

## Additional information concerning the spider family Psecridae

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### Summary

The synonymy of *Fecenia travancoria* Pocock, 1899 with *F. macilenta* (Simon, 1885) is disclaimed, and the female of *F. macilenta* is described. A new species of *Psecchrus* from the Philippines, *P. cebu* sp.n., is reported and described.

### Introduction

A revision of the spider family Psecridae, with its two constituent genera *Psecchrus* and *Fecenia*, was presented by Levi (1982). Although quite large in size and commonly seen hanging under their large, domed webs in the field at certain seasons of the year, specimens of *Psecchrus* are exasperatingly difficult to capture. On the other hand, species of *Fecenia* which are of comparable size and shape, are easy to capture but difficult to spot, hidden in a curled leaf retreat in the centre of their somewhat orb-like web. At any event, at the time of the revision there was a notable shortage of mature specimens in museums around the world.

### Genus *Fecenia* Simon, 1887

In September 1981, just too late for inclusion in Levi's revision, I received from Mrs Wendy Corley, then living at Banting, Selangor, Malaya, a pair of a *Fecenia* species which had been collected together in a typical curled leaf retreat. This leaf was some 8 cm long and the edges of the leaf were held together by silk. At the mouth of the retreat was the debris of past meals which on close investigation turned out to consist solely of beetles. Mrs Corley's letter continues "The web was about one foot diameter, at eye level by the side of a path and in a vertical plane. The web gave a good impression of being a messed up orb web but had no radii and the radial connections seemed haphazardly arranged".

The male of this pair was found to agree with the description of the male *Fecenia macilenta* (Simon, 1885) given by Levi in his revision, but the female did not. On the scant evidence available at the time of the revision, the holotype female of *F. travancoria* Pocock, 1899 had been matched with the holotype male of *F. macilenta*. This synonymy is thus not substantiated. Consequently, *F. travancoria* reverts to its former species status and *F. sumatrana* Kulczynski, 1908 now becomes a junior synonym of *F. travancoria*. The general appearance of the two Singapore specimens in the British Museum collection, recorded by Levi as *F. macilenta* and examined by me, suggests that they probably represent a new species. Finally, in his revision, Levi placed *F. protensa* Thorell, 1891 (based on a juvenile female from the Nicobar Islands) in

"doubtful synonymy" with *F. macilenta*. Fortunately, this appears to be highly likely, as the figure of the epigynal region of *F. protensa* given by Levi is closer to that of *F. macilenta* than to that of *F. travancoria*.

### *Fecenia macilenta* (Simon) (Figs. 1, 2)

*Mezentia macilenta* Simon, 1885: 451, pl. 10, fig. 17.

*Fecenia macilenta*: Simon, 1892: 225, fig. 171, 172. Roewer, 1954: 1376. Bonnet, 1956: 1897. Levi, 1982: 136, figs. 83-87, 92.

### Description of female

The generic characters of the female conform to those given in Levi (1982).

**Total length:** 11.6 mm. **Carapace:** Length 5.0 mm, width 3.3 mm; mainly light yellow, darkening anteriorly to orange-red; shape, rather flat with cephalic part slightly raised; striae radiating from a central hollow; tegument smooth. **Eyes:** Similar to those of male, more or less circular, with thin or no dark rings and anterior medians located on a small protuberance. **Clypeus:** More or less vertical with a few forward-pointing bristles and lacking the two small bumps which occur in the male; height rather less than twice diameter of anterior median eyes. **Chelicerae:** Yellow-orange, deeper than carapace, becoming dark orange apically near outer edge; parallel, tapering slightly near apex; covered with spaced dark hairs on front face becoming denser near inner edge, particularly at apex where the hairs form tufts; 4 strong teeth on inner margin, 3 grouped together apically; 3 teeth on outer margin, the central being largest of all the teeth. **Labium, maxillae, coxae and trochanters:** Similar to those of male. **Abdomen:** Covered with brownish pubescence dorsally and with 3 lighter patches on sides; ventrally blackish, almost hour-glass pattern with white insets, lying between epigastric fold and cribellum. **Spinners:** Similar to those of male. **Palps:** Pale yellow femora, gradually darkening towards tarsi, which have orange tips. **Legs:** Anterior legs uniform light orange; posterior legs mainly lighter yellow but with blackish annulations on tibiae, femora III and all segments of leg IV except tarsi (this pattern appears to be in contrast to the more uniform coloration of legs of male); legs long and thin, but much shorter than those of male; lengths to nearest mm (I-IV) 27, 17, 11, 15. **Epigyne and vulva** (Figs. 1, 2): From the figures given in Levi (1982), the epigyne appears nearer to that of *F. ochracea* (Doleschall) than to that of *F. travancoria*.

