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An Example for a Sustainable Use of
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March 14-19, 1998
Trebou
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PRELIMINARY STUDY ON THE DIET OF THE NEOTROPICAL OTTER (*Lutra longicaudis*) IN THE TIPUTINI RIVER, YASUNI NATIONAL PARK, ECUADORIAN AMAZON.

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Abstract: Between April and October 1997, a preliminary study was conducted on the diet of *Lutra longicaudis* in the Tiputini river, central Ecuadorian Amazonia. The methodology is based on the collection and analysis of spraints found on the river margins. Eight spraints were collected, which contained rests of fish (in 100% of the spraints), crustaceans (62.5%), bivalves, insects and seeds (each by 12.5%). From the spraints, eight genera of fish from six families were identified, with the Cichlidae family as the most representative. In 1997, the water level of the Tiputini river was higher than the normal average for a typical year, which probably accounts for the low number of collected spraints.

INTRODUCTION

Most of the information about the otter's diet is obtained by analyzing spraints collected at the margins of hydric bodies (CHANIN, 1985; COLARES and WALDEMARIN, 1996; WALDEMARIN and COLARES, 1996).

The objective of the present work is to publish the results of a preliminary sample of 8 spraints of the Neotropical Otter *Lutra longicaudis* collected in a segment of the Tiputini River. This is the first study of this kind conducted on this species in Ecuadorian Amazonia and was executed parallel to a study on the Giant otter *Pteronura brasiliensis* in the same area (see UTRERAS et al., 1997).

STUDY AREA

The Yasuni National Park, a declared Biosphere Reserve (CHARVET and LEON 1992), is located in central Ecuadorian Amazonia (Napo province); it covers a surface of 982.000 ha and has an altitudinal range of 200 to 600 m (Figure 1). Its characteristic ecosystem is the tropical rainforest (ECOCIENCIA 1994).

The study area is located in the northwestern portion of the Yasuni National Park (Figure 1), comprising approximately 10 km of the Tiputini River, one of the main riparian system in the area. The facilities of the Yasuni Scientific Station (ECY) of the Pontificia Universidad Católica del Ecuador (PUCE) were used as base camp.

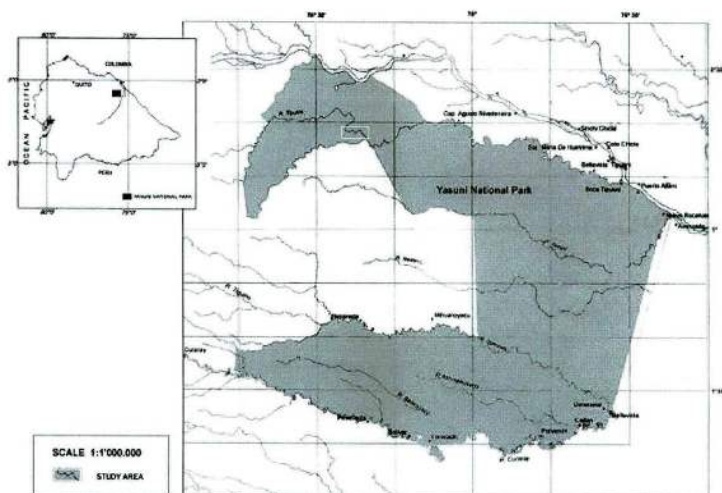


Figure 1. Study area

METHODS

Between April and October 1997, a 10 km-long segment of the Tiputini River was surveyed using a dugout canoe equipped with a 15 hp outboard motor. Both river margins were visually surveyed at a navigation speed of 5 to 7 km/h. The spraints were collected in plastic bags and later on washed, dried and separated into distinguishable solid rests (fish scales, vertebrae, teeth, bones, etc.). Identification was performed by ichthyologist Dr. Ramiro Barriga, who compared the rests found in the spraints with the Escuela Politécnica Nacional Museum (EPNM) fish reference collection. The specimens in this reference collection were collected in the same area where the present study was conducted. The percentage in which each prey family was present in the spraints was calculated by dividing the number of spraints in which a particular family was present by the total sample, and multiplied by 100.

RESULTS

Eight spraints were collected, all of them found on fallen logs on the river margins. Five of them were found fresh, presenting a cylindrical shape and a greenish coloration. The other three were several days-old spraints, disseminated into solid rests.

The feces analysis indicates that fish are the most representative item in the otter diet, present in 100% of the spraints. We identified 8 genera of fish in

6 families: Cichlidae in 50% of the spraints (genus *Aequidens* and *Crenicichla*); Characidae 25% (genus *Astyanax* and *Brycon*); Pimelodidae 25% (genus *Pimelodella*); Anostomidae 12.5% (genus *Leporinus*); Auchenipteridae 12.5% (genus *Tatia*) and Loricariidae 12.5% (genus *Panaque*). The crustaceans (family Trichodactylidae) are the second most important item, present in 62.5% of the samples. Rests of bivalves, insects (order Diptera) and seeds were present each in 12.5% of the spraints.

DISCUSSION

The analysis of otter spraints found on water bodies margins constitutes a suitable method for studying their diet, for this is a non-intrusive technique; that is, it does not involve the capture or manipulation of animals. This is important when dealing with endangered species as the Neotropical otter, which is considered Vulnerable in Ecuador (IUCN-SUR/GTNBD/ECOCIENCIA, 1997) based on the criteria of the IUCN Red Data Book (BAILLIE and GROOMBRIDGE, 1996).

Studies on the diet of the Neotropical otter have been carried out by PARRERA (1992) in Argentina and by PASSAMANI and CAMARGO (1995) in Brazil. The preliminary results of this study agree to a great extent with them. Fish constitutes the most important diet item, and among them, the Cichlidae family is the most representative, presenting the highest percentage in the piscivorous diet reported by all three studies. The Anostomidae family is equally common.

No evidence of amphibians, reptiles, birds or small mammals were found in the spraints, items that are also mentioned as part of the Neotropical otter's diet in ROSAS et al. (1991) and WALDEMARIN and COLARES (1996).

This preliminar study is the first step in the research of the Neotropical otter diet in Ecuador; further and more detailed studies are needed. Between April and July (rainy season), the margins of the Tiputini remained flooded or with high water levels for most of the time, and only 3 spraints were collected. From August to September, the water level changed constantly. 5 spraints were collected during this period. In general, the water level in 1997 was higher than the normal average for a typical year, which probably had a bearing on the low number of samples collected.

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