

## A contribution to a knowledge of the freshwater decapods of Hatay region, Turkey

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### Abstract

This study provides occurrence data of freshwater decapod species collected from 2011 to 2012. The species were collected 143 samples from 11 sampling locations in the Hatay region, Turkey (Orontes river and catchment; main channel, side branches, streams, and adjacent wetlands). The collected species belong to 3 families and 4 species were identified.

**Keywords** freshwater; decapods; distribution; Hatay; Turkey.

### 1 Introduction

The aim of this paper is summarizing faunistic results concerning freshwater decapods collected in different station in the two years from the Hatay region. The decapod species were identified by using keys and descriptions by Rathbun (1904), Pesta (1913) and Holthuis (1961).

Hatay region is a province in Turkey, bordered by Syria and Mediterranean Sea. It reserves Orontes River, Karasu, Afrin, Büyük Karaçay and Küçük Karaçay streams etc. Two large tributaries the Afrin and Karasu stream reach Orontes river in the Amik valley. It flows north to the city of Antakya and falls to the Mediterranean Sea just south of Samandağ (Turkey) (Özcan et al, 2012a).

The total 1654 ha water surface potential (370 ha natural lakes, 430 ha dam reservoirs, 10 ha small dam reservoirs and 844 ha river and streams) and total water potential 3194 hm<sup>3</sup>/year was estimated for Hatay region (Dsi, 2012).

The decapod fauna of the Hatay region have scarcely been studied. Based on the previous literature, the first study was given by Rathbun (1904). The author described a new species *Potamon setigerum* from the former Amik Lake. The other previous records of the freshwater decapod species [*Potamon potamios* (Olivier, 1804)]; *Palaemonetes mesopotamicus* Pesta, 1913; *Atyaephyra orientalis* Bouvier, 1913 and *Palaemonetes antennarius* (Edwards, 1837) were known from the Hatay region, Turkey ( Pretzman, 1973, 1984; Geldiay and Kocataş, 1977; Kinzelbach, 1985; Özcan et al, 2012b).

### 2 Material and Methods

All samples were collected from the Hatay region of Turkey in 2011 and 2012 (Fig. 1). The samples were caught by using electroshocker, small hand net and gill nets. The samples were fixed in the 4% formalin and transferred to the laboratory for processing. The specimens were preserved in 70% ethanol and deposited in the Museum of the Faculty of Fisheries, Mustafa Kemal University, Iskenderun-Hatay (MSM).



Fig. 1 Map of the study area

### 3 Results

#### 3.1 List of species

##### *Palaemonetes mesopotamicus* Pesta, 1913

08.09.2011 Kırıkhan-Gölbaşı Lake 16 specimens **MSM-MALI/2011-05**; 08.09.2011 Orontes River-Karasu stream junction 2 specimens **MSM-MALI/2011-6**; 21.02.2011 Güzelburç-Orontes River 1 specimen **MSM-MALI/2011-07**; 08.08.2011 Orontes River-Karasu stream junction 1 specimen **MSM-MALI/2011-08**; 08.08.2011 Güzelburç-Orontes River 8 specimens **MSM-MALI/2011-09**; 05.07.2011 Kırıkhan-Kumlu II. Canal 1 specimen **MSM-MALI/2011-10**; 05.07.2011 Karasu (Kırıkhan) - 1. Canal 12 specimens **MSM-MALI/2011-11**; 05.07.2011 Güzelburç-Orontes River 12 specimens **MSM-MALI/2011-12**; 15.06.2011 Karasu-Orontes near Güzelburç 12 specimens **MSM-MALI/2011-13**; 15.06.2011 Gölbaşı Lake 2 specimens **MSM-MALI/2011-14**; 15.06.2011 Özkızılkaya 1 specimen **MSM-MALI/2011-15**; 24.05.2011 Comba Canal 1 specimen **MSM-MALI/2011-16**; 26.03.2011 Kırıkhan Kumlu 1. Canal 2 specimens **MSM-MALI/2011-17**; 22.11.2011 V. Canal 1 specimen **MSM-MALI/2011-18**; 26.03.2011 Orontes River-Karasu stream junction 1 specimen **MSM-MALI/2011-19**;

##### *Atyaephyra orientalis* Bouvier, 1913

24.05.2011 Karasu Kırıkhan -Gölbaşı Lake 2 specimens **MSM-MALI/2012-01**; 24.05.2011 Kırıkhan-Karasu Gölbaşı Lake 1 specimen **MSM-MALI/2011-20**; 21.05.2011 Kırıkhan Murat Paşa-Karasu stream 8 specimens **MSM-MALI/2011-21**; 21.05.2011 Karasu-Orontes Güzelburç junction 2 specimens **MSM-MALI/2011-22**; 15.06.2011 Özkızılkaya 1 specimen **MSM-MALI/2011-23**; 15.06.2011 Gölbaşı Lake 1 specimen **MSM-MALI/2011-24**; 15.06.2011 Gölbaşı Lake 8 specimens **MSM-MALI/2011-25**; 05.07.2011 Kumlu Antakya near 1 specimen **MSM-MALI/2011-26**; 05.07.2011 Güzelburç Karasu- Orontes River junction and Orontes River 2 specimens **MSM-MALI/2011-27**; 05.07.2011 Güzelburç Orontes River and Karasu- Orontes River junction 1 specimen **MSM-MALI/2011-28**; 08.08.2011 Güzelburç Orontes River junction 1 specimen **MSM-MALI/2011-29**;

***Palaemonetes antennarius* (H. Milne Edwards, 1837)**

15.06.2011 Gölbaşı Lake 1 specimen **MSM-MALI/2011-30**; 05.07.2011 Karasu I. Canal Kırıkhan 2 specimens **MSM-MALI/2011-31**; 08.08.2011 Güzelburç-Orontes River junction 1 specimen **MSM-MALI/2011-32**; 08.09.2011 Gölbaşı Lake 1 specimen **MSM-MALI/2011-33**; 08.09.2011 Gölbaşı Lake 1 specimen **MSM-MALI/2011-34**;

***Potamon setigerum* Rathbun, 1904**

26.03.2012 Kırıkhan-Kumlu I.Kanal 1 specimen **MSM-MALI/2012-02**; 15.06.2011 Orontes River Güzelburç 1 specimen **MSM-MALI/2011-35**; 24.05.2011 Kumlu II. Canal 1 specimen **MSM-MALI/2011-36**; 20.10.2011 Büyük Karaçay River (Aknehir) 1 specimen **MSM-MALI/2011-3**; 22.11.2011 IV. Kanal 1 specimen **MSM-MALI/2011-38**; 14.12.2011 Güzelburç Orontes River 1 specimen **MSM-MALI/2011-3**.

**4 Conclusions and Discussion**

In this study, 4 species of freshwater decapods belonging to 3 genus were recorded from Orontes river system part of Hatay region. *P. mesopotamicus* and *A. orientalis* was recorded only in two sites by Özcan et al. (2012b) in Hatay region. So far the all species were known from the Hatay region, but these species distribution were very scarcely known. Also, an additional new locality for distribution of these species in water bodies of this region was reported. The more detailed information about the species can be found in Özcan et al (2012a, b).

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