The male taken with this female had corresponding leg lengths of 50, 25, 14, 23. According to Levi leg I of the holotype male measured 68 mm.

**Material examined:** The above female and accompanying male, collected from a curled leaf retreat in a web by Mrs W. Corley at Banting, Selangor, Malaya in August 1981. These specimens (J. & F. Murphy vial 9632) have been deposited in the British Museum (Natural History).

**Distribution:** Malacca and Selangor, Malaya and possibly, Singapore.

**Key to species of *Fecenia* (♀)**

The key to females of *Fecenia* given in Levi (1982) is now modified as follows:

1. Epigynum with a median structure ..... 2  
— Epigynum with a median depression.....Burma.....  
..... *cylindrata*
2. Epigynum with a wide median tongue.....Malaya  
to Solomon Is. .... 3  
— Epigynum with a narrow median sclerotised  
structure, pointing anteriorly.....India to  
Sumatra ..... *travancoria*
3. Epigynal median tongue more or less rectangular.  
.....Philippines to Solomon Is. .... *ochracea*  
— Epigynal median tongue semicircular (Fig. 1).....  
Malaya ..... *macilenta*

**Genus *Psechrus* Thorell, 1878**

Since 1982 a new species of *Psechrus* has been collected from caves near Cebu city, on the island of Cebu in the Philippines. A female was taken inside Cave 7, Camp 7, near the entrance, in March 1983 by G. Alberti. A few months later, in January 1984, 2 females and a male were taken by Fr. Schoenig in White Cave, Camp 7. The nature of the web of this cave-dwelling *Psechrus* was not revealed and it is not known whether the escape route is more restricted than for those species that build in vegetation. Anyway, 3 females and 1 male is quite a good haul for a psechruid species.

***Psechrus cebu* sp.n. (Figs. 3-6)****Description of paratype female**

**Total length:** 19.0 mm. **Carapace:** Length 7.8 mm, width 4.7 mm; shape similar to that figured by Levi for *P. argentatus* (Doleschall) but with anterior part wider. Also the thin median, longitudinal, white stripe expands behind posterior eyes, whilst the lateral white bands are broken. **Clypeus:** Not as high as that figured for *P. argentatus*. **Chelicerae, sternum, labium, maxillae, coxae and abdomen:** Typical for genus; ventral side of abdomen has a thin, continuous, median white line with no discrete, terminal white dot.

**Legs:** Dull brown with darker brown annulations on tibiae and patellae, less clear on femora; metatarsi and tarsi lighter coloured and more or less lacking annulations; leg lengths to nearest mm (I-IV) 54, 41, 26, 41. **Epigyne and vulva** (Figs. 3, 4): These are of the same general form as those figured for *P. singaporensis* Thorell.

**Description of holotype male**

The general colour, pattern and shape are as for the above female, but the specimens differ noticeably in leg lengths.

**Total length:** 18.0 mm. **Carapace:** Length 6.8 mm, width 4.8 mm. **Leg lengths** to nearest mm 72, 53, 36, 55. **Male palp** (Figs. 5, 6): Somewhat similar to that of *P. singaporensis* but with a longer, less tooth-like embolus possessing a small, but noticeably lateral, protuberance externally at about midway.

