

*Records and Descriptions of New and Little-known Opiliones,
mostly Cavernicolous.* By FRANK A. TURK, Ph.D.,
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IN 1945 (Turk, 1945) I described two new genera and three new species of Opilionids of the suborder Laniatores from material collected in Indian caves and sent to me by Brigadier E. A. Glennie. Brigadier Glennie and Captain H. J. Larwood have both been kind enough to send me further material from India, mostly collected in the same caves as the former specimens, and the present paper deals, with one exception, with this new material. The first batch of specimens taken in Indian caves reached me in very damaged condition and it is unfortunate that the present collection does not contain any specimens of the forms which were represented in the first collection but too damaged to identify. However, it is with very great pleasure that I have found in the material which forms the subject matter of this paper fairly abundant and well-preserved specimens of at least one of the genera and species formerly described as new, and this has permitted me to amplify and correct the former description. As this appears to be the dominant cave form, this

is a matter of some considerable importance. In addition to this material, I have received from Mr. P. Brunet, of Keble College, Oxford, an interesting Opilionid from the Lopinot Cave, Trinidad, which I have taken the opportunity to record in this paper. To all these friends of mine I would express my grateful thanks. I have, in addition, to tender my especial thanks to Professor Dr. C. Fr. Roewer of Bremen for large amounts of invaluable literature on the group and many helpful suggestions.

Suborder PALPATORES.

Family Phalangiidæ.

Subfamily LIQBUNINÆ.

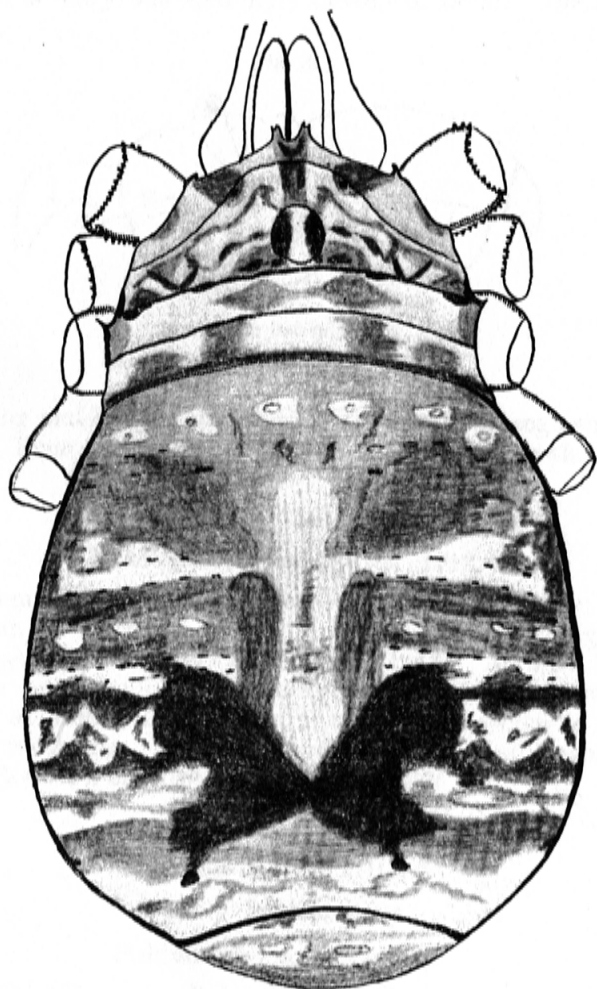
Euscelera indica, sp. n.

Holotype: 1 ♀, taken under stones, on balcony of Swiftlet Pot Cave, Biuni, Chakrata Tahsil, Dehra Dun, United Provinces, India. Collected by Brigadier E. A. Glennie, 9th May, 1944. This cave stands at a height of 8500 feet above sea level.

Hitherto this has been a monotypic genus; the genotype, *E. aureomaculata* Roewer, 1910, was only represented by the two males taken by P. P. Cavalieri and Fortunat at "Kony-Yang" (presumably Kung-ngan in Hupeh Province, north-west of Yu-chow), China, in 1906. The present species is therefore of great interest in that it gives us some reason to believe that this genus extends along the great east-west mountain massif that runs across eastern Asia, and the comparison between the two species, taken at approximately either end of this mountain mass, is of additional interest. There is, too, the further point to be made, namely that this species is representative of yet another new element—a Palæartic one—in the fauna of the north Indian caves.

Length of body, 11.5 mm. Femur I, 10 mm.; femur II, 12.5 mm.; femur III, 7 mm.; femur IV, 10.5 mm. It possesses the characters of the subfamily in having the tarsal claw pectinate, all the coxæ with wart-like toothed processes along the hind and front borders, the opening of the repugnatorial glands uncovered and all the femora without nodules. It has the following generic

Fig. 1.



