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A NEW THYREODON BRULLE
(HYMENOPTERA: ICHNEUMONIDAE)
FROM SOUTH TEXAS¹

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ABSTRACT

Thyreodon rivinae n. sp. was collected during July 1979 from undergrowth of *Rivina humilis* Linnaeus in *Celtis* woods at Bentsen Río Grande Valley State Park near Mission, TX. The salient diagnostic features of *T. rivinae* are its enlarged ocelli (which almost touch the compound eyes laterally), yellow flagellum, and black fore wing with a large hyaline blotch in the discocubital and 2nd discoidal cells.

Recently, I confirmed the presence in southernmost Texas of *Thyreodon laticinctus* Cresson and *T. niger* Cresson, Neotropic species previously unrecorded north of México (Porter 1976: 304-9). Further collecting now has revealed that an undescribed *Thyreodon* inhabits the same area. Herewith I describe this new species and offer a revised key to the Texas *Thyreodon*.

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KEY TO TEXAS *Thyreodon*

1. Ocelli very large, ocellocular space obsolete; 2nd maxillary palpomere inflated; cubitella reaches apex of hind wing; hind coxa extends about $\frac{2}{5}$ its length beyond apex of propodeum; notauli almost reach apex of mesoscutum; fore wing black with a large hyaline blotch in discocubital and 2nd discoidal cells 1. *Thyreodon rivinae* n. sp.
- 1'. Ocelli small, ocellocular space broad; 2nd maxillary palpomere more or less triangular but not inflated; cubitella ends before apex of hind wing; hind coxa scarcely surpasses apex of propodeum; notauli reach $\frac{3}{4}$ - $\frac{4}{5}$ the length of mesoscutum; fore wing uniformly black 2
2. Prescutellar ridge anteriorly expanded, concave, and recurved to form a stout spine or claw-like structure; notaulus a shallow band of rather fine reticulation with a weak and appressed crest at its front end; mesopleuron finely and densely punctate throughout; hind face of propodeum uniformly reticulate with only faint traces of a median channel and lateral depressions; black with flagellum mostly yellow and gastric tergites 3-4 largely ferruginous 2. *T. laticinctus* Cresson
- 2'. Prescutellar ridge not expanded or recurved; notaulus strongly impressed and coarsely foveolate with a prominently raised crest at front end; mesopleuron uniformly polished and almost impunctate; hind face of propodeum with a deep, transversely wrinkled median longitudinal channel and 2 broader and shallower trans-rugose lateral depressions, which are separated from the median channel by a pair of broad, high, mostly smooth and polished longitudinal elevations; almost entirely black 3. *T. niger* Cresson

1. *Thyreodon rivinae* Porter, NEW SPECIES

(Fig. 1, 2)

FEMALE. *Color:* flagellum yellow with a little brown on basal segment; scape and pedicel brownish and yellowish brown; head shiny black with some brown staining, especially on basal $\frac{3}{4}$ of mandible and on hind orbit; mesosoma shiny black with extensive but faint reddish brown staining on thorax, particularly pronotum and mesopleuron; gaster glistening black with a bluish tinge; legs shiny black, a little duller on tarsi, and with some obscure brown staining, especially on fore coxa and femur; fore wing uniformly blackish, except for a large and conspicuous hyaline blotch that occupies about median $\frac{2}{5}$ of discocubital cell and much of anterodorsal $\frac{1}{2}$ of 2nd discoidal cell; hind wing blackish throughout.

Length of fore wing: 19 mm. *Face:* shining with numerous but well separated small punctures. *Clypeus:* shining with small punctures somewhat sparser than those on face, apex toward meson weakly produced and a little sharply rounded. *Temple:* convexly receding in dorsal view; in lateral view 0.66 as long as eye. *Ocelli:* enlarged, separated from one another by less than $\frac{1}{2}$ the diameter of an ocellus, ocellocular space obsolete. *Maxillary palpus:* 2nd segment strongly swollen. *Mesoscutum:* smooth and shining with

