Zootaxa 3682 (4): 563–571
www.mapress.com/zootaxa/

Article

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

http://dx.doi.org/10.11646/zootaxa.3682.4.7
http://zoobank.org/urn:lsid:zoobank.org:pub:B22DA403-BAEE-4EED-86F5-D79AE60D8175

Pterostichus (*Anilloferonia*) *diana* LaBonte (Coleoptera: Carabidae: Pterostichini), a replacement name for *P.* (*A.*) *lanei* (Hatch, 1935), and validity and redescription of *P.* (*A.*) *malkini* (Hatch, 1953)

JAMES R. LABONTE
Oregon Department of Agriculture Plant Division 635 Capitol Street N.E. Salem, OR 97301-2532. E-mail: jlabonte@oda.state.or.us

Abstract

A replacement name for *Pterostichus* (*Anilloferonia*) *lanei* (Hatch), 1935, is necessary because *P. lanei* (Hatch) is a secondary homonym of *P.* (*Pseudoferonina*) *lanei* Van Dyke, 1925. I have selected *P.* (*A.*) *diana* as this replacement name. *Pterostichus* (*Anilloferonia*) *malkini* (Hatch), 1953, was described from a single female collected in 1951. Since then five more specimens have been collected, including males. Based on this additional material it is clear this species is valid, which had been uncertain. Since the original description of *P. malkini* did not include male characteristics, several of which are diagnostic, a detailed description of this species is provided. Locality and habitat details for this rarely collected species are included. Characters differentiating *P. malkini* from the other species of *P.* (*Anilloferonia*) are illustrated and discussed.

Key words: ground beetle, microphthalmous, Oregon, endogean

Introduction

The genus *Anilloferonia* was erected by E.C. Van Dyke in 1926 to accommodate the first described microphthalmous North American pterostichine, *Anilloferonia testacea* Van Dyke, 1926 (Van Dyke 1926). Additional species were subsequently described within this genus by Melville H. Hatch, including *A. lanei* Hatch, 1935; *A. rothi* Hatch, 1951; and, finally, *A. malkini* Hatch, 1953 (Hatch 1935, 1951, 1953).

Members of *Anilloferonia* have since been placed within the *amethystinus* species group of *Pterostichus* Bonelli (Bousquet and Larochelle 1983) or, more or less equivalently, within the subgenus *Hypherpes* Chaudoir (Ball and Bousquet 2001). Based on DNA analysis, a recent phylogeny supports *Anilloferonia* (comprised of *P. lanei*, *P. malkini*, and *P. testacea*) as a valid subgenus (Will and Gill 2008). This same paper concludes that *P. rothi* is actually a member of the subgenus *Leptoferonia* Casey, 1918. The recognition of *Anilloferonia* as a subgenus of *Pterostichus* creates a nomenclatural problem explicitly acknowledged by Bousquet (2012, p. 832): *P.* (*A.*) *lanei* (Hatch) becomes a secondary homonym of *P.* (*Pseudoferonina*) *lanei* Van Dyke, 1925. Hence, a replacement name is necessary. I will provide such a replacement name in this paper.

The characters differentiating *P. lanei* (Hatch) and *P. malkini* in Hatch (1953) were subtle at best and some were invalid. Based on my examination in the 1990's of the sole available specimen of *P. malkini*, the female holotype, I felt the specimen merely represented a variant population at the southernmost portion of the known range of beetles which are, after all, soil-dwelling and flightless. Such species often exhibit substantial morphological variation among populations and this variation is often most pronounced at the range extremes.

Uncurated and recently collected material in my own collection included five specimens of *P. malkini*, including males (Fig. 1). Subsequent examination of these additional specimens, along with numerous southern specimens of *P. lanei* (Hatch), revealed clear and consistent species-specific characters for *P. malkini*, establishing its validity. In this paper, I indicate those characters most readily distinguishing *P. malkini* from the other species of *P.* (*Anilloferonia*). Furthermore, since the description of *P. malkini* (Hatch 1953, p. 119) consists only of five lines and forty-five words and does not address male characters, I will describe this species more completely.

Accepted by K. Ober: 14 May 2013; published: 1 Jul. 2013