{rokbox title=|Neighbour Joining phylogenetic tree topology of Buenia species and representatives of all sand goby genera except for Hyrcanogobius :: Figure: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-new-species-buenia-kovacic-et-al-2018-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-new-species-buenia-kovacic-et-al-2018.jpg{/rokbox}

Marcelo KOVAČIĆ, **Francesc ORDINES**, Ulrich K. SCHLIEWEN, 2018. **A new species of *Buenia* (Perciformes: Gobiidae) from the western Mediterranean slope bottoms, the redescription of *Buenia jeffreysi* and the first Balearic record of *Buenia affinis*** .
Zootaxa 4392 (2): 267–288.

Abstract: A new gobiid species, *Buenia lombartei sp. nov.* (Teleostei: Gobiidae) is described from the continental slope off the Balearic Islands, western Mediterranean. The Atlantic species *Buenia jeffreysii* (Günther, 1867) is redescribed and the first record of *Buenia affinis* Iljin, 1930 is reported for the islands. A key for the species of genus Buenia is provided. The new species can be distinguished from congeneric species by morphological characters: anterior oculoscapular canal semi-closed with pores *σ, λ, κ, α, ρ* and additional pores and open furrows; suborbital row c of 6 papillae; anal fin I/7-I/8; scales in lateral series 25-27; scales in transverse series 6; pectoral fin rays 18; the second spine of the first dorsal fin longest, backwards reaching to middle second dorsal fin in males when folded down; pelvic fin anterior membrane reduced to less than one sixth of spinous ray in midline depth; tongue well developed and bilobed and several morphometric characters. The new species is also characterized by its reduced colouration and unique depth range and occurrence on upper slope muddy bottoms. Contrary to this, only a small number of gobiid species in the Mediterranean reach beyond the circalittoral to the deep shelf, and just a few have records below the shelf break. Phylogenetic analysis of their mitochondrial COI sequence grouped the two specimens within the same clade as *B. jeffreysii*, but one apomorphic transversion diagnoses the *B. lombartei* subclade. A hypothesis about rapid speciation of *B. lombartei*

as well as alternative hypotheses are discussed. During the Last Glacial Maximum, boreal fish species such as cold-water adapted gadids, now restricted to northwestern Europe, entered the Mediterranean. This may have also been the case of the boreal population of *B. jeffreysii*. At the end of the glacial period, increasingly warming Mediterranean waters might restricted *B. jeffreysii* to deeper coldwater mud habitats of the upper slope, where it finally adapted to bathyal conditions.

Keywords: Pisces, *Buenia lombartei sp. nov.*, first record, Balearic Islands, key to species, continental slope