



## Description of the preimaginal instars of *Nerthra gaucha* Estévez-Schnack (Hemiptera: Heteroptera: Gelastocoridae)

ANA LÍA ESTÉVEZ<sup>1</sup>, M. L. LÓPEZ RUF<sup>2</sup>, & E. P. HERNÁNDEZ<sup>3</sup>

<sup>1</sup>Museo de La Plata, Universidad Nacional de La Plata. Paseo del Bosque Bosque s/n.(1900) La Plata. Argentina.  
E-mail: estevezanalía@hotmail.com

<sup>2</sup>Museo de La Plata, Universidad Nacional de La Plata. Paseo del Bosque Bosque s/n.(1900) La Plata. Argentina.  
E-mail: lopezruf@sinectis.com.ar

<sup>3</sup>Museo de La Plata, Universidad Nacional de La Plata. Paseo del Bosque Bosque s/n.(1900) La Plata. Argentina.  
E-mail: paulinahernan@gmail.com

The current knowledge of postembryonic development of Gelastocoridae is scarce. All instars of gelastocorids are known only for two species, *Gelastocoris oculus oculus* (Fabricius) (Hungerford 1922, Brown & Mc Pherson 1994) (Gelastocorinae), and *Nerthra ranina* (Herrich-Schäffer) (Estévez & Schnack 1978) (Nerthrinae).

These insects are usually referred as inhabitants of the banks, shores of ponds, and rivers. They were also recorded far from the water; occasionally, they intrude onto the surface of the water when disturbed. A few specimens of *N. fuscipes* (Guérin-Ménéville) were recorded as being submerged in thermal waters (83° F and 90 ° F) either on trunks or on rocks on the bottom (La Rivers 1953); the finding of *Nerthra* species very far from the water (Todd 1955, Lauck & Wheateroft 1958), seems to be occasional.

Estévez & Schnack (1978) pointed out that head morphological characteristics of the immature forms of *N. ranina* resemble the adult stage.

*Nerthra gaucha* was described as a new species, based on the examination of adult specimens from Itaúba, Rio Grande, Brazil (Estévez & Schnack 1978). Preimaginal instars of this species were unknown until the simultaneous finding of nymphs and adults for the first time in Laguna Iberá, Argentina (Estévez *et al* 2003).

The aim of this work is describe and make a definition of *N. gaucha* nymphal instars.

### Material and method

**Study site.** On March 2002 adult and preimaginal stages were found in the margins of overflows of Laguna Iberá at Reserva Provincial Iberá, near Colonia Pellegrini (57°08'20''W 28°29'31''S, Provincia de Corrientes, Argentina).

Insects were submersed and had physical gills; they were displacing or resting among the flooded grass, aquatic rooted plants, or on the bottom. This was the first time nymphs and adults of this family were observed submersed, walking or resting among the aquatic plants or on the bottom with the same movements as on dry or damp soil; they were also observed swimming on the water surface with their fore legs folded and propelled by their second and hind legs. Physical gills could be observed ventrally, extending from the concavities of the prothorax to the abdominal segments (Estévez & López Ruf, 2006). Four nymphal instars (not including the first) and adults of *N. gaucha* coexisted with adults of *N. ranina*.

**Sampling method:** insects were taken manually with nylon sieves of 20 cm in diameter by sweeping plants. Specimens were preserved in alcohol at 70%.

Measurements were taken with the micrometric ocular of a stereoscopic microscope and are given in millimeters. Body length and the maximum width were expressed as ranges and averages, the latter between brackets. The length of the lateral margin of the thorax was calculated by making an imaginary line from the anterior to the posterior angle. Drawings were made with a camera lucida. Studies were made on moisturized insects. The studied specimens were deposited at Museo de La Plata.

**Examined material:** Argentina, Provincia de Corrientes, Reserva Provincial Iberá: 23–27/III/2002; 2 nymphs II, 4 nymphs III, 5 nymphs IV, 1 nymph V, leg. Estévez, López Ruf, Mazzucconi.