

A new species of the Madagascan genus *Catala* VILLIERS, 1951 (Heteroptera: Reduviidae: Stenopodainae)

DOMINIK CHLOND¹, ŁUKASZ JUNKIERT²

University of Silesia, Faculty of Biology and Environmental Protection, Department of Zoology, ul. Bankowa 9, 40-007 Katowice, Poland. E-mail: dominik.chlond@us.edu.pl¹, lukasz.junkiert@wp.pl²

ABSTRACT. A new species *Catala annulata* is described based on a single male specimen from Madagascar found among unidentified material of the collection of the Muséum national d'Histoire naturelle, Paris. The dorsal habitus as well as characters of male genitalia and pygophore are illustrated with 13 figures. A determination key for the species of the genus is also provided.

Key words: entomology, taxonomy, *Catala*, Heteroptera, Reduviidae, Stenopodainae, Madagascar, description, new species.

INTRODUCTION

Catala is a small genus described by VILLIERS (1951) with only four species described so far by VILLIERS (1951, 1961). *Catala* belongs to the subfamily Stenopodainae, one of the most speciose subfamilies in the family Reduviidae with about 115 described genera in the world fauna (Maldonado Capriles, 1990; CHLOND, 2010). The genus *Catala* is distributed exclusively on Madagascar and all known species: *C. armata* VILLIERS, 1961, *C. flavipes* VILLIERS, 1961, *C. nigrina* VILLIERS, 1961 and *C. roseonigra* VILLIERS, 1951 have been keyed in a VILLIERS paper (1968) containing a key and descriptions of 24 genera and 82 species of fauna of Stenopodainae from Madagascar. Examination of unidentified specimens belonging to the subfamily Stenopodainae deposited in the collection of the Muséum national d'Histoire naturelle in Paris revealed an undescribed species belonging to the genus *Catala* represented by a single male specimen. Examination of the specimen and comparison with the type specimens and other representatives of four other known species confirmed that this specimen belongs to a

new, undescribed species. Description of this new species as well as a determination key for all the species of the genus is presented in the present paper.

MATERIAL AND METHODS

External structures were examined using a stereoscopic microscope Leica MZ16. All drawings were made using a camera lucida. Genitalia were macerated in 10% KOH for 5 minutes to remove soft tissue, rinsed in distilled water, and dissected under stereoscopic microscope Leica MZ16. Dissected genitalia are stored in PVC microvials with glycerol, attached on the pin with dissected specimen. Measurements are given in millimeters. The type specimen is deposited in the Muséum national d'Histoire naturelle, Paris.

Quoting the labels of specimens: (/) is used to divide data on different rows on the label, (;) is used to divide data on different labels, ([]) is used for author's comments.

KEY TO THE SPECIES OF THE GENUS *CATALA*:

1. Pronotum unicolorous, dark 2
- . Pronotum bicolorous with orange or yellow lateral margins or only spines are pale *C. roseonigra* VILL.
2. Spines on basal part of posterior pronotal lobe long and thin, distinctly longer or of the same length as spines on posterior pronotal lobe 3
- . Pronotum with small tubercles, without spines *C. nigrina* VILL.
3. Hemelytra unicolorous, dark brown *C. flavipes* VILL.
- . Hemelytra bicolorous 4
4. Posterior spines on anterior pronotal lobe slightly shorter than process on scutellum, anterior spines of anterior pronotal lobe medium sized and thin, legs orange, membrane dark brown *C. armata* VILL.
- . Posterior spines on anterior pronotal lobe 0.5 times as long as process on scutellum, anterior spines of anterior pronotal lobe short and robust, legs bicolorous yellowish with dark brown markings, membrane pale with dark brown apical internal and external cells *C. annulata* sp. nov.

