

SOME INDIAN SPIDERS OF THE FAMILY HERSILIIDAE.

By T. B. SINHA, M.Sc., F Z. S. Research Scholar, Zoological Survey of India, Calcutta.

INTRODUCTION.

The following study is based on unnamed spiders of the family Hersiliidae present in the Collection of the Zoological Survey of India. (Indian Museum) Calcutta. The material comprises seven species, of two genera, as follows :—

Genus **Hersilia** Audouin.

1. *H. savignyi* Lucas.
2. *H. pectinata* Thorell.
3. *H. stevensi*, sp. nov.
4. *H. kalimpongensis*, sp. nov.
5. *H. moulmeinensis*, sp. nov.
6. *H. fletcheri*, sp. nov.

Genus **Tama** Simon.

7. *T. gravelyi*, sp. nov.

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SYSTEMATIC ACCOUNT.

Genus **Hersilia** Audouin.

(Type: *H. caudata*, Audouin, Egypt).

1826*. *Hersilia*, Audouin, in *Sav. Descript. Egypte Arach.* p. 114.

1895. *Hersilia*, Thorell, *Descriptive Catalogue of the Spiders of Burma*, p. 56.

1900. *Hersilia*, Pocock, *Faun. Brit. Ind. Arach.* p. 241.

1921. *Hersilia*, Gravely, *Rec. Ind. Mus.* XXII, p. 410.

1936. *Hersilia*, Dyal, *Bull. Dept. Zool. Panjab Univ. Lahore, I*, p. 127.

* Could not be consulted in original.

Distribution.—Africa, Madagascar, and Oriental region.

Key to the species of Hersilia.

a. FEMALES.

- | | | |
|---|-------------------------------|-------------------------------------|
| 1. Clypeus longer than the length of the ocular quadrangle. | | 2 |
| Clypeus shorter than the length of the ocular quadrangle. | | 4 |
| 2. Vulva bilobed | <i>H. savignyi</i> Lucas. | |
| Vulva trilobed | | 3 |
| 3. Median lobe of vulva posteriorly rounded. | <i>H. stevensi</i> , sp. nov. | |
| Median lobe of vulva posteriorly angular. | <i>H. pectinata</i> Thorell. | |
| 4. Vulva without a pair of apertures; Side lobes fairly bigger in size than the median lobe | | <i>H. moulemeinensis</i> , sp. nov. |
| Vulva with a pair small apertures; Side lobes and median lobe practically of the same size | | <i>H. fletcheri</i> , sp. nov. |

b. MALES.

- | | | |
|--|-------------------------------------|---------------------------|
| 1. Patella of palp raised. Tibia of palp unarmed. | | <i>H. savignyi</i> Lucas. |
| Patella of palp not raised. Tibia of palp armed or unarmed | | 2 |
| 2. Tibia of palp unarmed | <i>H. kalimpongensis</i> , sp. nov. | |
| Tibia of palp armed | <i>H. pectinata</i> Thorell. | |

Hersilia savignyi Lucas.

1836*. *Hersilia savignyi*, Lucas, *Mag. Zool.* 6 anne, Classe, VII, fig. 1.

1900. *Hersilia savignyi*, Pccock, *Faun. Brit. Ind. Arach.* p. 241, fig. 82.

1921. *Hersilia savignyi*, Gravely, *Rec. Ind. Mus.* XXII, p. 410.

1936. *Hersilia savignyi*, Dyal, *Bull. Dept. Zool. Panjab Univ. Lahore* 1, p. 218, pl. xii, figs. 18-21.

