

207. *Ornithoctonus andersoni*, Pocock, *Jour. Linn. Soc., Zool.* xxiv, p. 317, pl. xxii, figs. 1-3, 1892.

♀. *Colour*: a nearly uniform reddish brown, darker beneath and on femora, some white hairs at the extremities of the leg-segments. *Carapace* as long as the patella and tibia and one-fourth of the protarsus of the 1st or 4th legs, considerably exceeding protarsus and tarsus of 4th. *Legs* somewhat thickly hairy, 1st and 4th subequal and considerably less than two and a half times the length of the carapace; patella and tibia of 4th leg a little less than of 1st.

*Measurements in mm.*—Total length 52, carapace 25, 1st leg 61, 2nd and 3rd 54, 4th 62, patella + tibia of 4th 12, of 1st 23.

*Loc.* Tenasserim: Mergui (*Anderson*).

### Suborder ARACHNOMORPHÆ.

Differing from the Mygalomorphæ in having the basal segment of the *mandible* articulated in a horizontal plane to the under side of the head and directed downwards, the *fang* closing obliquely inwards (fig. 52, p. 155). The posterior *respiratory organs* are in the form of tracheal tubes, which in most cases open by a common aperture just in front of the spinners. *Spinning-mamillæ* normally six in number, often accompanied by the *cribellum* or the *colulus*. Coxa of *palp* furnished with a large maxillary process. *Sternum* without distinct sigilla (at least in the Indian genera).

*Distribution.* Subarctic, temperate, and tropical countries.

With the exception of one or two forms of doubtful systematic position or great scarcity, the Indian species of Arachnomorphæ may be referred to the following families (those that are printed in italics have been omitted from the present volume):—

#### *Synopsis of the principal Indian Families.*

- |  |                   |
|--|-------------------|
| a. Cribellum and calamistrum present.  |                   |
| <i>a</i> <sup>1</sup> . Head-region large, rounded, high; posterior lateral eyes remote from the rest . . . . .              | <b>Eresidæ.</b>   |
| <i>b</i> <sup>1</sup> . Head low, narrowed, not strongly rounded; posterior lateral eyes very rarely remote from the others. |                   |
| <i>a</i> <sup>2</sup> . Tarsi furnished with unguual tufts and an inferior claw . . . . .                                    | <b>Psechridæ.</b> |
| <i>b</i> <sup>2</sup> . Tarsi without unguual tufts.   |                   |
| <i>a</i> <sup>3</sup> . Anal papilla long and conically acuminate . . . . .  | <i>Uloboridæ.</i> |
| <i>b</i> <sup>3</sup> . Anal papilla short, semicircular . . . . .   | <i>Dictynidæ.</i> |
| b. Cribellum and calamistrum absent.   |                   |
| <i>a</i> <sup>4</sup> . Sternum much wider than long; the posterior coxæ widely separated . . . . .                          | <b>Platoridæ.</b> |
| <i>b</i> <sup>4</sup> . Sternum not wider than long; posterior coxæ not widely separated.                                    |                   |
| <i>a</i> <sup>5</sup> . Posterior spinners absent or much shorter than the anterior . . . . .                                | <i>Zodariidæ.</i> |

- b*<sup>5</sup>. Posterior spinners present, not shorter than anterior.
- a*<sup>6</sup>. 1st leg enormously thick, with tarsus pedunculate and almost clawless . . . . . *Palpimanidæ*.
- b*<sup>6</sup>. 1st leg typically subsimilar to the rest (larger in most *Attidæ*); its tarsus normal and clawed.
- a*<sup>7</sup>. Posterior spinners enormously long and apically slender . . . . . **Hersiliidæ**
- b*<sup>7</sup>. Posterior spinners shorter and thick.
- a*<sup>8</sup>. Anal papilla very large, fringed with long hairs; posterior spinners much larger than anterior. . . . . **Urocteidæ**.
- b*<sup>8</sup>. Anal papilla small, not fringed; posterior spinners generally subequal to the anterior.
- a*<sup>9</sup>. Claws 3; no unguis tufts.
- a*<sup>10</sup>. Tarsus of 4th leg with comb of spines below . . . . . **Theridiidæ**.
- b*<sup>10</sup>. Tarsus of 4th leg without comb of spines.
- a*<sup>11</sup>. Maxillæ inclined on labium; mandibles scarcely toothed; legs very long and slender . . . . . **Pholcidæ**.
- b*<sup>11</sup>. Maxillæ not inclined on labium; mandibles toothed; legs shorter and thicker.
- a*<sup>12</sup>. Tarsi armed apically with curved serrate spines. Sedentary web-weavers . . . . . **Argyopidæ**.
- b*<sup>12</sup>. Tarsi without serrate spines at apex. Hunting Spiders.
- a*<sup>13</sup>. Mandibles powerful, toothed; labium and maxillæ short . . . . . **Lycosidæ**.
- b*<sup>13</sup>. Mandibles weak, weakly toothed; labium and maxillæ long . . . . . **Oxyopidæ**.
- b*<sup>9</sup>. Claws 2; unguis tufts present.
- a*<sup>14</sup>. Anterior spinners wide apart at base . . . . . *Gnaphosidæ*.
- b*<sup>14</sup>. Anterior spinners close together at base.
- a*<sup>15</sup>. Anterior median eyes enormously large; eyes of posterior line forming a square on sides of head . . . . . *Attidæ*.
- b*<sup>15</sup>. Eyes more normal in size and position.
- a*<sup>16</sup>. Mandibles prominent, strongly toothed; 3rd and 4th legs not much shorter than 1st and 2nd . . . . . **Clubionidæ**.
- b*<sup>16</sup>. Mandibles weak, weakly toothed; 3rd and 4th legs much shorter than 1st and 2nd . . . . . *Thomisidæ*.

## Family ERESIDÆ.

Small or medium-sized robust Spiders, with the cephalic region of the carapace wide and usually high; the clypeus low; the four median eyes forming a small quadrangle narrower in front than behind, the anterior lateral eye on the side of the head, the posterior lateral far removed from the rest of the eyes and situated high up on the posterior portion of the head; the mandibles flattish in front, with fang-groove scarcely toothed; maxillæ inclined obliquely inwards; legs strong, weakly spined, with three claws; abdomen oval; spinners with large cribellum.

*Distribution.* Central and Southern Europe; Western Asia, China; Africa; India, Ceylon, and Burma.  
One Indian genus.

## Genus STEGODYPHUS, Simon.

*Stegodyphus*, Simon, *Ann. Soc. Ent. Fr.* (5) iii. p. 336, 1873; *id. Hist. Nat. Araign.* i, p. 253, 1892.

Characters and distribution as above.

Type, *S. lineatus*, Latr.

The species of this genus live on bushes, where they spin either a large sheet-like web accompanied by a tubular retreat, or a large saccular nest in which many individuals live together.

*Synopsis of Indian Species.**Males.*

- a. Anterior legs thick, their tibiæ nearly as high as long . . . . . *S. tibialis*, p. 209.  
 b. Anterior legs not thick, their tibiæ more than twice as long as high.  
 a<sup>1</sup>. 2nd, 3rd, and 4th legs entirely red; 1st black in its basal, red in its distal half. . . . . *S. mirandus*, p. 209.  
 b<sup>1</sup>. All the legs alike, banded.  
 a<sup>2</sup>. Total length about 12 mm. . . . . *S. pacificus*, p. 209.  
 b<sup>2</sup>. Total length about 6 mm. . . . . *S. sarasinorum*, p. 209.

*Females.*

- a. Upper side of abdomen a uniform golden yellow . . . . . *S. socialis*, p. 209.  
 b. Upper side of abdomen clouded or banded with black.  
 a<sup>1</sup>. Carapace clothed with olive-black hairs; abdomen not banded . . . . . *S. mirandus*, p. 209.  
 b<sup>1</sup>. Carapace clothed with greyish-white hairs; abdomen banded.  
 a<sup>2</sup>. About 20 mm. in length; mandibles whitish . . . . . *S. pacificus*, p. 209.  
 b<sup>2</sup>. About 10 mm. in length; mandibles darker . . . . . *S. sarasinorum*, p. 209.

208. *Stegodyphus mirandus*, Pocock, *Jour. Bom. N. H. Soc.* xii, p. 750, 1899.

♀. *Colour*: carapace and limbs blackish, clothed with olive-black hairs; hairs on sternum and coxæ paler; abdomen bronze-black above, a rich golden red at the sides and below, with the spinners black.

♂. Uniformly black all over, with exception of the 2nd, 3rd, and 4th legs and tibia, protarsus, and tarsus of 1st leg, which are bright yellowish red.

*Measurements in mm.*—♀. Total length 20, carapace 8, 1st leg 20. ♂. Total length 12, carapace 6, 1st leg 19.

*Loc.* Western India: Bombay, Bundup (*Phipson*); Uran (*Aitken*); Poona Ghats (*Wroughton*).

209. *Stegodyphus pacificus*, sp. n.

♀. As large as the preceding. *Colour*: integument yellowish red, clothed with greyish hairs; legs banded with black; abdomen with a pair of irregular longitudinal blackish bands above and at the sides, black below, with a yellow band on each side; mandibles black at tip.

♂. Legs less strongly banded; abdomen pale below, ornamented laterally with short transverse reddish stripes.

*Measurements in mm.*—♀. Total length 20, carapace 10, 1st leg 23. ♂. Total length 12, carapace 6, 1st leg 21.

*Loc.* Western India: Eastern Khandesh (*Madan*); Eastern district of Poona (*Wroughton*).

210. *Stegodyphus sarasinorum*, Karsch, *Berl. ent. Zeits.* xxxvi, p. 275, pl. x, fig. 4, 1892.

♀. Much smaller than the preceding, which it closely resembles in colour but has the mandibles clothed with olive-black hairs. ♂. Much smaller than that of *S. pacificus*, the mandibles covered with olive hairs; palpal organ relatively larger.



Fig. 65.—*Stegodyphus sarasinorum*, ♀, × 2.

*Measurements in mm.*—♀. Total length 10, carapace 4, 1st leg 9.5. ♂. Total length 6, carapace 3, 1st leg 9.

*Loc.* Ceylon: Peradeniya (*Sarasin, Freeman*), Palode (*Yerbury*). India: Madatory, Ponnudi and Trivandrum in Travancore (*Ferguson*); Bangalore (*Stanton*); Chingleput (*Jambunathan*); Bilaspur, E. Khandesh (*Madan*); Poona (*Wroughton*); Uran (*Aitken*).

It is no doubt this species or the preceding that Simon by mistake records as *Stegodyphus gregarius*, O. P. Cambr., from Guzerat.

211. *Stegodyphus socialis*, sp. n.

♀. *Colour*: carapace black, with lateral border and cephalic region clothed with grey hairs; mandibles black, with a transverse

band of yellowish-grey hairs in the upper half; legs olive-brown, indistinctly banded with grey; abdomen golden yellow above and at sides, thickly mottled with black below.

*Measurements in mm.*—Total length 13, carapace 7, 1st leg 13.

*Loc.* S. India: Bangalore (*Staunton*).

212. *Stegodyphus tibialis*, *O. P. Cambridge, A. M. N. H.* (4) iii, p. 71, t. vi, figs. 70, 71, 1869 (*Eresus*).

♂. *Colour*: carapace black, with broad yellow marginal band; abdomen brownish black, the under side and anterior and posterior ends of upper side thickly covered with yellow hairs; legs blackish, the three posterior pairs banded above. Structurally differing from the previously described males in having the femur, patella, and especially tibia of the anterior legs thick and furnished with long black hairs, the height of the tibia being more than half its length.

Total length about 8 mm.

*Loc.* S. India: Mysore. Burma: Minhla (*Comotto*).

## Family PSECHRIDÆ.

Medium-sized, cribellate Spiders with long and slender *legs*, the anterior two pairs being much longer than the posterior two, and all of them furnished with ungual tufts and 3 claws; the superior claws are strongly toothed. *Head* moderately elevated; eyes in two transverse lines; clypeus high. *Mandibles* strong and short, toothed below. *Abdomen* oval or cylindrical. *Cribellum* large.

*Distribution.* Ranging from Ceylon and India over the Indo- and Austro-Malayan area.

Sedentary Spiders spinning large sheet-like webs.

The two Indian genera may be diagnosed as follows:—

- |   |                  |
|---|------------------|
| <i>a.</i> Head narrower, ocular quadrangle longer than wide ..... | PSECHRUS, p. 210 |
| <i>b.</i> Head broader, ocular quadrangle square .....            | FECENIA, p. 212. |

### Genus PSECHRUS, Thorell.

*Psechrus, Thorell, Ann. Mus. Genova*, xiii, p. 170, 1878; *Simon, Hist. Nat. Araign.* i, p. 226, 1892.

*Carapace* with cephalic region narrower, more prominent anteriorly; *eyes* of anterior line procurved, medians smaller than laterals, of posterior line recurved, considerably behind the anterior line, quadrangle longer than wide.

*Type, P. argentatus, Dol.*

*Distribution.* India and Ceylon to New Guinea.

*Synopsis of Indian Species*

- a. Cephalic region of carapace elevated, with ocular region prominent . . . . . *P. alticeps*, p. 211.  
 b. Cephalic region not elevated; ocular region not prominent.  
 a'. 1st leg about six times as long as carapace . . . . . *P. torvus*, p. 211.  
 b'. 1st leg about five times as long as carapace . . . . . *P. ghecuanus*, p. 211.

213. ***Psechrus torvus***, O. P. Cambridge, *Jour. Linn. Soc., Zool.* x, p. 376, pl. xi, 1869 (Tegenaria); Simon, *Hist. Nat. Araign.* i, p. 224, figs. 173 & 175, 1892 (Psechrus).

*Colour*: carapace and legs yellowish brown, the former with broad pale band on each side, the latter variegated with black; abdomen silvery above, variegated with dark stripes and spots, rich brown below, with a narrow median white line. *Carapace* not strongly elevated in front; ocular area not prominent; *eyes* of posterior line a little recurved, of anterior strongly procurved, the laterals nearly twice the diameter of the medians, lower edge of

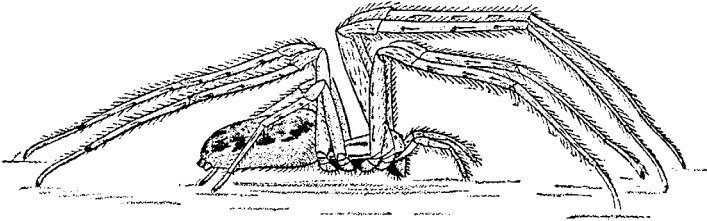


Fig. 66.—*Psechrus torvus*, ♀, × 2.

latter almost on a level with centres of former. *Legs* long and strong, 1st about six times as long as carapace. *Abdomen* ovally elongate.

♂. Smaller and longer legged than female; tibia of palp armed with short hairy apophysis; tarsus about twice as long as tibia.

*Measurements in mm.*—♀. Total length 20, carapace 9, 1st leg 54, 4th 43.

*Loc.* Ceylon: Pusselawa, Matale (*Sarasin*); Punduloya (*Green*); Peradeniya (*Freeman*), &c.

214. ***Psechrus ghecuanus***, Thorell, *Ann. Mus. Genova*, xxxvii, p. 265, 1897.

Allied to *P. torvus*, but apparently darker in colour, with the legs densely ringed with black. *Eyes* of anterior line nearly straight. *Legs* shorter, 1st only about five times as long as the carapace.

*Measurements in mm.*—Total length 20, carapace 7.75, 1st leg 40, 4th 36.

*Loc.* Upper Burma: Karennee (*Fea*).

215. ***Psechrus alticeps***, Pocock, *Jour. Bom. N. H. Soc.* xii, p. 751, 1899.

♀. Differs from both the preceding species in having the head elevated and the ocular region prominent; eyes of anterior line more

strongly procurved than in *P. torvus*. *Legs* much longer than in the latter, 1st leg only a little less than eight times as long as carapace. *Abdomen* long and subcylindrical.

*Measurements in mm.*—Total length 15, carapace 6·5, 1st leg 49, 4th 38.

*Loc.* Travancore: Ponmudi and Trivandrum (*Ferguson*).

Genus **FECENIA**, Simon.

*Fecenia*, *Simon, Bull. Soc. Ent. Fr.* (6) vii, p. cxciv, 1887; *id. Hist. Nat. Araign.* i, p. 226, 1892.

Differs from *Psechrus* in having the head wider, more convex above, and more rounded in front; the ocular area wider, the anterior medians larger than the laterals, the eyes of posterior line straight, and the ocular quadrangle about square.

Type, *F. angustata*, Thorell.

*Distribution.* S. India to the Solomon Islands.

The two British Indian species may be diagnosed as follows:—

- a. 1st leg in female six times as long as carapace; vulva divided ..... *F. travancoria*, p. 212.  
 b. 1st leg in female five times as long as carapace; vulva undivided ..... *F. cylindrata*, p. 212.

216. *Fecenia travancoria*, *Pocock, Journ. Bom. N. H. Soc.* xii, p. 750, 1899.

♀. *Colour*: carapace clothed with ashy-grey hairs; legs with yellowish hairs, femora dark apically, patellæ dark, tibia of 3rd and 4th pairs biannulate; abdomen greyish yellow above, black below with a triangular yellow patch; yellow round vulva and in front of spinners. *Carapace* with eyes of posterior line slightly procurved, medians separated by a space exceeding twice their diameter. *Legs* long, first pair about six times as long as carapace. *Abdomen* not quite twice as long as wide. *Vulva* marked with two pits separated by a high longitudinal keel.

*Measurements in mm.*—♀. Total length 13, carapace 5·3, 1st leg 34.

*Loc.* S. India: Madatory in Travancore (*Ferguson*).

217. *Fecenia cylindrata*, *Thorell, Spiders of Burma*, p. 64, 1895; *id. Ann. Mus. Genova*, xxxvii, p. 263, 1897.

♀. Distinguishable from the preceding by having the patellæ pale, the eyes of the posterior line lightly recurved, the medians less than twice their diameter apart, the 1st leg about five times as long as carapace, the abdomen more than twice as long as wide, the cribellum undivided, and the vulva impressed with a deep undivided pit.

♂. Smaller than female, 1st leg about eight times as long as carapace.

Length of ♀ from 10 to 15 mm.

*Loc.* Burma: Tharrawaddy and Reef Island in the Tavoy River (*Oates*); Bhamo and Palon (*Fea*).

## Family ARGYOPIDÆ.

(=*Epeiridæ* of most recent authors.)

Sedentary Spiders spinning webs composed of radiating and concentric threads.

*Carapace* with clypeus low; lateral eyes typically close together, remote from the median quadrangle and situated at the sides of the head. *Mouth-parts* manducatory; mandibles powerful, freely movable, with strongly toothed fang-groove; maxillæ not inclined on the labium. *Legs* not scopulate, 3 claws; tarsi furnished apically with "spurious claws" in the form of thickened serrate bristles. *Abdomen* large, but variable in form. *Spinners* subequal, short, forming a compact cluster; colulus present.

*Distribution.* Cosmopolitan.

*Synopsis of the principal Indian Genera.*

- |   |                        |
|---|------------------------|
| a. Head conical in front, lateral eyes wide apart .....   | POLTYS, p. 235.        |
| b. Head truncate in front, lateral eyes nearer together.  |                        |
| a <sup>1</sup> . Abdomen hard, armed with 6 marginal spines .....   | GASTERACANTHA, p. 231. |
| b <sup>1</sup> . Abdomen softer, not armed with marginal spines.  |                        |
| a <sup>2</sup> . Head very high, abruptly elevated and strongly tubercular .....                                    | CÆROSTRIS, p. 230.     |
| b <sup>2</sup> . Head lower, at most gradually elevated.  |                        |
| a <sup>3</sup> . Mandibles long, armed with many teeth .....  | TETRAGNATHA, p. 214.   |
| b <sup>3</sup> . Mandibles short, armed with a few teeth.   |                        |
| a <sup>4</sup> . Carapace with about 4 symmetrically arranged tubercles; abdomen very broad, multi-tubercular ..... | ORDGARIUS, p. 230.     |
| b <sup>4</sup> . Carapace mostly smooth, rarely with 2 tubercles ( <i>Nephila</i> ) or irregularly tubercular.      |                        |
| a <sup>5</sup> . Abdomen wider than long, leathery, with large sigilla above .....                                  | CYRTARACHNE, p. 228    |
| b <sup>5</sup> . Abdomen not wider than long, sigilla small.  |                        |
| a <sup>6</sup> . Eyes of posterior line strongly procurved .....  | ARGYOPE, p. 220.       |
| b <sup>6</sup> . Eyes of posterior line not or scarcely procurved.  |                        |
| a <sup>7</sup> . Abdomen flat, with sharply defined lateral edges ....  | HERENNIA, p. 219.      |



- b*<sup>7</sup>. Abdomen convex, with rounded edges.  
*a*<sup>8</sup>. Maxillæ long, very narrow at base, expanded and angular at apex . . . . . ARGYROPEIRA, p. 215.  
*b*<sup>8</sup>. Maxillæ short and thick.  
*a*<sup>9</sup>. Legs long, protarsi and tarsi longer than patellæ and tibiæ. . . . . NEPHILA, p. 217.  
*b*<sup>9</sup>. Legs shorter, protarsi and tarsi shorter than patellæ and tibiæ. . . . . ARANEUS, p. 223.

Genus **TETRAGNATHA**, Latreille.

*Tetragnatha*, Latreille, *Nouv. Dict. d'Hist. Nat.* xxiv, p. 135, 1804; *Simon, Hist. Nat. Araign.* i, p. 723, 1894.