**Material examined:** Male holotype and 2 female paratypes from White Cave, Camp 7, Cebu, Philippines, coll. Fr. Schoenig, 17 January 1984 and 1 female paratype from Cave 7, Camp 7, coll. G. Alberti, March 1983. All deposited in Museum of Comparative Zoology, Harvard University.

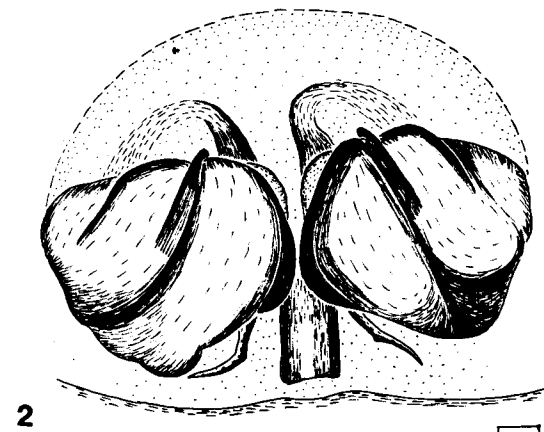
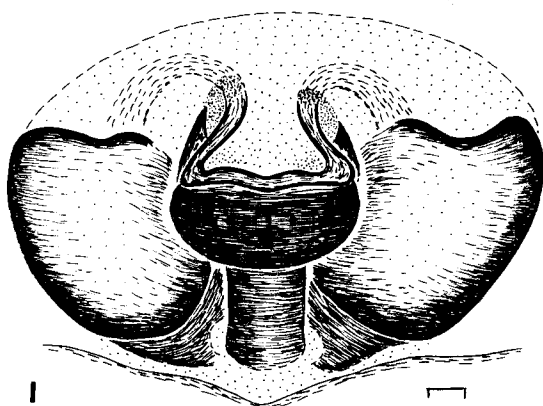
**Distribution:** Known only from Cebu, Phillipines.

**Keys to species of *Psechrus***

The keys for species of *Psechrus* given in Levi (1982) are now modified as follows:

**Males** (Males of *P. ghecuanus* and *P. borneo* are unknown)

1. Palpal femur modified with hump, large tooth or notch ..... 4  
— Palpal femur without such modification ..... 2
2. Palpal bulb with duct having S-shaped loop.....  
Himalayas ..... *marsyandi*  
— Palpal bulb with duct simply curved ..... 3
3. Embolus V-shaped, its length supported by  
conductor.....Himalayas ..... *himalayanus*  
— Embolus filiform, curved laterally, only the tip



