

How did the American mink (*Neovison vison*) spread in Norway?

And how can it help us understand future invasions of alien species?



Introduction

Mink is an invasive species in Norway and is native to North America. Mink farms was established in Europe due to interest for their fur. Escapees from farms have resulted in it establishing populations in the wild across European countries. Its population growth and migration patterns are linked to aquatic environments, and mink pose a threat to native species in the Norwegian ecology.

Methods

Hunting records for mink across Norwegian counties, between 1946-1976, were collected from "Jaktstatistikk 1846-1977". Microsoft Excel and R-studio were used for data handling and analysis. For each county, plots start from the first recorded hunting year.

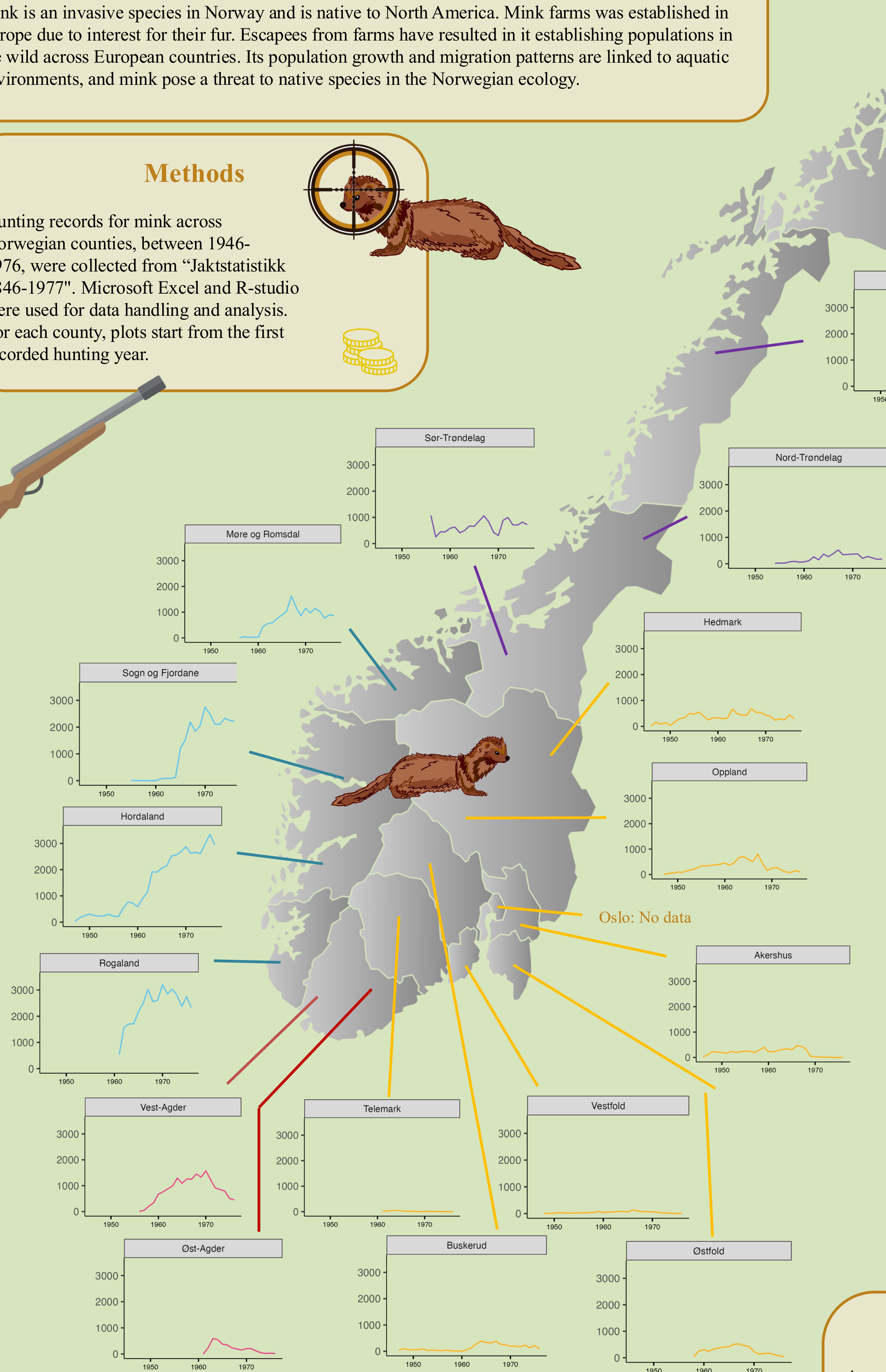
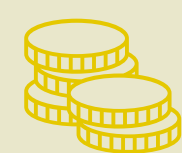


Figure 1 - Hunting trend of *Neovison vison* (1946- 1976): Shows hunting trend of mink in the period 1946 – 1976 sorted by the different counties. For each county, the data begins when the first record of hunting is initiated. The x-axis shows the year. The y-axis shows the amount of mink that was collected for bounty.

