

***Gollumjapyx smeagol* gen. n., sp. n., an enigmatic hypogean japygid (Diplura: Japygidae) from the eastern Iberian Peninsula**

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Abstract

A new species of subterranean japygid dipluran belonging to a new genus is diagnosed and described from the eastern Iberian Peninsula. The new species is highly adapted to hypogean life with very obvious troglobiomorphic features: unpigmented cuticle, an extraordinary lengthening of thorax and appendixes, multiplication of antennomeres and supernumerary placoid sensilla, not just in the apical antennomere but also in the preceding antennomeres. These traits make it the most exceptional of all the hypogean Japygidae known to date, with troglobiomorphic characteristics more accentuated than in other hypogean taxa known in the rest of the world. The cercal armature of the *Burmjapyx* type (Silvestri, 1930; *sensu* Paclt, 1957) together with the characteristics of the glandular organs of the first urosternite set it apart from the known Japygidae. However, those characteristics prove insufficient to establish a relation with other genera. It is therefore the only manifestly hypogean japygid species in the Iberian Peninsula, where only *Metajapyx moroderi* Silvestri, was known in certain caves of the eastern reaches of the Prebetic range. The new species has been located inside six average-sized underground caves, generally in the deepest areas, and may be one of the major hypogean predators in the Iberian Peninsula, with a diet that ranges from Acari to Anillini carabids. Its distribution along the limestone regions of the coastal ranges in the east of the Peninsula coincides with that of paleo-endemic troglobites. Therefore, it is possible to infer a remote origin for this species, as suggested by its high level of specialization in the subterranean ecosystems.

Key words: Hexapoda, Entognatha, taxonomy, cave fauna, troglobiomorphism, *Burmjapyx*, *Metajapyx moroderi*, Arthropoda