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MONITORING OF OTTER *LUTRA LUTRA* IN THE TUR RIVER NATURAL RESERVATION

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Abstarct: This paper reports on the results of a field survey carried out in the winter of 2005 – 2006 on the "Tur River"Natural Reservation. The species shows a continuous presence along the river Tur in the territory of the Reservation. Signs were registered at the desolated parts of fishponds, where human influence is minimal, and in the major oxbows. The distribution of otter in the study area seems to be not limited by the fragmentation of habitats, or other ecological barriers. Otters inhabit all the aquatic habitats from the territory of the Reservation, constituting a relative dense and continuous population, which is a part of a larger, wide-ranging population from the region. For protection and maintain the otter population from we suggest the preclusion of the loss of wetlands. The extension of the protected areas and a suitable management can ensure the maintenance and increase of otter population in the future.

Rezumat. Recensământul vidrelor *(Lutra lutra)* în Rezervaţia Naturală „Râul Tur". Lucrarea prezintă rezultatele recensământului vidrelor în pereioada: decembrie 2005 – februarie 2006 în Rezervaţia Naturală „Râul Tur". Specia este prezentă într-o populaţie continuă de-alungul râului Tur, în rezervaţie. Au fost găsite urme şi în părţile mai ascunse ale pescăriilor, precum şi pe malurile bălţilor mai mari. Distribuţia nu este limitată de fragmentarea habitatelor, sau de alte bariere ecologice. Specia ocupă toate habitatele de apă din rezervaţie şi din împrejurimi. Pentru protecţia speciei propunem prevenirea pierderii de apă - prin drenare - a habitatelor umede. Extinderea ariei protejate şi managementul adecvat poate duce la o creştere în viitor a populaţiei de vidre din zonă.

Introduction

Otters are highly adapted aquatic hunters with long streamlined bodies, rudder-like tails and webbed feet. Their principal food is fish, but they will also eat amphibians, birds and small mammals (Lanszki 2002, Clavero *et al.* 2003). The European River Otter *(Lutra lutra)*, has the widest distribution of all of the 13 otter species. It is classified as Near Threatened on the IUCN Red List 2004. Listed under CITES Appendix 1, Appendix II of the Bern Convention and Annex II of the EC Habitats Directive. Originally the species was widespread throughout Europe (Conroy & Chanin 2002).

Beginning in the 1950s, otters suffered a major decline, disappearing completely from much of Western Europe (Strachan & Jeffries 1996). Their demise coincided with the first widespread use of organochlorine pesticides. Residues of these pesticides tended to accumulate in the fatty tissues of eels. The eels were eaten by otters, the mammals being then poisoned by the pesticide (Yalden 1999). A ban on some members of this class of pesticides has helped the recovery of otter populations and they are returning gradually to many of their former haunts (Kranz 2000).

The extent of the otter population in the whole of Satu Mare County and in the Tur valley region remains unknown at present, because no monitoring activities were occur in the territory, but signs of otters are occasionally found.

In the last decades the presence of the otter in the Tur valley region has been recorded with few and scattered signs. This paper reports on the results of a field survey carried out in the winter of 2005 – 2006 on the "Tur River" Natural Reserve.

Methods

Otter monitoring principally lean on spraints and other signs (footprints, tracks) indicating the presence of the species, therefore the European otter is active at night and has a secretive habit, the primary base of its monitoring. The survey technique used followed the guidelines for the 'Standard Method' for otter surveys recommended by the IUCN/SSC Otter Specialist Group (Reuther *et al.* 2000). The river was divided in stretches of 5 km in length (river unit). The first 600 m of each river unit was investigated for signs (spraints, footprints) of otter in each riverbank.

Localization of a number of 10 survey sites was undertaken using a GPS receiver (Garmin II) using the geodetic datum WGS 84 and measuring the geographic coordinates as recommended by Reuther *et al.* (2000). Data of occasional sign records reported by rangers from the area was included in our study. We also analized the most important oxbows from the Reservation.