TAXONOMY

Genus: *Catala* VILLIERS, 1951

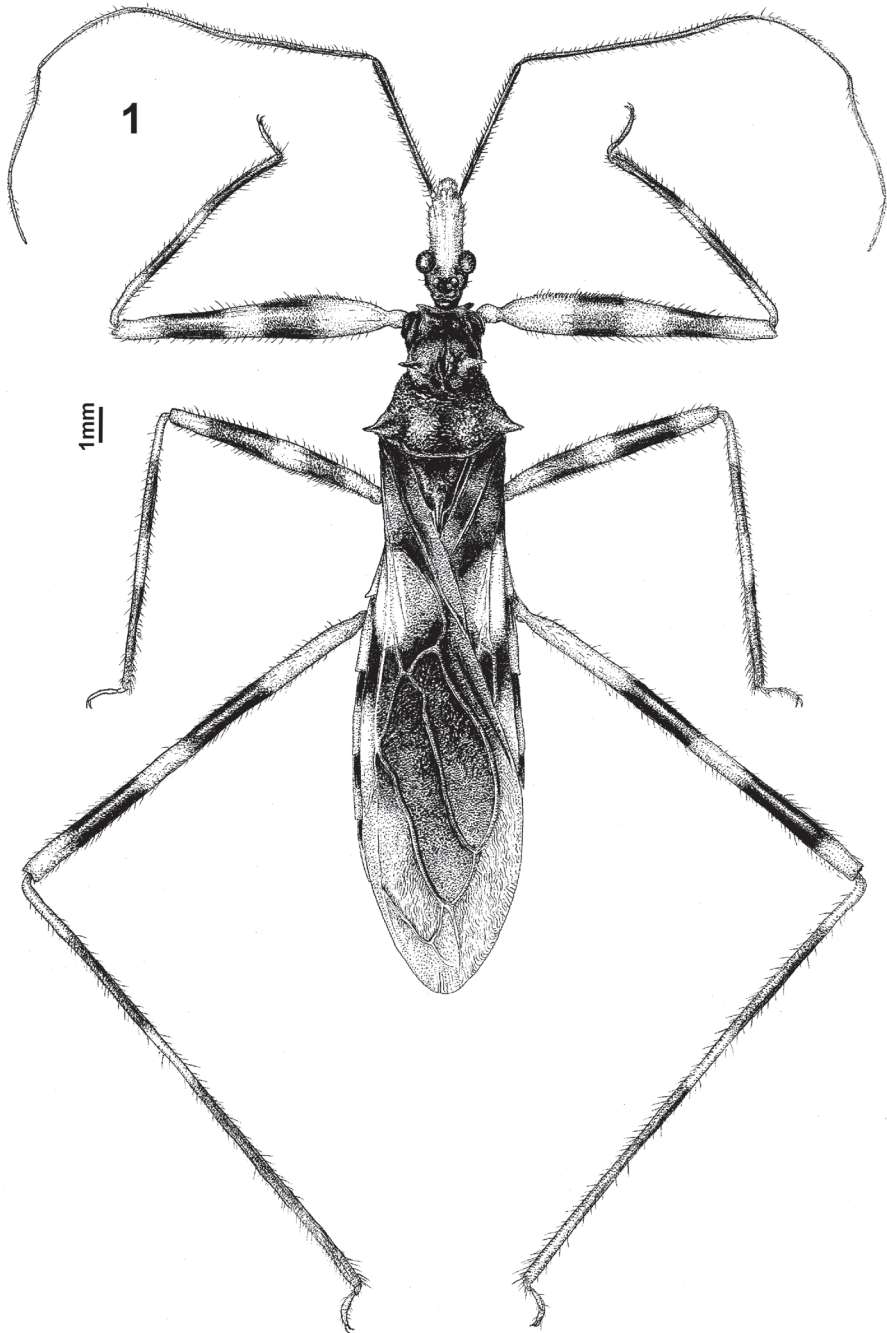
Type species: *Catala roseonigra* VILLIERS, 1951, 5:25 (by original designation).

Catala annulata sp. nov.

(Figs 1-13).

TYPE MATERIAL

Tlampo SPAchoky [handwritten] / Province de Tulear / Madagascar 71 1967 [printed, date partially handwritten] / ranches ORSTOM Réc. [printed]; *Catala* / sp.



1. *Catala annulata* sp. nov., dorsal habitus

n. [handwritten] / det. Rédei D., 2008; Catala / annulata / sp. nov. [handwritten] / det. D. Chłond 2010 [printed] (MNHN).