*Mandibles* and *maxille* long or very long, projecting, the former armed with many teeth, fang long. *Legs* very long and slender. *Abdomen* long, subcylindrical, the genital aperture behind the stigmata. No vulva in ♀.

Type, *T. extensa*, Linn.

*Distribution.* Tropical, temperate, and subarctic countries.

These Spiders spin their webs on plants overhanging water, and when at rest remain with the legs extended forwards and backwards in a line with the body.

Many species, very similar in general appearance and habits, are represented in the Indian fauna. The following three wide-ranging forms may be regarded as representative types:—

- a*. Ocular quadrangle much narrower in front than behind . . . . . *T. gracilis*, p. 214.  
*b*. Ocular quadrangle not narrower in front than behind.  
*a*<sup>1</sup>. Fang (in ♀) strongly sinuous, armed in its basal half with two very strong teeth . . . . . *T. geniculata*, p. 215.  
*b*<sup>1</sup>. Fang (in ♀) not strongly sinuous, armed with only two small teeth . . . . . *T. mandibulata*, [p. 215.]

218. *Tetragnatha gracilis*, *Stoliczka, J. A. S. B.* xxxviii, pt. 2, p. 244, t. xix, fig. 2, 1869 (*Meta*) *ceylonica*, *O. P. Camb. Jour. Linn. Soc., Zool.* x, p. 394, t. xiii, fig. 83, 1870: *latifrons*, *Thorell, Ann. Mus. Genova*, x, p. 434, 1877 (*Tetragnatha*).

♀. *Carapace* with lateral eyes prominent; ocular quadrangle much wider behind than in front. *Mandibles* and *fang* relatively short; fang uniformly curved, armed with a small tooth beneath at base.

♂. *Mandibles* much longer and armed apically with two long spiniform teeth, one superior and one internal.

Total length 10 mm.

Loc. Ceylon. India : Chingleput (*Jambumathan*), Uran (*Aitken*), Dekkan (*Simon*), Calcutta (*Stoliczka*). Burma : Moulmein (*Oates*), Bhamo (*Fea*). Andamans, Celebes, &c.

219. *Tetragnatha geniculata*, *Karsch, Berl. ent. Zeits.* xxxvi, p. 286, 1892.

*Carapace* with posterior lateral eyes not prominent; ocular quadrangle only slightly narrower in front. *Mandibles* long; fang strongly geniculate in its distal half, armed near the base with two strong teeth, one inferior, the other external, more basal and projecting forwards.

Total length 15 mm.

Loc. Ceylon (*Sarasin*): Trincomali (*Yerbury*). India : Uran (*Aitken*), Poona Ghats (*Wroughton*).

220. *Tetragnatha mandibulata*, *Walck. Ins. Apt.* ii, p. 211, 1837 : *minatoria*, *Simon, Ann. Soc. Ent. Fr.* (5) vii, p. 83, 1877 : *leptognatha*, *Thorell, Ann. Mus. Genova*, x, p. 441, 1877.

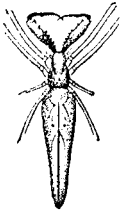


Fig. 67.  
*Tetragnatha mandibulata*,  
♀. (Legs abbreviated.)

♀. *Eyes* more widely separated than in *T. geniculata*. *Mandible* with fang not strongly geniculate, lightly sinuous, armed with two small teeth, one beneath at the base, the other on the inner side in the basal half.

♂. Fang evenly curved at base, straightish, unarmed; mandible armed above with one shortish apical spiniform tooth.

Total length about 13 mm.

Loc. Burma : Rangoon (*Oates*), Shwegoo Myo (*Fea*). Nicobar Is.; Indo- and Austro-Malaysia.

#### Genus ARGYROEPEIRA, Emerton.

*Argyroepeira*, *Emerton, Tr. Conn. Acad.* vi, p. 331, 1885; *Simon, Hist. Nat. Araign.* i, p. 736, 1894.

Distinguishable from the succeeding genera by having the *maxilla* long, narrow at the base, dilated, and externally angled at the apex, and by the presence of one row or more of bristles on the outer side of the *femur* of the 4th leg. The *abdomen* is ornamented with bands or spots of silvery pigment.

Type, *A. hortorum*, Hentz.

*Distribution.* Tropical and subtropical countries.

The following four may be regarded as representative types of the many species of this genus that inhabit British India :—

- a. Anterior end of abdomen conically elevated . . . *A. fastigata*, p. 216.  
 b. Anterior end of abdomen not conically elevated.  
   a<sup>1</sup>. Posterior end of abdomen conically produced . . . . . *A. celebesiana*, p. 216.  
   b<sup>1</sup>. Posterior end of abdomen not conically produced.  
     a<sup>2</sup>. Tibia of 4th leg plumose . . . . . *A. tessellata*, p. 216.  
     b<sup>2</sup>. Tibia of 4th leg not plumose . . . . . *A. ventralis*, p. 216.

221. *Argyropeira fastigata*, *Simon, Ann. Soc. Ent. Fr.* (5) vii, July 1877, p. 79, t. iii, fig. 10: *elegans*, *Thorell, Ann. Mus. Genova*, x, p. 416, 1877, Oct.-Dec. (Meta).

*Carapace* and *legs* pale, the latter banded with dark stripes; tibia of 4th pair thickly hairy in its distal half. *Lateral eyes* widely separated from medians. *Abdomen* with its fore part elevated into a conical prominence; posterior extremity forming an obtuse angle above the spinners. Male minute.

Total length (♀) 8 mm.

*Loc.* Ceylon: Trincomali (*Yerbury*). Burma: Tavoy (*Moti Ram*), Shwegoo Myo (*Fea*), Tharrawaddy and Rangoon (*Oates*). Also Philippine Islands, Celebes, &c.

222. *Argyropeira tessellata*, *Thorell, Ann. Mus. Genova*, xxv, p. 135, 1887.

♀. Nearly allied to the preceding, but with the anterior extremity of the abdomen rounded, not elevated; the lateral eyes not so far from the medians; and the ventral surface of the abdomen dark, with a pair of clearly defined silver bands.

Total length 9 mm.

*Loc.* Burma: Shwegoo Myo (*Fea*); Tenasserim (*Oates*).

223. *Argyropeira celebesiana*, *Walck. Ins. Apt.* ii, p. 222, 1837: *decorata*, *Blackwall, A. M. N. H.* (3) xiv, p. 44, 1864 (Tetragmata): *angustata*, *Stoliczka, J. A. S. B.* xxxviii, pt. 2, p. 241, t. xx, fig. 7, 1869 (Nephila).

*Lateral eyes* still nearer to the medians than in *A. tessellata*; colouring of ventral surface of abdomen as in the latter. Anterior extremity of *abdomen* low as in *A. tessellata*, but furnished with two low shoulder-tubercles; posterior end of abdomen produced into a conical caudal process.

Total length 8-10 mm.

*Loc.* Ceylon (*Sarasin, Cambridge*). India: Ootacamund (*Hampson*); Poona Ghats (*Wroughton*); Calcutta (*Stoliczka*). Burma: Bhamo (*Fea*); Tharrawaddy, Rangoon (*Oates*). Eastwards as far as Celebes, &c.

224. *Argyropeira ventralis*, *Thorell, Ann. Mus. Genova*, x, p. 423, 1877 (Meta).

Allied to *A. tessellata*, but with the *eyes* of the posterior line

closer together; the *abdomen* less definitely banded, more irregularly clouded with blackish marks, and the tibiæ of the 4th leg not plumose.

Total length 7 mm.

*Loc.* Burma: Shwegoo Myo (*Fea*); Tharrawaddy, Rangoon, Double Island, and Tenasserim (*Oates*). Also Celebes.

Genus **NEPHILA**, Leach.

*Nephila*, *Leach, Zool. Misc.* ii, p. 133, 1815; *Simon, Hist. Nat. Araign.* i, p. 755, 1894.

*Carapace* with cephalic region convex, generally armed posteriorly with two tubercles; ocular quadrangle nearly square or slightly narrower in front. *Legs* very long, spinulose, with protarsi longer than tibiæ and patellæ. Female with vulva not or weakly developed. Male relatively minute, with palpus simple.

Type, *N. maculata*, Fabr.

*Distribution.* Tropical countries of the world.

*Synopsis of Indian Species.*

- a. Legs short, 1st about four times as long as carapace ..... *N. malabarensis*, p. 219.  
 b. Legs long, 1st about six times as long as carapace.  
   *a*<sup>1</sup>. A strong conical tubercle behind labium . . . . . *N. imperialis*, p. 218.  
   *b*<sup>1</sup>. At most a low elevation behind labium.  
     *a*<sup>2</sup>. Abdomen high at its posterior end above the spinners ..... *N. clavata*, p. 218.  
     *b*<sup>2</sup>. Abdomen low at its posterior end.  
       *a*<sup>3</sup>. Legs black; abdomen spotted with yellow ..... *N. maculata*, p. 217.  
       *b*<sup>3</sup>. Legs mostly red; abdomen less varied ..... *N. kuhlii*, p. 218.

225. *Nephila maculata*, *Fabr. Ent. Syst.* ii, p. 425, 1793 (*Aranea*); *Thorell, Ann. Mus. Genova*, xvii, p. 145, 1881; *id. op. cit.* xxv, p. 149, 1887, with synonymy (*Nephila*).

♀. *Colour*: cephalothorax and its appendages black, coxæ of legs and proximal half of palpus yellow; carapace covered with silky yellow pubescence; abdomen olive-brown, ornamented below with yellow spots and above with a pair of longitudinal yellow lines and a transverse yellow band in front. *Carapace* smooth, with a pair of sharp tubercles. *Sternum* nearly flat behind labium. *Legs* very long, femur of 1st nearly twice as long as carapace, 1st leg about six times as long. *Abdomen* long.

*Measurements in mm.*—Total length 37, carapace 12, 1st leg 7.2, 4th 6.4.

*Loc.* Ceylon: Peradeniya (*Sarasin, Freeman*), Trincomali (*Yer-*

bury). India: Tinnevely (*Barber*), Trivandrum (*Ferguson*), Ootacamund (*Hampson*), Kanara (*Millet*), Debra Dun (*Oldham*), Darjiling (*Dendy*). Burma: Tharrawaddy, Tounghoo, Rangoon, Tenasserim, &c. (*Oates & Fea*); Mergui (*Anderson*). Nicobar Islands; thence eastwards to China and Australia.

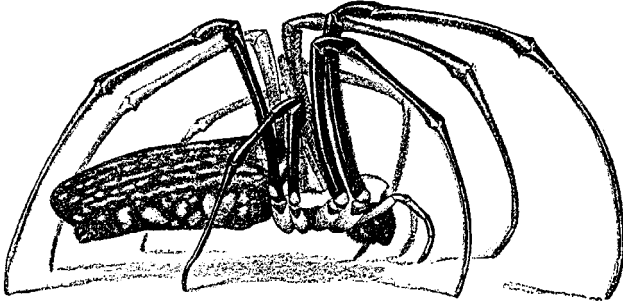


Fig. 68.—*Nephila maculata*, ♀, nat. size.

226. *Nephila kuhlii*, *Doleschall*, *Verh. Nat. Vereen. Nederland. Indië*, v. no. 5, p. 27, t. ix, fig. 7, 1859.

♀. Distinguishable from *N. maculata* by having the legs red with the exception of the patellæ, protarsi, tarsi, and the extremities of the femora and tibiæ, which are black; abdomen more uniformly coloured.

Total length up to about 40 mm.

*Loc.* N. India: Darjiling (*Dendy*). Burma: Bhamo (*Fea*). Thence eastwards to Celebes.

227. *Nephila imperialis*, *Doleschall*, *Nat. Tijdschr. Nederland. Indië*, xiii, p. 413, 1857 (*Epeira*); *Thorell*, *Spiders of Burma*, p. 159, 1895, with synonymy (*Nephila*).

♀. Resembling *N. maculata* in size and length of legs; the legs and palpi, including the coxæ, not so black, the sternum with lateral yellow spots, and the abdomen less boldly striped and spotted. *Sternum* with a large conical tubercle behind labium.

Total length 26 to 42 mm.

*Loc.* Burma: Rangoon and Tharrawaddy (*Oates*). Also occurs in the Indo- and Austro-Malayan areas.

228. *Nephila clavata*, *L. Koch*, *Verh. z.-b. Ges. Wien*, xxvii, p. 741, 1877: limbata, *Thorell*, *Ann. Mus. Genova*, xxxix, p. 335, 1898.

♀. Smaller than the preceding species. *Colour*: carapace with yellow patch behind head and yellow border; sternum with median yellow band; anterior legs with yellow band round femora and tibiæ, rest of the femora yellowish brown, palpi black at tip; abdomen black below, varied with yellow lines and spots, with a

pink band behind which laterally spreads on to the sides of the abdomen; upper side yellow, with indistinct transverse fuscous stripes. *Carapace* and *sternum* without tubercles. *Legs* long and thin. *Abdomen* twice as long as broad, posteriorly much elevated above the spinners.

*Measurements in mm.*—Total length 17, carapace 5, 1st leg 34.

*Loc.* North-eastern India: Darjiling (*Wroughton*), Shillong (*Heaven*). Burma (*Fea*). Also Japan, China, Formosa.

229. *Nephila malabarensis*, *Walck. Ins. Apt. ii. p. 103, 1837* (*Epeira*); *Thorell, Ann. Mus. Genova, xxviii, p. 188, 1890* (*Nephilengys*).

♀. *Colour*: carapace black, scantily clothed with yellow hairs; legs yellowish, banded with black; sternum yellow; abdomen ornamented with two pairs of yellow spots below, greyish brown mottled with darker tints above. *Carapace* with head high, granular, without tubercles. No tubercle on *sternum*. *Legs* shorter, femur of 1st scarcely longer than carapace, the entire leg only about four times as long. *Abdomen* evenly oval, one-third longer than wide.

*Measurements in mm.*—Total length 22, carapace 10, 1st leg 38.

*Loc.* Ceylon: Punduloya (*Green*); Peradeniya, Jaffna (*Sarasin*); Trincomali (*Yerbury*). India: Madatory and Trivandrum (*Ferguson*); Ootacamund (*Hampson*). Burma: Tharawaddy, Tenasserim, &c. (*Oates & Fea*). Nicobar Islands. Thence eastwards to Australia.

#### Genus HERENNIA, Thorell.

*Herennia*, *Thorell, Ann. Mus. Genova, x, p. 79, 1877*; *Simon, Hist. Nat. Araign. i, p. 759, 1894*.

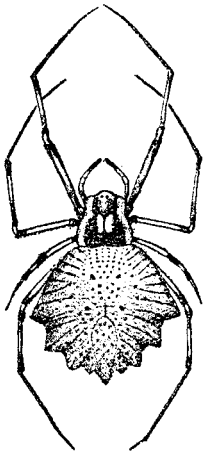


Fig. 69.—*Herennia ornatissima*, ♀, × 2.

*Carapace* flat; *eyes* not extending across the frontal area; quadrangle scarcely longer than wide; *eyes* of posterior line nearly straight. *Abdomen* coriaceous, flattish above, with sharply defined, often lobate lateral margins, impressed with radially arranged lines of spots. Male with simple palpus.

Type, *H. ornatissima*, *Dolleschall*.

230. *Herennia ornatissima*, *Dolleschall, Verh. Nat. Vereen. Neesland. Indië, v, no. 5, p. 32, 1859*; *marginata, id. tom. cit. p. 32, t. xi, fig. 1* (*Epeira*); *Thorell, Ann. Mus. Genova, xxx, p. 186, 1887* (*Herennia*) (for synonymy).

♀. *Colour*: carapace blackish, with broadly yellow border and somewhat V-shaped median yellow patch, covered with white hair; legs yellowish, with apices of segments dark; sternum orange-yellow;

abdomen greyish yellow, speckled with black above, yellow with large median black spot below. *Carapace* flattish. *Legs* slender. *Abdomen* flattish, subpentagonal, lobate on each side posteriorly; impressed towards the margins with radially arranged rows of punctures.

Length about 15 mm.

*Loc.* Ceylon: Peradeniya (*Sarasin*), Kanthalai (*Ferbury*). India: Trivandrum (*Ferguson*), Ootacamund (*Hampson*). Burma: Tharrawaddy, Rangoon, Tenasserim, &c. (*Oates & Fea*). Thence eastwards into Austro-Malaysia.

### Genus ARGYOPE, Sav.

*Argyope*, *Savigny*, in *Aud. & Sav. Egypte, Hist. Nat.* i, pt. 4, p. 121, 1809; *Simon, Hist. Nat. Araign.* i, p. 769, 1895.

*Carapace* flat; ocular quadrangle much longer than wide; *eyes* of posterior line very strongly procurved, the medians lying far behind the laterals. *Abdomen* truncate in front, swollen and frequently tubercular at the sides posteriorly.

Type, *A. lobata*, Pallas.

*Distribution.* Tropical and temperate countries.

### Synopsis of Indian Species.

- a. Abdomen with caudal process and large lateral lobes; carapace long.
- a<sup>1</sup>. Coxæ and trochanters of 3rd and 4th legs unspined ..... *A. lobata*, p. 221.
- b<sup>1</sup>. Coxæ and trochanters of 3rd and 4th legs spined ..... *A. arcuata*, p. 220.
- b. Abdomen without caudal process and large lateral lobes.
- a<sup>2</sup>. Abdomen pentagonal, broadest behind the middle, then abruptly narrowed. *A. pulchella*, p. 221, *A. undulata*, [p. 222, *A. anasija*, p. 222, *A. taprobatica*, p. 222.
- b<sup>2</sup>. Abdomen more evenly oval in outline.
- a<sup>3</sup>. Abdomen ornamented above with dark patches formed of narrow black lines .. *A. æmula*, p. 223.
- b<sup>3</sup>. Abdomen ornamented with bands of round spots ..... *A. catenulata*, p. 223.

231. *Argyope arcuata*, *Simon, Ann. Mus. Genova*, xx, p. 343, 1884; *Thorell, op. cit.* xxv, p. 160, 1887.

♀. *Colour*: integument of carapace and legs blackish brown, legs indistinctly annulate; sternum with median yellow stripe; palpi yellow; abdomen rich yellow above, ornamented with three broad black bands; hairy covering silvery white. *Carapace* much longer than wide. *Legs*: coxæ and trochanters of 3rd and 4th pairs spinulose; femur of 3rd armed below with spines and spinules, of 4th with band of subequal spinules extending nearly to the base of the segment. *Abdomen* broad, furnished on each

side with three large and often two smaller tubercles and a median caudal process. *Vulva* with septum narrow, when viewed from below covering only the middle third of the cavity.

Total length 23 to 28 mm.

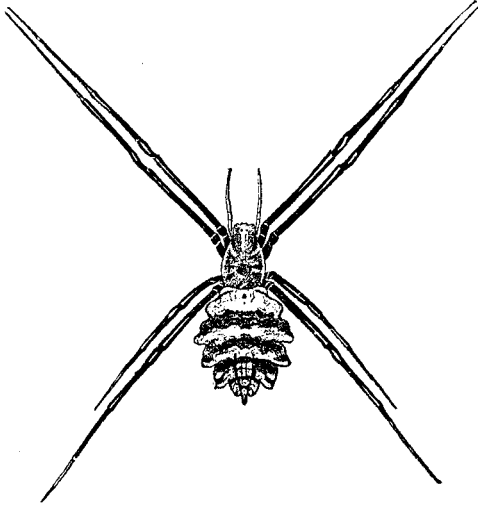


Fig. 70.—*Argyope arcuata*, ♀, nat. size.

*Loc.* Western and Southern India: Poona (*Wroughton*); E. Khandesh (*Madan*); Bangalore (*Staunton*). Burma: Minhla.

232. *Argyope lobata*, *Pallas, Spic. Zool.* i, pt. 9, p. 46, t. iii, fig. 14, 1772 (Aranea).

♀. Allied to the preceding, but paler in colour; legs very distinctly striped. Coxæ and trochanters of 3rd and 4th legs not spinulose below; band of spinules on femur of 4th more scanty and not spreading on to the basal third of the segment. Septum of *vulva* broader and shorter.

Total length about 25 mm.

*Loc.* India: Bellary and Wagra Karoor (according to Simon).

233. *Argyope pulchella*, *Thorell, Ann. Mus. Genova*, xvii, p. 74, 1881; *Simon, op. cit.* xx, p. 346, 1884; *Thorell, op. cit.* xxv, p. 158, 1887; *id. Spiders of Burma*, p. 162, 1895.

♀. *Colour*: carapace and legs deep reddish brown, the former thickly covered with silky white hair; palpi yellow; sternum yellow, black at sides; abdomen yellow or whitish above, ornamented with a large triangular olive-black patch behind, a transverse bar of the same colour in front, and two close-set narrow lines forming together a stripe in the anterior half, the dark



patches relieved by small white spots; ventral surface blackish, spotted, with a pair of yellow stripes running on each side from the epigastric fold; legs sometimes yellow and strongly banded with black, sometimes more uniformly dark. *Carapace* nearly as broad as long. *Abdomen* pentagonal, truncate in front, broadest behind the middle, then abruptly narrowed, scarcely lobed. Plate of *vulva* triangularly pointed, with thickened rim, each half of the cavity subcircular when seen from the side.

Length about 15 to 20 mm.

*Loc.* Burma: Rangoon, Tharrawaddy, Moulmein, &c. (*Oates & Fea*). Andaman Islands.

234. *Argyope undulata*, *Thorell, Ann. Mus. Genova*, xxv, p. 154, 1887; *id. Spiders of Burma*, p. 161, 1895.

