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## NEW AMERICAN SPIDERS OF THE FAMILY CLUBIONIDAE. III

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In the present paper, which is the third under the title above, a number of clubionids of the subfamilies Micariinae and Corinninae are described. Unless otherwise indicated, the types of the new species are deposited in the collection of The American Museum of Natural History.

#### Micaria alberta, new species

#### Figure 1

Female.—Total length, 6.15 mm. Carapace, 2.70 mm. long, 1.30 mm. wide. Abdomen, 3.30 mm. long, 1.80 mm. wide.

Carapace golden brown, marked with inconspicuous radiating dark lines and clothed with golden hairs. Mid-line of the carapace with a row of erect black setae. Clypeus and ocular region with a few erect setae. Sternum and coxae yellow, very lightly infuscated, the first coxae darker, all clothed with erect black hairs. Mouth parts light yellowish brown. Legs clothed with dark hairs, the two front femora brown except at apex, with a narrow dorsal pale stripe the length which is set with white hairs, the distal joints of those legs yellow. Posterior legs mostly brown, with a narrow longitudinal dorsal pale stripe clothed with white hairs, the femora with similar side bands. Abdomen gray above, with a pair of transverse white bars above the pedicel and a larger pair at the middle of the dorsum: clothed with iridescent scales, those at the base golden but those of most of the dorsum silvery. In the paratype the golden scales cover most of the dorsum. Sides of the abdomen with two white bars nearly continuous with those on the dorsum and which connect with the pale venter.

Structure essentially as in Micaria aurata Hentz. Carapace of average length, an elongate oval, nearly truncated in front, the head of moderate breadth, equal to eight-thirteenths of the greatest width of the carapace at the second eye row (83/130). Carapace as seen from the side highest at a point between the first coxae, convex, gradually declining to the front, more strongly dropping behind to the margin. First eye row five-sixths as wide as the second, moderately procurved as seen from in front, the median separated by the diameter, nearly contiguous with the subequal lateral eyes. Second row of eyes gently procurved, essentially straight, the transversely oval median separated by one

and one-half diameters, about as far from the subequal lateral eyes. Median ocular quadrangle longer than broad (33/30), narrowed in front (30/26), the front eyes somewhat larger. Lateral eyes of each side separated by one and one-half diameters of the latter. Sternum longer than broad (1.03 mm./1.60 mm.), bluntly pointed behind between the fourth coxes which are separated by two-thirds their width.

Abdomen unconstricted, an elongate oval. Epigynum as shown in Fig. 1.

All femora with dorsal spines at base and apex. Distal joints of front pairs of legs unspined. First leg: femur, 1.30 mm., patella, 0.60 mm., tibia, 0.94 mm., metatarsus, 0.90 mm., and tarsus, 0.85 mm. long. Fourth leg: femur, 1.80 mm., patella, 0.70 mm., tibia, 1.42 mm., metatarsus, 1.58 mm., and tarsus, 0.94 mm. long.

Type Locality.—Female holotype and paratype from Medicine Hat, Alberta, June, 1930 (Carr).

This species is distinct from aurata in the narrower head, less widely separated eyes of posterior row, unconstricted abdomen and in the details of the epigynum.

#### Micaria gosiuta, new species

#### Figure 2

Micaria aurata Gertsch, 1933, Amer. Mus. Novitates, No. 637, p. 2, Fig. 6.

FEMALE.—Total length, 5.75 mm. Carapace, 2.25 mm. long, 1.33 mm. wide. Abdomen, 3.30 mm. long, 1.75 mm. wide.

Coloration in close agreement with alberta. Abdomen with a basal pair of white patches above the pedicel and a larger pair at the middle of the dorsum, otherwise evenly covered with golden scales.

Structure similar to that of alberta. Clypeus equal in height to one-half the diameter of an anterior median eye. Carapace of average length, the head equal to nine-thirteenths of the greatest width of the carapace at the second eye row (94/133). Carapace highest between the first coxae. First eye row four-fifths as wide as the second, moderately procurved as seen from in front, the median separated by four-fifths their diameter, nearly touching the sub-equal lateral eyes. Second row of eyes gently procurved, the median separated by two full diameters, one and one-fourth diameters from

the somewhat larger lateral eyes. Median ocular quadrangle as broad as long, narrowed in front (36/31), the front eyes considerably larger. Lateral eyes of each side separated by little more than the diameter of the posterior lateral eye. Sternum longer than broad (1.20 mm./0.76 mm.), bluntly pointed behind where the coxae are separated by four-fifths their width.

Abdomen unconstricted, an elongate oval.

Epigynum as shown in Fig. 2.

First leg: femur, 1.30 mm., patella, 0.62 mm., tibia, 1.05 mm., metatarsus, 0.94 mm., and tarsus, 0.88 mm.long. Fourth leg: femur, 1.87 mm., patella, 0.74 mm., tibia, 1.60 mm., metatarsus, 1.70 mm., and tarsus, 1.00 mm. long.

Type Locality.—Female holotype from City Creek Canyon, Salt Lake City, Utah, August 29, 1941 (W. J. Gertsch).

This species differs from alberta in the more widely separated eyes of the posterior row, the median being separated by two full diameters, and in the details of the epigynum.

#### Micaria riggsi, new species

#### Figure 4

FEMALE.—Total length, 4.00 mm. Carapace, 1.90 mm. long, 1.12 mm. wide. Abdomen, 2.00 mm. long, 1.30 mm. wide.

Carapace dark reddish brown, marked with black radiating lines, with a V-shaped maculation at the middle, the eyes ringed with black. Clothing of the carapace sparse, consisting of scattered iridescent scales and erect black setae on the pars cephalica. Sternum, mouth parts and coxae orange. Legs orange, the femora dusky on the sides. Abdomen black, covered evenly above with black iridescent scales, the sides with golden scales, the venter gray.

Structure normal, essentially as in gosiuta and alberta. Carapace highest at a point between the first and second coxae, the pars cephalica of average breadth. Clypeus equal in height to the diameter of an anterior median eye. First eye row narrower than the second (43/55), moderately procurved, the median separated by their radius, almost touching the subequal lateral eyes. Second row about half as wide as the carapace at that point (55/95), straight, the oval median separated by the diameter, three-fifths as far from the subequal lateral eyes. Median ocular quadrangle longer than broad (30/28). narrowed in front (28/23), the eyes subequal. Sternum, 1.50 mm. long, 0.90 mm. wide. Abdomen oval, moderately constricted at the middle.

Epigynum as illustrated in Fig. 4.

First leg: femur, 1.27 mm., patella, 0.55 mm., tibia, 0.95 mm., metatarsus, 0.75 mm., and tarsus, 0.72 mm. long.

Type Locality.—Female holotype from Norwalk, Connecticut, August 1, 1933 (W.J. Gertsch). Female paratype from the Great Smoky Mountains, Tennessee, July 8, 1933 (W. J. Gertsch).

## Micaria apacheana, new species

Figure 3

FEMALE.—Total length, 4.10 mm. Carapace, 1.50 mm. long, 2.40 mm. wide. Abdomen, 2.40 mm. long, 1.35 mm. wide.

Carapace yellowish brown, variegated with an inconspicuous pattern of dusky radiating lines, the eye tubercles black. Clothing of the carapace sparse, consisting of scattered yellow scales and the usual erect black setae on the pars cephalica. Sternum, mouth parts and coxae yellow to orange. Legs yellowish brown, the front femora dusky on the sides, the last two legs with distinct black side bands on femora, patellae, tibiae and metatarsi, leaving a pale dorsal stripe clothed with pale hairs. Abdomen covered with iridescent scales, those at the base golden over a white integument, those at the middle yellowish, but the caudal half covered with nearly black scales over a gray integument. Dorsum of the abdomen with the usual basal pair and a larger median pair of white spots covered with white scales. Venter white at base, gray in apical third.

Structure normal, essentially as in aurata and Carapace oval, truncated. related species. behind, the pars cephalica of average breadth. Carapace highest between the first coxae, moderately convex in profile. Clypeus equal in height to the diameter of an anterior median eye. First eye row four-fifths as wide as the second which is five-eighths as wide as the head at that point. First row moderately procurved, the median separated by scarcely the diameter, almost touching the subequal lateral eyes. Second row straight, the oval median separated by their long diameter, set obliquely, half as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, narrowed in front (26/21), the eyes subequal. Subequal lateral eyes of each side separated by the diameter. Sternum, 0.83 mm. long, 0.54 mm. wide, pointed between the posterior coxae which are separated by half their width.

Abdomen an elongate oval, with a slight constriction at middle. Epigynum as illustrated in Fig. 3.

First leg: femur, 0.86 mm., patella, 0.44 mm., tibia, 0.70 mm., metatarsus, 0.60 mm., and tarsus, 0.60 mm. long. Fourth leg: femur, 1.15 mm., patella, 0.48 mm., tibia, 0.96 mm., metatarsus, 1.00 mm., and tarsus, 0.65 mm. long.

Type Locality.—Female holotype from ten miles northeast of Whiteriver, White Mountains, Arizona, July 8–11, 1940 (W. J. Gertsch).

