

# Derby and Sandiacre Canal Trust

## Mink Control Policy

**Aims of document:** To set out a policy for the control of the American Mink that uncontrolled could cause considerable damage and loss of resident water voles and other valuable species

### Introduction

The Derby and Sandiacre Canal Trust (DSCT) is responsible for the maintenance of approximately 1 mile of canal. Approximately half the canal is well established with extensive vegetation both in the water and on the banks, and it provides an ideal environment for water voles (*Arvicola amphibious*) whose presence has been confirmed by recent ecological surveys (originally by Barry Collins in 2020 and repeated by Trust volunteers in 2021).

The remaining section of the canal has recently been dug and extensively planted with native plant species suitable for sustaining food and cover for water voles. The plan once the newly planted vegetation has reached maturity is for the capture and translocation of the established water vole population in the present mature portion of the canal to the newly established portion; this will allow necessary work on the older section to allow for the use of boats on its short course. The Trust wishes to sustain a viable and healthy population of water voles and recognises the need to monitor and control key predators, in particular the American mink (*Neovison vison*), an introduced species into the UK environment, which could easily migrate to the site from local mink populations, most likely present on the nearby River Derwent, and threaten the local water vole population.

The document below sets out the Trust's plan for the monitoring and potential elimination of the American mink should its presence be identified and ensuring humane methods of control are used and any unintentional risk to non "target species" is minimised. The urgency of control is highlighted by the water vole's inclusion as a priority species in the UK Biodiversity Action Plan and the promotion of humane mink control as an essential tool in water vole management and conservation, within the National Species Action Plan.

## **The American mink *Neovison vison***

The animal is a medium-sized semi-aquatic mustelid native to North America. It has short ears, relatively short limbs, and a tail approximately one third of the body length. Mink are opportunistic carnivores that feed on a variety of prey, including small mammals such as rodents, waterbirds, small invertebrates such as crustaceans (crayfish and crabs), amphibians (mostly frogs), reptiles and fish. In the UK, the main negative conservation impact is predation of water voles, chickens and ground nesting birds including game birds.

Mink are strictly territorial, males occupying exclusive home ranges of 1-6 km in length. Females have smaller territories within or overlapped by those of males. They use their scats to mark the boundaries of their territory, and the neighbourhood of their den. Dens are nearly always an existing cavity usually within 10m of water; one home range may contain several dens. Mink favour aquatic water ways but can be found in-land on farms. Females have just one litter a year, during May, with young born blind and hairless, in litters of four to six. They can breed at one year old.

Male mink begin to roam around looking for females to mate with between January and March. By February/March, females have often been mated and will be carrying up to ten young. By late spring, females are likely to have dependent young established in a chosen den. Young are driven off their parents' territory from July- November.

## **Identification and Trapping**

The use of Mink Rafts is recommended for both identification and trapping. A suitable and well tested raft has been made by the Game and Wildlife Conservation Trust and rafts can be purchased from specialist stores at reasonable costs. The raft supports a soft clay base (the tracking cartridge) that allows footprint capture and subsequent identification of species visiting the raft. On positive identification of mink, the raft can be switched to a trapping mode of action. It is likely that a number of species of animals could visit a raft (brown rat, water vole etc) so training to allow clear identification of mink prints and signs is recommended. Good advice on footprint identification is readily available online, and local experts are likely to be found by talking to the Derbyshire Wildlife Trust.

### **What is an effective density of rafts?**

Literature searches recommend 1 trap per 1 km. The Trust has waterway of approximately 1500m, so 2 traps will be adequate.

### **Where is the best location of raft siting?**

The rafts are best located in the water and sited in vegetation close to the canal edge. Water courses and confluences are key sites and the canal stretch has several of these on its length. The rafts can be concealed with vegetation which can be replenished every two weeks. This conceals the rafts from the public and possible interference. The vegetation cover offers any trapped animals some concealment and shields the public from any distress at seeing a trapped animal. Given the close proximity of a public footpath to one side of the canal on its full length, some notices explaining what is happening is a tried method to reduce public discomfort and reduce raft interference.

### **How often should the rafts be checked for footprints?**

The rafts left in monitoring mode should be checked every 1 to 2 weeks for potential signs of mink. The tracking cartridge should be resurfaced every 3 to 4 weeks, or after heavy rainfall. The rafts should be kept in situ for the whole year to ensure consistent monitoring. Mink are most likely to migrate to new territories January - March (males looking to establish territories) and again July- November when the young are driven from the nest and have to establish their own territories.

