

# Studies on Neotropical Protoneuridae. 18. *Epipleoneura janirae* sp. n. from the Amazonian region of Brazil (Odonata: Protoneuridae)

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## Abstract

*Epipleoneura janirae* sp.n. from the Amazonian region of Brazil (Belterra, State of Pará) is described and illustrated. This new species is related to *E. uncinata* De Marmels, 1989 for its structural characters and differs from all known species of the genus for its predominantly pale thoracic color.

**Key Words:** Odonata, Protoneuridae, Epipleoneura.

## Introduction

Erected by Williamson (1915), the genus *Epipleoneura* contains Neotropical species that predominate in lotical environments represented by small streams to large rivers. It contains 23 species, 14 of which occur in Brazil as recorded by Selys (1886), Racenis (1960), Santos (1964, 1967) and Machado (1964, 1985, 1986). Now, we describe *E. janirae* sp.n., collected in a humid and shaded forest environment, during our 1957 collecting trip to the State of Pará. For its color pattern and its habitat, this species is quite different from all known species of the genus.

### *Epipleoneura janirae* sp.n.

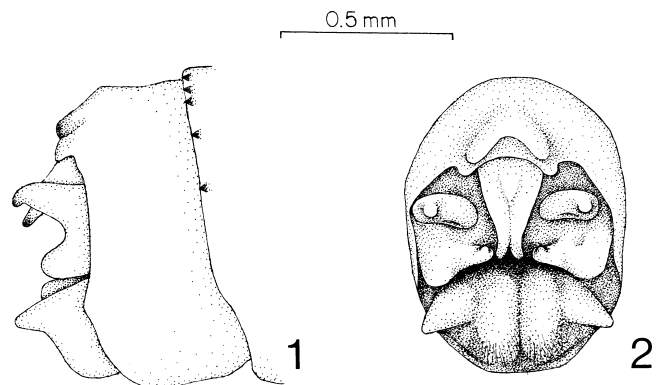
**Male:** Head: - Labium, labrum, anteclypeus, genae, base of mandibles, anterior part of frons and antennal base yellow. Postclypeus olive. Posterior part of frons metallic green. Upper part of head greenish grey. Rear of the head black. Prothorax brownish yellow with metallic green areas on the dorsal part of the anterior prothoracic lobe extending to the median lobe in one paratype. Pterothorax yellowish brown with a metallic green stripe with the outer limit not well defined occupying the medial half of the mesepisternum. Inferior parts of the metepisternum and the metepimeron brownish yellow. Ventral part of the metepimeron yellowish. A black spot at the base of both wings. A metallic green spot on the antero-superior part of the metepisternum.

Venation (n = 4 wings). - Postnodals in forewing (FW), 10 (75%), 11 (25%); in hindwing (HW) 8 (50%), 9 (50%). R3 in FW originating at the level of the 4<sup>th</sup> (75%), 5<sup>th</sup> (25%), in HW at the level of the 3<sup>rd</sup> (100%) postnodal. IR2 in FW originating at the level of the 7<sup>th</sup> (75%) or 8<sup>th</sup> (25%) postnodal; in HW at the

level of the 6<sup>th</sup> (40%) or 7<sup>th</sup> (75%) or 8<sup>th</sup> (25%) postnodal. CuP terminating in FW at 1/6 (100%), in HW at 1/4 (75%) or 1/3 (25%) of the distance between the crossvein descending from the subnodus and that descending from the first postnodal. CuA in FW and HW situated at about half of the distance between the 1<sup>st</sup> and the 2<sup>nd</sup> antenodal (100%). IR3 in FW coinciding (100%) in HW coinciding (75%) or slightly distal (25%) from the subnodus. Pterostigma in FW and HW occupying slightly less than a cell.

Abdomen. - Segments 1-2 laterally brownish yellow, dorsally dark brown with metallic greenish or coppery hues. Segments 3-7 brown with a brownish yellow subapical area and yellow basal ring. Segments 8-10 laterally brownish yellow, dorsally brown with a slight pruinosity. Appendages brown.

