

## Description of a new *Amblystira* (Hemiptera: Heteroptera: Tingidae) from Argentina with a key to the South American species of the genus

SARA I. MONTEMAYOR

División Entomología, Museo de Ciencias Naturales de La Plata UNLP Paseo del Bosque s/n°. (1900) La Plata, Buenos Aires, Argentina. E-mail: montemay@fcnym.unlp.edu.ar

### Introduction

*Amblystira* Stål is a new world American genus comprising nineteen species, most of them distributed in Central and South America. Nine species have been recorded from South America, and only *Amblystira silvicola* Drake is known from Argentina (Drake & Ruhoff, 1965). Members of the genus are dark, the cephalic spines are generally absent or poorly developed, the hood is absent, the paranota are scarcely developed or absent as well as the lateral pronotal carinae, the discoidal area is short not reaching the middle of the hemelytra, and the costal area is slender. The only member of the genus that has been recorded as a pest is *Amblystira machalana* Van Duzee, commonly known as “black lacebug”, which feeds on cassava, *Manihot esculenta* Crantz, an important crop of South America. Arias & Belloti (2003) studied the life cycle, behavior, and damage caused by *A. machalana* on *M. esculenta*. (Guilbert, 2005) described the fifth instar of *Amblystira peltogyne* Drake & Hambleton.

In this contribution, a new species of *Amblystira* for Argentina is described including a description of the fifth instar. Illustrations of the adult and fifth instar and a key to the South American species of the genus are provided.

### Material and methods

All specimens studied are deposited in the Museo de La Plata (MLP). Measurements are in millimeters and were taken with an ocular micrometer.

### *Amblystira niborskiana* Montemayor, new species

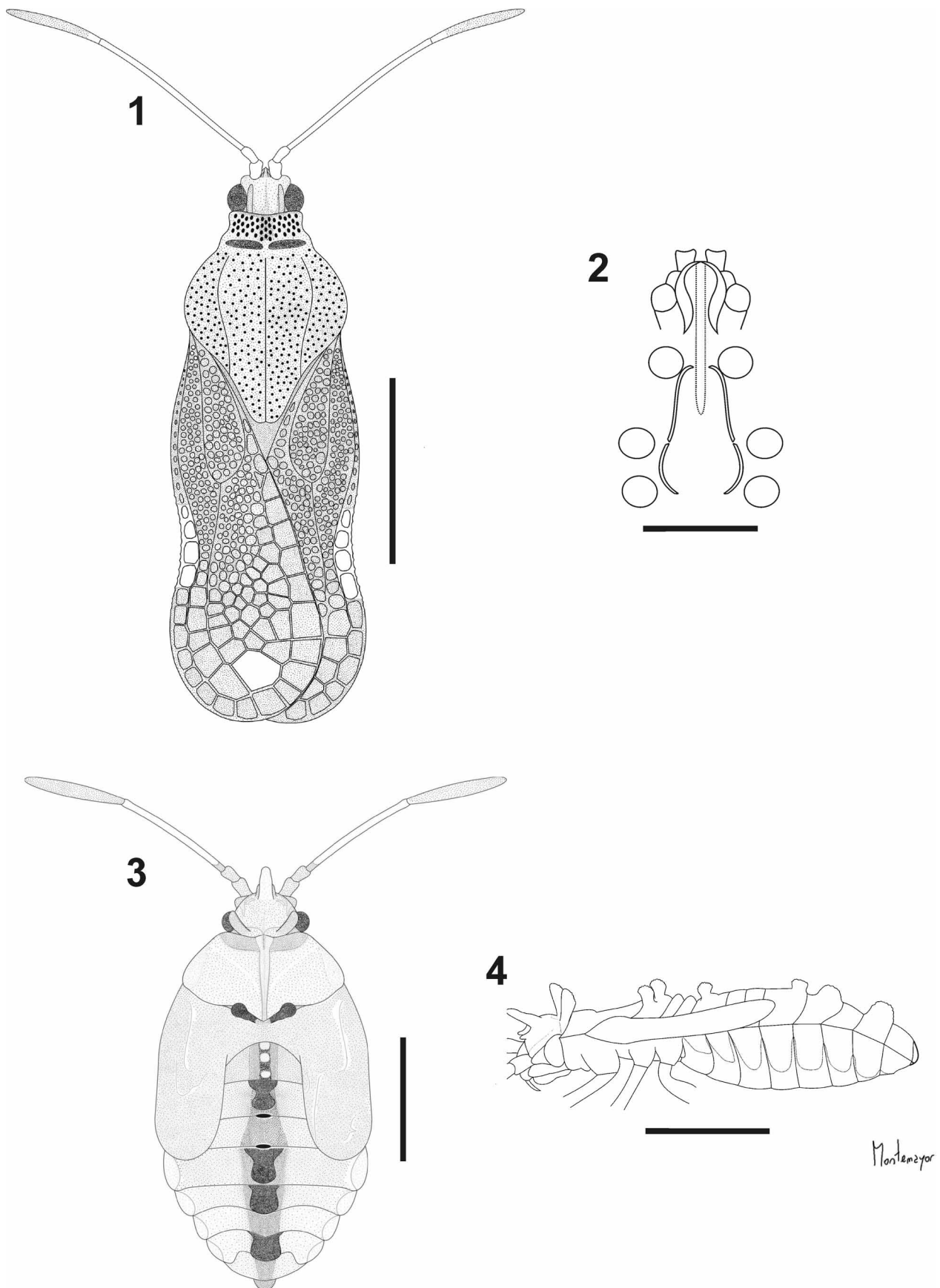
**Description of the adult** (Figs. 1–2). General coloration black except for a narrow hyaline space on the costal area, legs and segments I, II, III and base of IV yellowish. Body beneath black. Body length: 3.00-2.90-3.00.

