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OCCASION'AL PAPERS

OF THE

NATURAL HISTORY SOCRETY

OF WISCONSIN.

VOL. II. No. 3.

· 1895.

DISTRIBUTED BY THE MILWAUKEE PUBLIC MUSEUM.

MILWAUKEE: Printed for the Society, 1895. 5198437 11.3.6022.2095037. 7.1.9.20062.21433

SPIDERS

OF THE

Homalattus Group

OF THE

FAMILY ATTIDÆ,

BY George W. and Elizabeth G. Peckham.

> MILWAUKEE: NATURAL HISTORY SOCIETY OF WISCONSIN, DEC., 1895.

Press of The Evening Wisconsin Co., Milwaukee, Wis.

HOMALATTUS WHITE.

The spiders are small or rather small.

The cephalothorax is high, and is about as wide as long. It is highest and widest at the dorsal eyes. The posterior slope is abrupt. The quadrangle of the eyes is very little wider behind than in front, and at the widest point is more than one-third wider than long. It occupies two-thirds of the cephalothorax. The anterior eyes form a straight or slightly curved row. The middle eyes are slightly separated and less than twice as large as the lateral, which are well separated from them and are placed farther back on the head. The second row is plainly nearer the first than the third row, though not close to it, as in some species of Rhene. The dorsal eyes form a row which is as wide as the cephalothorax at that place.

The relative length of the legs is 1423 or 1423. The first and second pairs are the stoutest.

We have two species of Homalattus, rusticus and maccuni, both new, from the Amazon.

When White founded the genus Homalattus in 1841, his type was H. pustulatus from Sierra Leone (Descr. new or little known Arachn., Ann. and Mag. of Nat. Hist., VII., p. 476). His description is very poor, but he gives a figure which shows that the eyes of the first row are all separated. In Rhene flavigera (Die Arachn., XIV., p. 86), the type of C. Koch's genus Rhanis (which equals Rhene Thorell) the eyes of the first row are near together and the middle ones are touching. We have neither of these types, but we find in our collection three closely related but fairly distinct genera. In Homalattus the first row has the middle eyes sometimes near together and sometimes well separated, but the lateral eyes are always well separated from the middle, and the quadrangle is very slightly wider behind than in front. In Rhene the eyes of the first row are near together, the middle ones are usually sub-touching, and the

quadrangle is always plainly, and usually very much, wider behind than in front. In the third genus, Anamosa, the lateral eyes of the first row are well separated from the middle eyes, as in Homalattus, while the quadrangle is plainly, or very much, wider behind, as in Rhene.

Most of the Australian species described by L. Koch under the genus Homalattus would seem, from the drawings, to belong to Rhene. Of Thorell's species, two, Homalattus margarops and Homalattus hirsutus, seem to belong to Anamosa, while the others would probably fall into Rhene.

HOMALATTUS MACCUNI SP. NOV.

Plate XV., Figs. 1-1c.

Q. Length, 5. Length of cephalothorax, 2.5; width of cephalothorax, 2.5.

Legs, 1423.

The quadrangle of the eyes is one-sixth wider behind than it is in front. The first row is very slightly curved. The clypeus is somewhat depressed between the middle eyes of this row and the falces, which are prominent, stout and vertical. The lateral eyes of the first row are plainly more than half as large as the middle eyes. The sides of the cephalothorax are vertical.

The whole spider is dark brown, with a covering of white hairs, which grow long on the clypeus and on the anterior end of the abdomen. There is sometimes a tinge of red discernible in the hairs just above the middle eyes of the first row. The face is covered with short, white hairs. On the back of the abdomen are six indented dots, and over these the hairs in unrubbed specimens form snowy white spots; near the spinnerets is another pair of white dots, and below these and extending around on to the lower sides is a series of more or less distinct white bars. The metatarsi and tarsi of the legs are paler in color than the other joints.

One specimen in our collection has the integument almost black and the hairs of a much purer white than the others.

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This spider has also a little bunch of pure white hairs at the posterior end of the abdomen just above the spinnerets.

We have several females from South America in the Smith collection. The exact locality is unknown.

HOMALATTUS RUSTICUS SP. NOV.

Plate XV., Figs. 2-2d.

Length, 3.8. Length of cephalothorax, 2; width of cephalothorax, 2.

Legs, 1423; first pair much the stoutest, with femoral and tibial joints enlarged.

The quadrangle of the eyes is wider behind than in front by the width of the dorsal eye, this being less than is the case in Homalattus maccuni. The first row is straight. All the eyes are well separated; the middle are larger in proportion to the lateral eyes than in maccuni, although they are less than twice as large. The clypeus is narrow and the falces are stout. The sides round out a little outside the dorsal eyes and then fall with a slight slant inward.