This pretty species is distinguished from other members of the aurata group in having a transverse ridge across the anterior portion of the epigynum.

# Micaria seminola, new species Figure 6

FEMALE.—Total length, 2.70 mm. Carapace, 1.05 mm. long, 0.68 mm. wide. Abdomen, 1.55 mm. long, 0.85 mm. wide.

Integument of the carapace yellowish brown, marked with dusky at the position of the obsolete median furrow and on the sides, the eyes ringed with black, the area enclosed mostly black. Sternum, labium and maxillae dusky over a yellowish base. Coxae pale yellow, somewhat dusky. Integument of the legs pale yellow, the first two femora mostly brown, the terminal joints pale. Posterior legs with narrow brown side stripes. Abdomen covered above with golden scales except for a large patch of black scales at the distal end, the venter mostly pale.

Structure normal, essentially as in triangulosa. Carapace suboval, of moderate elevation, the head of average breadth. Carapace highest between first and second coxae, moderately declining forward and caudad as seen in profile. Clypeus equal in height to scarcely the diameter of an anterior median eye. First row of eyes slightly narrower than the second (31/33), moderately procurved, the median separated by scarcely their diameter, nearly touching the subequal lateral eyes. Second eye row threefifths as wide as the head at that point (33/55), moderately procurved, the median separated by the diameter, half as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, slightly narrowed in front (16/19), the eyes subequal. Subequal lateral eyes of each side separated by scarcely the diameter. Sternum, 0.85 mm. long, 0.64 mm. wide.

Abdomen suboval, unconstricted. Epigynum as illustrated in Fig. 6.

First leg: femur, 0.65 mm., patella, 0.33 mm., tibia, 0.55 mm., metatarsus, 0.43 mm., and tarsus, 0.45 mm. long. Fourth leg: femur, 0.84 mm., patella, 0.37 mm., tibia, 0.76 mm., metatarsus, 0.76 mm., and tarsus, 0.52 mm. long.

Type Locality.—Female holotype from St. Augustine, Florida, February 25, 1934 (H. K. Wallace, 263). Female paratype from Gainesville, Florida, February 27, 1927 (W. M. Barrows). Female paratype from Pass Christian, Mississippi, August 12, 1938 (L. I. Davis).

This small species agrees in size and general appearance with *Micaria triangulosa* Gertsch. It is distinct in the comparatively longer legs, the fourth tibia and patella slightly exceeding the carapace in length, and in the details of the epigynum.

#### Micaria elizabethae, new species

Figures 10, 11 and 12

Micaria gentilis EMERTON, 1909, Trans. Connecticut Acad. Arts and Sci., XIV, p. 215, Pl. x, fig. 3d.

FEMALE.—Total length, 3.32 mm. Carapace, 1.27 mm. long, 0.83 mm. wide. Abdomen, 1.90 mm. long, 1.07 mm. wide.

Carapace brown, rather heavily mottled with black radiating lines and reticulations, medially with a V-shaped black maculation, the clothing of the carapace white scales. Sternum, maxillae and labium yellowish brown. First coxae dark, the others yellow, with an apical black band or ring. First two femora brown, the distal joints of those legs yellow. Posterior legs yellowish brown, lightly infuscated, particularly on the sides of the basal joints. Abdomen gray to black, covered with dark iridescent hairs or scales, the pattern of white spots for the most part rubbed off, a spot above the pedicel and a pair of transverse bars near the middle of the dorsum still Venter gray, paler just behind the distinct. epigynum.

Structure similar to that of Micaria montana Emerton and related species. Carapace of moderate length, relatively wide, widest between the second coxae. Carapace as seen from the side highest between the first coxae, convex, only moderately declining forward and caudad. First row of eyes three-fourths as wide as the second which is four-sevenths as wide as the front at that point. First eye row moderately procurved, the median separated by twothirds their diameter, about half as far from the subequal lateral eyes. Second row moderately procurved, the oval median separated by their long diameter, two-thirds as far from the subequal lateral eyes. Median ocular quadrangle longer than broad (22/20), narrowed in front (20/16), the eyes subequal in size. Clypeus scarcely as high as the diameter of an anterior median eye. Sternum, 0.74 mm. long, 0.55 mm. wide, bluntly pointed between the posterior coxae which are separated by their width.

Abdomen elongate oval, without constrictions. Epigynum as illustrated in Fig. 12.

Posterior legs with weak spines. First pairs unspined. First leg: femur, 0.74 mm., patella, 0.33 mm., tibia, 0.55 mm., metatarsus, 0.52 mm., and tarsus, 0.50 mm. long. Fourth leg: femur, 0.90 mm., patella, 0.40 mm., tibia, 0.76 mm., metatarsus, 0.84 mm., and tarsus, 0.54 mm. long.

Male.—Total length, 2.30 mm. Carapace, 0.95 mm. long, 0.65 mm. wide. Abdomen, 1.20 mm. long, 0.70 mm. wide.

Coloration as in the female. Abdomen black, rubbed, the white scale pattern obsolete. Eyes and general structure in very close agreement with the female. Second eye row about three-fifths as wide as the carapace at that point (34/57). First leg: femur, 0.64 mm., patella, 0.30 mm., tibia, 0.48 mm., metatarsus, 0.44 mm., and tarsus, 0.43 mm. long. Fourth leg: femur,

0.76 mm., patella, 0.35 mm., tibia, 0.64 mm., metatarsus, 0.66 mm., and tarsus, 0.47 mm.

Palpus as illustrated in Figs. 10 and 11.

Type Locality.—Male holotype from New Haven, Connecticut, June 1, 1938 (Elizabeth Kaston). Female allotype and paratype from Cold Spring Harbor, Long Island, New York, June 27, 1932 (W. J. Gertsch).

This species is allied to *Micaria montana* Emerton but averages considerably smaller in size. The epigynum is proportionately much broader and the tubules (bursae copulatrix) are widely separated. The shape of the tibial apophysis and the median apophysis of the bulb of the male palpus is distinct, as illustrated in the figures. This is apparently the same species as that which was described and illustrated by Emerton as *Micaria gentilis* Banks. The type of *gentilis* differs in no important respects from *montana* and falls as a synonym of that name.

## Micaria jeanae, new species

Figures 13, 14, 15 and 16

FEMALE.—Total length, 2.70 mm. Carapace, 1.03 mm. long, 0.64 mm. wide. Abdomen, 1.60 mm. long, 1.05 mm. wide.

Coloration of the carapace and abdomen differing in no important respect from elizabethae. Abdomen gray to black above, with a transverse row of three patches of white scales above the base, and a more widely separated, larger pair at the middle. Abdomen very weakly constricted near the middle. Venter nearly white. Legs pale yellow, the femora with broad brown side bands except at apex, the patellae, tibiae and metatarsi of the posterior legs also with longitudinal dark side bands.

Structure essentially as in elizabethae. Clypeus equal in height to two diameters of an anterior median eye. First row of eyes narrower than the second (27/33) which is three-fifths as wide as the head at that point. First row moderately procurved, the median separated from the subequal lateral by scarcely the diameter. Second row moderately procurved, the subbricular median separated by slightly more than their diameter, two-thirds as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, narrowed in front (18/15), the eyes subequal in size. Sternum, 0.60 mm. long, 0.44 mm. wide, bluntly pointed between the posterior coxae which are separated by their width.

Abdomen oval, very weakly constricted near the middle. Epigynum as illustrated in Fig. 14. Male.—Total length, 2.00 mm. Carapace, 0.90 mm. long, 0.58 mm. wide. Abdomen, 1.06 mm. long, 0.60 mm. wide.

Coloration in close agreement with the female. Structure essentially as in the female. Clypeus equal in height to one and one-third diameters of an anterior median eye. Second eye row three-fifths as wide as the head at that point (33/52). Posterior median eyes separated by their long diameter. Abdomen weakly constricted at middle. Legs proportionately longer than in the female. First leg: femur, 0.56 mm., patella, 0.23 mm., tibia, 0.44 mm., metatarsus, 0.38 mm., and tarsus, 0.41 mm. long. Fourth leg: femur, 0.70 mm., patella, 0.25 mm., tibia, 0.56 mm., metatarsus, 0.60 mm., and tarsus, 0.60 mm., and tarsus, 0.61 mm., long.

Palpus as illustrated in Figs. 13 and 15.

Type Locality.—Male holotype and female allotype from two miles east of Glenwood, Sevier County, Utah, June 30, 1941 (Jean M. Gertsch).

This pretty species is easily distinguished from all other species known from the United States by the tibia of the male palpus which is armed with a distinct dorsal and a retrolateral apophysis. The small size and the details of the epigynum will serve to separate the female.

#### Micaria rowani, new species Figures 17 and 18

Male.—Total length, 3.20 mm. Carapace, 1.38 mm. long, 1.03 mm. wide. Abdomen, 1.70 mm. long, 1.07 mm. wide.

Carapace dusky brown, marked with the usual darker lines, the eye tubercles black. Clothing of the carapace pale scales and a few erect black setae on the pars cephalica. Sternum, coxae and mouth parts yellowish brown. Legs yellow, evenly clothed with pale golden scales through which are scattered short black hairs, the distal joints dusky. Abdomen gray, evenly covered with iridescent scales which have a rather faint golden tinge, the dorsum with a very indistinct paler transverse stripe across the middle.

