Hystrix, (n.s.) 11 **(2)** (2000): 99-102

PRESENCE OF THE EURASIAN LYNX *(Lynx lynx)*, IN THREE CONTIGUOUS VALLEYS OF THE VERBANIA PROVINCE (PIEMONTE, NORTHERN ITALY).

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ABSTRACT - The presence of the Eurasian lynx *(Lynx lynx* L. 1758) was revealed during an investigation performed from 1991 to 1994 in three contiguous valleys (Antigorio valley, Formazza valley and Devero valley) of the Verbania province in Piemonte.
In this investigation two methods were employed: interviews with the people who saw a lynx and/or found evidence of its presence (prints, faeces, scratchings on trees and meal remains) and field research by means of line transects, as reported by Ragni *et al.* (1993). The research area was of about 250 km^2.
Lynx signs were obtained in 1991, 1992 and 1994 between 600 and 1800 m a.s.l. and during all seasons. The lynx was usually observed at night and at dusk. The research shows that the Eurasian lynx is present, although sporadically, in this area of the western Italian Alps.

Key words: Eurasian lynx, *Lynx lynx*, distribution, Alps, Verbania province.

INTRODUCTION

At present the Eurasian lynx *(Lynx lynx)* is a feline present in some European areas, especially in the North and the East.
From 1973 to 1986 some re-introductions were completed in several localities of central Europe, and then from some of those areas the species spread naturally (Breitenmoser *et al.*, 1990). The lynx has reached the Italian Alps, especially the oriental ones. In the western Alps, instead, the presence of the lynx seemed uncertain (Ragni *et al.*, 1991, Ragni *et al.*, 1998).
We had the opportunity to verify the presence of the lynx in the western Italian Alps from 1991 to 1994.
We carried out some research which revealed the presence of the Eurasian lynx in three contiguous valleys (Antigorio valley, Formazza valley and Devero valley) of the Verbania province.

MATERIAL AND METHODS

For this research two kinds of methods were employed: interviews and field surveys (Ragni *et al.*, 1993). We interviewed a number of people which did not belong to our research team and who had noticed the presence of the Eurasian lynx at least once. The interviewees had to describe the size, shape, fur colour, and behaviour of the observed animal. The observer, later, had even to recognise the species among a set of pictures showing some mammals of a size similar to that of the lynx.
The field research was performed by means of direct and indirect records of the presence and activity of the species ("naturalistic

Table 1 - Records of the presence of the Eurasian lynx in the Antigorio, Formazza and Devero Valleys from 1991 to 1994. The date is expressed in day/month/year, the time in hours and minutes, the altitude in meters above sea level. Locations are small villages in the municipalities of (A) Baceno – Devero Valley; (B) Premia – Formazza Valley and (C) Crodo – Antigorio Valley.

N	DATE	TIME	ALTITUDE	LOCATION	TYPE
1	30/04/91	19:00	1200	Goglio (A)	Sighting
2	07/06/91	20:00	1700	Crampiolo (A)	Sighting
3	14/07/91	06:10	1400	Alpe Rei (B)	Sighting
4	18/04/92	?	1800	Case di sotto (A)	Prints
5	20/10/92	02:30	600	Verampio (C)	Sighting
6	27/12/92	03:40	800	Cruppo (C)	Sighting
7	28/03/94	05:30	1800	Crampiolo (A)	Sighting
8	03/04/94	08:30	1200	Croveo (A)	Faeces
9	20/04/94	10:00	1600	Aisone (A)	Sighting
10	22/05/94	17:30	1600	Ausone (A)	Sighting
11	03/06/94	10:00	1200	Altillone (B)	Sighting
12	26/07/94	09:15	1600	Cologno (A)	Prints
13	12/11/94	04:00	700	Quattegno di fuori (C)	Sighting

method" in Ragni ***et*** *al*., 1993). We did this study walking along closed routes (transects), recording any signs of the lynx.

All of the data related to the presence of the species, are named "direct" or "indirect" sign of presence. The observation of an individual is the direct sign of presence, whereas prints, faeces, scratchings on trees and meal remains are the indirect ones.

RESULTS

During the study period 41 transects (215 km of linear extension located over an area of 250 km^2) were covered. The data obtained in the field were integrated with those coming from interviews. Information from the latter were rigorously checked for reliability.