The body of the spider is black with iridescent blue reflections. There seems to have been a covering of iridescent scales upon the cephalothorax, and of short, white hairs upon the abdomen. The abdomen has three pairs of impressed dots.

We have several males from the Amazon, sent to us by M. Simon.

The drawing of this-species gives the front view of the cephalothorax in a tilted position, so that the first row of eyes, which is really straight, appears to be curved, and the quadrangle appears to be very wide behind, which is not the case.

RHENE THORELL.

Plate XV., Figs. 3-3b.

The spiders are small or rather small.

The cephalothorax is moderately high and is wide, usually wider than long. It is not convex, but it slants upward from

the first row of eyes to the posterior end. It is a little contracted in front, is widest opposite the dorsal eyes and is truncated behind, having a wedge-shaped appearance.

The quadrangle of the eyes is usually very much, and is in all cases plainly, wider behind than in front. At its widest point it is one-third wider than long. It occupies two-thirds of the cephalothorax. The anterior eyes are usually small and close together, forming a row which is straight or slightly curved. The middle eyes are nearly twice as large as the lateral. The second row is close to the first, being from two to four times as far from the dorsal as from the lateral eyes. The dorsal eyes are much farther (sometimes three or four times as far) from each other as from the lateral borders, and form a row which is as wide as the cephalothorax at that place.

The relative length of the legs is 1423 or 1432.

Of this genus we have in our collection Rhene cyanea Hentz, described under the name of Homalattus cyaneus in our paper on the Attidæ of North America, p. 86; Rhene insularis P., also described as belonging to Homalattus in our New Genera and Species of the Family Attidæ, Proc. Nat. Hist. Soc. of Wis., March, 1885, p. 23; and two new species, callida and vaga.

RHENE CALLIDA SP. NOV.

Plate XV., Figs. 4-4a.

9. Length, 4.8. Length of cephalothorax, 1.9; width of cephalothorax, 2.

Legs, 14 23; first pair stoutest.

The quadrangle of the eyes is very much wider behind than in front, and is one-fourth wider behind than it is long. It occupies three-fourths of the cephalothorax. The sides round out a little in the anterior part. The cephalothorax is nearly square, and is truncated behind.

The anterior eyes are small, in a straight, compact row, the middle being barely twice as large as the lateral. The second row is narrower than the first and is close to it. The dorsal eyes are on the sides of the cephalothorax. The falces are vertical, short, and rather stout.

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The cephalothorax is dark red-brown, with whitish hairs growing thinly on the sides and around the eyes. Looked at from in front the anterior eyes all seem to be surrounded with red rings, and the clypeus is covered with long, whitish hairs. The palpus is light brown, with white hairs. The first legs are dark brown; the second, third and fourth pairs are lighter, with black tips and black rings between the tibial and metatarsal and between the metatarsal and tarsal joints. The abdomen is a lighter brown than the cephalothorax, with four indented dots on the dorsum, and seems to have been thinly covered with whitish hairs. The spinnerets are short and are scarcely visible from above.

A single female from Calcutta.

RHENE VAGA SP. NOV.

Plate XV., Figs. 5-5c.

- S. Length, 3. Length of cephalothrorax, 1.5; width of cephalothrorax, 1.5.
- Q. Length, 3.3. Length of cephalothorax, 1.5; width of cephalothorax, 1.5.
- Legs in both sexes, 1432; first pair plainly the largest, especially the tibiæ.

The quadrangle of the eyes is plainly wider behind than in front, and is, at it widest point, one-third wider than long. It occupies fully two-thirds of the cephalothorax. The anterior eyes are in a straight row, all touching; the middle are less than twice as large as the lateral. The lateral eyes are a little smaller than the dorsal. The second row is a little nearer the first than the third row. The third is as wide as the cephalothorax at that place. The cephalothorax is flat and much wider behind than in front. The ocular quadrangle seems to occupy nearly all of it, the thoracic fall being steep. The sides slope inward from the upper surface. The falces in the female are small, vertical and parallel. In the male they are divergent and project a little, and are rather long, with long fangs. The clypeus retreats from the first row of eyes.

The female is medium brown in color, thickly covered with short, yellowish-white hairs. Our only male is of a much darker brown, and has had the hairs nearly all rubbed off. The first legs are brown, excepting the metatarsus and tarsus, which are pale, with a dark line running along the inner side; the other legs are pale with dark rings at the joints. In the fourth leg these rings are joined by a dark band, which runs along the upper surface.

We have several females and one male from Para and Santarem in the Smith collection.