Structure essentially typical, similar to that of montana. Carapace suboval, moderately convex, slightly highest between the first coxae but of nearly equal height for most of the length. Clypeus slightly more than the diameter of an anterior median eye in height. Second eye row half as wide as the head at that point (43/85). First eye row three-fourths as wide as the second, moderately procurved, the median separated by the radius, nearly touching the subequal lateral eyes. Second row moderately procurved, the suboval median separated by one and onethird their long diameter, about half as far from the larger lateral eyes. Median ocular quadrangle longer than broad (23/21), narrowed in front (21/18), the eyes subequal. Lateral eyes of each side separated by a diameter. Sternum,

0.80 mm. long, 0.68 mm. wide, bluntly pointed behind, the posterior coxae separated by two-thirds their width. Abdomen unconstricted.

First leg: femur, 1.12 mm., patella, 0.60 mm., tibia, 0.95 mm., metatarsus, 0.80 mm., and tarsus, 0.70 mm. long. Fourth leg: femur, 1.29 mm., patella, 0.52 mm., tibia, 1.07 mm., metatarsus, 1.17 mm., and tarsus, 0.80 mm long.

Palpus as illustrated in Figs. 17 and 18.

Type Locality.—Male holotype from Seba, Alberta, July, 1932.

This species may be distinguished from *montana* by the longer tibial apophysis and the shorter, broader median apophysis of the bulb.

## Micaria salina, new species

#### Figure 5

FEMALE.—Total length, 3.50 mm. Carapace, 1.43 mm. long, 0.96 mm. wide. Abdomen, 2.00 mm. long, 1.15 mm. wide.

Coloration differing in no important details from absoluta.

Structure essentially as in montana and related species. Carapace of nearly equal height throughout the length, moderately elevated, convex, the carapace proportionately a little broader than in absoluta. Clypeus equal in height to slightly more than the diameter of an anterior median eye. First eye row narrower than the second (35/43), moderately procurved, the median separated by four-fifths the diameter, subcontiguous with the slightly larger lateral eyes. Second row four-sevenths as wide as the carapace at that point (43/75), very gently procurved, the oval median set obliquely, separated by their long diameter, two-thirds as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, narrowed in front (22/17), the eyes subequal. Lateral eyes of each side separated by fully their diameter. Sternum, 1.22 mm. long, 0.86 mm. wide, bluntly pointed behind, separated by the width of the coxae.

Abdomen oval, weakly constricted at middle. Epigynum as illustrated in Fig. 5.

First leg: femur, 1.00 mm., patella, 0.35 mm., tibia, 0.70 mm., metatarsus, 0.65 mm., and tarsus, 0.60 mm. long. Fourth leg: femur, 1.14 mm., patella, 0.50 mm., tibia, 0.95 mm., the terminal joints missing.

Type Locality.—Female holotype from Salina, Utah, June 19, 1935 (G. F. Knowlton).

#### Micaria gertschi Barrows and Ivie Figures 7, 8 and 9

Micaria gertschi Barrows and Ivie, 1942, Ohio Journal of Science, XLII, p. 21, Pl. 1, figs. 8 and 9.

Female.—Total length, 3.45 mm. Carapace, 1.42 mm. long, 0.84 mm. wide.

Abdomen, 1.80 mm. long, 1.30 mm. wide.

Carapace dark brown, marked with black radiating lines and with a V-shaped black figure at the center, the clothing of white scales rather sparse. Sternum, first coxae and mouth parts dusky brown. Legs yellowish brown, the first femora darkened, the posterior legs dusky on the sides. Abdomen black above or nearly so, covered evenly with iridescent scales, marked above base with two small white spots and with a larger median pair of bars continuous down the sides. Venter gray.

Structure essentially as in montana. Carapace of moderate height, rather long, oval, of nearly equal height throughout Clypeus one and one-third the length. diameters of an anterior median eye. First row of eyes narrower than the second (35/45), moderately procurved, the median separated by their diameter, subcontiguous with the slightly larger lateral eyes. Second row essentially straight, the oval median set obliquely, separated by their long diameter, two-thirds as far from the subequal lateral eves. Median ocular quadrangle longer than broad (25/23), narrowed in front (23/20), the eyes subequal. Sternum, 1.10 mm. long, 0.76 mm. wide, pointed behind where the posterior coxae are separated by three-fourths their width.

Abdomen oval, unconstricted. Epigynum as illustrated in Fig. 9.

First leg: femur, 1.04 mm., patella, 0.50 mm., tibia, 0.73 mm., metatarsus, 0.74 mm., and tarsus, 0.67 mm. long. Fourth leg: femur, 1.30 mm., patella, 0.50 mm., tibia, 1.00 mm., metatarsus, 1.20 mm., and tarsus, 0.70 mm. long.

Male.—Total length, 3.05 mm. Carapace, 1.35 mm. long, 0.85 mm. wide. Abdomen, 1.60 mm. long, 0.80 mm. wide.

Coloration in close agreement with the female. Structure essentially as in the female. Abdomen weakly constricted. First leg: femur, 1.15 mm., patella, 0.55 mm., tibia, 1.00 mm., metatarsus, 0.85 mm., and tarsus, 0.76 mm. long. Fourth leg: femur, 1.30 mm., patella, 0.48 mm., tibia, 1.07 mm., metatarsus 1.20 mm., and tarsus, 0.77 mm. long.

Palpus as illustrated in Figs. 7 and 8.

RECORDS.—Male and female from Pine Lake, northeast of Lansing, Michigan, June 26, 1921 (W. M. Barrows). Female from Lake Minnetonka, near Minneapolis, Minnesota, June 3, 1932 (W. J. Gertsch). Male from Sioux City, Iowa (C. N. Ainslie). Female from Buffalo, South Dakota, June 20, 1936 (Peterson). Male from Boulder, Colorado (T. D. A. Cockerell). Female from Pagosa Springs, Colorado, June 21–23, 1919 (F. E. Lutz).

This species is similar in general appearance to *montana*. It is distinct in the shorter tibial apophysis and the shape of the median apophysis of the bulb of the male palpus. The epigynum differs in shape, as shown in the figure.

#### Castianeira alteranda, new species

Figures 19 and 20

Castianeira amoena Gertsch and Jellison, 1939, Amer. Mus. Novitates, No. 1032, p. 11.

FEMALE.—Total length, 8.60 mm. Carapace, 3.85 mm. long, 2.40 mm. wide. Abdomen, 4.35 mm. long, 2.25 mm. wide.

Carapace orange, evenly clothed with golden hairs, the eyes narrowly ringed with black. Underside of carapace orange. First two legs yellowish, the femora brown except at tips. Posterior legs darker except the tarsi, the femora brown on the sides, the tibiae brown but with basal and distal yellow annulae, the metatarsi dusky. Abdomen with a bright pattern in orange and black as follows: basal half golden except for a basal spot and a black patch on each side continuous with the black of the sides; distal half of abdomen golden but crossed by three black bands and with an apical black spot; venter gray, with a narrow pale line down each side.

Structure normal, in close agreement with Castianeira amoena Koch. Clypeus equal in height to twice the diameter of an anterior median eye. Carapace of about equal height from the eyes to the linear median groove. First eye row moderately procurved, the median separated by three-fifths their diameter, half as far from the subequal lateral eyes. Second row five-ninths as wide as head at that point, procurved, the median separated by one and one-third diameters, two-thirds of a diameter from the subequal lateral. Median ocular quadrangle as broad as long, narrowed in front (55/46), the eyes subequal. Sternum, 1.70 mm. long, 1.35 mm. wide.

Abdomen suboval, unconstricted, the basal scutum inconspicuous, not attaining the dorsum. Epigynum as illustrated in Fig. 20.

First leg: femur, 2.50 mm., patella, 1.10 mm., tibia, 2.00 mm., metatarsus, 1.80 mm., and tarsus, 1.26 mm. long. Fourth leg: femur, 3.15 mm., patella, 1.30 mm., tibia, 2.85 mm., meta-

tarsus, 3.50 mm., and tarsus, 1.60 mm. long. First tibia with 1-2-0, the first metatarsus with 2-2-0 ventral spines, all of them weak.

MALE.—Total length, 8.20 mm. Carapace, 3.80 mm. long, 2.50 mm. wide. Abdomen,

4.20 mm. long, 2.30 mm. wide.

Carapace and legs colored much as in the female but darker. Abdomen essentially as in the female, but the caudal half is not crossed by black bands and the apical spot is missing; central area forming a median longitudinal golden stripe, interrupted at the sides by the broken black bands. Venter red; the sides light brown.

Structure essentially as in the female. Posterior eyes somewhat nearer together, the posterior median separated by only their diameter. Sternum, 1.65 mm. long, 1.35 mm. wide. Dorsum of abdomen covered with a scutum which is reddish except at apex.

Palpus as illustrated in Fig. 19.