We obtained 13 records: ten direct signs from interviews (sightings) and three indirect signs from transects (1 faeces and 2 prints). Details of records are reported in Table 1 and in Figure 1.

DISCUSSION

The last sure data around the presence of the lynx in the North-western sector of the Italian Alps date back to the beginning of this century (Guidali ***et*** *al*., 1990).

In the neighbouring canton of Valais (Switzerland) the Eurasian lynx was unofficially re-introduced in 1976 (Breitenmoser ***et*** *al*., 1990; Breitenmoser ***et*** *al*., 1998) so a new population was re-established. Subsequently, the Valais' lynxes spread to and crossed the Italo-Swiss border, probably exploiting the passes present in that area (Fig.1). This phenomenon was confirmed by the 13 signs of presence obtained in 1991, 1992 and 1994, initially only from interviews and then recorded in the field by the discovery of faeces and prints.

ACKNOELEDGEMENTS

Special thanks to Dr. Barbara Bertinetti, Dr. Roberto Sacchi, Dr. Fabrizio Rigato, Prof. Aldo Zullini and all our occasional collaborators.

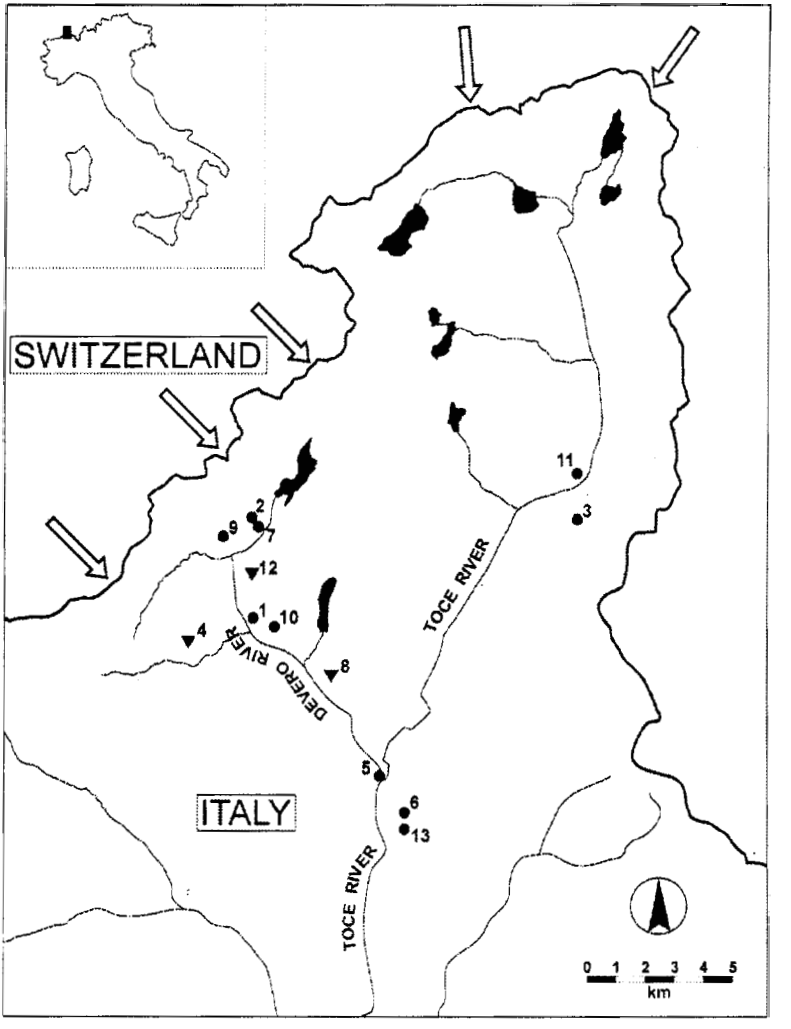

Figure 1 - Sites of discovery of lynx signs of presence in the Antigorio, Formazza and DeveroValleys. Numbers refer to records in Table 1. Triangles indicate the indirect signs (n=3), and circles the direct ones (n=10). Arrows indicate the possible places of entrance of the Swiss lynx in Italy (mountain passes).

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