# THE LEAFHOPPER GENUS BYTHONIA (HOMOPTERA: CICADELLIDAE)<sup>1</sup>, <sup>2</sup>

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ABSTRACT: Available specimens of the genus *Bythonia* are examined, and the subfamily status of Bythoniinae is reviewed. A new species of *Bythonia* from Brazil is described, and the genus is assigned to the subfamily Iassinae.

The genus *Bythonia* Oman (1936) was described from a female specimen from Bolivia, *Nionia rugosa* Osborn. Linnavuori (1959) described the male of *rugosa* from a specimen from Peru and one new species, *kalypso*, from a single male specimen from Brazil. He described the subfamily Bythoniinae based on these three specimens. A third species is described here from a single male specimen collected in Brazil and deposited in the British Museum (Natural History).

Bythonia is here assigned to the subfamily Iassinae based on a review of this subfamily by Blocker (1979a), which agrees with the subfamily description of Kramer (1963). Some of the characters used by Linnavuori (1959) to establish a new subfamily are present in some of the more primitive genera of Iassinae, e.g., absence of a coronal suture, swollen clypeus (e.g., Gargaropsis), postfrontal suture present (e.g., Gargaropsis, Baldriga), and ocelli in anterior margin of head (several genera). Bythonia is probably most closely related to Pachyopsis and Scaropsia (see Blocker 1979b). A worldwide reclassification of the higher categories of Iassinae is needed.

### Bythonia Oman

Bythonia Oman, 1936:358. Type species, Nionia rugosa Osborn, 1923:32 by monotypy.

Vertex short, slightly shorter medially than next to eye; face short and broad, ocellocular area with a distinct ledge above antennal pit; post-frontal suture extending past antenna, curving mesad of ocellus; ocellus remote from eye, approximately 3X its diameter; forewing with 3 anteapical cells; hindwing with second anteapical cell narrow. The original generic description (Oman 1936) and the subsequent description of Linnavuori (1959) should be consulted.

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## Bythonia rugosa (Osborn) (Fig. 1)

Nionia rugosa Osborn, 1923:32. Bythonia rugosa (Osborn), Oman 1936:358.

Length of male 7.0 mm, female 8.0 mm; head width of male 2.7 mm, female 3.0 mm; pronotal width of male 2.6 mm, female 2.9 mm; pronotal length of male 1.3 mm, female 1.4 mm; vertex length approx 0.2 mm, slightly longer next to eye in both sexes.

Female abdominal sternum VII (fig. 1) elongate, with a spine on anterior third of each lateral margin and caliper-like area at each caudolateral margin, caudal margin dentate. Description and illustra-

tion of male in Linnauuori (1959).

Holotype, female, Sta. Cruz de la Sierra, Bol. (J. Steinbach), Acc. 4549, in Carnegie Museum. The type and a male specimen from Peru (locality and collector unknown), in The American Museum of Natural History, have been studied.

### Bythonia kalypso Linnavuori

Bythonia kalypso Linnavuori, 1959:15.

Length of male 9.0 mm. This specimen was described and illustrated by Linnavuori (1959) from a single specimen from Brazil. The holotype has not been studied. It is reportedly deposited in the Hungarian Natural History Museum but could not be located in that collection (Dr. Tamas Vasarhelyi, personal communication); neither is it present in the Linnavuori collection at the American Museum of Natural History (Dr. M.D. Schwartz, personal correspondence).

