

SCIENTIFIC NOTE

First Record of *Aquanirmus major* Cicchino & González Acuña (Phthiraptera: Philopteridae) on the Great Grebe, *Podiceps major* Boddaert (Aves: Podicipedidae) in Brazil

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Abstract

This report is the first record of a species of *Aquanirmus* in Brazil and it increases the known geographical distribution of *A. major* Cicchino & González Acuña, a species recently described based on material collected in Argentina and Chile.

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The genus *Aquanirmus* Clay & Meinertzhagen (Phthiraptera: Philopteridae) comprises 13 species of chewing lice that parasitize grebes (Aves: Podicipedidae) (Edwards 1965, Kettle 1974, Castro & Cicchino 2000, Cicchino & González-Acuña 2009). *Aquanirmus major* Cicchino & González Acuña was recently described based on material collected from the great grebe, *Podiceps major* in Argentina and Chile (Cicchino & González-Acuña 2009). This report is the first record of a species of *Aquanirmus* in Brazil and it increases the known geographical distribution of *A. major*.

In November 2003, during a field mission carried out in the Parque Nacional da Lagoa do Peixe (31°26' S, 51°10' W and 31°14' S, 50°54' W), south coast of Rio Grande do Sul State, a specimen of *P. major* was captured with a mist-net and found to be infested by lice. In the laboratory, lice were slide-mounted in Canadian balsam and identified using appropriate keys and original species descriptions (Edwards 1965, Price *et al* 2003, Cicchino & González-Acuña 2009). Measurements are given in millimeters. Abbreviations used: HL, head length; HW,

head width; PL, prothorax length; PW, prothorax width; PTL, pterothorax length; PTW, pterothorax width; TL, total body length.

Seven females of *A. major* were identified. They showed relatively large head (cephalic index = 1.142-1.192), sternite VIII with 12-16 long setae in outer row and 10-15 short setae in inner row, and the following body measurements (N = 7): HL, 0.620-0.640 (0.633 ± 0.008); HW, 0.520-0.560 (0.536 ± 0.014); PL, 0.200-0.220 (0.204 ± 0.008); PW, 0.390-0.440 (0.410 ± 0.016); PTL, 0.210-0.260 (0.230 ± 0.015); PTW, 0.500-0.540 (0.519 ± 0.015); TL, 2.370-2.470 (2.393 ± 0.037). In general, these females of *A. major* from Brazil had chromatic features and body measurements compatible with those collected in Argentina and Chile (Cicchino & González-Acuña 2009), although slightly smaller. For instance, head length and width and total body length of females from Brazil are shorter than those reported by Cicchino & González-Acuña (2009). However, these differences are not significant and might be attributed to the low number of specimens examined in the present study and/or even

to the slide-mounting process.

The specific identification is usually based on the morphology of male genitalia (Edwards 1965). However, the female of *A. major* can be distinguished from other closely related females (e.g., *Aquanirmus emersoni* Edwards and *Aquanirmus podylimbus* Edwards) by size and most of the body measurements as well as in proportions of the head (Cicchino & González-Acuña 2009). In the mid 1960s, Edwards (1965) revised the genus *Aquanirmus*, describing four new species and two subspecies. He also provided a thorough characterization of the genus, with re-descriptions for the 10 species recognized up to that time. Since Edward's work, three new species have been described (Kettle 1974, Castro & Cicchino 2000, Cicchino & González-Acuña 2009).

This is the first record of a species of *Aquanirmus* in Brazil, increasing the worldwide distribution of this seldom studied group of chewing lice. Therefore, the geographical distribution of *A. major* comprises three South American countries: Argentina, Chile (previous records) and Brazil (first record herein). Further collections in Brazil are needed to assess ecological parameters of parasitism by *A. major* on *P. major*, such as prevalence, mean intensity and mean abundance of infestation.

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