Material examined.—

CEYLON.—Peradeniya, viii. 1910 (1♂, Juv.); Colombo, 19-ii-1914 (2♂, 1♀). INDIA. Travancore: Arakutti, 24-i-1928 (*H. S. Rao*) (1♂). Cochin State: Trichur, 0-300 ft., 1-4-x-1914 (*F. H. Gravely*) (1♂, 1♀); Chalakudi, 14-30-ix-1914 (*F. H. Gravely*) (1♂, 1♀). Mysore State: Bangalore, Ca. 3,000 ft., 15-x-1910 (*N. Annandale*) (1♂, 1♀). Madras, 8-ix-1914 (*F. H. Gravely*) (1♀). Bombay State: Koyna Valley, Jambhi, Ca. 2,100 ft., 24-26. iv. 1912 (*F. H. Gravely*) (1♀); Yenna Nalley, Medha, Ca. 2,200 ft., 17-23. iv. 1912 (*F. H. Gravely*) (3♀, 1 Juv.); Vulvan, 28-x-1912 (1♂, 1♀) Orissa: Puri, 20-viii-1911 (*N. Annandale & F. H. Gravely*) (2♂, 7♀), 24-28-i-1911 (*N. Annandale & F. H. Gravely*) (1♂, 5♀, 2 Juv.); Satpara, 16-ii-1914 (*S. W. Kemp*) (1♀); Chilka, Rambha Lake, 24-i-1914. (*N. Annandale*) (1♀). Uttar Pradesh: Dehra Dun, 16-ix-1914 (*N. C. Chatterji*) (1♀); Bara Banki, Mowai, 11-13-v-1910 (*M. M.*) (1♀). Bihar: Dinapur, 16-xii-1914-23-i-1915 (*Caunter*) (5♀, 3 Juv.); Siripur, viii-1913 (*Mackenzie*) (1♂, 5♀); Pusa, 5-10-ii-1915 (*F. H. Gravely*) 5♂, 9♀, 4 Juv.); Katihar, 8-31-viii-1914 (*C. Paiva*) (1♂, 1♀); Ranchi, Village Kumto near Lahardaga, 24-x-1928 (*M. shariff*) (1♀); Chota Nagpur, Chakardharpur, 29-ix-x-10-1911 (*F. H. Gravely*) (1♂, 6♀), 27-28-xii-1910 (*F. H. Gravely*), (1♂, 1♀). Bengal: Serampur, 1916 (*Mrs. Drake*) (1♂), 7-ii-1916 (*Mrs. Drake*) (1♀), I-1915 (*Mrs. Drake*) (4♂); Sibpore, Botanical Gardens, 4-iv-1913 (*F. H. Gravely*) (1♀), Calcutta, Museum Compound, 15-i-1911 (*F. H. Gravely*) (1♀), 29-viii-1911 (*F. H. Gravely*) (1♀), vi-1914 (*F. H. Gravely*) (♀), 21-vii-1914 (*F. H. Gravely*) (1♂), Calcutta Maidan, 7-i-1911 (*F. H. Gravely*) (1♂), at light^b (1♀), 5-viii-1911 (*F. H. Gravely*) (1♂), Rains 1912 (*F. H. Gravely*) (1♂), 19-vii-1914 (*C. Paiva*) (1♂), (3♂, 3♀); Jessore, Harail (1♀). BURMA.—Lashio, 3,000 ft. 23-viii-1914 (*T. B. Fletcher*) (1♂); Pegu (4♂, 2♀).

Besides the above mentioned localities, specimens from Matheran, S. INDIA are also present in the named collection of the Zoological Survey of India.

*Could not be consulted in original.

Measurements.—♀. Body 10 mm. long; Carapace 3.5 mm. long.
♂. Body 6.5 mm. long; Carapace 3 mm. long.

Distribution.—Ceylon, India, Pakistan, Burma.

***Hersilia pectinata* Thorell.**

1895. *Hersilia pectinata*, Thorell, *Descriptive Catalogue of the Spiders of Burma* p. 58, (*Type-locality*; Rangoon, Burma).

1900. *Hersilia pectinata*, Pocock, *Faun. Brit. Ind. Arach.* pp. 241, 242.

Material examined.—

CEYLON.—Peradeniya, 4-iv-1910 (2♂). INDIA.—Mysore State: Coorg, Savira-Butti near Polkibetta, 22-v-1914 (*T. B. Fletcher*) (1♀).

