

First neotropic record of *Idiolispa* with description of a new species from Honduras (Hymenoptera: Ichneumonidae)

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Abstract

Idiolispa Foerster (Ichneumonidae: Phygadeuontinae: Mesostenini) has been known previously only from the Holarctic Region but an undescribed species now is reported in tropical cloud forest (1800 m) on Monte Uyuca near the Escuela Agrícola Panamericana at Zamorano, Honduras.

Introduction

Idiolispa Foerster constitutes a primarily Holarctic element within the tribe Mesostenini. As defined by Townes (1962, 1969), it differs from other mesostenines by the following combination of characters: areolet complete, large, and quadrate (intercubiti subparallel); nervulus interstitial to antefurcal; mesoscutum broad and but weakly convex, notauli weak and short (less than 0.5 mesoscutal length); mesosoma markedly short; epomia weak or absent; prepectus without a vertical carina opposite lower corner of pronotum and with the epicnemial carina traceable dorsad to the subtegular ridge; 1st metasomal tergite unusually slender, more than 0.5 as long as mesosoma; and 2nd tergite polished with only, minute, sparse punctures.

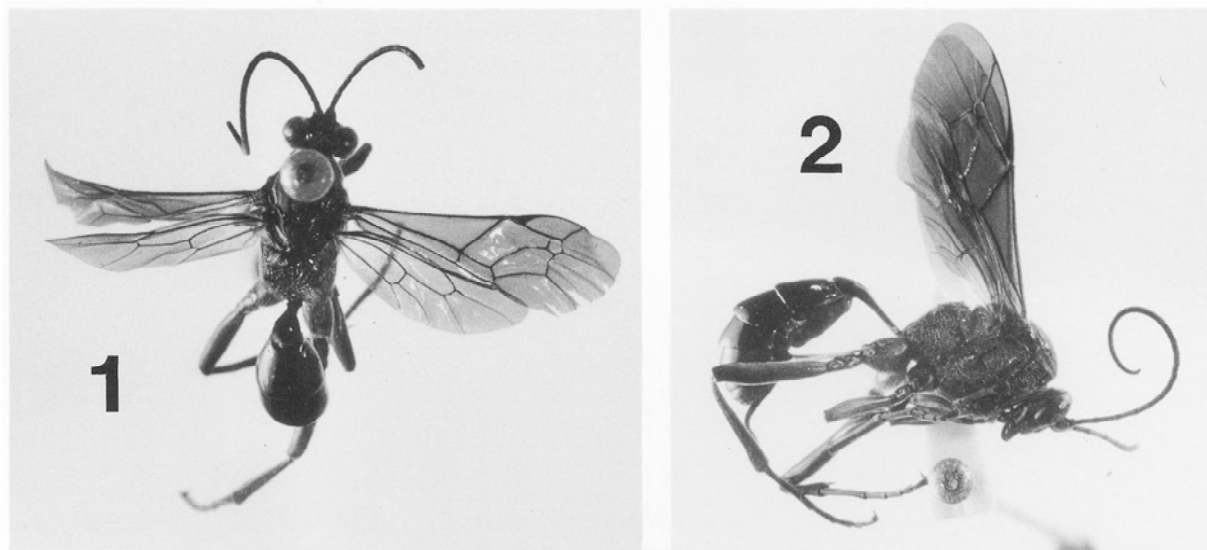
The only host record for a New World *Idiolispa* is of *I. albisoletata* (Walsh) from the nest of a megachilid bee in a rotten log; however, "this record needs confirmation, as related species have spider eggs as hosts" (Townes 1962).

Like so many Holarctic taxa, this genus may have reached Central America during one of the Pleistocene glacial maxima or with a Miocene or Oligocene cold pulse. In any case, the Honduran species described below, albeit taxonomically well differentiated, in no way is aberrant for *Idiolispa*.

Idiolispa corderoi Porter, new species Figures 1, 3 & cf 4, 5

Description: Female. Color: antenna black or black with white above on as many as flagellomeres 6-10; head black with brownish apicad on mandible; thorax and propodeum black; gaster black with pale brown on apices of tergites 2-4 and less conspicuously on apices of 5-6; legs black with drab pale brown to brownish white staining toward apex of front femur anteriodorsally and on most of fore tibia anteroventrally; wings moderately dark brown, hind wing less strongly infumate than fore wing.

