

ANALYSIS OF WILD CAT'S (*Felis silvestris silvestris* L.) PREFERENCE TO THE HABITAT TYPES (BY NCH) IN THE BILOGORA MOUNTAIN, CROATIA

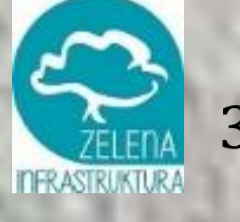
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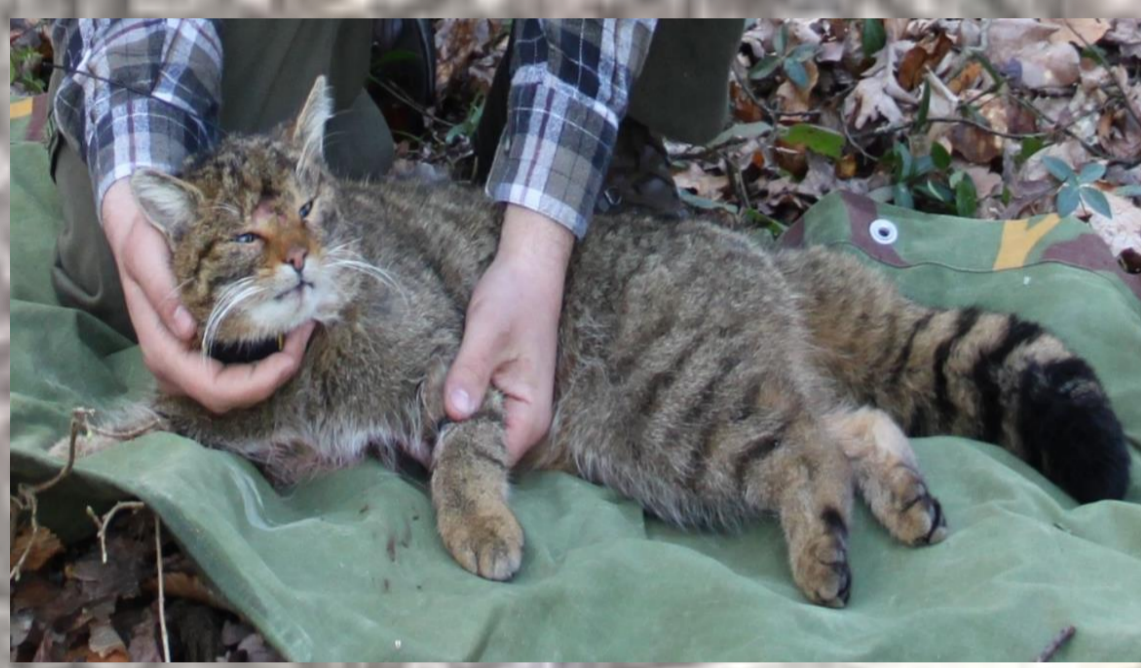
Introduction

There is a considerable lack of published information regarding a behavioural ecology and home range size of the European wildcat (*Felis silvestris silvestris*) because its elusive behavior and life in typically low population densities. However, studies on the space use and habitat selection of threatened species are useful for identifying factors influencing individuals fitness and population viability. The aim of the study was to obtain information about wildcat priority habitats in order to develop a proper conservation strategy for European wildcats in Croatia.

Methods

Two individuals of wildcat have been tagged with a VHF collar and tracked by telemetry. Their location was determined by the use of triangulation method during regular animal tracing procedure. The movement data were analyzed and the index of wildcat's habitat preference was calculated (the ratio of the time wildcat spent in certain habitats and the presence of these habitats inside individuals home range) (by National Classification of habitats).

Results



The female, Bela, 3.70 kg weight, tagged on the slopes of Bilogora in March 2013. It was tracked for 173 days and based on 20 GPS points home range of 2.83 km² was calculated.