The small size of R. vaga and the position of the second row of eves distinguish it from other species.

ANAMOSA GEN. NOV.

The spiders of this genus are decidedly larger than in Rhene and Homalattus. The cephalothorax is rather high and its upper surface is slightly convex. The thoracic part remains on the same plane as the cephalic for a very short distance behind the dorsal eyes and then drops abruptly, the posterior part being overlapped by the abdomen. The widest point is at the dorsal eyes. The sides are vertical or nearly so. The cephalothorax is wider than long.

The quadrangle of the eyes is plainly wider behind than in front, and is about one-third wider than long. It occupies fully two-thirds of the cephalothorax. The eyes of the first row, which is straight, are all plainly separated, the lateral more widely than the middle. The middle eyes are nearly twice as large as the lateral. The second row is much nearer the first than the third row. The third row is as wide, or nearly as wide, as the cephalothorax at that place.

The relative length of the legs is $\overline{14}$ $\overline{23}$.

The type of this genus is callosa, a new species from the Himalaya Mountains. We have one other new species, inconcinna, from Trinidad. As has been already stated, we believe that Anamosa will also include two species of Thorell, Homalattus margarops and Homalattus hirsutus, Ragni Malesi e Papuani, I., p. 629 and p. 632.

ANAMOSA CALLOSA SP. NOV.

Plate XV., Figs. 6-6c.

Q. Length, 7. Length of cephalothorax, 2.4; width of cephalothorax, 2.6.

Legs, $\overline{14}\ \overline{23}$; first pair plainly stoutest.

The quadrangle of the eyes is very much wider behind than in front, the cephalothorax bulging out widely at the dorsal eyes. The first row of eyes is slightly curved; the eyes of this row are all separated, the lateral especially; the middle **are** about twice as large as the lateral. The second row is close to the first. The dorsal eyes are larger than the lateral, and are placed on the sides of the head. The falces are vertical and stout.

The body, falces, palpi and legs are all dark brown, covered with a mixture of coarse, white and yellowish hairs. On the anterior sides of the cephalothorax there are some long, whitish hairs.

We have two females from the Himalaya Mountains, collected by Mr. Oldham.

ANAMOSA INCONCINNA SP. NOV.

Plate XV., Figs. 7-7a.

Q. Length, 6.5. Length of cephalothorax, 2.4; width of cephalothorax, 2.6.

Legs, $1\overline{4} \ \overline{23}$; first pair much the stoutest.

The quadrangle of the eyes is one-fourth wider behind than in front. The first row of eyes is straight. The middle eyes are less than twice as large as the lateral, and are a little separated. The lateral are well separated from the middle and are placed further back. The second row is narrower than the first and is twice as far from the third as from the first row. The dorsal eyes are large and are placed on the sides of the head. The falces are stout and vertical. The maxillæ are broad and heavy; the labium is rounded. The sternum is narrow in front, wide and rounded behind.

The whole aspect of the spider is clumsy and thick, the cephalothorax being short and broad, while the abdomen is very large, much wider than the cephalothorax, which it overlaps.

The general color effect is dark brown. Looked at closely the cephalothorax is seen to be black, with the sides covered with rather bright yellow hairs, and two narrow lines of yellow hairs down the middle. The abdomen is dark brown and seems to have been covered with yellow hairs, which, in this specimen, are largely rubbed off. Under alcohol two or three pairs of black dots appear on the dorsum. The falces, palpi and legs are dark brown, with a good many yellowish-white hairs. The first legs have the femoral and tibial joints considerably enlarged. The second, third and fourth pairs have the proximal end of the metatarsus light yellow and translucent, while the tarsi are black.

Although we have put this species into the genus Anamosa, it does not agree, so far as the general shape of the cephalothorax is concerned, with the other species, callosa. In inconcinna the sides are gently rounded, the anterior and posterior ends being about equally wide, while in callosa the anterior end is much the narrower, as may be seen by the drawing.

We have a single female from Port of Spain, Trinidad, sent to us by Mr. W. E. Broadway.

BALLUS C. KOCH.

Plate XV., Figs. 8-8b.

Small, thick-set spiders, with the abdomen not much larger than the cephalothorax.

The cephalothorax is rather low and is a little longer than wide. The sides are vertical in front, rounded out behind, widest opposite the dorsal eyes and contracted a little in front and more plainly at the posterior end. The thoracic part does not slant in the anterior half.

The quadrangle of the eyes is a little wider behind than in front, is one-third wider than long, and occupies from a little

less to a little more than half of the length of the cephalothorax. The anterior eyes are usually close together in a slightly curved row. The middle eyes are nearly twice as large as the lateral. The second row is sometimes nearer the first than the third row, and sometimes half-way between the two. The third row is as wide as the cephalothorax at that place. The eyes of this row are further from each other than from the lateral borders. Sometimes the first leg is longest, sometimes the fourth, but the first and fourth are always longer than the second and third.

