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NOTES ON THE GENUS *CORDYLIGASTER* MACQUART, WITH THE DESCRIPTION OF A NEW SPECIES FROM BRAZIL (DIPTERA, TACHINIDAE)

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ABSTRACT

Cordyligaster townsendi, sp. n. (holotype male from Mato Grosso, Pôsto Garapu, Rio 7 de Setembro), is described. This fly is close to *C. analis* Macquart, differing chiefly in details of body coloration. Keys and notes on the distribution, biology and systematics of the genus are presented.

Through the activities of the "Expedição Permanente da Amazônia", sponsored by the Fundação de Amparo à Pesquisa do Estado de São Paulo, the Museu de Zoologia da Universidade de São Paulo, and the Museu Paraense "Emílio Goeldi", a number of specimens of *Cordyligaster* Macquart have been collected. In a recent attempt to identify the specimens in the collection of the Museu de Zoologia, a new species was found.

Biological observations

Townsend (1936: 52), while collecting at Boa Vista, about 100 miles up the River Tapajós, Pará, Brazil, recorded that "hundreds of females [of *Cordyligaster petiolatus* W.], unaccompanied by males, occurred on the veranda screens of the laboratory from the last week in August to the first week in October and all examined contained developed maggots in the uterus. It is certain that these flies had not issued from hosts in or around the laboratory, for in such case males should have been present and the females should not have uniformly contained fully developed maggots".

Townsend concluded in his report that wasps or hornets should be the hosts of *Cordyligaster*, as these Hymenoptera were very abundant in that region. This biological relationship with wasps, as suspected by Townsend, has not yet been established through rearing.

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Systematics

According to Townsend (1936: 53), *Cordyligaster* Macquart belongs to the tribe Sophiini, subfamily Dexiinae, and is closely related to *Eucordyligaster* Townsend, which differs from the former by having the calypteres normally developed, and not reduced to mere rounded rims, a feature quite unusual among the Calyptratae.

Aldrich (1927) revised this group, recognizing three species for *Cordyligaster*, and two for *Eucordyligaster*. Both genera are neotropical in distribution, except for *Eucordyligaster minusculus* (Wulp), which has a wide northern range, reaching the eastern United States (Pennsylvania and Maryland).

Key to genera

1. Calypteres reduced to mere rounded rims; two sternopleurals *Cordyligaster* Macquart
- Calypteres normal in size; one sternopleural *Eucordyligaster* Townsend

Key to species of *Cordyligaster* Macquart

1. Front coxae, legs, palpi, and second antennal segment mostly yellow; wings slightly infuscated *tipuliformis* Walker
- Front coxae, legs, palpi, and wings heavily infuscated 2
2. Abdomen shining black *petiolatus* (Wiedemann)
- Abdomen partly yellow 3
3. Fourth abdominal segment entirely black; legs and coxae black *townsendi*, sp. n.
- Fourth abdominal segment partly or entirely yellow; femora and hind coxae yellow *analis* Macquart

***Cordyligaster petiolatus* (Wiedemann)**

(Fig. 1)

Dexia petiolata Wiedemann, 1830: 374 (Type-locality: "Brazil").

Cordyligaster petiolatus; Macquart, 1843: 247 (1843: 90); Rondani, 1848: 76; Schiner, 1868: 322; Wulp, 1885: 191, pl. 6, figs. 1-2; Townsend, 1917: 122; Aldrich, 1927: 85.

Megistogaster fuscipennis Macquart, 1851: 186 (1851: 213), pl. 19, fig. 7 (Type-locality: "South America"; as "Java", in error).

Eucordylidexia ategulata Townsend, 1915: 41 (Type-locality: Guatemala, Puerto Barrios).

This species is readily recognizable by the black antennae, palpi and legs. Originally described from Brazil, it has been reported from Bolivia, Costa Rica, and Guatemala. In South America this species presents a curious disjunct distribution — in our collection there are specimens from the Brazilian northern States (Pará, Amazonas, and

Maranhão), and from Argentina (Tucumán). No specimen has been recorded between those areas, and close examination of both samples did not reveal any morphological character suggesting the possibility of the existence of two distinct species.