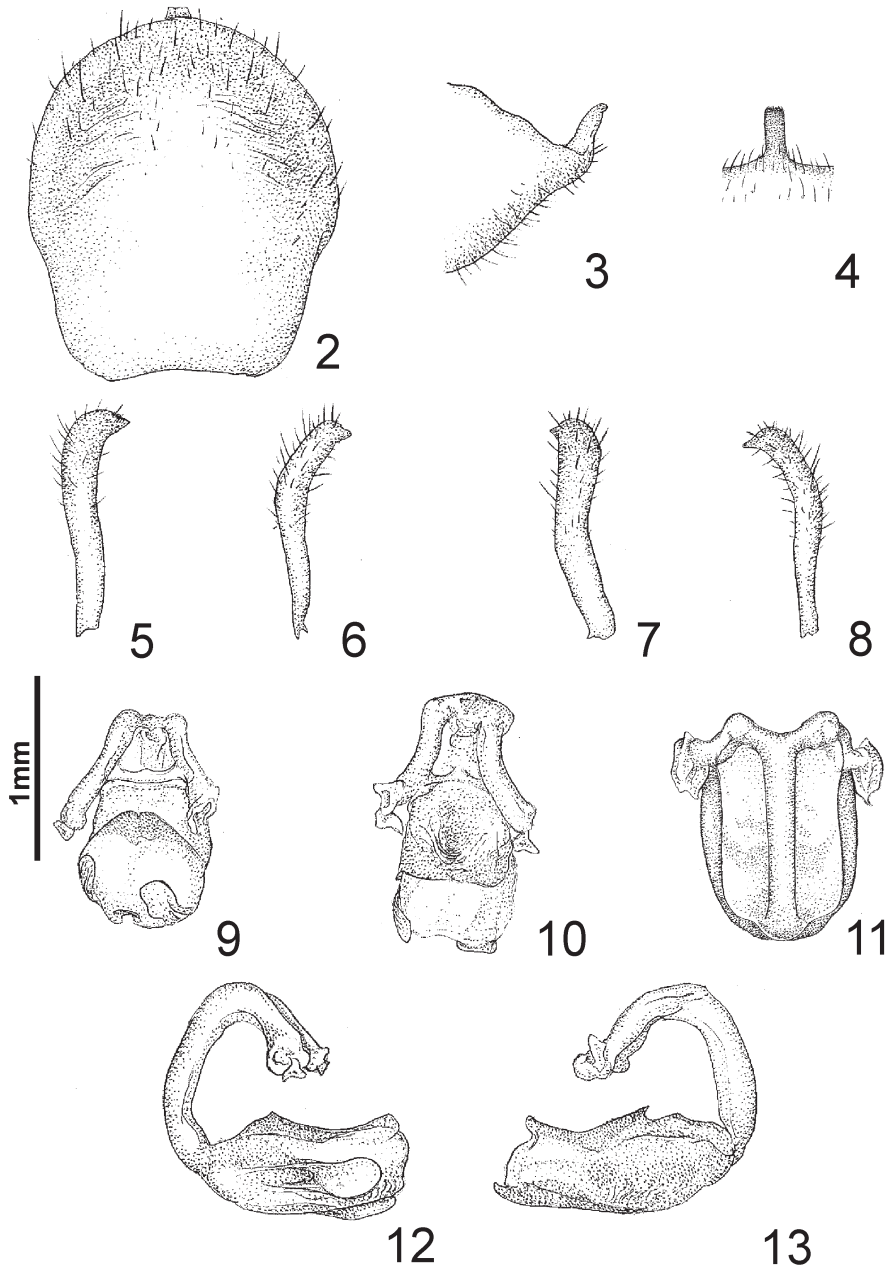
DIAGNOSIS

See key above.

