Mink control
Guidance from BASC to promote best practice
Why record and trap mink?

The non-native American mink (Neovison vison) has become widely established throughout the UK since the 1950s following escapes and releases from mink farms. Mink have had a devastating impact on our native fauna through predation on vulnerable species of birds, fish (especially stocked waters) and mammals such as the water vole (Arvicola amphibius). The decline in water vole numbers can be directly attributed to predation by mink, which generally live and hunt near water, and can swim well. The female mink pose the greater threat since they are small enough to penetrate the water voles’ burrows, thereby overcoming the voles’ last line of defence.

Conservation bodies accept that mink control is an essential tool in water vole conservation. However, this control must be appropriately targeted, humane and form part of a wider strategy to include habitat management for the water vole.

This guidance is intended to help you control mink in the most effective and least labour-intensive way possible. We recommend that you read the Game and Wildlife Conservation Trust’s Mink Raft Guidance Note and the Water Vole Conservation Handbook which this guide complements. We would also like to stress the importance of recording your mink control activities.
Biology of the American mink

It is useful to know the biology and habits of mink so that you can take steps to control them effectively and humanely. The diagram below gives an overview of the mink’s lifecycle.

**Autumn**
Once young mink have matured they are usually forced out of the mother’s den to find their own territory.

**Winter**
Males start to look for females to mate with; mating has usually occurred by February/March.

**Summer**
During the summer mink are found in family groups and can often be seen during the day.

**Spring**
By late spring females are likely to have dependent young established in a chosen den.
Mink are opportunistic carnivores. They will feed on a variety of prey including birds (waterfowl and ground nesting farmland birds) and mammals (water voles, rabbits etc). They are curious creatures and will often investigate tunnels, burrows and man-made objects, although there is evidence to show they avoid close proximity with humans. Mink will mark their territory with distinctive scats in the same way that otters leave spraints. Scats and footprints at a site can often be a good way of establishing whether mink are present.

Female mink have a single litter each year, typically between April and early May, of between 3-6 kits. While nursing the young she will hunt intensively over her home range (approx. 3km of waterways) and this can have a devastating impact on water voles and nesting birds within the area. Therefore, removal of female mink close to water vole colonies before the end of April will protect those voles and birds during their breeding season.
Guidelines for mink control

Trapping is a legally acceptable and most effective way of controlling mink. Live capture using a cage trap, followed by shooting, is considered the most appropriate method because it avoids the risk of harming non-target species. It is easy, humane and efficient and allows non-target species, such as water vole, to be released.

Types of trap

Although home-made designs can be effective, purpose-built live-capture cage traps are preferable. BASC recommends use of the Game and Wildlife Conservation Trust’s (GWCT) mink raft (where there is suitable water to deploy it) complete with a live-capture trap. In order to minimise the chance of capturing otters, the trap opening should be small enough to exclude them or be restricted by adding an otter guard.

Locating rafts and traps

Set rafts and traps where mink are most likely to encounter them. Particular features to look for include confluences of watercourses, inlets or outlets for ponds and lakes, where drains, hedges or fence lines meet watercourses. Islands and purpose-made mink rafts are also key places to locate traps.

It is advisable not to position rafts or traps in the open, particularly beside public footpaths. This is in part to avoid theft, vandalism and distress to trapped animals. If it is not possible to site rafts and traps out of sight, consider a notice on the raft or trap to inform people that it is a legal trap and should not be tampered with.

It has been shown mink control is most effective when the rafts/trap positions are at 1km intervals on a watercourse. This requires many people to make an effective network, so a co-ordinated programme of mink control is essential for best results.
If putting rafts on watercourses, it is also important to make sure that the appropriate public body is aware of the project as some types of raft design need to be registered with them. If you are part of an organised mink control project please check with your co-ordinator.

**When to trap**

Trap between January and mid-April to minimise the potential breeding population of mink and from August to December to catch dispersing and wintering animals. The advice from the national water vole steering group is that mink trapping should not be undertaken when female mink may have dependent young (between mid-April and the end of July).

Do not set traps in extreme weather – torrential rain or storms – as this can cause undue distress or death of captured animals (which may not always be mink). Once monitoring and the necessary trapping have started it should be kept up. Mink will continually re-colonise unoccupied areas if they are not being controlled on adjacent land.