Length of fore wing: 7.5-8.0 mm. **First flagellomere:** 3.0-3.5 as long as deep at apex. **Clypeus:** gently and symmetrically convex in profile. **Cheek profile:** in front view almost straight and convergent to base of mandible. **Malar space:** 1.0-1.1 as long as basal width of mandible. **Temple:** quite short, 0.40-0.50 as long as eye in lateral view; in dorsal view receding and scarcely convex. **Mesoscutum:** with the notauli well defined but shallowly impressed on its basal 0.4-0.5. **Mesopleuron:** with dense, small punctures and, especially on lower 0.5, with strong puncto-reticulation or rugosities; sternaulus present on basal 0.5 of mesopleuron, very broad, deeply impressed, and with coarse foveolation. **Lower metapleuron:** coarsely wrinkled. **Wing venation:** areolet very



Figures 1-2. 1) *Idiolispa corderoi*, female holotype. Photograph of entire insect in dorsal view. 2) *I. corderoi*, female holotype. Photograph of entire insect in lateral view.

large, quadrate (intercubiti almost parallel), 1.1-1.2 as wide as high; nervulus interstitial. **Propodeum:** apical transverse carina sublaterally forming prominent, broad, \pm horizontal cristae of subtriangular to crescentic shape but on its median 0.6 arched basad and often becoming irregular or partially effaced; apical face of propodeum very coarsely reticulo-rugose. **First gastric tergite:** 2.5-2.7 as long as wide at apex; petiole with a small but distinct laterobasal subtriangular or rounded expansion and with the ventrolateral carina percurrent but not strong; postpetiole 1.2 as wide at apex as long from spiracle to apex. **Second gastric tergite:** smooth and polished with only scattered minute punctures and short, inconspicuous setae. **Succeeding tergites:** setae on 3rd tergite almost as sparse as on 2nd, those on 4th longer and a little overlapping toward tergal apex, those on 5th and following tergites mostly dense and much overlapping. **Ovipositor:** sheathed portion 0.18 as long as fore wing.

Male. Color: as in female except that there is no white on the antenna, the wings are more lightly infumate, and the legs have white as follows: on fore tarsomeres 1-4 and on mid and hind tarsi except for black on basal 0.5 of first tarsomeres and throughout on fifth.

Length of fore wing: 7.0-7.5 mm. **First flagellomere:** 2.4-2.8 as long as deep at apex. **Clypeus:** more strongly convex than in female and sometimes with its highest point a little above middle. **Malar space:** 0.9-1.1 as long as basal width of mandible. **Temple:** 0.50-0.60 as long as eye in lateral view; steeply and directly receding behind eye. **Mesopleuron:** with punctures larger and wrinkling coarser than in female, the rugosities sometimes covering much of dorsal 0.5 of mesepisternum. **Propodeum:** apical transverse carina as in female except that it remains strong and usually percurrent on median 0.6-0.7 where it is arched strongly basad. **First tergite:** 3.2-3.7 as long as wide at apex; the basolateral flange distinct but weaker than in female; postpetiole 1.0 as wide apically as long from spiracle to apex. **Metasoma:** 2nd tergite with setae a little longer and more numerous than in female but mostly well separated except laterad and apicad; 3rd tergite with denser and partially overlapping setae; 4th and following tergites with setae dense and much overlapping.

Type Material. Holotype female, HONDURAS, Fco. Morazán, San Antonio del Oriente, Uyuca, 1800 m, 12-19-III-1990, en Trampa Malaise a la orilla de bosque nuboso, R. Sorrocín. (Apical flagellomeres broken off). Paratypes: 2 females and 14 males. Same locality and collector as holotype: 5-12-III-1990, 12-19-III-1990, 26-III-2-IV-1990, 16-