Ballus is closely related to Homalattus and Rhene, but the cephalothorax is lower and the cephalic part is much shorter in proportion to the thoracic.

The type of this genus is Ballus depressus Wlk. The best description of this species is that of Simon in his Arachnides de France, Vol. III., p. 203. We include in the genus Ballus the species armadillo, ænescens, tantalus and sequipes, all formed by Simon, and youngii Peckham, North American Attidæ, p. 87.

BEATA GEN. NOV.

Stout, medium-sized spiders, with the cephalothorax rounded.

The cephalothorax is high, and is as wide as long. The widest point is just behind the dorsal cycs. The sides round out widely from above below, and the upper surface is convex. It is not trunacted behind.

The quadrangle_of_the eyes is one-third wider than long and is very slightly wider behind than in front. It occupies a little more than half of the length of the cephalothorax. The anterior eyes are large. They form a straight or very slightly curved row, and are near together, though not quite touching. The lateral eyes are a little more than half as large as the middle. The second row is a little nearer the first than the third. The third row is plainly not so wide as the cephalothorax at that place.

The relative length of the legs is 1432. The falces are long, stout and vertical. The abdomen is thick and rounded.

Beata is easily distinguished from Homalattus, Rhene and Anamosa by the shorter cephalic part, and from Ballus by its widely rounded sides. It is represented, in our collection, by a new species from New Grenada.

BEATA MAGNA SP. NOV.

Plate XV., Figs. 9-9c.

Q. Length, 5.5. Length of cephalothorax, 2.5; width of cephalothorax, 2.5.

Legs, $14\overline{32}$; first pair stoutest, with tibia enlarged.

The cephalothorax is brown, covered with brownish-white hairs, which grow long on the sides and around the eyes. The abdomen is brown, with a thin covering of whitish hairs, there being a fringe of them at the anterior end. On the dorsum are some pairs of spots and wavy lines in pure white, and toward the posterior end are two chevrons.

The legs are banded with lighter and darker brown. In the first pair the general color is darker than in the others, but the patella and the proximal end of the tibia are covered with pure white scales, while the distal three-fourths of the tibia is dead black, without scales.

We have four females from New Grenada.

COCCORCHESTES THORELL.

Very small spiders, resembling beetles.

The cephalothorax is high, and almost as wide as long. The upper surface slants upward from the first row of eyes to the posterior end. The sides slant inward from the upper surface; they are almost parallel, the cephalothorax being a very little wider at the posterior end.

The abdomen has a rounded outline, and is about as wide as long. The cephalothorax and abdomen are formed to fit closely together. In some cases the posterior end of the cephalothorax is hollowed out and overlaps the anterior end of the abdomen, while in others the case is reversed, the anterior end of the abdomen being excavated to receive the posterior end of

the cephalothorax. The upper surface of the abdomen is covered with a rounded, hardened cap, with a glistening surface, which has exactly the appearance of the wing-covers of beetles.

The quadrangle of the eyes is one-third wider than long, is almost equally wide in front and behind, and occupies about one-half of the cephalothorax. The anterior eyes are close together, the middle being from nearly twice to nearly three times as large as the lateral. The position of the second row is variable. The third row is as wide as the cephalothorax at that place.

The whole spider is both longitudinally and transversely convex.

The relative length of the legs is $41\overline{32}$ or $\overline{23}$.

The shape and minute size of Coccorchestes separate it from other genera.

The type of this genus is C. rufipes Thorell, Ragni Malesi e Papuani, Vol. III., p. 672. The only species in our collection, however, is Coccorchestes (Rhanis), cupreus Simon, from Brazil, Hist. Nat. d. Araignees, p. 309. In this species a line touching the tops of the anterior eyes would be curved downward—not upward as in Thorell's species. M. Simon considers Salt. coccinelloides Cambridge, a synonym of C. cupreus.

Thorell describes the type, rufipes, as having the quadrangle of the eyes a little wider in front than behind, but his other species either agree with cupreus in having it a little wider behind, or have it equally wide in front and behind.

> COCCORCHESTES CUPREUS SIMON. Plate XV., Figs. 10-10d.

3 and 9. Total length, 2.2.

The cephalothorax and the upper part of the abdomen have the integument hardened and covered with little punctate spots. It is glistening and iridescent, the color being purple on the cephalothorax and brown on the abdomen. There are some white hairs on the face and around the large middle eyes. The falces are very small. The first row of eyes

is curved downward; the middle eyes of this row are a little less than twice as large as the lateral, and the second row is nearer the third than the first row.

