Zootaxa 2815: 28–48 (2011)
www.mapress.com/zootaxa/

Article

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

A taxonomic revision of the genus *Phyxioschema* (Araneae, Dipluridae), II: species from Central Asia

PETER J. SCHWENDINGER[1] & SERGEI L. ZONSTEIN[2]

[1]*Muséum d'histoire naturelle de la Ville de Genève, c. p. 6404, CH-1211 Genève 6, Switzerland.*
E-mail: peter.schwendinger@ville-ge.ch
[2]*Department of Zoology, The George S. Wise Faculty of Life Sciences, Tel-Aviv University, 69978 Tel-Aviv, Israel.*
E-mail: znn@post.tau.ac.il

Abstract

Phyxioschema raddei Simon, 1889 is revised. A re-examination of type specimens confirms the synonymy of *P. raddei* and *Ischnothele strandi* Spassky, 1937, but the synonymy of *Afghanothele lindbergi* Roewer, 1960 and *A. striatipes* Roewer, 1960 cannot be confirmed due to the immature state of their types. The copulatory organs of the female holotype and other females from different localities are illustrated for the first time. Variation in morphological characters is shown. New records are given for Iran, Turkmenistan, Uzbekistan, Kazakhstan and Tajikistan. *Phyxioschema* females from Pakistan cannot be attributed to any nominal species and are left unnamed. A new species, *P. roxana*, is described from male and female specimens collected at eight localities in southern Uzbekistan and western Tajikistan. Relationships between Central Asian and Southeast Asian species are discussed. A summary of relevant morphological characters of all *Phyxioschema* species is given.

Key words: Mygalomorphae, Euagrinae, Euagrini, *Phyxioschema raddei*, new species, variation, biogeography

Introduction

The genus *Phyxioschema* is remarkable in that it contains species living in desert areas without vegetation (most diplurids occur in humid habitats with some kind of vegetation) and in that it has a widely disjunct distribution. Six species (treated in the first part of this revision; Schwendinger 2009) occur in tropical Thailand, at least two more in the arid region of Central Asia (Fig. 1). The latter are treated here. The genus was established by Simon on the basis of a single female specimen, the holotype of *P. raddei* Simon, 1889, from western Turkmenistan. The same author then also added the description of a conspecific male specimen (Simon 1903) from the same area. Further diplurid species later described from southern Turkmenistan (*Ischnothele strandi* Spassky, 1937) and northern Afghanistan (*Afghanothele lindbergi* Roewer, 1960 and *A. striatipes* Roewer, 1960) were subsequently all placed in the synonymy of *P. raddei* (see Charitonov 1969: 64, Raven & Schwendinger 1989: 55). Thus *P. raddei* was considered to be the only diplurid species to occur in Central Asia, but taxonomically it was not well defined. The descriptions mentioned above did not provide much useful information for delimiting the species. Illustrations of the male palp and leg II by Andreeva (1976: figs. 8–9) also fail to show the three most distinctive characters of this species. Raven (1981: 227) made the first reference to one of them ("Tibia II … with … spur with flat bilobular tip, retrolateral lobe with two immovable spines."), but his illustration of the male tibia and metatarsus II in proventral view (fig. 7) does not show this unique, strongly asymmetrical ventral tibial spur [and it also does not show the third (proventral) keel on metatarsus II]. The second characteristic trait of this species, the presence of three longitudinal ventroproximal keels on metatarsus II of males, was first mentioned by Coyle (1988: 209) in his revision of the closely related genus *Euagrus*. The third characteristic, an enlarged subproximal ventral spine on metatarsus I of males, has not been previously reported. Without knowing other *Phyxioschema* species, it

 Accepted by R. Raven: 5 Nov. 2010; published: 12 Apr. 2011