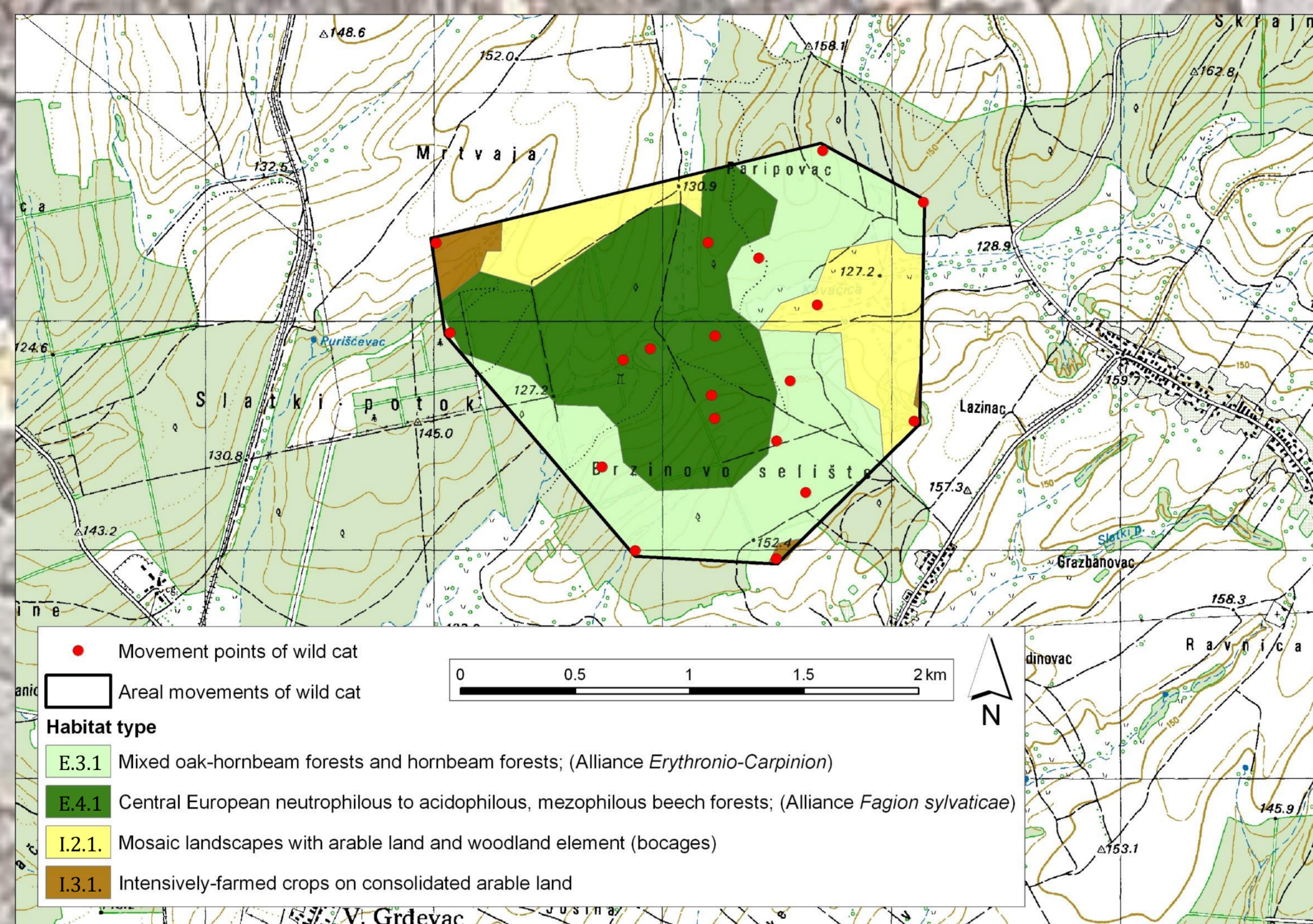


Figure 1. Map of habitat types within home range of wildcat Bela.



The male, Felix, 4.75 kg weight, collared in the lowlands area of Bilogora in July 2014. It was monitored for 238 days and 72 GPS positions were collected and home range of 9.50 km² of calculated.