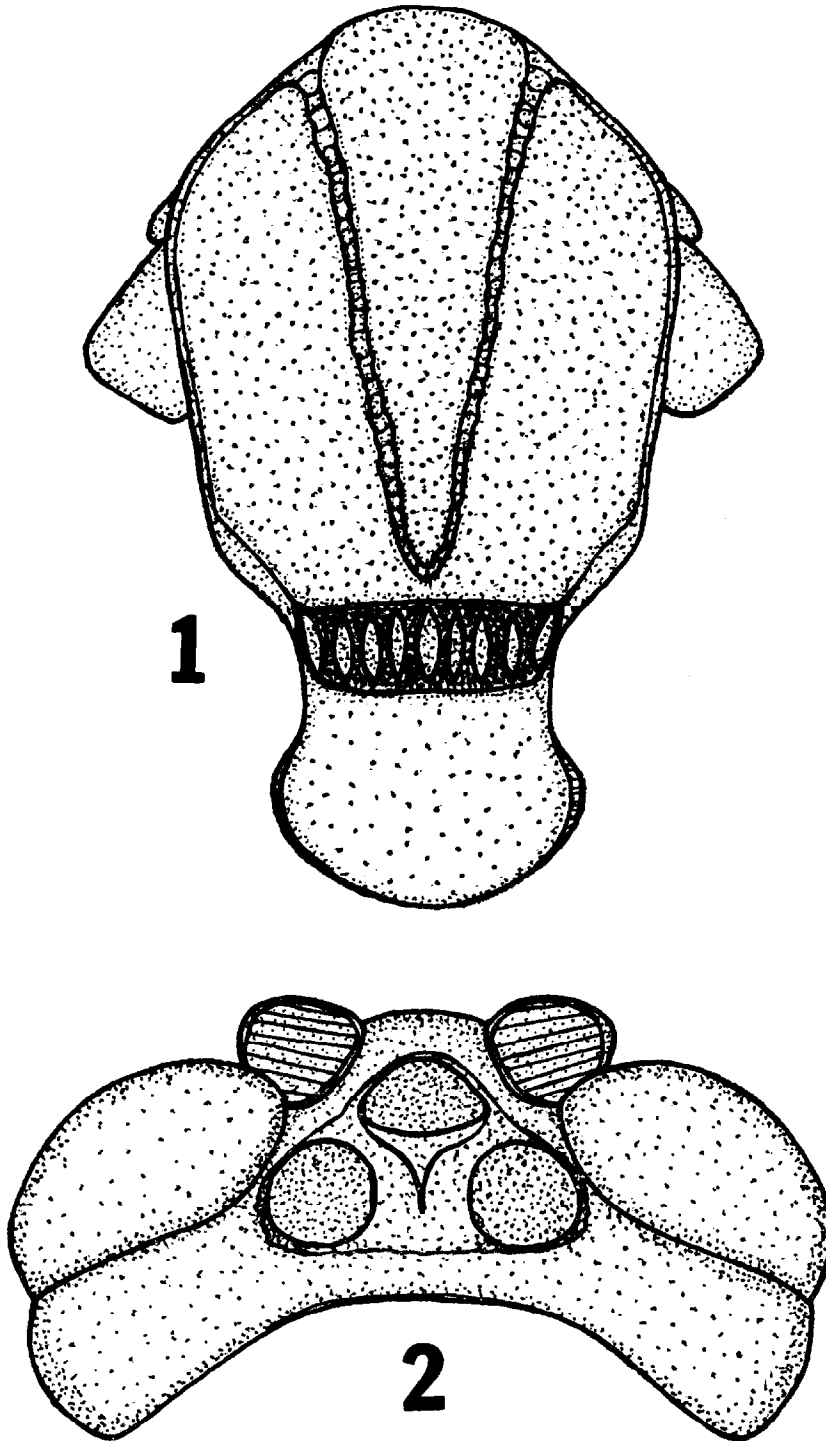


Fig. 1, 2. *Thyreodon rivinae*, ♀ Holotype. 1) Dorsal view of mesonotum. 2) Dorsal view of head.

