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Mervin W. Nielson
Brigham Young University

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NEW LEAFHOPPER SPECIES OF COELIDIA WITH A REVISED KEY AND NOTES ON HOMONYMY AND DISTRIBUTION (HOMOPTERA: CICADELLIDAE, COELIDIINAE)

Mervin W. Nielson

Abstract.—Five new species of Coelidia are described and illustrated. These include panamensis and simplex from Panama and retrorsa, cochlcea, and tortula from Brazil. A revised key is also presented for 13 of the 14 species for which males are known. Coelidia gladia is proposed as a new name for Coelidia spangbergi Nielson, 1982 nec Coelidia spangbergi Linnavuori, 1956 and Coelidia spangbergi Metcalf, 1964.

The nominate genus Coelidia Germar of the subfamily Coelidiinae was treated in Part IV of my revision of the tribe Coelidiini (Nielson 1982). In that work nine species were included in a conceptually restricted group that formerly encompassed over 200 species represented in all zoogeographical regions of the world. In this paper five new species are described with a revised key to 13 of 14 species for which males are known. A new name is proposed for Coelidia spangbergi Nielson, 1982, preoccupied by Coelidia spangbergi Linnavuori, 1956, and Coelidia spangbergi Metcalf, 1964.

The genus Coelidia is characterized as having a large elevated crown that is usually broader than the width of the eyes, carinate laterally, and produced distally beyond the anterior margin of the eyes. The clypeus has an incomplete median longitudinal carina in some species, including the type species, venosa Germar. The clypeal carina is the primary tribal character that separates Teruliini from Coelidiini. It is absent in all genera of the latter tribe except Clypeolidia Nielson and 4 of 14 known species of Coelidia, where it is present but incomplete, i.e., does not reach the transclypeal suture from its anterior origin.

The genital characters of Coelidia include a pair of prominent processes on the caudal margin of the male pygofer, usually very long styles, and an elongate aedeagus that usually has 1–2 distal processes or a recurved extension of the shaft.

The present distribution of the genus is Neotropical. Coelidia venosa is the only widespread species and it ranges from Brazil to Colombia. Four species occur in Brazil, four in Colombia, and four in Panama. One species is common to Brazil and Colombia and one is common to Colombia and Panama, suggesting that Colombia is the center of the southern (Brazil) and northern range (Panama) of the genus.

Key to Males of Coelidia

1. Aedeagus with 1–2 prominent distal or subdistal processes ............................................. 2
   — Aedeagus without such processes, if present, only about as long as wide ................ 11
2(1). Aedeagus with 1 distal process ......................................................................................... 3
   — Aedeagus with 2 distal processes ....................................................................................... 7
3(2). Style short, length about equal to arms of connective (Fig. 3) ...................................... 4
   — Style long, length much greater than arms of connective (Fig. 8) ............................... 5

1Department of Zoology and Life Science Museum, Brigham Young University, Provo, Utah 84602
2Includes 13 of the 14 known species; stalii (Spangles), known only from 3 is not keyed.
4(3). Aedeagus with short distal process, process about 1/4 length of shaft (Fig. 862, Nielson 1982); pygofer with ornate caudodorsal process (Fig. 858, Nielson 1982) .............................................................. venosa Germar

– Aedeagus with long distal process, process about 1/2 length of shaft (Fig. 4); pygofer with broad, simple caudodorsal process (Fig. 1) ...................................... retrorsa, n. sp.

5(3). Pygofer with long, narrow, sharply pointed caudoventral process (Figs. 864 and 898, Nielson 1982) ........................................................................................................... 6

– Pygofer with a long, narrow, but distally enlarged caudoventral process (Fig. 7) .................................................................................................................. panamensis, n. sp.

6(5). Pygofer with very long caudoventral process, process extending distally beyond apex of caudodorsal process (Fig. 898, Nielson 1982); aedeagus with short distal process, process 2–3 times as long as wide in lateral view (Fig. 902, Nielson 1982) ............................................................... attenuata Nielson

– Pygofer with short caudoventral process, process not reaching apex of caudodorsal process (Fig. 864, Nielson 1982); aedeagus with long distal process, process 5–8 times as long as wide in lateral view (Fig. 868, Nielson 1982) ....

................................. germari Nielson

7(2). Aedeagus with 1 distal process and 1 subdistal process, processes unequal in length and in configuration (Figs. 873, 876, 882, Nielson 1982) ......................... 8

– Aedeagus with 2 distal processes, processes nearly equal in length and in configuration (Fig. 17) ................................................................................................... tortula, n. sp.

