Abstract

Zeldia spannata sp. n. is described from the Mojave Desert, California. The new species shares with congeners a single guard process in each primary axil and asymmetrical triangular-shaped lips; it differs from them by the presence of elongate spanner-shaped, deeply bifurcate probolae (vs typically low, rounded and bicornuate). In addition, the new species has five lateral incisures (vs three in most other species of the genus), areolated lateral fields and tessellate cuticle (vs non-tessellate). Unlike some other Zeldia this new species lacks punctations. With respect to the bifurcate probolae, Z. spannata sp. n. resembles Chiloplacus or Stegelleta. Although the new species is reminiscent of some Nothacrobeles with respect to overall asymmetry, triangular shape of the lips, and the presence of tines on lips, maximum parsimony and maximum likelihood analyses of the ITS1, 5.8S and ITS2 of rRNA gene fragments from 13 taxa do not allow resolution of relationships between Zeldia species and several other cephalobid clades. The morphological characters of the new species are the basis for a broader, emended definition of the genus Zeldia, and suggest novel implications for evolution of Cephalobidae.