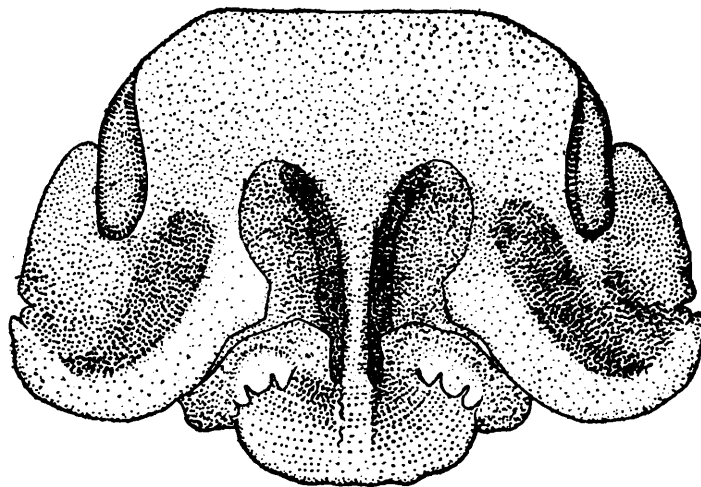
It is with hesitation that the Savira-Butti specimen has been assigned to this species, as the epigyneal plate is not very clear.

Measurements.—♂. Body 12.1 mm. long; Carapace 3.8 mm. long.
♂. Body 10.8 mm. long; Carapace 3.5 mm. long.

Distribution.—Ceylon, India, Burma, and Malaya Peninsula.

***Hersilia stevensi*, sp. nov.**

The dorsum of the abdomen is yellow and has four pairs of spots, besides the black mid-longitudinal band which is narrower posteriorly. This band is crossed over along its length by four transverse black lines. The venter of the abdomen is olive yellow and so is the sternum. The tibia and the tarsi of the pedipalp are marked with black spots basally and dorsally and the tips of the tarsi are also black.



TEXT-FIG. 1.—Vulva of *Hersilia stevensi*, sp. nov. : ×40.

The cephalic region is clothed with thick silvery pubescence and the clypeus much exceeds the length of the ocular quadrangle.

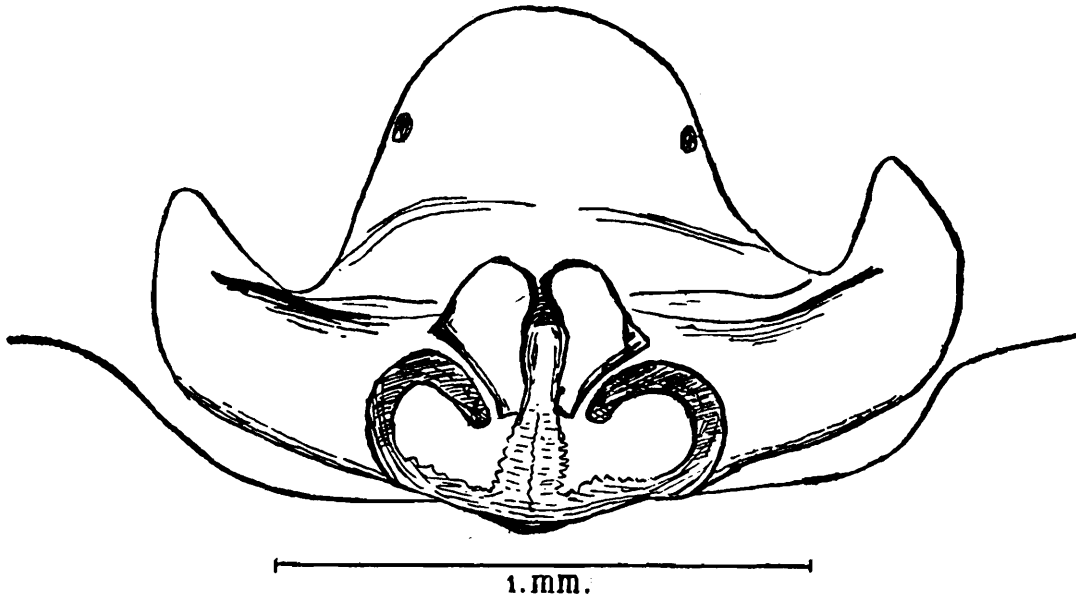
The vulva (Text-fig. 1) is trilobed and the lateral lobes are very big while the median lobe is rounded posteriorly.