Main findings

Western Norway has the most hunted minks respectively. Some of the counties up north have very little hunting through the period. Finnmark has no hunting data in the whole period. South-east Norway has little growth in hunting numbers throughout the years. Hedmark and Oppland show higher numbers of minks hunted compared to the other eastern counties. Southern Norway has a late start before growth in hunting data with Vest-Agder having significantly more than Øst-Agder.

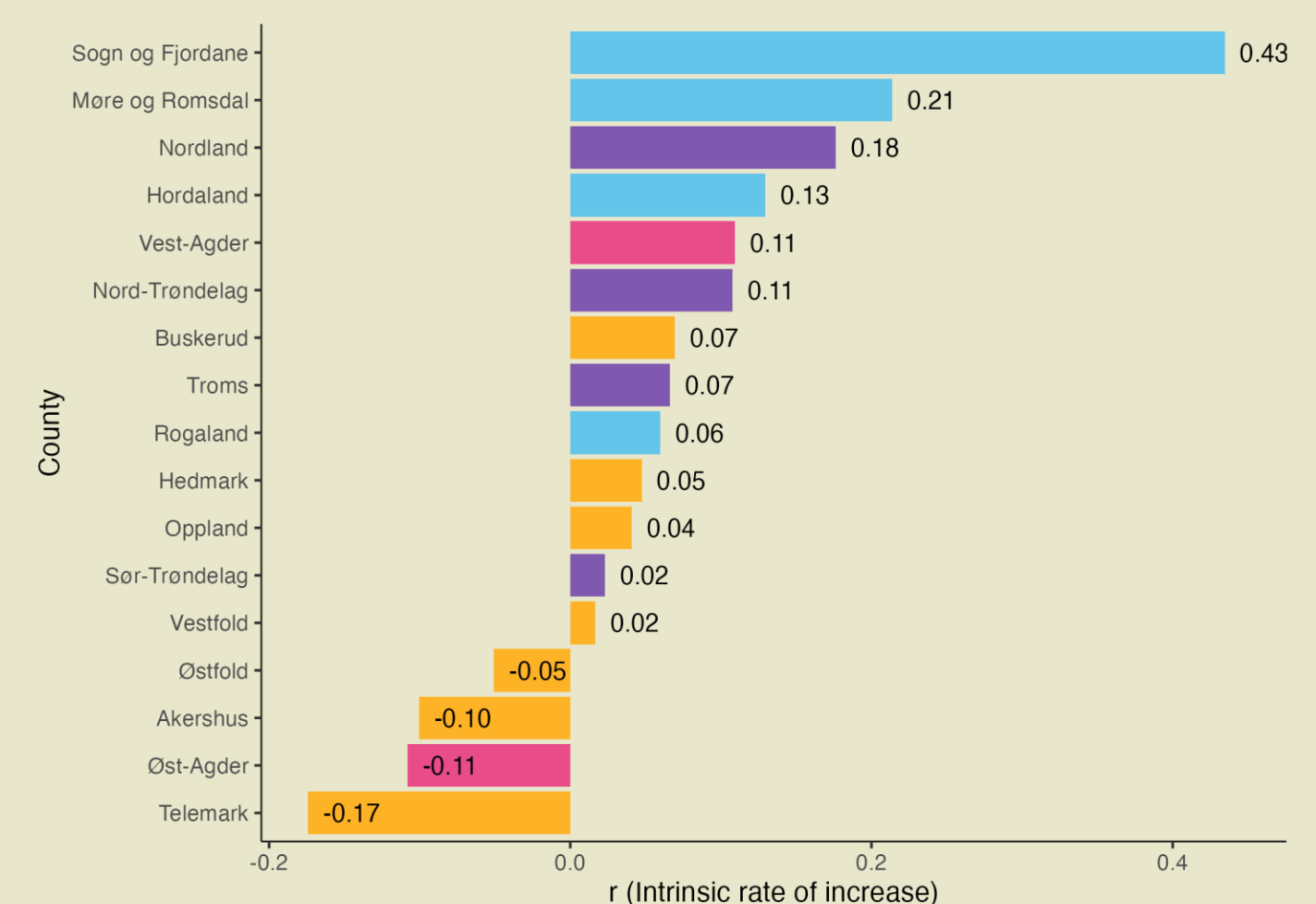


Figure 2: Intrinsic rate of increase of hunting: shows the intrinsic rate of increase in each county in the period 1946 – 1976. The analysis takes in data from each county and looks at the average increase/decrease that happens over the entire period

Discussion

Aquatic environments at low altitude seems to suit mink best (coastal counties). Many counties reached a peak in hunting trend before decreasing. This may be due to change in bounty prize affecting hunting interest or that mink population increased past the natural carrying capacity. Migration of mink to various counties could perhaps be seen in the data where hunting first occurred, e.g. 1961 in Rogaland. Late occurrence of mink in Sogn og Fjordane and Møre og Romsdal compared to counties bordering to them could be a result of huge fjords in Hordaland and mountains in Oppland acting as natural barriers limiting migration.



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References:

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