Tibia of the first leg with 2-2-2, the metatarsus with 2-2-0 ventral spines, all of them weak. First leg: femur, 2.25 mm., patella, 1.00 mm., tibia, 2.00 mm., metatarsus, 2.00 mm., and tarsus, 1.40 mm. long. Fourth leg: femur, 3.00 mm., patella, 1.20 mm., tibia, 2.70 mm., metatarsus, 3.50 mm., and tarsus, 1.50 mm. long.

Type Locality.—Male holotype from Hamilton, Ravalli County, Montana, May 24, 1934 (W. L. Jellison). Female allotype from Willow Creek Ridge, Ravalli County, Montana, May 26, 1935 (W. J. Jellison). Male and immature female paratypes from Hamilton, May 20, 1934 (C. B. Philip). Two immature female paratypes from Custer County, Montana (J. Bauer).

This handsome species is similar in coloration and general appearance to Castianeira amoena Koch. It is best differentiated by reference to the legs which are proportionately longer, the fourth patella and tibia taken together exceeding the carapace in length, not being considerably shorter.

#### Castianeira variata, new species

Figure 21

FEMALE.—Total length, 9.30 mm. Carapace, 3.50 mm. long, 2.25 mm. wide. Abdomen, 5.50 mm. long, 3.70 mm. wide.

Carapace dark reddish brown to nearly black, darker on the sides, clothed rather thinly but evenly with white plumose hairs. Sternum and first coxae dark reddish brown, the other coxae yellowish. Mouth parts dark reddish brown, tipped with yellow. First and second femora nearly black except at tips, the distal joints of both of those legs yellow. Third femur dark reddish brown except for the pale tips, with white plumose scales, the terminal joints of the third

leg yellowish brown. Fourth leg dark reddish brown except for the pale tip of the femur, the distinct yellow basal and distal rings on the tibia and the paler tarsus. Integument of the abdomen dark reddish brown, the dorsum evenly clothed with black plumose hairs, varied with narrow transverse rows of white scales which form bands as in longipalpus Hentz. Venter with a thinner covering of hairs and with four longitudinal lines of pale spots, the middle pairs less distinct.

Structure typical, essentially as in longipalpus. Carapace of nearly equal height from eyes to the posterior declivity, declining gradually over the eyes and more precipitately behind. Vertical clypeus scarcely twice as high as the diameter of an anterior median eye. First eye row moderately procurved, the median separated by two-thirds the diameter, subcontiguous with the somewhat smaller lateral eyes. Second eye row ten-seventeenths as wide as head at that point, the round median separated by more than their diameter (20/16), half as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, slightly narrowed in front (52/48), the eyes subequal in size. Lateral eyes of each side separated by two-thirds the diameter of the posterior lateral. Sternum, 1.50 mm. long, 1.25 mm. wide.

Abdomen suboval, moderately high, unconstricted, the basal scutum of average size, not attaining the dorsal aspect. Epigynum as illustrated in Fig. 21.

First tibia with 2-2-(2), the metatarsus with 2-2-0 ventral spines, all of them weak. First leg: femur, 2.00 mm., patella, 0.90 mm., tibia, 1.52 mm., metatarsus, 1.54 mm., and tarsus, 1.15 mm. long. Fourth leg: femur, 2.50 mm., patella, 1.25 mm., tibia, 2.25 mm., metatarsus, 2.70 mm., and tarsus, 1.25 mm. long.

Male.—Total length, 6.85 mm. Carapace, 3.20 mm. long, 2.10 mm. wide. Abdomen, 3.35 mm. long, 1.75 mm. wide.

Coloration in close agreement with the female. Structure essentially as in the female. Clypeus equal in height to twice the diameter of an anterior median eye. Anterior median eyes separated by a little more than the radius. Second row of eyes six-elevenths as wide as the head at that point, moderately procurved, the round median separated by one and one-third times the diameter, scarcely a diameter from the subequal lateral eye. Median ocular quadrangle as broad as long, slightly narrowed in front (46/41), the front eyes larger. Abdomen elongate, unconstricted, covered above with a finely pitted scutum, the venter also coriaceous except at sides and around the spinnerets.

Palpus agreeing closely with that of alterands, as illustrated in Fig. 19. Leg spines as in the female.

First leg: femur, 1.80 mm., patella, 0.80 mm., tibia, 1.65 mm., metatarsus, 1.70 mm., and tarsus, 1.20 mm. long. Fourth leg: femur, 2.40 mm., patella, 0.90 mm., tibia, 2.00 mm., metatarsus, 2.55 mm., and tarsus, 1.20 mm. long.

Type Locality.—Male holotype, female allotype and male and female paratypes from Cold Spring Harbor, Long Island, New York, June 21, 1932 (W. J. Gertsch). Male paratype from Norwalk, Connecticut, June 23, 1933 (W. J. Gertsch). Male and female paratypes from Kingston, Tennessee, July 10–15, 1933 (W. J. Gertsch). Female paratype from Bowling Green, Kentucky, September 4, 1928.

This species is similar in general appearance to Castianeira longipalpus Hentz. It differs at sight in having the posterior tibiae marked with distinct basal and distal yellow annulae. The openings of the epigynum are transverse slits, and the embolus of the male palpus is very much longer.

#### Castianeira vulnerea, new species Figures 22 and 23

FEMALE.—Total length, 5.75 mm. Carapace, 2.60 mm. long, 1.80 mm. wide. Abdomen, 3.05 mm. long, 2.05 mm. wide.

Carapace yellowish brown, darker on the sides, the eyes ringed with black and enclosing a black field, the clothing of plumose hairs sparse. Sternum brown; the labium and maxillae brown except for the pale tips. Coxae yellow. Femora mostly brown, the distal joints of the front legs yellow, of the last legs dusky. Abdomen clothed above with golden hairs, probably red in life, and with a median longitudinal pattern of white plumose hairs made up of transverse bands, the basal and median bands going far down the sides.

Structure typical, essentially as in Castianeira descripta Hentz. Carapace about equal in height from front to apex as seen in profile, the front moderately narrowed. Clypeus equal in height to two diameters of an anterior median eye. First row of eyes moderately procurved, the median separated by two-thirds their diameter. subcontiguous with the subequal lateral. Second row seven-thirteenths as wide as head at that point, moderately procurved, the median separated by slightly more than the diameter, half as far from the subequal lateral eyes. Median ocular quadrangle slightly longer than broad (43/41), narrowed in front (41/31), the eyes subequal. Lateral eyes of each side separated by two-thirds their diameter. Sternum, 1.20 mm. long, 1.05 mm. wide.

Abdomen oval, unconstricted. Epigynum as illustrated in Fig. 23.

First tibia and metatarsus with 2-2-0 ventral spines, all of them weak. First leg: femur, 1.70 mm., patella, 0.77 mm., tibia, 1.30 mm., metatarsus, 1.32 mm., and tarsus, 0.92 mm. long. Fourth leg: femur, 2.20 mm., patella, 0.90 mm., tibia, 1.95 mm., metatarsus, 2.33 mm., and tarsus, 1.10 mm. long.

Male.—Total length, 4.65 mm. Carapace, 2.10 mm. long, 1.50 mm. wide. Abdomen, 2.45 mm. long, 1.30 mm. wide.

Coloration in close agreement with the female. Clypeus equal in height to twice the diameter of an anterior median eye. Eyes as in the female. Dorsum of abdomen covered, except at tip, with a golden brown scutum; ventral scutum less extensive.

Palpus as illustrated in Fig. 22.

First leg: femur, 1.43 mm., patella, 0.53 mm., tibia, 1.08 mm., metatarsus, 1.08 mm., and tarsus, 0.85 mm. long. Fourth leg: femur, 1.80 mm., patella, 0.66 mm., tibia, 1.60 mm., metatarsus, 2.05 mm., and tarsus, 1.10 mm. long.

Type Locality.—Male holotype, female allotype and male and female paratypes from Coney Island, New York, August 20, 1879 (N. Pike). Male and female paratype from Long Island, New York (N. Pike).

This species is similar to descripta with which it agrees closely in the genitalia. It may be distinguished by its smaller size, the proportionately broader carapace and paler coloration. The abdomen has a more extensive red or golden area on which is superimposed a pattern of white.

#### Castianeira arizonica, new species

FEMALE.—Total length, 4.50 mm. Carapace, 1.64 mm. long, 1.03 mm. wide. Abdomen, 2.80 mm. long, 1.40 mm. wide.

Carapace yellow except for the caudal third which is black, the eyes narrowly ringed with black and enclosing a dusky field. Sternum dull yellow, the caudal end dusky. Mouth parts dull yellow. First coxa dusky, the second and third black, the fourth with a black ring at base and apex, the middle area dull yellow. Palpi and first legs dull yellow, dusky on the sides of patella, tibia and metatarsus to form an indistinct longitudinal stripe. Femur of second leg black, the remainder of the leg dull yellow with indistinct dusky side stripes. Third and fourth legs all black except for the paler tarsi. Abdomen black, with an oblique side band on each side.

