

Faecal marking behaviour in Eurasian lynx, *Lynx lynx*

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Main findings

This study presents the first findings on faecal marking behaviour in Eurasian lynx.

- A density-dependent scraping behaviour (Fig.1) was frequently displayed during pre-mating period to keep away the rivals from territories.
- Lynx used a highly aromatic plant, *Juniperus oxycedrus*, frequently as marking object.
- Faecal marking was mostly concentrated on the borders of neighbouring territorial individuals.

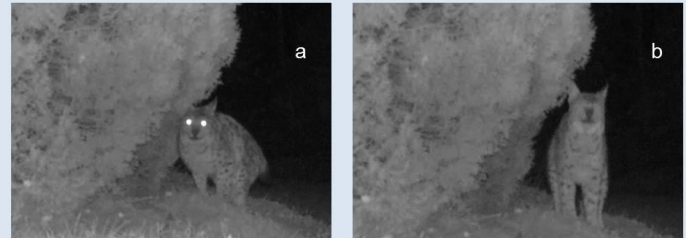


Fig. 1. Camera trap pictures of a) scraping and b) defecating territorial male lynx.

Aim

This study aims to reveal the faecal marking behaviour in the Eurasian lynx.

Materials and Methods

- Faeces (n = 100) were found with a scat detection dog (Fig.2) in Autumn 2013-Spring 2015 in Nallihan Mtn.s, Turkey
- The presence, place and season of marking and the marking object was noted
- DNA swabs were taken from faeces and individuals were identified through microsatellites.



Fig.2

Results

Faecal marking was most frequent during mating whereas scraping was highly frequent in winter season (pre-mating) (Fig.5)

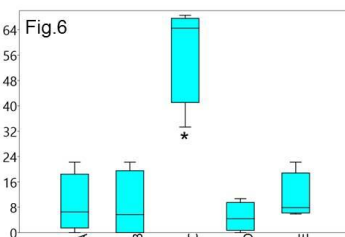
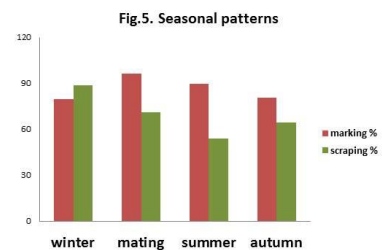
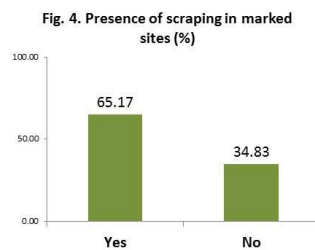
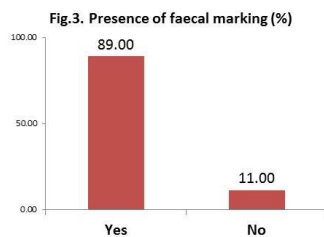
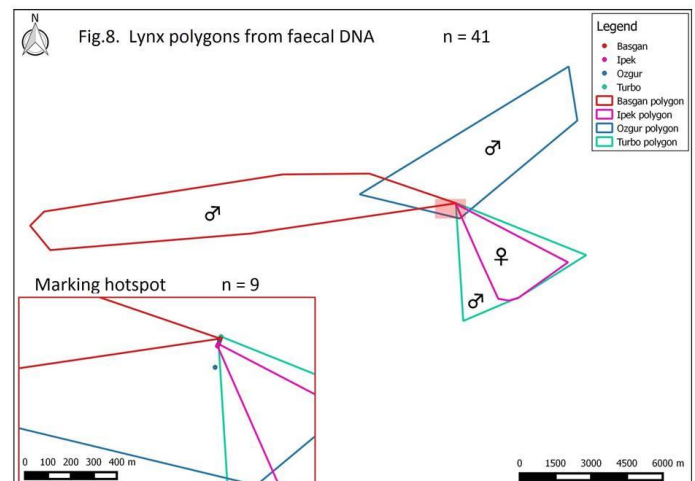


Fig.7

Among the five categories of marked objects (Fig.6);

- Juniperus excelsa* (aromatic, no spines)
- Forestry logs
- Juniperus oxycedrus* (Fig.8, highly aromatic, spiny needles)
- Pinus nigra*
- Rocks

Juniperus oxycedrus was significantly more frequently marked (Fig.6/C, Fig.7) (Mann-Whitney U pairwise $p < 0.05$).



Conclusions

- As a novel insight to the existing research on lynx behaviour (2), faeces are also used for scent marking in the Eurasian lynx.
- The reason for scraping is thought to be the high lynx density in Anatolian lynx populations (1).
- The findings of this study are consistent with those on other felids (4; 3), which show the intensity of faecal marking increasing as the mating season approaches and the marking locations concentrating on the borders of neighbouring territorial animals (Fig.8).

Acknowledgements

Hasan Emir, Serdar Geredelioglu, Gökhan Yildizhan, Ömer Kırac, Ali Onur Sayar, Tanja Noventa, Ivan Palmegiani.

References

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