Structural characters - (Figs.1-2) - Posterior lobe of prothorax round. Superior appendages in lateral view with well developed ventral lobe (Fig. 1). In posterior view as shown in Fig. 2. Supraanal lamina (Fig. 1-2) subtriangular, the apex with two divaricated small processes



**Figs. 1-2** - *Epipleoneura janirae* sp.n. male holotype, abdominal segment 10 in lateral (1) and posterior (2) views.

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Measurements (mm). – Abdomen 28.4; forewing 18.0; hindwing 18.5; pterostigma 0.7

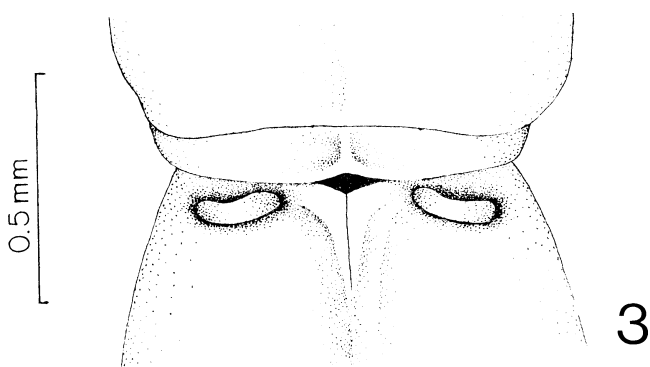
**Female:** Head. – missing. Prothorax, pterothorax colors and venation as in the male.

Abdomen. – Laterally brownish yellow, dorsally brown with metallic green hue. Dorsum of segments 8-10 slightly pruinose. Appendages brown. Ovipositor yellow.

Structural characters. – Posterior prothoracic lobe (Fig. 3) round, with a very small concavity and a small round ridge in the middle (Fig. 3). Mesostigmal laminae well developed (Fig. 3). Appendages conical.

Measurements (mm). – Abdomen 28.0; forewing 18.5; hindwing 19.0; pterostigma 0.7.

Material. - Holotype male, allotype female (collected in copula) and one male paratype, Brazil, State of Pará, Belterra. – II-1957, Machado & Pereira leg. Holotype and allotype deposited in collection A.B.M. Machado, Belo Horizonte, Minas Gerais, Brazil. One male paratype deposited in the Taxonomic Collections of the Universidade Federal de Minas Gerais.



**Figure 3** - *Epipleoneura janirae* sp.n. female allotype, posterior prothoracic lobe in dorsal view.

### Discussion

*N. janira* is related to *E. uncinata* De Marmels, 1989 for the shape of the supraanal lamina. As described by De Marmels (1989) the later species has the two tapering lobes of the supraanal lamina fitted tightly together, suggesting the presence of a single spine. In *E. janirae* however, the tip of the supraanal lamina has two small divaricated processes. The color pattern of *E. janirae* is very different from that of *E. uncinata* as well as from all other species of the genus. In these species the metallic green or black colors predominate over the pale colors. In *E. janirae* however, the pale colours predominate and the metallic green colours occur only on a stripe occupying the medial half of the mesepisternum. According to Racenis (1960), in *E. palida* Racenis, 1960 the pterothoracic metallic color is also less extensive than in the other species of the genus, although he could not rule out the possibility that this might be due to

ontogenetic factors. Even so, *N. janirae* is less pale than *N. palida*. On the other hand, the pale areas of the pterothorax of *E. janirae* are definitely not ontogenetic since all specimens are fully mature as indicated by abdominal pruinosity and by the fact that the holotype and allotype were collected in copula. So far, the *Epipleoneura* species have been found associated to the sunny marginal vegetations of small streams to very large rivers. In marked contrast, the specimens of *E. janirae* collected in Belterra, were found in a shady and humid forest area not directly associated to any water system.

I dedicate this species to my friend Prof. Janira Martins Costa in recognition for her important contributions to the knowledge of Brazilian dragonflies.

### Acknowledgements

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