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Apostenus ducati (Araneae: Liocranidae) sp. nov.: a second Nearctic species in the genus

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Abstract

Apostenus ducati sp. nov. is described from montane areas in or adjacent to the Columbia River Basin of southeastern British Columbia in Canada and northern Washington and northwestern Montana in the United States. This is the second Nearctic species of this primarily Palaearctic genus. Unlike most liocranids, A. ducati apparently is restricted to open rocky habitats, such as talus and scree slopes, and on mountain peaks. Throughout most of its range, specimens occur in low numbers and populations are patchily distributed. Also, populations appear to be concentrated in the upper regions of the Flathead River watershed in British Columbia, an area of significant and competing ecological and economic values. Because of these factors, A. ducati is potentially a species of conservation concern.

Key words: Spiders, taxonomy, Flathead, conservation, Columbia River Basin

Introduction

Ten of the 11 described species of *Apostenus* Westring (Araneae: Liocranidae) have Palaearctic distributions: seven in western Europe, two in northern Africa, and one in Mongolia (Platnick 2012). In 2005 the first Nearctic species, *A. californicus* Ubick & Vetter 2005, was described from specimens collected in montane oak (*Quercus* L., Fagaceae) forests in southern California, United States of America (Ubick & Vetter 2005).

Although its geographic isolation from other populations of *Apostenus* was puzzling, Ubick & Vetter (2005) rejected a synanthropic introduction from the Old World for *A. californicus* because of the pristine nature of the oak ecosystems in which it was found. During ongoing regional spider diversity field work, we have collected spiders in remote and relatively undisturbed sites across southern British Columbia, Canada. These efforts resulted in specimens of a second Nearctic species of *Apostenus* which appears to be endemic to montane regions from southeastern British Columbia to northwestern Montana and north central Washington in the United States. Here we describe *A. ducati* sp. nov., the first *Apostenus* to be recorded in Canada, and only the second species with a New World distribution as well as being a species of potential conservation concern.

Methods

All British Columbia specimens were hand-collected using aspirators and, unless otherwise specified, are deposited at the Royal British Columbia Museum (Victoria, BC). After our initial confirmation of our finding of an undescribed species, we canvassed the following North American museums for unidentified *Apostenus* (or *Scotinella* Banks (Corinnidae), which are found in the same habitats and are superficially similar to *A. ducati*): the Canadian National Collection (Ottawa, Ontario, Canada), the American Museum of Natural History (New York, New York, U.S.A.), the Museum of Comparative Zoology (Cambridge, Massachusetts, U.S.A.), the Smithsonian Institution (Washington, DC, U.S.A.), the Denver Museum of Nature and Science (Denver, Colorado, U.S.A.), and