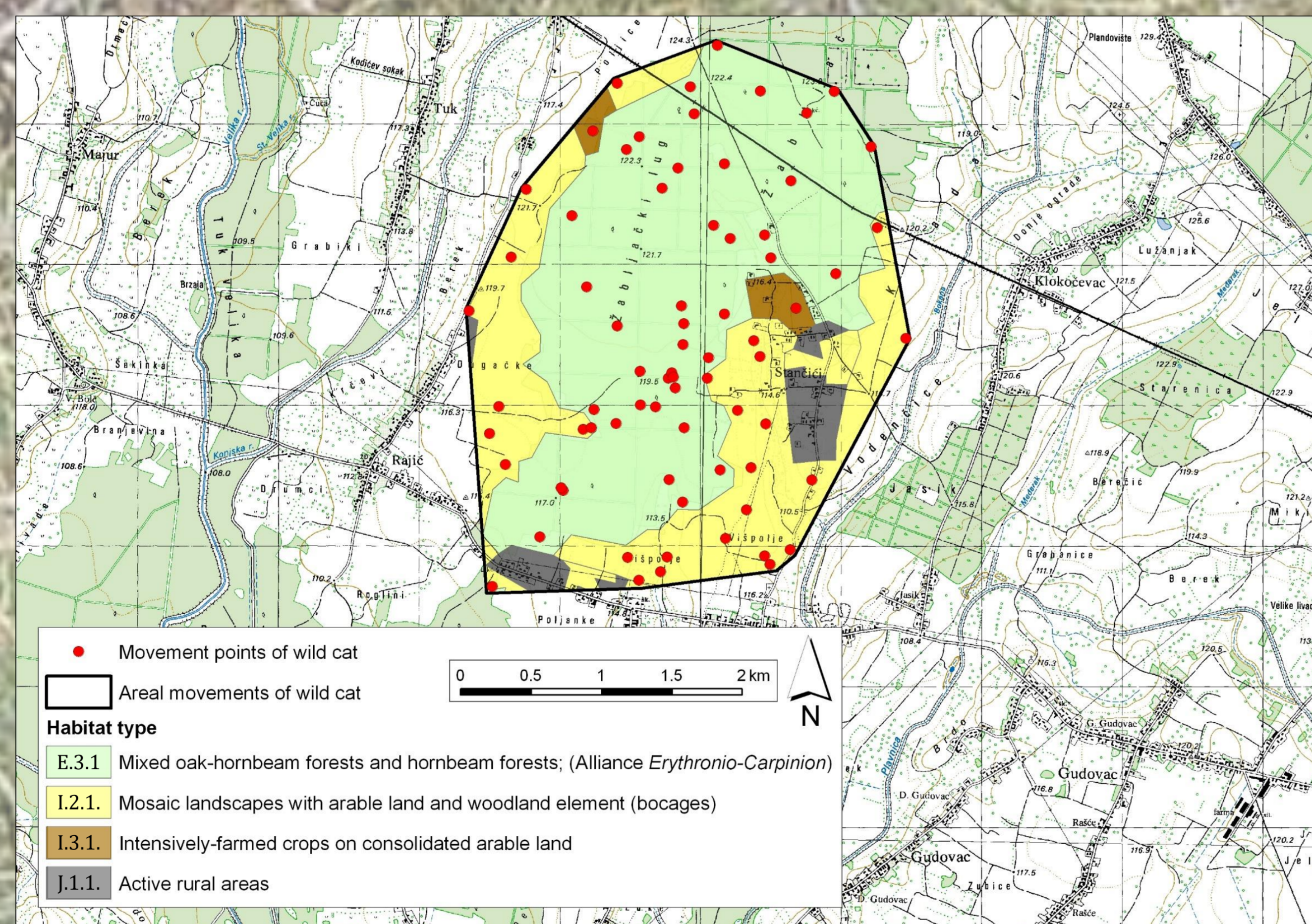


Figure 4. Map of habitat types within home range of wildcat Felix.

