



A new species of wolf spider from the Pyrenees, with remarks on other species in the *Pardosa pullata*-group (Araneae, Lycosidae)

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Abstract

Pardosa pyrenaica **sp. n.** is described based on material from the Pyrenees (Andorra, France and Spain). This species belongs in the *Pardosa pullata*-group, members of which are characterised, *inter alia*, by having a tegular apophysis consisting of two membranously connected sclerites. *Pardosa pyrenaica* **sp. n.** and *P. pullata* (Clerck) share comparatively short legs, notably the first two leg pairs, in comparison to other species in the *pullata*-group. Moreover, the first two pairs of legs in these two species are furnished with an abundance of scopulate hairs (less developed in the female sex). Males of the two species differ notably in the shape of the embolus while the females differ by the course of the receptacula and usually by proportions in the shape of the epigyne although there is some overlap due to morphological variation. The restricted elongation in final instar legs and the abundance of scopulate hairs in the anterior two pairs of legs are associated with traits in the precopulatory behaviour, which is described for both species.

Key words: *Pardosa pyrenaica*, new species, Andorra, France, Spain

Introduction

Pardosa C. L. Koch is the most speciose genus among Holarctic wolf spider genera. Several species groups have been recognised, which are based on characteristics of the copulatory organs.

Recent studies based on molecular data (Zehethofer & Sturmbauer 1998; Murphy *et al.* 2006) point to the monophyly of at least part of the genus *Pardosa*. Both studies encompassed a limited set of species and both included *Pardosa lugubris* (Walckenaer), which was recently shown to incorporate distinct cryptic species: *Pardosa lugubris sensu stricto* and *P. saltans* Töpfer-Hofmann (Töpfer-Hofmann *et al.* 2000) as well as *P. alacris* (C. L. Koch), which is the type species of *Pardosa* (see Kronstedt *et al.* 2002). The monophyly of *Pardosa* as currently conceived has, however, been put in doubt (Marusik *et al.* 2003). On morphological grounds it is evident that a number of species currently placed in the genus *Pardosa* should be placed elsewhere.

One of the species assemblages within *Pardosa* is the *pullata*-group, hitherto with eight recognised taxa (as revised by Holm & Kronstedt 1970), all found in the Palearctic. A synapomorphy for the group is the division of the tegular apophysis into two membranously connected sclerites. Molecular data also support the monophyly of this group (Zehethofer & Sturmbauer 1998; S. Goodacre & T. Kronstedt unpublished data).

During a short visit to Andorra in May 2006, I was able to secure two males of a species in the *pullata*-group that could not be placed in any known species. The males were somatically quite similar to *P. pullata* (Clerck) but differed in the shape of the embolus. One co-occurring female could not unambiguously be distinguished from *P. pullata*. More material of both sexes was collected during another visit to the same area in April 2007. Due to species specific characteristics in the male pedipalp, the actual specimens from Andorra