abundant tiny punctures that become sparser rearward; notauli ecristate at anterior end, moderately narrow but strongly impressed and foveolate, percurrent, gradually converging rearward and meeting just before prescutellar depression; prescutellar ridges a little inflated on anterior 2/3 but otherwise unmodified. *Mesopleuron*: smooth and polished, except on speculum with abundant tiny punctures. *Propodeum*: inflated; dorsal face short and weakly discrete from hind face; with strong reticulate wrinkling almost throughout, except close to base; and with a gently impressed postero-medial channel but without postero-lateral depressions. *Wing venation*: 1st brachial cell as long as 2nd discoidal cell; nervulus about 1/4 its length antefurcal and strongly inclivous; postnervulus broken above middle, lower abscissa 2.0 as long as upper; cubitella reaches apex of hind wing; nervellus broken very far above middle, lower abscissa 3.2 as long as upper. *Hind coxa*: in lateral view reaches about 2/5 its length beyond apex of propodeum.

MALE. Unknown.

TYPE MATERIAL. Holotype ♀: TEXAS, Hidalgo County, Bentsen Río Grande Valley State Park, 25-VII-79, C. Porter. In Florida State Collection of Arthropods, Gainesville.

FIELD NOTES. The unique holotype was netted in humid, shady *Celtis lindheimeri* A. Gray woods as it flew over a dense patch of the phytolaccacean plant, *Rivina humilis* Linnaeus.

Thyreodon rivinae seems to be a rare species, as I have found no other specimens during 7 years of frequent field trips to south Texas and adjoining México.

It is also remarkable that *T. rivinae* appeared during mid summer. Most south Texas ichneumonids fly mainly from September to May and many reach maximum abundance in December and January. From 24-VII-25-VIII-1979 I collected in Bentsen Park 5 days a week for 5-6 hours a day. Besides *T. rivinae*, during that time I found only 2 other ichneumonid specimens, a *Labena grallator* Say and an unidentified species of *Anomalon*. Concurrently, aculeate Hymenoptera remained numerous (in spite of an unrelenting drought), and in shaded patches of *Rivina* I could always find many eumenids of the genera *Stenodynerus*, *Pachodynerus*, and *Eumenes* along with sphecids, such as *Sphex servillei* Lepeletier.

According to Townes (1971: 71), the *Thyreodon* with large ocelli fly principally at night, and future studies may show that *T. rivinae* employs this strategem to avoid the daytime heat of subtropical summers.

RELATIONSHIPS. *Thyreodon rivinae* is not closely allied to the other U. S. *Thyreodon*, from which it differs by such characters as the inflated ocelli, swollen 2nd maxillary palpomere, and more elongate hind coxa. These features place it in an otherwise exclusively Neotropical species group which has several described forms in Middle and South America and the West Indies. The present group often has been recognized as a distinct genus, *Athyreodon* Ashmead (Ashmead 1900, Hooker 1912, Cushman 1947). However, Townes (1966: 185) includes it under *Thyreodon*.

Thyreodon rivinae seems amply distinct from the Neotropical "*Athyreodon*." Among these, only *T. atriventris* Cresson approaches south Texas. Mexican populations of *T. atriventris* differ from *T. rivinae* in having the flagellum black (instead of yellow); the head, mesosoma, fore and mid legs largely fulvous (instead of black to shining brownish black); the wings mostly

hyaline with dark staining only toward the anterior margin of the fore wing, especially in the radial cell and along the costal and basal veins (instead of black except for a large median hyaline blotch on the fore wing); and the nervulus interstitial to postfurcal and only weakly inclivous (instead of strongly antefurcal and steeply inclivous).

SPECIFIC NAME. The specific name, used here as a Latin genitive singular, was chosen for this species in reference to *Rivina humilis* L., the plant that dominates the habitat where the holotype was taken.

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A SURVEY OF NORTHWEST FLORIDA FOR POTENTIAL STABLE FLY BREEDING

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ABSTRACT

A survey was made in 15 counties of Northwest Florida and 10 bordering counties in Georgia and Alabama for potential breeding sites of stable flies, *Stomoxys calcitrans* (L.). Most of the sites found that were capable of breeding tremendous numbers of flies were located at dairies and feedlots, but some were at beef ranches, horse farms, and swine and poultry installations. All of these potential breeding sites were located within 70 miles of the Gulf coast beach resorts, which are within the flight range of the stable fly.

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