Material examined: Brazil, *Pará*: 1 ♀, bôca do Cuminá-Miri, Oriximiná, IX.1969 (EPA); 2 ♀, Fordlândia, Rio Tapajós, VIII.1955 (R. Damasceno); 1 ♀ Faz. Taperinha, Santarém, XI.1969 (EPA); 1 ♀, Belém, VIII.1962 (K. Lenko); 2 ♂, Canindé, Rio Gurupi, IV.1963 (B. Malkin); 1 ♀, Utinga, Belém, IX.1938 (R. Damasceno); same, 22.I.1964 (E. Dente); *Amazonas*: 1 ♀, São Gabriel, Rio Negro, 23.VIII.1927 (J. F. Zikán); *Amapá*: 3 ♀, Serra do Navio, 2.X.1957 (K. Lenko); 1 ♀, Serra do Navio (Bicelli); *Maranhão*: 1 ♀, Igarapé Gurupi-Una, Aldeia Araçu, 50 km E of Canindé, V.1963 (B. Malkin). Argentina, *Tucumán*: 2 ♂, Tucumán, 10.II.1952 (P. Wygodzinsky).

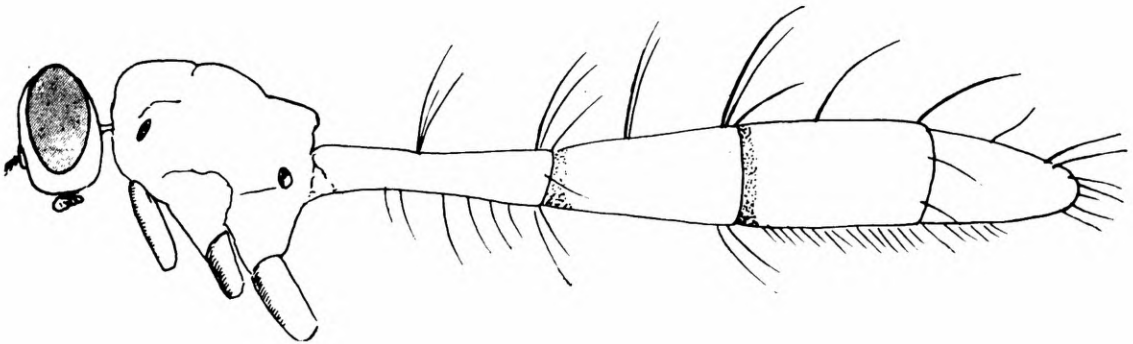


Fig. 1. *Cordyligaster petiolatus*, male, lateral view.

***Cordyligaster tipuliformis* Walker**

Cordyligaster tipuliformis Walker, 1857: 205 (Type-locality: "South America"); Townsend, 1916: 122; Aldrich, 1927: 85.

This species was originally described from a female from "South America". We have abundant material from Nova Teutônia, Santa Catarina, Brazil, which agrees with Walker's description.

Material examined: Brazil, *Rio de Janeiro*: 1♂, Palmital, Vassouras, IX.1954 (S. J. Oliveira); 1 ♂, Tinguá, 17.VII.1940 (H. S. Lopes); *Guanabara*: 1 ♂, Rio de Janeiro, 23.I.1936 (H. S. Lopes); *Santa Catarina*: 6 ♀, Nova Teutônia, X. 1967, IX.1967, 20.XI.1936, III.1961, VIII.1967 (F. Plaumann).

***Cordyligaster townsendi*, sp. n.**

♂ — total length: 15 mm.

Head. Frontal vitta black, subequal to parafrontal width; parafrontalia yellow, becoming black towards the vertex, dusted with yellow pollen; antennae, palpi, and occiput black; parafrontalia and cheeks reddish, dusted with golden pollen.

Thorax black; mesonotum shining black, dusted with thin white pollen; humeri and mesopleura dusted with pale yellow pollen; calypteres and halteres yellow. Legs black. Wings with a rather uniform black coloration; costal spine inconspicuous.

Abdomen strongly long petiolate at base; first, second and margin of third segments yellow, with a narrow black vitta on the dorsum; fourth segment shining black.

Holotype ♂, Brazil, Mato Grosso, Pôsto Garapu, Rio Sete de Setembro, XI.1949 (W. Bokermann).

UNRECOGNIZED SPECIES

Cordyligaster analis (Macquart)

Megistogaster analis Macquart, 1851: 187 (1851: 214) (Type-locality: Brazil, Amazonas).

Cordyligaster analis; Townsend, 1917: 122; Aldrich, 1927: 85.

This species, described from a single male from the Amazon, is not represented in our collection, and its identity is not yet clear. Aldrich (*l. c.*) stated that the type had the fourth segment of the abdomen black, except on its anterior border; he also identified as this species a specimen from the Guyana in the Melander collection (now in the U. S. National Museum), with the fourth abdominal segment wholly yellow, as well as the legs and coxae. According to Dr. R. Crosskey (unpublished notes on the type-material of Macquart and Robineau-Desvoidy), the Paris Museum contains no types of *Cordyligaster*.

Cordyligaster fuscifacies Bigot

Cordyligaster fuscifacies Bigot, 188: 101 (Type-locality: "Java" (?); presumably South America, according to Brauer, 1897: 365).

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