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Systematics and natural history of *Barronopsis* (Araneae: Agelenidae), with description of a new species

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Abstract

The monophyletic agelenid genus *Barronopsis* Chamberlin & Ivie is revised to include 6 species. The Cuban species *B. campephila* Alayón and *B. cesari* Alayón are synonomized under *B. barrowsi* (Gertsch) and *B. jeffersi* (Muma), respectively, and *B. stephaniae* new species is described. Natural history observations, distribution maps, diagnoses and descriptions, and a species identification key including *B. texana* (Gertsch), *B. arturoi* Alayón, and *B. floridensis* (Muma) are provided. Detailed descriptions of the male palpus and female genitalia, a review and evaluation of historical terminology used to describe agelenid palpal bulbs, and a discussion of the utility of certain male palpal characters in resolving phylogeny within Agelenidae are provided. Based on the morphology of the male and female genitalia and morphometric data, two species groups are recognized: a large-bodied *B. texana* species group (*B. texana*, *floridensis*, *arturoi*, *jeffersi*) and a small-bodied *B. barrowsi* species group (*B. barrowsi*, *B. stephaniae*). A cladistic analysis of *Barronopsis*, using *Tortolena glaucopis* (F. O. P.-Cambridge), *Melpomene singula* (Gertsch & Ivie), and species of *Agelenopsis* Giebel as outgroups identified three most parsimonious trees of 37 steps. The strict consensus tree yielded the following species relationships: (*Agelenopsis* (((*B. texana*, *B. jeffersi*), *B. floridensis*, *B. arturoi*), (*B. barrowsi*, *B. stephaniae*))))).

Key words: *Agelenopsis*, revision, taxonomy, phylogenetic analysis

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