

9. A remarkable Scelionid (Hymenoptera-Proctotrypoidea)
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(Text-figures 1 & 2.)

In the extensive collection of parasitic hymenoptera—upwards of 20,000 specimens mostly of small size—recently made by Mr. R. E. Turner in S. Africa, is a single example of a Scelionid of striking appearance and unusual structure. I was at first inclined to treat this as representing a new genus, but on reconsideration have assigned it, for the present, to

ENCYRTOSCELIO Dodd.

Proc. Roy. Soc. Queensland, vol. xxvi. p. 119 (1914).

In the South African insect the following characters appear to be of generic value:—

Stoutly built species. Head, thorax, and abdomen closely fitting, and of approximately equal breadth. General appearance from above Tortoise-like; body elliptical, the sides a little concave medianly. Dorsally distinctly convex and evenly curved both transversely and lengthwise; ventrally flattened.

Head:—*Dorsal* aspect parabolic. Eyes widely separated, ocellar triangle large, a stout flange anteriorly between vertex and face. *Antero-ventral* aspect similar in outline to dorsal. Raised area above mouth-edge. Small subcircular plate between the toruli, which are set low down on face. In *profile* subtriangular. Mandibular “beak” at postero-ventral angle. Genal keel fine, but distinct. From *posterior* aspect subcircular. A fine occipital keel runs parallel with, and just below, the descent from the vertex, and reaches ventrally on each side to the insertion of the mandible.

Antennæ:—12-jointed with five in club. Mandibles long, dependent, apically peculiarly bidentate; maxillary palpus with two joints, labial with one.

Thorax:—Pronotum only linearly visible from above, developed mainly in two triangular pleural sclerites. Propleuræ meeting ventrally. Mesoscutum transverse, without furrows. Mesepimeron narrow, indistinctly indicated, crenulate. Mesosternum and mesopleuræ separated by a keel. Scutellum broad, over-arching both metanotum and propodeon. Both the latter short and mainly perpendicular. Propodeon rugose with short postero-lateral angle.

Wings:—Fore wings with only traces of neuration—the subcostal, marginal (partim) median and anal veins being suggested. Spoon-shaped with short “handle”—the larger, concave, distal disc closely enfolding the abdomen. Apical fringe of very long curved, and, for the most part, strongly flattened cilia.

Hind wings normal, no nervures, three hooklets, fringe long.

Legs normal, tibiæ and tarsi spinose; tarsal ungues simple, slender, not greatly curved, awl-shaped, the more swollen base bearing 1–2 short spines.

Abdomen broad, 4–5 tergites visible from above, the second being much the longest; 6 sternal plates visible from below.

It should be noted that Mr. Dodd describes *Encyrtoscelio* as having no ocelli, while the mandibles are tridentate. The note as regards ocelli is probably an error of observation, as it is very unlikely that a fully alate form in this family should be destitute of these organs. As regards the mandibles, my first impression was that they were tridentate—an illusion caused by their close interlocking apically, and dispelled by dissection.

ENCYRTOSCELIO TURNERI, sp. n.

♀. *Colour-notes.*

Body uniformly piceous black, shining on dorsal aspect of head and thorax anteriorly, but duller elsewhere. (When the wings are in position, wrapped about the abdomen, the latter may show from some points of view a silvery interference effect.)

Fore wings basally hyaline, the obsolescent nervures (faintly) and the apical one-third with the long recurved cilia (more definitely) infumated.

Hind wings nearly hyaline, a little infumated at radix, and along the edge. Coxæ and antennal club concolorous with body: all femora, tibiæ, and maxillæ clear piceous, not so dark as body. Tarsi, antennæ to middle of funicle, and palpi still paler. Mandibles like tibiæ with apical teeth darker.

Structure.

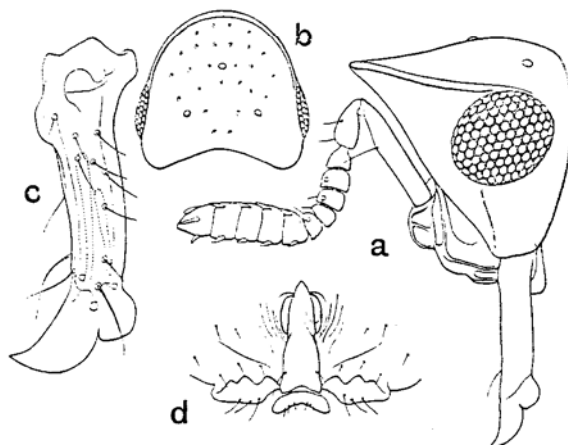
Head:—Length about .3 mm. dorsally (text-fig. 1 *b*), nearly smooth with many distinct somewhat widely apart setigerous punctures.

Ocelli small, forming a nearly equilateral triangle. In profile (text-fig. 1 *a*) the anterior flange ends above the bare eyes. Below the level of the flange the surface shows a delicately impressed network of large cells. From in front (text-fig. 1 *d*) the inter-torular prominence, subcircular in profile, is broad and medianly grooved. Antennæ (text-fig. 1 *a*): length .46 mm. Scape (11 : 2) as long as pedicel and first six joints of funicle (*i.e.* up to the end of the first club-joint) or one-fifth longer than the club. Pedicel (2 : 1) about one-third the scape. In the

funicle the first joint is campanulate, and as broad as long. The last joint of the club longer than broad. The other joints transverse; 4-7 inclusive being only half as long as broad. Relative proportions as follows:—i. 10:10, ii. 9:11, iii. 8:11, iv.-v. 5:10, vi. 8:16, vii. 9:18, viii. 10:18, ix. 10:17, x. 18:14.

