



## ***Arcanobisium*, a remarkable new genus, representing a new subfamily with a relictual distribution from eastern Spain (Arachnida: Pseudoscorpiones: Syarinidae)**

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### **Abstract**

*Arcanobisium* **gen. nov.** is described for *Arcanobisium comasi* **sp. nov.**, from a limestone cave in the Valencian Community, Castellón province, Spain. By its unique features, compared to other syarinids, it warrants the creation of a new subfamily, Arcanobisiinae, for its accommodation. Some characters of the Syarinidae are evaluated and the genera *Chitrellina* Muchmore, 1996, *Hadoblothrus* Beier, 1952, *Microcreagrella* Beier, 1961 and *Microcreagrina* Beier, 1961 are transferred to the subfamily Ideobisiinae from the Chitrellinae. A key to the subfamilies of Syarinidae is given. The relictual status of the new subfamily is discussed.

**Key words:** Pseudoscorpiones, Syarinidae, cave, Valencian Community, Spain

### **Resumen**

Se describe *Arcanobisium* **gen. nov.** para *Arcanobisium comasi* **sp. nov.**, de una cueva caliza en la Comunidad Valenciana, provincia de Castellón, España. Por sus rasgos únicos, en comparación con el resto de syarínidos, merece la creación de una nueva subfamilia, Arcanobisiinae para su acomodación. Algunos caracteres de los Syarinidae son evaluados y los géneros *Chitrellina* Muchmore, 1996, *Hadoblothrus* Beier, 1952, *Microcreagrella* Beier, 1961 y *Microcreagrina* Beier, 1961 son transferidos a la subfamilia Ideobisiinae desde los Chitrellinae. Se ofrece una clave para las subfamilias de los Syarinidae. Se discute la condición relictual de la nueva subfamilia.

### **Introduction**

The neobisoid pseudoscorpion family Syarinidae was created by Chamberlin (1930) and at first was represented by two subfamilies: Syarininae Chamberlin and Chitrinae Chamberlin. The type genus of the family is *Syarinus* Chamberlin, 1925 with the type species, *Syarinus obscurus* (Banks, 1893), from North America. Other contributions concerning the family Syarinidae include those of Beier (1932, 1963), Chamberlin (1938), Muchmore (1982), Harvey (1992, 1998), Harvey & Volschenk (2007) and Muriene *et al.* (2008). Currently, the Syarinidae consists of three subfamilies: Chitrellinae Beier, 1932 (replacement name for Chitrinae), Ideobisiinae Banks, 1895 and Syarininae Chamberlin, 1930, with eight, five and two genera respectively, and the unplaced genus *Hyarinus* Chamberlin, 1925 (Harvey 2009).

The Syarinidae have been characterized by Muchmore (1982, 1990) and Harvey (1992, 1998). On the basis of morphological and molecular data, Harvey & Volschenk (2007) and Muriene *et al.* (2008) indicated that the Syarinidae are polyphyletic, which is probably why the diagnosis of the family formulated by Muchmore (1982) is, in part, contradictory: “chela with usual complement of 12 trichobothria, of which *t* is usually short and lanceolate (except in European and North African forms). Within the Syarinidae pleural membranes may range from striate to granulate; the suture between the parts of the femur of leg IV may be oblique or perpendicular to the long axis of the femur; a galea may be present or not; if present, the galea may