

## Project Updates: August 2014

In this project I aim to determine how the invasive American mink (*Neovison vison*) adapts to a pristine-island ecosystem in southern Chile, and to assess how mink impact native biodiversity. The mink has recently invaded Navarino Island in southern Chile, one of the last pristine areas of the world. I am using camera traps to investigate mink habitat selection. Also, I am studying mink's diet and I will assess prey species behavioral responses to this novel predator.

I started the project in February of 2014. During February and March (summer) I set 98 camera stations and detected a total of 239 mink visits to trap cameras, assuming >60 min between two detections. Capture rate was 12.19 detections/100 trap nights and 47.96% of the stations were occupied (Fig. 1). During June and July (winter) I set 49 camera stations (unfortunately, given the extreme weather conditions and the ice accumulated on the road, we could not access two of the grids) and detected a total of 49 mink visits to trap cameras. For this season, capture rate was 5 detections/100 trap nights and 28.57% of the stations were occupied (Fig. 1). Occupancy and detection rate dropped significantly from summer to winter. Also, I analysed 86 mink faeces in order to study mink diet relation with prey abundance and compare diet with previous years. We also monitored small rodent and bird abundances to later investigate how mink occupancy relates with prey abundance. Two students, Matias Barcelo and Nicolas Carro, participated as field assistants during the sampling period and seven other students working in different projects at Navarino, participated during several field work activities.

I will continue during September 2014 conducting field experiments to assess whether or not rodents perceive mink as a predatory risk. Further, in October 2014 I will begin the spring season by setting the 98 camera stations.

I believe this information will be extremely valuable for mink-management control by the local conservation agency.

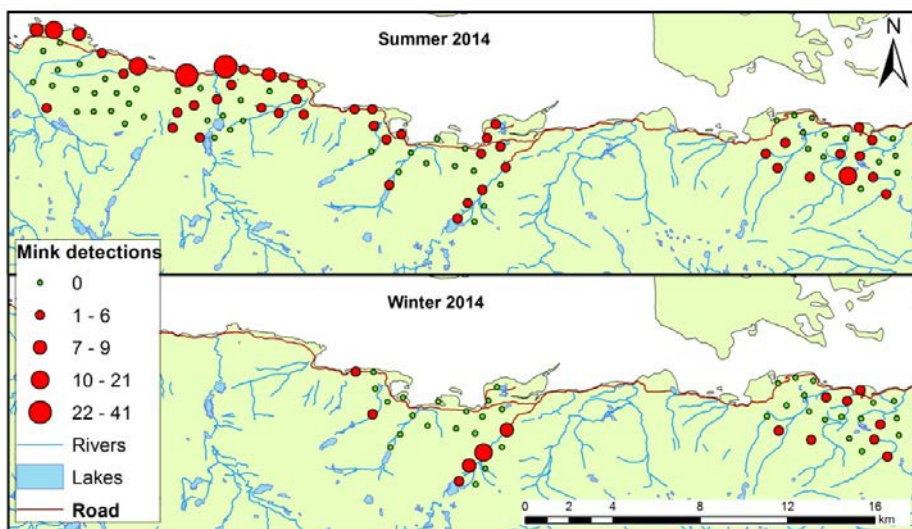


Fig. 1. Map showing American mink detections during summer (February and March) and winter (June-July) of 2014, in Navarino Island.



Mink tracks on the snow showing how mink in Navarino Island are using other habitats away from water sources and different from other parts of the world where mink present a sub-aquatic habit.



Nicolas Carro, one of my field assistants, setting a trap camera during winter season.





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American mink picture taken by a trap camera during winter season.