

SCYPHODON, AN ANOMALOUS
GENUS OF HYMENOPTERA
OF DOUBTFUL AFFINITIES

BY

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EXTRAIT DE
TREUBIA, VOL. VI. LIVR. 2.



LANDSDRUKKERIJ — WELTBEVREDEN — 1925.

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**SCYPHODON, AN ANOMALOUS GENUS OF HYMENOPTERA OF
DOUBTFUL AFFINITIES. (1)**

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The strange Hymenopteron described below was included among some insects collected in southern Sumatra by H. KARNY and H. C. SIEBERS. Although I have been unable to determine its systematic relationships with any degree of satisfaction, the insect presents such striking characters that it will be very easily recognizable by anyone who may have opportunity to study its habits or to discover the other sex. On the basis of the present material, the insect may be characterized as follows:

Scyphodon, gen. nov.

Trochanters one-jointed. Abdomen consisting of six segments in addition to an apical stylus, subpetiolate, the first segment campanulate, separated from the second by a slight but distinct constriction, third segment the longest, hypopygium greatly prolonged. Antennae 13-jointed, filiform; scape moderately lengthened. Prothorax extending to the tegulae, short above. All coxae contiguous, tibial spurs 1, 2, 2. Anterior wing with a subcostal cell, long marginal vein, an incompletely closed radial cell, and one indistinctly defined basal cell; otherwise veinless. Mandibles broadly paddle-shaped, not dentate.

Head nearly twice as broad as the thorax, much constricted behind, the temples broadly rounded. Eyes small, rounded, highly convex, densely hairy. Mandibles large oval, paddle- or spoon-shaped, convex and concave internally, fringed with hair and hairy on the convex surface, with a tooth-like projection above at the base. Oral aperture large; maxillae apparently consisting each of a finger-shaped stalk bearing a minute 1-jointed palpus. Antennae as long as the head and thorax, inserted at the anterior end of the long horizontal front; scape twice as long as any of the flagellar joints which are longer than the pedicel. Ocelli well developed, in a minute

(1) Contribution from the Entomological Laboratory of the Bussey Institution, Harvard University, No. 223.

triangle close to the occiput. Thorax long and narrow, pronotum visible from above, but very short medially; mesonotum twice as broad as long, gradually broader behind; scutellum separated by a transverse groove at the base, longer than wide, obtusely pointed behind. Propodeum small, rather evenly sloping and without separated upper and posterior faces; its surface smooth, without carinae; spiracle small, circular. Propleurae very long, extending backwards almost to the tegulae. Mesopleurae and mesosternum very large, mesothorax swollen below so that the mesopleura is below the level of the tip of the front coxae. Abdomen, exclusive of the hypopygium, as long as the remainder of the body, consisting of six segments, the first two short, of about equal length, third more than twice as long; fourth and fifth shorter, but still longer than the second; sixth as long as the third but much narrower and obtusely pointed at the tip. Hypopygial structure arising beneath the base of the sixth segment, as long as the entire thorax or the five basal abdominal segments; seen from above (Fig. 1, D) it contains a median tubular piece with a large oval