8(7). Aedeagus with long subdistal process, apex reaching to about midlength of shaft in lateral view (Figs. 876 and 882, Nielson 1982) ........................................... 9

– Aedeagus with short subdistal process, apex not reaching midlength of shaft in lateral view (Fig. 873, Nielson 1982) ............................................................... atrata Walker

9(8). Style in dorsal view very narrow at distal 2/3, narrower than aedeagal shaft (Figs. 879 and 884, Nielson 1982) ................................................................. 10

– Style in dorsal view broad at distal 2/3, as broad as or broader than aedeagal shaft (Figs. 877, Nielson 1982) .............................................................. nigra (Spangberg)

10(9). Aedeagus with very broad subdistal process, process broader than aedeagal shaft in dorsal and lateral views (Figs. 881 and 882, Nielson 1982) ....... gladia, n. name

– Aedeagus with very narrow subdistal process, process narrower than aedeagal shaft in lateral view (Fig. 888, Nielson 1982) ......................................... gorgonensis Nielson

11(2). Aedeagus and style narrowed distally (Figs. 21 and 23) .............................................. 12

– Aedeagus and style greatly enlarged distally (Figs. 891 and 894, Nielson) ...........

................................................................. bulbata Nielson

12(11). Pygofer with ornate caudodorsal process, process enlarged basally with slender curved distal process (Fig. 19) ..................................................... cochloea, n. sp.

– Pygofer with long caudodorsal process, process narrow, fingerlike (Fig. 25) ....

................................................................. simplex, n. sp.

Coelidia retrorsa, n. sp.
(Figs. 1–6)
Length: $\delta$ 10.00 mm.
General color deep ochraceous with fuscous costa and 5 narrow longitudinal pale flavous stripes on pronotum; veins of forewings flavous anteriorly, becoming spotted with fuscous markings posteriorly.

Head small, much narrower than pronotum, anterior margin obtusely angulate; crown produced beyond anterior margin of eyes, broad, width greater than width of eyes,
Figs. 1-6. *Coelidia retrorsa*: 1, Male pygofer, lateral view. 2, Connective and right style, dorsal view. 3, Style, lateral view. 4, Aedeagus, dorsal view. 5, Aedeagus, lateral view. 6, Plate, ventral view.

Figs. 7-12. *Coelidia panamensis*: 7, Male pygofer, lateral view. 8, Connective and right style, dorsal view. 9, Style, lateral view. 10, Aedeagus, dorsal view. 11, Aedeagus, lateral view. 12, Plate, ventral view.

arms of connective; plate long, profusely setose.

♀ Unknown.

*Holotype* (♂), BRAZIL: Amazon, Tonantins, no date, no collector, (NR).

Remarks: This species is similar in general habitus and some male genital characteristics to *venosa* Germar but can be distinguished by the long recurved portion of the aedeagus and by the gonopore that is medial on the shaft.

*Coelidia panamensis*, n. sp.
(Figs. 7-12)

Length: ♂ 8.40 mm.

General color deep fuscous with 5 narrow flavous longitudinal lines and broad flavous band on lateral margins of pronotum, veins of forewing with flavous spots.

Head small, much narrower than pronotum, anterior margin obtusely angled; crown distinctly produced beyond anterior margin of eyes, broad, width about equal to width of eyes, elevated above level of eyes, foveate medially, lateral margins carinate; eyes large, semiglobular, occupying less than 2/3 of entire dorsal area of head; pronotum

elevated above level of eyes, carinate laterally, foveate on either side of middle, lateral margins parallel; eyes large, elongate-ovoid, occupying less than 2/3 of entire dorsal area of head; pronotum very large, scutellum large; forewing elongate, apex broadly angulate, venation typical, appendix well developed; clypeus long and broad with an incomplete median longitudinal carina, extending from anterior margin to about 2/3 length of clypeus; clypellus long, narrowed basally, expanded distally.

♂. Pygofer in lateral view very narrow with long, narrow caudoventral process and moderately long, broad caudodorsal process; 10th segment long and narrow, without ventral processes; aedeagus asymmetrical, long, slightly tubular, distal part recurved and extending to about midlength of shaft, shaft narrowed along recurved portion, wrinkled and enlarged subapically, becoming slightly hooked distally; gonopore medial on shaft; connective Y-shaped with short stem and long arms; style very short, about as long as
and scutellum very large; forewing elongate, rounded distally, venation typical, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long and narrow, expanded distally.

♂. Pygofer in lateral view moderately broad with very long caudoventral process, process narrow at basal 2/3, enlarged at distal 1/3 with small ventral spine, caudodorsal margin with long narrow process, process abruptly pointed distally; aedeagus partially asymmetrical, long, narrow, tubular throughout, recurved distally, distal portion very short and narrow; gonopore subapical; connective broadly Y-shaped with short stem and long arms; style very long, about as long as aedeagus, narrow throughout; plate long and narrow, setose along outer margin at distal half.

♀. Unknown


**Remarks:** _Coelidia panamensis_ is similar in male genital characteristics to _attenuata_ Nielson but can be easily separated by the caudoventral process of the pygofer, which is enlarged distally and bears a ventral spine.

*Coelidia tortula*, n. sp.  
(Figs. 13–18)

Length: ♂, 10.00 mm.

General color fusco-piceous, except for flavous apex on forewing, veins with ochraceous spots.

