DESCRIPTIONS OF NEW TAXA IN THE THORONINI
(HYMENOPTERA, PROCTOTRUPOIDEA, SCELIONIDAE)

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Abstract

A generic diagnosis of *Microthoron* Masner is completed, and the male antenna is figured. Data on distribution and variability of *M. baeoides* Masner are presented. *M. miricornis* n. sp. is described from South India. A key to the known species of *Microthoron* is given. *Thoronidea taino* n. gen., n. sp. is described from the Dominican Republic. *Thoron longicornis* n. sp. is described from Arizona, and a key to the known species of *Thoron* Haliday is given.

The members of the tribe Thoronini, egg parasites of aquatic Heteroptera, are generally poorly represented in collections. However, we are inclined to believe that this is largely due to the cryptic niches in which the adult wasps are encountered and also to lack of adequate collecting techniques in such situations. Yellow pan traps situated close to fresh waters have proved to be successful in collecting Thoronini (Masner 1972, 1976b). Similarly, the pitfall traps used for trapping various terrestrial arthropods often contain high numbers of miscellaneous proctotrupoid wasps (unpublished data). The use of ethylene glycol - water mixture (1:1) with small amounts of unscented detergent as a surface breaker in both pan traps and pitfall traps cuts considerably the frequency of servicing the traps (10 days to 2 weeks). Glycol prevents decomposition and inflation of specimens. Pan traps must be roofed with sheets of clear plastic and the scooped contents carefully rinsed in water before dumping in alcohol. Students of proctotrupoid wasps are hereby strongly encouraged to use this simple yet highly rewarding method of collecting.

*Microthoron* Masner

1972, *Microthoron* Masner, Can. Ent. 104: 847.
1976a, *Microthoron*: Masner, Mem. ent. Soc. Can. 97: 63.

The generic diagnosis by Masner (1972) is amplified by the following:

**Female.** Vertex not carinate, but in larger specimens slightly carinate; in frontal view genae evenly bulging below the distinct subocular sutures (Fig. 3); palpal formula 4-2, palpi very short; mandibles short, broad, 3-dentate; clypeus sharply pointed, almost triangular (Fig. 3); radicle rather elongate, at least 1/4 of scape length; A3 at least subequal to A4 & A5 combined or even longer than A1; clava ovoid or spindle-like; metasoma short, or elongate in one species.

**Male.** Differs from female in shape of antenna (Fig. 6), which is unique among all the genera of Sclionidae known to us (Masner 1976a).

*Microthoron baeoides* Masner

1972, *Microthoron baeoides* Masner, Can. Ent. 104: 847-848.
1978, *Acolomorpha indica* Mukerjee, Mem. School Ent. Agra 5: 47-49. N. syn.

This species has a surprisingly wide distribution. In addition to the type series from Malaya, we examined specimens from E. and S. India (the holotype of *Acolomorpha indica* Mukerjee), Rhodesia, and the Cap Verde Islands (W. Africa). All specimens seem to be conspecific but there are some differences, which may be correlated to variations in length of body. The Cap Verde specimens are slightly larger and have A3 somewhat longer than in other specimens. The length of the
postmarginal vein is variable as well as the colour of antennae and legs. The cephalic proportions are also subject to variation e.g. total length/width ratio and the shortest width of frons compared with width of eyes. There are two (♂ ♀) specimens from The Gambia (Abuko Nature Reserve, Lamin, 25 January - 1 February 1978, pan traps, L. Huggert) which we prefer not to assign to M. baeoides. They differ from the latter by having vertex slightly carinate and female scape and flagellum light yellow in contrast with the black clava. The antenna of the male is discussed in the generic diagnosis (Fig. 6).

**Bionomics.** Although the hosts are unknown it is likely that species of Microthoron attack eggs of some semiaquatic Heteroptera (e.g. Gelastocoridae, the toad bugs). This is assumed from the known host relations of other Thorianini, as well as from the circumstances under which the specimens of Microthoron were collected. The Gambian and the South Indian specimens were collected in pan traps (along with specimens of the genus Tiphodytes Bradley, egg parasites of the Gerridae) on muddy ground close to fresh waters. The type series of M. baeoides was collected in Malaise trap set near a stream; two species of Tiphodytes were also present.