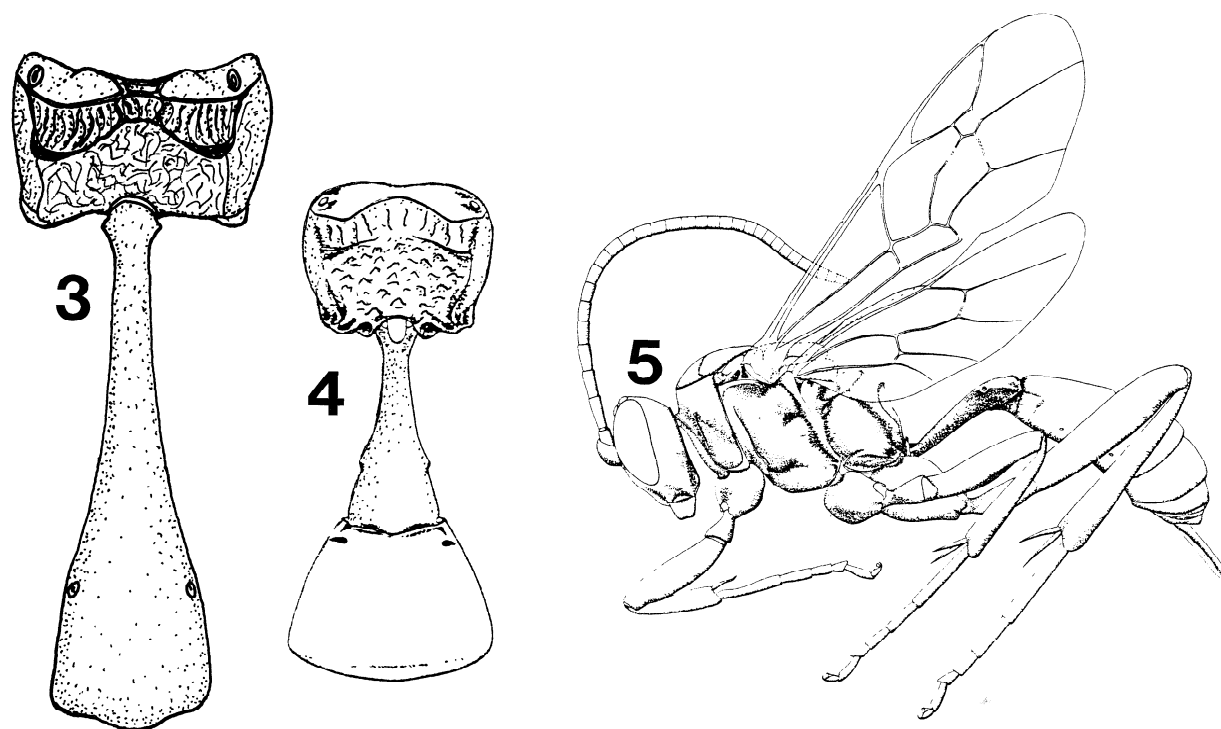


Figure 3-5. 3) *Idiolispa corderoi*, female holotype. Dorsal view of propodeum and first metasomal segment. 4) *I. analis*, female. Dorsal view of propodeum and first metasomal tergite (from Townes 1969). 5) *I. analis*, female. Lateral view of entire insect (from Townes 1969).

V-1990, 13-21-V-1990, 21-28-V-1990. Holotype in FSCA. Paratypes: 1 female and 2 males at AEI, 4 males at FSCA, 1 female and 4 males in Porter Collection at FSCA; and 4 males in ZAMORANO.

Relationships. In his monograph of the North American Mesostenini (1962), Townes records 3 species of *Idiolispa*: *I. aestivalis* Townes (Maine to Georgia, Wisconsin to Texas), *I. albisolecta* (Walsh) [Maine to Virginia, Alaska to Arizona], and *I. analis* (Gravenhorst) [Broadly Holarctic, in New World from Labrador to Virginia and the Yukon to California].

The 4 New World *Idiolispa* all seem closely related, with *I. corderoi* and *I. analis* sharing the most characters.

In *Idiolispa corderoi*, new species, the gaster is black with brownish on some tergal apices, the propodeum is grossly sculptured behind, the first gastric segment has laterobasal excrescences and the female postpetiole is scarcely broader than

long. In other *Idiolispa*, the gaster is broadly red, the propodeum less strongly sculptured, the petiole lacks basolateral excrescences, and the female postpetiole is prominently wider than long.

The following key (cf. Townes 1962) separates these species.

