

Kuyucuk Gölü Ramsar Alanının Hydrophilidae ve Helophoridae (Coleoptera: Polyphaga) Faunası

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Özet

Türkiye'nin 13 Ramsar Alanı'ndan (koruma altındaki sulak alanlar) biri olan Kuyucuk Gölü'nden 2010-2011 yıllarında toplanan Hydrophilidae ve Helophoridae (Coleoptera: Polyphaga) türleri değerlendirilmiştir. Araştırma bölgesinde; Hydrophilidae familyasına ait 8 tür ve Helophoridae familyasına ait 7 tür tespit edilmiştir. *Laccobius (Dimorpholaccobius) bipunctatus* (Fabricius, 1775), *L. (D.) simulatrix* d'Orchymont, 1932, *Enochrus (Lumetus) quadripunctatus* (Herbst, 1797), *E. (L.) fuscipennis* (Thomson, 1884), *Hydrochara dichroma* (Fairmaire, 1892), *Hydrobius fuscipes* (Linnaeus, 1758), *Coelostoma (s. str.) orbiculare* (Fabricius, 1775), *Berosus (E.) bispina* Reiche & Saulcy, 1856, *Helophorus hilaris* Sharp, 1916, *H. brevipalpis* Bedel, 1881, *H. discrepans* Rey, 1885, *H. arvernensis* Mulsant, 1846, *H. pallidipennis* Mulsant and Wachanru, 1852, *H. micans* (Faldermann, 1835), *H. aquaticus* (Linnaeus, 1758); türlerinin tümü Kuyucuk Gölü Ramsar Alanı'ndan ilk defa kaydedilmiştir.

Anahtar Kelime: Hydrophilidae, Helophoridae, fauna, Kuyucuk Gölü, Ramsar Alanı.

Hydrophilidae and Helophoridae (Coleoptera: Polyphaga) Fauna in Ramsar Site Lake Kuyucuk

Abstract

It has been evaluated Hydrophilidae and Helophoridae (Coleoptera: Polyphaga) species that were collected in Kuyucuk Lake which is one of the 13 Ramsar Sites (Ramsar Convention on Wetlands), Turkey in 2010-2011. In the research area; there have been determined 8 species belonging to the family Hydrophilidae and 7 species belonging to the family Helophoridae. *Laccobius (Dimorpholaccobius) bipunctatus* (Fabricius, 1775), *L. (D.) simulatrix* d'Orchymont, 1932, *Enochrus (Lumetus) quadripunctatus* (Herbst, 1797), *E. (L.) fuscipennis* (Thomson, 1884), *Hydrochara dichroma* (Fairmaire, 1892), *Hydrobius fuscipes* (Linnaeus, 1758), *Coelostoma (s. str.) orbiculare* (Fabricius, 1775), *Berosus (E.) bispina* Reiche & Saulcy, 1856, *Helophorus hilaris* Sharp, 1916, *H. brevipalpis* Bedel, 1881, *H. discrepans* Rey, 1885, *H. arvernensis* Mulsant, 1846, *H. pallidipennis* Mulsant and Wachanru, 1852, *H. micans* (Faldermann, 1835), *H. aquaticus* (Linnaeus, 1758); all these species have been recorded for the first time from Ramsar Site Kuyucuk Lake.

Keywords: Hydrophilidae, Helophoridae, fauna, Lake Kuyucuk, Ramsar Site.

INTRODUCTION

There are 13 sites under the Ramsar Convention in Turkey: Akyatan Lagoon, Yumurtalık Lagoons in Adana, Burdur Lake in Isparta, Gediz Delta in İzmir, Göksu Delta in Mersin, Kızılırmak Delta in Samsun, Kızören Obruk in Konya, Kuş Lake in Balıkesir, Kuyucuk Lake in Kars, Meke Maar in Konya, Seyfe Lake in Kırşehir, Sultan Marshes in Kayseri and Uluabat Lake in Bursa [1]. There are limited number of study that understanding fauna of aquatic Coleoptera in this wetlands.

Helophoridae is a large family containing of a single genus, *Helophorus* Fabricius, 1775. This genus includes more than 190 species [2, 3, 4, 5, 6]. About 150 species known from Palearctic region [5, 7, 8]. 41 species known from

Nearctic region [6] and there are only three species known from Oriental region [5, 9]. Previously, 50 species and two subspecies have been recorded belonging to the six subgenera (*Helophorus (Atracthelophorus)*, *H. (Empleurus)*, *H. (Eutrichlephorus)*, *H. (Rhopalhelophorus)*, *H. (s. str.)*, *H. (Transithelophorus)*, *H. (Trichelophorus)* in Turkey [10, 11].

Hydrophilidae, also known as water scavenger beetles, is a large family that has just four subfamily (Horelophinae, Horelophopsinae, Hydrophilinae and Sphaeridiinae). Hydrophilinae and Sphaeridiinae subfamilies are only recorded from the Palearctic and Oriental regions [12, 13, 14, 15].

The aim of this study was to make a contribution to Turkish aquatic beetle fauna.

MATERIAL AND METHODS

The specimens were collected from freshwater habitats of Ramsar Site Lake Kuyucuk (Figure 1.) with sieves that having 3,15x1 mm mesh size. The beetles were killed with ethyl alcohol (%70) and were stored in small bottles until identification. Specimens were cleaned with brush before identification. Aedeagophore of collected specimens were dissected under a stereo microscope in the laboratory. The identified species have been converted into museum material.

