



## A new freshwater amphipod species, *Gammarus topkarai* sp. nov., from Turkey (Amphipoda: Gammaridae), with a key for Turkish freshwater *Gammarus* species

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### Abstract

A new species of freshwater Amphipod, *Gammarus topkarai* sp. nov., collected from Ivriz Creek, Tarsus Province, South Anatolia, is described and illustrated. The new species belongs to *Gammarus pulex*-group and shows similar characteristic features with *Gammarus agrarius* G. S. Karaman, 1973. Absence of well developed dorsal elevations on the urosome segments, smaller body length and relatively lower endopod/exopod ratio of third uropod are the most obvious features differ from *G. agrarius*. A detailed morphological description and illustrations of new species are given and differences from related species are discussed.

An updated identification key of *Gammarus* taxa reported from Turkey, up to date, was also presented.

**Key words:** *Gammarus*, new species, identification key, freshwater, Turkey

### Introduction

*Gammarus* Fabricius, 1775 as one of the largest genera of Amphipoda, is represented by more than 200 species worldwide (Vainola et al., 2008). The distribution of the genus *Gammarus* is broad, centered in Europe but extending to China and North America; they also include taxa in coastal marine waters (Vainola et al., 2008). Most of the species belonging to the genus are epigeal, while a few ones were reported from wells, caves or other ground water habitats (G. Karaman & Pinkster, 1977). The fauna of *Gammarus* species living in fresh waters in southern Europe and Asia Minor is indeed very rich (G. Karaman, 1973).

Until 2006, 35 species belonging to the genus *Gammarus* have been reported from inland waters of Turkey (Özbek & Ustaoglu, 2006). Among the studies carried out the existence of *Gammarus* species in Turkey, Vavra (1905) is the pioneering one which includes the description of *Gammarus argaeus* Vavra, 1905 from Erciyes Mountain, Kayseri province. Latest study on the subject was reported by Özbek (2007) and in the mentioned study, the author described a new species, *Gammarus izmirensis* Özbek, 2007, from a stream in İzmir province, western Anatolia.

The exact number of Amphipod species inhabiting Turkish fresh waters is still unknown. The present study aims at contributing to our knowledge on the taxonomy and distribution of *Gammarus* species in Turkey through the description of a new species, *Gammarus topkarai* sp. nov., and presenting an updated key.

### Material and methods

Specimens were collected with a fine-mesh hand-net and fixed in 4% formalin solution in the field and preserved in 70% ethanol in the laboratory. The specimens sampled were examined and dissected under a