Head short, shiny; with five spines, frontal and anterior pair very short and decumbent; occipital pair stout, decumbent and long reaching anterior margin of eye. Eyes dark red. Bucculae wide, wider posteriorly, at its maximum width with four rows of areolae. Head length: 0.21-0.23-0.21; width: 0.41-0.41-0.41. Antennal segments measurements: 0.13-0.11-0.13: 0.10-0.08-0.10: 0.98-0.88-0.93: 0.47-0.48-0.50; proportions 0.08-0.08-0.08: 0.05-0.05-0.06: 0.58-0.57-0.56: 0.29-0.30-0.30. Rostrum yellowish except for the tip, reaching middle of mesosternum.

Collar with four rows of areolae, slightly produced forward. Pronotum shiny, tumid, closely and coarsely punctate; tricrenate, median carina higher than lateral carinae; lateral carinae developed at posterior process and pronotal disc, slightly converging posteriorly; paranota very slender, carina-like. Pronotal length: 1.17-1.16-1.16; maximum width: 0.91-0.90-0.88. Mesosternal rostral laminae widely separated divergent posteriorly; metasternal laminar convex and subparallel, widely separated.

Hemelytra opaque except for one large areole at sutural area transparent, hemelytral margins constricted a little before apex, medially serrate. Costal area uniseriate, narrow at base, becoming wider towards apex, areolae small and ovate on the basal portion and moderately large and subrectangular at the widest part. Subcostal area wide, at maximum width with four or five rows of areolae. Discoidal area short, raised; not reaching middle of hemelytra, at maximum width with four or five rows of areolae. Hemelytral length: 2.21-2.20-2.16; maximum width: 0.87-0.86-0.84; discoidal area length: 0.86-0.86-0.78; maximum width: 0.24-0.23-0.21.

**Type material.** Holotype female, Argentina, Misiones, Parque Provincial Urugua-I, 25.51.464S 54.10.139W, 276m, 7-III-2010, P. Dellapé col.; 2 female paratypes, same data as for the holotype.



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**FIGURES 1–4.** 1–2 Adult of *Amblystira niborskiana* sp. n. **1**, Dorsal view. Scale bar: 1 mm; **2**, Rostral channel. Scale bar: 0.5 mm. 3–4 Fifth instar of *Amblystira niborskiana* sp. n. **3**, Dorsal view. Scale bar: 0.5 mm; **4**, Lateral view. Scale bar: 0.5 mm.

**Etymology.** This species is named in recognition of Dr. Ricardo Niborski, an outstanding hematologist who saved my father's life.

**Remarks.** The presence of long occipital spines is a character not common among the members of the genus, with only five species exhibiting this character, i.e. *A. angella* Drake & Ruhoff, *A. pallipes* (Stål), *A. pensa* Drake & Hambleton, *A. solida* Drake and *A. niborskiana* n. sp. *Amblystira angella*, however, has the paranota well developed (a character very rare among the *Amblystira*), the hemelytra are not constricted, and the costal area is bi to triseriate at its widest part. *Amblystira pallipes* has antennal segment I much longer than II, the areolae of the costal area are larger, which is also the case for those of the sutural area that are brownish, and the hemelytral constriction is weaker. *Amblystira pensa* has the subcostal area biseriate at its widest part and the hemelytra are testaceous except for a large dark spot at the apical half of the discoidal area that extends on the subcostal area and a very broad, T-shaped, fuscous band on the sutural area. Finally *Amblystira solida* has antennal segment I approximately three times longer than II and a Y-shaped black fuscous mark at the sutural area. *Amblystira niborskiana* n. sp. has antennal segment I slightly longer than II, the hemelytral margins are clearly constricted, the subcostal area has four or five rows of areolae at its widest part, the costal area is uniseriate, and the hemelytra are completely black except for a narrow hyaline space at the middle of the costal area.