The species is close to *H. pectinata* Thorell, but differs from it in the shape of the median lobe being rounded posteriorly in this species, while it is angular posteriorly in *H. pectinata* Thorell (Text-fig. 2).

Measurements.—Body 10 mm. long; Carapace 4.2 mm. long.

Material examined.—

Holotype. Reg. No. 2280/18, Zoological Survey of India (Gopaldhara, Darjiling district of E. Himalayas, 1916, *H. Stevens*, ♀). *Paratypes.*—Reg. No. 2287/18, Zoological Survey of India (Gopaldhara, Darjiling district of E. Himalayas, 1916, *H. Stevens*, 2♀).



TEXT-FIG. 2.—Vulva of *Hersilia pectinata* (from Punduloya, Ceylon. Reproduced with the kind permission of the authorities of the *Brit. Mus. Nat. Hist. Lond.*)

***Hersilia kalimpongensis*, sp. nov.**

In general coloration it resembles *H. savignyi* Lucas. Legs seem to have black annulations which have faded due to long immersion in spirit. This species is characterised by the absence of a raised conical prominence on the patella and by the absence of spinules on the tibia of the palp. The femur is dorsally beset with a pair of strong hairs near its distal end in addition to a number of smaller ones. The clypeus is shorter than the length of the ocular quadrangle.

The species is close to *H. clathrata* Thorell but differs from it in having only one pair of black spots on either side of the middle on the dorsum of the abdomen and the length of the first femur which is shorter than thrice the length of the carapace.

Measurements.—Body 4.8 mm. long; Carapace 2.2 mm. long; First femur 6.3 mm. long.

Material examined.—

Holotype. Reg. No. 2281/18, Zoological Survey of India (Kalimpong, 4,100 ft. Darjiling district of E. Himalayas, 1-ix-1916, *S. W. Sutherland* ♂). Left palpus of the Holotype mounted on a slide Reg. No. 2285/18, Zoological Survey of India.

***Hersilia moulmeinensis*, sp. nov.**

Three pairs of spots are seen on the dorsum of the abdomen. Due to long immersion in spirit the general coloration has become dull.

The clypeus is shorter than the length of the ocular quadrangle and the femur is slightly smaller than thrice the length of the carapace.

Vulva is trilobed as seen in the text-fig. 3*b*. The side lobes are very big and are narrowly separated from each other by a slender median lobe. A pair of apertures which are seen on epigyneal plate of the succeeding species are absent in this.

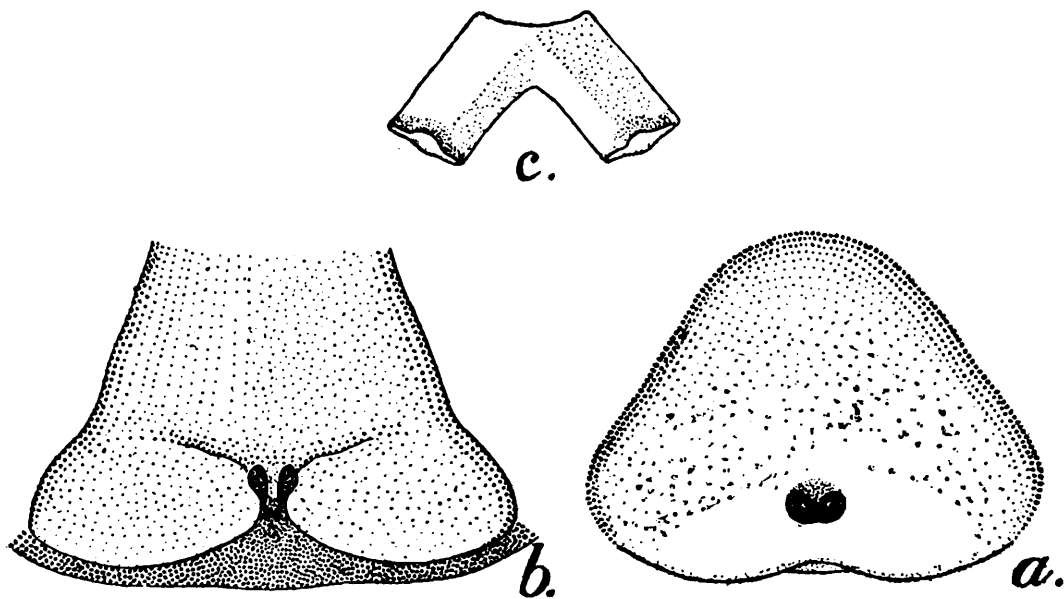
Measurements.—Body 8.6 mm. long; Carapace 3.6 mm. long; First femur 10.6 mm. long.