Chaetotaxy etc.:—On the scape one of the ventral bristles (at one-third from the apex) is as long as one-third of the joint itself. Up to the first funicular the joints bear only ordinary bristles; on 2-5 one or two sensoria occur, while the club-joints have three to four each.

Text-figure 1.

*Encyrtoscelio turneri*, sp. n.

a. Head in profile. b. The same from above. c. Left mandible.
d. Sub-torular area, clypeus and labrum.

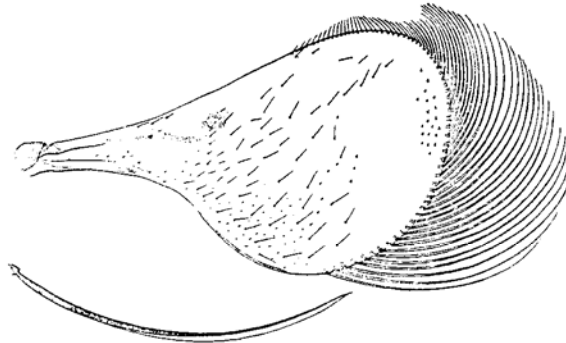
Trophi:—Labrum (text-fig. 1 *d*) narrow (1:4), closely fixed below the clypeus, distinctly concave and with about ten minute fringing bristles. Mandibles: the left jack-boot shaped (text-fig. 1 *c*), .2 mm. in length. Stipes and mentum bare, the latter with two clear pustules; joints of maxillary palpus equal, first joint expanded (5:3) with about six bristles on inner face, second joint (5:2) with five bristles, of which two are terminal; galea, three bristles at apex, and one (stouter) at side near base; labial palpus (2:1) pear-shaped with three bristles.

Thorax:—Mesoscutum (1:2): length .18 mm., breadth .36 mm., about as smooth as the head, but with the same network of large unraised cells. Scutellum: length .13 mm.,

breadth .29 mm., covering completely the metanotum, and the propodeon, save for its postero-lateral angles, broadly truncate, and slightly concave posteriorly. Propodeon narrowly in middle practically smooth, with six to seven short ridges on each side forming two irregular rows of cells. Spiracles moderately large at antero-lateral angle dorsally. All the pleural surface dull, with a raised pattern, rather finer than on dorsal aspect. The metapleurae, in particular, are roughened.

Wings:—Fore wings (text-fig. 2) (2:1), length .57 mm. Hind wings (4:1), length .48 mm., the longest of the cilia as broad as the wing.

Text-figure 2.

*Encyrtoscelio turneri*, sp. n.

Fore wing, with detail of one of the flattened marginal cilia.

Legs.

Fore legs:—Length .6 mm.; coxæ posteriorly with a slight ridge, or fold, extending downwards for about one-third from the base; femur (5:1) longer (8:5) than tibia (10:3); tarsus shorter than femur, and about one-third longer than tibia. The latter with a spine on antero-dorsal edge at one-third from apex, two spines ventrally before spur (the latter flattened distally), eight spines round apex (anterior and posterior faces). First tarsal joint curved, two short spines on dorsal edge: comb of twenty-five or more spines. At apices of joints 1-4 are 2 spines dorsally and 1 ventral. Ratio of joints—30:7:7:6:15. Mid-legs as long as fore-leg; femur (5:1) longer (4:3) than tibia (about 5:1); tarsus just longer than tibia: two dorsal spines on tibiae, one at one-half, the other at one-third from apex, where there are, besides the spur, five larger spines anteriorly, and five smaller and more closely set posteriorly. First tarsal joint one median dorsal spine, and six at apex. Ratio of joints—18:14:11:9:15.

Hind legs:—Length .8 mm. Femur (4:1) as long as tibia (about 7:1); tarsus longer (10:9) than either femur or tibia. Tibia: besides the usual dorsal spine at one-third from apex, there is a small one near base; one preapical ventral spine, three at apex anteriorly, and comb of eight posteriorly. The spur is just over half the length of the first tarsal joint, which bears five (single or double) plantar spines, and three in a row on anterior aspect. Ratio of joints—40:20:14:11:15.

Abdomen:—Length .34 mm., breadth .4 mm., lengths of the first four visible tergites 35:50:32:18, sternites 25:50:20:23. The ovipositor (entirely internal) is five-sixths of the length of the abdomen. First tergite strongly margined above the concealed petiole, from the margin crenulate (8-10 short ridges) to half its length medianly. From above the antero-lateral angles are distinct, and from the margin before each angle there comes back a fine irregular ridge, not quite parallel with the lateral edge, but a little ad-medianly inclined, and reaching to two-thirds of the length of the tergite. The sides of the abdomen are gently convex, and it is posteriorly slightly truncate. The tergites overlap broadly, and the enclosed ventral area is trapezoidal in outline. Both dorsal and ventral aspects are rough, the pattern large and strongly raised. On the tergites are a few minute scattered bristles, chiefly at sides.

Length about 1 mm.

Expanse about 1.5 mm.

Holotype ♀ in British Museum.

South Africa, Capè Province, Mossel Bay, xi. 1922. R. E. Turner.