

Studies on neotropical Protoneuridae. 19. Two new species of *Neoneura* from Southern Brazil (Odonata, Protoneuridae)

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ABSTRACT. *Neoneura anaclara* sp. nov. and *Neoneura leonardoi* sp. nov. are described and illustrated from specimens collected in Southern Brazil. These two species are unique in the genus *Neoneura* by the structure of their anal appendages.

KEYWORDS. Odonata, Protoneuridae, *Neoneura*, taxonomy.

RESUMO. Estudos sobre Protoneuridae neotropicais. 19. Duas novas espécies de *Neoneura* do sul do Brasil (Odonata, Protoneuridae). *Neoneura anaclara* sp. nov. e *N. leonardoi* sp. nov. são descritas e ilustradas com base em espécimes coletados no sul do Brasil. Essas duas espécies são únicas no gênero *Neoneura* pela estrutura de seus apêndices anais.

PALAVRAS-CHAVE. Odonata, Protoneuridae, *Neoneura*, taxonomia.

Erected by SELYS-LONGCHAMPS (1860) the genus *Neoneura* contains 25 species, most of them Neotropical, with only two species reaching the Nearctic region. Brazil has 18 species described or recorded by SELYS-LONGCHAMPS (1860, 1886), WILLIAMSON (1917), MACHADO (1975, 1989, 2002, 2003, 2004) and GARRISON (1999). Most Brazilian species are concentrated in the Amazonian States of the Northern region with only two species being recorded in the Southern region. We describe now two new species from the Southern States of Paraná, Santa Catarina and Rio Grande do Sul, thus increasing the number of known species to 27.

Neoneura anaclara sp. nov. (Figs. 1-5)

Male. Head. Labium, genae, base of mandibles and anteclypeus yellow. Postclypeus dark with a pale rounded spot at each side; frons reddish brown with the following black areas: a curved stripe connecting one eye to the other. This stripe extends behind the lateral ocelli and penetrates between them forming a small transverse band lateral to the median ocellus. This ocellar dark area is connected with a dark trident whose branches end at the frontal crest. At the hind part of the frons there is a transverse dark band and a large rounded postocular spot between it and the interocular dark stripe. Antennae brown.

Thorax. Prothorax with the median lobe and propleuron reddish brown. Posterior and anterior lobes black, united to each other through the median lobe by a longitudinal middorsal black stripe.

Pterothorax (Fig. 1). General color reddish brown. A black band at each side of the yellow middorsal carina occupying about half of the width of the sclerite containing some pale streaks and spots (Fig. 1). A black mesepisternal line along the humeral suture dilated above into an elongated black area and continuing into the

mesinfraepisternum. This sclerite is black with two pale areas at its ventral and dorsal parts. Mesepimeron with a broad longitudinal black stripe connected above with the black mesepisternal area bifurcating bellow in an anterior branch connected with the humeral black line and a posterior branch connected with mesinfraepisternal black area. Metapleuron reddish brown with a metepisternal black stripe adjacent to the second lateral suture continuing into the metinfraepisternum (Fig. 1). Ventral part of the metepimeron slightly pruinose with a comma-shaped dark area at each side. Poststernum black with whitish pruinosity. Legs: femora laterally dark brown, medially yellow; tibiae and tarsi yellow. Wings hyaline with the apex of the hindwing slightly smoky (Fig. 2). Venation black. Pterostigma brown, occupying one cell.

Venation. (Fig. 2). Postnodals in forewing (FW) 11; in hindwing (HW) 10. R3 in FW originating at the level of the 4th; in HW at the level of the 3rd postnodal. IR2 in FW originating at the level of the 7th postnodal; in HW at the level of the 6th (50%) or 7th (50%) postnodal. CUP in FW ending within the cell beyond the level of the crossvein descending from the subnodus. In HW ending at the crossvein descending from the first postnodal (50%) or within the cell beyond it (50%). Arculus in both wings distinctly distant from the 2nd antenodal.

Abdomen. General color red. Segments 1-2 dark brown laterally. Segments 3-5 with the ventral part of tergum adjacent to the lateral carina with a dark brown stripe that increases in width on segments 6 - 7 enlarging into a lateral subtriangular spot at segments 7-10. Superior appendages dark brown with a pale area at the lateral part of the ventral branch. Inferior appendages dark brown with the apex reddish.

Structural characters. Posterior lobe of prothorax with the hind margin smoothly rounded. Superior appendages in dorsal view (Fig. 3), bean-shaped with two medially directed teeth. In lateral view (Fig. 4) the dorsal and ventral branches are directed posteriorly. They