

A new species of *Fingeriana* (Hemiptera: Cicadellidae: Cicadellini)

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ABSTRACT. *Fingeriana reflexa* sp. nov. is described and illustrated based on specimens collected in Camacan (Bahia) and Santa Teresa (Espírito Santo), Brazil. The new species can be distinguished from *F. dubia* Cavichioli, 2003 by the aedeagus narrowed towards the apex, with an apical pair of small triangular projections, and with a basal process laterally flattened and bent anteriorly on the apical portion. Notes comparing *Fingeriana* Cavichioli, 2003 to the similar *Nielsonia* Young, 1977 are provided.

Keywords. Auchenorrhyncha; Cicadellinae; distribution; taxonomy; Neotropical Region.

Fingeriana was described by CAVICHIOLI (2003) to include a single species, *F. dubia* Cavichioli, 2003, from the southeastern (Minas Gerais and São Paulo states) and the southern (Paraná state) Brazil, collected on citrus and coffee cultures. According to CAVICHIOLI (2003), *Fingeriana* is related to *Nielsonia* Young, 1977, *Kapateira* Young, 1977, *Macunolla* Young, 1977, and *Gillonella* Nielson & Godoy, 1995, but can be distinguished by the shape of the head, more produced and triangular, the coloration of the head, and the symmetrical aedeagus bearing an asymmetrical process originating basally on the right side of the aedeagal atrium. In the present paper, a new species is described and illustrated based on two male specimens, one from Camacan, state of Bahia, and one from Santa Teresa, state of Espírito Santo, the latter collected from a coffee plantation. In addition, notes comparing *Fingeriana* with the similar genus *Nielsonia* are given.

MATERIAL AND METHODS

The specimens herein studied are deposited in the Coleção de Entomologia Pe. Jesus Santiago Moure, Departamento de Zoologia, Universidade Federal do Paraná (DZUP), and Departamento de Entomologia, Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ). The morphological terminology follows mainly YOUNG (1968, 1977), except for that of head structures, which follows HAMILTON (1981) and MEJDALANI (1998). The male genitalia were prepared according to OMAN (1949), and the dissected parts were stored in microvials with glycerin and attached below the specimens. In quotations of label data, a semicolon separates lines on a label.

TAXONOMY

Fingeriana Cavichioli, 2003

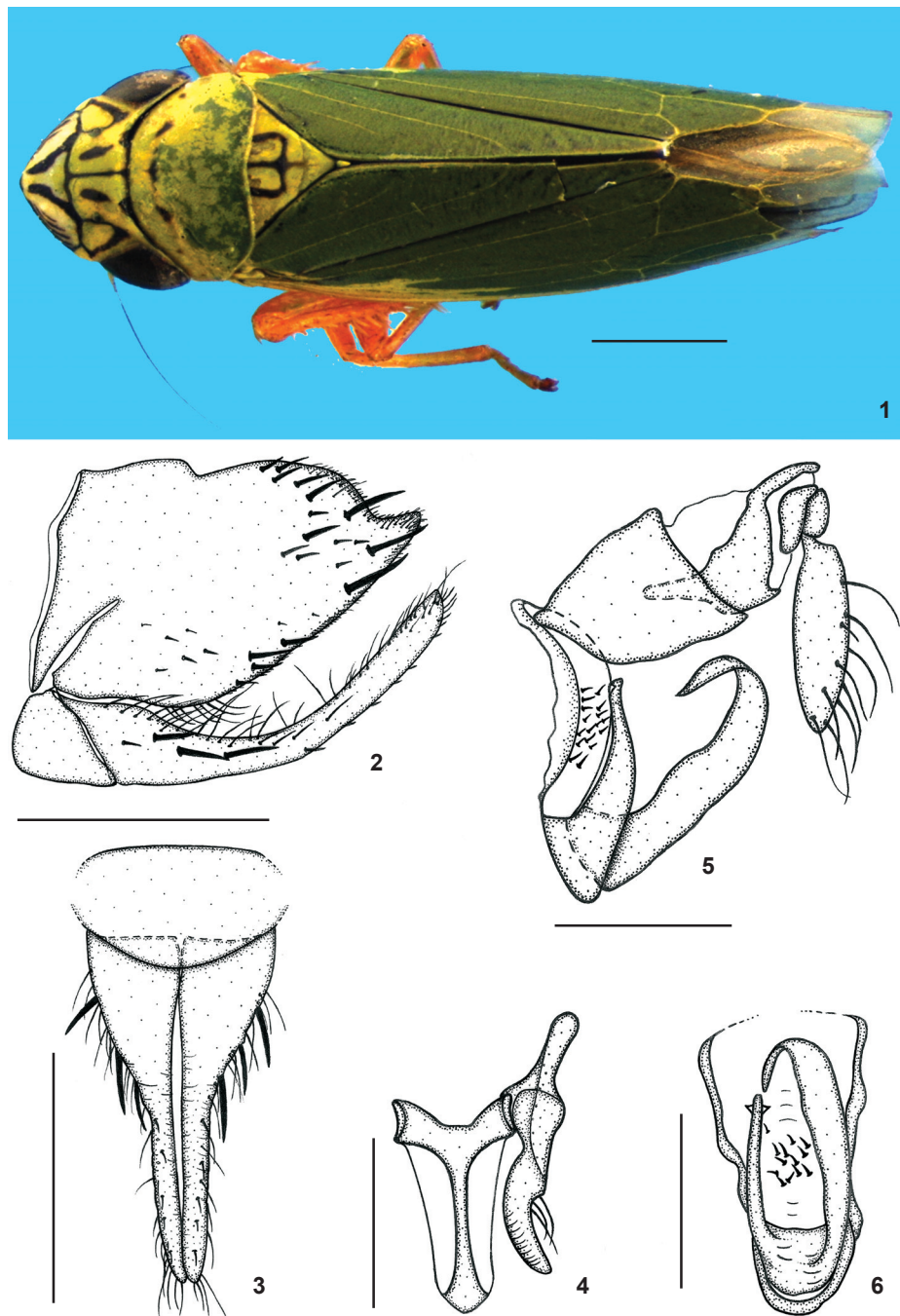
Fingeriana Cavichioli, 2003: 247. Type-species: *Fingeriana dubia* Cavichioli, 2003: 249, by original designation and monotypy.

