

IV NOTES ON PEDIPALPI IN THE COLLECTION OF THE INDIAN MUSEUM.

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I.—NEW PEDIPALPI FROM CALCUTTA.

The species described in this paper were both originally found in the compound of the Indian Museum. They are two in number, both of them new, one belonging to a new genus.

TARTARIDES.

Schizomus (Trithyreus) lunatus, sp. nov.

Localities.—This species is to be found under bricks resting on the ground in the Indian Museum compound; and one specimen has been obtained from jungle at Tollygunge (near Calcutta), also under a brick. It is apparently a somewhat rare form, but may possibly be more abundant during the rains. This appears to be the first record of a Tartarid from India proper.

♂. *Cephalothorax.*—A pair of small ill-defined whitish eye-spots present; cephalic sternum about twice as long as broad and very slender behind between the coxae of the second pair of legs.

Arms.—Anterior margin of lower part of trochanter slightly concave, its angle being slightly sharper than in the male of *S. (T.) suboculatus*, Poc., to which this species is closely allied; otherwise as in that species.

First legs (fig. 1, A).—Resemble those of the male of *S. suboculatus* except in the following respects: second metatarsal joint only three-quarters the length of the tarsus; second tarsal joint about equal to the third in length; terminal joint considerably longer than the two proximal tarsal joints combined and more than one-third as long as the second metatarsal.

Fourth legs.—As in the male of *S. suboculatus*.

Tail.—Blade as seen from above less abruptly tapering and more evenly rounded behind than in *S. suboculatus*—postero-lateral margins not even slightly concave. When seen from the side the dorso-lateral lobes are found to terminate obliquely, their posterior margin forming an obtuse angle with the horizontal.

Colour (in spirit).—Carapace reddish in front, bearing a pair of whitish eye-spots; the rest of the carapace and the other dorsal plates dark olive-green. Beneath, the colour is similar but paler,

and the anterior margins of abdominal segments 5, 6 and 7 respectively bear a pair of conspicuous reddish semi-lunar patches. Appendages and tail greenish, becoming reddish distally.

Length.—4 to 5 mm. (two specimens both with tails of the form characteristic of maturity).

♀ *Cephalothorax*.—Eye-spots much less conspicuous than in the male on account of the paler coloration of the carapace. Otherwise as in the male.

Arms.—Almost exactly half as long as the body. As in the male the lower front angle of the trochanter is slightly sharper than in the corresponding sex of *S. suboculatus*; the sexual differences found in other parts are identical in the two species.¹

First legs (fig. 1, B).—As long as body, but no longer. Femur slightly longer than tibia; foot five-sixths as long as tibia, fifteen times as long as deep. Second metatarsal joint two-thirds as long

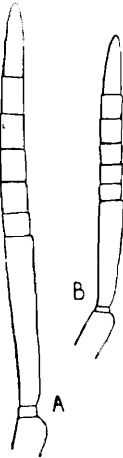


FIG. 1.—Foot of first leg of *Schizomus (Trithyreus) lunatus*, sp. nov.. × 40.
A. Male.
B. Female.

as the whole tarsus, equal to the sum of the five proximal tarsal joints. Second tarsal joint scarcely as long as the third; terminal tarsal joint as long as the three proximal tarsal joints and three-fifths as long as the metatarsus.

Fourth legs.—Not quite as long as body; femur little more than twice as long as deep.

Tail.—Remarkably long and slender in adults, being eight or nine times as long as broad and distinctly longer than in the male. This sexual distinction in the length of the tail

¹ In the female of *S. lunatus* the tibia of these appendages is nearly half as deep as long, that of the male being slenderer. Hansen—see Hansen and Sorensen's "The Tartarides" in *Arkiv för Zoologi*, Bd. 2, No. 8, pp. 1—78, pls. i—vii (Upsala, 1905)—does not mention this difference between the sexes of *S. suboculatus*, but his figures show it to exist.

appears at an early age and gradually increases so that large immature males which still bear a cylindrical tail are at once recognizable as such, this appendage being only five or six times as long as broad. In very minute specimens the tail is relatively short and stout in both sexes, that of the female becoming longer and slenderer with increasing age whilst that of the male remains practically unchanged.

Colour (in spirit).—Pale greenish brown, almost greyish, becoming slightly rufescent in front. A pair of brownish semi-lunar areas present on the anterior margins of segments 5 to 7, but barely distinguishable as their colour scarcely differs from that of the rest of the under surface of the abdomen.

Length.—About 5 mm.

TARANTULIDAE.

CHARINIDES, gen. nov.

This genus closely resembles *Charinus* (Sim.) Kraep., but differs therefrom in that the foot of each of the walking-legs is four-jointed instead of five-jointed, and that the tibia of the last pair is three-jointed (as in *Catageus*) instead of four-jointed. It is distinguished from *Catageus*, Thor., by the *Charinus*-like arrangement of the spines on the arms.

Charinides bengalensis, sp. nov.

