Erratom to: Examination of Population and Reproductive Characteristics of Freshwater Crab (*Potamonpotamios* (Olivier, 1804)) in Sakarbaşı (Çifteler), 11(1): 5-7, 2018

Bu düzeltme yazısı **"Examination of Population and Reproductive Characteristics of Freshwater Crab (*Potamon potamios* (Olivier, 1804)) in Sakarbaşı (Çifteler), 11(1): 5-7, 2018"** başlıklı makalenin**,** editör ve hakem değerlendirmeleri sonucunda yazara önerilmiş olan düzeltmelerin yapılmış olduğu makale metni yerine sehven yazarın ilk gönderdiği makalenin basılmış olduğunun anlaşılması üzerine yayınlanmıştır. Makale içerisinde yapılan düzeltmeler aşağıda verilmiş olup, çalışmanın, bulgular, bilimsel içeriği ve sonucuna etki edecek herhangi bir durum söz konusu değildir.

Yapılan düzeltmeler;

1. Abstract bölümünde 3.satırda yer alan "scoops" kelimesi "net" olarak değiştirilmiştir.
2. Metin içinde ve "References" bölümünde yer alan kaynakça numaralandırılmaları düzeltilmiştir.

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Examination of Population and Reproductive Characteristics of Freshwater Crab (*Potamon potamios* (Olivier, 1804)) in Sakarbaşı (Çifteler)

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Abstract
In this study, samples were collected monthly from Sakarbaşı between October 2011 and November 2012. Living in Sakarbaşı *Potamon potamios* (Olivier 1804) in the female-male ratio was examined changes in the population. Double-entry crayfish nets, cages and net were used to capture the research samples. During the sampling period, water temperature, Biological Oxygen Demand (BOD), Dissolved Oxygen (DO) and pH values were measured regularly every month. The monthly changes of the population have been studied. However, in the population, carapace length, live weight and number of eggs in the teeth were measured. 32.3% of the samples were female. 67,7% were male subjects. Seasonal and monthly changes in the direction of the obtained data were determined.
Keywords: Decapoda, *Potamon*, Sakarbaşı.

INTRODUCTION

According to Dermirsoy 1998, the Decapoda team with crabs contains about 8500 species, and this team is the largest group of crustaceans [1]. Crabs are found in different ecosystems such as sea, brackish water and fresh water. However, the majority of species live on the seas [2]. About 4500 of the Decapoda order consists of crab species. However, 9 species belonging to the genus Potamon are reported in the inland waters in our country [2, 3, 4, 5, 6, 7, 8].

The taxonomic study of freshwater crab in our country was first made by Geldiay and Kocataş in 1977 [6]. In this study; of freshwater crab found in Turkey are reported to belong to the type of *Potamon*. In this study, the morphology of primary gonopods of male individuals belonging to the genus *Potamon* was used as discriminatory. According to this, the distributions of the collected samples are as follows; *Potamon potamios potamios* (Olivier 1804) from the west of Southeastern Anatolia and in the whole of the Mediterranean Sea and in the inner parts of the Mediterranean facing Central Anatolia; *Potamon potamios persicum* (Pretzmann 1962) in Eastern Anatolia and Central Anatolia; *Potamon ibericum tauricum* (Czerniavsky 1884) in the north-western part of the Black Sea, Marmara and Aegean regions and *Potamon potamios setiger* (Bott 1970) was reported from the samples collected from the Amik plain. The areas where *P. potamios* were distributed were found in Brandis et al. By 2000 the Greek islands, Turkey and Cyprus's southern coast have been reported [4]. In a study conducted by Ünlüsayin in 2003, *P. potamios* was said to have no harm in using as a source of protein provided that ecological tolerance limits are maintained [9].

In this study, some reproductive and population characteristics of Sakarbaşı (Çifteler) freshwater crab (*Potamon potamios* (Olivier 1804)) were investigated.