Closely allied to *A. pulchella*, but with the anterior pale, trapezoidal area on the upper side of the abdomen completely divided by a single broad transverse olive-brown stripe. The inferior lamina of the *vulva* much more rounded posteriorly; the septum vertical with straighter sides, and when viewed from the side forming a right angle, and not a continuous circular curve, with the posterior portion of the ventral sclerite.

Total length 29 mm.

*Loc.* Burma: Tharrawaddy (*Oates*); Shwegoo (*Feu*).

235. *Argyope anasuja*, *Thorell, Ann. Mus. Genova*, xxv, p. 162, 1887: *ornata*, *Simon, op. cit.* xx, p. 347, 1884 (*not of Blackwall*).

Resembling the preceding, but with the ventral plate of the *vulva* scarcely produced in the middle posteriorly, the edge being more widely rounded, the thickened margin and the partition forming rather a T-shaped than a Y-shaped bar.

Total length about 11 mm.

*Loc.* India: Rannad (*Fabre*), Chingleput (*Jambunathan*), Ootacamund (*Hampson*), Bangalore (*Staunton*), Násik (*Millot*), Karachi (*Simon*).

The following species based upon an immature specimen is indeterminable, though closely allied to *A. anasuja*:—

*Argiope ornata*, *Blackwall, A. M. N. H.* (3) xiv, p. 43, 1864 (*Nephila*).

*Loc.* East Indies.

236. *Argyope taprobanica*, *Thorell, Ann. Mus. Genova*, xxv, p. 163, 1887: *versicolor*, *Karsch, Berl. ent. Zeits.* xxxvi, p. 280, 1892 (*not of Doleschall*).

Closely allied to *A. pulchella*, but with the smooth edges of the spaces of the *vulva* thicker, and the spaces themselves less circular when seen from the side, and often furnished with a crescentic sclerite forming a secondary partition.

Total length 17 mm.

*Loc.* Ceylon: Kandy, Peradeniya (*Freeman*).

237. *Argyope æmula*, *Walck. Ins. Apt.* ii, p. 118, 1837 (Epeira); *Thorell, Ann. Mus. Genova*, xvii, p. 63, 1881 (Argiope) (for synonymy): *trivittata*, *Karsch, Berl. ent. Zeits.* xxxvi, p. 280, t. x, fig. 6, 1892 (dark variety).

Colour very much as in *A. pulchella*, but the black stripes and posterior black patch on the abdomen broken up into a series of transverse black lines by intervening broader pale bands. *Abdomen* about one-third longer than wide, oval, truncate in front, its sides evenly and lightly rounded; ventral plate of *vulva* longer than wide, sulcate, and mesially produced posteriorly with rounded apex.



Fig. 71.  
*Argyope æmula*, *Fea*.  
♀, × 3.

Total length about 23 mm.

*Loc.* Ceylon: Trincomali (*Verbury*), Punduloya (*Green*). India: Trivandrum (*Ferguson*), Nilgiri Hills (*Daly*), Poona Ghats (*Wroughton*), E. Khandesh (*Madan*), Balsar in S. Guzerat (*Wroughton*). Burma: Rangoon, Tharrawaddy, Bhamo (*Oates* & *Fea*). Nicobar Is.; Indo- and Austro-Malaysia.

238. *Argyope catenulata*, *Doleschall, Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 30, t. ix, fig. 1, 1859 (Epeira); *Thorell, Ann. Mus. Genova*, xxviii, p. 90, 1890 (synonymy): *stellata*, *Stoliczka, J. A. S. B.* xxxviii, pt. 2, p. 234, t. xviii, fig. 6, 1869.

Allied to *A. æmula*, but differing considerably in colour, the posterior three-fourths of the upper side of the abdomen ornamented with transverse yellow stripes, frequently interrupted in the middle, the spaces between the bands occupied by transverse rows, each consisting of four subspherical pale spots, of which the median fuse together at the posterior end of the abdomen; the area occupied by the median spots covered with a continuous coating of silky hairs forming a band broad in front and narrowed behind.

*Loc.* Ceylon: Peradeniya (*Sarasin*). India: Wagra Karoor (*Simon*); Sunderbans (*Stoliczka*). Burma: Tharrawaddy, Moulmein (*Oates*). Nicobar Is.; Indo- and Austro-Malaysia.

#### Genus ARANEUS, Clerck.

*Araneus*, *Clerck, Svenska Spindlar*, p. 22, 1757.

*Araneus*+*Cyrtophora*, *Simon, Hist. Nat. Araign*, i, pp. 775 & 829, 1895.

*Carapace* convex; *eyes* of posterior line lightly or strongly recurved; quadrangle a little longer than wide; lateral eyes separated or in contact. *Legs* strong; protarsi shorter than tibiae and patellæ. Female with distinct *vulva*. Male with complicated palpus.

Type, *A. diadematus*, Clerck.

*Distribution.* Tropical and temperate countries.

*Synopsis of the principal Indian Species.*

- a. Ocular quadrangle parallel-sided or nearly so.
- a*<sup>1</sup>. Quadrangle square; abdomen higher behind than in front ..... *A. laglaizei*, p. 224.
- b*<sup>1</sup>. Quadrangle much longer than wide; abdomen not higher behind.
- a*<sup>2</sup>. Abdomen furnished with 4 tubercles above in front ..... *A. cicatrosus*, p. 226.
- b*<sup>2</sup>. Abdomen furnished with only 2 tubercles above in front.
- a*<sup>3</sup>. Abdomen produced posteriorly into a conical prominence ..... *A. feæ*, p. 226.
- b*<sup>3</sup>. Abdomen evenly rounded behind .. *A. moluccensis*, p. 226.
- b. Ocular quadrangle much narrower behind than in front.
- a*<sup>4</sup>. Anterior half of abdomen furnished on each side with two large prominences .. *A. citricola*, p. 226.
- b*<sup>4</sup>. Anterior half of abdomen at most furnished with a pair of shoulder prominences. [p. 227.
- a*<sup>5</sup>. Posterior extremity of abdomen bilobate. *A. exanthematicus*,
- b*<sup>5</sup>. Posterior end of abdomen not bilobate.
- a*<sup>6</sup>. Upper side of abdomen triangular; carapace granular.
- a*<sup>7</sup>. A large tubercle overhanging lateral eyes ..... *A. dehaanii*, p. 225.
- b*<sup>7</sup>. No tubercle over lateral eyes .... *A. unicolor*, p. 225.
- b*<sup>6</sup>. Upper side of abdomen oval or heart-shaped; carapace smooth.
- a*<sup>8</sup>. Abdomen with a pair of large circular yellow spots ..... *A. bilunifer*, p. 227.
- b*<sup>8</sup>. Abdomen without a pair of circular pale spots.
- a*<sup>9</sup>. Head narrower, flatter; distance between anterior median eyes almost half that between median and lateral ..... *A. nauticus*, p. 228.
- b*<sup>9</sup>. Head broader, more convex; distance between anterior median eyes much less than half that between median and lateral ..... *A. rumpfi*, p. 228.

239. *Araneus laglaizei*, Simon, *Ann. Soc. Ent. France*, (5) vii, p. 77, 1877; Thorell, *Ann. Mus. Genova*, xxviii, p. 167, 1890 (for synonymy) (*Epeira*).

Colour variable, pale or dark brown; legs distally banded; abdomen yellowish white above, strongly or weakly banded, blackish or greyish below, with two pairs of whitish spots on each side. Carapace with weak ocular tubercles; quadrangle almost square, slightly wider behind than in front; lateral eyes in contact. Legs scarcely spined. Abdomen heart-shaped, very broad in front, much elevated behind above the spinners, and often

prolonged into a longish subcylindrical tail. *Vulva* with scape stout at base, downcurled at apex.

Total length up to 10 mm.

*Loc.* Ceylon: Peradeniya (*Freeman*); Trincomali (*Yerbury*). India: Ootacamund (*Hampson*); Jaunsar, Thadyar, 2500 ft. (*Oldham*). Burma: Tounghoo, Tharrawaddy, Rangoon, Tenasserim, &c. (*Oates & Fea*). Indo- and Austro-Malaysia.

240. *Araneus unicolor*, *Doleschall, Nat. Tijdschr. Nederland. Indië*, xiii, p. 419, 1857; *Thorell, Spiders of Burma*, p. 171, 1895 (for synonymy) (*Epeira*).

Prevailing colour reddish brown, lightly infuscate on the upper side of the abdomen, yellow below and laterally. *Carapace* broad, coarsely granular or tubercular; *eyes* of posterior line very distinctly recurved; lateral eyes widely separated, quadrangle wider in front. *Legs* strong but short, at most weakly spined; anterior femora tubercular. *Abdomen* somewhat heart-shaped, broadly truncate in front, with large prominent shoulder-points, pointed behind, high and prominent above spinners. *Vulva* small, without scape.

Total length about 20 mm.

*Loc.* Ceylon. N.E. India, Nagá Hills. Burma: Tharrawaddy (*Oates*).

*A. acrohalia*, *Thorell (Spiders of Burma, p. 173, 1895 (Epeira))*, based upon an immature female from Tounghoo (*Oates*), is closely allied to this species.

241. *Araneus dehaanii*, *Doleschall, Verh. Nat. Vereen. Nederl. Indië*, v, no. 5, p. 33, t. ii, fig. 7, 1850; *Thorell, Ann. Mus. Genova*, xxviii, p. 125, 1890; *id. Spiders of Burma*, p. 170, 1895 (for synonymy) (*Epeira*).



Fig. 72.—*Araneus dehaanii*, ♀,  $\times \frac{1}{2}$ .

*Colour*: carapace reddish, blacker laterally, clothed with white hairs; legs and palpi blackish red, banded; abdomen dull yellowish brown laterally and below, variable above, the area between the shoulder-points and the extremity often deep reddish chocolate, yellow at the sides, sometimes with a few yellow spots in front; the yellow lateral portion sometimes broken up into a series of large yellow spots. *Carapace* granular above, with a conical tubercle on each side above the lateral eyes. *Abdomen* triangular, broad, with large sharp shoulder-points in front, pointed behind, and ending in three prominences set in a vertical series. *Vulva* small, with very stout scape.

Total length about 24 mm.

*Loc.* Ceylon: Trincomali (*Yerbury*). India: Kanara (*Millet*). Burma: Tharrawaddy, Bhamo, Tenasserim, &c. (*Oates & Fea*). Indo- and Austro-Malaysia.

242. *Araneus moluccensis*, *Doleschall, Nat. Tijdschr. Nederland. Indië*, xiii, p. 418, 1857; *Thorell, Ann. Mus. Genova*, xiii, p. 40, 1878 (for synonymy) (*Epeira*).

*Colour*: carapace and limbs blackish, the former, and to a less extent the latter, clothed with whitish hairs; coxæ mostly yellow, sternum with yellow line; abdomen yellow in front above, rest of the dorsal surface thickly spotted and lined with yellow on a black ground; blackish below. *Carapace* flattish; ocular quadrangle parallel-sided, much longer than wide; *eyes* of posterior line nearly straight, lateral eyes narrowly separated. *Legs* strong, long, scarcely spined, furnished with stiff bristles. *Abdomen* evenly oval, with two distinct shoulder-points in front. *Vulva* without scape.

Total length 24 mm.

*Loc.* Ceylon: Kellar (*Ferbury*), &c. India: Trivandrum (*Ferguson*), Nilgiri Hills (*Daly*). Burma: Tharrawaddy, Rangoon, Moulmein (*Oates & Fea*). Indo- and Austro-Malaysia.

243. *Araneus feæ*, *Thorell, Ann. Mus. Genova*, xxv, p. 173, 1887; *id. Spiders of Burma*, p. 170, 1895 (*Euetria*).

Allied to *A. moluccensis*, but smaller and paler; carapace and legs ochre, femora banded above longitudinally; abdomen whitish above, with median longitudinal black band broken up by paler markings and bordered with white; sides ornamented with white bands; lower surface black, spotted and bordered with white. *Carapace* with eyes of posterior line distinctly procurved; laterals in contact. *Legs* long and slender, armed with slender spines. *Abdomen* longer, narrower, more prominent posteriorly above spinners.

Total length 13 mm.

*Loc.* Burma: Tharrawaddy, Rangoon (*Oates*), Bhamo (*Fea*).

244. *Araneus cicatrosus*, *Stoliczka, J. A. S. B.* xxxviii, p. 242, t. xx, fig. 5, 1869: *salebrosa*, *Thorell, Ann. Mus. Genova*, xiii, p. 48, 1878 (*Epeira*): *adspersata*, *Karsch, Berl. ent. Zeits.* xxxvi, p. 284, t. x, fig. 8, 1892 (*Meta*).

Coloured much as in *A. feæ*, but with the carapace banded with black, the legs thickly spotted with black, and the median abdominal band restricted to the posterior third of the dorsal surface. *Carapace* less flat; *eyes* of posterior line slightly recurved; laterals very distinctly separated. *Abdomen* furnished above in its anterior half with two pairs of conical erect tubercles arranged in a square.

Total length 6 mm.

*Loc.* India: Chingleput (*Jambunathan*), Kanara, Násik (*Millet*), Allahabad (*Ryves*); Calcutta (*Stoliczka*). Burma: Tharrawaddy, Moulmein (*Oates*). Indo- and Austro-Malaysia.

245. *Araneus citricola*, *Forskål, Descript. Anim. etc.* p. 86, 1775; *id. Icones rer. nat.* t. xxiv, fig. D, 1776 (*Aranea*); *Thorell, Spiders of Burma*, p. 172, 1895 (for synonymy) (*Epeira*).

Colour very variable, either uniformly flavous or blackish, legs obscurely banded; dorsal side of abdomen often black and bordered with a sinuous yellow band and marked in front in the middle line with a pair of close-set narrow pale stripes. *Carapace* convex, smooth; *eyes* of posterior line very strongly recurved; laterals widely separated. *Legs* short and strong. *Abdomen* oval, with large shoulder prominences, a deeply bifid posterior extremity, and a lateral prominence on each side just in front of the middle. *Vulva* without scape.

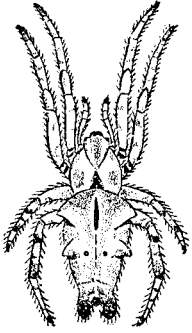


Fig. 73.—*Araneus citricola*, ♀, × 2.

Total length about 12 mm.

*Loc.* Ceylon (*Barnes, Cambridge*). India: Bangalore (*Staunton*); Chingleput (*Jambunathan*); Kanara (*Millet*). Burma: Rangoon, Tharrawaddy (*Oates*). Also Australia, Madagascar &c., Africa, and S. Europe.

246. *Araneus exanthematicus*, *Dobleschall, Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 38, t. iii, fig. 3, 1859; *Thorell, Ann. Mus. Genova*, xiii, p. 57, 1878 (*Epeira*).

Nearly allied to *A. citricola*, but at once distinguishable by the absence of the submedian lateral prominence on the abdomen.

Total length about 10 mm.

*Loc.* Burma: Toungoo (*Oates*). Indo- and Austro-Malaysia.

247. *Araneus bilunifer*, sp. n.

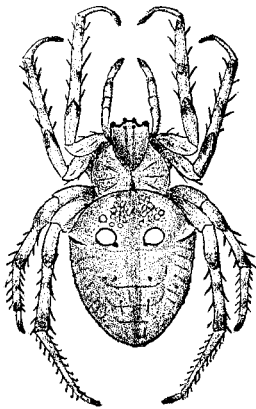


Fig. 74.  
*Araneus bilunifer*, ♀, × 2.

♀. Prevailing colour yellowish, legs distally infuscate and banded, sternum mesially blackish; abdomen yellowish grey, indistinctly variegated with darker markings, marked in front with a pair of large circular black-ringed yellow patches and some smaller irregular spots in front of them; median ventral area infuscate, with pale yellow band on each side. *Carapace* weakly granular; *eyes* of posterior line lightly recurved, medians almost in contact, lateral eyes visibly separated. *Legs* strong, spiny; protarsi of anterior pairs armed with many close-set spines from base to apex: tarsi spined. *Abdomen* broadly oval, with a pair of low shoulder-points. *Vulva* with scape much narrower than basal portion and closely in contact with it.

Total length 21 mm.

*Loc.* S. India: Chingleput (*Jambunathan*).

248. *Araneus nauticus*, L. Koch, *Ægypt. Abyssin. Arachu.* p. 17, t. ii, fig. 2, 1875: *pullata*, Thorell, *Ann. Mus. Genova*, x, p. 385, 1877; *id. op. cit.* xxviii, p. 148, 1890 (for synonymy) (*Epeira*).

*Colour*: carapace dark brown, with greyish hairs; legs strongly banded with black; sternum black with median pale line; abdomen black below with a pair of large pale spots, upper side varied with deep brown and grey, the latter typically forming a large median cross-shaped band. *Head* narrow, flattish, ocular tubercle prominent; *eyes* of anterior line not widely spaced, distance between medians noticeably exceeding half that between them and the laterals. *Abdomen* evenly heart-shaped, without shoulder-points, only a little longer than broad. *Vulva* with scape, not bent at right angles, without any notch between it and the basal portion.

Total length, ♀ (adult), from 7–15 mm.

*Loc.* India: Karachi (*Simon*); eastern district of Poona (*Irani*); Eastern Khandesh (*Madan*); Darjiling (*Dendy & Wroughton*). Burma: Rangoon, Tharrawaddy, Bhamo, &c. (*Oates & Fea*). All tropical countries.

249. *Araneus rumpfi*, Thorell, *Ann. Mus. Genova*, xiii, p. 296, 1878: *hispida*, Doleschall, *Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 33, 1859: *decens*, Thorell, *Ann. Mus. Genova*, x, p. 379, 1877 (pre-occupied): *rufofemorata*, Simon, *Ann. Mus. Genova*, xx, p. 343, 1884 (*Epeira*).

♀. *Colour* and shape much as in *A. nauticus*; anterior femora reddish brown; head redder, more convex, broader, distance between anterior median eyes about one-third of distance between medians and laterals; lower side of abdomen more yellow, upper side variable, sometimes as in *A. nauticus*, sometimes yellowish with large anterior brown patch. *Vulva* with scape much longer, bent at right angles, separated posteriorly from the basal portion by a wide but shallow tubercular notch.

Total length from 10–15 mm.

*Loc.* Ceylon: Punduloya (*Green*); Trincomali (*Yerbury*). India: Chingleput (*Jambunathan*), Bangalore (*Staunton*), Ootacamund (*Hampson*), Poona (*Wroughton*), Wagra Karoor (*Fabre*), Karachi (*Simon*). Burma: Rangoon, Tharrawaddy, Bhamo (*Oates & Fea*). Indo- and Austro-Malaysia.

#### Genus CYRTARACHNE, Thorell.

*Cyrtarachne*, Thorell, *Eug. Resa, Arachn.* p. 10, 1868; *Simon, Hist. Nat. Araign.* i, p. 880, 1895.

*Carapace* convex, unarmed; median eyes not prominent, the quadrangle generally slightly wider than long; laterals contiguous. *Abdomen* wider than long, integument leathery, impressed in the middle and in front with large sigilla.

Type, *C. grubei*, Keys.

*Distribution.* Mediterranean, Ethiopian, Oriental, and Australian Regions.

*Synopsis of Indian Species.*

- a. Abdomen not pointed behind, black with yellow lateral ring . . . . . *C. cingulata*, p. 229.  
 b. Abdomen pointed behind, mostly yellow.  
 a<sup>1</sup>. Abdomen with black patch below; vulva triangular . . . . . *C. inæqualis*, p. 229.  
 b<sup>1</sup>. Abdomen not black below; vulva quadrate. *C. raniceps*, p. 229.

250. *Cyrtarachne raniceps*, sp. n.

? *Cyrtarachne perspicillata*, Karsch, *Berl. ent. Zeits.* xxxvi, p. 278, 1892 (not of Doleschall).

♀. *Carapace* and abdomen ochre-yellow, scantily clothed with pale hairs; abdomen a brighter more lemon-yellow above, testaceous beneath, the shoulder prominences amber at the tip, partially surrounded at the base by darker and paler lines. *Abdomen* one-fourth wider than long, triangular, broadest in its anterior half, where it runs out laterally into a large smooth conical prominence, the area between the prominences tolerably even. *Vulva* with scape in the form of a short, narrow, subquadrate tubercle.

Length of abdomen 7 mm., width 9.

*Loc.* Ceylon (*Barnes*).

251. *Cyrtarachne inæqualis*, Thorell, *Spiders of Burma*, p. 201, 1895.

♀. Nearly allied to the preceding, but with the ventral surface of the abdomen black behind the epigastric fold, and the fore part of its lateral surface bulging out and furnished with a dark coloured patch beneath the conical prominence. Scape of *vulva* triangular at base, apically pointed.

Length of abdomen 8 mm., width 11.

*Loc.* Burma: Tounghoo and Tharrawaddy (*Oates*).

252. *Cyrtarachne cingulata*, Thorell, *Spiders of Burma*, p. 202, 1895



Fig. 75.—*Cyrtarachne cingulata*, ♀, × 2.

♀. *Carapace* and legs deep brown; abdomen black, with a broad yellow ring narrowly interrupted below round its lateral extremities. *Abdomen* twice as broad as long, widely rounded posteriorly. *Vulva* with subtriangular scape.

Length of abdomen 5, width 10 mm.

*Loc.* Burma: Rangoon (*Oates*).



Genus **ORDGARIUS**, Keyserling.