The rafts are easy to lift and relocate as required. The full design of the raft can be found on the Game and Wildlife Conservation Trust website [www.wgct.org.uk](http://www.wgct.org.uk)

### **Trapping and humane killing of Mink**

Use of the Rafts in a trapping mode: Only on confirmation of mink in the locality, will the raft be switched to its trapping action by addition of a wire live trap. The mink will be unharmed by trapping, and safely constrained within the wire live trap. The trap does not need to be baited as mink are curious and will investigate any "tunnels" in search of food. The live trap has the advantage of not harming any species, so any untargeted species captured can be safely released back to their environment

### **How often should the be inspected in "trap mode"?**

The raft should be inspected daily whilst in trap mode. This will reduce any stress to any captured animal. Literature searches recommends a deployment of no more than 10 consecutive days usage in a trapping mode. The traps are effective and if no mink has been caught after 10 days, it has probably migrated through the vicinity and is not a treat to the local water voles

Trapping is particularly effective in early spring, as this will capture pregnant females before they den and give birth. It also coincides with the time when water voles are also producing young, and they are at their most vulnerable.

Summer trapping can be used; however, any females caught will result in dependant young starving which could be seem as distressing from the public.

Monitoring and if necessary, trapping should be repeated on an ongoing annual basis and continue throughout the year. Mink will migrate and new ones will replace any killed mink if consistent monitoring and trapping is not undertaken regularly and sustained.

Should the presence of Otters be identified, the trap can be modified with "Otter excluders" which are removal barriers that restrict the width of the trapping tunnel to a size too small for Otters. Presently, no Otters have been identified on the Trusts stretch of canal so their initial usage is not required.

The GWCT also offers 1 day training courses in the usage of rafts (in both modes of action) and in the safe killing of any mink. It may be a useful tactic to train a few members who can act as trainers in the future should this be required and keep knowledge levels too acceptable levels within the Trust

### **Killing and disposing of captured Mink**

Any captured mink should be retained and killed in the cage. Use of inserts can move and restrain the mink at one end of the cage. Killing is best performed by a clean shot to the head from a steel nose pointed air gun pellet. Use of a relatively powerful air pistol is recommended (nuzzle energy over 3ft lbs) but well below thresholds that would require firearm certificates (12ft lbs or above). The nuzzle velocity should be of sufficient power to deliver a clean strike that will destroy the brain in one shot, but also not risk injury to the user. Once the mink is dead it can be removed from the cage and a further shot to the brain stem (back of skull) is recommended. The animal can be certified dead by touching its eyes with a grass stem, and no blinking occurs. Muscle twitch may occur in a recently killed mink.

The corpse can be buried or disposed of in a suitable manner. The air pistol must be used by an adult (over 18 years old) and should be transported in an inactive state. It is best kept in a transport bag to conceal it from the public and for safer transport. It would be best if the killing was done when the public are not present for obvious reasons.

## **Data Recording**

Detailed notes should be undertaken for each raft deployed. Recording provides information on the mink population and the effectiveness of trapping. Each raft deployed should be monitored.

An example of key information needing to be kept is below

Date	Raft Location /ID	Species Trapped	Details Sex	Notes	Outcome	Trapper Name

## **Recommendations**

1) To ensure permission and translocation of water voles, raft deployment should commence as soon as possible. A sustained period of several months monitoring and if necessary, trapping (and data recording) will allow for good analysis of local mink populations and the threat they pose. Monitoring using feeding rafts for the existing population of water voles through to their capture is also recommended so their population numbers and viability can be assessed prior to any intervention. Currently (November 2021) we do not know if we have any mink in the water vole localities so establishing a base line of water vole numbers will be useful before any trapping and killing of potential mink occurs.

2) We appoint a small team who will be responsible for raft deployment and checking and killing any mink. Given the task is required throughout the year and daily monitoring of rafts required whilst in trapping mode a team of around 6 - 10 people may be necessary. It is advisable that at least 2 team members attend the 1-day workshop mentioned, and act as trainers for other members.

3) We should collate and review data on a monthly basis and prepare a report that can be given to the assessing ecologist (for water vole translocation). The data will provide strong data for their assessment and outline inventions and outcomes the Trusts work is achieving