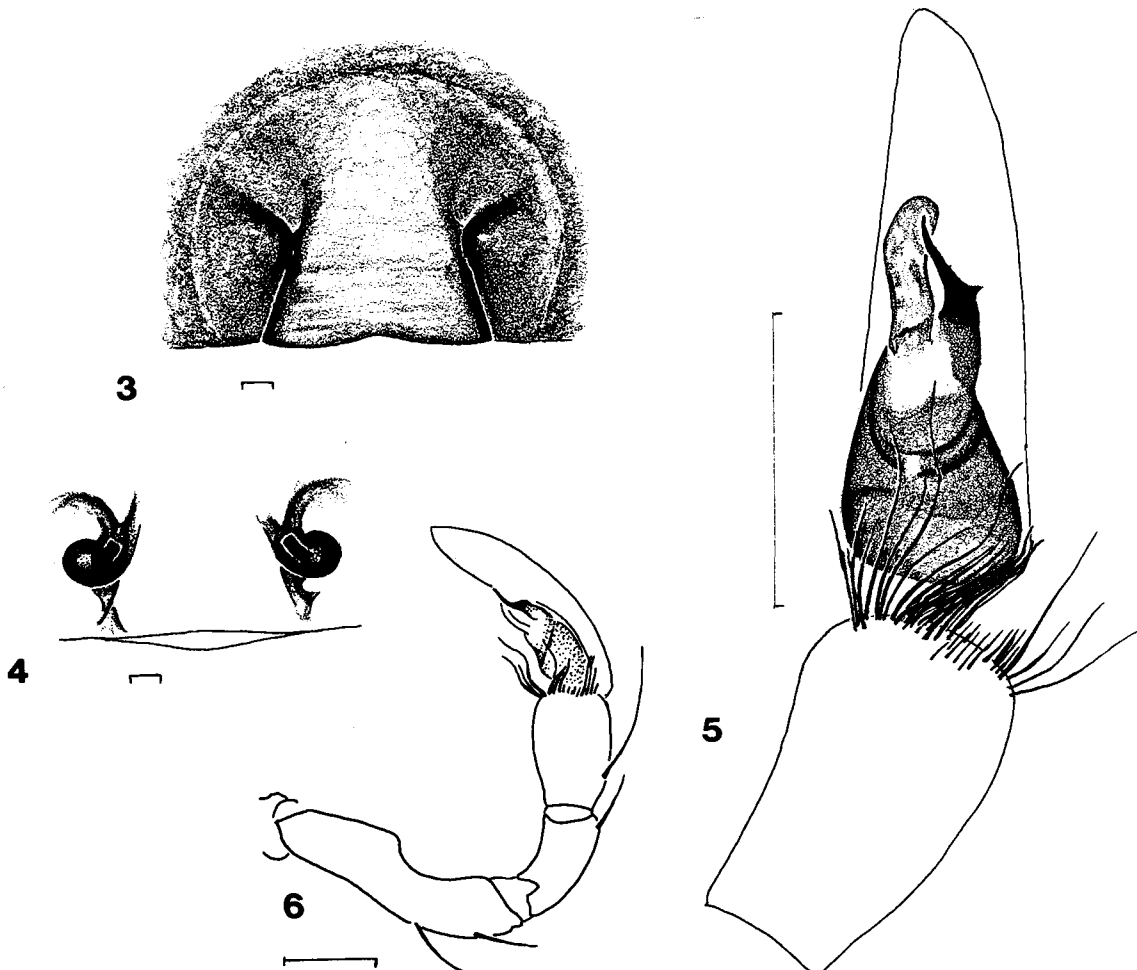
Figs. 1-2: *Fecenia macilenta* (Simon), female. 1 Epigyne, ventral view; 2 Vulva, dorsal view. Scale lines = 0.1 mm.

- supported by conductor.....India, Sri Lanka .....  
..... *torvus*
- 4. Femur hardly longer than wide, with a large basal tooth.....Borneo ..... *mulu*
- Femur noticeably longer than wide ..... 5
- 5. Embolus with rectangular base.....China...*sinensis*
- Embolus otherwise ..... 6
- 6. Palpal bulb subspherical; conductor and embolus 2 parallel, distal filaments.....Malaya to New Guinea ..... *argentatus*
- Bulb and sclerites otherwise ..... 7
- 7. Palpal femur with a large tooth in middle.....  
Borneo ..... *kinabalu*
- Palpal femur with basal hump ..... 8
- 8. Palpal femur with basal hump and large, distal notch.....Malay Penin., Malay Arch.....  
..... *singaporensis*
- Palpal femur slender and with hump almost central (Fig. 6).....Philippines ..... *cebu*

**Females**

- 1. A discrete white spot on venter of abdomen in front of cribellum.....China ..... *sinensis*
- Without discrete white spot.....Indo-Pacific region ..... 2
- 2. Epigynum a sclerotised oval plate.....Borneo .....  
..... *mulu*