*Ordgarius*, *Keyserling*, in *Koch, Arachn. Austral.* 1886, p. 114; *Simon, Hist. Nat. Araign.* i, p. 885, 1895.

*Carapace* convex, armed above with a few symmetrically placed tooth-like tubercles. *Abdomen* very large, wider than long, widely rounded laterally, tuberculate above.

Type, *O. monstrosus*, Keys.

*Distribution*. From India to Australia.

*Synopsis of Indian Species.*

- a. Posterior end of abdomen rounded and tubercular..... *O. hobsoni*, p. 230.  
 b. Posterior end of abdomen conically produced and tubercular..... *O. sexspinosus*, p. 230.

253. *Ordgarius hobsoni*, *O. P. Cambridge, P. Z. S.* 1877, p. 562, t. lvi, fig. 3 (Cyrtarachne).

♀. *Colour* a tolerably uniform dull brown, legs and palps yellow ringed with black, abdomen ornamented in front in the middle with a large yellow patch. *Carapace* armed behind with a pair of small tubercles and a large median conical tubercle, with a smaller one in front of it on the cephalic portion. *Legs* without spines. *Abdomen* broader than long, the anterior border emarginate; posterior extremity bluntly rounded, raised in front into a pair of large rounded protuberances, studded with larger and smaller rounded tubercles.



Fig. 76.  
*Ordgarius hobsoni*,  
♀.

Total length of abdomen 9 mm., width 11.5.  
*Loc.* Ceylon: Punduloya (*Green*). *Bombay* (*Hobson*).

254. *Ordgarius sexspinosus*, *Thorell, Bih. Sv. Vet.-Akad. Handl.* xx, pt. iv, p. 48, 1894 (Notocentria).

♀. Differing from the preceding in having the tubercles on the carapace very long and spiniform, and the abdomen furnished with a few low tubercles on the anterior prominence, with its posterior extremity produced into two upper and two lower conical processes, considerably overlapping the spinners.

Total length 6 mm.

*Loc.* Burma: Tharrawaddy (*Oates*).

Genus **CÆROSTRIS**, Thorell.

*Cærostris*, *Thorell, Eug. Resa, Arach.* p. 3, 1868; *Simon, Hist. Nat. Araign.* i, p. 834, 1895.

*Carapace* with thoracic portion low; cephalic portion strongly elevated, armed with a transverse row of six large tubercles, two

on the summit and two on each side; ocular quadrangle wider than long, narrowed in front. *Legs* strong, with tibiae and protarsi flat and strongly sulcate. *Abdomen* large, high in front, irregularly tubercular.

Type, *C. mitralis*, Vinson.

*Distribution.* Ethiopian Region, Madagascar: Oriental Region.

255. *Cærostris paradoxa*, *Doleschall, Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 37, t. ix, fig. 11, and t. x, fig. 8, 1859 (*Epeira*); *Butler, P. Z. S.* 1879, p. 732, t. lviii, fig. 5 (*Cærostris*).

♀. *Colour*: integument of carapace and limbs black, carapace clothed laterally with yellow hairs, head and legs with greyish-brown hairs; femora blackish or deep steel-blue; tibiae with band of yellow hairs in their basal half below; abdomen yellow-brown, clothed with silvery hairs in the middle in front, elsewhere with golden-brown hairs intermixed with stripes of velvety black; lower surface olive-black, reddish in middle.

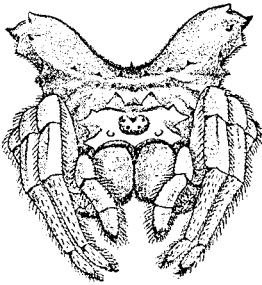


Fig. 77.  
*Cærostris paradoxa*, × 3.

Total length about 20 mm.

*Loc.* Ceylon: Trincomali (*Yerbury*), Punduloya (*Green*). Burma: Tharrawaddy, Rangoon, Tounghoo (*Oates*). Indo-Malaysia.

Genus **GASTERACANTHA**, Sund.

*Gasteracantha*, *Sundevall, Consp. Arachn.* p. 14, 1833; *Simon, Hist. Nat. Araign.* i, p. 845, 1895.

*Carapace* with thoracic portion low, cephalic portion elevated; ocular quadrangle narrower in front. *Abdomen* large, subquadrate, transversely oblong, or narrowed laterally; integument horny, impressed with large sigilla, and armed on each side with an anterior, a median, and a posterior spine; spinners encircled by a horny ring.

Type, *G. cancriformis*, Linn.

*Distribution.* Tropical countries of the world.

*Synopsis of Indian Species.*

- a. No ventral tubercle in front of spinners on abdomen.
- a<sup>1</sup>. Length of median spine only about equal to half the width of the abdomen . . . . . *G. hasseltii*, p. 233.
- b<sup>1</sup>. Length of median spine at least as great as width of abdomen.
- a<sup>2</sup>. Median spines apically clavate . . . . . *G. remifera*, p. 233.



258. *Gasteracantha sororna*, Butler, *Tr. Ent. Soc.* 1873, p. 155, t. iv, fig. 15.

♀. Closely allied to *G. dalyi*, but with the median spine slender, attenuate, and only equalling the width of the abdomen. Width of abdomen 6.5 mm., length of median spine 6.5. *Loc.* Madras (*Jerdon*).

259. *Gasteracantha remifera*, Butler, *Tr. Ent. Soc.* 1873, p. 154, t. iv, fig. 5; clavatrix, *Karsch, Berl. ent. Zeits.* xxxvi, p. 277, 1892 (*Plectana*) (*not of Walck.*).

At once recognizable from all the preceding by having the median spines much thinner in the middle than at the base and extremity, the latter being lightly clavate and abruptly narrowed

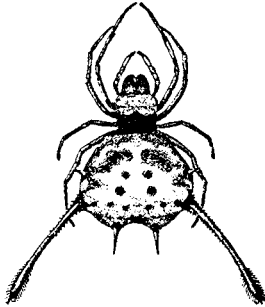


Fig. 78.—*Gasteracantha remifera*, ♀, × 2.

to a point at the extreme tip; anterior and posterior spines larger, the median spine a little exceeding the width of the abdomen.

*Loc.* Ceylon (*Thwaites*): Trincomali (*Yerbury*).

260. *Gasteracantha hasseltii*, C. Koch, *Arach.* iv, p. 29, t. cxvii, fig. 267, 1838 (*Gasteracantha*); *Thorell, Ann. Mus. Genova*, xxv, p. 224, 1887 (*Plectana*) (synonymy): *propinqua*, *O. P. Cambridge, P. Z. S.* 1879, p. 288, t. xxvii, fig. 16 (*Gasteracantha*).

Recognizable from the foregoing by having the median spines, which are typically attenuate, very short, their length hardly exceeding half the width of the abdomen; the remaining spines as long as in *G. remifera*.

Width of abdomen 8 mm., length of median spine 3.5.

*Loc.* N.E. India: Assam, Sikhim. Burma: Tharrawaddy, Rangoon, Shwegoo, Tenasserim, &c. (*Oates & Fea*).

261. *Gasteracantha geminata*, *Fabr. Suppl. Ent. Syst.* p. 292, 1798 (*Aranea*): *rimata*, *O. P. Cambridge, P. Z. S.* 1879, p. 282, t. xxvi, fig. 3 (*Gasteracantha*).

*Colour*: carapace, mandibles, and legs black, the latter annulate

with pale markings; sternum yellow; abdomen yellow above with two transverse black stripes, black below with yellow spots. *Abdomen* narrowed laterally, about twice as wide as long; the anterior and median spines longest, subequal, in contact at the base, diverging slightly at apex; posterior spines strongish.



Fig. 79.—*Gasteracantha geminata*, ♀.

Length of abdomen 5 mm., width 11 (not including spines).

*Loc.* Ceylon: Peradeniya, Matale (*Sarasin*), Trincomali (*Yerbury*). Southern India: Tinnevely (*Barber*); Ootacamund (*Hampson*); Ramnad (*Fabre*); Madras (*Jambutnaham*).

262. *Gasteracantha frontata*, *Blackwall*, *A. M. N. H.* (3) xiv, p. 40, 1864; *Camb. P. Z. S.* 1879, p. 283, t. xxvi, fig. 5; *Thorell*, *Spiders of Burma*, p. 210, 1895.

*Colour and form* much as in the preceding, but the anterior and median spines of the abdomen separated. *Abdomen* pale above or marked in front with a tolerably uneven black band, the yellow area in front of the stripe reaching to the base of the anterior spine. *Sternum* black with yellow spot; median spines short, narrower than mandibles, and nearly evenly narrowed from base to point, about twice as long as the posterior, which a little exceed the anterior.

Length of abdomen 6 mm., width 13.

*Loc.* Burma: Tharrawaddy, Tounghoo, Rangoon, Tenasserim (*Oates*). Siam.

263. *Gasteracantha diadesmia*, *Thorell*, *Ann. Mus. Genova*, xxv, p. 225, 1887.

Closely allied to *G. frontata*, but with the anterior yellow band not reaching the base of the anterior spines, and with the posterior half of the abdomen marked with a second transverse black stripe; median spine not thin and evenly attenuate, but thicker and with its anterior border distinctly swollen and convex in its distal half.

Total length of abdomen 7 mm., width 16.

*Loc.* Burma: Tharrawaddy (*Oates*); Bhamo, Shwegoo (*Fea*). Andaman and Nicobar Islands, &c.; also Penang and Siam.

264. *Gasteracanthaunguifera*, *Simon*, *J. A. S. B.* lviii, p. 336, 1889.

♀. Much smaller than the preceding. *Abdomen* granular and tolerably uniformly flavous above, about one-third wider than long; anterior border rather strongly convex, anterior spines small, acuminate; median spines much larger, with the basal portion exceedingly stout and distally expanded, then abruptly narrowed, the terminal portion normally slender and rising from the middle of the expanded end of the basal portion; posterior

spines also with basal portion stout, but not so abruptly narrowed as in the case of the median spines.

Length of abdomen 3 mm., width 4.5.

Loc. Himalayas: Jaunsar, Thadyar, 2600 ft. (*Oldham*).

265. *Gasteracantha leucomelæna*, *Doleschall, Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 42, t. xi, fig. 8, 1859 (*Plectana leucomelas*); *Thorell, Ann. Mus. Genova*, xxv, p. 232, 1887: *annamita*, *Simon, Act. Soc. L. Bord.* xl, p. 148, 1886.

*Colour*: carapace and mandibles black; legs yellow, with black bands; sternum yellow, with posterior black spot; upper side of abdomen whitish or yellow, with median black Y-shaped mark and a large black patch at base of spines, the patches sometimes uniting with the ends of the arms and with the stem of the Y to form transverse bars of black. Abdomen about one-third wider than long, not laterally attenuate, parallel-sided; the spines small, acuminate, the median and posterior subequal and much larger than the anterior.

Length of abdomen 5 mm., width 7.

Loc. Burma: Rangoon, Tharrawaddy, Tenasserim, &c. (*Oates, Fea*). Andaman and Nicobar Islands. Indo-Malaysia.

266. *Gasteracantha brevispina*, *Doleschall, Nat. Tijdschr. Nederland. Indië*, xiii, p. 423, 1857 (*Plectana*); *Thorell, Ann. Mus. Genova*, xxviii, p. 63, 1890: *canningensis*, *Stoliczka, J. A. S. B.* xxxviii, p. 248, t. xviii, fig. 1, 1869 (*Gasteracantha*).

About the same size and much the same form as *G. leucomelæna*; head reddish laterally and rising in the middle into a conical prominence much more pronounced than in the preceding species. Abdomen a little wider than long, very variable in colour, sometimes the black, sometimes the yellow predominating; usually there is a large triangular black patch on each side and a pair of large yellow ocelliform spots near the middle; spines shorter, conical, the lateral and median not evenly acuminate, being very stout at the base and abruptly narrowed at the apex, somewhat as in *G. unguifera*.

Length of abdomen 5.5 mm., width 7.

Loc. Ceylon. India: Madras (*Jambumathan*); Uran (*Aitken*), Karachi (*Simon*), Dehra Dún (*Oldham*), Calcutta (*Stoliczka*). Burma: Moulmein, Tenasserim (*Oates, Fea*). Andaman and Nicobar Islands. Indo- and Austro-Malaysia.

#### Genus **POLTYS**, C. Koch.

*Poltys, C. Koch, Arachn.* x, p. 97, 1843; *Simon, Hist. Nat. Araign.* i, p. 892, 1895.

Carapace with cephalic region prominent, conical in front, ocular quadrangle square or a little wider in front; lateral eyes widely separated, the posterior remote from the rest. *Legs* of

anterior two pairs long, with tibiæ and protarsi curved, flat above. *Abdomen* large, high in front, usually irregularly tubercular at the margins.

Type, *P. illepidus*, C. Koch.

*Distribution.* Ethiopian, Oriental, and Australian Regions.

The two species described below may be diagnosed as follows:—

- a. Ocular quadrangle wider in front than behind. . *P. illepidus*, p. 236.  
 b. Ocular quadrangle narrower in front than behind. *P. pannuceus*, p. 236.

267. *Polys illepidus*, C. Koch, *Arachn.* x, p. 97, fig. 821, 1843.

*Colour*: carapace and mandibles blackish; upper side and front of head reddish, with greyish hairs; naked parts of femora steel-blue, bands of the same colour on under side of tibiæ and protarsi; hairy clothing on legs and abdomen greyish or yellowish brown mottled with blackish or brown spots, epigastric area of abdomen blackish. *Cephalic eminence* constricted at base; ocular quadrangle a little wider in front, as wide behind as long. *Abdomen* either tolerably evenly elliptical with scarcely a trace of tubercles, or tubercular and with large shoulder prominences.

Total length about 15 mm.

*Loc.* Ceylon: Punduloya (*Green*); also Indo- and Austro-Malaysia.

268. *Polys pannuceus*, Thorell, *Spiders of Burma*, p. 167, 1895.

*Colour*: carapace uniformly brownish; epigastric area brown; femora without metallic-blue tints; *cephalic eminence* less constricted at base; ocular quadrangle slightly narrowed in front, wider behind than long. *Abdomen* with long conical tubercles, furnished in front with a high median apically clavate column bearing six distinct tubercles.

Total length 12·5 mm.

*Loc.* Burma: Rangoon (*Oates*).

## Family THERIDIIDÆ.

Recognizable from the Argyropidæ by the presence of a series of strong spines forming a comb on the tarsus of the 4th leg, and by the almost entire absence of teeth on the fang-groove of the mandibles, which have no smooth area at the base on the outside; the clypeus, moreover, is usually high.

Sedentary Spiders, spinning webs formed of irregularly arranged threads.

The species of this family are numerous and mostly of small size. The largest species belong to the genus *Lathrodictus*.

Genus **LATHRODECTUS**, Walck.

*Lathrodectus*, *Walck. Tabl. Aran.* p. 81, 1805; *Simon, Hist. Nat. Araign.* i, p. 568, 1894.

*Carapace* normal in form, with clypeus equal in height to the ocular area; lateral *eyes* widely separated. *Mandibles* weak, unarmed. *Legs* long; superior claws toothed almost to apex. *Abdomen* large, globular.

Type, *L. 13-guttatus*, Walck.

*Distribution*. Tropical and subtropical countries.

*Synopsis of Indian Species.*

- a. Prevailing colour black, with crimson dorsal stripe . . . . . *L. hasseltii*, p. 237.  
 b. Prevailing colour yellowish or silvery, no crimson stripe . . . . . *L. geometricus*, p. 238.

269. *Lathrodectus hasseltii*. *Thorell, (Efv. K. Sv. Vet.-Akad. Förh. xxvii, p. 369, 1870.*

Subspecies *indicus*, *Simon, Bull. Mus. Hist. Nat.* 1897, p. 97.

*Colour* black; upper side of abdomen ornamented with a broad longitudinal red band with uneven edges extending throughout the posterior two-thirds of its length; lower side with a small transverse red band in front of the spinners and sometimes one behind the genital fold. *Eyes* of anterior line subequal, median nearer to each other than to the laterals. Length 10 mm.

*Loc.* Western India: Karachi, Poona (*Wroughton*); also Muscat.

Subspecies *elegans*, *Thorell, Ann. Mus. Genova*, xxxix, p. 293, 1898.

Differs from the preceding in having the dorsal surface of the abdomen ornamented in front of the longitudinal band with a pair of transverse recurved stripes, the posterior of which is sometimes small and continuous with the median band. Length 10 mm.

*Loc.* Burma: Karennee (*Fau*).



Fig. 80. — *Lathrodectus hasseltii*, subsp. *indicus*, × 2.



270. *Lathroedectus geometricus*, C. Koch, *Die Arachn.* viii, p. 117, fig. 684, 1841.

*Colour*: cephalothorax and legs ochraceous, latter with patella and tip of tibia brown; abdomen paler, varied with symmetrically disposed darker spots and brown lines arranged in loops and circles. *Eyes* of anterior line subequally spaced, the median a little larger than the laterals. Length 10 mm.

*Loc.* Karachi (*Townsend*). Tropics of both hemispheres.

### Family PHOLCIDÆ.

*Carapace* flat, subcircular, with deep fovea and cephalic grooves; head small, sharply defined; anterior median eyes small, the rest large and forming a group on each side; clypeus very high. *Mouth-parts* suctorial. *Legs* exceedingly long and slender, furnished with 3 claws. *Spinners* short, subequal, forming a compact cluster; colulus present.

*Distribution.* Cosmopolitan.

*Habits.* Sedentary Spiders, spinning in hollow trees, beneath overhanging rocks or in the corners of houses, a tangled network of threads, amongst which the occupant hangs head downwards. The female carries her cocoon in her mandibles.

The best known Indian species of the family are referable to the following three genera:—

- a. Sternum posteriorly acuminate; mandible armed with 2 teeth on the fang-groove . . . ARTEMA, p. 238.
- b. Sternum broadly truncate posteriorly, mandible with 1 tooth on fang-groove.
  - a<sup>1</sup>. Abdomen short, oval, prominent posteriorly above the spinners . . . . . CROSSOPRIZA, p. 240.
  - b<sup>1</sup>. Abdomen long, cylindrical, not strongly prominent above spinners . . . . . SMERINGOPUS, p. 239.

#### Genus ARTEMA, Walck.

*Artema*, Walck. *Ins. Apt.* i, p. 656, 1837; *Simon, Hist. Nat. Araign.* i, p. 465, 1893.

*Eyes* subsimilar, anterior medians not much smaller than the rest, those of anterior line very lightly, of posterior line more strongly recurved; area of medians not longer than wide. *Mandibles* armed below on fang-groove with two teeth. *Sternum* posteriorly acuminate, projecting between the posterior coxæ. *Abdomen* very high, globular, higher than wide.

Type, *A. atlanta*, Walck.

*Distribution.* Tropical and subtropical countries of the world.

271. *Artema atlanta*, Walck. *Ins. Apt.* i, p. 656, 1837: convexa, *Blackw. A. M. N. H.* (3) ii, p. 332, 1858: sisypoides, *Doleschall, Nat. Tijdschr. Nederl. Indië*, xiii, p. 408, 1857 (*Pholcus*).

♀. *Colour*: carapace yellow, with median brown patch and brown stripe on clypeus; legs yellow, with brown patella and a brown ring round extremity of femora and tibiae; abdomen greyish yellow, ornamented with three rows of dusky grey spots. Mandible and palpus normal. *Vulva* consisting of a brown, thickly horny plate, with the posterior border concave.

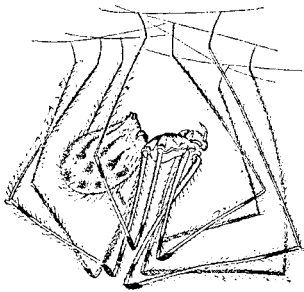


Fig. 81.—*Artema atlanta*, ♂, × 2.

♂. Like ♀, but with palp very thick and mandibles furnished externally, with large serrated crest.

Total length about 8 mm.

*Loc.* Ceylon: Jaffna, Trincomali (*Ferbury*). India: Travancore (*Ferguson*); Guntakal; Chingleput (*Jambunathan*); Dekkan; Tanna (*Edie*); Meerut; eastern district of Poona (*Irani*); E. Khandesh; Karachi (*Townsend*). Burma: Tharrawaddy (*Oates*). Tropical countries.

#### Genus SMERINGOPUS, Simon.

*Smeringopus*, Simon, *Ann. Soc. Ent. Fr.* 1890, p. 94; *id. Hist. Nat. Araign.* i, p. 476, 1893.

*Eyes* of anterior and posterior line recurved, ocular quadrangle longer than wide, space between posterior medians about twice the diameter of an eye. *Abdomen* long, narrow, subcylindrical. *Sternum* broadly truncate behind.

*Type*, *S. elongatus*, Vinson.

*Distribution*. Tropical countries of the world.

272. *Smeringopus elongatus*, Vinson, *Ann. Réunion, etc.* p. 135, t. iii, fig. 5, 1863: distinctus, O. P. Cambridge, *Journ. Linn. Soc., Zool.* x, p. 380, t. xi, figs. 28, 29, 30, 1869 (Pholcus).

♀. *Colour*: carapace yellow, with radiating triangular dark patches; legs yellow-brown, with pale white band round end of femora and tibiae; abdomen greyish white, ornamented above with a double series of black spots and at the sides with large black patches, ventral surface with a broad reddish-brown median band, divided posteriorly by a pale stripe.

♂. Like ♀, but with palpus much inflated, and the mandible armed in front below with a small tooth.

Total length 6 mm.