Carapace suboval, convex, the median groove obsolete; as seen in profile highest between the first coxae, gradually declining forward over the eyes and caudad to the margin. Clypeus equal in height to the diameter of an anterior median eye. First row of eyes narrower than the second (55/51), moderately procurved, the median separated by the radius, nearly touching the subequal lateral eyes. Second row five-eighths as wide as the head at that point (51/85), straight, the median separated by slightly more than the diameter (12/9), half as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, narrowed in front (30/26), the front eyes somewhat larger. Lateral eyes of

each side separated by the diameter of the posterior lateral. Both margins of the chelicerae without teeth. Sternum, 1.25 mm. long, 0.97 mm. wide, pointed behind between the posterior coxae which are separated by half their width.

Abdomen elongate oval, of average height without vestige of basal scutum.

Legs without true spines. First leg: femur, 1.20 mm., patella, 0.50 mm., tibia, 1.00 mm., metatarsus, 0.85 mm., and tarsus, 0.83 mm. long. Fourth leg: femur, 1.90 mm., patella, 0.50 mm., tibia, 1.50 mm., metatarsus, 1.73 mm., and tarsus, 0.85 mm. long.

Type Locality.—Immature female holotype from Phoenix, Arizona (Crandall).

## Trachelas huachucanus, new species

Figure 26

FEMALE.—Total length, 9.30 mm.

|          | Length   | $\mathbf{Width}$ |
|----------|----------|------------------|
| Carapace | 3.80 mm. | 3.35 mm          |
| Front    | 0.75     | 2.00             |
| Sternum  | 2.50     | 1.50             |
| Labium   | 0.73     | 0.65             |
| Maxilla  | 1.10     | 0.60             |
| Abdomen  | 5.50     | 3.60             |

Coloration in close agreement with other known species of the genus. Carapace uniform reddish brown, relatively smooth, shining, covered with tiny inconspicuous hairs which are set in minute pits. Pars cephalica with a median row of erect black bristles from the shallow linear median groove to the posterior eye row and with several erect bristles in the ocular region. Clypeus with four principal fine long setae and smaller intermediate ones. Sternum pale yellowish brown, the margins much darker, set with short subprocumbent hairs and evenly but sparsely set with long erect setae. Labium and maxillae reddish brown, clothed as the sternum. Legs yellowish brown, the first pair somewhat darker, clothed evenly with short hairs which are set in tiny pits. Abdomen dusky, with numerous small white spots.

Structure in close agreement with Trachelas tranquillus and related species. Clypeus equal in height to two-thirds the diameter of an interior lateral eye. First row of eyes much narrower than the second (53/76), moderately procurved, the circular median separated by two-thirds their diameter (25/17), somewhat nearer the slightly smaller lateral eyes (25/15). Second row of eyes recurved, a line along the caudal margins of the lateral eyes cutting the caudal edges of the median eyes. Posterior median eyes separated by one and one-half diameters (24/38), two full diameters from the subequal lateral eyes (24/54). Median ocular quadrangle broader than long (85/65), narrowed in front (85/67), the anterior median eyes larger.

Legs without true spines, set with a few long fine setae. First tibia with eight or nine ventral setae and with a ventral row of five well separated cuspules on the prolateral side. Second tibia without cuspules. First and second metatarsi with two ventral rows of cuspules, about ten in each row. Tibia and patella I, 4.30 mm.; IV, 4.20 mm.

Epigynum as illustrated in Fig. 26.

Type Locality.—Female holotype from the Huachuca Mountains, Arizona, July 18, 1936 (J. N. Knull).

#### Trachelas boringuensis, new species

Trachelas bicolor Petrunkevitch, 1930, Trans. Connecticut Acad. Arts and Sci., XXXI, p. 108, Fig. 90.

Female.—Total length, 6.50 mm.

|          | Length    | $\mathbf{W}\mathbf{idth}$ |
|----------|-----------|---------------------------|
| Carapace | 2.70  mm. | $2.00~\mathrm{mm}$        |
| Front    | 0.45      | 1.30                      |
| Sternum  | 1.40      | 1.06                      |
| Labium   | 0.46      | 0.46                      |
| Maxilla  | 0.70      | 0.35                      |
| Abdomen  | 3.85      | 2.75                      |

Coloration in close agreement with huachucanus and other species. Abdomen uniform dusky yellow, the muscle impressions visible as four small spots.

Clypeus equal in height to one-third the diameter of an anterior median eye. First row of eyes narrower than the second (54/60), procurved, the median separated by their radius, almost a full diameter from the somewhat larger lateral eyes. Second row of eyes recurved, a line along the front edges of the lateral almost cutting the caudal edges of the median eyes. Posterior median eyes separated by more than their diameter (17/24), about as far from the subequal lateral eyes (17/27). Median ocular quadrangle broader than long (57/42), narrowed in front (57/41), the eyes subequal in size.

First tibia with two ventral rows of cuspules, fifteen on the prolateral side, ten on the retrolateral side. First metatarsus with two rows of about twelve on each side. Second tibia with two cuspules below near the distal end. Tibia and patella I, 3.00 mm.; IV, 2.35 mm.

Type Locality.—Female holotype from Aibonito, Puerto Rico, June 1, 1915 (F. E. Lutz).

The epigynum of the type of *Trachelas bicolor* Keyserling from Haiti has been figured recently by Miss E. B. Bryant (1940, Bull. Mus. Comp. Zool., LXXXVI, p. 443, Figs. 224, 233 and 235). In *bicolor* the openings of the epigynum are well separated, situated near the caudal end of the atrium, and there are two dark receptacles beneath the integument near the frontal margin. In *Trachelas borinquensis*, new species, from Puerto Rico, the open-

ings are close together near the caudal margin of the atrium, are separated by a narrow septum, and lie between the small receptacles.

Trachelas jamaicensis, new species
Figure 28

FEMALE.—Total length, 12.00 mm.

| Length   | $\mathbf{Width}$                         |
|----------|--|
| 4.70 mm. | 3.80 mm.                                 |
| 0.85     | 2.50                                     |
| 2.50     | 1.80                                     |
| 0.90     | 0.80                                     |
| 1.40     | 0.70                                     |
| 7.30     | 1.50                                     |
|          | 4.70 mm.<br>0.85<br>2.50<br>0.90<br>1.40 |

Coloration and general structure in close agreement with *bicolor* and related species. Tibiae and metatarsi of posterior legs distinctly annulate in black, each with a subbasal and a distal ring.

Clypeus low, equal in height to one-third the diameter of an anterior median eye. First row of eyes procurved, the median separated by two-thirds their diameter (25/39), more than a full diameter from the subequal lateral eyes (39/40). Second row broader than the first (11/9), the median separated by scarcely two diameters (33/56), more than two full diameters from the subequal lateral eyes (33/73). Median ocular quadrangle broader than long (65/50), narrowed in front (65/53), the front eyes clearly larger (40/36).

First tibia set with a ventral series of cuspules for most of the length, approximately one hundred, scattered over the ventral aspect and not arranged in rows. First metatarsus with two irregular ventral rows of cuspules, about sixteen in each row. Second tibia with a ventral row of seven cuspules near the distal end. Tibia and patella I, 1.00 mm.; IV, 0.82 mm.

Epigynum as illustrated in Fig. 28.

Type Locality.—Female holotype from Cinchona, Jamaica, B. W. I., February 6, 1911.

This is a larger species than bicolor but otherwise seems to be rather closely related in general structure. The openings of the epigynum in jamaicensis are somewhat nearer together and are placed farther forward than in bicolor.

Trachelas arizonatus, new species Figures 24 and 25

Female.—Total length, 10.60 mm.

|          | Length   | $\mathbf{Width}$ |
|----------|----------|------------------|
| Carapace | 3.80 mm. | 2.90  mm.        |
| Front    | 0.60     | 1.80             |
| Sternum  | 1.75     | 1.35             |
| Labium   | 0.68     | 0.68             |
| Maxilla  | 1.05     | 0.58             |
| Abdomen  | 6.80     | 4.75             |

Coloration and general structure in close agreement with *Trachelas tranquillus* and related species. Abdomen dusky gray, with a dark basal streak.

Clypeus equal in height to one-third the diameter of an anterior lateral eye. First row of eyes much narrower than the second (11/15), procurved, the median separated by two-thirds their diameter (14/25), nearer the subequal lateral (7/25). Second row of eyes recurved, a line along the front edges of the lateral eyes falling behind the caudal edges of the median by their radius. Posterior median eyes separated by less than two diameters (18/30), separated from the subequal laterals by more than two diameters (18/43). Median ocular quadrangle broader than long (65/46), narrowed in front (65/56), the anterior median eyes larger.

First tibia with a double row of fifteen cuspules on the prolateral side. First metatarsus with two ventral rows of cuspules, thirteen on each side. Tibia and patella I, 3.55 mm.; IV, 3.35 mm.

Epigynum as illustrated in Fig. 24. MALE.—Total length, 5.80 mm.

|          | Length    | $\mathbf{Width}$ |
|----------|-----------|------------------|
| Carapace | 2.65  mm. | 2.15  mm         |
| Front    | 0.40      | 1.10             |
| Sternum  | 1.30      | 1.05             |
| Labium   | 0.48      | 0.48             |
| Maxilla  | 0.75      | 0.40             |
| Abdomen  | 3.15      | 2.35             |

Coloration as in the female. Structure essentially as in the female. First row of eyes narrower than the second (80/106), procurved, the median separated by two-thirds their diameter (12/17), nearer the lateral eyes (6/17). Second row of eyes less recurved than in the female, a line along the front edges of the lateral eyes falling behind the median eyes by one-fourth their radius. Posterior median eyes separated by three-fourths their diameter (14/20), nearly two diameters from the subequal lateral eyes (14/27). Median ocular quadrangle broader than long (49/36), narrowed in front (43/36), the front eyes larger.

