

AN INTERESTING TERATOLOGICAL *TRICHOPRIA* ASHMEAD (DIAPRIIDAE: PROCTOTRUPOIDEA) FROM INDIA.

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In the course of our investigations on Proctotrupeoidea and Platygasteroidea (Hymenoptera) of India, we came across an extremely strange specimen belonging to *Trichopria* Ashmead. The specimen showed female characters along with some differences in the structure of the right antenna.

Earlier, Safavi (1968) had reported some malformations in antennae of *Trissolcus grandis* Thomson. Fabritius (1968) had reported *Trimorus algoicola* Kieffer with an anomalous metasomal segmentation. In Diapriidae, only two instances were hitherto reported, namely *Monelata cincta* Hal exhibiting irregularities along with some gynandromorphic characters (Szabo, 1959) and a teratological *Trichopria* Ashmead described by Bin (1976). Bin (1972) had also report some instances of gynandromorphism in *Ashmeadopria* Kieffer.

The present case (Fig. 1) forms the second instance of teratology shown by *Trichopria*, hitherto reported. The first case was reported (Bin, 1976) to be with a strongly asymmetrical head and an atrophied right half. Only one antenna, a frontally placed compound eye and presence of only two ocelli were also due to teratology.

Description

Body length = 2.7 mm.

Head and body shining black. Left antenna with two terminal segments black, rest deep brown; right antenna with basal flagellar segments deep brown, terminal two segments black, scape and pedicel brown. Body pubescence dull white; forewings slightly infusate; veins deep brown; marginal fringe of wings deep brown.

Head: Smooth and shiny. Antenna inserted high on vertex; antenna twelve segmented; basal eight segments of right antenna having typical male characters, with long petiolate base and anterior bulge, circlet of hairs seen on bulge, eighth antennal segment with abnormal thickening and beset with two circlets of hairs (an upper whorl and a lower whorl); ninth segment not tubular basally and with scattered hairs all over, terminal two

segments enlarged like a clava and clothed with dense scattered hairs; penultimate segment with a bent towards right, scape a little flattened distally; left antennal segment with typical female characters and ending in a five segmented clava; basal flagellar segments a little elongated; vertex gradually sloping towards ocellar region. Temples moderately bulged; postgenal cushion of hair dense; occiput moderately emarginate, occipital flange distinct.

Mesosoma: Pronotum with rich and dense collar of fine hairs. TSS distinct. Mesonotum convex in lateral view. Scutellum with a round fovea anteriorly; scutellar sheath with a prominent hump in lateral view. Metanotum with three equidistant longitudinal keels. Propodeum keeled similar to metanotum, but median one anteriorly elevated to form a blunt spine. Legs normal. Fore tibia with a distinct outwardly directed spine. Propleuron and mesopleuron smooth and shiny. Metapleuron with thick felt of fine appressed hairs, partly concealing the longitudinal carinae. Left wing normal (Fig. 2); right wing a little crumpled and folded near stigmal (Fig.3). Forewings not hairy at proximal one-third, beneath sm. Marginal fringe well developed.

Metasoma: Petiole with fine longitudinal striae, richly hairy towards lower half and with dense hyaline scales, 2x as long as wide. Metasomal tergite smooth and shiny, only terminal segments hairy.

Material examined

One specimen, collected on 17.3.99, from Malampuzha (Palghat), Kerala, India.

Remarks

This is inevitably a teratologic female *Trichopria* and is the only case we have seen among thousands of specimens. The specimen was collected in a sweep net from among thick bushes.