The legs are weak, and of a very pale brown color. The first legs are the stoutest, and, in some specimens, are much darker colored than the others.

We have numerous individuals of both sexes and of various ages.

M. Simon sends us this species, marked simply "Brazil." We have it also in the Smith collection from Chapoda.

The beetle-like shell which characterizes this species is not acquired until the spider is two-thirds grown.

CHIROTHECIA TACZ.

Plate XVI., Figs 1-1b.

The cephalothorax is low and flat, and is about one-third longer than wide. It is widest opposite the dorsal eyes. The cephalic and thoracic parts are on the same plane. The cephalic part occupies two-thirds of the cephalothorax. The thoracic part is narrowed on the sides and above to a blunt point, and does not fall until near the posterior border.

The quadrangle of the eyes is about as long as wide, and is wider behind than in front. The anterior eyes are close together in a curved row. The middle are twice as large as the lateral. The second row is nearer the first than the third. The third row is as wide as the cephalothorax at that place. The eyes of this row are further from each other than from the lateral borders.

This genus is characterized by the very long cephalic part, and the low, flat cephalothorax. The type is C. cheliferoides Tacz, Aranéides du Pérou, Bulletin de la Soc. Imp. des Nat. de Moscou, T. LIII., 1878, No. 4, p. 363. The only species that we have are crassipes Tacz., *ibid.*, p. 364, and clavimana Tacz., Aran. de la Guyane Française, p. 84, the former from Peru, the latter from Brazil. They both have (as has also cheliferoides) the first log enormously enlarged, the tibia especially

being broad and heavy and furnished with heavy spines and hairs. For a drawing of the epigynum of Chirothecia clavimana, see Plate XVI., Fig. 2.

HARMOCHIRUS SIMON.

The cephalothorax is high, and is a little longer than wide. Its widest point is at the dorsal eyes, and from there it contracts strongly in front and behind. The sides are nearly vertical. Behind, it slopes very steeply from just behind the dorsal eyes.

The quadrangle of the eyes is only one-fifth wider than long, is much wider behind than in front, and occupies twothirds of the cephalothorax. The anterior eyes are in a slightly curved row, and are close together; the middle are less than twice as large as the lateral. The second row of eyes is a little nearer the third than the first. The third row is as wide as the cephalothorax at that place.

The first legs and the long cephalic part of this genus at once recall Chirothecia. The latter genus, however, has a low, flat cephalothorax, which is plainly longer than wide.

Harmochirus is, perhaps, most likely to be confused with Zygoballus, but in this genus the quadrangle occupies but little more than half of the cephalothorax. Zygoballus, moreover, is found in North America, Central America, and the West Indies, Chirothecia in South America, and Harmochirus in Asia and Africa.

The type of this genus is Harmochirus malaccensis Simon, Faune Arachnologique de l'Asie Méridionale, Bull. Soc. Zool. de France, T. X., 1885, p. 5. The only species which we have was sent to us by M. Simon, named Harmochirus albi-barbis, but we believe that it is now published for the first time.

> HARMOCHIRUS ALBI-BARBIS SP. NOV. Plate XVI., Figs. 3—3b.

♂. Length, 3. Length of cephalothorax, 1.7; width of cephalothorax, 1.5.

Legs, 1423; those of the first pair much enlarged, a good deal like those of Chirothecia, the tibia having a row of stiff bristles above and below.

The falces are parallel, short and weak. The cephalothorax is dull black, covered with little punctate spots. It is thinly covered with short, white hairs. The abdomen is almost circular in outline, and is black and glabrous, with a few white hairs at the anterior end. The clypeus is covered with white hairs, which grow toward each other, their insertion being at each side at the outer edge of the large middle eye, and their tips meeting in the middle line. The legs are dark brown, the metatarsi and tarsi being a little lighter than the other joints.

We have one male from Zanzibar, sent us by M. Simon.

ZYGOBALLUS PECKHAM.

Plate XVI., Figs. 4-4c.

The cephalothorax is high, and a little longer than wide. It is widest at the dorsal eyes and contracts in front and behind. The sides are not quite vertical.

The quadrangle of the eyes is one-fifth wider than long, is plainly wider behind than in front, and occupies three-fifths of the cephalothorax. The thoracic part falls steeply from the dorsal eyes. The first row of eyes is very slightly curved. The middle eyes are sub-touching, and are nearly twice as large as the lateral, which are a little separated from them. The second row is plainly nearer the first than the third row. The third row is as wide as the cephalothorax at that place.