First tibia with a ventral row of five cuspules on the prolateral side. Tibia and patella I, 2.75 mm.; IV, 2.47 mm.

Palpus as illustrated in Fig. 25.

Type Locality.—Male holotype and female allotype from Scottsdale, Arizona, January 28, 1903 (Britcher).

#### Trachelas submissus, new species

Figure 27
Female.—Total length, 7.50 mm.

|          | Length   | Width    |
|----------|----------|----------|
| Carapace | 2.80 mm. | 2.40 mm. |
| Front    | 0.50     | 1.35     |
| Sternum  | 1.44     | 1.15     |
| Labium   | 0.54     | 0.54     |
| Maxilla  | 0.85     | 0.50     |
| Abdomen  | 4.75     | 3.30     |

Coloration as in arizonatus and related species. Carapace covered evenly with small punctures as usual in this section of the genus. Clypeus equal in height to slightly more than the radius of an anterior median eye. First row of eyes gently procurved as seen from in front, the median eyes separated by two-thirds their diameter, half as far from the subequal lateral eyes. Second row recurved, a line along the anterior edges of the lateral touching the caudal edges of the median. Posterior median eyes separated by more than a diameter (24/18), farther from the subequal lateral eyes (27/18). Median ocular quadrangle broader than long (60/44), narrowed in front (60/53), the front eyes larger (20/16). Sternum with numerous pits. Chelicera with two teeth on the lower margin.

First tibia with four cuspules below near the distal end and one near the base of the segment. First metatarsus with a double row of ten prolateral and five retrolateral cuspules on the ventral aspect. First leg: femur, 2.30 mm., patella, 1.12 mm., tibia, 1.85 mm., metatarsus, 1.70 mm. and tarsus, 1.00 mm. long. Fourth tibia and patella, 2.65 mm. long.

Epigynum as illustrated in Fig. 27.

Type Locality.—Female holotype from Taquarazapa, Alto Parana, Paraguay.

This species is related to *Trachelas transversus* Cambridge with which it agrees in general appearance and in having the posterior row of eyes moderately recurved. In *submissus* the atriobursal orifices are placed much nearer the genital furrow.

## Trachelas hassleri, new species

Figure 29
FEMALE.—Total length, 3.60 mm.

|          | $\mathbf{Length}$ | $\mathbf{W}\mathbf{idth}$ |
|----------|-------------------|---------------------------|
| Carapace | 2.40 mm.          | 1.90 mm.                  |
| Front    | 0.60              | 1.25                      |
| Sternum  | 1.30              | 1.10                      |
| Labium   | 0.50              | 0.45                      |
| Maxilla  | 0.70              | 0.40                      |
| Abdomen  | 2.40              | 1.70                      |

Coloration and general structure in close agreement with *Trachelas tranquillus* and related species. Abdomen gray, the dorsum with a pale streak from base to middle.

Clypeus equal in height to two-thirds the diameter of an anterior lateral eye. First row of eyes narrower than the second (8/11), procurved, the median separated by two-thirds their diameter, as far from the subequal lateral eyes. Second row of eyes recurved, a line along the front edges of the lateral just touching the caudal edges of the median eyes. Posterior median eyes separated by about one and one-half diameters (14/20), separated from the subequal lateral by two diameters (14/29). Median ocular quadrangle broader than long (47/36), narrowed in

front (47/38), the eyes subequal in size. Carapace, chelicerae and basal portion of first femora roughened. Sternum roughened and conspicuously rebordered. Chelicera armed below with four teeth, the one nearest the base of claw smallest.

Legs of average length and stoutness, without conspicuous spines or cusps. First metatarsus with three tiny cusps at apex; first tarsus with four tiny cusps. Tibia and patella I, 2.60 mm.; IV, 2.35 mm.

Epigynum as illustrated in Fig. 29.

Type Locality.—Female holotype from Rupununi River, near Mt. Makarapan, British Guiana, October 5, 1937 (W. G. Hassler).

This pretty species belongs in the section of the genus which includes *Trachelas bispinosus* Cambridge with which it agrees closely in size and general structure. The openings of the epigynum are small and set close together as in *bispinosus*, but the shallow atrial cavity is proportionately much larger.

## **Meriola arequipa,** new species Figure 34

Female.—Total length, 4.35 mm.

|          | $\mathbf{Length}$ | $\mathbf{Width}$ |
|----------|-------------------|------------------|
| Carapace | 1.95 mm.          | 1.65 mm          |
| Front    | 0.33              | 1.00             |
| Sternum  | 1.20              | 0.90             |
| Labium   | 0.37              | 0.37             |
| Maxilla  | 0.55              | 0.35             |
| Abdomen  | 2.50              | 1.65             |

Coloration as in Meriola californica Banks. Carapace reddish brown, rather finely roughened, covered with inconspicuous pale hairs, the clypeus with several weak bristles. Sternum and mouth parts brown. Chelicerae reddish brown. Legs yellowish brown, marked with broken dusky annulae at base and distal ends of tibiae and metatarsi. Abdomen gray, with a median dusky streak from base to beyond middle and dusky chevrons in the caudal half.

Structure in close agreement with Meriola californica Banks. Clypeus equal in height to about the radius of an anterior lateral eye. First row of eyes narrower than the second (6/7), gently procurved as seen from in front, the median separated by the radius, half as far from the subequal lateral eyes. Second row recurved, a line along the front edges of the lateral cutting the centers of the median eyes. Posterior median eyes oval, set obliquely, separated by their short diameter, farther from the subequal lateral eyes (12/20). Median ocular quadrangle broader than long (44/36), narrowed in front (44/41), the eyes subequal in size. Carapace rather low, convex, the short linear median groove set back

three-fourths the length of the carapace. Sternum pointed behind where the posterior coxae are separated by half their width. Chelicerae roughened in front, geniculate, the lower margin armed with two teeth.

Legs without true spines, clothed with fine hairs. Tibia and patella I, 2.10 mm. long; IV, 2.05 mm. long.

Epigynum as illustrated in Fig. 34.

Type Locality.—Female holotype from Arequipa, Peru.

This species is closely related to californica but may be readily distinguished by reference to the epigynum and to the eyes of the posterior row, the median of which are oval, set obliquely and are nearer together than their distance from the lateral.

# Trachelopachys aemulatus, new species Figure 33

FEMALE.—Total length, 6.15 mm.

|          | Length   | $\mathbf{W}\mathbf{idth}$ |
|----------|----------|---------------------------|
| Carapace | 2.50 mm. | 2.20 mm.                  |
| Front    | 0.45     | 1.20                      |
| Sternum  | 1.30     | 1.10                      |
| Labium   | 0.40     | 0.55                      |
| Maxilla  | 0.65     | 0.40                      |
| Abdomen  | 4.00     | 2.50                      |

Carapace dull reddish brown, finely roughened, clothed evenly and rather thickly with procumbent gray hairs. Sternum smooth, brown, sparsely clothed with soft gray hairs. Maxillae concolorous with the sternum but the labium darker brown. Legs pale yellowish brown. Abdomen gray, with an even covering of procumbent gray hairs and set sparsely with short erect bristles, the only pattern being the four points of internal muscle attachments.

Carapace relatively low, convex, broad in front, the median groove and cephalic sutures obsolete. Clypeus equal in height to the diameter of an anterior median eye. First row of eyes gently procurved, the median separated by about their radius (13/23), subcontiguous with the lateral eyes which are smaller in the ratio 23:20. Second row only moderately recurved, a line along the front edges of the lateral cutting through the front third of the median Posterior median eyes broadly oval, separated by slightly more than the diameter (10/11), as far from the subequal lateral eyes. Median ocular quadrangle broader than long (60/50), narrowed in front (60/55), the front eyes larger in the ratio 23:20.

All legs without true spines. First leg only slightly more robust than the fourth. First leg: femur, 1.90 mm., patella, 0.85 mm., tibia, 1.60 mm., metatarsus, 1.30 mm., and tarsus, 0.80 mm. long. Fourth leg: femur, 1.82 mm., patella, 0.73 mm., tibia, 1.55 mm., metatarsus, 1.72 mm. and tarsus, 0.56 mm. long.

Epigynum as illustrated in Fig. 33.

Type Locality.—Female holotype and paratype from Apa, Paraguay, January–February, 1909.

## Stethorrhagus hassleri, new species

Figure 35 MALE.—Total length, 6.00 mm.

|          | Length    | $\mathbf{Width}$ |
|----------|-----------|------------------|
| Carapace | 2.70  mm. | 2.20  mm.        |
| Front    | 0.60      | 1.00             |
| Sternum  | 1.20      | 1.20             |
| Labium   | 0.40      | 0.46             |
| Maxilla  | 0.80      | 0.40             |
| Abdomen  | 3.25      | 1.65             |

Carapace and chelicerae light brown, inconspicuously flecked and lined with darker brown, the eyes narrowly ringed with black. Carapace sparsely covered with fine black hairs. Sternum, coxae and mouth parts light brown. Legs paler than the carapace, yellowish brown, finely flecked with brown. Abdomen dull brown, the dorsum with a narrow yellowish scutum from base to middle.