**Material Examined.** Malaya: 3 ♀ (holotype and 2 paratypes, CNC), Ulu Gombak Field Station, Selangor, 3-19 July 1970, Malaise trap, Chua Tock Hing; India: 1 ♀ on slide (Holotype of Acolomorpha indica Mukerjee, Agra) Poro North, N. Bengal, 6-24 April 1976, Mani & party; 1 ♀ (CNC), Bangalore, S. India, Commonwealth Institute of Biological Control, 14 March 1975, pan trap near lake in forest; Rhodesia: 1 ♀ (CNC), Salisbury, September–December 1975, by sweeping, A. Watsham; Cap Verde Islands: 3 ♀ (Univ. Zool. Mus., Helsinki), S. Tiago Rib. S. Domingos, 12-15 February 1954, H. Lindberg.

**Microthoron miricornis** n. sp.

Figs. 1, 4

**Female.** Length 0.8 mm. Black; legs including coxae bright yellow, tibiae and tarsi yellowish brown; radicle and proximal 2/3 of scape yellowish, apical third of scape and A2–A6 brownish; mandibles and palpi yellow; prosternum light brown; wings only slightly infuscate.

Head in dorsal view appears less transverse (15:29) than in M. baeoides; vertex with no carina, rounded; head from in front with malar space shorter than height of eye (9.5:15); no short striae on cheeks at base of mandibles; otherwise sculpture, pilosity, etc. on head as in M. baeoides; antennae unusual because of enormous length of A3, which is longer than scape or slender spindle-like clava; A3 wider than A1 and generally tapered distally (Fig. 4); radicle long, about 1/3 of scape length; A1–A6 with length/width ratios of 13:2.5, 4:3, 17:3.5, 2:1.5, 1.5:1.7, 15:4.5.

Mesosoma slightly elongate (28:23) as in M. baeoides, microsculpture and pilosity also identical; in lateral view angle of skaphion less acute (cf. Masner 1972, fig. 5); wings and legs as in M. baeoides, but postmarginalis slightly longer.

Metasoma distinctly more elongate (42:19) than in M. baeoides (35:24); tergites T1–T7 with length/width ratios of 5:11, 8:19, 17:20, 6:16, 4:10, 1:7, 4:6; sculpture, pilosity, etc. as in M. baeoides.

**Male.** Unknown.

**Host.** Unknown.

**Type Material.** 1 ♀ (holotype, CNC No. 15597), S. India: Bangalore, Commonwealth Institute of Biological Control, 7 February 1975, pan trap in forest near lake. Left antenna after scape missing, clava of right antenna glued on point.

**Bionomics.** The unique female was caught in a pan trap with a specimen of Tiphodytes (known egg parasites of Gerridae). The host, however, remains unknown.
DISCUSSION. This is certainly a very unusual species. We prefer to classify it in *Microthoron*, despite the strange antenna and relatively slender metasoma.

ETYMOLOGY. The name refers to the admirable shape of the antennae.

KEY TO SPECIES OF *Microthoron* (females)

(1) A3 lanceolate with obtuse apex, 4 times as long as A2, longer than either scape or clava; clava spindle-like (Fig. 4); metasoma distinctly elongate, more than twice as long as broad (Fig. 1); legs including coxae yellow; S. India ................................. *M. miricornis* n. sp.

A3 only slightly elongate, at most twice as long as wide, subequal to A2, much shorter than either scape or clava; clava ovoid (Fig. 5); metasoma slightly elongate, about 1.5 times longer than broad (Fig. 2); legs including coxae brownish; Oriental and Ethiopean regions  ......... *M. baeoides* Masner
**Thoronidea n. gen.**

*Female.* General habitus as in *Microthoron*, i.e. short and plump; body almost entirely smooth and shiny, with only small areas sculptured.

Head strongly transverse, wider than mesosoma; occipital carina complete and strong; ocelli in very low triangle, lateral ocelli almost contiguous with inner orbits; eyes rather large, densely hairy; subocular suture deep, percurrent, flanked by fans of striae both below and above, i.e. cheeks heavily striate; clypeus small, truncate at apex, with anterolateral corners subacute; mandibles short, strong, tridentate, with teeth equal; radicle not conspicuously elongate; antennae 7-segmented, clava massive and not distinctly segmented.

Mesosoma short, strongly arched dorsally, gibbose; skaphion present, flexed and almost vertical if viewed laterally; notaui absent; scutellum almost semicircular; metasternum medially with distinct bulge overlapping middle part of propodeum; in dorsal view only posterolateral corners of propodeum visible; pleura with chains of crenulae; mesopleura with sharp carina extending from middle coxa to merge with suture connecting tegula with fore coxa; wings rather narrow, with long marginal cilia; fore wing with submarginal vein running very close to fore margin in basal 3/4, remote from the latter only in front of marginalis; stigmais longer than either postmarginalis or marginalis; hind margin of fore wing in basal 1/3 with strong frenal gutter; legs slender; spurs 1,1,1; tarsi 5-segmented.