Diagnosis. Small sharpshooters, about 6 mm in length, general coloration green; head produced anteriorly and with anterior margin slightly angled; ocelli located behind or on imaginary line formed by anterior eye angles; pronotum narrower than transocular width in dorsal view; anteapical cells closed and median anteapical cell with base much more proximal than remaining anteapical cells; males with sternal abdominal apodemes expanded apically and reaching basal third of fourth segment; male pygofer without processes; subgenital plates slightly longer than pygofer and narrowing toward apex after basal third; connective longer than styles and Y-shaped; aedeagal shaft symmetrical with pair of small triangular projections, but aedeagus as a whole asymmetrical because of single process arising on the right side of atrium, this process curved anteriorly and more robust than aedeagal shaft.

Fingeriana reflexa sp. nov.

Figs 1-7

Diagnosis. Aedeagal shaft curved posterodorsally, broadened basally, narrowed gradually toward apex, apical portion bearing pair of dorsal small triangular projections; base of aedeagus with single basal process directed dorsally, this process longer and more robust than aedeagal shaft and with apical portion bent anteriorly.



Figures 1-6. *Fingeriana reflexa* sp. nov.: (1) Male paratype body, dorsal view; (2-6) Male holotype genitalia: (2) pygofer, valve and subgenital plate, lateral view; (3) valve and subgenital plates, ventral view; (4) connective and style, dorsal view; (5) aedeagus and anal tube, lateral view; (6) aedeagus, caudoventral view. Scale bars: 1 = 1 mm, 2-3 = 0.5 mm, 4-6 = 0.25 mm.

Length. Male: holotype, 5.9 mm, paratype, 6.4 mm.
Female unknown.

External morphology. Crown with ocelli behind or on (paratype) imaginary line formed by anterior eye angles, each

ocellus approximately equidistant in relation to median line of crown and adjacent anterior eye angle; surface slightly granulose anteriorly to anterior eye angles. Pronotum surface with few faint transverse striae. Forewings with base of median anteapical cell

much more proximal than bases of remaining anteapical cells, base of outer and inner anteapical cells approximately aligned with each other and both slightly more proximal than claval apex; base of third apical cell more distal than that of fourth; membrane on apical cells and extending anteriorly to approximately midlength of costal margin. Remaining external features as in generic description (CAVICHIOLO 2003).

