



Three new species of mites (Acari: Zerconidae) from canopy habitats in Irish forests

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Abstract

Three new species of the genus *Zercon* (Acari: Zerconidae) are described and illustrated on the basis of material collected from canopy samples from native and non-native forest habitats in Ireland. A key to the species of *Zercon* from Britain and Ireland is provided.

Key words: Acari, Mesostigmata, Zerconidae, taxonomy, Ireland, Britain, new taxa

Introduction

The genus *Zercon* is poorly known in the islands of Britain and Ireland (Błaszak, 1985; Karg, 1993; Skorupski & Luxton, 1996). In the latest paper on Zerconidae from this region (Skorupski & Luxton, 1996), eleven species of *Zercon* and one dubious record were listed.

In Ireland, Halbert (1915, 1923) and Hull (1917) recorded *Z. perforatulus* Berlese and *Z. triangularis* C.L. Koch early in the twentieth century and more recently, *Z. zelawaiensis* (Sellnick) was recorded by Evans (1954) and *Z. triangularis* by Purvis (1982). All these records were listed by Luxton (1998). Since then, *Z. colligans* Berlese and *Z. abaculus* (C.L. Koch) were cited by O'Connell (1994) for Ireland.

The present paper contains the descriptions of three new species: *Z. curryi* **sp. nov.**, *Z. darai* **sp. nov.**, and *Z. hibernia* **sp. nov.** which were found in arboreal habitats in Ireland. These species provide useful additions to the taxonomic and ecological knowledge of this group of mites.

Material and methods

Mites were collected during faunistic and ecological studies in different forests habitats of Ireland from 2005. Specimens were extracted using Tullgren funnels, cleared in Nesbitt's solution, mounted in Hoyer's medium and examined using light microscopy. In the description of new species, the notation of the idiosomal setal follows Lindquist & Evans (1965), with modifications for the caudal region as given by Lindquist & Moraza (1998). The system for designation of dermal glands and lyrifissures is based on Johnston & Moraza (1991) and Krantz & Redmond (1987). All measurements are given in micrometres (µm), presented as mean size and size range (minimum to maximum) or as approximations. Types of the new species and other zerconid specimens are deposited in the Museum of Zoology Universidad de Navarra (MZUNA) and Terrestrial Ecology Laboratory, University College Dublin (UCD).