Key to the New World Species of *Idiolispa*

1. First flagellomere in female 1.9 as long as deep at apex, in male 2.2 as long; propodeal cristae very weak; 3rd gastric tergite with numerous, often dense, and widely distributed punctures; metasoma red and black, 7th tergite often with a medioapical white spot.....
..... *Idiolispa albisolecta* (Walsh).
- 1'. First flagellomere in female 3.0-3.5 as long as deep apically, in male 2.4-3.5 as long; propodeal cristae well defined; punctures of 3rd metasomal tergite very sparse in females, moderately dense in some males; metasoma sometimes without red coloration, its 7th tergite never with a white spot..... 2.

2. Clypeus in profile more strongly convex subapically than subbasally, its highest point a little below middle; temple about 0.60 as long as eye in lateral view; sublateral portions of apical transverse carina of propodeum markedly sloped, so that if continued to midline they would meet at about 125 degrees in female and 100 degrees in male; metasoma always extensively red
..... *Idiolispa aestivalis* Townes.
- 2'. Clypeus in profile symmetrically convex or, in some males asymmetric with highest point above middle; temple 0.40-0.60 as long as eye in lateral view; sublateral portions of apical transverse carina of propodeum often almost horizontal so that they would meet centrally at as little as 150 degrees 3
3. Metasoma black with pale brown on some tergal apices, without red markings; sternaulus on basal 0.5 of mesopleuron unusually broad, deep, and coarsely foveolate; propodeum on hind face deeply, grossly wrinkled; female 1st metasomal tergite with small subtriangular basolateral expansions and with postpetiole only 1.2 as wide on apex as long from spiracle to apex
..... *Idiolispa corderoi* new species.
- 3'. Metasoma largely red; sternaulus clearly impressed but not deep or coarsely foveolate; hind face of propodeum less strongly reticulo-rugose; female 1st metasomal tergite without basolateral expansions, and with postpetiole 1.5-2.0 as wide on apex as long from spiracle to apex
..... *Idiolispa analis* (Gravenhorst)

Habitat Notes. The type series of *Idiolispa corderoi* was taken in tropical cloud forest at 1800-1900 m on the summit of Monte Uyuca near Zamorano. This habitat is dominated by oaks and other evergreen trees, whose branches support diverse epiphytic bromeliads, orchids, and ferns. Tree ferns also are conspicuous in the shrub stratum. Some characteristic Hymenoptera include the ichneumonids *Dolichomitus irritator* (Fabricius) and *Clistopyga henryi* Gauld [Ephialtini], *Pimpla croceipes* (Cresson) and *P. viridescens* (Morley) [Pimplini], the scoliid *Campsomeris ephippium* (Say), as well as the apid *Bombus ephippiatus* (Say). All the previously mentioned species were found only in the Cloud Forest on Monte Uyuca and may be indicator species of the biocenosis which includes also *Idiolispa corderoi*.

Cloud forests are few and widely disjunct in Honduras, since the country has only 5 or 6 undisturbed peaks high enough to provide a suitable climate. Sparse and xeric pine woods occupy most of the country's central cordillera. Nonetheless,

Idiolispa corderoi (like the hymenopteran species mentioned above) probably inhabits also the more extensive montane wet forests of Guatemala and México. During cooler and wetter episodes as recent as the Pleistocene glaciations cloud forests in Middle America were much more widespread than at present and doubtless formed a continuum at suitable altitudes across Honduras allowing wide dispersal of their characteristic biota.

Specific Name. For Ing. Agr. Entomologo Roberto Cordero of the Escuela Agrícola Panamericana at Zamorano, Honduras.

Collections. AEI. American Entomological Institute. 3005 SW 56th Avenue, Gainesville, Florida 32608, USA. FSCA. Florida State Collection of Arthropods. Florida Department of Agriculture and Consumer Services, P.O. Box 147100, Gainesville, Florida 32614-7100, USA. PORTER. Collection of Charles C. Porter. Currently housed at The Florida State Collection of Arthropods. ZAMORANO. Collection of the Escuela Agrícola Panamericana. Departamento de Protección Vegetal, Apdo. Postal 93, Tegucigalpa, HONDURAS.

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