Color. Head yellowish-green; crown with pair of brown maculae internally to ocelli; small macula on transition to face, transverse line (slightly ahead of imaginary line formed by anterior eye angles) connected to anterior pair of convergent digitiform marks and three posterior longitudinal lines (one on coronal suture and pair externally to ocelli), black. Face with frontogenal sutures black; muscle impressions marked with brown, becoming darker upward. Pronotum green to yellowish-green, central area on posterior two-thirds darker. Mesonotum green, with three longitudinal lines and transverse line on suture (slightly anteriorly to suture in paratype), brown to black. Forewings green, with anteapical cells and apical portion of discal cells brown (green in paratype); membrane translucent. Lateral portions of thorax yellowish-green, remaining parts of thorax yellow. Legs yellow with apical portion of tibiae and tarsi brown.

Male genitalia. Pygofer moderately produced; dorsal margin emarginate near apex; posterior margin narrowly rounded; macrosetae concentrated on apical portion and microsetae mostly on basal half of ventral margin; without processes. Valve, in ventral view, broad and triangular. Subgenital plates slightly exceeding pygofer apex; in ventral view, triangular, not fused basally, narrowing toward apex after basal third, with uniseriate row of macrosetae only on basal half and with numerous microsetae on dorsal surface and along outer margin. Connective, in dorsal view, Y-shaped, arms short and divergent, stalk long and without keel. Styles, in dorsal view, elongate and slender, not extending posteriorly beyond apex of connective, apex sharpened and turned outward. Aedeagus with shaft symmetrical; in lateral view, slender, curved dorsally, basal portion expanded and narrowing gradually toward apex, with small triangular projections on each side of apical portion of shaft; aedeagal basal portion with single laterally flattened process, longer and more robust than shaft, narrowed apically and with apex bent anteriorly; in ventral view, process placed on right side of expanded basal portion of aedeagus, displacing aedeagal shaft to the left. Membrane connecting segments IX-X with few small setae.

Type material. Holotype: male, "BR [Brazil]/ES [state of Espírito Santo], Santa Teresa; 24-28/VI/2009; R. Carvalho, A. Carpi, L.; Nogueira & M. Lopes Col." "Coletado em café" (MNRJ). Paratype: one male, "Brasil, BA [state of Bahia], Camacan.; Res[erva]. Serra Bonita; 15[°]23[']30["]S – 39[°]33[']57["]W; 820 m 08-09.v.2007, J.A.; Rafael & F.F. Xavier F^o.; luz" (DZUP).

Etymology. The specific epithet, *reflexa*, is of Latin derivation and refers to the bent apical portion of the aedeagal process.

Remarks. *Fingeriana reflexa* sp. nov. is herein assigned to *Fingeriana* because it displays the features presented in the diag-



Figure 7. Known distribution of the species of *Fingeriana* and *Nielsonia*.

nosis of the genus. The new species is externally very similar to *F. dubia*, but differs by having the aedeagus (Fig. 5) shorter, expanded basally, gradually narrowed toward apex, and with the basal process flattened laterally and with the apical portion bent anteriorly. The aedeagal apex of the new species has a small pair of triangular projections, which are also present in *F. dubia*.

As stated in the introduction, CAVICHIOLO (2003) suggested that *Fingeriana* might be related to *Nielsonia*, *Kapateira*, *Macunolla*, and *Gillonella*. *Fingeriana* species are particularly similar to those assigned to *Nielsonia*. However, in *Fingeriana* the male pygofer has no processes (Fig. 2), the connective is distinctly longer than the styles (Fig. 4) and the basal aedeagal process is curved anteriorly (Fig. 5). The presence of a process on the male pygofer of all *Nielsonia* species seems to be uncertain. *Nielsonia* was established by YOUNG (1977) to include four new species described by him. In the generic description, the author stated that the process of the male pygofer can be present or absent, but all species were described as having the process. GODOY & NIELSON (1999) left the ambiguity in their diagnosis of the genus. They described the process as present in the three new species proposed and described, in the first couplet of their key (to all known species of *Nielsonia*), the variation in the orientation of the process.

In addition to the characteristics stated above, the species of *Nielsonia* are of more northern distribution than those of *Fingeriana* (Fig. 7). *Nielsonia* ranges from Honduras to Ecua-

dor whereas *Fingeriana* is so far known only from Brazil (Bahia, Espírito Santo, Minas Gerais, São Paulo, and Paraná states).

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