

Turkish Journal of Zoology

Turkish Journal

of

Zoology

The Effect of Disturbances to Habitat Quality on Otter (*Lutra lutra*) Activity in the River Kızılırmak (Turkey): a Case Study

İlhami TÜZÜN, İrfan ALBAYRAK

Department of Biology, Faculty of Science, Kırıkkale University, 71450 Yahşihan, Kırıkkale - TURKEY

Abstract: Habitat restriction for otters living in a small part of the Kızılırmak River occurred due mainly to 3 causes: dam construction at the upper end, heavy pollution by oil refinery effluent at the lower end and man-made activities such as housing and angling in-between. Sprainting activity was measured to assess habitat use by otters within the area and differences were shown between the sites. Compared to site II, higher sprainting activity was found at the site below the dam (site I), where habitat quality was poorer, as indicated by the water quality index (BMWP), diversity indices (Simpson's and Shannon-Wiever) and riparian quality index (QBR). This was due to the relatively more stable standing water formed at the foot of the dam, offering sufficient food availability at this site throughout the year. A site further downstream (site II) had higher river water and riparian habitat quality but flow variations caused by dam operations led to the occurrence of less suitable food conditions for otters at various times of the year. The food items found in spraints from the 2 sites revealed that otters fed on more fish at site I. No spraints were found in the lowest part of the study area (site III), where heavy pollution occurred due to oil refinery discharge. Incorporation of the previously developed habitat quality indices into otter activity for habitat use was attempted in this study and these indices appeared to be promising tools for the establishment of management strategies for otters.

Key Words: Otter (*Lutra lutra*), sprainting activity, habitat quality, biotic index (BMWP), riparian quality index (QBR)

Turk. J. Zool., **29**, (2005), 327-335.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Zool., vol.29, iss.4.](#)

 [Keywords](#)
 [Authors](#)



zool@tubitak.gov.tr

[Scientific Journals Home](#)
[Page](#)