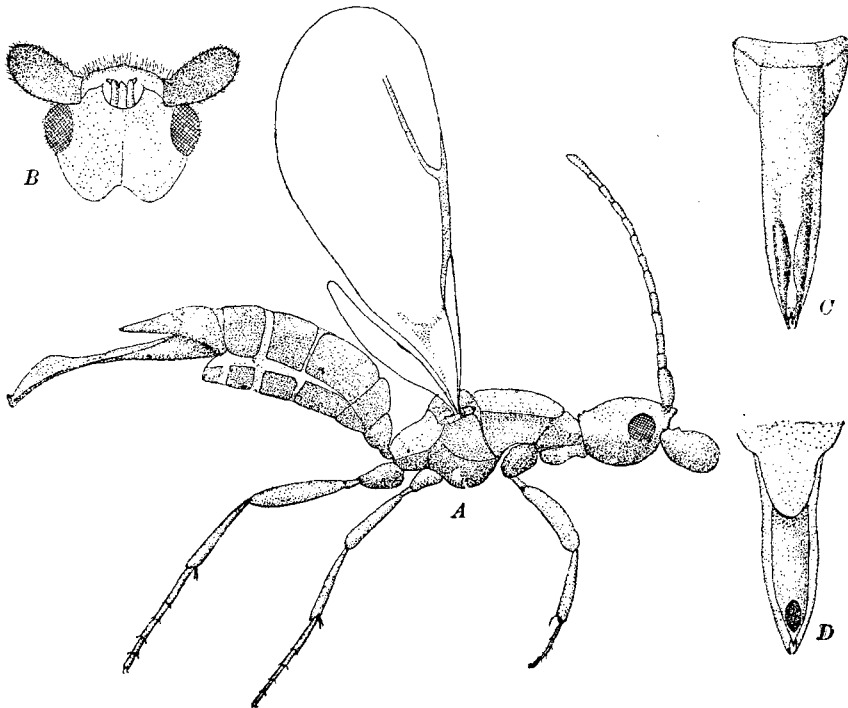


Fig. 1. *Scyphodon anomalum*, sp. nov.

aperture just before the tip which is acutely pointed, to the sides of the median piece the sternite is visible. In lateral view the upper part of the dorsal median piece appears above the sternite to which it is seen to be fused; from below (Fig. 1, C) the whole structure appears as a long tube with a pair of longitudinal thickenings near the apex. Legs slender, the

anterior femora somewhat thickened; tarsal claws simple. Wings large; submarginal vein twice as long as the marginal; radial vein straight, except at extreme base, as long as the marginal.

Type *S. anomalum* sp. nov.

***Scyphodon anomalum*, sp. nov. (Fig. 1).**

♀? Length 2.5—2.8 mm. Very dark brown, legs distinctly lighter; antennae brownish yellow. Wings tinged with brown, veins brownish yellow. One specimen (the one figured) has the abdomen somewhat swollen and the intersegmental membranes show as pale areas.

Type and paratype from Wai Lima, Lampongs, Sumatra (H. KARNY and H. C. SIEBERS).

From the above description, it is evident that *Scyphodon* is quite unique in the structure of two organs, the mandibles and prolonged hypopygial organ, either one of which will serve readily to distinguish it from any other known genus of Hymenoptera.

The one-jointed trochanters at once exclude it from the Braconidae or any of the related families in which it might otherwise perhaps find a place. It must then, on the basis of the long prothorax which extends backwards to the tegulae, be placed in the somewhat heterogeneous series comprising the superfamily Vespoidea, or in the Serphoidea. Here it is probably most similar to certain Bethylidae although there are several characters utterly at variance with any of the genera hitherto placed in this family. In the first place, the hind wings are very small, narrow at the base, and lack entirely the anal lobe so characteristic of this group while the short pronotum, long mesonotum and small sloping propodeum find no counterpart in the genera referred to the Bethylidae. The hypopygial organ seems to be entirely unlike that of any other Hymenopteron, in fact I cannot be positive of the sex of the specimens. There is some similarity, however, to the ovipositor of Proctotrypes and this taken together with the absence of any indication of articulated lamellae or claspers leads me to believe that the insects are females, although the slender antennae and legs are more like those of males, especially in the family Bethylidae. So far as I am aware, the trochanters of all Braconidae are two-jointed, a character which appears to be of great importance and to extend through the related families. Except for this character and the presence of a quite distinct subcostal cell, the present insect could be regarded as a Braconid without causing any serious confusion in our present system of classification.

Messrs. ROHWER and GAHAN of the United States National Museum have very kindly examined the type. They would place it among the Serphoidea, but not definitely in any of the known families. They feel

reasonably certain that it is a male, and I have no reason to believe otherwise, except that as stated above, no jointed claspers or other appendages are clearly visible. Their absence, however, could hardly be considered as definite proof that the specimen is a female.

Whether this curious genus will find a final place near the Bethylidae or in the Serphoid series, and possibly in a family of its own, may perhaps be clear when the opposite sex is discovered.
