

# Growth and weight changes of American mink (*Mustela vison*) in Iceland

R. A. Stefánsson\* and M. von Schmalensee

Institute of Biology, University of Iceland, Sturlugötu 7, Reykjavík, Iceland  
and West-Iceland Centre of Natural History, Hafnargötu 3, Stykkishólmi, Iceland

P. Hersteinsson

Institute of Biology, University of Iceland, Sturlugötu 7, Reykjavík, Iceland

The American mink (*Mustela vison*) was first introduced into Iceland in 1931 for fur farming. The feral population is thought to consist of the descendants of the subspecies first introduced, which is smaller than its feral conspecifics occupying most of N-Europe [1, 2]. Knowledge of the ecology of feral mink populations is generally rather poor.

Species of the family Mustelidae show sexual size dimorphism. It is thought to be an adaptation to the promiscuous mating system, which puts different selection pressures on the sexes. The females are small and thus more energetically efficient but selection for large size in males allows them to travel faster, cover longer distances and fight rivals during the mating season [3, 4].

We collected carcasses from mink hunters all over Iceland for a 10 year period (1997-2006). Here we present data on mink growth and weight to shed light on the life history of the population.

Mink pups are born around May 10<sup>th</sup> in Iceland. Growth is fast in both sexes, although males gain weight faster than females. The sex difference in weight is statistically significant already in July and increases from then on. Females reach both the length and weight of adults in August. Males however reach adult length in September but do not reach adult weight until the end of the year. The growth rate of males declines in September and October, during dispersal, and they lose considerable weight in the beginning of September when they should be gaining weight. The weight loss between weeks is not quite statistically significant, probably due to the poor power of the t-test ( $t=1.827$ ;  $p=0.08$ ,  $\text{power}=0.294$ ).

The monthly average of adult mink weight ranges between 1.13 (April) and 1.45 (January) kg for males and 0.61 (July) and 0.82 (December) kg for females. The maximum for both sexes is prior to the mating season but the minima are associated with the most demanding times of the year; in males it occurs at the end of the mating season and in females at the time she has to provide food both for herself and all her pups.

These data on weight changes throughout the year is important for a better understanding of the life history of the species and identifying the factors influencing population regulation. They also show how the sexual size dimorphism develops in the first few months of life.

## References

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\*e-mail: [robert@nsv.is](mailto:robert@nsv.is)