Material examined.—

Holotype. Reg. No. 2282/18, Zoological Survey of India (Moulmein, Burma, ♀)

Hersilia fletcheri, sp. nov.

In general coloration it is akin to *H. pectinata* Thorell and has the clypeus shorter than the length of the ocular quadrangle. Three pairs of spots are present on either side of the middle on the dorsum of the abdomen.



TEXT-FIG. 3. *a.*—Vulva of *Hersilia fletcheri*, sp. nov. : $\times 40$; *b.* Vulva of *H. moulmeinensis*, sp. nov. : $\times 40$; *c.* Vulva of *Tama gravelji*, sp. nov. : $\times 40$.

Vulva (Text-fig. 3*a*.) is trilobed and is with a pair of apertures on the epigyneal plate. The median lobe is practically of the same size as the side lobe and is rounded posteriorly.

The species differs from *H. moulmeinensis* in having a pair of apertures on the epigyneal plate and in the size of the side and median lobes which are nearly of the same size.

Measurements.—Body 9.9 mm. long; Carapace 3.6 mm. long, First femur 11.2 mm. long.

Material examined.—

Holotype. Reg. No. 2283/18, Zoological Survey of India (Moulmein, Burma, on a tree, 16-x-1914, *T. B. Fletcher*, ♀).

Genus *Tama* Simon.

(Type, *T. edwardsi* Lucas, Algeria, N. Africa.)

1882. *Tama*, Simon, *Ann. Mus. Stor. nat. Genova*, XVIII, p. 256

1900. *Tama*, Pocock, *Faun. Brit. Ind. Arach.* p. 242.

Distribution.—Africa ; Oriental region ; Australia and America.

***Tama gravelyi*, sp. nov.**

Carapace is blackish with a reddish line in the middle which bifurcates anteriorly and demarcates the cephalic from the thoracic region. The ocular quadrangle is a little wider than long and much exceeds the length of the clypeus, which is slightly longer than the diameter of the anterior median eyes. The sternum is slightly wider than long and is of olive-yellow colour.

The dorsum of the abdomen is mottled and a pale mid-longitudinal band extends backwards from the anterior margin up to the middle of the abdomen. The posterior half of the abdomen is more thickly mottled than the anterior half and has a few scattered spots in the anterior region. Three pairs of dark circular spots, of which the anterior ones being the largest, are present about the middle and posterior to the pale mid-longitudinal band. The venter of the abdomen, is, uniformly olive-yellow, but for the eight pairs of dark spots in the area between the epigynum and spinners.

Vulva is bilobed as seen in the text-fig. 3c. This species differs from *T. variata* Pocock in the shape of the vulva which is bilobed in this new species.

Measurements.—Body 8·7 mm. long ; Carapace 3·7 mm. long.

Material examined.—

Holotype. 2284/18, Zoological Survey of India (Cochin State, Kavalai, 1,300-3,000 ft. 24-27-ix-1914, *F. H. Gravely*, ♀). *Paratypes*.—Reg. No. 2286/18, Zoological Survey of India (Cochin State, Kavalai, 1,300-3,000 ft., 24-27-ix-1914, *F. H. Gravely*, 2♀).