DESCRIPTION

Color: Body generally brown with pale (yellowish) head, legs and markings on the corium and apical part of membrane (Fig. 1). Head yellowish with brown postocular part as well as brown spots on ventral side of the eyes in dorsal view and brown ventral surface. Brown spots connected with anterior margin of the eyes in lateral view. Scapus brown with paler base. Pedicellus and basiflagellomere brown, distiflagellomere pale. Eyes black and ocelli not pigmented. First and second visible labial segments brown with pale basal area on ventral side. Second visible labial segment with pale apical part. Third visible labial segment brown. Anterior and posterior pronotal lobe as well as ventral side of thorax dark brown. Posterior half of posterior pronotal lobe brown – distinctly paler than anterior pronotal lobe. Scutellum brown. Coxa dark brown with yellow apex., trochanters yellowish. Fore, middle and hind femurs yellowish with two brown bands – one near the apex and second in the middle of femur. Fore, middle and hind tibiae with two wide, brown bands – in the apical part and in 1/3 of basal part of the tibia. Tarsi light brown with yellowish basal segment. Hemelytra generally dark brown with yellowish, wide, transversal stripe in the middle of corium, distinctly darker (light brown) in the middle part. Surfaces of apical internal and apical external cells dark brown. Apical and lateral parts of membrana yellowish. Connexives bicolorous with dark brown anterior half and yellow posterior part. Abdomen ventrally dark brown with pale spot in the middle of posterior part of each sterna. Pygophore and parameres brown.

Structure: Body elongated and slender. Head with medium sized, curved, adherent setae. Clypeus with several short, erected setae. All antennal segments with medium sized and regularly arranged, erect setae. Scapus the thickest and gradually enlarged in apical part. Pedicellus the longest, basiflagellomere and distiflagellomere the thinnest. First visible labial segment with scarce, medium sized setae on dorsal surface. Second visible labial segment gradually enlarged into the base with scarce, short, erect setae. Third visible labial segment with scarce, short setae and two long setae on dorsal surface. Processes of mandibular plate with globular apices. Eyes and ocelli large. Anterior pronotal lobe with hollowed longitudinal, fusiform line reaching half of its length. Posterior pronotal lobe with irregular, transversal sculpture and two thin spines as long as anterior spines of anterior pronotal lobe. Scutellum with straight spine 2 times as long as posterior spines of posterior pronotal lobe. Scutellum covered by short, erected setae. Legs with different sized setae, arranged in regular, longitudinal lines – very dense on ventral side of fore and middle femur. Hemelytra dull with very short setae visible on costal margin. Membrane slightly wrinkled on the surfaces of apical internal and external cells. Membrane slightly surpassing apex of abdomen. Abdominal sternites with transversal, linear sculpture and distinct carina in the middle



2-11. *Catala annulata* sp. nov.: 2 - pygophore, dorsal view; 3 - pygophore, lateral view; 4 - median process, frontal view; 5 - right paramere, outer view; 6 - right paramere, lateral view; 7 - left paramere, outer view; 8 - left paramere, lateral view; 9 - phallus, frontal view; 10 - phallus, dorsal view; 11 - phallus, posterior view; 12 - phallus, left lateral view; 13 - phallus, right lateral view

part of sternites. Scarce, long and very thin setae visible on ventral part of abdomen and connexiva.

Genitalia: Pygophore covered by scarce, various sized setae (Fig. 2). Median process of pygophore short, straight (Figs 3-4) with subquadrangular apex and covered by short, adherent setae. Both parameres slender and slightly curved with dense, rather long setae on outer and scarce rather long setae on inner side (Figs 5-8). Phallosoma long, robust, wide and slightly curved (Figs 11-13). Dorsal phallosomal sclerite long with rounded apex. Dorsal phallosomal sclerite slightly curved and corrugated in the apical area (Figs 9-10, 11-13).

Measurements (in mm): Body length: 22.0; maximum width of abdomen: 4.78; head length: 3.45; head width: 1.56; length of anteocular part: 2.0; length of postocular part: 0.78; length of synthlipsis: 0.67; interocellar distance: 0.34; lengths of antennal segments I:II:III:IV: 4.22: 9.0: 2.67: 2.45; lengths of labial segments I:II:III: 1.56: 1.58: 1.33; maximum length of anterior pronotal lobe: 2.55; maximum length of posterior pronotal lobe: 2.89; maximum width of anterior pronotal lobe: 2.11; maximum width of posterior pronotal lobe: 4.22; length of scutellum: 1.94; length of hemelytra: 15.22.

Female: Unknown.

DISTRIBUTION

Madagascar, Province de Tulear, Tlampo.

ETYMOLOGY

The name of this species is connected with the characteristic bands on the legs.

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