

# Changes in diet of mink (*Neovison vison*) in the Snæfellsnes Peninsula

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Mink diet studies in Iceland have shown a difference in diet between marine and freshwater habitats. Coastal mink's annual diet mainly consists of marine fish, birds and crustaceans but freshwater mink's annual diet consists of freshwater fish, birds, wood mice *Apodemus sylvaticus* and terrestrial arthropods [1]. Seasonal variations [1,2,3] can be explained by migrating birds in spring and summer, high numbers of wood mice in the autumn and higher mobility of fish in the warm months.

In this study 612 mink stomachs from animals captured by hunters in the Snæfellsnes Peninsula, West Iceland, in the years 2002-2008 were analysed. Of these, 410 stomachs contained one or more prey items. Mink diet was analysed by season; the warm (May-September) and cold (October-April) season. Mink in the Snæfellsnes Peninsula are usually never far away from the coast and can therefore utilise both marine and inland resources.

The preliminary results of this study show that in the warm months, there was a significantly high frequency of birds in the mink's diet in the years 2002 and 2004, when birds were more common in the diet than fish. There was also a significantly high frequency of insects and crustaceans in the diet in the years 2003 and 2008. In the cold months mice were significantly common in the mink's diet in 2003/04 while invertebrates were significantly more common in the diet in 2004/05 and 2006/07 than in other years. The unusually high frequency of wood mice in the diet in winter 2003/04 is in agreement with previous studies on wood mice [4].

These results show a significant annual variation in the mink's diet and a possible correlation with recent collapses and recruitment failure in several marine species. The switch in diet in the warm months in 2002 and 2004 (when mink consumed more birds than fish) and the unusually high frequency of other prey items in the diet in the winter months of 2003-5 and 2006-7 might indicate that the mink may have had problems obtaining marine food items. This is supported by a 46% decrease in the mink population between the years 2002 and 2006 [5].

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[2] K. Skírnisson, 1980. Náttúrufræðingurinn **50**, (1) 46-56

[3] R.A. Stefánsson, 2000. M.Sc. thesis, University of Iceland

[4] E.R. Unnsteinsdóttir and P. Hersteinsson, 2009. Journal of Zoology **277**, 232-240

[5] R.A. Stefánsson et. al, 2009. Fjölrit Náttúrustofu Vesturlands nr. 14