



# Article

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## Macropterous form of *Paratrephes* China, 1940, with new distributional records of Neotrephinae from Brazil (Hemiptera: Heteroptera: Helotrephidae)

HIGOR D. D. RODRIGUES<sup>1</sup>, ALAN LANE DE MELO<sup>2</sup> & RUTH L. FERREIRA-KEPPLER<sup>1</sup>

<sup>1</sup>Coordenação de Biodiversidade, Instituto Nacional de Pesquisas da Amazônia, Manaus, Caixa Postal 478, AM, Brasil.

E-mail: higorddr@gmail.com; ruth@inpa.gov.br

<sup>2</sup>Departamento de Parasitologia, Instituto de Ciências Biológicas, Universidade Federal de Minas Gerais, Belo Horizonte, Caixa Postal 486, MG, Brasil. E-mail: aldemelo@icb.ufmg.br

### Abstract

The subfamily Neotrephinae (Nepomorpha: Helotrephidae) includes two genera and is endemic to the Neotropical region. *Paratrephes* is monotypic and brachypterous specimens have been recorded from French Guiana, Suriname, Colombia, and Bolivia. *Neotrephes* has nine species and has been recorded from Argentina and Brazil. Presented here are a description of the macropterous form of *Paratrephes hintoni* China and the first records of this species from Brazil. In addition, *Neotrephes lanemelo* Nieser & Chen is recorded for the first time from southern Brazil. Illustrations and a distribution map of both species are presented.

**Key words:** new records, Nepomorpha, *Neotrephes*, *Paratrephes*, polymorphism

### Introduction

Helotrephids are distributed in tropical and subtropical regions, and in South America this family is represented only by the subfamily Neotrephinae, endemic to this continent, with two genera, *Neotrephes* China, 1936 and *Paratrephes* China, 1940. *Neotrephes* is known from Argentina (Bachmann & López-Ruf 1994; Mazzucconi *et al.* 2008) and Brazil (China 1936; Nieser & Melo 1997; Nieser & Chen 2002) and comprises nine described species: *Neotrephes fragosus* Nieser & Chen, *N. jaczewskii* China, *N. lanemelo* Nieser & Chen, *N. latus* Nieser & Chen, *N. minutus* Nieser & Chen, *N. plaumanni* China, *N. transversus* Nieser & Chen, *N. usingeri* China, and *N. variegatus* Nieser & Chen. *Paratrephes* is monotypic (*P. hintoni* China) and has been recorded from French Guiana (China 1940), Colombia (Roback & Nieser 1974), Suriname (Nieser 1975), and Bolivia (Bachmann & López-Ruf 1994; Papáček & Zettel 2004).

Within Neotrephinae, *Paratrephes* is characterized by having the rostrum long, reaching the hind coxae, and cephalonotum suture straight; the genus is known hitherto only by the brachypterous form. *Neotrephes* is characterized by a short rostrum, at most extending to the mesosternal carina; and the cephalonotum suture is sinuate; macropterous forms in this genus generally are rare (China 1936, 1940; Nieser & Chen 2002). Here we present an original description of the macropterous form of *P. hintoni*, including the first record of this species from Brazil, and the first record of *Neotrephes lanemelo* from southern Brazil, Santa Catarina State. Illustrations of both species and their genitalia, and a distribution map, are presented.

### Material and methods

All measurements are given in millimeters and were always taken in their maximum dimensions. Lengths were measured at the midline. The specimens in this study were collected with an aquatic insect net and were deposited in the Collection of Invertebrates of the Instituto Nacional de Pesquisas da Amazônia, Manaus (INPA) and in the Collection of Invertebrates of the Department of Parasitology, Universidade Federal de Minas Gerais, Belo Horizonte (DPIC); they are preserved in 80° GL ethyl alcohol.