

XXIV. ON A NEW GENUS OF INDIAN
THRIPS (THYSANOPTERA) INJURIOUS
TO TURMERIC.

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(Plate vii.)

Through the kindness of Dr. N. Annandale I am able to describe the following interesting species of Thrips which was submitted to me with other Indian material in 1909. The specimens were collected more than thirty years ago, and on that account are not in such good condition as one would wish. I have however made a greatly enlarged drawing which shows the chief features of both sexes, and whilst the following description is a very complete one, considering the fragmentary state of the material, I hope later to have the pleasure of examining some newly collected specimens and thus be enabled to more accurately describe and figure certain parts.

Apart from its economic importance the species is one of considerable interest. It belongs to the sub-order Terebrantia and in certain features, such as the general character of the head and prothorax and the form of the antennæ, it would appear to be closely related to the genus *Heliothrips*, but a number of strong and peculiar characters (italicized in the generic description) are of such importance, I consider, as to render it advisable to place the genus into, at least, a sub-family of its own, the Panchaethripinae.

Dr. Annandale has sent me the following transcription of the reference to the specimens, which appeared in the "Indian Museum Notes," Vol. I, 1889-1891—Entomology Notes—by E. C. Cotes, p. 109:—

"Specimens were received on 21st May, 1889, from the Board of Revenue, Madras, through the Superintendent, Government Central Museum, Madras. *Sutta thegulu*, small black-winged insect, frequently jumps from one place to another. This attacks the plant when two months old. The leaves become rolled up, greenish in colour, turning pale yellow, and the leaves gradually become dry. This spoils the turmeric crop, and rhizomes are not developed. Eggs are also deposited on the back of the leaves. *Sutta thegulu* is considered to be a severe form of attack."

Order THYSANOPTERA.

Suborder Terebrantia.

Fam. THIRIPIDAE, Hal.

Sub-fam. *PANCHAETOTHRIPINAE*, mihi.Gen. *PANCHAETOTHRIPS*, nov.

Head short and strongly transverse, *posteriorly strongly chitinized in the form of a raised collar*; frons depressed; cheeks roundly contracted before collar. Eyes prominent and protruding, ocelli present. *Antennæ* long, eight-jointed, joints three and four very long and slender five and six broadly united, the style bristle-like with the eighth joint much longer than the penultimate. Maxillary palpi long and slender, three-jointed. Prothorax strongly transverse, without prominent bristles. Pterothorax large. Wings present, not reticulated; spines on fore-wing exceptionally long and strong; *fore-vein apparently merged with costa, and hind-vein obsolete.*

Abdomen broadly ovate, *depressed and margined laterally; tenth segment in the female cylindrical and almost closed ventrally; Ovipositor very long and slender, almost straight. Anal spines exceptionally long and strong.*

Type *Panchaetothrips indicus*, mihi.

PANCHAETOTHRIPS INDICUS, sp. nov.

♀ Length 1.3 mm. Length of last abdominal segment about 0.25 mm. Colour brown or yellow-brown, the pterothorax, the last abdominal segment and often the hind part of body darker; sides of pterothorax shaded with grey. Fore-tibiæ yellow at apex, intermediate and hind femora yellowish basally and apically, and the tibiæ lighter at knees and shaded thence from brown to clear yellow at apex; all tarsi yellow. First antennal joint yellowish-brown, second concolorous with head, joints three to five clear yellow, almost white, shaded with light brown at tips; apical joints light brown.

Surface of head lightly reticulated, most strongly laterally and in the space between each posterior ocellus and eye; transversely striated below collar. Strongly transverse, widest across eyes; space between eyes almost three times the width of an eye; frons slightly produced, separating the basal antennal joints and having the apex narrowly emarginate. Forehead depressed from about a line drawn across the anterior fifth of the eyes; cheeks slightly rounded and thence strongly narrowed basally to collar which is apparently raised laterally and dorsally. Eyes large, prominent and very coarsely faceted; ocelli rather large, oviform; anterior

ocellus forwardly directed, placed in centre of forehead on a line drawn through the anterior fifth of eyes; posterior pair on a line drawn through the posterior third of eyes, the space separating them being as great as that between each ocellus and eye. Mouth-cone reaching across prosternum. Maxillary palpi three-jointed, long and slender. Antennæ widely separated at base, more than three times as long as the head; first joint short, cylindrical and narrower than the second; second widest at middle where it is about as broad as long, slightly narrowed distally and truncate at apex; third and fourth extremely slender, almost spindle-formed; fifth slightly stouter and broadly jointed to the sixth which is roundly narrowed apically; seventh styliform, parallel sided, and eighth continued in the form of a bristle. Relative lengths of joints:—6, 12, 24, 19.5, 17, 10, 5, 15. In one specimen the fourth joint is only very little shorter than the preceding.

Prothorax strongly transverse, without any conspicuous spines; surface finely and irregularly striated transversely. Pterothorax large; mesothorax roundly widened to juncture with the metathorax which has the sides roundly narrowed to the base of abdomen. Both meso- and metathorax laterally convex and with the surface reticulated. Surface of all the legs similarly reticulated; hind pair much longer than the others. Tibia of each hind leg furnished with a series of minute bristles for practically the whole length of the inner margin. Wings strong and reaching to the last abdominal segment; fore-wing narrowing rather unevenly from the basal fourth; basal part with a series of four long strong bristles on the fore-margin, the third being the longest, and a series of ten very long and strong spines on the costa, the last of which is the shortest. There are three spines on the basal part of the fore-vein; this vein appears to be carried to the extreme tip in the form of a thickened fore-margin, and is furnished in the apical half with six spines. There is one short and one long spine just under the first costal spine, but there appears to be no trace whatever of a hind-vein nor of any spines set on a line corresponding with such a vein. The fore-fringe is poorly developed whilst the cilia of the hind-fringe are closely spaced, long and slightly wavy. The hind-wing has the median vein well-developed, and the hairs of the fore-fringe are much shorter and more widely spaced than those on the hind margin.

The abdomen is strongly depressed and margined laterally; and excluding the last segment is broadly oval, in some specimens circular. Towards the apex the posterior angles of the segments are produced into overlapping spinous processes. The last segment is very large and elongated in the form of a tube, bearing at its apex four long and two shorter spines, all of which are exceptionally stout. The apex of the ninth segment is furnished with a series of long, stout spines, the longest over reaching the tip of the last segment; the eighth is furnished at its posterior margin with similar but short spines. Ovipositor very long and slender, almost straight.

♂. Smaller and narrower, end of abdomen and genital armature as shown in plate vii, figure 2. Sternites two to six with an elongated chitinous thickening.

Habitat.—India; on the leaves of turmeric (*Curcuma longa*), Madras, 1889.

