

Freshwater large branchiopods in Portugal: an update of their distribution

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ABSTRACT

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This study is based largely on 20 years of field and laboratory work, with surveys conducted by the authors and some other researchers. During this period several studies dealing with freshwater large branchiopods (FLB) were carried out, resulting in scientific publications and project reports. The distribution of FLB in Portugal was presented in 2 international scientific meetings, but apart from a first paper by Vianna-Fernandes in 1951 and an update done by ourselves in 1999 concerning the southwest Portugal, no other information has been published. Therefore, this work intends to bring up to date the known distribution of this faunal group in freshwater temporary systems. This is pertinent because of the recent revision of the taxon *Triops cancriformis* on the basis of genetic analyses. The Portuguese populations were assigned either to the Portuguese endemism *T. vicentinus*, or to *T. baeticus*, the more widely spread Iberian species, both belonging to the *T. mauritanicus* complex. Furthermore, a new species, *Tanymastigites lusitanica* was found and described in Portugal. More recently, a male free (or, at least, a strongly female-biased) metapopulation of *T. cancriformis* was discovered in a rice field in the central region of Portugal. Here we present an updated status of FLB species of Portuguese temporary lentic systems and their distribution, plotted on a UTM (10 × 10 km) grid. A total of 505 sites (temporary ponds or assemblages of closely located, not individual temporary pools) have been surveyed (455 by us). In 241 of these (47.7%) at least one species of FLB was found on at least one occasion. Of the 505 sites, only 87 are located north of the Tagus River and of these, at least one species was found in only 17 (19.5%). South of the Tagus River (Alentejo and Algarve), 53.6% of the sites were inhabited by at least one species. This list comprises 7 anostracans, 2 spinicaudatans and 4 notostracans, including 3 species endemic to the Iberian Peninsula and another 3 to Portugal.

Key words: Temporary ponds, anostracans, notostracans, spinicaudatans, endemic species, conservation status.

RESUMO

Grandes branquiópodes dulçaquícolas em Portugal: actualização da sua distribuição

O presente trabalho é, maioritariamente, o resultado de 20 anos de trabalho de campo e de laboratório, com campanhas realizadas pelos autores e por outros investigadores. Durante este período foram realizados vários estudos de que resultaram diversas publicações e relatórios de projectos. O conhecimento da distribuição dos grandes branquiópodes dulçaquícolas (GBD) em Portugal baseia-se num primeiro artigo de 1951 de Vianna-Fernandes e de uma actualização do conhecimento publicada por nós em 1999 e relativa ao sudoeste de Portugal. A sua actualização foi posteriormente apresentada em dois encontros científicos internacionais, mas nunca foi publicada. Assim, este trabalho pretende actualizar o conhecimento sobre a distribuição, em Portugal, deste grupo faunístico de sistemas lenticos temporários. Esta intenção é pertinente, visto que, na última década, o taxon *Triops cancriformis* foi revisto com base em análises genéticas. As populações portuguesas

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