalothorax, which is about the length of tibia I.; eight pairs of spines under tibiæ I. and II., pairs under metatarsi I. and II. The M. E. form a quadrangle barely, if any, higher than broad. The epigynum shows a small cavity, truncate in front, broadly rounded behind, and divided by a septum.

Los Angeles, California. (Davidson.)

Epeira arizonensis, n. sp.

Length, 4.2 mm. Pale yellowish, nearly uniform, the abdomen more whitish yellow, no marks on the legs or anywhere else. The abdomen is nearly as broad at basal third as it is long; in the ♂, however, much narrower. The base is broadly rounded, and the angles rather prominent, but not humped. Seen from the side it is evenly rounded to the spinnerets. The epigynum has a rather broad and short finger, upturned at the tip, each side is an oval cavity uniting on the middle. The male tibiæ I. and II. have two pairs of long spines beneath and an apical short pair, the tip is not curved or thickened.

Arizona. (Townsend.)

Acrosoma maculata, n. sp.

Length, ♀, 5.2 mm. Cephalothorax uniform dark brown, about twice as long as broad, broadest in middle, about as broad in front as behind, a depressed furrow slightly before the middle; legs of moderate length; femur I. a little shorter than cephalothorax, legs yellowish, tibiæ, patellæ, and apical half of femora I. and II., dark brown, on hind legs a brown ring on tips of femora, patellæ, tibiæ, and metatarsi; abdomen about twice as long as broad, sides slightly convex, but hardly twice as broad in middle as at base; at basal third above is a small conical hump or spine each side; at apex are four conical spines, the superior pair semi-erect, not divergent, the inferior pair directly below superior pair, shorter, horizontal and scarcely divergent. Abdomen black, marked with yellow spots, a double spot each side at base, followed by four spots in a row on each side, the apical spot being larger and having an extension upon the outer side of the superior spines; between the sub-basal humps is a pair of yellow spots, and behind them a median one transverse, toward the apex is a pair between the third of the lateral row, and between the bases of the

superior spines is a yellow mark ; the sides have small yellow spots, and on the venter there is a curved row or stripe each side, which unite beyond the spinnerets ; sternum brown.

Arizona. (Townsend.) Easily distinguished from any of our other *Acrosomas*, but nearly allied to *A. mitrata*, Hentz.

Habrocestum signatum, n. sp.

♂.—Length, 4.5 mm. Cephalothorax brown, clothed with red hair on clypeus, gray on eye-region, on side margins, and on each side behind leaving a median nearly black stripe. Abdomen clothed with gray hair above, with a curved brown stripe each side uniting at apex, and near there connected by several faint dark chevrons ; near base is a median diamond-shaped dark brown mark, touching each stripe. Legs pale yellowish, a dark spot at tip of the patella, leg I. more reddish, the femora with several bunches of short black hair on under side near tip, nearly fully the length under the patella and tibia, on latter broad and heavy, especially at base, where there are black scale-like hairs (no bunch above on tibia as in *H. hirsutum*) ; elsewhere the legs are clothed with long white hair. Patella III. not modified, but nearly as long as tibia III. Under side of body clothed with gray hair. The spider, when dry, has a general hoary appearance. The female which appears to belong to this species is 6 mm. long ; it has a dark cephalothorax clothed with gray and yellowish hair ; clypeus white with a white fringe on margin and over eyes ; legs pale yellowish, darker on outside of tibiæ and metatarsi ; dorsum of abdomen dark brown, a median pale irregular stripe on posterior half, and each side the pale runs up in an oblique manner ; venter pale. The palpus of male much on the style of *H. hirsutum*, but with the stylet not near as long and the projection from tibia more acute ; at base there is a stiff bristle-like projection or hair, which lies across the base of the bulb.

Los Angeles, Calif. (Davidson.)

Scius cinctipes, n. sp.

Length, 3.7 mm. Cephalothorax black, two large oblique red-brown spots behind the eye-region, nearly touching on the middle line, clothed above with white hairs, more yellowish in front ; mandibles yellowish brown ; legs yellowish, banded most distinctly from below with brown ; one on anterior femora, two on hind femora, one on patellæ, one on tibiæ, two on metatarsi, and one on hind margin of hind coxæ ; palpi also banded. Abdomen pale grayish, with many brown spots of irregular

shape, a median brown stripe, interrupted at posterior third, with two projections each side, the posterior one often connected to the side markings; on the posterior third the abdomen is mostly brown, with a few pale chevrons; sides brown, with rows of pale dots; venter pale, with brown spots and a brown central stripe; superior spinnerets brown, others pale; sternum pale, dark on sides. Cephalothorax low and flat, projecting over the mandibles, about one and one-fourth times as long as broad, broadest slightly behind dorsal eyes; eye-region a little broader behind than in front, one and three-fourths times as broad as long, occupying about two-fifths of the cephalothorax; M. E. very large and nearly touching; S. E. well separated from them and a little above, dorsal eyes equal to S. E., those of second row a trifle nearer to S. E.; legs short, femur I. very stout, IV. pair longest and most slender, metatarsus I. no longer than tarsus I., three pairs of spines under tibiæ I., one under metatarsus I., fore coxæ separated by width of lip; sternum pointed behind, about twice as long as broad. The epigynum shows a cavity twice as broad as long, evenly convex behind, biconcave in front, the sides pointed. Baton Rouge, Louisiana; May. (H. Soltaw.)

SOME NEW SPECIES OF GEOMETRIDÆ.

BY GEO. D. HULST, BROOKLYN, N. Y.

Tephroclystis plumbaria, n. sp.

Belongs to the *absinthiata* group, and is close to that species. Of a blackish fuscous colour, wings broad and rounded, lines faint, parallel with outer margin, evenly scalloped, the outer one most distinct and whitish. Costa with small black spots at beginning of the lines; discal spots on fore wings black, lengthened, on hind wings black points. Beneath lighter, smoother, the lines showing more evenly, more broadly and lighter. Dist. of Columbia, taken July 5th. Type number, in National Museum, 4701.

Tephroclystis Boiterii, n. sp.

Expands 21 mm. Palpi porrect long, heavy, dark fuscous; front dark fuscous; thorax fuscous gray; abdomen dark fuscous; fore wings narrow, pointed, light gray, somewhat fuscous, stained with a number of indeterminate wavy darker parallel cross lines, these showing more clearly at costa; discal spot black, lengthened, with black dash above on costal vein; three black dashes outside, beyond cell; median vein black lined and connecting with discal spot; an extra discal cross line of venular