Clypeus vertical, moderately high, equal to four-fifths the diameter of an anterior median eye. Carapace suborbicular, the head relatively narrow, equal to about half the greatest width of the carapace at the second eye row. First row of eyes very slightly narrower than the second, procurved as seen from in front, the very large median eyes separated by two-fifths their diameter, less than half as far from the much smaller lateral eyes. Second row strongly procurved, the median separated by their full diameter, about as far from the subequal lateral eyes. Median ocular quadrangle broader than long (70/65), narrowed behind in the same ratio, the front eyes very much larger. Lower margin of the furrow of the chelicera with five subequal teeth; the upper margin with three teeth, the middle one much larger, the series of three beginning at a point near the innermost tooth of the lower margin series.

Legs long and rather thin, set with long spines. First tibia with four pairs of ventral spines but lacking a distal pair; first metatarsus with two ventral pairs, without distals; these segments otherwise unspined. Posterior legs with strong dorsal and lateral spines on tibiae and metatarsi. First leg: femur, 3.00 mm., patella, 1.10 mm., tibia, 2.80 mm., metatarsus, 2.75 mm., and tarsus, 1.70 mm. long. Fourth leg: femur, 3.70 mm., patella, 1.00 mm., tibia, 3.15 mm., metatarsus, 4.30 mm., and tarsus, 1.85 mm. long.

Palpus as illustrated in Fig. 35.

Type Locality.—Male holotype from Orono Region, upper Essequibo River, British Guiana, December 19–24, 1937 (W. G. Hassler).

This species agrees in most characters

with Stethorrhagus limbatus Simon, but it is distinct in characters of the palpus. The embolus is very much longer and forms a secondary coil around the conductor on the retrolateral side, as illustrated in the figure. The tibial apophyses are differently formed, the dorsal apophysis being a long spur directed at nearly a right angle from the tibia.

## Stethorrhagus duidae, new species

Figure 37 Male.—Total length, 9.00 mm.

|          | Length   | $\mathbf{W}\mathbf{idth}$ |
|----------|----------|---------------------------|
| Carapace | 4.50 mm. | 3.65 mm.                  |
| Front    | 0.70     | 1.90                      |
| Sternum  | 2.10     | 1.85                      |
| Labium   | 0.60     | 0.75                      |
| Maxilla  | 1.35     | 0.75                      |
| Abdomen  | 4.50     | 2.80                      |

Carapace pale yellowish brown, unmarked except for the narrow black rings around the eyes and the dusky field enclosed by the eyes. Chelicerae yellow. Carapace evenly clothed with inconspicuous dark hairs, the ocular region set with a few weak bristles. Underside of the carapace and the appendages concolorous with the dorsum, without contrasting markings. Abdomen gray, the apex black, the dorsum with a narrow yellow scutum from base to middle.

Clypeus vertical, equal in height to two-thirds the diameter of an anterior median eve. Carapace suboval, the pars cephalica broader than in hassleri, the head equal to about two-thirds the width of the carapace at the second eye row. First row of eyes very slightly narrower than the second, procurved, the large median separated by their radius, less than half as far from the lateral eyes. Second row procurved, the median separated by their diameter, somewhat farther from the subequal lateral eyes. Median ocular quadrangle broader than long (74/70), narrowed behind by about the same ratio, the front eyes much larger. Lower margin of the chelicera with four subequal teeth; the upper with three, of which the median is larger. Posterior coxae subcontiguous.

Legs long, moderately robust, set with long spines. First tibia with five pairs of ventral spines, the distals lacking; first metatarsus with two pairs, the distals lacking; these segments otherwise unspined. First leg: femur, 5.15 mm., patella, 2.00 mm., tibia, 5.15 mm., metatarsus, 4.60 mm., and tarsus, 2.20 mm. long. Posterior legs missing.

Palpus as illustrated in Fig. 37.

Type Locality.—Male holotype from the summit of Mt. Duida, Venezuela (Tate).

This species is distinct from hassleri in its

greater size, paler coloration, proportionately smaller anterior median eyes and in the greater number of spines beneath the first tibia. The embolus of the palpus is short and essentially straight, and the tibial apophyses are radically different in form, as shown in the figure.

## Stethorrhagus roraimae, new species

Figure 36
FEMALE.—Total length, 11.00 mm.

|          | Length   | Width    |
|----------|----------|----------|
| Carapace | 4.75 mm. | 3.60 mm. |
| Front    | 0.80     | 1.70     |
| Sternum  | 1.90     | 1.90     |
| Labium   | 0.60     | 0.76     |
| Maxilla  | 0.75     | 1.35     |
| Abdomen  | 6.00     | 3.50     |

Carapace bright reddish brown, evenly clothed with inconspicuous black hairs, the eyes narrowly ringed with black. Chelicerae reddish brown. Sternum, labium and maxillae bright reddish brown. Legs lighter brown, clothed with black hairs and strong spines. Abdomen gray, dusky, the dorsum with a pale median longitudinal dentate stripe the full length and with a small yellowish scutum at base.

Clypeus subvertical, equal in height to scarcely the diameter of an anterior median eye. Carapace suboval, the pars cephalica essentially as in duidae, the head equal to four-sevenths the width of the carapace at the second eye row. First row of eyes slightly narrower than the second, procurved, the large median separated by their radius, nearer the lateral eyes. Second row procurved, the median separated by one and one-third diameters, as far from the subequal lateral eyes. Median ocular quadrangle as broad as long, narrowed behind (103/95), the front eyes very much larger. Lower margin of the furrow of the chelicera with four subequal teeth; the upper margin with three, of which the middle one is larger. Posterior coxae subcontiguous.

Legs long, moderately robust, set with stout spines. First tibia with four pairs of spines beneath but without distal spines; first metatarsus with two ventral pairs, lacking distal spines; these segments otherwise unspined. Posterior legs with dorsal and lateral spines on tibiae and metatarsi. First leg: femur, 4.50 mm., patella, 1.75 mm., tibia, 4.30 mm., metatarsus, 3.80 mm., and tarsus, 2.10 mm. long. Fourth leg: femur, 5.50 mm., patella, 1.65 mm., tibia, 4.80 mm., metatarsus, 5.75 mm., and tarsus, 2.20 mm. long. Epigynum as illustrated in Fig. 36.

Type Locality.—Female holotype from Ireng River to Roraima, Brazil, August 15, 1911.

This species agrees rather closely with duidae in general structure and is possibly

the female of that species. It differs in having a lesser number of spines, four pairs, beneath the first tibiae.

#### Corinna bajula, new species Figures 31 and 32

Female.—Total length, 9.25 mm., not including the chelicerae.

|          | Length   | $\mathbf{Width}$     |  |
|----------|----------|----------------------|--|
| Carapace | 3.70 mm. | $3.00~\mathrm{mm}$ . |  |
| Front    | 0.52     | 2.05                 |  |
| Sternum  | 1.90     | 1.70                 |  |
| Labium   | 0.60     | 0.70                 |  |
| Maxilla  | 1.30     | 0.70                 |  |
| Abdomen  | 5.55     | 3.25                 |  |

Carapace dark reddish brown, darkest on the pars cephalica, and with faint radiating darker lines from the dark median groove. Eye tubercles black. Chelicerae concolorous with the head. Sternum bright reddish brown; the labium and endites duller brown. Coxae and appendages bright reddish brown, without contrasting markings. Abdomen uniform light gray, clothed with fine black hairs.

Structure essentially typical for the genus. Clypeus narrow, subvertical, equal in height to the diameter of an anterior median eye. Carapace lightly roughened, broader than long, moderately high, convex, the median groove a black linear depression set back two-thirds the length. Pars cephalica rather broad, the width at the second eye row equal to two-thirds the greatest width of the carapace. Eye group occupying only half the width of the head at the second eye row. First row of eyes gently procurved as seen from in front, gently recurved from above, the median separated by less than their diameter (12/17), nearer the subequal lateral eyes Second row gently procurved, the (5/17). median separated by scarcely two diameters (20/12), slightly farther from the somewhat larger lateral eyes (23/20). Median ocular quadrangle broader than long (44/40), slightly narrowed behind (44/42), the front eyes larger. Lower margin of the furrow of the chelicera with five robust teeth.

Legs normal. First tibia with 1-2-2-2-2-0 ventral spines. First metatarsus with 2-2-0 ventral spines. First leg: femur, 3.35 mm., patella, 150 mm., tibia, 3.00 mm., metatarsus, 2.35 mm., and tarsus, 1.75 mm. long. Tibia and patella IV, 4.80 mm.

Abdomen elongate, oval, moderately high. Epigynum as illustrated in Fig. 31.