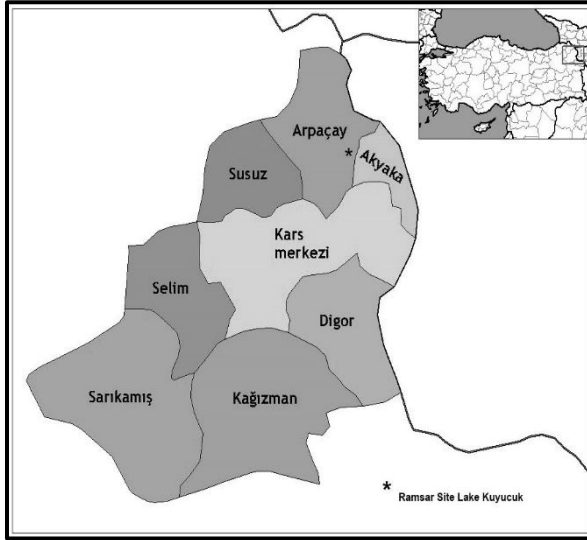


Figure 1. Research area; Ramsar Site Lake Kuyucuk

RESULTS

Family: Helophoridae

Helophorus aquaticus (Linnaeus, 1758)

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 2♂♂; 40°44'53"N 43°27'03"E, 1634m, 28.05.2011, 2♂♂.

Helophorus arvernicus Mulsant, 1846

Material examined: Kars, Kuyucuk Lake, 40°44'50"N 43°27'23"E, 1636m, 03.08.2010, 3♂♂; 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 2♂♂.

Helophorus brevivalpis Bedel, 1881

Material examined: Kars, Kuyucuk Lake, 40°45'06"N 43°27'23"E, 1635m, 03.08.2010, 7♂♂; 40°44'53"N 43°27'03"E, 1634m, 03.08.2010, 2♂♂; 40°44'55"N 43°29'58"E, 1635m, 28.05.2011, 2♂♂; 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 5♂♂

Helophorus discrepans Rey, 1885

Material examined: Kars, Kuyucuk Lake, 40°44'50"N 43°27'23"E, 1636m, 03.08.2010, 2♂♂; 40°45'06"N 43°27'23"E, 1635m, 03.08.2010, 3♂♂; 40°44'55"N 43°29'58"E, 1635m, 28.05.2011, 2♂♂; 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 2♂♂.

Helophorus hilaris Sharp, 1916

Material examined: Kars, Kuyucuk Lake, 40°44'50"N 43°27'23"E, 1636m, 03.08.2010, 6♂♂; 40°45'06"N 43°27'23"E, 1635m, 03.08.2010, 2♂♂; 40°44'53"N 43°27'03"E, 1634m, 03.08.2010, 3♂♂; 40°44'55"N 43°29'58"E, 1635m, 28.05.2011, 2♂♂; 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 3♂♂.

Helophorus micans Falderman, 1835

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 2♂♂; 40°44'53"N 43°27'03"E, 1634m, 03.08.2010, 1♂.

Helophorus pallidipennis Mulsant and Wachanru, 1852

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'03"E, 1635m, 15.10.2010, 3♂♂; 40°44'53"N 43°27'03"E, 1634m, 28.05.2011, 1♂.

Family: Hydrophilidae

Berosus (Enoplurus) bispina Reiche & Saulcy, 1856

Material examined: Kars, Kuyucuk Lake, 40°44'54"N 43°27'17"E, 1634m, 03.08.2010, 2♂♂.

Coelostoma (s. str.) orbiculare (Fabricius, 1775)

Material examined: Kars, Kuyucuk Lake, 40°44'54"N 43°27'17"E, 1634m, 03.08.2010, 3♂♂.

Enochrus (Lumetus) quadripunctatus (Herbst, 1797)

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'03"E, 1634m, 03.08.2010, 1♂; 40°44'54"N 43°27'17"E, 1634m, 03.08.2010, 2♂♂.

Enochrus (L.) fuscipennis (Thomson, 1884)

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'15"E, 1636m, 28.05.2011, 2♂♂; 40°44'53"N 43°27'03"E, 1634m, 28.05.2011, 1♂.

Hydrochara dichroma (Fairmaire, 1892)

Material examined: Kars, Kuyucuk Lake, 40°44'54"N 43°27'17"E, 1634m, 03.08.2010, 2♂♂.

Hydrobius fuscipes (Linnaeus, 1758)

Material examined: Kars, Kuyucuk Lake, 40°44'54"N 43°27'17"E, 1634m, 03.08.2010, 1♂.

Laccobius (Dimorpholaccobius) bipunctatus (Fabricius, 1775)

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'03"E, 1634m, 03.08.2010, 2♂♂; 40°44'54"N 43°27'17"E, 1634m, 03.08.2010, 2♂♂.

Laccobius (D.) simulatrix d'Orchymont, 1932

Material examined: Kars, Kuyucuk Lake, 40°44'53"N 43°27'03"E, 1634m, 03.08.2010, 3♂♂.

DISCUSSION

There is no detailed study for determining aquatic Coleoptera fauna of Ramsar Sites in Turkey. Only one Ramsar Site as Sultan Marshes in Kayseri has been studied detailing by İncekara *et al.* 2010. One of the other Ramsar Site, Kuyucuk Lake, in Kars has been studied for the first time with this study. All of the species that determining in the study area have been recorded for the first time. Consequently, more studies are required to get enough information for the overall distribution of aquatic Coleoptera fauna in Turkey.

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