*Loc.* Ceylon. India: Trevandrum (*Ferguson*), Pondichery, Dekkan. Burma: Rangoon, Tharrawaddy, Tenasserim (*Oates*, *Fea*). Andaman Islands. Indo- and Austro-Malaysia, and tropical Africa, &c.

Genus **CROSSOPRIZA**, Simon.

*Crossopriza*, Simon, *Hist. Nat. Araign.* i, p. 476, 1893.

Differing from *Smeringopus* in having the ocular quadrangle as long as wide, and the posterior median eyes separated by a space not exceeding the diameter of an eye. The abdomen is short, ovate, posteriorly prominent and sloping abruptly away to the spinners.

Type, *C. pristina*, Simon (Egypt).

*Distribution.* Egypt, Arabia, and India.

273. *Crossopriza lyoni*, Blackwall, *A. M. N. H.* (3), xix. p. 392, 1867 (Pholcus).

♀. *Colour* yellowish; carapace marked with median brown stripe; legs spotted and streaked with black, extremities of femora and tibiæ paler; abdomen yellowish brown, clouded with darker patches and marked with minute close-set yellowish spots, some black spots upon its posterior portion and a black stripe running down to the spinners from the posterior prominence, ventral surface black, varied with pale markings.

♂. Much like ♀, but with legs longer, abdomen lower, mandible armed distally with a tooth; femur of anterior leg with a row of long spines; palpi very thick.

Total length 5-6 mm.

*Loc.* India: Madras (*Henderson*); Chingleput (*Jambunathan*); E. Khandesh (*Madan*), Allahabad (*Ryves*). Meerut. Burma: Tharrawaddy (*Oates*).

Family **HERSILIIDÆ**.

*Carapace* as wide as long, with cephalic region elevated, narrow and defined by a deep semicircular sulcus; eyes of anterior and posterior lines strongly recurved, the anterior laterals standing high up halfway between the anterior and posterior medians. *Mandibles* weak, at most weakly toothed below; maxillæ inclined obliquely on the labium. *Legs*, except of 3rd pair, very long and slender, armed with 3 claws. *Abdomen* short, subpentagonal; posterior spinning-mamillæ very long, usually longer than the abdomen; colulus present.

*Distribution.* Africa, Madagascar, S. Asia, Australia, S. America.

The species of this family are extremely active hunting Spiders, living on tree-trunks, old walls, or under stones, and at most spinning a scanty web of irregular threads.

*Synopsis of Indian Genera.*

- |  |                   |
|--|-------------------|
| a. Protarsi of legs undivided . . . . .                                      | TAMA, p. 242.     |
| b. Protarsi of 1st, 2nd, and 4th legs bisegmented.                           |                   |
| a <sup>1</sup> . Ocular quadrangle nearly parallel-sided. . . . .            | HERSILIA, p. 241. |
| b <sup>1</sup> . Ocular quadrangle much wider in front than behind . . . . . | MURRICIA, p. 242. |

Genus **HERSILIA**, Aud.

Hersilia, *Audouin in Sav. Descr. Egypte, Arachn.* p. 114, 1826 ;  
*Simon, Hist. Nat. Araign.* i. p. 446, 1892.

Ocular quadrangle parallel-sided ; head flat, angular laterally ;  
 clypeus usually very high, prominent. Protarsi of 1st, 2nd, and  
 4th legs bisegmented.

Type, *H. caudata*, Aud.

*Distribution.* Africa, Madagascar, Oriental Region.

*Synopsis of Indian Species.*

- a. Clypeus less than height of ocular quadrangle. *H. clathrata*, p. 242.  
 b. Clypeus exceeding height of ocular quadrangle.  
 a<sup>1</sup>. Vulva without median lobe ; patella of palp  
 in ♂ with conical process ..... *H. savignyi*, p. 241.  
 b<sup>1</sup>. Vulva with median lobe ; patella of palp  
 normal ..... *H. pectinata*, p. 241.

274. **Hersilia savignyi**, *Lucas, Mag. Zool.* 6<sup>e</sup> année, cl. viii, p. 10  
 t. xiii, fig. 1, 1836 : ? *calcuttensis*, *Stoliczka, J. A. S. B.* xxxviii  
 p. 216, t. xx, fig. 9, 1869.

♀. *Colour* varying from quite pale to nearly black on the upper  
 side, generally mottled or banded ; abdomen with a black rim,  
 transverse stripe, and a median longitudinal black bar in front ;  
 legs and palpi banded. *Clypeus* considerably  
 exceeding ocular quadrangle ; width of carapace  
 less than half the length of the femur of the  
 1st leg. *Vulva* bilobate, the lobes separated  
 by deep emargination.

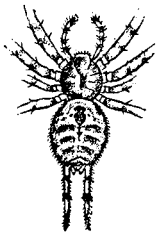


Fig. 82.—*Hersilia savignyi*,  $\times \frac{2}{3}$  (after Simon). The spinners are represented as much too short.

♂. Smaller than ♀ ; femur of 1st leg nearly  
 four times as long as carapace ; patella and  
 tibia of palp with a distinct sigmoid curvature,  
 patella produced above on the inner side into a  
 conical hairy prominence.

*Measurements in mm.*—♀. Total length  
 about 10, carapace 3.5, 1st leg 35. ♂. Total  
 length 7, carapace 3, 1st leg 40.

*Loc.* Ceylon. India: Nilgiri Hills (*Hampson*) ;  
 Madatory and Ponmudi in Travancore (*Fer-  
 guson*), Chingleput (*Jambunathan*) ; Yercaud  
 (*Henderson*) ; Bellary ; Tanna (*Edie*) ; Matheran ;  
 Poona (*Wroughton*) ; Allahabad (*Ryves*) ; Calcutta. Burma : Man-  
 dalay, Bhamo, Pegu, Tenasserim (*Oates, Pea*).

275. **Hersilia pectinata**, *Thorell, Spiders of Burma*, p. 58, 1895, ♂ :  
*peguana*, *id. ibid.* p. 60, ♀.

Closely allied to *H. savignyi*, but recognizable by the form of the  
 generative organs. *Vulva* trilobate posteriorly, the median lobe  
 projecting beyond the laterals. *Palpi* of ♂ with patella and tibia

straight, the former unmodified, the tibia furnished externally above with an angular prominence tipped with 3 or 4 spines.

Total length, ♀ 12.5 mm., ♂ 11 mm.

Loc. Ceylon: Punduloya (*Green*). Burma: Pegu and Tharrawaddy (*Oates*).

276. *Hersilia clathrata*\*, *Thorell, Spiders of Burma*, p. 56, 1895.

♀. Colour much as in the preceding, but the black rim of the abdomen broader, and with four pairs of black spots on each side of the middle. Further recognizable by having the *clypeus* low, less than the height of the ocular quadrangle. Femur of anterior leg just three times as long as the carapace. *Vulva* semicircularly excavated behind, the excavation filled by a pair of lobes separated by a deep but narrow notch.

Total length 10 mm., carapace 3.6.

Loc. Burma: Tenasserim (*Oates*).

#### Genus MURRICIA, Simon.

*Murricia*, *Simon, Ann. Mus. Genova*, xviii, p. 255, 1882; *id. Hist. Nat. Araign.* i, p. 446, 1892.

Differs from *Hersilia* in having the ocular quadrangle much wider in front than behind, and the head elevated between the posterior median and lateral eyes.

Type, *M. indica*, Lucas.

*Distribution*. S. India.

277. *Murricia indica*, *Lucas, Mag. Zool.* 6<sup>e</sup> année, cl. viii, p. 7, t. 13, fig. 2, 1836 (*Hersilia*); *Simon, Ann. Mus. Genova*, xviii, p. 255, 1892.

♀. Colour: carapace pale in the middle and behind, blackish elsewhere; mandibles pale, darker at base; palpi and legs banded: abdomen with a median and on each side a darker band.

♂. Slighter and more elongate than female, and with stronger legs; patella of palp longer than tibia.

Total length 8 mm.

Loc. Western India: Bombay and Malabar (*Lucas*).

#### Genus TAMA, Simon.

*Tama*, *Simon, Ann. Mus. Genova*, xviii, p. 256, 1882; *id. Hist. Nat. Araign.* i, p. 446, 1892.

Differs from *Hersilia* in having the protarsi of the 1st, 2nd, and 4th legs undivided.

Type, *T. edwardsi*, Lucas.

*Distribution*. North Africa, Oriental Region, Australia, S. America.

278. *Tama variata*, *Pocock, Jour. Bom. N. H. Soc.* xii, p. 751, 1899.

♀. Colour variable, as in *Hersilia savignyi*. Carapace with

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\* The only known specimen of this species has imperfect legs, and hence may belong to the genus *Tama*.

ocular quadrangle a little longer than broad and slightly wider in front than behind, much exceeding height of clypeus, which scarcely exceeds diameter of anterior median eye. First leg shorter than 4th, its femur about twice the length of the carapace. *Vulva* with its posterior border produced into a median convex lobe, with a transversely sulcate area on each side of it.

♂. Much smaller than ♀, femur of 1st leg more than twice as long as carapace. *Palp* with patella and tibia unmodified, tibia twice as long as patella.

*Measurements in mm.*—♀. Total length 10, carapace 3.5, 1st leg 31. ♂. Total length 6, carapace 3.

*Loc.* Ceylon: Kandy (*Green*).

### Family UROCTEIDÆ.

*Carapace* transversely reniform, widely rounded in front and laterally, posteriorly emarginate; ocular group compact. *Mouth-parts* weak and haustellate. *Legs* short and strong, spiny, subequal in length, armed with 3 claws. *Abdomen* large, depressed, truncate in front, oval posteriorly; posterior spinners much longer than the anterior, with the long, thick, compressed apical segment directed upwards; anterior spinners short, sub-cylindrical, separated by a colulus; anal papilla very large, furnished laterally with fringe of long hair.

*Distribution.* Mediterranean Region; China, Japan; S. Africa; India.

#### Genus UROCTEA, Duf.

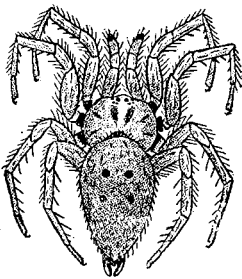
*Uroctea*, *Dufour*, *Ann. Sci. Phys.* v, p. 198, 1820; *Simon*, *Hist. Nat. Araign.* i, p. 451, 1893.

Characters and distribution as above.

Type, *U. durandi*, Latr.

*Habits.* These Spiders live under stones, &c., where they spin a small saccular tent-like web attached to the under side of the stone by about five subradially arranged bands of silk.

#### 279. *Uroctea indica*, sp. n.



♀. *Colour*: carapace and legs darker or paler yellowish brown, with blackish markings; abdomen blackish above, sometimes marked with seven pale spots, six lateral and one posterior median. *Vulva* consisting of a transversely-elliptical plate, impressed behind with a small circular pit and marked with nearly semicircular grooves in front.

Total length 13 mm.

*Loc.* Western India: Poona (*Wroughton*).

Fig. 83.

*Uroctea indica*, ♀,  $\times \frac{1}{2}$ .

## Family LYCOSIDÆ.

Hunting Spiders with the *carapace* narrow in front, high; the eyes of the posterior line strongly recurved, typically large, those of the anterior line being as a rule much smaller and close-set. *Mandible* powerful, not elongate, with fang-groove strongly toothed; maxillæ not inclined inwards, labium quite short. *Legs* spiny, usually shortish and strong; tarsi with 3 claws and no unguis tufts. *Abdomen* oval, rarely elongate; spinners forming a compact group, generally subequal in length.

*Distribution.* Cosmopolitan.

*Synopsis of the principal Indian Genera.*

- a.* Tarsi of legs long, slender, and highly flexible.
- a*<sup>1</sup>. Fang-groove armed behind with 4 teeth. EUCAMPTOPUS, p. 244.
- b*<sup>1</sup>. Fang-groove armed behind with 3 teeth. HYGROPODA, p. 245.
- b.* Tarsi shorter and rigid.
- a*<sup>2</sup>. Anterior lateral eyes stalked, on the edge of the clypeus. . . . . EUPROSTHENOPS, p. 248.
- b*<sup>2</sup>. Anterior lateral eyes above the edge of the clypeus.
- a*<sup>3</sup>. Eyes of anterior line very strongly recurved . . . . . THALASSIUS, p. 247.
- b*<sup>3</sup>. Eyes of anterior line procurved, straight, or slightly recurved.
- a*<sup>4</sup>. Ocular quadrangle a little longer than wide; eyes of the quadrangle not very unequal.
- a*<sup>5</sup>. Eyes of anterior line procurved. . . . . PERENETHIS, p. 245.
- b*<sup>5</sup>. Eyes of anterior line straight or slightly procurved . . . . . DENDROLYCOSA, p. 246.
- b*<sup>4</sup>. Ocular quadrangle much wider than long; posterior medians much larger than anterior.
- a*<sup>6</sup>. Posterior spinners much longer than anterior . . . . . HIPPIASA, p. 249.
- b*<sup>6</sup>. Posterior spinners subequal to anterior.
- a*<sup>7</sup>. 3rd leg longer than 1st . . . . . OCYALE, p. 251.
- b*<sup>7</sup>. 3rd leg shorter than 1st . . . . . LYCOSA, p. 252.

## Genus EUCAMPTOPUS, nov.

*Carapace* (in ♂) about as wide as long, high behind, flat above; frontal area inclined; clypeus exceeding the ocular quadrangle, which is a little wider behind than it is long, and twice as wide behind as in front; *eyes* of anterior line straight, a little wider than the posterior medians, which are twice the diameter of the

anterior medians. Fang-groove of *mandible* armed behind with 4 strong teeth. *Legs* long, spiny; *tarsi* long, slender, and flexible.

Type, *E. coronatus*, Poc.

*Distribution.* S. India.

280. *Eucamptopus coronatus*, sp. n.

♂. *Colour* a tolerably uniform dark chocolate-brown, paler beneath, clothed with olive-brown hairs; clypeus and anterior half of sides of carapace covered with snow-white hairs. *Carapace* almost as wide as long; eyes of anterior line straight, subequally spaced, medians a little the larger. *Legs* long and slender, with long flexible *tarsi*. *Palpi* longer than the carapace by the length of the tarsus; tibia slightly exceeding patella, incrassate, the apophysis short, stout, subquadrate.

Total length 17 mm., carapace 8.5, 1st leg 4.3, 4th 4.6.

*Loc.* S. India: Tinnevely (*Barber*).

Genus **HYGROPODA**, Thorell.

*Hygropoda*, Thorell, *Bull. Soc. Ent. Ital.* xxvi, pt. iii, p. 4, 1894;  
*Simon, Hist. Nat. Araign.* ii, p. 315, 1898.

Resembling the preceding in having the *tarsi* of all the legs, with exception of the 3rd pair, long and flexible, but differing in that the clypeus is less in height than the ocular quadrangle; the eyes are more scattered, and there are only 3 teeth on the posterior border of the fang-groove of the mandible.

Type, *H. prognatha*, Thorell.

*Distribution.* Tropical Africa; Bourbon; Oriental Region; S. America.

281. *Hygropoda procera*, Thorell, *Spiders of Burma*, p. 222, 1895.

♀. *Colour*: carapace with two parallel dark bands above; abdomen yellowish above, with median dark anteriorly-bifurcating line and a lateral posteriorly sinuous line; pale below; legs and sternum pale, with whitish hairs. *Carapace* a little longer than broad; eyes of anterior line slightly procurved, the medians the largest. *Legs* very long and slender. *Abdomen* sublanceolate; *vulva* large, deeply excavated, and surmounted in front by a pair of elevated tubercles and ending behind in a pair of smaller tubercles.

Total length 12 mm., carapace 5.75, 1st leg 4.65.

*Loc.* Burma: Tharrawaddy (*Oates*).

Genus **PERENETHIS**, L. Koch.

*Perenethis*, L. Koch, *Arach. Austral.* p. 980, 1878.

*Tetragonophthalma*, Simon, *Hist. Nat. Araign.* ii, p. 293, 1898 (*not of Karsch*).

Differs from *Dendrolycosu* especially in having the eyes of the



anterior line very distinctly procurved, and the fang-groove armed behind with only 2 small teeth.

Type, *P. unifasciata*, Dol.

*Distribution.* Oriental and Australian Regions.

282. *Perenethis unifasciata*, *Doleschall, Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 10, t. vi, fig. 6, 1859 (Dolomedes); *Thorell, Spiders of Burma*, p. 230, 1895.

According to Simon, this species, which is unknown to me in its adult stage, differs from the following in having the eyes of the anterior line more strongly procurved, the quadrangle considerably longer than wide, and the clypeus narrower.

*Loc.* Ceylon (according to Karsch). Burma: Akyab (*Oates*).

283. *Perenethis indica*, *Simon, Bull. Mus. Paris*, 1897, p. 295 (Tetragonophthalma).

♀. *Colour*: carapace and abdomen with a broad median dark band, sparsely clothed with white at the sides, the dark band set off by a narrow stripe of silver; sternum with pale median band; coxæ and sternum spotted with black; anterior femora infuscate below; abdomen darker posteriorly. *Legs* long and slender, 1st and 2nd about equal, and a little shorter than the 4th. *Abdomen* long and narrow, posteriorly acuminate. *Vulva* consisting of a transversely oval pit, divided by a median longitudinal partition.

Total length 1.4 mm., carapace 5, 1st leg 20, 4th 26.

*Loc.* Eastern district of Poona (*Irani*); Karachi.

The following genus and species, based upon an immature specimen, differs from the foregoing species of *Perenethis* in having the anterior lateral eyes considerably larger than the medians:—

*Polyboea vulpina*, *Thorell, Spiders of Burma*, p. 229, 1895.

*Loc.* Rangoon (*Oates*).

#### Genus **DENDROLYCOSA**, *Doleschall*.


*Dendrolycosa*, *Doleschall, Verh. Nat. Vereen. Nederland. Indië*, v, no. 5, p. 51, 1859; *Simon, Hist. Nat. Araign.* ii, p. 294, 1898.

*Carapace* much longer than wide; ocular area inclined at an angle to clypeus, quadrangle longer than wide, exceeding clypeus; anterior and posterior median *eyes* not very unequal in size; eyes of anterior line straight or lightly recurved, much wider than those of 2nd line. Fang-groove of *mandible* with 3 teeth behind. *Legs* straight; tarsi shorter and rigid.

Type, *D. fusca*, Dol.

*Distribution.* Oriental Region and Australia.


284. *Dendrolycosa stauntoni*, sp. n.

♀. *Colour*: integument yellowish brown, carapace with a broad white band extending almost to the margin on each side; abdomen covered above and below with whitish hairs, its upper side with a median dark band, bordered with white in front; legs covered with whitish hairs intermixed with black; extremities of the segments darker; lower side of femora infusate. *Carapace* much longer than broad, as long as tibia of 2nd leg; *eyes* of anterior line very slightly recurved, subequal, about a diameter apart, and half a diameter from the laterals. *Abdomen* oval; *vilva* with a median excavation bordered in front by a -shaped crest.

*Measurements in mm.*—Total length 20, carapace 7.5, 1st leg 28, 4th leg 31.

*Loc.* S. India: Bangalore (*Staunton*).

285. *Dendrolycosa robusta*, *Thorell, Spiders of Burma*, p. 224, 1895 (Therimachus).

♀. Closely resembling the preceding in form and colour. *Vulva* with anterior transverse crest more -shaped.

♂. Smaller. *Tibia of palp* twice as long as patella, longer than tarsus, the apophysis consisting of a single anteriorly-directed pointed spur.

*Measurements in mm.*—♀. Total length 22, carapace 8.5, 1st leg 30, 4th 31.5. ♂. Total length 26.

*Loc.* Burma: Kyeikpadam and Tharrawaddy (*Oates*).

The following species, based upon immature forms, are probably congeneric with the foregoing, but are specifically indeterminate;—

*Sphebanus spadicarius*, *Simon, Mém. Soc. Zool. Fr.* x, p. 262, 1897.

*Loc.* North Guzerat.

*Sphebanus marginatus*, *Simon, J. A. S. B.* lvi, p. 284, 1887.

*Loc.* Port Blair (Andamans).

## Genus THALASSIUS, Simon.

*Thalassius*, *Simon, Bull. Soc. Zool. Fr.* x, p. 13, 1885; *Hist. Nat. Araign.* ii, p. 300, 1898.

*Facial area* evenly inclined as in *Eucamptopus*, and clypeus exceeding ocular quadrangle, but quadrangle scarcely narrower in front and slightly longer than wide; anterior and posterior median eyes subequal as in *Dendrolycosa*; eyes of anterior line very strongly recurved, the anterior laterals nearly equally distant from the remaining three on each side.

Type, *T. marginellus*, Sim.

*Distribution.* Ethiopian Region; Madagascar; Oriental Region as far as Solomon Islands.

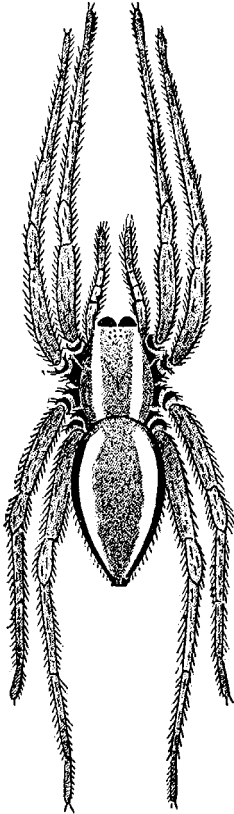


Fig. 84.  
*Thalassius phipsoni*, ♀,  $\times \frac{1}{4}$ .

286. *Thalassius phipsoni*, *F. Cambridge*,  
*P. Z. S.* 1898, p. 31, t. iv, fig. 5.