MALE.—Total length, 8.65 mm., not including the chelicerae.

|          | Length    | Width     |
|----------|-----------|-----------|
| Carapace | 4.00  mm. | 2.85  mm. |
| Front    | 0.60      | 2.15      |
| Sternum  | 2.00      | 1.80      |
| Labium   | 0.62      | 0.70      |
| Maxilla  | 1.30      | 0.70      |
| Abdomen  | 4.65      | 2.80      |

Coloration slightly darker than in the female but without pattern differences. Abdomen with a yellow scutum above at base. Structure nearly as in the female. Clypeus slightly higher, equal to one and one-half times the diameter of an anterior median eye. Chelicerae more roughened than in the female.

First leg: femur, 3.75 mm., patella, 0.33 mm., tibia, 3.80 mm., metatarsus, 3.20 mm., tarsus, 2.30 mm. long. Tibia and patella IV, 5.65 mm. First right tibia with 2-2-2-2-0; first left tibia with 1-2-2-2-2-0 ventral spines.

Palpus as illustrated in Fig. 32.

Type Locality.—Female holotype and male allotype from Rosarito Beach, Lower California, April 2, 1939, found under stones (E. S. Ross), the holotype in the collection of the California Academy of Sciences.

Corinna tatei, new species
Figure 30
MALE.—Total length, 5.25 mm.

|          | Length   | $\mathbf{W}\mathbf{idth}$ |  |
|----------|----------|---------------------------|--|
| Carapace | 2.65 mm. | 2.15 mm.                  |  |
| Front    | 0.40     | 1.40                      |  |
| Sternum  | 1.35     | 1.06                      |  |
| Labium   | 0.40     | 0.50                      |  |
| Maxilla  | 0.90     | 0.45                      |  |
| Abdomen  | 2.60     | 1.50                      |  |

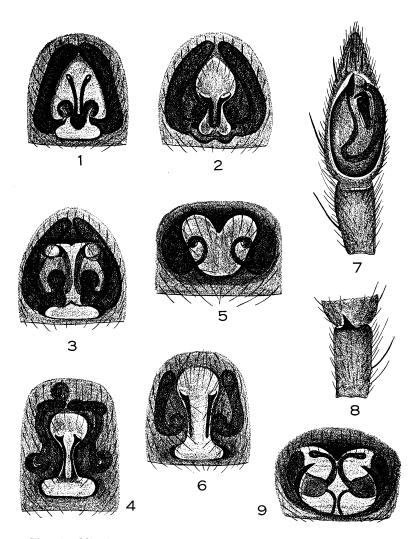
Carapace dark reddish brown, granulate, shining, sparsely clothed with black hairs and with several black bristles in the ocular region. Eyes ringed with black. Sternum, labium and

maxillae reddish brown, smooth or nearly so. Chelicerae dark reddish brown, granulate, clothed sparsely with long bristles. Legs dark reddish brown except for the tarsi and the basal portion of the second, third and fourth femora which are yellow. Abdomen covered above with a large reddish brown scutum which is set with black setae. Venter with a large reddish scutum. Carapace robust, rather broad in front, of average height, the clypeus equal in height to twothirds the diameter of an anterior lateral eye. First eye row narrower than the second (90/115), procurved, the median separated by their radius, half as far from the smaller lateral eyes. Second row gently procurved, the median separated by more than their diameter (14/22), as far from the subequal lateral eyes. Median ocular quadrangle broader than long (50/45), slightly narrowed in front (50/47), the front eyes larger. Median groove a slight linear depression situated back two-thirds of the greatest length. Chelicerae robust, roughened in front, the lower margin armed with four subequal teeth; the upper margin with three, of which the median is Sternum smooth, longer than broad, bluntly rounded behind and separating the posterior coxae by half the basal width.

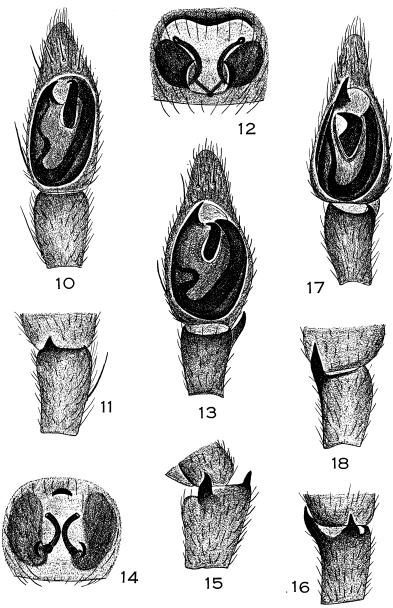
Legs of moderate length. First leg: femur, 2.20 mm., patella, 0.85 mm., tibia, 2.15 mm., metatarsus, 1.80 mm., and tarsus, 1.00 mm. long. Fourth leg: femur, 2.30 mm., patella, 0.90 mm., tibia, 2.23 mm., metatarsus, 2.30 mm., and tarsus, 1.00 mm. long. First tibia with 1-2-2-2-2-0 ventral spines; first metatarsus with 2-2-0 ventral spines.

Palpus as illustrated in Fig. 30.

Type Locality.—Male holotype from the summit of Mt. Duida, Venezuela.



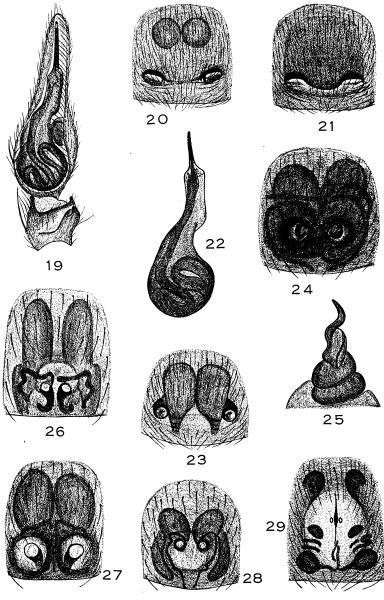
- Fig. 1. 2. 3. 4. 5. 6. 7. 8. 9.
- Fig.
- Fig.
- Fig.
- Fig.
- Micaria alberta, new species, epigynum.
  Micaria gosiuta, new species, epigynum.
  Micaria apacheana, new species, epigynum.
  Micaria riggsi, new species, epigynum.
  Micaria salina, new species, epigynum.
  Micaria seminola, new species, epigynum.
  Micaria gertschi Barrows and Ivie, left palpus, ventral view.
  Idem, tibia of left palpus, dorsal view.
  Idem. epigynum. Fig.
- Fig.
- Fig. Idem, epigynum.



- Micaria elizabethae, new species, left palpus, ventral view. Idem, tibia of left palpus, dorsal view. Idem, epigynum.

  Micaria jeanae, new species, left palpus, ventral view.

- Fig. 10. Fig. 11. Fig. 12. Fig. 13. Fig. 14. Fig. 15. Fig. 16. Fig. 17. Fig. 18.
- Idem, epigynum.
  Idem, tibia of left palpus, retrolateral view.
  Idem, tibia of left palpus, dorsal view.
  Micaria rowani, new species, left palpus, ventral view.
  Idem, tibia of left palpus, dorsal view.



- Castianeira alteranda, new species, left palpus, ventral view.
- Idem, epigynum.
- Fig. 19.
  Fig. 20.
  Fig. 21.
  Fig. 22.
  Fig. 23.
  Fig. 24.
  Fig. 25.
  Fig. 26.
  Fig. 27.
  Fig. 28.
  Fig. 29. Castianeira variata, new species, epigynum. Castianeira vulnerea, new species, bulb of left palpus, ventral view.
- Castanetra vunerea, new species, build of left pi Idem, epigynum.

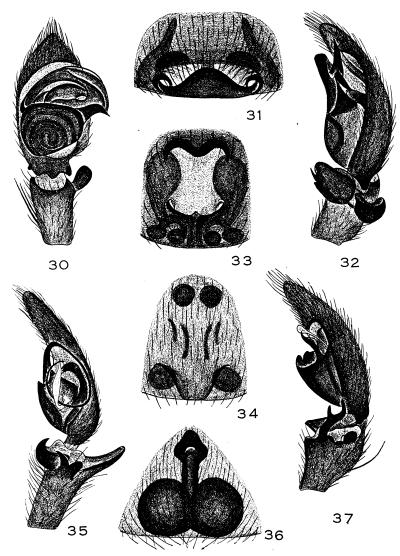
  Trachelas arizonatus, new species, epigynum.
  Idem, embolus of left palpus, ventral view.

  Trachelas huachucanus, new species, epigynum.

  Trachelas submissus, new species, epigynum.

  Trachelas jamaicensis, new species, epigynum.

  Trachelas hassleri, new species, epigynum.



- Fig. 30. Fig. 31. Fig. 32. Fig. 33. Fig. 34. Fig. 35. Fig. 36. Fig. 37.

- Corinna tatei, new species, left palpus, ventral view.
  Corinna bajula, new species, epigynum.
  Idem, left palpus, retrolateral view.
  Trackelopachys aemulatus, new species, epigynum.
  Meriola arequipa, new species, epigynum.
  Stethorrhagus hassleri, new species, left palpus, retrolateral view.
  Stethorrhagus roraimae, new species, epigynum.
  Stethorrhagus duidae, new species, left palpus, retrolateral view.