

## DESCRIPTION OF THE EGG AND FOURTH INSTAR OF *COSMOCLOPIUS NIGROANNULATUS* (STÅL) (HETEROPTERA, REDUVIIDAE, HARPACTORINAE)

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RESUMEN: se describen e ilustran el huevo y el IV estadio ninfal de *C. nigroannulatus*. El material se colectó en la Reserva Provincial de Iberá, Colonia Carlos Pellegrini, Corrientes, y en plantaciones de tabaco de la Estación Experimental Cerro Azul del INTA, Leandro N. Alem, Misiones.

### INTRODUCTION

The genus *Cosmoclopius* Stål 1866 belongs to the reduviid subfamily Harpactorinae, nominate tribe Harpactorini (Davis, 1969). It is distributed from Venezuela to Argentina. According to Maldonado Capriles (1990), there are seven known species. At present only the first instar of *C. curacavencis* Cobben & Wygodzinsky, 1975 is known (Cobben & Wygodzinsky, 1975). Specimens used in this study came from the Natural Reserve Iberá, Col. C. Pellegrini (28°32'S; 57°11'W), Corrientes, and from plantations of tobacco at the Agricultural Experimental Station Cerro Azul (INTA), Leandro N. Alem, Misiones.

The purpose of this study is to describe, for the first time, the eggs and IV instar nymph of *C. nigroannulatus*. All specimens are deposited at Museum of Natural Sciences from La Plata.

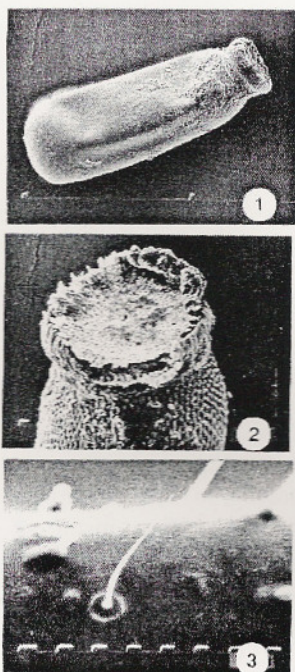
### MATERIAL AND METHODS

The material was collected by beating the vegetation with a stout stick and a net underneath to catch the falling Heteroptera, and searching through the vegetation. The morphological characters were observed using a Wild M-40 stereomicroscope. Measurements are given in millimeters. The terminology used for morphology follows that of Bradshaw & McPherson (2002). Illustrations were made with a drawing tube attachment. Scanning electron micrographs of eggs and nymph were made from specimens mounted on stubs, sputter-coated with a gold palladium alloy and studied with a JEOL T-100 SEM.

**Eggs:** Cylindrical, elongate, reticulated and brown (Fig. 1 y 2). Length of egg 1.57-1.67 ( $\bar{x}$  = 1.62), width of eggs 0.50-0.63 ( $\bar{x}$  = 0.56), diameter of operculum 0.36-0.40 ( $\bar{x}$  = 0.38).

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Figs. 1-3: *Cosmoclopius nigroannulatus* (Stål): 1. Egg: general aspect X75; 2. Operculum X200; 3. IV instar: trichobotria on antennal segment 2 X 1500.

**Fourth instar nymph** (Fig. 4). Total length 8.42. Body elongate, brown, and setose. Head pyriform, anteocular region brown except two dark brown spots behind the antenniferous tubercles and the tylus; postocular region orange tinged with brown except two dark brown spots behind the eyes, setose. Length of head 1.96, width of head 0.76. Width of eyes 0.19, interocular space 0.63. Rostral segment 1 brown except a dark brown spot medially, densely setose; segments 2 and 3 brown, except a dark brown spot on segment 2. Rostral length 2.23, ratio of segment lengths ca. 1: 0.54: 0.37. Antennal length 8.73, ratio of segment lengths ca. 1: 0.57: 0.65: 0.46. Segment 2 with a long trichobotrium as Fig. 3. Segments 3 and 4 brown (except segment 3 basally), 1 and 2 dark brown except white bands tinged with red. Thorax brown, setose, collar tuberculated. Pronotum 1.14 long, width of pronotum 1.37. Median sulcus evident. Mesonotum dark brown, metanotum light brown. Legs banded dark brown and light brown except hind femur dark brown with a light brown stripe medially, and in its lateral view distally. Tibiac more densely setose than femora. Tarsi two-segmented. Wing pads dark brown. Length 2.21. Abdomen elyptical. Abdominal length 3.79, abdominal width 2.28. Scent gland openings visible on segments 3-5. There large dark brown papillae and three small brown papillae present the abdominal margin. Two dark brown dots in segment 6 and a large spot in segment 7, last segments black.

**Observations:** this material was collected on a leguminose tree in Iberá; and the one from Misiones was found together with *Phthia picta* (Drury) (Coreidae).

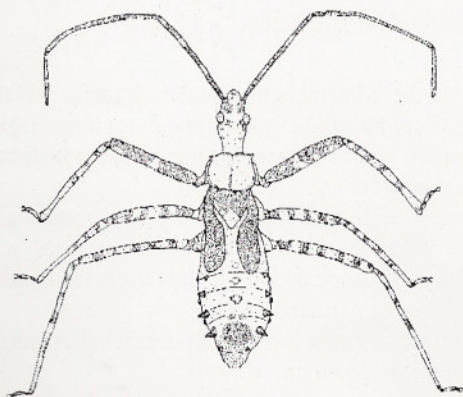


Fig. 4: *Cosmoclopius nigroannulatus* (Stål): IV intar, general aspect.

The coloration pattern of the antennae and legs (described in the nymph) are the diagnostic characters for *C. nigroannulatus*.

#### ACKNOWLEDGEMENTS

We want to express our gratitude to the personal of the Natural Reserve of Iberá for their assistance during our field work. This work was supported by the Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET), the Universidad Nacional del Nordeste (UNNE) and National Geographic Grant number: 7104-01.

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Recibido/Received/: Ago-02  
Aceptado/Accepted/: Dic-02