Results and discussion

The survey was carried out from December 2005 to February 2006. In this period were analyzed 10 survey sites of the 10 river units, which overlap the 43 stream-kilometers of Tur River from the Reservation and 3 oxbows. 100 % of the sites were positive. Signs were mainly excrements; footprints were recorded in 4 cases only. 22 other points were labeled on the Reservation and in surrounding areas by local rangers. Results are presented at Fig nr. 1.

The species shows a continuous presence along the river Tur in the territory of the Reservation. Signs were registered at the desolated parts of fishponds, where human influence is minimal, and in the major oxbows.

The distribution of otter in the study area seems to be not limited by the fragmentation of habitats, or other ecological barriers. The Tur is one the least artificially modified river in north-western Romania with good vegetation cover along the riparian strips. Cyprinids, (which constitute the main food of otters), seem to occurs with fairly good populations in the Tur river (Wilhelm *et al.* 2002). The Reservation contains also fishponds, off-stream ponds, reedbeds, and woodland alongside the river. The rush pastures are interrupted by channels, scrubs and wetlands, which offer an ecological corridor for otters. Taking into account these characteristics, the Reservation offers good habitats for otters (Ottino *et al.* 1995).

On the strength of signs recorded from the adjacent territories we can also assume the existence of a large population in the Tur valley region, which includes a variety of aquatic habitats lying outside the pale of the Reservation. We consider advisable to attach these territories to the national Natura 2000 Network.

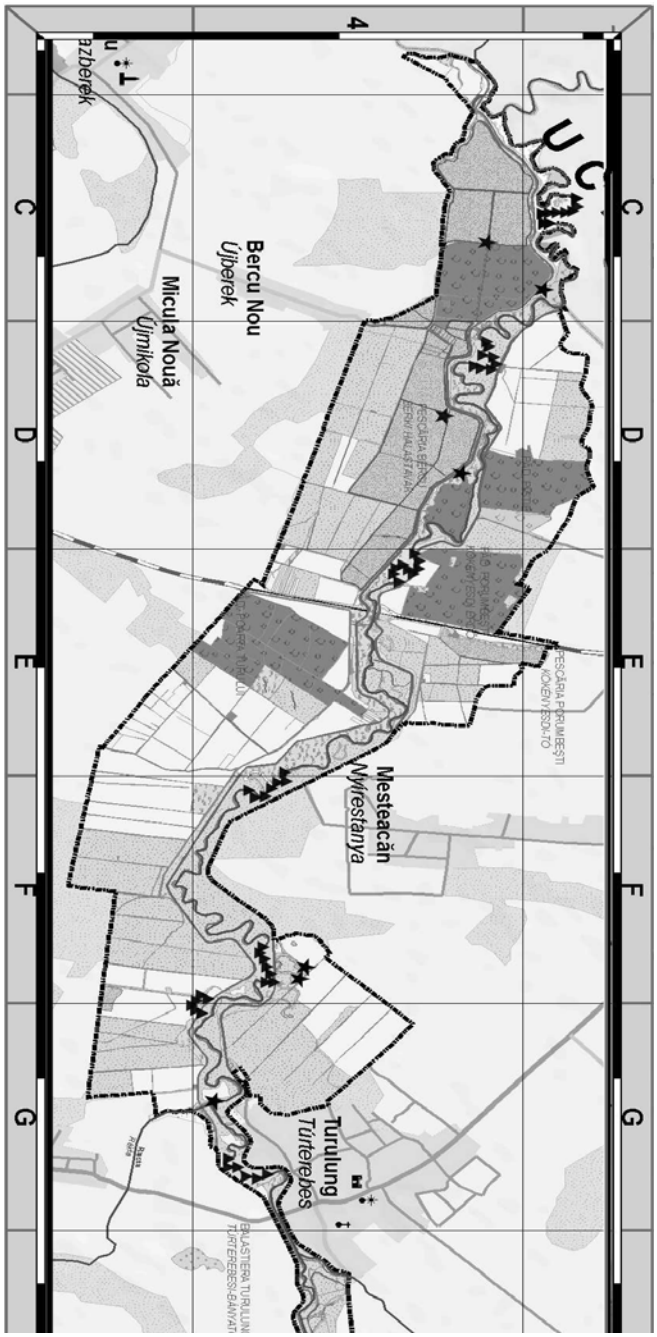
For protection and maintain the otter population from the region we suggest the preclusion of the loss of wetlands. Because otters need a wide range of aquatic habitats for resting, breeding and feeding, are to the purpose advise landowners about sympathetic management of riparian habitats for otters and ensure targeting of agro-environment schemes in the relevant catchments takes account of otters and encourage sustainable fisheries management that is compatible with the protection of the species. Female otters, in particular, require areas of dense cover in order to raise their young (Ottino *et al.* 1995), therefore we propose the inhibition of removal of riparian trees scrub patches and reed beds close to river.