**Using a mink raft for monitoring and trapping mink**

The Game and Wildlife Conservation Trust mink raft was developed as a means of detecting mink and as a good platform for trapping. It is a floating raft which can be used in either monitoring mode, which uses a wetted clay pad to record foot prints and so monitor the presence of mink (and other animals), or trapping mode once signs of mink have been detected. A trap placed on the raft will generally catch mink within a few days if it has left its tracks.

**Using the raft in monitoring mode**

Once the raft has been positioned in a suitable place and attached securely to the bank, install the clay pad and secure the cover. Then
place vegetation on top of the raft to make it less conspicuous. The raft should be left to accumulate evidence for between one and two weeks before a visit is made to check for prints.

Later in this document we have included examples of commonly encountered field signs, prints and clay pad impressions which will help you establish which species are using your raft. If you are uncertain take a good photo of the impression or faeces with something to help scale the image (a coin for example) and send to your co-ordinator or local expert.

If you find signs of mink then you convert the raft to trapping mode.
Preparing the clay pad

To make the clay substrate
1. Place 2lb of clay and 1lb of sharp sand into a bowl.
2. Add 100ml water and knead into a soft paste, the consistency of butter icing, added more water if necessary.

To prepare the basket
1. Cut a block of floral foam so that it fits snugly into the basket.
2. Place the basket and foam into water at home or on site (being careful that the basket cannot float away).

Putting them together
1. When the floral foam is completely wet (the surface will now be a darker green) spread on the clay mix and smooth out. This is best done with a broad spatula.
2. Place the basket in the raft, close the tunnel and launch the raft.
3. After checking the raft for prints, remove any debris and smooth out the surface of the clay; wetting the spatula helps to make a smoother surface.

Using the raft in trapping mode

Once signs of mink have been identified the mink raft can be converted into trapping mode using a live- capture trap.

Setting the trap – Once the trap is set take care to ensure the cover fits properly so that the animal is sheltered and the trap mechanism works correctly. In some situations, the trap with food (cat food or fish heads for example) or mink pheromone increases the chance of trapping mink.

Checking the trap – Once set, the trap should be checked at least once every 24 hours. The best time to check a trap is in the morning as many riverside animals are most active during the night. Removing animals in the morning reduces the chance of their discovery by the public and their
exposure to the light and heat during the day. If the trap cannot be checked at least once every 24 hours it should be removed or pegged open.

Non-target species which are protected (e.g. otter, water vole) must be released when you inspect the trap. If your trap contains a mink it must be killed as it is illegal to release it back into the wild. That is also a legal requirement when grey squirrels are trapped but rats can be killed or released at your discretion.

**Dispatching the mink**

It is recommended that an airgun, rather than a firearm or shotgun, is used to dispatch any mink caught. The mink must be kept still in the trap to allow for an accurate humane dispatch shot. This can be done easily by using two plywood combs to push the animal firmly against the side or roof of the cage, restraining it in the manner of a livestock handling crush.

The mink may squeal when exposed from under the tunnel or restrained, so it is advisable to prepare the airgun, pellets and comb(s) before removing the tunnel from the raft. However, do not load the gun until the animal has been restrained; release the safety catch only when you are ready to fire the shot.

Using the combs as a lever, push the mink up to the roof or side of the trap and with the gun barrel perpendicular to the skull, shoot the mink. Hold the gun’s muzzle a few centimetres away from the head and try to avoid the centreline of the skull as it is very strong. A single shot should be enough to kill the mink, however if a second shot is required take it as quickly and safely as possible, aiming at the junction of the skull and neck to destroy the brain stem.

Once death is confirmed the airgun should be unloaded and made safe.
Death is confirmed by:

- Animal collapses
- Carcass can be tonic (contracting/locked muscles) or relaxed
- Fixed glazed expression
- No corneal reflex
- Convulsions may occur after a lapse of up to one minute

Once the mink has been dispatched it should be:

- disposed of in accordance with current legislation and local bylaws, which may put additional requirements on top of legislation.
- if dead mink are requested for scientific study, the location of where the mink was trapped and date it was dispatched should be attached to the carcass (or put into the bag it is frozen in) before it is collected.