MATERIALS and METHODS

Examples Çifteler (Eskişehir) was collected from the water source in Sakarbaşı and the surrounding area. The coordinates in general; 39° 21'07.3" N is 31°03'29.0" E (Figure. 1).

Its depth varies between 50 cm and 150 cm. It consists of a small amount of sand, gravel and large pieces of stone. The coastal area is generally sandy and gravelly. The middle part of the source is covered with plants and there is no plant in the lower parts.

Figure 1. Satellite view of study area

Sampling was carried out monthly between October 2011 and November 2012.Crayfish nets, cages and grapple were used to capture the samples. The cages and nets placed were collected 1 day later and samples were taken from them. Mixtures of fish residues and chicken pieces were used as feed. Example were used in the determinate of various sources [10, 11].

In this study, 29 females and 61 male individuals were collected. All samples collected were brought to the laboratory in live water. During this study, water temperature, Biological Oxygen Demand (BOD), Dissolved Oxygen (DO) and pH values of the lake were measured every month. The monthly changes of the population were examined and measurements were made in this population, including carapace length, live weight and number of eggs in females.

The sex differences were measured in females with egg. During these measurements; Digital calipers for carapace measurements, 0.1 precision scales for weight measurements and Nikon stereo natural image microscope and Cameram 21 system were used for egg diameter measurements. Individuals whose measurements were made were then left to live collected areas.

RESULTS

While the abdomen of the collected male subjects of *Potamon potamios* had a narrow, long and pointed appearance (Figure 2), the abdomen of the females was large, oval and large enough to cover the entire chest (Figure 3).

Figure 2. Abdomen view of the male *Potamos potamios* from ventral

Figure 3. Abdomen view of the female *Potamos potamios* from ventral

During the sampling; Average water temperature values between 8.0-23.3 °C, mean Biological Oxygen Requirement (BOD) values between 3-5 months, mean Dissolved Oxygen (DO) values between 6-9 months and pH values 6,8-7,3 (Table 1).

Table 1. Distributions of monthly height-weight, water temperature, BOI, DO and pH values from measured samples

	Female			Male						
	Female Individual Number	Lenght (cm)	Weight (g)	Male Individual Number	Lenght (cm)	Weight (g)	Water Temperature (°C)	BOI	DO	pH
September 11	2	4,7	49,9	6	5,9	55,8	21,7	4	8	7,1
October 11	1	4,5	31,1	4	5,1	50,7	20,5	4	7	6,9
November 11	1	4,5	37,9	4	5,1	51,2	18,1	5	7	7,0
December 11	0	0,0	0,0	2	5,3	53,1	12,3	5	9	6,8
January 12	0	0,0	0,0	0	0,0	0,0	8,0	5	9	7,1
February 12	0	0,0	0,0	0	0,0	0,0	9,1	4	8	7,0
March 12	1	4,5	41,3	3	5,1	49,9	11,2	3	6	7,2
April 12	3	4,1	37,7	8	5,4	55,6	17,8	4	7	7,3
May 12	4	3,9	31,3	9	5,5	54,4	20,7	4	7	7,2
June 12	5	4,9	44,5	12	5,7	52,3	21,1	5	8	7,1
July 12	7	4,4	51,1	9	5,3	53,3	23,1	5	7	6,9
August 12	5	4,1	49,8	4	5,4	49,9	23,3	5	6	7,0

Of the 90 individuals collected during the study, 32.3% (29 individuals) were female. 67.7% (61 individuals) were male. The length of the carapace was 4.40 ± 0.32 in female subjects; 5.40 ± 0.27 cm in males and 41.75 ± 7.75 in female subjects; 52,60 ± 2,20 g in males (Table 2). The height-weight distributions of female and male individuals are given in Figures 4 and 5. When the average weight values of female and male individuals were compared, it was found that the weight of female individuals was lower than 21% by weight of male individuals.