Conclusion

Results of this research contribute to more effective protection of this strictly protected animal, i.e. to the protection of habitats that are necessary for its survival.

References

- Anile S., Bizzarri L., Lacrimini M., Sforzi A., Ragni B., Devillard S. (2017) Home-range size of the European wildcat (*Felis silvestris silvestris*): a report from two areas in Central Italy. *Mammalia* 82(1), 1–11.
- Anonymous (2014) Ordinance on Habitat Types, Habitat Maps, Threatened and Rare Habitat Types and Measures for Conserving Habitat Types. Official Gazette of the Republic of Croatia, 88.
- Sarmiento P., Cruz J., Tarroso P., Fonseca C. (2006) Space and habitat selection by female European wild cats (*Felis silvestris silvestris*). *Wildlife Biology in Practice* 2(2), 79–89.

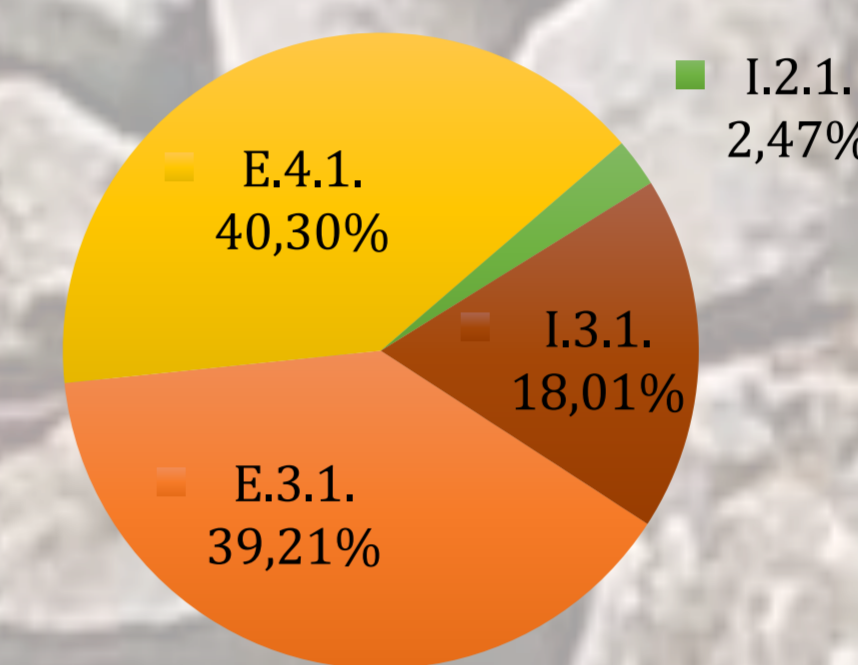


Figure 2. Percentages of different habitat types within home range of wildcat Bela.

