



Survey for a return of the European mink (*Mustela lutreola*, L. 1761) along the Bavarian-Czech Green Belt

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European mink © L. Deak

Abstract

To evaluate the Green Belt Bavaria-Czech Republic as a resettlement location for the critically endangered European mink (*Mustela lutreola*), the survey area's habitat, the food supply, the influence of occurring semiaquatic mammals, and the European Green Belt's contribution to the long-term re-proliferation of the species are examined. The survey shows that currently, the habitats are not structurally rich enough to be suitable mink habitat. With increasing habitat design by the beaver, however, a change of the landscape in favor of the mink is expected. Therefore, the project area should certainly be considered as a potential area for a future resettlement attempt.

Introduction

Today, the European mink, once distributed in almost all of Europe, remains only in a few fragmented populations (France, Spain, Estonia, Romania, Ukraine and Russia). The decline of the mink is caused by habitat loss (near-natural riparian areas), isolation of the populations, hunting for fur, and displacement by the American mink (*Neovison vison*). Resettlement projects are already in place in Estonia and Germany since 2000 and 2006, respectively¹. In the context of a bachelor thesis, this survey assesses whether a reintroduction of the European mink at the Green Belt Bavaria-Czech Republic, the habitat network along the former Iron Curtain, is possible. For this purpose, the habitat and food supply of the survey area are compared with the ecology of the mink and the influence of other semiaquatic mammals occurring in the study area is considered. Further, the experience from previous or ongoing resettlement projects is incorporated and it is assessed how the Green Belt Europe, as a transnational habitat network, can contribute to the proliferation of the European mink in its former range.

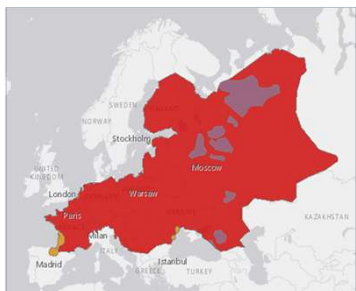


Fig. 1 European mink range. Red: extinct, purple: occurrence possible, orange: proven occurrence. From Maran et al. 2016 © The IUCN Red List of Threatened Species: *Mustela lutreola*. Resettlement areas in Germany are not included.



Fig. 2 Location of the study area (communities Haidmühle and Philippsreut in Bavaria, Germany, orange) along the Green Belt © BUND, modified by L. Deak

Methods

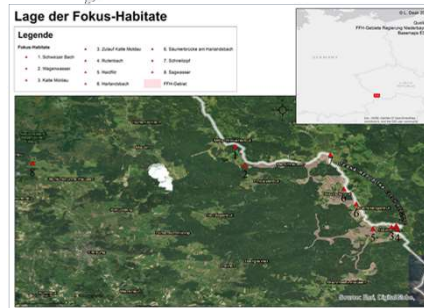
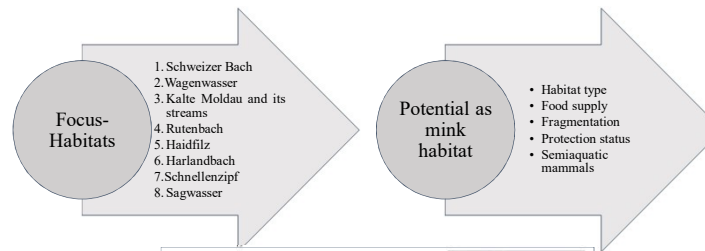


Fig. 3 Location of the Focus-Habitats

Results

- Generally the habitat is suitable for mink in the future, especially if the beaver (*Castor fiber*) increases the structural diversity.
- The connection to the Šumava National Park and the surrounding Fauna-Flora-Habitat (FFH) areas offer protection.
- The food supply is considered to be sufficient for the mink.
- No indication of the American mink has been observed and coexistence with the Eurasian otter (*Lutra lutra*) is possible.
- The survey area lies in one of the least fragmented areas of Germany and in the Czech Šumava National Park.
- The European Green Belt offers a unique possibility for dispersal.



Fig. 4 Schweizer Bach



Fig. 5 Wagenwasser



Fig. 6 Kalte Moldau



Fig. 7 Ruttenbach



Fig. 8 Haidfilz



Fig. 9 Harlandbach



Fig. 10 Schnellzipf



Fig. 11 Sagwasser

Conclusion

- Habitat for the mink is potentially available.
- Currently, however, it is not structurally rich enough.
- A change of the landscape in favor of the mink is expected with increasing beaver activity in the area.

References

- ¹Maran et al., 2016, The IUCN Red List of Threatened Species
²Maran et al., 2009, Biological Conservation; Peters et al., 2009, Endangered Species Research; Liers & Brandt, 2014, Säugetierkundliche Informationen

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