Zygoballus is a very distinct genus, containing numerous species. We have in our collection, bettini P., the type, and sex-punctatus Hentz, from the United States, both described in N. A. Attidæ, p. 89; terrestris Emerton, New England Attidæ, Trans. Conn. Acad., Vol. VIII., Oct., 1891; rufipes P., New Attidæ from Eastern Guatemala, Proc. Nat. Hist. Soc. of Wis., Dec., 1885, p. 82, and a new species, suavis, from Jamaica. All these species strongly resemble each other, and the males, so far as we know them, have their falces obliquely directed, with long fangs, and a strong vertical apophysis coming down from the proximal end of each falx, on the inner side.

For a drawing of the dorsal view of the female of Zygoballus terrestris, see Plate XVI., Fig. 5.

ZYGOBALLUS SUAVIS SP. NOV.

Plate XVI., Figs. 6-6d.

S. Length varying from 3.2 to 4.5. Length of cephalothorax of the larger variety, 2; width of cephalothorax, 1.7.

Legs, 1423; first pair stoutest and much the longest.

Q. Length, 4.6. Length of cephalothorax, 2; width of cephalothorax, 1.7.

Legs, 4123.

The anterior end of the abdomen overlaps and lies close upon the posterior end of the cephalothorax. The falces of the female are vertical, rather long, and moderately stout. In the male they are obliquely directed forward and are long and strong, with very long, curved fangs. At the proximal end is the pointed, vertical apophysis, common to the males of this genus, and on the under side of each falx is a curved apophysis, or horn, visible only from below. The palpi of the male are slender and greatly elongated.

In the male the cephalothorax, falces, palpi and first legs are bronze, with a thin covering of white hairs. There are two black spots on the eye region and the eyes are surrounded by black rings. The abdomen is also bronze, with a line of chevrons in brown down the middle of the dorsum. The lower sides are black, and three black bands come up on each side on to the dorsum. There is a snow-white band of hairs around the anterior end, and a pair of white spots near the posterior end. The second, third and fourth pairs of legs are brown.

The female has the cephalothorax bronze with the black spots on the cephalic part, and around the eyes, as in the male; but the covering hairs are yellow rather than white. The legs, palpi and falces are brown. The integument of the abdomen is pale brown with a darker herring-bone stripe down the middle, some dark bands coming up over the sides, and four distinct, black spots on the dorsum.

We have numerous individuals from Mandeville, Moneague, and Kingston, Jamaica.

NEÆTHA SIMON.

Plate XVI., Fig. 7-7b.

Neætha is the name substituted by M. Simon, in 1885, for Neæra, which was preoccupied.

The cephalothorax is high and is a little longer than wide, the widest point being a little behind the dorsal eyes. The cephalic part is inclined. The thoracic part rounds off, and falls quite steeply a little way behind the dorsal eyes. The sides are not quite vertical.

The quadrangle of the eyes is one-third wider than long, is but little wider behind than in front, and occupies one-half of the cephalothorax. The first row of eyes is straight. The eyes are all close together, and the middle are twice as large as the lateral. The eyes of the second row are very minute, and are placed half-way between the dorsal and lateral eyes. The third row is not quite as wide as the cephalothorax at that place.

Of this genus we have only the type species, Neætha (Neera) membrosa Simon, Arachnides de France, Vol. III., p. 200.

NEON SIMON.

Plate XVI., Figs. 8-8b and 9-9a.

The cephalothorax is rather high. It is about one-fourth longer than wide. It is narrowest in front, rounding out a little behind the dorsal eyes. The sides slant inward in the cephalic part, and outward, a little, in the thoracic. The cephalic part is inclined forward; the thoracic is nearly level for a a very short distance behind the dorsal eyes and then falls not very abruptly.

The quadrangle of the eyes is one-fifth wider than long, is equally wide in front and behind or a little wider behind, and occupies a little more than one-half of the cephalothorax. The anterior eyes are close together, and form a straight row. The middle are less than twice as large as the lateral. The second row is about half-way between the first and third rows. The dorsal eyes are usually larger than the lateral and form a row which is as wide as the cephalothorax at that place.

The relative length of the legs is variable.

We have of this genus, the type species, reticulatus Blackwell, from France and Germany (Simon's Arachnides de France, Vol. III., p. 210), nellii P., from Pennyslvania, U. S., N. A. Attidæ, p. 88, and pompatus P., Attidæ of St. Vincent, Proc. Zool. Soc. of London, Nov. 21, 1893, p. 703. M. Simon describes three species besides reticulatus, in Arachnides de France.

SIDUSA GEN. NOV.