♀. *Colour*: integument covered with olive or greyish-brown pubescence; carapace and abdomen ornamented laterally with a white stripe extending from the sides of the head almost to the spinners, and separated from the middle of the lateral border of the carapace by a space equalling its own width. *Carapace* a little longer than tibia of 1st leg. *Legs* of 1st, 2nd, and 3rd pairs subequal and much shorter than 4th. Lateral lobes of *vulva* strongly clavate and in contact posteriorly.

*Measurements in mm.*—Total length 26, carapace 10, 1st leg 37, 4th 43.

*Loc.* Bombay: Máhim and Dorun (*Phipson*).

The characters of the following forms, known in Burma only from immature specimens, are doubtful:—

*Thalassius marginellus*, *Simon*, *Ann. Mus. Genova*, xx, p. 329, 1884 (*Titurius*);  
*id.* *Bull. Soc. Zool. Fr.* x, p. 13, 1885.

*Thalassius albocinctus* (*Dol.*), *Thorell*,  
*Spiders of Burma*, p. 227, 1895.

#### Genus **EUPROSTHENOPS**, Pocock.

*Euprostenops*, *Pocock*, *A. M. N. H.* (6) xix, p. 116, 1897; *Simon*,  
*Hist. Nat. Araign.* ii, p. 291, 1898. [*Podophthalma*, Capello and  
recent authors, preoccupied.]

*Carapace* low; facial area inclined; ocular quadrangle about equal to clypeus in height, longer than wide, narrowed in front, its posterior eyes larger than the anterior; anterior lateral eyes remote from the rest and elevated, situated on the edge of the clypeus. Tarsi normal. Fang-groove of *mandible* with 3 posterior teeth.

Type, *E. bayoniannus*, Br. Capello.

*Distribution.* Tropical Africa; Madagascar; India.

287. *Euprosthénops ellioti*, O. P. Cambridge, P. Z. S. 1877, p. 567, t. lvii, fig. 6 (Podophthalma).

♀. *Colour*: carapace pale with a dark band on each side, clothed with silvery-white hairs; legs clothed with olive-brown hairs varied with white, femora thickly spotted; tibiae black at base and apex; abdomen darkish above, with median lanceolate band in front, bordered at the sides with a broad pale band, sides and lower surface covered with golden-yellow hairs, the former speckled with brown. *Carapace* shorter than tibia of 3rd leg. *Legs* very long, 4, 1, 2, 3 in length. *Abdomen* narrowed posteriorly, more than twice as long as broad.

*Measurements in mm.*—Total length 21, carapace 7.5, 1st leg 41, 4th 46.

*Loc.* S. India: Chingleput (*Jambunathan*).

Genus **HIPPASA**, Simon.

*Hippasa*, Simon, *Bull. Soc. Zool. France*, x, p. 31, 1885; *Hist. Nat. Araign.* ii, p. 326, 1898.

Differing from *Lycosa* in having the posterior *spinners* considerably longer than the anterior, the posterior *eyes* more widely separated, and the eyes of the anterior line a little exceeding those of the second line in width.

Type, *H. agelenoides*, Simon.

*Distribution.* Africa; Madagascar; Arabia; British India; Malayasia.

These Spiders spin a silken thread which expands into a sheet-like snare.

*Synopsis of the principal Indian Species.*

- a. Lower surface of abdomen with a thick fringe of hair on each side ..... *H. pantherina*, p. 250.
- b. Lower surface of abdomen not laterally fringed.
  - a<sup>1</sup>. Of large size; carapace 8-9 mm. long; pit of vulva exposed.
    - a<sup>2</sup>. Pit of vulva semicircular ..... *H. lycosina*, p. 250.
    - b<sup>2</sup>. Pit of vulva transversely elliptical .... *H. olivacea*, p. 250.
  - b<sup>1</sup>. Smaller; carapace up to 5 mm.; pit of vulva roofed over.
    - a<sup>3</sup>. Plate of vulva produced into a long tongue-like process ..... *H. holmeræ*, p. 251.
    - b<sup>3</sup>. Plate of vulva not produced into a long tongue-like process.
      - a<sup>4</sup>. Process of vulva triangularly pointed behind ..... *H. pisaurina*, p. 250.
      - b<sup>4</sup>. Process of vulva squarely truncate behind ..... *H. agelenoides*, p. 251.

288. *Hippasa pantherina*, Pocock, *Jour. Bom. N. H. Soc.* xii, p. 752, 1899 (= *greenalliae*, Simon, *Bull. Soc. Zool. Fr.* x, p. 31, 1885) (? of Blackwall).

♀. *Colour*: integument ochraceous, clothed with silky greyish hairs; carapace with median narrow pale stripe and broader pale border; abdomen with a pair of longitudinal dark bands in front above and transverse dark bands behind, the darker markings emphasized by pale lines; legs obscurely banded above, sternum with median black stripe. *Legs* and upper side of abdomen beset with longish setæ; under side of abdomen with two thick bands of long setæ. *Carapace* as long as patella and tibia of 4th leg, slightly longer than those of 1st, and than protarsus of 4th. *Vulva* consisting of a large, yellow, thickly-hairy plate, produced posteriorly into a pair of blackish angular processes separated by a median angular notch.

♂. Like the ♀, but with much longer legs.

*Measurements in mm.*—♀. Total length 16, carapace 7.5, 1st leg 21.5, 4th 27. ♂. Total length 15, carapace 7, 1st leg 26, 4th 33.

*Loc.* Ceylon: Trincomali (*Yerbury*). India: Trivandrum (*Ferguson*); Ootacamund (*Hampson*); Coimbatore; Ramnad; Bangalore (*Stamton*); Poona district (*Wroughton*); E. Khandesh (*Madan*).

289. *Hippasa lycosina*, sp. n.

♀. As large as the preceding, but rather differently coloured, the pale bands on the carapace more clearly defined, the legs not banded, and the pattern of the abdomen less distinct. *Carapace* lower; legs and abdomen not thickly hirsute and without crest of setæ on under side of abdomen. *Vulva* consisting of a small brown plate impressed posteriorly with a nearly semicircular, posteriorly-open pit.

*Measurements in mm.*—Total length 20, carapace 9.5, 1st leg 26, 4th 34.

*Loc.* India: Eastern district of Poona (*Irani*); Kanara; Nasik (*Millet*); Uran (*Aitken*).

290. *Hippasa olivacea*, Thorell, *Ann. Mus. Genova*, xxv, p. 297, 1887: *simonis*, *id. ibid.* p. 301 (*Diapontia*).

Nearly allied to *H. lycosina*, but with longer legs, the carapace shorter than the patella and tibia of the 1st and than the protarsus of the 4th leg. *Vulva* much as in *H. lycosina*, but with the pit transversely elliptical.

*Measurements in mm.*—Total length 17, carapace 8, 1st leg 24, 4th 30.5.

*Loc.* Burma: Rangoon, Tharrawaddy, Tenasserim, &c. (*Outes, Fea*).

291. *Hippasa pisaurina*, sp. n.

♀. Much smaller than the preceding species, but very similarly

coloured, with the legs banded and mottled as in *H. pantherina*; abdomen banded with white below. *Carapace* as long as patella and tibia of 1st leg, but distinctly shorter than patella and tibia and than protarsus of 4th; eyes of anterior line very unequal in size, medians nearly twice the diameter of the laterals, their inferior edges in a straight line. *Vulva* consisting of a plate triangularly pointed behind and forming an archway over the cavity.

*Measurements in mm.*—Total length 11, carapace 4.5, 1st leg 14, 4th 20.

*Loc.* Western India: E. Khandesh (*Madan*) and E. Poona (*Wroughton*); Bangalore (*Stainton*).

292. *Hippasa agelenoides*, *Simon, Ann. Mus. Genova*, xx, p. 334, 1884 (*Pirata*); *Thorell, Spiders of Burma*, p. 218, 1895 (*Hippasa*).

In size, length of limbs, &c. nearly resembling the preceding; darker in colour; abdomen with a narrow black band on each side below. *Eyes* of anterior line more nearly equal, medians at most a little larger than the laterals, with their inferior edges standing much higher. *Vulva* forming a vertical archway as in *H. pisaurina*, but the posterior border of the arch transversely truncate.

Length up to about 10 mm., carapace 5, 1st leg 15, 4th 20.

*Loc.* Burma: Rangoon, Tharrawaddy (*Oates*), Minhla (*Comotto*). Also recorded by Simon, but perhaps erroneously, from the Konkan and Dehra Dún.

293. *Hippasa holmeræ*, *Thorell, Spiders of Burma*, p. 218, 1895.

A small paler-coloured species, with the legs not banded; recognizable from all the foregoing by having the plate of the *vulva* produced posteriorly into a long, backwardly-directed tongue-like process. Total length 8 mm.

*Loc.* Burma: Tharrawaddy (*Oates*). Also Singapore.

The following species are unknown to me:—

*Hippasa greenallie*, Blackwall, *A. M. N. H.* (3) xix, p. 387, 1867 (*Lycosa*), from Meerut, Agra, or Delhi. Recorded by Simon from Matheran and Karachi, and by Karsch from Peradeniya &c., in Ceylon.

*Hippasa partita*, O. P. Cambridge, *P. Z. S.* 1876, p. 599 (*Trochosa*), from Alexandria. Recorded by Simon from Karachi.

#### Genus OCYALE, Aud.

Ocyale, *Audouin, in Sav. Descr. Egypte, Arch.* p. 149, 1826; *Simon, Hist. Nat. Araign.* ii, p. 345, 1898.

Allied to *Lycosa*, but with the 3rd leg slightly longer than the 1st; quadrangle of posterior eyes much wider behind, as in *Hippasa*;

eyes of anterior line slightly recurved, medians much larger than laterals, the four taken together about as wide as the two anterior medians.

Type, *O. atalanta*, Aud.

Distribution. Africa; Ceylon and Burma.

294. *Ocyale atalanta*, Audouin, in Sav. Descr. Egypte, Arach. p. 150, 1826.

Prevailing colour yellow, sides of carapace densely mottled with olive-black; legs strongly banded; upper side of abdomen marbled with olive-black, and marked with white spots; mandibles blackish, clothed with greyish-brown hairs in front. Legs covered with long, white, apically-hooked hairs.

Length about 20 mm.

Loc. Ceylon (*Sarasin*); Punduloya (*Green*).

### Genus LYCOSA, Latreille.

*Lycosa*, Latreille, *Nouv. Dict. d'Hist. Nat.* xxiv, p. 135, 1804; Simon, *Hist. Nat. Araign.* ii, p. 345, 1898.

*Carapace* long as in *Dendrolycosa*; facial area vertical, four posterior eyes very large and arranged in a quadrangle, which is a little wider behind than in front; eyes of anterior line small, straight or slightly curved, not or scarcely exceeding those of the second line in width; clypeus very low, scarcely exceeding diameter of anterior median eyes.

Type, *L. tarantula*, Rossi.

Distribution. Temperate, Tropical, and Arctic countries.

The species of this genus spin no web. The larger forms live in silk-lined burrows, and under stones, &c. The females carry the cocoon attached to the spinners, and the young, after hatching, swarm on the mother's back.

### *Synopsis of the larger Indian Species.*

- a. Sternum olive-yellow; legs pale, not banded. *L. chaperi*, p. 254.
- b. Sternum black; tibiæ at least of posterior legs banded below.
  - a<sup>1</sup>. Black ventral area of abdomen serially spotted with white ..... *L. catula*, p. 254.
  - b<sup>1</sup>. Black ventral area of abdomen unspotted.
    - a<sup>2</sup>. Tibiæ of all the legs strongly banded .. *L. indagatrix*, p. 254.
    - b<sup>2</sup>. Tibiæ of anterior legs not banded.
      - a<sup>3</sup>. Femora of anterior legs infuscate beneath ..... *L. wroughtoni*, p. 253.
      - b<sup>3</sup>. Femora of anterior legs pale beneath.
        - a<sup>4</sup>. Femora with black apical spot below ..... *L. nigrotibialis*, p. 253.
        - b<sup>4</sup>. Femora without black apical spot.. *L. phipsoni*, p. 253.

295. *Lycosa phipsoni*, Pocock, *Jour. Bom. N. H. Soc.* xii, p. 751, 1899.

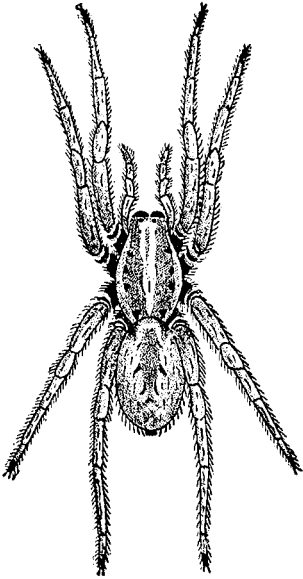


Fig. 85.—*Lycosa phipsoni*, ♀,  $\times \frac{4}{3}$ .

♀. Carapace with broad yellowish band down middle, darker laterally with marginal band; mandibles black, clothed above with yellow-red hairs; legs greyish white below, with tarsi, protarsi of all, and tibiae of anterior two pairs infusate; tibia of 4th fuscous at the end, white in middle; coxæ and sternum reddish to blackish brown; abdomen jet-black below, whitish laterally, yellowish above speckled with black, and with an anterior median black band. Carapace longer than patella and tibia of 1st or 4th legs; eyes of anterior line very slightly procurved, medians larger than laterals. Vulva consisting of a nearly semicircularly rounded excavation and a  $\perp$ -shaped bar, the upright of the  $\perp$  mesially expanded.

Length 20 mm.

♂. Like female in colour &c., but with legs longer.

Loc. India: Bombay (*Phipson*); Jaoli in Satara (*Master*); Uran (*Aitken*); Kanara and Násik (*Millet*).

296. *Lycosa wroughtoni*, Pocock, *Jour. Bom. N. H. Soc.* xii, p. 751, 1899.

Much resembling the male of *L. phipsoni* in colour, but the carapace not so vividly banded, the abdomen without any anterior median black stripe, the hairs on the mandible and palpi bright orange-red, and the femora of the anterior legs infusate below. Tarsus of palp also more globular at base.

Length 25 mm.

Loc. India: Bulsar in Guzerat (*Wroughton*).

297. *Lycosa nigrotibialis*, Simon, *Ann. Mus. Genova*, xx, p. 330, 1884.

♀. Closely resembling *L. phipsoni* in size, colour, &c., but with a dark band at the extremity of the femora beneath.

Total length about 25 mm.

Loc. Burma: Rangoon, Tharrawaddy, Minhla, Tenasserim, &c. (*Oates, Fea*).



298. *Lycosa indagatrix*, *Walck. Ins. Apt. i*, p. 339, 1837; *Simon, Ann. Mus. Genova*, xx, p. 366, 1884.

♀. Closely resembling *L. phipsoni* in colour &c.; the mandible clothed almost to the apex with red hairs, and the tibiæ of all the legs banded below, being white in the middle and blackish at the ends. *Vulva* with fovea scarcely longer than wide; the median keel rather narrow and distinctly swollen in the middle.

♂. Carapace more strongly banded than in female; legs longer, with white tibial bands broader than the dark patches on the anterior legs.

Total length (♀) about 25 mm., carapace 12.5.

*Loc.* S. India: Pondichery, Wagra-Karoor in Bellary, &c. (*Simon*); Chingleput (*Jambunathan*).

299. *Lycosa catula*, *Simon, Bull. Soc. Zool. Fr. x*, p. 457, 1885.

♀. At once recognizable from the preceding species by having the black of the lower side of the abdomen relieved by numerous white spots irregularly arranged laterally and forming more definite longitudinal lines mesially. Tibiæ of all the legs white in the middle below as in *L. indagatrix*, but the white not broader than the black at the extremities. Median bar of *vulva* very acute.

Length up to about 20 mm.

*Loc.* S. India: Coimbatore (*Theobald*); Yercaud in the Shevaroy Hills (*Henderson*).

300. *Lycosa chaperi*, *Simon, Bull. Soc. Zool. Fr. x*, p. 8, 1885; *id. op. cit.* p. 458, t. x, fig. 3, 1885.

♀. Differs from all the foregoing species in having the sternum and coxæ reddish or olive-yellow instead of black, and the legs entirely pale below, not even the tibiæ of the 4th being banded. Fovea of *vulva* closed behind by a large, transversely trapeziform plate, without any median keel.

Length 14 mm.

*Loc.* Wagra-Karoor near Guntakal, Bellary district (*Fabre*).

## Family OXYOPIDÆ.

*Carapace* oval, high; head narrow, subacuminate; *eyes* forming a compact subcircular group, those of the posterior line being typically strongly procurved and those of the anterior recurved, the anterior medians minute; clypeus very high, vertical. *Mandibles* long, not prominent, acuminate; fang short; fang-groove unarmed or weakly armed; maxillæ and labium very long. *Legs* long, slender, armed with long black spines, not scopulate; three claws. *Abdomen* generally oval, narrowed behind; spinning-mamilla short, subequal; a small colulus present.

*Distribution.* Temperate and tropical countries.

Hunting Spiders, spinning no web, living amongst grass and other plants and fastening their cocoons to the leaves or stalks.

The following genera are represented in India:—

- a. Eyes of the posterior line lightly procurved; fang-groove of mandible unarmed . . . . . PEUCETIA, p. 255.
- b. Eyes of posterior line very strongly procurved; fang-groove of mandible weakly armed . . . . . OXYOPES\*.

Genus PEUCETIA, Thorell.

Peucetia, Thorell, *Nova Acta Soc. Upsal.* (3) vii, p. 37, 1869; Simon, *Hist. Nat. Araign.* ii, p. 378, 1898.

Characters as above.

Type, *P. viridis*, Blackwall.

Distribution. Tropical and temperate countries.

*Synopsis of Indian Species* †.

- a. Carapace and limbs not varied with black spots and lines. . . . . *P. prasina*, p. 256.
- b. Carapace and limbs varied with black spots and lines.
  - a<sup>1</sup>. Clypeus with obsolete lateral stripe; mandibles spotted in front . . . . . *P. viridana*, p. 255.
  - b<sup>1</sup>. Clypeus with distinct lateral stripe; mandibles with distinct median stripe.
    - a<sup>2</sup>. Plates of vulva posteriorly produced and acuminate. . . . . *P. graminea*, p. 256.
    - b<sup>2</sup>. Plates of vulva not acuminate posteriorly . . . . . *P. procera*, p. 256.

301. *Peucetia viridana*, Stoliczka, *J. A. S. B.* xxxviii, p. 220, t. xx, fig. 1, 1869 (Sphasus): nigropunctata, Simon, *Ann. Mus. Genova* xx, p. 365, 1884 (Peucetia).

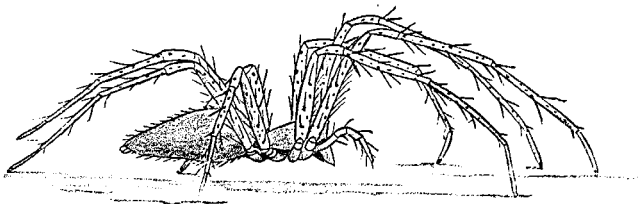


Fig. 86.—*Peucetia viridana*, × 2.

\* This genus, which is omitted from the present volume, is represented by many species, mostly of small size, and recognizable by their varied colouring of silvery white and darker stripes.

† *Peucetia elegans*, Blackwall (A. M. N. H. (3) xiv, p. 39, 1864 (*Pasithea*)), from the "East Indies," differs from those here described in having a black band on the lower side of the abdomen. Probably it belongs to the genus *Oxyopes*.

♀. *Colour*: carapace green, sparsely spotted; clypeus with a pair of dark lines running from the anterior eyes; mandibles with a few spots at the base of the setal pores towards the inner side in front and sometimes with one or two forming an imperfect line externally; legs yellow, densely spotted with black; femora often banded with red below; abdomen a rich grass-green, indistinctly banded above and below. *Vulva* with its piriform sclerites transversely truncate behind.

♂. *Palpi* very long; femur arched, tibia about twice as long as patella; external appendix of organ abruptly clavate at tip and armed near the middle with a distinct conical tubercle.

♀. Total length up to about 15 mm., carapace 5, 1st leg 30.

♂. Carapace 4, 1st leg 36.

*Loc.* Ceylon: Trincomali and Andankalai (*Yerbury*). India: Madras, Pondichery, Chingleput (*Jambunathan*); Ponnudi and Madatory in Travancore (*Ferguson*); Ootacamund (*Hampson*); Calcutta (*Stoliczka*).

302. *Peucetia graminea*, sp. n.

? *Peucetia viridana*, *Simon, Bull. Mus. Hist. Nat.* 1897, p. 290 (*not of Stoliczka*).

♀. Nearly resembling the preceding in colour, but the clypeus with a very distinct lateral band and the mandibles with distinct anterior dark band; sternum often with median black band. *Vulva* with its sclerites posteriorly narrowed and separated by an angular space.

♂. *Palpi* a little shorter than in *P. viridana*, the external appendix longer, mesially geniculate, and apically less abruptly clavate.

♀. Total length 15 mm., carapace 4.5, 1st leg 24. ♂. Carapace 3, 1st leg 26.

*Loc.* Western India: Bulsar in Guzerat (*Wroughton*); ? Karachi.

303. *Peucetia prasina*, *Thorell, Ann. Mus. Genova*, xxv, pp. 10 & 325, 1887: *viridana*, *Simon, Ann. Mus. Genova*, xx, p. 326, 1884 (*not of Stoliczka*).