*Metasoma* ovoid, narrowed basally, composed of 7 visible tergites (T6 minuscule); T1 and T2 costate, T3–T7 smooth; T1 without hump, only twice as wide as long; T3 the largest of all tergites, with sides almost parallel; T7 not extruded with ovipositor; laterotergites broad, without submarginal groove on ventral side of metasoma.

*Male.* Unknown.

**Type-Species.** *Thoronidea taino* n. sp. (described below).

**Etymology.** The generic name stresses the placement of the new genus in the tribe Thoronini (Scelioninae).

**Remarks.** *Thoronidea* most closely resembles *Microthoron* (see key below). The well defined carina on mesepisternum extending from middle coxa in *Thoronidea* is similar to those in *Thoron* and *Neothoron*; however, the structure of the metasoma in *Thoronidea* is identical with that in *Microthoron* and similar to those in *Tiphodytes* and *Tanaodytes*. *Thoronidea* is also convergent with *Idris* but can be easily distinguished from the latter by presence of skaphion, glossy sculpture of the body as well as the structure of metasoma (broad laterotergites, etc.).

*Thoronidea* may be distinguished from *Microthoron* most conveniently by the following key:

1. Clypeus spine-like pointed apically; cheeks with only few short striae below subocular suture or without striae (Fig. 3); female antennae 6-segmented ............................ *Microthoron* Msn.  
2. Clypeus truncate, with anterolateral corners subacute; cheeks with distinct fans of long striae both above and below subocular suture (Fig. 7); female antennae 7-segmented ............................ *Thoronidea* n. gen.

**Thoronidea taino** n. sp.  

*Female.* Length 0.8 mm. Black, highly shining, smooth; mandibles, radicle and basal 3/4 of scape orange yellow; A2–A6 brown, A7 black; legs yellowish brown, coxae and trochanters markedly lighter than rest of segments which are brownish; wings conspicuously infuscate but not banded.

Head transverse (15:33); vertex around ocelli and occiput with fine coriaceous sculpture; frons smooth; striae radiating from base of mandibles above subocular suture extend to lower arc of eye orbit; fine keel extending dorsally from antennal insertion about 1/4 height of frons; antennal segments in length/width ratios of 16:3, 5:3, 3:2.5, 2:3, 1:5:3, 1:5:3, 17:8.
Skaphion smooth and glabrous; narrow area of mesoscutum adjacent to posterior margin of skaphion with delicate coriaceous sculpture, mesoscutum otherwise perfectly smooth, shining, covered with scattered decumbent reddish hairs; metanotal bulge finely rugulose; postmarginalis distinctly shorter than stigmalis (2:7); longest marginal cilia in fore wing about 1/4 of maximal wing width; longest marginal cilia in hind wing longer than maximal wing width.

Metasoma moderately elongate (40:26), tergites in relative length/width ratios of 7:14, 9:20, 20:26, 4.5:24, 3:17, 1:8, 4:8.

**Male.** Unknown.

**Host.** Unknown.

**TYPE MATERIAL.** 1 ♀ holotype (CNC No. 15616), Dominican Republic (Hispaniola), Cordillera Central, 600 m, 15 km SW. Piedra Blanca (Prov. La Vega; road between Piedra Blanca and Rancho Arriba), 26 March 1978, L. Masner; swept from lush vegetation along creek in narrow ravine with pockets of primary rain forest.

**ETYMOLOGY.** The specific name honours the Taino Indian tribe, the onetime inhabitants of Quisqueya (Hispaniola).

**Thoron Haliday**

**Thoron longicornis** n. sp.

Figs. 9a, b, c

**Female.** Length 2.9 mm. Body colour black with slight metallic tint; legs reddish brown, except coxae which are yellowish ventrally; radicle yellowish, A1–A5 brown, A6–A7 blackish, A8 (clava) black; wings slightly infuscate.

Head in dorsal view transverse (38:82), with distinct crenulate occipital carina; frons almost flat; eyes large and bulging, glabrous; temples almost straight, convergent, shorter than eye as 17 to 28; ocelli almost in a line, POL:LOL:OOL=21:8:6; head in lateral view (Fig. 9c) shorter than high (43:68), with almost almond-shaped eyes; malar space about half of greatest width of an eye; apex of scape reaching distinctly above top of vertex; head from in front with vertex almost flat, frons with distinct median keel extending more than half the distance to anterior ocellus; cheeks above subocular suture with fan of strong striae radiating from base of mandibles; latter area also covered with rather dense pilosity; upper median part of frons glabrous; cheeks below subocular suture with only three short striae only half distance to lower orbit; postocciput smooth, without arched ridges; antennae long and slender (Fig. 9c), radicle 4 times as long as wide (18:4.5), the following segments (A1–A8) in length/width ratios of 51:9, 15:6.5, 19:6, 15:7, 10:7.5, 7:7, 8:9.5, 53:16; all segments with dense hairs.