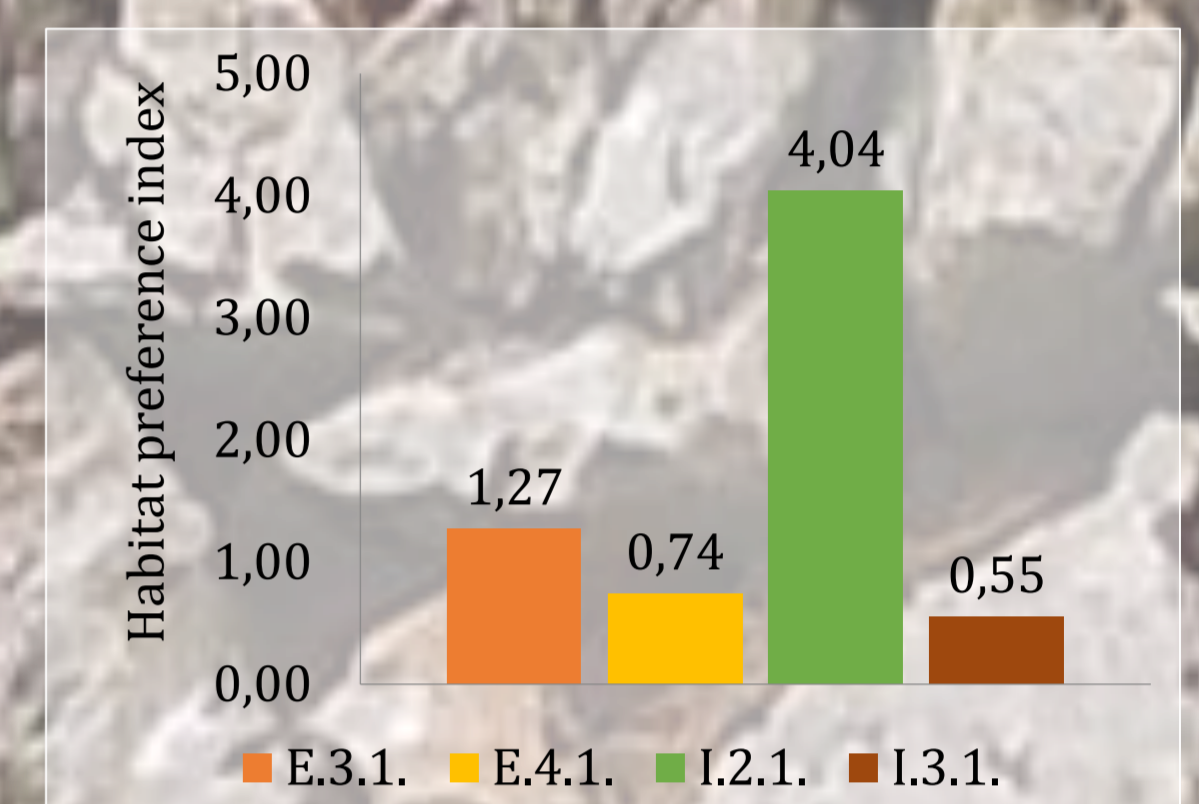


Figure 3. Habitat preference index of wildcat Bela.