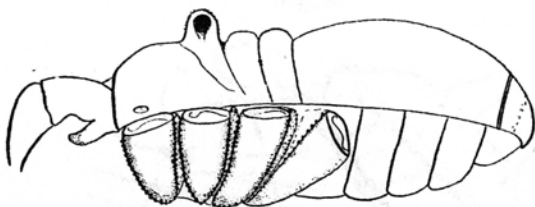
Eusclera indica, sp. n. Dorsal.

characters :—Tergites 1–8 fused into a hard shield, the ocular tubercle smooth or almost smooth and the palpal tarsus with a large apophysis. The femur of the palp possesses large sub-spiniform teeth, the patella is toothed and has a well-developed, rounded, inner apophysis. Professor Roewer in 1923 listed among the generic characters the fact that the femur of the first pair of legs was longer than the body, but this does not seem to be more than of specific value in that the present form has the femur of the first pair of legs shorter than the length of the body.

The dorsum of *E. indica* is shown in fig. 1, and it will at once be seen to be very different in colour and patterning to *E. aureomaculata* as shown in fig. 16, plate iii., of Roewer's 1910 paper and fig. 1042 of Roewer's 1923 monograph. The type of the new species is much lighter, having a light yellow background colour on which are darker markings ranging from a light grey or sooty colour, through brown, to deep black. In approximately the same position as is occupied by the large, paired, light yellow blotches on the dorsum of *E. aureomaculata*, there is developed in the present species a paired, intensely black, butterfly-shaped marking. This peculiar reversal of the colouring in the two forms is very interesting, although in the absence of other known species of the genus it is impossible to say how significant such a character may be. The body is almost entirely smooth, with only very, very slight rugosities irregularly distributed over its surface. If fig. 2, which shows a lateral view of the body, is compared with fig. 1041 of Roewer's 1923 work, the body of the present species will be seen to be less deep and somewhat more elongate, otherwise there is a great similarity between the two species. In *E. indica*, however, the tooth-like warts which border the coxæ (fig. 2) are very much more developed on all legs except the posterior border of the 4th pair. The furrow between the cephalothorax and the abdomen is somewhat indistinct and the ocular tubercle is smooth and almost as broad as tall. (In *E. aureomaculata* it is described as being twice as broad as tall.) The lateral borders of the genital plate are beset with small teeth. The first segment of the chelicerae has a small patch of very minute spine-like teeth, otherwise it is entirely smooth.

The tibia of the palp is nearly five times as long as broad and has a few very small scattered spines; the palpal tarsus is hairy but seemingly devoid of teeth. The legs

Fig. 2.

*Euscelera indica*, sp. n.

Lateral view of the body and coxæ.

are long and strong, the femora without false segmentation. Each segment of the tarsus has a strong tooth.

Subfamily *GAGRELLINÆ*.*Melanopa unicolor* Roewer, 1912.

A female and some immature specimens were taken by Captain H. Larwood from under stones by the margins of a lake at Nowgong, India, April 1943. As only the female holotype of this species appears to be known, taken at Dehra Dun, the present capture seems to be worth recording. The adults seem to agree in all respects with Roewer's description.

Suborder LANIATORES.

Family *Phalangodidæ*.Subfamily *TRICOMMATINÆ*.*Vima albiornata*, C. J. and M. L. Goodnight, 1947.

This species has only recently been described by Mr. and Mrs. Goodnight from a single specimen, the holotype, taken at Diego Martin in Trinidad, one of two new species which are the first representatives of this subfamily to be described from that island. Mr. P. Brunet sent me the only specimen of an Opilionid which he took when on

a visit to the famous Lopinot Caves of Trinidad, and this proved to belong to the present species. It was taken from the East Cave in a portion of the cave which is in semi-darkness. The only difference between this specimen and the description of the holotype seems to be that the distal portion of the coxæ of the present specimen are markedly yellowish. This is seemingly the first record of an Opilionid from the Lopinot Caves, and as such merits a mention in these notes.

Family Assamiidæ.

Indosidama moila Turk, 1945.

In my 1945 paper several new Opilionids from Indian caves, all of the family Assamiidæ, were described and figured but, as then recorded, the material was for the most part so badly preserved that the descriptions were somewhat incomplete, although sufficient to make future identification possible. New, more abundant and, for the most part, better preserved material has now come to me through the kindness of Brigadier Glennie, and I am now able to supplement and correct the former description of this species and add several new and important records which show that the species is fairly widespread throughout this whole series of caves. Judging by its representation in the present small collection, it must be the dominant Opilionid species in this cave fauna. I have two specimens from Toad Hole Cave, Chakrata Tahsil, near Bodhyar, Dehra Dun, United Provinces, a cave situated at a height of 8800 feet, taken 29th October, 1944; two specimens from Swift Pot Moila Swallet, May 1943; one specimen taken under stones on balcony of Swiftlet Pot, Biuni, Chakrata Tahsil, at a height of 8500 feet, taken 9th May, 1944, and two immature ones from Moila Cave, taken October 1945. A further note on this series of caves appeared in Turk, 1945 a.