Differs from all the preceding species in being tolerably uniform greenish, not lined or spotted with black; the anterior femora reddish and varied with pale lines. *Palp* of male short, the patella not twice as long as broad, and nearly as long as the tibia, which is a little shorter than the tarsus.

Total length (♀) about 13 mm.

*Loc.* Burma: Minhla (*Comotto*).

304. *Peucetia procera*, *Thorell, Ann. Mus. Genova*, xxv, p. 321, 1887.

♀. Resembling *P. graminea* in colour, but differing in having the plates of the vulva less acuminate behind and separated posteriorly by a much shallower excision.

Total length 14 mm., carapace 4, 1st leg 25.

*Loc.* Burma: Rangoon (*Oates*); Me-tan-ja (*Flea*).

Family CLUBIONIDÆ.

Hunting Spiders in which the mandibles are powerful, with strongly-toothed fang-groove; the maxillæ project forwards, and are not inclined on the labium and not impressed; the legs are powerful, strongly spined, with tarsi and protarsi scopulate; tarsi furnished with unguis tufts and only two claws; anterior spinners in contact; colulus absent.

The principal Indian species of this family belong to the sub-families *Selenopinæ* and *Heteropodinæ*, which resemble each other in being laterigrade and in having the maxillæ furnished apically with a very thick tuft of hairs. Their differences may be tabulated as follows:—

- a. Claws unarmed; median eyes arranged in a recurved crescent . . . . . *Selenopinæ*, p. 257.
- b. Claws armed with teeth; median eyes forming a normal quadrangle . . . . . *Heteropodinæ*, p. 259.

Subfamily SELENOPINÆ.

Characters as above.

Genus SELENOPS, Latreille.

*Selenops*, *Latreille, Nouv. Dict. d'Hist. Nat.* xxx, p. 579, 1819;  
*Simon, Hist. Nat. Araign.* ii, p. 26, 1897.

*Carapace* flat, wider than long; *eyes* of posterior line recurved, laterals prominent, medians close to the anterior medians and forming with them a crescentically recurved line, anterior laterals far from the medians, small; clypeus almost absent. Fang-groove of *mandible* with two posterior teeth.

Type, *S. radiatus*, Latr.

*Distribution.* Tropical and subtropical countries.

*Synopsis of Indian Species.*

- a. Protarsi of anterior legs with two pairs of spines . . . . . *S. radiatus*, p. 257.
- b. Protarsi of anterior legs with three pairs of spines . . . . . *S. montigena*, p. 258.

305. *Selenops radiatus*, *Latreille, Nouv. Dict. d'Hist. Nat.* xxx, p. 579, 1819 (Thomisus); *Simon, Hist. Nat. Araign.* ii, pp. 26 & 27, 1897 (Selenops): *malabariensis*, *Simon, Act. Soc. Linn. Bord.* xxxiv, p. 234, 1881; *id. Bull. Soc. Zool. Fr.* x, p. 14, 1885: *birmanicus* *Thorell, Spiders of Burma*, p. 261, 1895.

♀. *Colour* variable, integument yellowish or brown, legs usually banded, hairy clothing mostly yellowish or mouse-brown. *Carapace*

with anterior and posterior median eyes subequal. *Legs* of 1st and 2nd pairs with three pairs of spines on lower side of tibiæ,

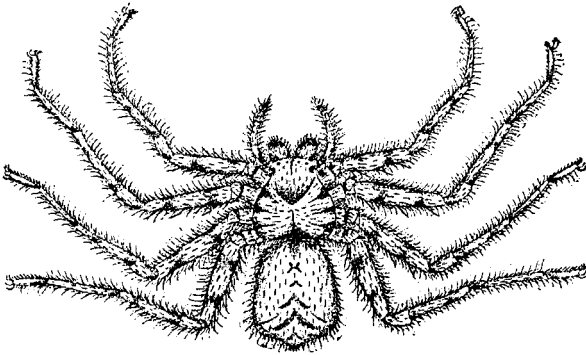


Fig. 87.—*Selenops radiatus*, ♀.

two pairs on protarsi. *Vulva* with lobes meeting in middle line behind and circumscribing a broadly cordate pale area.

♂. Smaller and longer-legged than female; eyes larger. *Palp* with tibial apophysis consisting of two stout conical teeth, one above the other.

Length up to 20 mm. (♀).

*Loc.* Ormara on the Mekran coast; Karachi (*Townsend*); Bareilly (*Cambridge*); N. Guzerat (*Wroughton*); Tanna (*Edie*); Uran (*Aitken*); Poona (*Wroughton*); Eastern Poona (*Irani*); Eastern Khandesh (*Madan*); Bangalore (*Staunton*); Guntakal and Malabar (*Simon*); Tharrawaddy in Burma (*Oates*). Also Spain, Sokotra, Mauritius, Madagascar, and the whole of Africa as far south as the Zambesi.

306. *Selenops montigena*, *Simon*, *J. A. S. B.* lviii, p. 335, 1889.

♀. Smaller than *S. radiatus*, with the posterior median eyes noticeably larger than anterior medians, and three pairs of spines on the protarsi of the anterior legs. *Vulva* with lobes defined in front by a transverse sinuous suture, in contact in front, diverging at an acute angle, separated posteriorly by an elongate heart-shaped space.

Total length 11 mm.

*Loc.* Jaunsar, 6000 feet (*Oldham*).

Subfamily HETEROPODINÆ.

Characters as specified on p. 257.

*Distribution.* Tropical countries.

*Synopsis of Indian Genera.*

- a. Eyes of posterior line recurved, the laterals prominent.
  - a<sup>1</sup>. Carapace with thoracic region low and flat; head considerably elevated . . . . . PANDERCETES, p. 264.
  - b<sup>1</sup>. Carapace higher and convex behind; head not or hardly raised.
    - a<sup>2</sup>. Maxillæ crested; vulva with two circular pits . . . . . SPARTOLENUS, p. 263.
    - b<sup>2</sup>. Maxillæ not crested; vulva not marked with circular pits . . . . . HETEROPODA, p. 259.
- b. Eyes of posterior line straight or procurved, the laterals sessile.
  - a<sup>3</sup>. Anterior median eyes smaller than anterior laterals . . . . . PALYSTES, p. 265.
  - b<sup>3</sup>. Anterior medians larger than or as large as anterior laterals.
    - a<sup>4</sup>. 2nd leg longer than 1st . . . . . SPARASSUS, p. 266.
    - b<sup>4</sup>. 2nd leg not longer than 1st . . . . . THELCTICOPIS, p. 270.

Genus HETEROPODA, Latreille.

Heteropoda, *Latreille, Nouv. Dict. d'Hist. Nat.* xxiv, p. 135, 1804; *Simon, Hist. Nat. Araign.* ii, p. 54, 1897.

*Carapace* nearly as wide as long, moderate or very high posteriorly, its upper surface nearly flat; head lightly depressed in front; *eyes* of posterior line recurved, the laterals larger and prominent; eyes of anterior line straight or procurved, laterals larger than medians; quadrangle longer than wide, narrow in front. *Maxillæ* not crested. *Vulva* consisting of a pair of lobes, usually separated by a median skeletal piece, rarely in contact.

Type, *H. venatoria*, Linn.

*Distribution.* From India eastwards to Australia. (The typical species, *H. venatoria*, which lives in houses, has been introduced by human agency into all tropical countries.)

*Synopsis of Indian Species.*

*Males.*

- a. Tibial apophysis of palp basal.
  - a<sup>1</sup>. Abdomen with black yellow-bordered area below . . . . . *H. prompta*, p. 261.
  - b<sup>1</sup>. Abdomen uniformly pale below . . . . . *H. smythiesi*, p. 262.
- b. Tibial apophysis of palp apical.
  - a<sup>2</sup>. Apophysis widely bifurcate at tip . . . . . *H. leprosa*, p. 262.
  - b<sup>2</sup>. Apophysis not widely bifurcate.
    - a<sup>3</sup>. Apophysis armed with two sharp teeth. . . . . *H. venatoria*, p. 260.
    - b<sup>3</sup>. Apophysis not toothed at extremity, pointed.
      - a<sup>4</sup>. Distal half of apophysis strongly hooked . . . . . *H. fabrei*, p. 261.
      - b<sup>4</sup>. Distal half of apophysis sinuous, only the apex hooked . . . . . *H. sexpunctata*, p. 261.

## Females.

- a.* Abdomen black, with yellow border below . . . *H. prompta*, p. 261.  
*b.* Abdomen not darker beneath than at sides.  
*a*<sup>1</sup>. Carapace shorter than tibia of 3rd leg. . . . *H. kandiana*, p. 261.  
*b*<sup>1</sup>. Carapace not shorter than tibia of 3rd leg.  
*a*<sup>2</sup>. Anterior femora infusate below.  
*a*<sup>3</sup>. 4th leg not longer than 1st . . . . . *H. fubrei*, p. 261.  
*b*<sup>3</sup>. 4th leg longer than 1st.  
*a*<sup>4</sup>. Carapace strongly elevated behind. *H. plebeia*, p. 262.  
*b*<sup>4</sup>. Carapace not strongly elevated behind . . . . . *H. leprosa*, p. 262.  
*b*<sup>2</sup>. Anterior femora not infusate below.  
*a*<sup>5</sup>. Anterior median eyes as large as anterior laterals . . . . . *H. lutea*, p. 263.  
*b*<sup>5</sup>. Anterior median eyes smaller than anterior laterals.  
*a*<sup>6</sup>. Median sclerite of vulva hammer-shaped . . . . . *H. serypunctata*, p. 261.  
*b*<sup>6</sup>. Median sclerite of vulva not hammer-shaped.  
*a*<sup>7</sup>. Carapace very high behind . . . . . *H. languida*, p. 262.  
*b*<sup>7</sup>. Carapace low behind.  
*a*<sup>8</sup>. Lobes of vulva separated by median tongue-shaped sclerite *H. phasma*, p. 260.  
*b*<sup>8</sup>. Lobes of vulva posteriorly in contact . . . . . *H. venatoria*, p. 260.

307. *Heteropoda venatoria*, Linn. *Syst. Nat.* ed. 12, p. 1035, 1766 (Aranea), and of recent authors: ferina, Simon, *J. A. S. B. lvi*, p. 102, 1887 (Heteropoda).

♀. Prevailing colour of hair a greyish mouse-brown above and below; clypeus yellow; usually a yellow black-bordered stripe on the posterior slope of carapace. Carapace low, about as long as tibia of 3rd leg; eyes of anterior line with their upper edges on a level, laterals one-third of their diameter larger than medians. Vulva with lateral lobes in contact.

♂. Smaller and yellower than female; carapace with large black patch on each side; legs spotted with black. Legs much longer than in female; carapace shorter than tibia of 3rd leg. Tibial apophysis of *pulp* short, armed with two teeth.

Measurements in mm.—♀. Total length 26, carapace 11, 1st leg 52, 4th 48. ♂. Total length 21, carapace 9.5, 1st leg 56, 4th 48.

Loc. Common in houses in India, Ceylon, and Burma. Artificially introduced from the East into all tropical countries.

308. *Heteropoda phasma*, Simon, *Mém. Soc. Zool. Fr.* x. p. 258, 1897.

♀. Hairy clothing very pale, silky yellowish grey; mandibles shining black. Eyes of anterior line more procurved than in *H. venatoria*; the medians about half the diameter of the laterals.

*Vulva* large, with lobes widely separated by broad tongue-shaped sclerite.

*Measurements in mm.*—Total length 23, carapace 10, 1st leg 50, 4th 49.

*Loc.* Himalayas, 6000–7000 ft. (*Smythies*); Kasauli (*Waller Barrow*); Jaunsar and Mundali, 8000 ft. (*Gleadow*).

309. *Heteropoda sexpunctata*, *Simon, Bull. Soc. Zool. Fr.* x, p. 14, t. x, fig. 11, 1885.

♀. Carapace, femora, and upper side of abdomen densely variegated with blackish patches. *Carapace* as wide as long, exceeding tibia of 4th leg. *Legs* short, 4th and 1st subequal. Lobes of *vulva* widely separated, the cleft divided by a narrow crest, the posterior end of which expands like a hammer-head.

♂. Smaller. Tibial apophysis long, slender, acute, spiniform, curved downwards and outwards.

*Measurements in mm.*—♀. Total length 20, carapace 9, 1st leg 32, 4th 32. ♂. Total length 15, carapace 6·5, 1st leg 31, 4th 27·5.

*Loc.* India: Tanna; Poona (*Wroughton*); Khandesh: Bellary.

310. *Heteropoda fabrei*, *Simon, Bull. Soc. Zool. Fr.* x, p. 32, t. x, fig. 10, 1885: ? *ambigua*, *Simon, Ann. Soc. Ent. Fr.* lxx, p. 489, 1896.

♀. *Colour* much as in the preceding, but femora infusate below. *Vulva* with its lobes separated by a parallel-sided groove. Tibial apophysis of male slender, pointed, with the distal half bent sharply downwards.

*Measurements in mm.*—♀. Total length 15, carapace 7·5, 1st leg 27·2, 4th 27·5. ♂. Carapace 6·4, 1st leg 30·5, 4th 29·2.

*Loc.* S. India: Ramnad (*Fabre*); ? Trichinopoly.

311. *Heteropoda kandiana*, *Pocock, Jour. Bom. N. H. Soc.* xii, p. 752, 1899.

♀. As large as *H. venatoria*, darker in colour; clypeal band pale, crescentic. *Carapace* shorter than tibia of 3rd leg; *eyes* of anterior line strongly procurved, laterals nearly twice the diameter of the medians, centre of the latter on a level with upper edges of former; clypeus high. *Legs* very long. *Vulva* with lateral lobes separated by broad tongue-shaped sclerite.

*Measurements in mm.*—Total length 24, carapace 11, 1st leg 58, 4th 59.

*Loc.* Ceylon: Kandy (*Yerbury*).

312. *Heteropoda prompta*, *O. P. Cambridge, Araneidea, Second Yarkand Exped.* p. 71, 1885 (*Sarotes*): *casaria*, *Simon, Mém. Soc. Zool. Fr.* x, p. 259, 1897 (*Heteropoda*).

♀. Ventral surface much darker than in the other species,



sternum and coxæ nearly black, lower side of abdomen black, bordered with yellow stripes. *Carapace* as long as tibia of 2nd leg; *eyes* of anterior line straight, medians half the diameter of the laterals; clypeus low. *Legs* short. *Vulva* with lobes large, diverging in front, almost in contact behind.

♂. Tibial apophysis rising from base of segment, long, stout, curved, and ending in a thinner hooked portion.

*Measurements in mm.*—♀. Total length 18, carapace 7, 2nd leg 26, 4th 22.5. ♂. Total length 12.5, carapace 6, 1st leg 34, 4th 27.

*Loc.* Himalayas: Murree (*Stoliczka*); Jaunsar, Deota, and Konain, 7000 ft. (*Gleadow*).

313. *Heteropoda smythiesi*, *Simon, Mém. Soc. Zool. Fr.* p. 259, 1897.

♂. Allied to *H. prompta* but smaller and paler, obscurely spotted and lined with black; ventral surface pale; apophysis of palp of the same shape and position as in *H. prompta*, but with the terminal portion straighter.

*Measurements in mm.*—Total length 10, carapace 4.5, 2nd leg 21, 4th 19.

*Loc.* Dekkan\* (*Smythies*); Konain, 7800 ft. (*Gleadow*).

314. *Heteropoda languida*, *Simon, J. A. S. B. lvi*, p. 102, 1887.

♀. Hairy clothing yellowish, femora faintly mottled. *Carapace* as long as 4th tibia, very high behind, the posterior slope forming a right angle with the upper surface. Lobes of *vulva* separated by a narrow groove behind and by a narrow sclerite in front.

*Measurements in mm.*—Total length 17, carapace 7.5, 2nd leg 30, 4th 29.

*Loc.* Burma: Tavoy.

315. *Heteropoda leprosa*, *Simon, Ann. Mus. Genova*, xx, p. 336, 1884; *Thorell, Spiders of Burma*, p. 264, 1895.

♀. Colour much as in *H. fabrei* apparently; anterior femora infuscate below, mottled with white. *Carapace* as long as tibia of 2nd leg; anterior lateral eyes nearly twice the diameter of the medians. *Legs* short. *Vulva* with lobes widely separated.

♂. Tibial apophysis apically bifurcated.

♀. Total length 13 mm.

*Loc.* Burma: Minhla (*Comotto*); Rangoon (*Oates*).

316. *Heteropoda plebeia*, *Thorell, Ann. Mus. Genova*, xxv, p. 237, 1887; *Spiders of Burma*, p. 264, 1895.

♀. Differing apparently from *H. leprosa* in having all the femora darker, the sternum and coxæ a brighter red, and the carapace strongly elevated behind as in *H. languida*.

*Measurements in mm.*—Total length 17, carapace 6.5, 2nd leg 23.5, 4th 23.

*Loc.* Burma: Rangoon and Kyeikpadam (*Oates*).

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\* No doubt an error for Dehra.

317. *Heteropoda lutea*, Thorell, *Spiders of Burma*, p. 265, 1895.

♀. Of a tolerably uniform yellowish colour; limbs mottled with small spots, with a large patch at the base of the tibiae. *Eyes* of anterior line straight, subequal, about twice their diameter above the edge of the clypeus. *Carapace* a little shorter than tibia of 3rd leg. *Vulva* large, its lobes converging posteriorly, widely separated in front.

*Measurements in mm.*—Total length 10·5, carapace 5, 2nd leg 29, 4th 24.

*Loc.* Burma: Tharrawaddy (*Oates*).

The following species of *Heteropoda* are too briefly described to be classified with accuracy, and have been omitted from the synopsis on pp. 259–260:—

318. *Heteropoda umbrata*, Karsch, *Berl. ent. Zeits.* xxxvi, p. 291, t. xi, fig. 11, 1892.

*Colour* yellowish, mottled with black. *Carapace* as long as tibia of 4th leg. *Vulva* with lateral lobes posteriorly in contact. Tibial apophysis of *palp* longish, evenly narrowed from base to apex, concave above, convex below. Length 10 mm.

*Loc.* Ceylon: Peradeniya (*Sarasin*).

319. *Heteropoda eluta*, Karsch, *loc. cit.* p. 291, 1892.

♀. Differs from the preceding at least in having the lobes of the *vulva* widely separated by a median yellow plate. Tibial apophysis of *palp* of ♂ consisting of a sharp process, convex above, concave below, and armed with an inferior basal tubercle. Total length 9 mm.

*Loc.* Ceylon (*Sarasin*).

320. *Heteropoda subtilis*, Karsch, *loc. cit.* p. 292, t. xi, fig. 13.

♂. Scarcely differing from *H. eluta* in colour and structural features, but with the tibial apophysis of *palp* consisting of a wide sublamelliform tooth. Total length 7 mm.

*Loc.* Ceylon: Peradeniya (*Sarasin*).

## Genus SPARIOLENUS, Simon.

*Sparioleenus*, Simon, *Act. Soc. Linn. Bord.* xxxiv, p. 230, 1881;  
*id. Hist. Nat. Araign.* ii, p. 56, 1897.

Allied to *Heteropoda*, but with the eyes of the anterior line so strongly procurved that the inferior edges of the small medians stand almost on a level with the superior edges of the laterals; the laterals, moreover, are only about two diameters apart and rather more than a diameter above the edge of the clypeus. The maxillæ are furnished with a distinct median longitudinal crest, which is at most faintly indicated in *Heteropoda*.

Type, *S. tigris*, Simon.

*Distribution.* India; Nicobar Islands.

321. *Spariolenus tigris*, Simon, *Act. Soc. Linn. Bord.* xxxiv, p. 281, 1881.

♀. Carapace and abdomen covered with a mixture of rusty-red and white hairs, mottled with black; legs and palpi yellowish, strongly banded with brown. *Carapace* as wide as long, shorter than tibia of 3rd leg. *Legs* very long. *Abdomen* pentagonal; *vulva* consisting of a pair of round pits surrounded by subcircular rings which meet in the middle line.

*Measurements in mm.*—Total length 13, carapace 6, 2nd leg 37, 4th 34.

*Loc.* Matheran (*Phipson*); Poona (*Wroughton*); Calcutta (*Oates & Simon*).

*Spariolenus megalopsis*, Thorell (*K. Svenska Vet.-Akad. Handl.* xxiv, no. 2, p. 77, 1891), based upon an immature female from the Nicobar Islands, is not classifiable.

Genus **PANDERCETES**, L. Koch.

*Pandercetes*, L. Koch, *Arachn. Austral.* p. 739, 1875; *Simon, Hist. Nat. Araign.* ii, p. 56, 1897.

Differs from *Heteropoda* in having the thoracic region of the carapace flat and low, and the head raised and sharply defined; eyes much as in *Heteropoda*, those of anterior line straight, quadrangle parallel-sided or nearly so. *Legs* generally plumose.

Type, *P. gracilis*, L. Koch.

*Distribution.* India to Australia.

*Synopsis of Indian Species.*

- a. Legs not plumose; femora, coxæ, and sternum uniformly pale below (♂)..... *P. macilentus*, p. 265.  
 b. Legs thickly plumose; sternum and coxæ black, anterior femora coloured below (♀).  
 a<sup>1</sup>. Anterior femora orange-yellow below..... *P. decipiens*, p. 264.  
 b<sup>1</sup>. Anterior femora blackish bronze below.... *P. celatus*, p. 265.

322. *Pandercetes decipiens*, Pocock, *Jour. Bom. N. H. Soc.* xii, p. 753: ? plumipes, *Karsch, Berl. ent. Zeits.* xxxvi, p. 290, 1892 (*Zatapina*) (not of *Doleschall*).