The cephalothorax is very high, and is plainly longer than wide. The widest point is at the first row of eyes. It contracts a little in the cephalic part and widens out again in the thoracic. The sides are nearly vertical in front and round out a little behind the dorsal eyes. The cephalic part is inclined forward; the thoracic rounds off gently for a short distance behind the dorsal eyes and then falls a little more abruptly.

The quadrangle of the eyes is plainly wider in front than behind, is one-fourth wider than long, and occupies three-fifths of the cephalothorax. The anterior eyes are very large and bulge forward prominently, the lateral being two-thirds as large as the middle eyes. This row is slightly curved. The second row is a little nearer the third than the first row. The dorsal eyes are as large as the lateral, and are also very prominent. They form a row as wide as the cephalothorax at that place.

The relative length of the legs is $3\overline{4}$ 12.

The interesting new species which forms the type of this genus was very kindly sent us, with only the generic name prefixed, by M. Simon.

SIDUSA GRATIOSA SP. NOV.

Plate XVI., Figs. 10-10e.

 δ. Total length, 4.2. Length of cephalothorax, 2; width of cephalothorax, 1.5.

The first legs are lacking; the others are 342.

Q. Total length, 4.4. Length of cephalothorax, 2.2; width of cephalothorax, 1.8.

Legs, 3412; first and second pairs a little enlarged.

The falces are vertical, long and moderately stout. The labium and maxillæ are rounded. The sternum is oval.

The cephalothorax is very dark brown, with black spots around the eyes. There are a few white hairs left on the sides, which may have entirely covered them. The upper surface seems to have been covered with very brilliant pink and green iridescent scales. In the females the ground-color of the abdomen is black, with a covering of the same iridescent scales. Two curved white bands nearly meet in the middle line, around the anterior end, and further back, on each side, two white bands come up from the lower sides. There are some indistinct, pale chevrons on the posterior half. The abdomen, in the male, is more slender than in the female. The coloring is similar, but the white appears only in two spots, low down on each side, and in a band around the anterior end.

The falces and the coxa, trochanter, femur and patella of the first leg, are dark brown; otherwise the legs are light brown except for a smoky darkening on the femoral joints.

We have one male and one female from the Amazon, sent us by M. Simon.

SASSACUS GEN. NOV.

The cephalothorax is rather high, and is plainly longer than wide. It grows broader from the first row of eyes to the widest part, which is considerably behind the dorsal eyes, at the point where the thoracic part begins to fall. The sides are not far from vertical, rounding outward more in the thoracic than in the cephalic part. The cephalic and two-thirds of the thoracic part are flat and on a level, or nearly so.

The quadrangle of the eyes is much wider behind, and is about as long as it is wide in front. It occupies about one-half of the cephalothorax. The anterior eyes are close together in

a straight row. The middle are twice as large as the lateral. The second row is plainly nearer the first. The third row is a little narrower than the cephalothorax at that place.

This genus, by its coloring and general appearance, recalls Icius and the allied genera. The position of the eyes, however, seems to bring it nearer to the Homalattus group. We have only the one species described below.

SASSACUS PAPENHOEI SP. NOV.

Plate, XVI., Figs. 11-11e.

- S. Length, 4.7. Length of cephalothorax, 2; width of cephalothorax, 1.7.
- Legs, 1423; fourth and second not very unequal. First plainly longer than the fourth, and stouter than the others, but not so much stouter as in the female.
 - Q. Length, 5.5. Length of cephalothorax, 2; width of cephalothorax, 1.7.

Legs, 1432; first pair much the stoutest.

There is a curious difference between the two sexes in the shape of the cephalothorax. While in the male the anterior thoracic part is flat, and is on a level with the cephalic, and the posterior slope abrupt, in the female, the thoracic part rounds off gently from the dorsal eyes to the posterior border. The falces are vertical and moderately long and stout. The sternum is small and oval. The maxillæ are thick and rounded, and the labium is small.

The coloring is very brilliant. The upper surface of the cephalothorax and the upper and under surfaces of the abdomen are covered with iridescent scales, the prevailing colors of which are pink and gold. The upper sides of the cephalothorax are covered with iridescent scales, which are white with greenish reflections. The clypeus and lower sides have snowwhite bands. The abdomen has four punctate spots on the dorsum and is encircled by a wide, snowy white band. The legs are brown, the first pair being the darkest, except the

metatarsi and tarsi which are pale yellow. At the union of these two joints is a black ring, and the tarsi are tipped with black. The palpi are pale brown in the female and dark brown in the male, and are covered with white hairs.

We have a number of males and females sent us from Wallace, Kansas, by Mr. Papenhoe.

ERIS C. KOCH.

Plate XVI., Figs. 12-12e.

