



## The European *Lepidocyrtus* Bourlet, 1839 (Collembola: Entomobryidae)

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### Abstract

Genus *Lepidocyrtus* is represented by 25 species in Europe and the correct identification of some of them is difficult to achieve due to lack of diagnostic characters and some published errors description. In this paper I have studied specimens of *Lepidocyrtus flexicollis*, *L. curvicollis*, *L. monseniensis* and *L. nigrescens* and I have found several diagnostic characters very useful for their differentiation. The total chaetotaxy of fourth abdominal tergum is very informative for these four species and could be for the whole European species. I have consulted the literature that describes the European species and I made a diagnosis of all of them using the best diagnostic characters possible, with which I have elaborated an identification species key. The high chromatic variability of some European species makes the use of color pattern for taxonomy on this region problematic.

**Key words:** Collembola, *Lepidocyrtus*, taxonomy, European species, chaetotaxy, diagnostic characters, species identification key

### Resumen

El género *Lepidocyrtus* está representado en Europa por 25 especies y la correcta identificación de algunas de ellas es difícil de realizar debido a la falta de caracteres diagnóstico y algunos errores de descripción publicados. En el presente trabajo he estudiado especímenes de *Lepidocyrtus flexicollis*, *L. curvicollis*, *L. monseniensis* y *L. nigrescens* y he encontrado varios caracteres diagnóstico muy útiles en su diferenciación; concretamente la chaetotaxia total del cuarto terguito abdominal es muy informativa para estas especies y podría serlo para el conjunto de las especies europeas. He consultado la bibliografía donde se describen las especies europeas y he realizado una diagnosis de todas ellas utilizando los mejores caracteres diagnóstico posibles, con los cuales he elaborado una clave de identificación específica. Debido a la gran variabilidad cromática que presentan algunas especies europeas, es muy problemático el uso del patrón pigmentario para la taxonomía en esta región.

**Palabras clave:** Collembola, *Lepidocyrtus*, taxonomía, especies europeas, chaetotaxia, caracteres diagnóstico, clave de identificación específica

### Introduction

The genus *Lepidocyrtus* included 225 species in the World (Bellinger *et al.* 1996–2007). Species taxonomy is complex and ten subgenera have been proposed by different authors (see Wang *et al.* 2003), though subgenera diagnostic characters are under discussion (Christiansen & Bellinger 1991, Soto-Adames 2000). European species belong to subgenera *Lepidocyrtus* s.str. and *Lanocyrtus* Yoshii & Yayuk, 1989, which as a whole include the major number of world species (142 and 20 species respectively).

Bellinger *et al.* (1996–2007), among the 25 species cited in European countries, considered the species *Lepidocyrtus falcifer* Schäffer, 1898, but its presence in the Mediterranean area appears as doubtful. This species was originally described from Papua New Guinea and quoted by Denis (1930) as *Lepidocyrtinus falcifer*