



## Two new *Gammarus* species (Crustacea: Amphipoda: Gammaridae) from Zagros Mountains, Iran

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### Abstract

The present study tries to focus on describing two new species belonging to genus *Gammarus* from western Iran along the Zagros Mountains range. The most remarkable feature of *Gammarus hegmatanensis* sp. n. is the shape of epimeral plate 3, which is sharply pointed posteriorly with a distinct lobate anterior margin. This species has some similarities with and differences from some other species of *Gammarus pulex*-group such as *G. parthicus* and *G. syriacus*. The other species, *G. sirvannus* sp. n. with elongated eyes is similar to *G. duebeni*, *G. lobifer*, *G. balutchi* and *G. loeffleri*, but it shows prominent morphological differences and a distinct geographical distribution from these species. These new findings shed more light on the information available on amphipod fauna of Iran.

**Key words:** Amphipoda, Iran, new species, Gammaridae, *Gammarus hegmatanensis*, *Gammarus sirvannus*

### Introduction

The reported species of freshwater amphipods of Iran have been distributed from the north to the south and the east to the west of the country. Some earlier works on Iranian amphipods are S. Karaman (1934), G. S. Karaman (1969), Birstein (1945), Löffler (1956), Ruffo (1979), Pesce *et al.* (1982) and Mateus and Mateus (1990). In the comprehensive study by Stock *et al.* (1998) following new freshwater species *Gammarus anodon* Stock *et al.*, 1998, *Gammarus parthicus* Stock *et al.*, 1998, *Gammarus lobifer* Stock *et al.*, 1998, *Gammarus proijectus* Stock *et al.*, 1998, *Gammarus crinicudatus* Stock *et al.*, 1998, *Gammarus paricrenatus* Stock *et al.*, 1998 and three other species namely *Gammarus lacustris* Sars, 1863, *Gammarus syriacus* Chevreux, 1895 and *Gammarus komareki* Schäferna, 1922 have been reported. Subsequently, Khalaji-Pirbalouty & Sari (2004; 2006) introduced three new species: *Gammarus lordeganensis* Khalaji-Pirbalouty & Sari, 2004, *Gammarus bakteharyicus* Khalaji-Pirbalouty & Sari, 2004, *Gammarus balutchi* Khalaji-Pirbalouty & Sari, 2006 and *Gammarus pseudosyriacus* Karaman & Pinkster, 1977 as a new record in Iran. The latest study by Zamanpoore *et al.* (2009; 2010) on freshwater amphipods in the Southern Zagros Mountains of Fars Province led to the description of four new species namely *Gammarus zagrosensis* Zamanpoore *et al.*, 2009, *Gammarus sepidannus* Zamanpoore *et al.*, 2009, *Gammarus shirazinus* Zamanpoore *et al.*, 2010 and *Gammarus loeffleri* Zamanpoore *et al.*, 2010.

In the present study, freshwater amphipods of some western provinces of Iran have been studied: Hamadan and Kermanshah provinces lie in the Zagros Plateau which is highly mountainous with a high amount of water resources. These mountains provide geographical barriers and various habitats that could result in a high diversity of amphipods in western areas. The cold climate of these regions is also suitable for amphipod distribution.

This study resulted in describing and providing geographical distribution data of two new species: *Gammarus hegmatanensis* sp. n. which belongs to *Gammarus pulex*-group (Karaman & Pinkster, 1977), found in springs, streams and “Qanats” in the W and NW of Hamadan city. The other new species from Kermanshah province, *Gammarus sirvannus* sp. n. which is collected from the Sirvan river is sympatric with *G. parthicus* and *G. anodon* in this river. The Sirvan river joins the Dejeleh river that flows to the Persian Gulf.