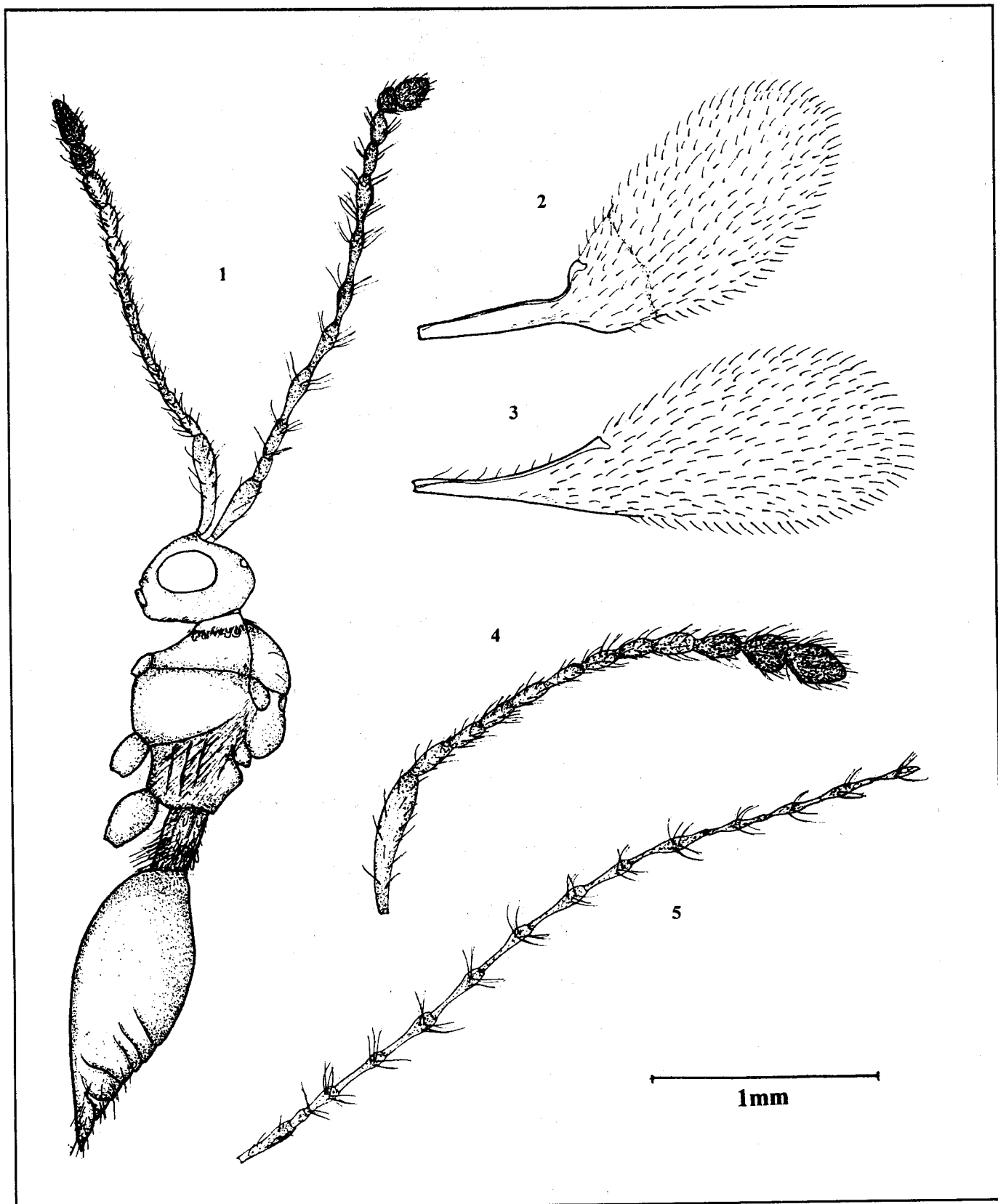
Usually in a male *Trichopria*, antenna is fourteen segmented. In the most common type, the flagellar segments are very long, narrowly fusiform or petiolate, beset with very long stout bristle-like hairs, forming whorls and arising from thickest part of segments. These hairs are mostly absent from proximal one-third of segments (Fig. 5). Types with short flagellar segment, hairy all over, devoid of a whorl pattern of hairs are also met with. Further in a male antenna, a clava is never encountered. In females, antenna is 12 segmented and always end in a distinct one to six segmented clava (Fig. 4).

Here both the antennae are 12 segmented; the basal eight antennal segments of the right antenna possess distinct male characters, but ends in a terminal two segmented clava. The left antenna shows typical female characters and ends in five segmented clava.

This species resembles *T. rufa* (Kieffer) in having a five segmented antennal club and a scutellar fovea, but differs from it in having a reddish body and in proportions of antennal segments.

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Figures 1 - 5. *Trichopria* sp. 1. 1. A teratologic female; 2. Right forewing; 3. Left forewing; 4. Typical female antenna; 5. Typical male antenna.

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NOTE

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COLOUR PATTERN IN SCOLOPENDRID CENTIPEDES

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Centipedes display various colours in the field. Khanna and Yadav (1997) inventorised 15 species of centipedes under the genus *Scolopendra* Linn. from India. These include *S. morsitans* Linn., *S. subspinipes dehani* Brandt, *S. hardwickei* Newport, *S. amazonica* Bucherl, *S. valida* Lucas, *S. mazbii* Gravely, *S. andhrensensis* Jangi & Dass, *S. ellorensis* Jangi & Dass, *S. indiae* (Chamberlin), *S. occidentalis* (Attems), *S. mirabilis* (Porath), *S. nudus* (Jangi & Dass), *S. paranudus* (Khanna & Tripathi) S. Jangii Khanna & Yadav and *S. punensis* Jangi & Dass. Scolopendrid centipedes known to exhibit colour range of blue, green, brownish grey or combination of these.

While collecting the centipedes *Scolopendra amazonica*

Bucherl, just after rains in 1993, from various localities around Pune, it was observed that freshly collected specimens display faint reddish colour on tergites. This colour appeared prominent on 3rd to 5th tergites. Diminishing of natural body colour after preservation in rectified spirit appears to be a common phenomenon in scolopendrids. *S. amazonica* occurs sympatrically with *S. morsitans*, the former lacking tarsal spur to the 20th pair of walking legs. *S. hardwickei* Newport, showing comparatively rare occurrence exhibits brilliantly coloured alternate black and reddish yellow bands, a characteristic pattern of the species. Unlike other species, spines on the anal leg prefemur is absent in *S. hardwickei*. Further, *S. morsitans* is known to have uniform colour livery on its trunk viz. either blue, green or grey (Yadav, 1993).

Jangi and Dass (1984) recognised four groups among species of *Scolopendra*: Morsitans group represents *S. amazonica* and *S. morsitans*, Subspinipes group includes members *S. subspinipes*, *S. andhrensensis* and *S. punensis* while *S. ellorensis* and *S. hardwickei* deserve distinct lineage from the two groups.

It appears that observed faint reddish colour in live specimens of *S. amazonica* of the group 'morsitans' in addition to the probable camouflage effect under stones, shows affinity towards *S. hardwickei* group.

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