The cephalothorax is high, and is plainly longer than wide. Its greatest width is at the dorsal eyes. The sides are widely rounded out, both in the cephalic and thoracic part.

The quadrangle of the eyes is one-third wider than long and is very much wider behind than in front. It occupies from one-half to three-fifths of the cephalothorax. The first row of eyes is straight or a little curved. In the type species the eyes of this row are all well separated, the lateral not more widely from the middle than the middle from each other, and the middle are less than twice as large as the lateral; but in maculata the middle eyes are sub-touching, and the lateral are a little separated from them and only half as large. The second row is half-way between the first and third, or is nearer the first. The dorsal eyes are on the sides of the upper part of the cephalothorax, but as the sides round out a little they form a row not quite so wide as the cephalothorax at that place.

We have included the genus Bianor Keys. in Eris. We have in our collection the type, Eris albo-bimaculata Lucus (for description see Simon's Arachnides de France, Vol. III., p. 198) and Eris (Bianor) maculata Keys., from Sidney, described as Scythropa maculata in Arachniden Australiens, p. 1447.



EXPLANATION OF PLATES.

PLATE XV.

Fig. 1, Homalattus maccuni, dorsal view of female, x8; 1*a*, face and falces; 1*b*, side view of cephalothorax; 1*c*, epigy-num.

Fig. 2, Homalattus rusticus, dorsal view of male, x 8; 2*a*, face and falces : 2*b*, side of cephalothorax : 2*c* and 2*d*, palpus.

Fig. 3, Rhene cyanea, dorsal view of female, $x \in 3a$, face and falces; 3b, side view of cephalothorax.

Fig. 4, Rhene callida, dorsal view of female, x S; 4a, epigynum.

Fig. 5, Rhene vaga, dorsal view of female, $x \otimes 5^{\circ}$, a, epigynum; 5b and 5c, palpus of male.

Fig. 6, Anamosa callosa, dorsal view of female, x 8; 6a, face and falces, 6b, side view of cephalothorax; 6c, epigynum.

Fig. 7, Anamosa inconcinna, dorsal view of female, x 8; 7*a* epigynum.

Fig. 8, Ballus depressus, dorsal view of female, x 8; 8a, face and falces; 8b, side view of cephalothorax.

Fig. 9, Beata magna, dorsal view of female, 8 x; 9a, face and falces; 9b, side view of cephalothorax; 9c, epigynum.

Fig. 10, Coccorchestes cupreus, dorsal view of female, x 12; 10*a*, face and falces; 10*b*, side view of spider, showing carapace-like plate on abdomen : 10*c*, epigynum : 10*d*, male palpus.

PLATE XV.



J.H.Emerton, from nature.

E Crisand, lith., New Haven Ct





PLATE XVI.

Fig. 1, Chirothecia crassipes, dorsal view of male, x 8; 1*a*, face and falces; 1*b*, side view of cephalothorax.

Fig. 2, Chirothecia clavimana, epygynum.

Fig. 3, Harmochirus albi-barbis, dorsal view of male, x 8; 3a, face and falces; 3b, side view of cephalothorax.

Fig. 4, Zygoballus bettini, dorsal view of female, x 6; 4a, face and falces; 4b, side view of cephalothorax; 4c, dorsal view of female distended with eggs.

Fig. 5, Zygoballus terrestris, dorsal view of female, x 8.

Fig. 6, Zygoballus suavis, dorsal view of female, x 6; 6a, dorsal view of male, x 6; 6b, falces of male from beneath; 6c and 6d, male palpus.

Fig. 7, Neætha membrosa, dorsal view of female; 7a, face and falces; 7b, side view of cephalothorax.

Fig. 8, Neon reticulatus, dorsal view of female, x 8; 8a, face and falces; 8b, side view of cephalothorax.

Fig. 9, Neon nellii, dorsal view of female; 9a, side view of cephalothorax.

Fig. 10, Sidusa gratiosa, dorsal view of female, x 8; 10*a*, face and falces; 10*b*, side view of cephalothorax; 10*c*, epigynum; 10*d* and 10*e*, male palpus.

Fig. 11, Sassacus papenhoei, dorsal view of female, x 8; 11*a*, face and falces; 11*b*, side view of cephalothorax of female; 11*c*, side view of cephalothorax of male; 11*d*, male palpus; 11*e*, epigynum.

Fig. 12, Eris albo-bimaculata, dorsal view of male, x 8; 12a, dorsal view of female; 12b, face and falces of female; 12c, side view of cephalothorax of female; 12d, face and falces of male; 12e, side view of cephalothorax of male.

PLATE XVI.



J.H.Emerton, from

Crisand, 11th., New Haven, Ct







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