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THE EURASIAN OTTER IN THE SOUTH CAUCASUS

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Abstract: Seven species of Mustelidae are to be found in the south Caucasus (Armenia, Azerbaijan and Georgia): *Lutra lutra*, *Martes martes*, *Martes foina*, *Meles meles*, *Mustela vison*, *Mustela nivalis* and *Vormela peregusna*. The rarest of these species are the Eurasian otter (*Lutra lutra*) and the marbled polecat (*Vormela peregusna*). The Eurasian otter, one of most endangered species of the south caucasian fauna, is still suffering under the influence of poaching, habitat loss, disturbance and pollution. No fundamental research has been undertaken on otters in any of the south Caucasian countries and, therefore, data provided in the literature are scarce. Further, no DNA analysis has been undertaken in this part of the world and, therefore, the actual number of subspecies is not clear.

INTRODUCTION

Seven species of Mustelidae are to be found in the south Caucasus (Armenia, Azerbaijan and Georgia): *Lutra lutra, Martes martes, Martes foina, Meles meles, Mustela vison, Mustela nivalis* and *Vormela peregusna* (GEORGIAN BIODIVERSITY COUNTRY STUDY REPORT, 1996*)*. The rarest of these species are the Eurasian otter (*Lutra lutra*) and the marbled polecat (*Vormela peregusna*). No fundamental research has been undertaken on this family in any of the south Caucasian countries and, therefore, data provided in the literature is scarce.

Situation in the 20th century

The earliest data from the south Caucasus on these two species appears at the beginning of the 20th century. DINIK (1914) and SATUNIN (1915) mention that some species, i.e. *Martes martes, Martes foina, Meles meles* were common, but that the Eurasian otter and marbled polecat were sparsely distributed.

Trapping and commercial catching of otters in the south Caucasus started in 1925, with numbers caught for commercial purposes reaching 4 000 individuals per year by the 1930s. At that time, Georgia had the largest population and, hence, most furs were obtained from the Georgian population (WERESHAGIN, 1959). More then 5 000 furs were obtained annualy in the Soviet Union as of the 1960s, with production of fur increasing by 20-30% every five years. At that time, the otter population was estimated at 20.000 individuals (GAPTNER et al., 1967). At the beginning of the 1980s, the otter population was estimated at around 6.000 individuals in the Caucasus, and 12.000 in Russia (RED DATA BOOK OF THE USSR, 1982; GADJIEV and RAXMATULINA, 2000). Of the 6.000 individuals estimated for the whole of the south Caucasus, 4.500 were believed to be in Georgia whereas, in Azerbaijan, the otter population was considered to be around 1.200 individuals by the end of 1980s (GADJIEV and RAXMATULINA, 2000). These otter populations had declined rapidly due to over-exploitation and, hence, commercial catching stopped as a result (GAPTNAR, 1967). Further, ROZHNOV and TUMANOV (1994) estimated the population in the CIS Russian Federation as approximately 60.000 individuals, with

25.000 individuals in the European part of Russia. However, there appears to have been a decline in all these regions of around 13% over a five-year period (CONROY and CHANIN, 2002).

According to the RED DATA BOOK OF THE USSR (1982), the otter was common throughout the country from the dry sub-tropics to the mountainous steppes, within an altitudinal range of 550-2100 metres above sea level. Present numbers, however, are not clear. In Azerbaijan, the otter was widespread throughout the country, except in the high mountainous regions. The otter was considered to be widespread throughout Georgia in the past, occurring on almost every river and lake up to an altitude of 2800m (DINNIK**,** 1914; SATUNIN, 1915; RED DATA BOOK OF GEORGIA, 1982; GEORGIAN BIODIVERSITY COUNTRY STUDY REPORT, 1996). According to the extant (though limited) literature, the otter population, though not abundant, was stable (JANASHVILI, 1963). By the end of the 1980s, the Georgian population had become fragmented (KOKHODZE, 1991) and accurate figures on present numbers are not known. Unfortunately, no research on the mustelidae has been undertaken in Armenia or Azerbaijan for the last 20 years.

NACRES undertook the project 'WILDLIFE REGIONAL STUDY IN THE CAUCASUS' in 1999 and, according to the results of this project, and scientific information provided by experts from Georgia, Azerbaijan and Armenia, the otter should now be considered as 'Critically Endangered' under the IUCN Red List criteria (WILDLIFE DATA BANK OF THE CAUCASUS, 2002).

Preliminary population assessment studies carried out by NACRES in different parts of Georgia have shown that the Eurasian otter is now the most endangered mustelid species in the country. It is believed that the otter has already disappeared from many areas, or has formed isolated sub-populations (GORGADZE, 2001). According to the previous information provided, it can therefore be assumed that the otter is now endangered throughout the south Caucasus. It is important, therefore, that studies on the otter's current status, ecology and biology take place throughout the region and a scientific basis is prepared for its conservation.

TAXONOMY

No DNA analysis on has been undertaken on the Eurasian otter in the Caucasus region, therefore, the actual number of possible subspecies is not clear. The most detailed data were provided by GAPTNAR (1967), but they are not based on DNA sampling (Table 1). According to the same literature source, the south Caucasian population was isolated from that in the north Caucasus.

NACRES members collected museum samples for DNA analysis during 2001-2003 but, due to poor quality, no credible information could be obtained and additional samples are necessary for further research. In addition, no captive animals are available for sampling.

