

**ON THE OCCURRENCE OF *Gammarus uludagi* G.
KARAMAN, 1975 (AMPHIPODA, GAMMARIDAE) IN
KAZDAĞLARI**

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ABSTRACT

In this study Gammaridae specimens collected from 12 freshwater sources in Kazdağlari in western Anatolia were examined. The specimens were collected from study area between April 2005 and August 2008. As a result of this dissertation, only one species, Gammarus uludagi, was determined in study area. The species is new record for Kazdağlari district.

Key Words: *Gammarus uludagi, Malacostraca, Amphipoda, Gammaridae, Kazdağlari.*

**KAZDAĞLARI'NDA *Gammarus uludagi* G. KARAMAN,
1975 (AMPHIPODA, GAMMARIDAE)'nin VARLIĞI**

ÖZET

Bu çalışmada Batı Anadolu'da bulunan Kazdağlari'nda 12 Tatlı su kaynağından toplanan Gammaridae örnekleri incelenmiştir. Örnekler bölgeden Nisan 2005 ve Ağustos 2008 tarihleri arasında toplanmıştır. Çalışmada familyanın sadece Gammarus uludagi türü saptanmıştır. Tür bölge için yeni kayıttır.

Anahtar sözcükler: *Gammarus uludagi, Malacostraca, Amphipoda, Gammaridae, Kazdağlari.*

1. INTRODUCTION

Gammarids are more than 90 percent of freshwater Amphipods on the world. They are found throughout from the springs to the lakes and also play important role in freshwater ecosystems.

The knowledge about freshwater Gammaridae fauna of Turkey has been not sufficient yet. Previous record of the family from Anatolia is by Vavra (1905) which firstly described *Gammarus argeaus* found in the Erciyes Mountain [1]. Özbek and Ustaoglu (2006) listed 48 Gammaridae species in their checklist of Turkish inland water Malacostraca species [2]. Additionally, two new species of *Gammarus* were described and so the number of Gammaridae species living in our inland waters has been increased to 50 [3, 4].

The aim of the present study is to contribute to the knowledge of the distribution and ecology of freshwater gammarids in Turkey by determining species living in Kazdaglari.

2. MATERIALS AND METHODS

In order to contribute to the knowledge of the distribution of Gammaridae species inhabiting inland waters of Kazdaglari district in Turkey, field studies were made between April 2005 and August 2008. During the study, samplings were taken from totally 12 localities which are streams and ponds (Figure 1). Specimens were fixed in 70% ethyl alcohol in the field and then sorted in the laboratory using a stereomicroscope and also kept in 70% ethyl alcohol. During the field study, altitudes and geographical coordinates of sampling sites were measured by use of GPS. Altitudes are given in metres and geographical coordinates of the sites are in north/east sequence. Also locality names are in native names (Table 1).

Cărăusu, S., Dobreanu, E., Monalache, C. (1955), Karaman, G. S., Pinkster, S., (1977), Barnard and Barnard (1983), Karaman, G. S., (1993), Özbek (2003), Özbek, and Ustaoglu (1998), Akbulut (2001) and Özbek and Balık (2009) were used for the taxonomic identification [5, 6, 7, 8, 1, 9,10,4].

Figure 1. Geographic positions of sampling localities (for the names of the localities see Table 1).

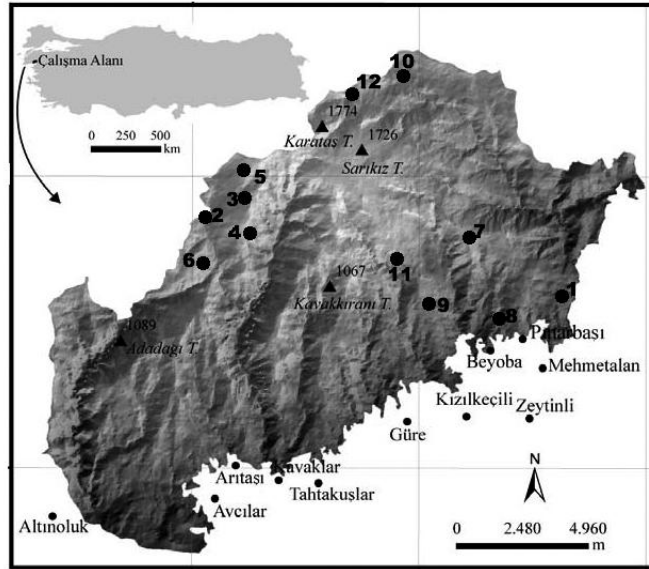


Table 1. Geographical position of sampling localities

Locality	Latitude	Longitude	Altitude	Date
Ayı Deresi	39°42' N	30°10' E	945 m	13/04/2005, 20/05/2007, 28/08/2008
Acöldüren Deresi	39°27' N	30°41' E	964 m	21/06/2007
Karaca Deresi	39°25' N	30°40' E	962 m	22/06/2007, 19/07/2008
Çeyiz Deresi	39°25' N	30°38' E	972 m	02/09/2007, 05/07/2008
Otlu dere	39°29' N	30°44' E	934 m	12/09/2007
Düden yolu	39°15' N	30°46' E	1130 m	29/07/2007
Eşek Deresi	39°14' N	30°39' E	1107 m	03/04/2008
Pınarbaşı Çayı	39°49' N	31°12' E	859 m	13/04/2008, 20/07/2008, 28/08/2008
Asker Deresi	40°02' N	30°40' E	252 m	05/07/2008
Yosunlu – Şelale	39°42' N	30°19' E	915 m	19/07/2008
Yayla	39°28' N	30°39' E	981 m	29/04/2007, 20/05/2007, 21/06/2007, 05/07/2008
Yayla Deresi	39°49' N	31°12' E	903 m	13/04/2008, 03/05/2008

3. RESULTS

As a result of the the study, only one species, *Gammarus uludagi*, was determined in study area. The information of examined materials for each localities is given in Table 2.

Table 2. Number of examined samplings

No.	Locality	Male	Female	Totally
1	Ayı Deresi	10	22	32
2	Acöldüren Deresi	2	-	2
3	Karaca Deresi	10	10	20
4	Çeyiz Deresi	12	6	18
5	Otlı dere	3	2	5
6	Düden yolu	1	4	5
7	Eşek Deresi	4	5	9
8	Pınarbaşı Çayı	17	8	25
9	Asker Deresi	7	9	16
10	Yosunlu – Şelale	3	1	4
11	Yayla	20	22	42
12	Yayla Deresi	4	17	21

4. DISCUSSION and CONCLUSION

Gammarus uludagi was firstly described by Gordan Karaman, from Bursa Uludağ Mountain in 1975 and Karaman and Pinkster found this species in Gölcük-Aydın and İzmir in 1977 [6]. After this study, only two of literature has issued to show about the distribution of *Gammarus uludagi* species inhabiting inland waters of Turkey; Özbek and Ustaoglu (1998) was found *Gammarus uludagi* in İzmir and adjacent areas and Akbulut(2001) was firstly found in Samsun and Sinop areas inland-waters[9, 10]. *Gammarus uludagi* also was reported from Lesbos Island in from Greece by firstly outside from Turkey [6]

Morphological features of *Gammarus uludagi*, resembling *Gammarus fossarum* at first sight, and also the flagellum of the second antenna is bearing flag-like brush setae as in *Gammarus pulex pulex*. However this species is identified from other two ones with relatively short telson lobes bearing a great number of long setae [9].

It is known that *Gammarus uludagi* live in streams having high oxygen concentration and cold water in highland region [9]. So our results and observations about morphological and ecological features of this species are conformed to the knowledge in literature.

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