

Session 6 – Pathways and dispersal of invasive species

AMERICAN MINK (*NEOGALE VISON*) LONG-DISTANCE MOVEMENT AND INVASION SPREAD – A SYSTEMATIC COMPARATIVE ANALYSIS INCLUDING NEW DATA FROM ICELAND

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The speed of spread of invasive species is a key parameter that can influence the impact of an invasion. The faster an invasion proceeds, the more difficult it is for native species to respond phenotypically and the more significant the ecological impact. Any control measure crucially depends on timing as well; the slower the spread occurs, the more time there is to take appropriate action. In some cases, the speed of spread can be measured; in other cases, it can be approximated through home range size and long-distance movement of individuals, such as dispersal, or population growth and distribution. Despite being of such high interest, long-distance movement of invasive species is often understudied. Even for an invader of the highest global importance, the American mink (*Neogale vison*), a global comparative analysis is still lacking. We compiled data from 118 studies in 24 countries (numbers might still increase) in Europe, North- and South America and Asia on the speed of spread, long-distance movement and home range sizes. Previously unpublished data from Iceland are discussed in the framework of the global dataset. This comprehensive and unique dataset allows us to estimate the spread speed of mink across habitats and discuss potential influencing factors and sex biases in long-distance movement.

Our aim was to i) support risk and impact assessment of mink and ii) provide a database of these behavioural parameters to create a more complete profile of this widespread invader.