Head much narrower than pronotum, anterior margin obtusely angled; crown produced beyond anterior margin of eyes, broad, broader than width of eyes, elevated above level of eyes, foveate medially, carinate laterally, eyes semiglobular, large, occupying less than 2/3 of entire dorsal area of head; pronotum and scutellum large; forewing elongate, apex rounded, venation typical, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long and narrow, apex expanded.

♀. Pygofer in lateral view moderately broad, with long caudoventral process and shorter caudodorsal process, both processes except for length about equal in width and similar in configuration, aedeagus asymmetrical, long, broad, twisted subapically in dorsal view, with 2 narrow, curved, distal processes; gonopore near apex of shaft based of distal processes; connective broadly Y-shaped, stem short, arms long; style long, narrow, about as long as aedeagus; plate elongate, profusely setose.

♀. Unknown.

_Holotype_ (♂). BRAZIL: Amazon, Fonteboa, no date, no collector (NR).

**Remarks:** This species has no apparent close relatives but is nearest to _atra_ Walker. It can be distinguished from all known species of _Coelidia_ by the aedeagus with a twisted shaft and the distal processes, which are nearly of equal length and configuration and arise from the apex of the shaft.

*Coelidia cochloea*, n. sp.  
(Figs. 19–24)

Length: ♂, 8.60 mm., ♀, 9.00–9.70 mm.

General color ochraceous, forewings with piceous pigmentation along basal 2/3 of costa and with broad, smoky, fuscous, oblique
band subapically, distal 1/4 and middle of forewing translucent.

Head small, much narrower than pronotum, anterior margin obtusely angled, crown produced slightly beyond anterior margin of eyes, broad, slightly broader than width of eyes, elevated above level of eyes, slightly carinate laterally; eyes large, semiglobular, occupying less than 2/3 of entire dorsal area of head, pronotum and scutellum large; forewing elongate, rounded distally, venation typical, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long and narrow, margins expanded distally.

♂. Pygofer in lateral view broad, with long, bladelike caudoventral process and large ornate caudodorsal process, which is enlarged basally, slightly twisted basally and abruptly curved at distal half; aedeagus nearly symmetrical, simple, broad at basal 2/3 and narrowed at distal 1/3 in dorsal view, sinuate in lateral view, apex slightly hooked; gonopore subapical; connective broadly Y-shaped; style long, about as long as aedeagus, narrow at distal 2/3; plate elongate, profusely setose at distal half along outer marginal area.

♀. Seventh sternum large, about 2X as long as preceding segment, caudal margin produced along middle.


Remarks: Coelidia cochloea is most closely related to simplex Nielson, and can be separated by the pygofer with the ornate caudodorsal process, which is enlarged basally and narrowed distally.

Coelidia simplex, n. sp.
(Figs. 25-30)

Length: ♂, 8.60 mm.
General color piceous except for narrow translucent apex on forewing, ochraceous
spots on veins, 5 narrow longitudinal lines on pronotum, 3 similar ones on scutellum, and broad ochraceous band on lateral margins of pronotum.

Head small, much narrower than pronotum, anterior margin obtusely angled; crown produced beyond anterior margin of eyes, broad, about as broad as width of eye, carinate laterally; eyes large, semiglobular, occupying nearly 2/3 of entire dorsal area of head; pronotum and scutellum large; fore-wing (right one missing on holotype) elongate, obtusely rounded distally, appendix well developed; clypeus long and broad, without median longitudinal carina; clypellus long, narrow, lateral margins expanded distally.

♀. Pygofer in lateral view broad, with very long, slender, acuminate caudodorsal process and long, fingerlike caudodorsal process; aedeagus nearly asymmetrical, simple, long, narrow, tubular, broadly sinuate in lateral view, apex slightly recurved; gonopore near middle of shaft; connective broadly Y-shaped; style very long, longer than aedeagus, very narrow, tapered distally; plate elongate, with numerous setae along outer margin.

♂. Unknown.


Remarks: This species is similar to cochlea Nielson in characters of the aedeagus but can be distinguished by caudal processes on the pygofer. The caudodorsal process is very long, acuminate, and reaches the apex of the slender, fingerlike caudodorsal process.

Coelidia gladia, n. name

Coelidia spangbergi Nielson 1982 is a junior homonym of Coelidia spangbergi Linna- vuori, 1956, and Coelidia spangbergi Metcalf, 1964, and must be replaced.

In my revision of the tribe Terulini (Nielson 1979), Docalidia metcalfi Nielson was proposed as a new name for Coelidia spangbergi Metcalf, 1964, nec Coelidia spangbergi Linnavuori, 1956. Metcalf (1964) proposed Coelidia spangbergi as a new name for Jassus flavicosta Spangberg, 1878, nec Jassus flavicosta Stål, 1862. Coelidia spangbergi Linnavuori was made a junior synonym of Stalolidia dissoluta (Jacobi) by Nielson (1979). All the Spangberg names originally assigned to Coelidia are either synonyms or homonyms and thus are no longer valid.

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Literature Cited