Table 1. Data provided by Gaptnar (1967) on believed sub-species of otter to be found in the Caucasus

Common name	Scientific	Synonyms	Distribution
Boreal otter	*Lutra lutra lutra* Linnaeus, 1758	vulgaris, baicalensis, amurensis, kamtschatica, steinegeri	Whole former Soviet Union teritory exept the south and north caucasus
Caucasian otter	*Lutra lutra meridionalis* Ognev, 1931		The south and north caucasus
Central asian otter	*Lutra lutra seistanica* Birula, 1912	oxiama	Central asia

PRESENT LEGISLATION

The Eurasian otter is included in the Georgian Red Data Book and is classified as 'critically endangered'; its tracking is illegal (RED DATA BOOK OF GEORGIA, 1982). The Convention on International Trade in Endangered Species of Wild fauna and flora (CITES) lists the Eurasian otter in Appendix I (most endangered species). However, of the Caucasian countries, only Georgia and Azerbaijan had ratified the convention by 1994. The species is also included in the AZERBAIJAN RED DATA BOOK (1999) and hunting is prohibited. The Eurasian otter is not, however, included in the Armenian Red Data Book, though hunting has been illegal since 1960. None of the three south Caucasian countries has signed the Berne Convention of the Council of Europe, which gives Lutra lutra and its habitats the highest protection level.

THREATS TO OTTERS IN THE SOUTH CAUCASUS

Hunting and poaching

Despite abolishing the bounty system in Georgia, furs of recently killed animals are still often seen on the black market. These animals are usually the victims of fishery operations and are killed through illegal methods. Fishermen see otters as their competitors, resulting in their persecution and death on every convenient occasion. Otters are also often illegally trapped for the fur trade.

Habitat loss and disturbance

Unsustainable use of forest resources has increased dramatically over the last decade. In Georgia, loss of riparian forest habitat has occurred throughout the otter's range and has resulted in the loss of living space for numerous other animal species as well.

Over-exploitation of lakes and rivers

Drainage of wetlands was common in Soviet times. Riverbeds were frequently altered, increasing the levels of disturbance along riverbanks. In Georgia, a vivid example of this is the Javakhety wetlands (south-central part of the country), where nearly 60 lakes of varying size is to be found. There was a large-scale experimental draining programme on the major lakes in the 1960s, which heavily modified the coastline through draining and urbanisation.

Pollution

Water pollution is a serious problem. Those rivers that flow near or through cities are seriously polluted with different industrial wastes.

In addition, illegal fishing pollutes both rivers and lakes. Poachers empty bags of poisons into some rivers. These dissolve slowly and shortly afterwards the rivers are full of dead fish. This results in either the total disappearance of fish in a stretch, or they do not spawn in the area any more.

CONCLUSIONS AND RECOMMENDATIONS

The escalation of human impacts on the otter population has caused serious demage to south caucasian biodiversity (especially wildlife) over the last several decades. The Eurasian otter, one of most endangered species of the south caucasian fauna, is still suffering under the influence of poaching, habitat loss, disturbance and pollution. No fundamental research has been undertaken on otters in any of the south Caucasian countries and, therefore, data provided in the literature are scarce. Further, no DNA analysis has been undertaken in this part of the world and, therefore, the actual number of subspecies is not clear.

It is believed that the otter has already disappeared from many areas, or remain as isolated sub-populations and conservation and management activities, therefore, should be implemented immediately.

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RÉSUMÉ

LA LOUTRE EURASIATIQUE DANS LE SUD DU CAUCASE

Sept espèces de mustélidés sont présentes dans le Sud du Caucase (Arménie, Azerbaïdjan et Georgie) : *Lutra lutra, Martes martes, Martes foina, Meles meles, Mustela vison, Mustela nivalis* et *Vormela peregusna*. La loutre d'Europe (*Lutra lutra*) et le putois marbré (*Vormela peregusna*) sont les plus rares d'entre elles. La loutre d'Europe, l'une des espèces les plus menacées de la faune sud caucasienne, est toujours victime du braconnage, de la destruction de son habitat, du dérangement et de la pollution. La loutre n'a fait l'objet d'aucun travail de recherche fondamentale dans les pays du sud du Caucase et de ce fait, les données présentes dans la littérature sont rares. Par ailleurs, aucune analyse d'ADN n'a été réalisée dans cette partie du monde et c'est pourquoi le nombre actuel de sous-espèces est incertain.

RESUMEN

Siete especies de mustélidos están presentes en el sur del Cáucaso (Armenia, Azerbaijan y Georgia): *Lutra lutra*, *Martes martes*, *Martes foina*, *Meles meles*, *Mustela vison*, *Mustela nivalis* y *Vormela peregusna*. De éstas, las especies más raras son la nutria euroasiática (*L. lutra*) y el turón kaspeado (*V. peregusna*). La nutria, una de las especies de fauna más amenazadas en el Cáucaso sur, continúa siendo afectada por la cacería furtiva, la pérdida de hábitat, los disturbios, y la contaminación. Ningún estudio fundamental acerca de nutrias se ha realizado en estos países, y por lo tanto, la información disponible es escasa. Adicionalmente, ningún estudio de ADN se ha realizado en esta parte del mundo, por lo que el número de subespecies presentes no es muy claro.