Recording

Keeping a record of where your rafts or traps are and what success you have had is essential for both your own knowledge and for the assessment of any mink control network you are part of. We have produced a mink control recording form which captures the key information. Filling this out each time you move a trap, detect signs of water voles or mink and when you trap mink is vital because you will not remember the detail later.

It is important to share this information with any project you are working with if your efforts are to have the best value for wildlife conservation. It will enable that project to analyse your results and observations and provide feedback to you and others taking part.

Completing the form as you go is the most important thing. However you can save your co-ordinator a lot of time if you have been given an electronic copy by filling it in using a computer. Then there is no issue of legibility and it lessens the time needed to input your information to a central database.
**BASC mink control bag return and sightsings for water vole form.**

Please complete this form each time you catch a mink or see water vole signs. Please enter each mink dispatched, or water vole seen, on a separate row.

<table>
<thead>
<tr>
<th>Volunteer name:</th>
<th>BASC membership number, if known:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<table>
<thead>
<tr>
<th>Full date</th>
<th>Grid reference or location notes, including raft/trap reference number if applicable</th>
<th>Mink signs found: tick box</th>
<th>Culling mechanism: tick box</th>
<th>Sex</th>
<th>Age</th>
<th>Water voles or signs seen please describe</th>
<th>Other comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EXAMPLE</strong></td>
<td>08/09/2013 SK1123456 (At confluence between side-stream and river smith) raft L12</td>
<td>✓</td>
<td>✓</td>
<td>M</td>
<td>✓</td>
<td>None</td>
<td>Trap reset and checked for 5 days following – no more mink trapped</td>
</tr>
<tr>
<td><strong>EXAMPLE</strong></td>
<td>30/08/2013 SK123456 (At confluence between side-stream and river smith) raft L12</td>
<td>✓</td>
<td>✓</td>
<td>M</td>
<td>✓</td>
<td>Water vole droppings on raft and tracks on clay pad</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tracks on clay</td>
<td>Scats</td>
<td>Sightings</td>
<td>Trap on raft</td>
<td>Trap on land</td>
<td>General shooting</td>
<td>Other</td>
</tr>
</tbody>
</table>

- **Mink signs found**
  - Tracks on clay
  - Scats
  - Sightings
- **Culling mechanism**
  - Trap on raft
  - Trap on land
  - General shooting
  - Other
- **Sex**
  - M/F
- **Age**
  - Adult
  - Juvenile
- **Other comments**
Mink monitoring and trapping **DOS and DON’TS**

- ✓ **DO** tether the raft to the bank securely
- ✓ **DO** cover the tunnel on the raft with vegetation
- ✓ **DO** check the raft once a week when in monitoring mode
- ✓ **DO** check the trap at least every 24 hours when in trapping mode
- ✓ **DO** try moving your raft a few feet if a mink does not come into your trap within a couple of days of trapping
- ✓ **DO** put the opening to your trap on the downstream side as that it’s the most likely side a mink will climb onto the raft
- ✓ **DO** put your trap straight back into monitoring mode after you have caught a mink and check it regularly to detect if there are multiple mink on that section of water
- ✓ **DO** always use gloves when handling dead mink – there is a risk of Weil’s disease
- ✓ **DO** keep records of all evidence collected when the raft is in monitoring mode and all successful trappings
- ✓ **DO** share these records with your co-ordinator (e.g. BASC)
- ✗ **DON’T** attempt to handle a live mink – they can be dangerous animals when they feel threatened
- ✗ **DON’T** keep the raft on a watercourse when there is a risk of flooding, high winds or other extreme weather
- ✗ **DON’T** place a raft in an open area or beside a public footpath
- ✗ **DON’T** place rafts in or near to entrances to known otter holts
Key field signs
(courtesy of SITA Trust and East Devon District Council)

Diagram  Left front foot  Impression

Diagram  Left hind foot  Impression

BROWN RAT
Rattus norvegicus

30cms/1ft

inches

1  2  3  4  5

1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20

cms
OTTER
Lutra lutra

Direction of travel

Left front foot likely pad mark

Back left foot likely pad mark

30 cms/1 ft
WATER VOLE
Arvicolia terrestris

Diagram Left front foot Impression

Diagram Left hind foot Impression

30cms/1ft

inches cms
Droppings

Life size

Mink scat

Otter spraints

Water vole droppings

Brown rat dropping

Colour variations