♀. *Colour* of upper side greyish and mottled with brown so as to match the lichen-covered bark of trees; coxæ, labium, and sternum shining black, femora of 1st and 2nd legs orange-yellow below. *Carapace* slightly longer than wide; shorter than femur of 1st leg. *Legs* with their margins thickly tufted with hairs. *Abdomen* nearly twice as long as wide.

Total length 16 mm., carapace 7.

*Loc.* Ceylon: *Punduloya* (*Green*).



Fig. 88.  
*Pandercetes decipiens*, ♀.

323. *Pandercetes celatus*, Pocock, *Jour. Bom. N. II. Soc.* xii, p. 753, 1899.

♀. Distinguishable from the preceding by having the under side of the femora of the 1st and 2nd legs and of the tibiæ of the 3rd and 4th a rich blackish brown tinged with bronze.

Total length 22 mm., carapace 8.

Loc. India: Trivandrum in Travancore (*Ferguson*).

324. *Pandercetes macilentus*, Thorell, *Spiders of Burma*, p. 267, 1895.

♂. *Colour*: body clothed above with yellowish-white hairs varied with brownish patches; lower side of cephalothorax, abdomen, and legs clothed with whitish hairs. *Carapace* about as wide as long, half the length of patella and tibia of 4th leg. *Legs* not plumose. *Palp* with tibial apophysis double, the upper branch slender and pointed, the lower broad and short.

Total length 11 mm., carapace 5.

Loc. S. Tenasserim (*Oates*).

#### Genus PALYSTES, L. Koch.

*Palystes*, L. Koch, *Arachn. Austral.* p. 701, 1875; *Simon, Hist. Nat. Araign.* ii, p. 65, 1897.

*Carapace* longer than in *Heteropoda*, more narrowed in front; eyes of posterior line straight, subequal, the laterals not prominent; eyes of anterior line straight or procurved, laterals much larger than medians; clypeus low; 1st leg in ♀ longer than 2nd.

Type, *P. castaneus*, Latreille.

*Distribution*. Tropical Africa; India to Australia.

#### *Synopsis of Indian Species.*

- a. Entirely pale above and below . . . . . *P. flavidus*, p. 266.  
 b. Variegated on under side of body and legs . . . . . *P. kochi*, p. 265.

325. *Palystes kochi*, *Simon, Act. Soc. Linn. Bord.* xxxiv, p. 265, 1881; *Thorell, Spiders of Burma*, p. 263, 1895; melanichnys, *id. Ann. Mus. Genova*, xxx, p. 53, 1890.

♀. *Colour*: integument of upper side of body and limbs covered with yellowish-white hairs; mandibles blackish, sternum and coxæ black; femora of 1st and 2nd legs and in a lesser degree of 3rd covered with close-set, alternating zigzag stripes of white and brown; tibiæ white with basal and apical black band; lower side of abdomen patched and lined with brown. *Carapace* with summits of eyes of anterior line on a level, laterals about one-fourth of their diameter above edge of clypeus. Lateral lobes of *vulva* meeting posteriorly in a long suture and circumscribing in front a transversely oval pit.

♂. Smaller: femora and tibiæ not variegated below; tibial apophysis of palp short, pointed, and directed downwards.

*Measurements in mm.*—♀. Total length 29, carapace 15, 1st leg 58; 4th leg 50. ♂. Total length 21, carapace 10, 1st leg 49, 4th 42.

*Loc.* Sylhet. Burma: Rangoon, Tenasserim (*Oates & Fea*). Also Sumatra.

326. *Palystes flavidus*, *Simon, Ann. Soc. Ent. Fr.* lxx, p. 489, 1896.

♀. Differing from *P. kochi* in being smaller, and entirely pale above and below. *Eyes* of anterior line strongly procurved, laterals and medians subcontiguous, upper edge of former just above centres of medians, laterals more than half a diameter above edge of clypeus. *Vulva* with lateral lobes widely separated by an oblong space occupied by a black V-shaped skeletal piece.

*Measurements in mm.*—Total length 15, carapace 7, 1st leg 28, 4th 23.

*Loc.* India: Trichinopoli (*Simon*); Allahabad (*Ryves*); Calcutta.

#### Genus SPARASSUS, Walck.

*Sparassus*, *Walckenaer, Tabl. Aran.* p. 39, 1805; *Simon, Hist. Nat. Araign.* ii. p. 46, 1897.

Of much the same form and size as *Heteropoda*, but with the eyes of the posterior line straight or slightly procurved, the laterals sessile, those of the anterior line usually straight and subequal, the laterals not larger than the medians; clypeus very low; tibiæ of anterior legs with only two pairs of inferior spines.

Type, *S. argelasius*, Walck.

*Distribution.* Tropical countries.

#### *Synopsis of Indian Species.*

##### *Males.*

- a. Tibia of palp with basal and apical apophyses.
  - a<sup>1</sup>. Basal apophysis strong and trifid . . . . . *S. tarandus*, p. 269.
  - b<sup>1</sup>. Basal apophysis slender and undivided. . . . . *S. tener*, p. 269.
- b. Tibia of palp with only apical apophysis.
  - a<sup>2</sup>. A triangular process beneath apophysis . . . . . *S. wroughtoni*, p. 268.
  - b<sup>2</sup>. No strong process beneath apophysis.
    - a<sup>3</sup>. Abdomen black below in middle . . . . . *S. lamarcki*, p. 267.
    - b<sup>3</sup>. Abdomen uniformly pale below.
      - a<sup>4</sup>. Mandibles brown; carapace as wide as long . . . . . *S. impudicus*, p. 268.
      - b<sup>4</sup>. Mandibles black; carapace longer than wide.
        - a<sup>5</sup>. Patella of palp unspined, wider than tibia . . . . . *S. stimulator*, p. 269.
        - b<sup>5</sup>. Patella of palp with external spine, not wider than tibia . . . . . *S. phipsoni*, p. 268.

##### *Females.*

- a. Lateral lobes of vulva almost meeting in the middle line throughout their length . . . . . *S. lutescens*, p. 269.

- b. Lateral lobes of vulva widely separated at least posteriorly.
- a<sup>1</sup>. Carapace as long as patella and tibia of 4th leg. . . . . *S. hirtus*, p. 267.
- b<sup>1</sup>. Carapace shorter than patella and tibia of 4th leg.
- a<sup>2</sup>. Abdomen uniformly pale below. . . . . *S. impudicus*, p. 268.
- b<sup>2</sup>. Abdomen black below in middle.
- a<sup>3</sup>. Cleft of vulva short, oval . . . . . *S. punctipes*, p. 268.
- b<sup>3</sup>. Cleft of vulva long, acutely angular in front.
- a<sup>4</sup>. Tibiæ of legs not spotted; coxæ paler than sternum. . . . . *S. lamarcki*, p. 267.
- b<sup>4</sup>. Tibiæ of legs spotted; coxæ and legs uniformly black . . . . . *S. senilis*, p. 267.

327. *Sparassus lamarcki*, Latreille, *Gen. Crust. etc.* i, p. 113, 1806 (Thomasis); Simon, *Act. Soc. Linn. Bord.* xxxiv, p. 301, 1881 (Olios).

♀. *Colour*: carapace deep brown, covered with yellowish-white hairs; mouth-parts and sternum black; legs with greyish-yellow hairy clothing; femora white below, mottled with black, with black patch at base and apex, tibiæ with black basal spot; abdomen black below, golden yellow varied with black above. *Carapace* a little longer than wide. *Vulva* with lateral lobes separated by a Λ-shaped cleft occupied by a median black skeletal piece, narrow in front, expanded behind.

♂. Smaller than ♀, paler; sternum, mouth-parts, and lower side of femora reddish, with white hairs; median ventral band of abdomen paler and narrower. Tibial apophysis of *palp* long, pointed, and straightened; palpal organ armed with a great forwardly-directed spike.

*Measurements in mm.*—♀. Total length 21, carapace 10, 2nd leg 42. ♂. Total length 13, carapace 6, 2nd leg 33·5.

*Loc.* Ceylon: Kandy and Trincomali (*Yerbury*); Punduloya (*Green*); Peradenya. India: Chingleput (*Jambunathan*); Coimbatore; Pondichery. Madagascar.

328. *Sparassus senilis*, Simon, *Act. Soc. Linn. Bord.* xxxiv, p. 303, 1881.

♀. Allied to the preceding, but apparently differing in having the coxæ black like the sternum, and the tibiæ spotted below like the femora, the median skeletal piece of the vulva triangular, and the carapace as wide as long.

*Measurements in mm.*—Length of carapace 8·4, 2nd leg 37·6.

*Loc.* Ceylon (*Simon*).

329. *Sparassus hirtus*, Karsch, *Zeits. ges. Naturw.* lii, p. 560, 1879 (Pelmopoda).

♀. *Colour* much as in the preceding two species, but with the

femora and tibiæ not spotted below. *Carapace* as long as patella and tibia of 4th leg.

*Measurements in mm.*—Total length 24, carapace 8·5, 2nd leg 35·5.

*Loc.* Ceylon (*Nietner*).

330. *Sparassus wroughtoni*, *Simon, Mém. Soc. Zool. Fr.* x, p. 257, 1897.

♂. Differing from ♂ of *S. lamarcki* in having carapace, mouth-parts, legs, and sternum uniformly ochre-yellow, clothed with white hairs; under side of abdomen uniformly pale, upper side with obscure pattern. Tibia of *palp* shorter, its apophysis double, the upper branch long, bent at right angles distally, lower branch short and triangular.

*Measurements in mm.*—Total length 15, carapace 7, 2nd leg 32.

*Loc.* North Konkan, Bulsar in Guzerat (*Wroughton*); Matheran (*Phipson*); Uran (*Aitken*).

331. *Sparassus phipsoni*, *Pocock, Jour. Bom. N. H. Soc.* xii, p. 752, 1899.

♂. Resembling *S. wroughtoni* in colour, but with mandibles black and a small black patch on base of tibiæ. *Palp* much like that of *S. lamarcki*, but with tibial apophysis lightly concave on inner side when viewed from above, and process on tarsus much shorter and less claw-like.

*Measurements in mm.*—Total length 19, carapace 9·5, 2nd leg 50.

*Loc.* Bombay (*Phipson*).

332. *Sparassus impudicus*, *Thorell, Ann. Mus. Genova*, xxv, p. 241, 1887.

♀. Paler and more uniformly coloured than *S. lamarcki*; integument yellowish, covered with white hairs; femora indistinctly mottled below, tibiæ with indistinct basal spot. *Vulva* with median cleft very short and filled with amber-yellow sclerite.

♂. Like ♀ in colour, but with mandibles brown. Tibial apophysis of *palp* stouter than in *S. lamarcki*, with much larger convexity on its inner margin; palpal organ furnished with externally projecting tooth.

*Measurements in mm.*—♀. Total length 25, carapace 10, 2nd leg 40. ♂. Total length 17, carapace 8, 2nd leg 44·5.

*Loc.* Burma: Tharrawaddy (*Outes*); Me-tan-ja (*Fea*); Andaman Islands (*Outes*). Also Sumatra.

333. *Sparassus punctipes*, *Simon, Ann. Mus. Genova*, xx, p. 339, 1884 (*Olios*); *Thorell, op. cit.* xxv, p. 244 (1887): *venustus et callipygus, id. loc. cit.* pp. 248 & 250, 1887: *punctipes, var. sordidata, id. Spiders of Burma*, p. 271, 1895 (*Sarotes*).

♀. *Colour* variable; typical form not so dark as *S. lamarcki*; sternum and coxæ yellowish brown, extremities of femora, patellæ,

and tibiæ with black rings, femora of anterior two pairs spotted below; ventral area of abdomen not so black. In var. *sordidulus* the whole integument is blackish, and the upper side of the abdomen is scarcely varied. Cleft of *vulva* consisting of a short oval space at posterior end of the plate.

Total length 24 mm., carapace 10, 2nd leg 40.

Loc. Burma: Minhla (*Comotto*); Tharrawaddy (*Oates*).

334. *Sparassus lutescens*, *Thorell, Bih. Sc. Vet.-Akad. Handl. xx*, pt. iv, no. 4, p. 12, 1894; *id. Spiders of Burma*, p. 272, 1895 (*Midamus*).

♀. Of small size, entirely pale, the protarsi sometimes spotted above at base and apex. *Carapace* as wide as long. *Vulva* with lateral lobes separated throughout their length by a narrow median cleft, each lobe divided by a transverse groove into an anterior larger, darker, and a posterior, smaller, paler portion.

Total length 10 mm., carapace 3.5, 2nd leg 19.

Loc. Burma: Tharrawaddy (*Oates*).

335. *Sparassus tener*, *Thorell, K. Sc. Vet.-Akad. Handl. xxiv*, pt. 1, no. 2, p. 80, 1891.

♂. Colour much as in *S. lutescens*. *Palp* with two long, strong, forwardly-directed tibial apophyses, one external at base, the other inferior at apex.

Total length 7.5 mm., carapace 3.25, 2nd leg 22.

Loc. Assam.

336. *Sparassus tarandus*, *Simon, Bull. Mus. d'Hist. Nat.* 1897, p. 294.

♂. *Colour* pale, carapace with radiating dark stripes; abdomen with median dorsal dark band; mandible brown. *Palp* with two tibial apophyses as in *S. tener*: one at apex, long, slender, acute and sinuous; the other basal, ending in a strong compressed trifid extremity.

Length 12 mm.

Loc. Karachi (*Muindron*).

337. *Sparassus stimulator*, *Simon, Mém. Soc. Zool. Fr.* x, p. 258, 1897.

♂. Nearly allied to *S. phipsoni*, but, according to the description, differing in having the patella of the palp unspined, exceeding the tibia in breadth and equalling it in length.

Total length 18 mm.

Loc. Himalayas, 2000-2800 ft. (*Smythies*).

The following species of *Sparassus*, based upon immature specimens, are not classifiable:—

*Sparassus fugax*, *O. P. Cambridge, Araneidea, Second Yarkand Exped.* p. 73, 1885.—*Loc.* Murree to Sind Valley (*Stoliczka*).

*Sparassus patagiatus*, *Simon, Mém. Soc. Zool. Fr.* x, p. 256, 1897.—*Dehra Dún* (*Smythies*).



Genus **THELCTICOPIS**, *Karsch.*

*Thelcticopis*, *Karsch*, *SB. Ges. Nat. Marburg*, 1884, p. 64.

*Thelcticopis*+*Seramba*, *Simon*, *Hist. Nat. Araign.* ii. p. 72, 1897.

*Carapace* longer than in *Sparassus*, longitudinally convex; eyes of posterior line procurved, laterals sessile, anterior medians larger than laterals; clypeus low. *Mandible* with fang-groove armed behind with 5-6 small teeth. *Legs* short, less laterigrade, 1st longer than 2nd or equal to it; anterior tibiæ with 5 to 7 pairs of inferior spines. *Spinners* supported on a membranous stalk strengthened by a hairy chitinous ring.

Type, *T. severus*, L. Koch.

*Distribution.* Ceylon and Burma to the Solomon Islands.

*Synopsis of Indian Species.**Males.*

- a.* Tibial apophysis single, long, arcuate . . . . . *T. nalandicus*, p. 270.  
*b.* Tibial apophysis shorter, bifid.  
*a*<sup>1</sup>. Branches of apophysis equal . . . . . *T. canescens*, p. 271.  
*b*<sup>1</sup>. Branches of apophysis unequal . . . . . *T. paripes*, p. 271.

*Females.*

- a.* Eyes of both lines subequally spaced; abdomen variegated.  
*a*<sup>1</sup>. Abdomen flavous, variegated with black . . . . . *T. nalandicus*, p. 270.  
*b*<sup>1</sup>. Abdomen black, variegated with pale spots above . . . . . *T. pictus*, p. 271.  
*b.* Lateral eyes further from medians than the latter are from each other.  
*a*<sup>2</sup>. Cleft of vulva narrow, parallel-sided, integument blackish . . . . . *T. canescens*, p. 271.  
*b*<sup>2</sup>. Cleft of vulva oval, narrower behind than in front; integument reddish brown . . . . . *T. birmanicus*, p. 271.

338. *Thelcticopis nalandicus*, *Karsch*, *Berl. ent. Zeits.* xxxvi, p. 293, pl. xi, fig. 15, 1892: *nigropicta*, *Pocock*, *Jour. Bom. N. H. Soc.* xii, p. 573, 1899 (*Stasina*).

♀. *Colour*: carapace and legs reddish, clothed with whitish hairs intermixed with black; abdomen greyish, variegated above with black spots and stripes. *Eyes* of both lines subequally spaced. Tibiæ of anterior *legs* with 7 pairs of inferior spines.

♂. Smaller than female. Tibial apophysis stout at base, strongly arched, narrow and pointed at apex.

♀. Total length 13.5 mm., carapace 6, 1st leg 18.5.

♂. Total length 9.8 mm., carapace 4.5, 1st leg 18.

*Loc.* Ceylon: Matale, Nalanda (*Sarasin*); Punduloya (*Green*).

339. *Thelcticopis paripes*, *Karsch, Zeits. Naturw.* lii, p. 559, t. vii, f. 7, 1879 (Themeropis); *id. Berl. ent. Zeits.* xxxvi, p. 293, 1892 (Stasina).

♂. Resembling the preceding, but with the anterior median eyes nearer to each other than to the laterals. Tibial apophysis double, consisting of an inner branch, long, crooked, and sharp, and an outer short, conical, diverging at a right angle.

Total length 14 mm., carapace 6, 1st leg 22.

*Loc.* Ceylon (*Nietner*).

340. *Thelcticopis canescens*, *Simon, J. A. S. B.* lvi, p. 103, 1887.

♀. *Colour*: integument deep reddish brown, hairs on carapace white, on abdomen ashy yellow; ventral area not black. *Tibiæ* of anterior two pairs of legs with 5 pairs of inferior spines. *Vulva* oblong, marked with a median wide reddish groove.

♂. Tibial apophysis of palp consisting of two long subequal smooth processes.

♀. Total length 21 mm., carapace 9, 1st leg 24.

♂. Length of carapace 8 mm., 1st leg 27.7.

*Loc.* Hills between Burma and Siam.

341. *Thelcticopis birmanicus*, *Thorell, Spiders of Burma*, p. 274, 1895.

♀. Principally differs from *T. canescens* in being of a paler hue, the carapace being reddish and the legs yellowish brown. Cleft of *vulva* broad in front, narrowed behind, occupied by a piriform sclerite.

Total length 14 mm., carapace 6.5, 1st leg 18.

*Loc.* Tenasserim (*Oates*).

342. *Thelcticopis pictus*, *Thorell, Ann. Mus. Genova*, xxv, p. 254, 1887 (Seramba).

Apparently resembling *T. nalandicus* in most structural characters and in coloration, but with the hairy clothing of the carapace and legs olive-yellow; the abdomen black, ornamented above with pale spots and stripes. Anterior *tibiæ* armed below with 5 pairs of spines. Cavity of *vulva* nearly circular, occupied by Y-shaped sclerite.

Total length 21 mm.

*Loc.* Burma: Shwegoo Myo (*Fea*).

The following species of this family, based upon an immature female example, is of doubtful generic position:—

- Holconia armillata*, *Thorell, Ann. Mus. Genova*, xxv, p. 233, 1897.—  
*Loc.* Burma; Shwegoo Myo (*Fea*).

## Family PLATORIDÆ.

*Body* very flat, legs completely laterigrade; *carapace* much wider than long, head narrow. *Mandibles* weakly armed, labium longer than wide, maxillæ directed obliquely inwards. *Sternum* much wider than long, not narrowed behind. Coxæ of *legs* long, the posterior widely separated, 1st leg shorter than the rest, 2nd longest; no scopulæ or unguis tufts; anterior legs armed with erect spiniform bristles; claws two in number and toothed. Spinners short, those of anterior pair widely separated, the intermediate pair occupying the space between them.

*Distribution.* North India; China; S. America.

Genus **PLATOR**, Simon.

Plator, *Simon, Ann. Soc. Ent. Fr.* (5) x, p. 105, 1880; *Hist. Nat. Araign.* ii. p. 18, 1897.

Characters as above.

Type, *P. insolens*, Sim.

*Distribution.* N. India; China.

343. **Plator indicus**, *Simon, Mém. Soc. Zool. France*, x, p. 256, 1897 (♂): *ixodinus, Pocock, Jour. Bom. N. H. Soc.* xii, p. 753, 1899 (♀).

♀. *Colour*: carapace and legs reddish yellow; carapace black about the eyes, and with narrow black marginal line; posterior legs with black line running down the middle of patella, tibia, and protarsus; abdomen olive-green, paler below, darker round edge.

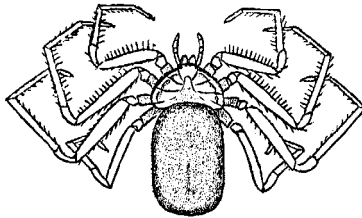


Fig. 89.—*Plator indicus*, ♀, ×2.

*Eyes* of anterior line distinctly separated; anterior legs furnished below with many spiniform setæ, stronger on the protarsus than elsewhere. *Vulva* consisting of a large piriform horny plate, furnished posteriorly with a pair of crescentically-curved darker contiguous thickenings.

♂. Much like ♀, but with anterior eyes larger and almost in contact.

Total length about 10 mm.

*Loc.* Himalayas and Western India: Poona and Konkan (*Simon*); Konain, 7800 ft.; Mundali, 8000 ft. (*Gleadow*); Dalhousie (*Townsend*).