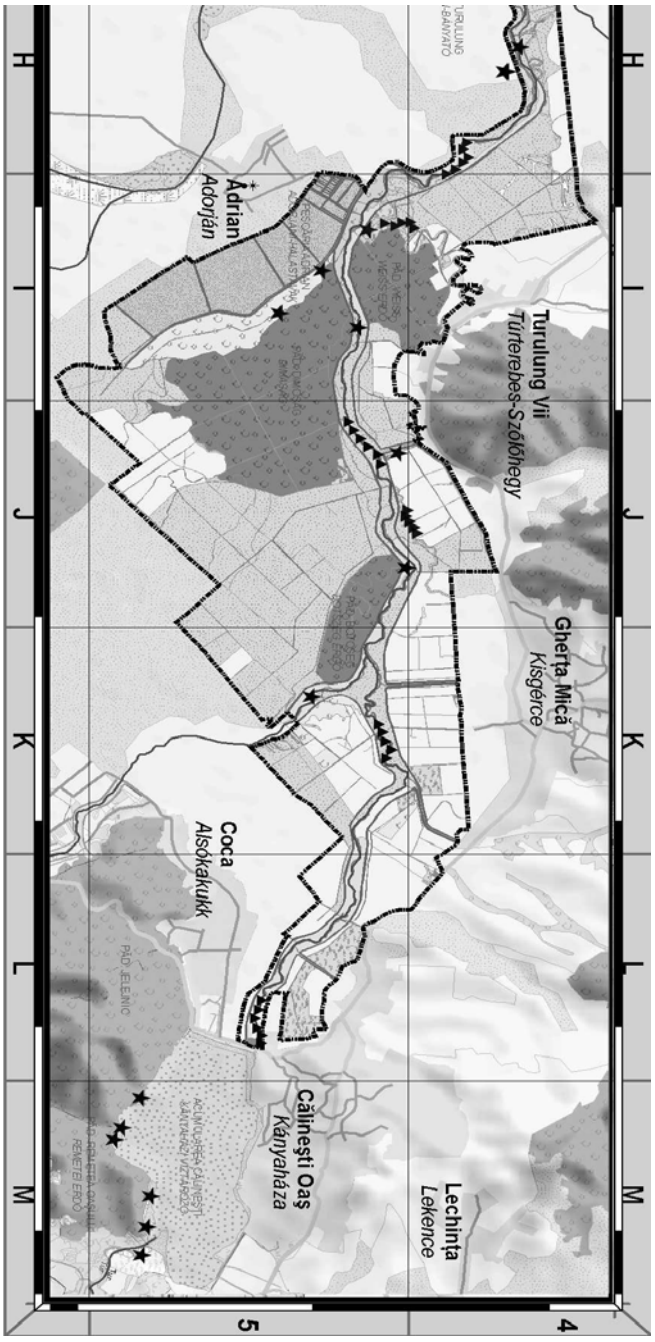
Conclusions

The territory of the Tur River Natural Reservation offers sustainable habitats for otters, which are characterized by wide range of aquatic habitats, adequate food supply, low levels of disturbance and good vegetation cover along the riparian strips. Otters inhabit all the aquatic habitats from the territory of the Reservation, constituting a relative dense and continuous population, which is a part of a larger, wide-ranging population from the region.

The extension of the protected areas and a suitable management can ensure the maintenance and increase of otter population in the future.

Figure nr 1. The position of the scents recorded by the field work (▲) and rangers (★)

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Călinești Oaș
Kányaháza
Lechința
Lekence

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