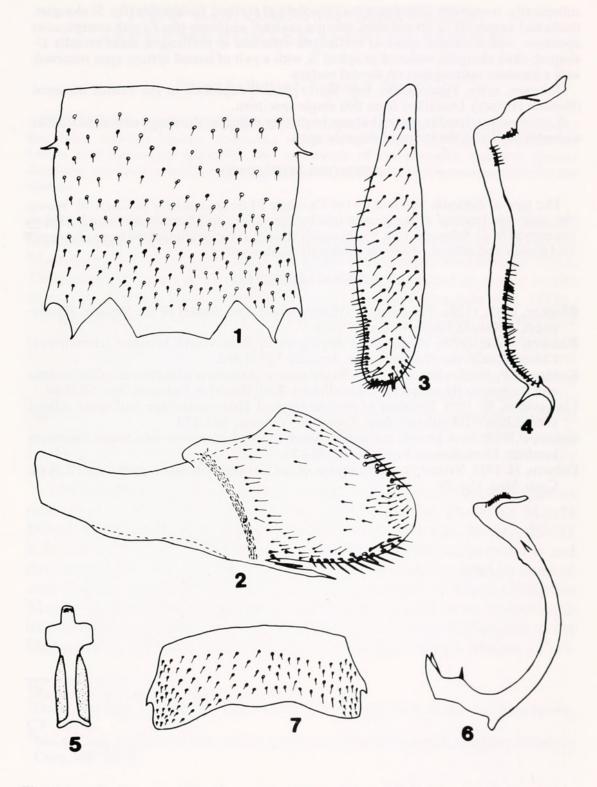
## Bythonia consensa, new species (Figs. 2-7)

Length of male 7.0 mm; head and pronotal width 2.5 mm; vertex width 0.2 mm next to eye, slightly shorter medially; pronotal length 1.2 mm; female unknown.

Color dark red with vertex fuscous, face with median fuscous band; pronotum and scutellum with a fuscous pattern, legs with fuscous markings; forewings uniformly dark red.

Ocellus 2½ X its diameter from eye, on anterior margin of vertex; face tumid; preapical tarsomere of hind leg reduced, without apical setal row. Abdominal sternum VIII (fig. 7) with conspicuous process on lateral margins.

Pygofer (fig. 2) elongate, with a heavily sclerotized diagonal internal ridge located at midlength; a bifurcate process at midlength on ventral margin which extends caudad; apical half heavily setose, especially along ventral margin. Plates (fig. 3) linear, elongate, with numerous microsetae. Style (fig. 4) elongate, apex caliper-like, with a retrorse spine



Figs. 1-7. Bythonia rugosa: 1, female sternum VII, ventral view. Bythonia concensa: 2, pygofer, lateral view; 3, plate, ventral view; 4, style, broad aspect; 5, connective, dorsal view; 6, aedeagus, lateral view; 7, sternum VIII, ventral view.

subapically, numerous microsetae on dorsolateral surface; connective (fig. 5) elongate, thickened anteriorly in lateral view, curving ventrad; aedeagus (fig. 6) with conspicuous apodeme, with a medial spine at midlength, bifurcate at midlength, arms broadly U-shaped; shaft elongate, widened at apical ¼, with a pair of lateral spines; apex recurved, with numerous microspines on caudal surface.

Holotype, male, Tijuco Preto, Esp. Santo [Brazil] deposited in the British Museum

(Natural History). Described from this single specimen.

B. concensa is related to rugosa but can be distinguished by the shape of the apex of the aedeagal shaft and the shape of the style apex.

#### **ACKNOWLEDGMENTS**

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#### LITERATURE CITED

Blocker, H.D. 1979a. The Iassinae (Homoptera: Cicadellidae) of the Western Hemisphere. J. Kansas Entomol. Soc. 52:1-70.

**Blocker, H.D.** 1979b. A proposed phylogeny of New World Iassinae (Homoptera: Cicadellidae). Ann. Entomol. Soc. America 72:857-862.

Kramer, J.P. 1963. A key to the New World genera of Iassinae with reviews of *Scaroidana* and *Pachyopsis* (Homoptera: Cicadellidae). Bull. Brooklyn Entomol. Soc. 58:37-50.

Linnavuori, R. 1959. Revision of the Neotropical Deltocephalinae and some related subfamilies (Homoptera). Ann. Zool. Soc. 'Vanamo' 20:1-370,

Oman, P.W. 1936. A generic revision of American Bythoscopinae and South American Iassinae. Univ. Kansas Sci. Bull. 24:343-420.

Osborn, H. 1923. Neotropical Homoptera of the Carnegie Museum, parts 1 and 2. Ann. Carn. Mus. 15:8-79.



Blocker, H. Derrick and Webb, M D. 1990. "THE LEAFHOPPER GENUS BYTHONIA (HOMOPTERA: CICADELLIDAE)." *Entomological news* 101, 293–296.

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