Localities.—This species is abundant among old bricks that have been loosely heaped together in the Museum compound and left alone for several years; I have also found it in similar heaps on some waste land belonging to the Zoological Gardens at Alipur, at the Botanical Gardens at Sibpur, and beside a ruined cottage in jungle at Tollygunge. It is probably therefore abundant throughout Calcutta and its suburbs wherever there is suitable cover for it. I have not yet had much opportunity of looking for it in other parts of Bengal. Dr. Annandale on one occasion found a specimen on the wall of a staircase in the Museum; and we have specimens collected in Calcutta by J. Wood-Mason and B. Aitken, the former probably in 1876 and the latter in 1899.

♂. *Cephalothorax.*—Rostrum small, triangular. Carapace broadly heart-shaped, the anterior margin usually rather prominent and flattened; this margin is armed with six (sometimes seven) spines, two (or three) placed near together in front of the median eyes, and two on each side by the antero-lateral angle. Lateral eyes situated not far from the slightly sinuous antero-lateral margin of the carapace, their distance from the antero-lateral angle being about one-half as great as that from the lateral angle. Postero-lateral margin convex and about one-third of the length of the antero-lateral. Posterior margin excavate, about twice as long as the postero-lateral margin. A somewhat

indistinct furrow extends along the mid-dorsal line of the carapace from the median ocular tubercle to the middle of the posterior margin. Length of carapace in the middle line up to 2.5 mm., maximum breadth up to 3.5 mm.

Abdomen.—Rounded; usually plump.

Arms.—Relatively short in immature specimens and of much greater but somewhat variable length in mature ones; femur up to 5.5 mm. in length. Armature as in the genus *Charinus*.

Walking-legs.—Tarsi four-jointed; first tarsal joint (exclusive of metatarsus) of the anterior, middle, and posterior walking-legs respectively $\frac{1.2}{7.5}$, $\frac{1.3}{8}$, and $\frac{1.4}{8}$ of the total length of the three remaining tarsal joints; the metatarsus scarcely exceeding the sum of the tarsal joints in length.

Colour.—Somewhat brownish below, almost black above except

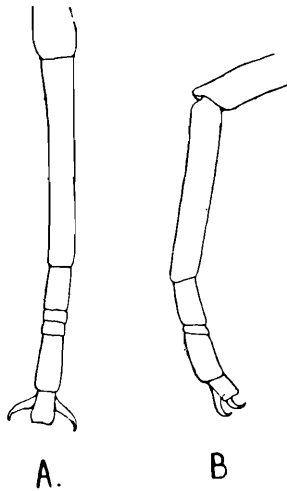


FIG. 2.—Tarsus of last leg of *Charinus* and *Charinides*, $\times 20$.

A. *Charinus seychellarum*, σ .

B. *Charinides bengalensis*, σ .

for the various spines and hairs on the appendages and carapace, the chelicerae, and the sunk margin of and somewhat variable markings on the carapace, which vary from dull reddish to almost black in life, but become much brighter and more conspicuous after the specimen has been soaked in spirit for a short time.

♀ Differs from the male chiefly in having very much shorter arms resembling in their proportions those of immature specimens of both sexes. Femur about 2 mm. in length only.

II.—A PRELIMINARY NOTE ON A NEW SARAX FROM SINGAPORE.

Mr. Ridley, of the Botanical Gardens, Singapore, has very kindly sent me a number of small "scorpion-spiders." They were

found under bricks among dead leaves at the edge of a wood in the gardens and prove to belong to the genus *Sarax*, Sim. Only two species of this genus have as yet been described, *S. sarawakensis*, Thor., recorded from various islands between (and including) the Andamans and the Solomon Isles; and *S. brachydactylus*, Sim., from the Philippines. The specimens sent by Mr. Ridley closely resemble the former species, and but for the presence among them of ovigerous females it would be difficult in the present state of knowledge to be certain that they were distinct; for otherwise, in spite of their uniformity, their maturity might have been doubted. But the fact that ovigerous females from Singapore are only about three-quarters as large (in diameter) as the type of Thorell's Bornean species (concerning the maturity of which, moreover, there appears to have been some doubt) is in itself sufficient to distinguish the two; and this difference is found to be associated with differences in the proportions that the lengths of the several femora bear to the width of the carapace.

The Singapore specimens and Thorell's description of the type of *S. sarawakensis* taken by themselves certainly indicate that full separate specific rank should be accorded to the former; for the differences between the two are quite as great as those between several recognized species of Tarantulidae. But an examination of two specimens of *Sarax* from Borneo (kindly lent by Mr. Moulton of the Sarawak Museum) and one from Narcondam Island (Indian Museum collection) shows clearly the necessity of examining good series of specimens from all possible localities before a satisfactory conclusion can be arrived at, a necessity which is no doubt responsible for the inclusion by previous writers of all forms found between the Andamans and the Solomon Isles (and including Singapore) in the one species *sarawakensis*. Provisionally, therefore, it will probably be most convenient to regard the Singapore form as a geographical sub-species only, in order that the term *sarawakensis* may retain its present broad significance. The Singapore form may then be designated *Sarax sarawakensis*, sub-sp. *singaporeae*, nov., and distinguished from *S. sarawakensis*, Thorell, s. str. by its smaller size and the proportionally shorter femora of its antenniform legs. The following are measurements in millimetres of two ovigerous females of the Singapore form (correct to the nearest half millimetre only):—