Mesosoma with notauli wider and deeper than in metallicus, distinctly crenulated at bottom; posterolateral corners of propodeum not prominent, posteromedian part of propodeum less reduced and thus more visible than in metallicus; in lateral view anterior part of mesoscutum less arched (Fig. 9c); metanotum with distinct erect sharp spine (Fig. 9b); lower part of pronotum above fore coxa roughly rugulose-foveolate; metapleuron and propodeum less hairy than in metallicus, part of metapleuron above hind coxa virtually glabrous; marginal vein in fore wing narrower than in metallicus, i.e. pseudostigma almost wanting, postmarginalis very fine, shorter than stigmalis (15:20); area of basal vein with angular pigmented streak; coxae rather elongate, hind coxae distinctly twice as long as wide, hairy dorsally on apical half.

Metasomatic tergites in relative proportions (length/width) 30:30, 50:70, 68:76, 16:68, 11:50, 6:30, 9:16; T1 in dorsal view with few strong percurrent longitudinal costae, in lateral view virtually without hump, with anterior margin sharp, rim-like (Fig. 9b); T6 distinctly shorter than T5 (6:11); T7 broadly triangular (9:16), in lateral view apex of T7 not upcurved and not overlapping the apex of last sternite (Fig. 9a).

**Male.** Unknown.

**Host.** Unknown.
Figs. 8–9. 8. *Thoron metallicus* Hal. ♀ (8a, apex of metasoma in lateral view; 8b, profile of mesosoma and T1; 8c, head and antenna). 9. *Thoron longicornis* n. sp. ♀ (9a, apex of metasoma in lateral view; 9b, profile of mesosoma and T1; 9c, head and antenna).

**Type Material.** 1 ♀ holotype (CNC No. 15598). USA: Arizona, Huachuca Mts., Ramsey Canyon, 25 km S. Sierra Vista, 1820 m, June 1967, Malaise trap set across a creek in a narrow gully, R.F. Sternitzky.

**Bionomics.** It is reasonable to assume that this new species is parasitic in eggs of *Curicta* Stål (Heteroptera, Nepidae). The latter genus replaces the genus *Nepa* L. in the South and South-west of USA (Hungerford 1922). *Curicta* sp. was collected by R. Sternitzky (specimen in CNC) in the summer of 1967 at the type locality of *Thoron longicornis*. On the other hand, *Thoron metallicus* was reared from eggs of *Nepa cinerea* L. in Europe (Ferrière 1916; Henriksen 1918) and its probable host...
in the eastern Nearctic is the only North American species, *Nepa apiculata* Uhler (Brooks and Kelton 1967).

**DISCUSSION.** The two known species are compared in the description of *T. longicornis* and distinguished in the key. The rather long postmarginal vein as well as angular pigmented spot in the fore wing of *T. longicornis* are superficially reminiscent of the Neotropical genus *Neothoron* Masner. The latter genus, however, is distinct from *Thoron* primarily in the different structure of the propodeum, the unarmed metanotum, and the position of the lateral ocelli.

**KEY TO SPECIES OF Thoron**  
(The European *T. gibbus* Ruthe is not included, as it is probably identical with *T. metallicus* (cf. Masner 1972).)

1. Apex of scape extending well above vertex (Fig. 9c); in dorsal view temples about half as long as an eye, rather straight; A4 twice as long as wide; postocciput smooth, with no arched ridges; hind coxa hairy dorsally on apical half; metapleura with a glandular spot above hind coxa, coxae yellowish; metanotal spine semierect, sharp, without pilosity (Fig. 9c); T1 not humped dorsally, costate all over; apex of T7 in female not upcurved (Fig. 9a); Arizona ........................................ *T. longicornis* n. sp. 2
2. Apex of scape extending at most to level of vertex (Fig. 8c); in dorsal view temples subequal in length to an eye, rather arched; A4 about 1.5 times as long as wide; postocciput with about 4 distinct arched ridges on each side; hind coxa without hairs dorsally; metapleura and propodeum uniformly hairy, coxae blackish; metanotal spine less erect, blunt, concealed with pilosity (Fig. 8b); T1 distinctly humped dorsally, more or less smooth at top; apex of T7 in female distinctly upcurved (Fig. 8a); Europe, NE. North America ........................................ *T. metallicus* Haliday

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