



A new species of *Branchinecta* (Crustacea: Anostraca) with comments on the large branchiopod crustaceans of Kansas

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Abstract

Branchinecta mediospinosa, a new species of fairy shrimp, is described from a single artificial temporary pool in Kansas, USA. The type locality has since been destroyed. The new species shares several characters with *Branchinecta lindahli* and *B. constricta* including the general form of the male second antennal distal antennomere. However, *B. mediospinosa* males are readily separated from all other *Branchinecta* species by the presence of an apically spiniform projection on the second antenna proximal antennomere medial surface. Female *B. mediospinosa* also strongly resemble female *B. lindahli*, however *B. mediospinosa* has hemispherical dorsolateral projections on thoracic segments IV to X, whereas in *B. lindahli* they occur on IV to XI, and in *B. constricta* they appear on IV to XII. The Anostraca of Kansas and the Great Plains are briefly discussed, and new large branchiopod records are presented.

Key words: Fairy Shrimp, Great Plains, Branchinectidae, new records, *Lynceus*, *Cyzicus*

Introduction

The semiarid North American Great Plains provide numerous seasonal wetland habitats that can support branchiopod crustaceans. Despite the fact that numerous surveys of the Great Plains have been conducted during the last 120 years (Hay 1882, Packard 1883, Dodds 1915, Van Cleave 1928, Mackin 1936, Leonard & Ponder 1949, Dexter 1953, 1956a, b, Dexter & Ferguson 1943, Sublette & Sublette 1967), new species are still being discovered (e.g.: Rogers 2006). Herein we present another new species of anostracan from the Great Plains. This is the fifth new species of *Branchinecta* described from the Great Plains since 1979 (Belk 1979, 2000, Rogers 2006). This is the 50th species described in this genus, which achieves its greatest diversity in the Americas. The majority of species occur in vernal pools and other seasonal wetlands in the western United States and in Argentina. One species is reported from the Antarctic (Jurasz *et al.* 1983), and six species are reported from Eurasia (Belk & Brtek 1995).

Methods

This species was discovered by the second author in an artificial habitat that has since been destroyed as potential fairy shrimp habitat. Live specimens were collected by using a dip net to capture the animals from the water column. The specimens were preserved in 70% ethyl alcohol, which was changed after 24 hours. The specimens were then sent to the senior author for identification.

Comparative material

Branchinecta constricta Rogers, 2006

USA. WYOMING: Albany County: Todd's Rock Pool I, Laramie Range, Veedauwoo Area, 2597m elevation,