

On the Otter in Kırıkkale Province

Kırıkkale İlindeki Su Samuru Üzerine

Research Article

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ABSTRACT

This study is based on the populations of otter, *Lutra lutra* which is identified in Kızılırmak River and Delice River in Kırıkkale Province between March 2012 and April 2013. Otter is a nocturnal and semi-aquatic animal. Faeces analysis have shown that, fish, birds and mammals as vertebrates and crab, crayfish, snails and insect species as invertebrates are important in the diet of otter. The otter is an indicator species for the habitat that it lives. It was determined that otter was effected with water pollution orginated from industry and it was not found in regions where waste was mingled. In addition, the activities of sand and gravel quarries at rivers causes habitat loss and activity areas of otter is decreased. Dams built on the Kızılırmak River changes water regime and affects otter's feeding behavior. This study revealed the existence of new otter localities. *Lutra lutra* must be protected within the framework of international and national legislations. Otter, which is a component of biodiversity, is among the priority species of conservation biology.

Key Words

Lutra lutra, River, Species Protection, Kırıkkale, Turkey

ÖZET

Bu araştırma Mart 2012 ila Nisan 2013'de Kırıkkale il sınırları içinde kalan Kızılırmak ve Delice Irmağında tespit edilen su samuru, *Lutra lutra* populasyonlarına dayanmaktadır. Su samuru gececi ve yarı sucul bir hayvandır. Dışkı analizi su samuru diyetinde omurgalı olarak başta balık, kuş ve memeli; omurgasız olarak yengeç, kerevit, salyangoz ve böcek türlerinin önemli olduğunu göstermiştir. Su samuru yaşadığı habitat için gösterge bir türdür. Su samurunun sanayi tesisleriyle kirlenen sudan etkilendiği atıkların karıştığı bölgelerde bulunmadığı tespit edilmiştir. Ayrıca nehirlerdeki kum ocaklarının faaliyetleri habitat kaybına sebebiyet verdiği için su samurunun hareket alanları daralmıştır. Kızılırmak üzerinde kurulmuş barajlar su rejimini değiştirmekte olup su samurunun beslenme davranışını etkilemektedir. Bu araştırma ile yeni su samuru lokalitelerinin varlığı ortaya konulmaktadır. *Lutra lutra*'nın uluslararası ve ulusal mevzuatlar çerçevesinde korunması gerekmektedir. Biyolojik çeşitliliğin bir unsuru olan su samuru koruma biyolojisinin öncelikli türlerindedir.

Anahtar Kelimeler

Lutra lutra, Nehir, Tür koruma, Kırıkkale, Türkiye

Article History: Received June 15, 2013; Revised July 15, 2013; Accepted July 29, 2013; Available Online: September 1, 2013

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INTRODUCTION

There are 5416 mammalian species in the world (Wilson ve Redeer, 2005). Of these, 13 species belong to otters which live in fresh and saltwater (Kruuk, 2006). In Turkey, otter is represented by the Eurasian otter, *Lutra lutra* which distributes widely in the Palaearctic Region. It is a semiaquatic species which feeds on terrestrial and aquatic food and one of the indicator species for wetland ecosystem. *Lutra lutra* lives in streams, streamlets, rivers, lakes and river mouths in Turkey. It is found in almost every areas of wetland in Turkey.

The main food of Eurasian otter is fish together with crab, mussel, crayfish, frog, lizard, small sized birds and rodents. Otter has a very high quality fur and thus is being hunted (Albayrak, 1999). Three symposiums are held on about distribution and bioecological features of otter in Turkey and information was obtained about its general situation. In addition, some studies on food preference and habitat features of otter have been made (Albayrak, 2002 and 2008).

The purpose of this study is to determine the otter habitats and protection measures in Kırıkkale.

MATERIAL and METHODS

This study is based on the researches conducted in Kırıkkale between June 15 2012 and May 15 2013 in order to identify otter habitats in Kızılırmak and Delice Rivers (Figure 1).

New otter habitats were found based on the information received from hunters and fishermen (Figure 2). Otters have been identified with faecal material and footprint. Examples found dead were also evaluated. Nutrients of otter were determined by analysis diet food.

RESULTS

Otter traces were found in sluggish flowing parts of the Kızılırmak and Delice rivers. They live in areas with dense plant where Kızılırmak River branches off and forms islands. Otter footprints and faeces were found extensively in water's edges where shrub forms and trees such as

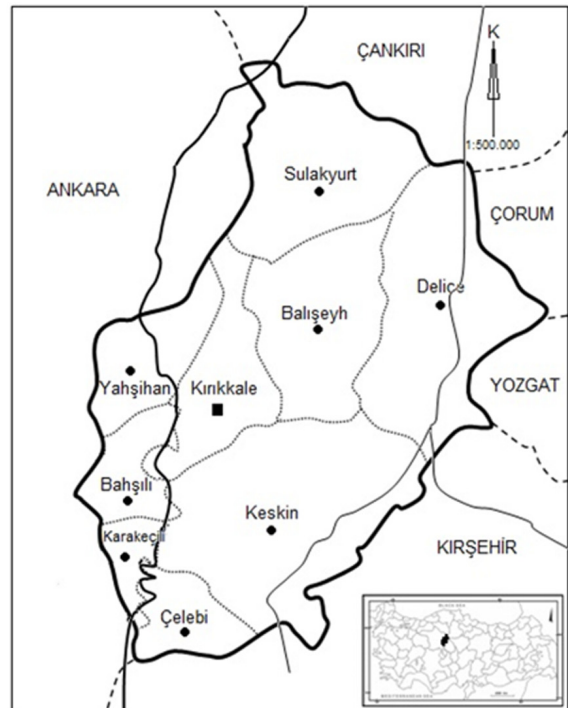


Figure 1. Map of Kırıkkale province.



Figure 2. Otter habitat in Kızılırmak River.

willow are present. Otter footprints were also detected in winter months on the edges of Delice River (Figure 3).

DISCUSSION

Otter is a very sensitive animal which is affected by water and land pollution and lives in relatively pristine ecosystems. The otter is one of the important elements of biodiversity and its habitat must be protected. Otter habitat consists of rather riparian plant species. These plants are cut or burned off the coasts of rivers which coincides



Figure 3. Footprints of otter (above) and entrance of nest (below) in Delice River

with the edges of fields (Albayrak, 1999). The new otter habitats determined with this study are away from the anthropogenic effects and thus new protection measures can more easily be taken.

Conservation of water flow, aquatic food sources and physical structure of the river bad in otter habitat are identified as priority measures. Since the otter localities can be protected with the rise in the awareness of local people, some training programs are needed for the target audience.

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