**Description of the fifth instar** (Figs. 3–4). Body black, exuvial suture yellowish; lateral margin of pronotum, tibia and third antennal segment except the base brownish; abdominal sterna reddish. Body surface glabrous. Body length, 1.67; maximum width: 0.80.

Head black, armed with five tubercles; a frontal pair black, straight, short, subparallel rounded at the apex; a stout median tubercle reddish that reaches up to anterior half of antennal segment II and an occipital pair black, long, stout and divergent. Head length: 0.17; width: 0.36. Antennae long and slender, with a few long scattered setae; antennal segment I, II, base of III and IV black, rest of segment III yellowish; antennal segment measurements: I: 0.06; II: 0.05; III, 0.50; IV, 0.42.

Pronotum glabrous, black except lateral margins paler; median carina yellowish, lateral carinae scarcely developed. Pronotum length: 0.36; maximum width: 0.66. Mesonotum medially with a pair of long, stout, pedunculated, globular tubercles. Wing pads reaching fifth abdominal tergum. Length of wing pads: 0.74.

Abdominal dorsum black, laterally reddish brown; first tergum medially swollen; second, fifth, sixth and eighth with a median tubercle. Abdominal tubercles larger posteriorly, all stout, broadly rounded, except for more pedunculated and globular second tubercle. Abdominal sterna reddish.

**Material examined.** 1 specimen, Argentina, Misiones, Parque Provincial Urugua-I, 25.51.464S 54.10.139W, 276m, 7-III-2010, P. Dellapé col.

**Remarks.** The two known nymphs of the genus have the same number and disposition of tubercles. The main difference between the nymphs of the two species is the coloration pattern. *Amblystira petalgyne* has an entirely fuscous to black body, whereas *A. niborskiana* n. sp. has a mostly black body, except for the reddish abdominal pleura and sterna. Also, in *A. niborskiana* n. sp., antennal segments I, II and IV and the base of III are black whereas in *A. petalgyne*, only antennal segment IV is black.

### Key to the South American *Amblystira*

- |   |  |                                       |
|---|--|---------------------------------------|
| 1 | Subcostal area with two rows of areolae .....  | <i>A. pensa</i> Drake & Hambleton     |
| - | Subcostal area with three or more rows of areolae .....  | 2                                     |
| 2 | Antennal segment I nearly three times the length of II.....  | <i>A. solida</i> Drake                |
| - | Antennal segment I two or less times the length of II .....  | 3                                     |
| 3 | Head with occipital spines .....   | 4                                     |
| - | Head without occipital spines .....  | 8                                     |
| 4 | Occipital spines short, not reaching middle of eye .....   | 5                                     |
| - | Occipital spines long, at least reaching anterior margin of eye .....  | 6                                     |
| 5 | Hemelytra constricted; length approximately 3mm.....   | <i>A. peltogyne</i> Drake & Hambleton |
| - | Hemelytra not constricted, narrowing from the middle; length less than 2.5mm .....   | <i>A. socia</i> Drake                 |
| 6 | Paranota angulate opposite the humeral angles .....  | <i>A. angella</i> Drake & Ruhoff      |
| - | Paranota not angulate, scarcely developed or absent .....  | 7                                     |
| 7 | Hemelytra entirely black except for a hyaline narrow space on the costal area.....   | <i>A. niborskiana</i> n. sp.          |
| - | Hemelytra black except for brown along the sutural area, the distal two thirds of the costal area and distal third of subcostal area .....       | <i>A. pallipes</i> (Stål)             |
| 8 | Hemelytra not constricted, narrowing from the middle.....  | 9                                     |
| - | Hemelytra constricted.....   | 10                                    |
| 9 | Lateral carinae developed only on posterior process; hemelytra black except for the hyaline apical half and narrow space on the costal area..... | <i>A. fuscitarsis</i> Champion        |

- Lateral carinae develop on the posterior process and pronotal disc; hemelytra black except for a narrow hyaline space on the costal area..... *A. silvicola* Drake
- 10 Hemelytra strongly constricted, costal area uniseriate at it widest part..... *A. machalana* Drake
- Hemelytra weakly constricted, costal area biseriate at it widest part ..... *A. nyctalis* Drake

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