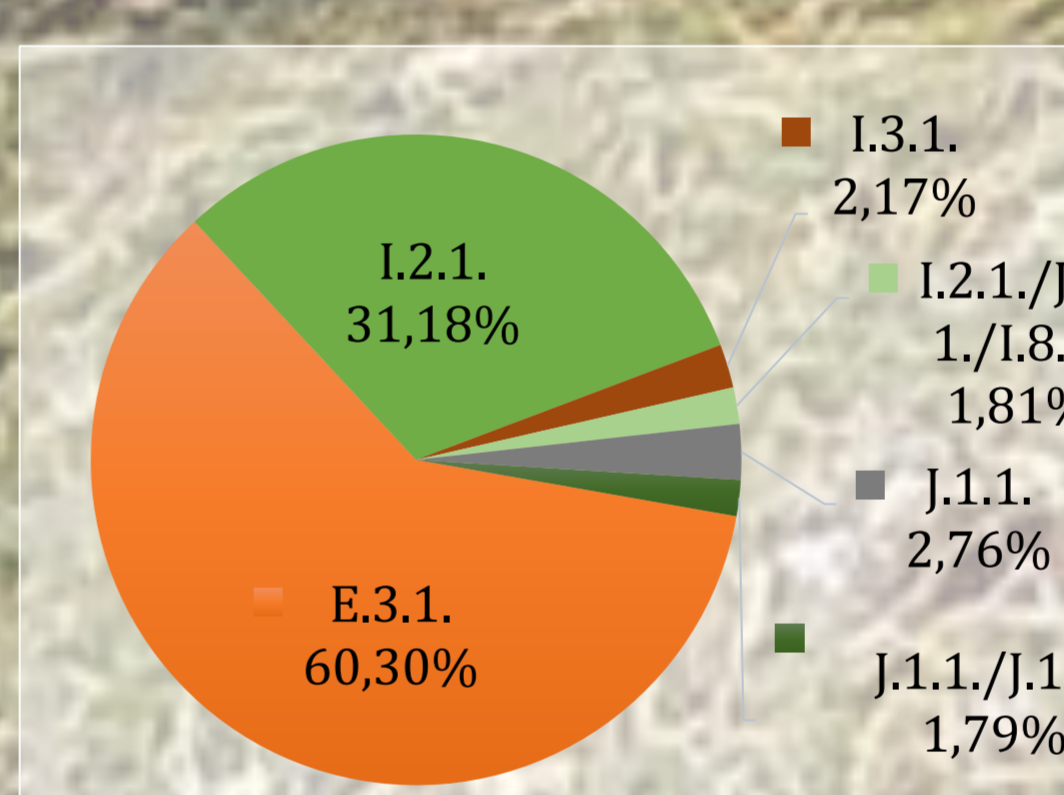


Figure 5. Percentages of different habitat types within home range of wildcat Felix.

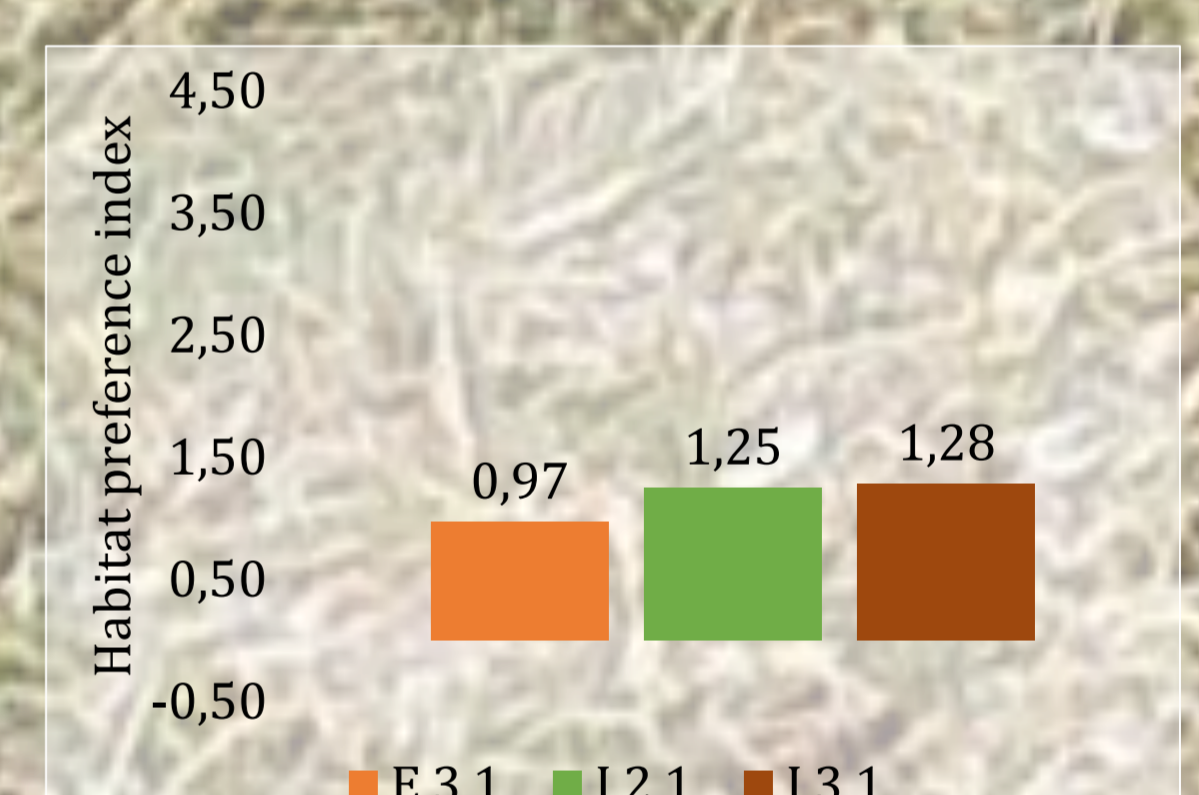


Figure 6. Habitat preference index of wildcat Felix.