Table 2. Distribution of the length and weight ratios of samples according to the gender

		Lenght (cm.)			Weight (gr.)		
	Individual Number	Mini.	Maks.	Ort.±S.S.	Mini.	Maks.	Ort.±S.S.
Female	29	3,9	4,9	4,40±0,32	31,1	51,1	41,60±7,75
Male	61	5,1	5,9	5,40±0,27	49,9	55,8	52,60±2,20

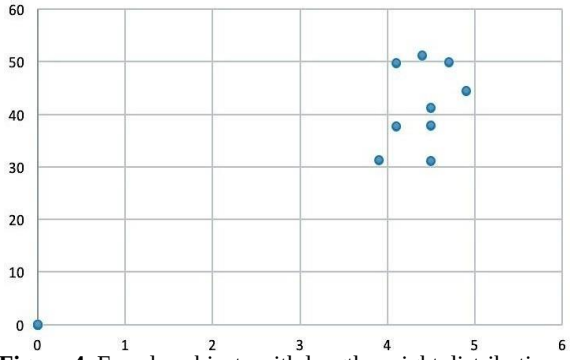

Figure 4. Female subjects with length-weight distribution chart (vertical column, weight, horizontal column; length)

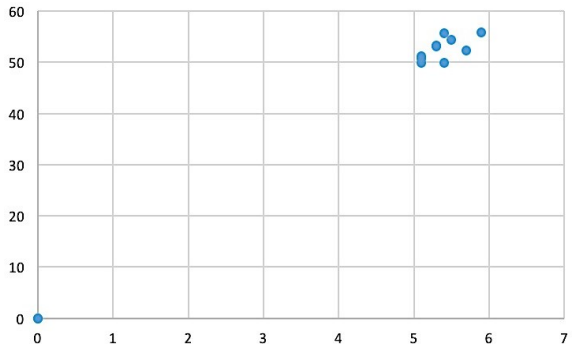

Figure 5. Male subjects with length-weight distribution chart (vertical column, weight, horizontal column; length)

An average of 2.335 ± 0.14 mm and 112 ± 14.55 eggs were detected in females bearing eggs. It has been observed that the female individuals with eggs are located in easy and abundant oxygenated regions of the water. Female individuals were found to protect their eggs in the abdomen.

DISCUSSIONS

Systematically, morphological and anatomical studies have been carried out by various researchers in our country and no research findings have been found in our study area Çifteler-Sakarbaşı. Therefore, it is thought that the findings of this study will shed light on the researchers and contribute to the information about the species.

In our study, the mean carapace size and weight of the collected samples were 4.40 ± 0.32 cm in female subjects; and 41,60 ± 7,75 g, and 5,40 ± 0,27 cm and 52,60 ± 2,20 g, respectively. It is thought that the dominance of male individuals in the population is due to their presence

in almost every month of the year and in all kinds of environments. Low number of females; It is thought that it arises only from certain periods of the year.

During the sampling, when we look at the winter and summer distribution of the number of individuals, it is observed that the highest number of months between April and July-August when the temperatures started to increase. In December, January and February, when the water temperature and ambient temperature were very low, the female was not caught in the male and in January and February the male individual could not be captured.

As a result of the observations made in our study, eggs were found in female individuals who were caught in the last 10 days of June and in July and August. Behavior of individuals with eggs in the oxygenated and shallow areas of water showed that spread. In addition, in the observations we made several times in the night, females were more active at night and they were seen to go out of the water. The females were found to carry an average of 2,335 ± 0,14 mm diameter and 112 ± 14,55 eggs.

In previous studies, it has been reported that freshwater crab has economic value as nutrients [9, 12]. However, it is of great importance that the population of the species is not endangered at the stage of use as nutrients. Therefore, our study findings show that; freshwater crabs are of great importance both for ecosystem and for diversity and nutrients. You can benefit from this life continuously; This type of ecological, biological and population size in terms of full and detailed examination will be possible.

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