The colour of these specimens is found to be very variable. It ranges from pale luteous to flavous, sometimes with sooty blotches which in some specimens become chestnut-coloured. Two almost completely black individuals are amongst the present material. In the lightest individuals a black ring seems to remain around the eye, and this appears to be constant in all forms.

The description of the genus may be emended as follows:—Allied to *Sidama* Pavesi, 1895. The stigmata are hidden under the exceptionally large teeth, of which there is present a single anterior and posterior one at the distal end of the 4th coxæ (fig. 3). Tarsi III and IV without pseudonychium. The "end-piece" of the 1st tarsus two-segmented (fig. 4). Claws of the 3rd and 4th

Fig. 3.

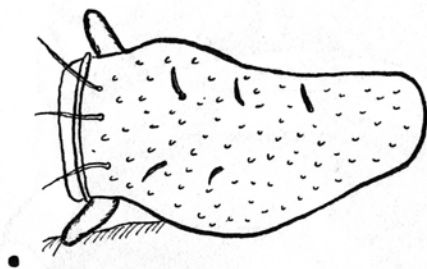


Fig. 4.



Indosidama moila Turk, 1945.

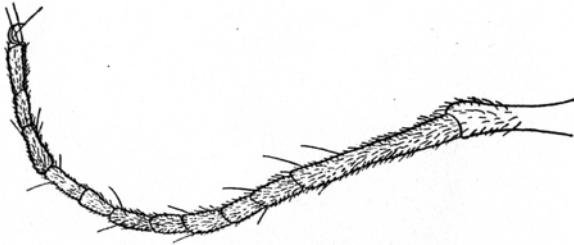
Fig. 3.—Coxa IV. Ventral.

Fig. 4.—Tarsus of the 1st pair of legs.

tarsi simple. Femur of palp with spines. Anterior border of the cephalothorax untoothed and no pre-ocular median horn or spine. The tarsus of leg I is five-ringed, a character which allies it to other African genera such as *Amhara* Pavesi, 1867, and which differentiates it from *Sidama* where this tarsus is only four-ringed. "End-piece" of tarsus II three-ringed, as in *Sidama* (fig. 5), a character which was wrongly described in the former damaged material. Segmentation of the tarsi otherwise as in *Sidama*. The ocular tubercle is smooth and totally unarmed; in this character it differs from *Blantyreia* Roewer, 1912, a genus which it otherwise resembles in having the scutum unarmed. No horns or marked spines on the dorsum, only some rows of teeth which in some specimens are fairly well marked but in others are

little more than regular rugosities. This character differentiates it at once from *Sidama*. A longitudinal furrow is present on area 1 of the scutum but in several specimens this is not nearly so marked as in the type

Fig. 5.



Indosidama moila Turk, 1945.
Tarsus of the 2nd pair of legs.

material, being quite shallow in some, although it can be made out in all. The specific characters are, apart from the colour (see above), as given in my 1945 paper, which gives the original description of the genotype.

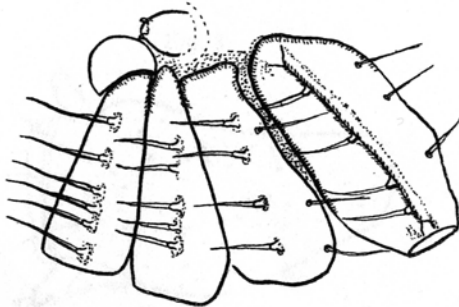
Subfamily *TRIONYXELLINÆ* Roewer, 1912.

Calloristus cavernarum Turk, 1945.

This species was also originally described from the material dealt with in my 1945 paper. I now have one further specimen, taken from the Moila Swallet cave in May 1943 by Brigadier Glennie, and although this specimen is damaged, it nevertheless enables me to add to the previous description of the species. Length of body, 2.5 mm. long; legs II, 7.5 mm. long; legs IV, 7 mm. long. Thus the body is the same length as that of *C. granipes* Roewer, 1935, the genotype, but the legs are much longer. Ocular tubercle untoothed and the cephalothorax smooth and unarmed. All the spines on the tarsus of the palp as long as or longer than the terminal one. Femur and patella of palp unspined and untoothed; a single immensely long spine at about the middle of the tibia of the palp, which segment is broadest at the middle and not, as in *C. granipes* at the distal extremity. In

this specimen the large outstanding tooth on the fixed ramus of the chela, of which mention was made in the original description, is nearer to the apical tooth than to the proximal row of six. On the coxæ of all the legs (fig. 6) there are long outstanding spines, and on coxa IV

Fig. 6.

*Calloristus cavernarum* Turk, 1945.

Coxæ of legs I to IV. Ventral.

is a row of three very fine spine-like hairs. This character is not, seemingly, found in any other species of the subfamily, but as the specimens which I have seen agree so closely in all other respects with the genus *Calloristus* it cannot be considered as more than of specific value.

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