- Epigynum indistinct structure with 2 more or less parallel slits ..... 3
- 3. Slits of epigynum wider apart anteriorly than posteriorly, enclosing a vase-shaped area.....  
India, Sri Lanka ..... *torvus*
- Slits otherwise ..... 4
- 4. Slits of epigyne with a small lobe on each side near margin; internally a large sclerotised sac ventral to seminal receptacles.....Malay Penin. to New Guinea ..... *argentatus*
- Epigynum otherwise ..... 5
- 5. Slits widest apart near posterior margin, approaching each other anteriorly ..... 6
- Epigynum with slits subparallel ..... 9
- 6. Epigynum area sclerotised.....Borneo ..... *borneo*
- Epigynum area not sclerotised ..... 7
- 7. Epigynal slits enclosing an area about as wide as high (Fig. 3).....Philippines ..... *cebu*
- Epigynal slits enclosing an area clearly wider than high.....Himalayas ..... 8
- 8. Slit area swollen ..... *marsyandi*
- Slit area not swollen ..... *himalayanus*
- 9. Length of 1st patella and tibia about 2.7 x length of carapace.....Malay Penin., Malay Arch. ....  
..... *singaporensis*
- Length of 1st patella and tibia about 1.7 x length of carapace.....Burma, Thailand ..... *ghecuanus*



Figs. 3-6: *Psechrus cebu* sp.n. 3 Epigyne, ventral view; 4 Vulva, dorsal view; 5 Male palp, ventral view; 6 Male palp, lateral view. Scale lines = 0.1 mm (3, 4), 1.0 mm (5, 6).

### Acknowledgements

I would like to thank Dr H. W. Levi for the loan of specimens of *P. cebu*, for the drawings of the female and male genitalia of *P. cebu* and for all the help he has so generously given. I would also like to thank Mrs Wendy Corley for taking so much trouble collecting and sending me the specimens of *F. macilenta* together with the food remains found in their web.

### References

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Bull. Br. arachnol. Soc. (1986) 7 (2), 68

### The type material of *Microneta beata* O. P.-Cambridge, 1906

#### G. H. Locket

Berrys Brook Cottage,  
Stone Allerton,  
Axbridge, Somerset

and

#### A. F. Millidge

Little Farthing,  
Upper Westhill Road,  
Lyme Regis, Dorset

When the type material of *Meioneta beata* (O. P.-Cambridge) in the Pickard-Cambridge Collection was being considered in 1964 (Locket, 1964: 273) no specimen recognised as that species by O. P.-Cambridge was available. A male (with a female) collected in the New Forest by Dr P. Merrett in 1960 was therefore designated as a neotype and labelled *Meioneta beata* (Cambridge).

Recently the material on which Pickard-Cambridge based his description (1906: 90) has come to light. There are four tubes each containing one male, and one has an additional female. The labels in the tubes are: "J: Falconer. July 9. 1901. Nr. Leeds.", "C. Falconer. Epping 1903. Type.", "Microneta ----? sp.n. Jackson

Nr.38 (and) Oct. 1st 1902" (♂ and ♀), "D. Jackson 29/06 Aa":

In view of this find it is clear that the 1964 neotype was invalidly designated and in fact never had any standing (see International Code of Zoological Nomenclature (1985), Article 75(c)). From the syntypes we select as the lectotype the male (which is accompanied by the only female in the syntype series) labelled "Microneta ----? sp.n. Jackson Nr.38" and (separate label in the tube) "Oct. 1st. 1902". This involves ignoring the word "Type" on the label of the Falconer specimen from Epping (found a year later), but in view of the poor condition of that specimen and the loose usage of the word "Type" by Pickard-Cambridge (Locket, 1964: 257) this would seem to be the sensible thing to do since he had all these specimens before him when describing the species in 1906 and he did not then designate any of the specimens as a holotype.

The syntypes are in the Pickard-Cambridge Collection in the Hope Entomological Collections, University Museum, Oxford.

### References

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