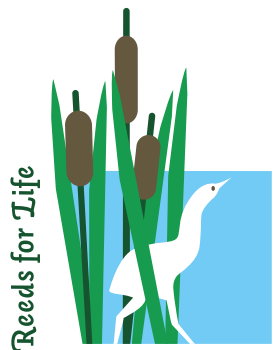


Effective Coypu Control for Biodiversity, Waterways, and Flood Protection

From theory to practical implementation



**LEBENDIGE
RÖHRICHTE**



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Introduction

Loss of Reedbeds – Loss of Habitats

The Bienener Altrhein, together with the Millinger Meer, Hurler Meer and Empeler Meer, is one of the most important oxbow lake systems along the Lower Rhine. Until the early 2000s, the extensive shallow-water zones of these water bodies supported species-rich emergent and aquatic vegetation. The characteristic sequence of open water, extensive floating-leaved plant communities, broad reedbed belts and softwood floodplain woodland was a defining feature of the landscape ^[1].

Reedbeds, in particular, represent a key habitat component of nutrient-rich standing waters and oxbow lakes. Tall-growing

reedbeds, such as those dominated by common reed and bulrush (cattail), perform essential ecological functions: they stabilise shorelines and shallow-water zones, trap sediments, reduce nutrient loads, improve water quality, and provide valuable breeding, resting and foraging habitats for numerous animal species, including many that are protected. Their conservation is therefore crucial for maintaining the ecological stability of these aquatic ecosystems.

From around the year 2000 onwards, however, the reedbed vegetation changed markedly. While low-growing pioneer reedbeds dominated by water mint and sedge communities remained largely stable, the tall-growing reedbeds declined dramatically. Between

1995 and 2011, around 65% of these stands disappeared. Cattail-dominated reedbeds were particularly severely affected and had almost completely vanished from large parts of the area. In total, approximately 15 hectares of reedbed habitat were lost ^[2].

The invasive coypu [*Myocastor coypus*] was identified as the cause of the disappearance of the cattail reedbeds. It feeds, among other things, on the growing points and rhizomes of cattail, preventing the plants from resprouting and ultimately causing them to die. Studies carried out at the Bienener Altrhein demonstrated the direct link between grazing by coypu and the disappearance of cattail reedbeds (VOSSMEYER et al. 2016).



1

Bienener Altrhein in 1995, featuring extensive reedbed islands of narrow-leaved cattail, reed belts, and large areas covered with white and yellow water lilies.

2

Bienener Altrhein in 2017. All of these valuable habitat features have now disappeared.

Coypu feeding as the main cause – Control measures shows effects

Need for coypu control in nature conservation aspect

The Bienener Altrhein is subject to special protection under EU, federal and state law in order to preserve, develop and restore the habitats and communities of wild plant and animal species. It is an important habitat for numerous breeding and migratory birds, amphibians, fish, insects and endangered plants in the silted-up zones.

However, due to nutria browsing, valuable reedbeds and other legally protected biotopes were increasingly being lost. As a result, the protection of many endangered species could no longer be guaranteed.

Against this background, the LIFE project 'Reeds for LIFE – Lebendige Röhrichte' (2018–2026) was launched. The aim is to restore stable reed communities through a combination of measures including grazing-protected plantings, coypu control, dynamic water level management, clearing of woody vegetation and monitoring.

The successful removal and control of coypu – a fundamental prerequisite for the potential development of reed beds – has led to a natural increase in reed beds of around 10 ha during the project period.

The nutria control methodology developed and continuously refined during the course of the project can be applied to other areas facing similar problems.

This practical guide summarises the experience gained during the project with regard to coypu control and offers practical advice and specific recommendations for public authorities, local authorities, water and soil associations, as well as nature conservation organisations, hunters and hunting leaseholders.



1

A planting cage was unpacked and monitored using camera traps. Within 7 days, this one-square-metre patch of cattail reed had been eaten away by coypus.

Pilot study

- ① During the first planting trials in 2015, several planting cages made of gabion mesh were planted with five cattails in order to investigate the cause of the loss of reed beds. These grew to full height within a few months. This ruled out poor water or sediment quality as the cause.



You can find a practical guide to initial reed bed plantings here:

lebendige-roehrichte.de/service/downloads-offener-bereich

Basic facts about coypu

The Coypu [*Myocastor coypus*] – Biology, distribution and impacts

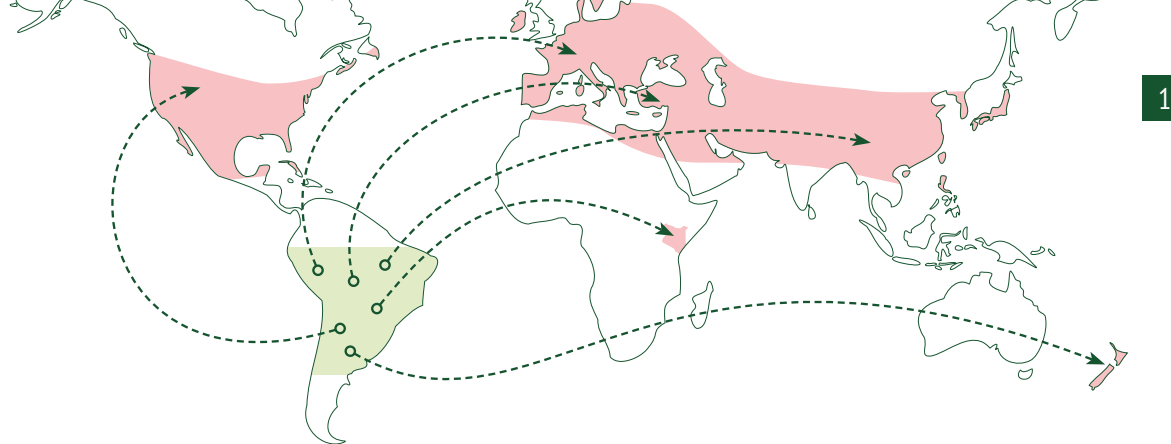
The Coypu, often mistakenly referred to as the ‘beaver rat’, is a large, semi-aquatic rodent that is native to South America but is now found on almost every continent. It lives primarily in riverine and wetland habitats. It is characterised by its stocky body, thick fur, orange incisors and a rounded, hairless tail. Adult animals reach a body length of around 40–60 cm, plus a tail measuring 30–45 cm, and usually weigh between 5 and 9 kg.

Distribution in Germany

In Germany, the coypu was introduced through fur farming and deliberate releases. Since the 1930s, it has been spreading further and further along rivers, lakes and wetlands. Stable populations have become established, particularly in the federal states of Lower Saxony, Brandenburg and North Rhine-Westphalia. The species is considered invasive in Germany, as it can damage riparian vegetation and dykes by digging burrows and through intensive grazing (BIELA 2008, SCHEIDE 2013).

Behaviour and Reproduction

Coypu live mainly in colonies, are predominantly active at night and at dusk, and inhabit densely vegetated riparian areas that offer shelter and food. Reproduction takes place throughout the year, peaking during the milder months. The gestation period is around 130 days. Two to three litters are possible per year, each with 2 to 13 young, averaging around 5–6. The young are already well developed at birth: they are covered in fur and have their eyes open, enabling them to move independently in the water very quickly (BIELA 2008).



1



2



3



4



- 1 Global distribution of the coypu (green = native, pink = non-native, green dotted line = introduced by humans).
- 2 A female coypu is suckling three of her six young at a dummy trap. Her teats are located on the sides of her back, so that she can feed her young even whilst swimming.
- 3 Cattail beds damaged by coypu feeding.
- 4 Coypu feed on the endangered swan mussel [*Anodonta cygnea*].
- 5 European bitterling [*Rhodeus amarus*] spawning in the swan.
- 6 Intact, flower-rich flowering rush reedbed.
- 7 Grazing damage to flowering rush [*Butomus umbellatus*] caused by coypu.

Females become sexually receptive again immediately after giving birth. The young reach sexual maturity at approximately 5–6 months of age. In optimal habitats, a very high population density can develop within a short space of time. Depending on the mortality rate, a single pair can thus produce 200–2,000 animals within three years. Coypu are sensitive to the cold and, during prolonged cold spells, can suffer from frostbite, particularly on their tails but also on their paws. They are therefore beneficiaries of global warming and are certain to expand their range further.

Diet

Coypu feed mainly on aquatic plants, reeds, grasses and roots, as well as occasionally on crops. They have a high food requirement and prefer to eat the young, nutrient-rich roots and rhizomes, as well as the 'vegetation cone' from which new shoots and roots grow. The plant is unable to regrow and dies off. Nutrias are selective feeders, meaning they consume certain plant species particularly frequently. In the project area, this was primarily cattail. Once this has disappeared, they turn to another plant species.

Their choice of food depends on the season, water level and availability of plants. Due to their intensive feeding activity, the species can cause considerable damage locally, such as the decline of certain plant species and erosion of riverbanks. Much like the muskrat, they also readily feed on large freshwater mussels, which are rare in Germany and subject to special protection (STEMMER 2017). Coypu consume around a quarter of their body weight in food every day. On average, the animals caught to date weigh approximately 4 kg. This means that 100 animals consume 36.5 tons of plants per year. The heaviest animal caught in the project area to date, in 2026, weighed 9.6 kg and consumed almost 2.5 kg of reeds every day.

Ecological and economic impacts

Within their native range, coypu help to shape the structure of wetlands. In Germany, however, their feeding and burrowing activities have a negative impact on riparian vegetation and, consequently, on biodiversity, as they deprive native species of their habitat. Agricultural land and crops can also be damaged. Their burrowing activity can cause erosion of riverbanks and embankments and, in particular, may lead to serious damage during flood events. To control the population, management measures such as monitoring, targeted hunting and removal of coypu are carried out (BIELE 2008, SCHEIDE 2013).



Compare Coypu, Muskrat, Beaver

Three rodents, one habitat – How to tell them apart

Coypu, muskrats and beavers all occur in the same habitats. While coypu often share their habitat with beavers, muskrats have been displaced from many areas of the Lower Rhine region by the expanding coypu population. Although the three species vary greatly in size when fully grown, they have a similar overall appearance and are therefore frequently confused. In addition to body size, the main distinguishing features are the shape of the tail, the incisors, the whiskers and the shape of the head. Furthermore, the beaver appears much more sedate in its movements than muskrat and coypu.



Different fur colours due to breeding on fur farms



Name
Latin name

Body size

Weight

Maximum age

Tail

Coat colour

Distinguishing features

Webbed hind feet

Origin

Behaviour

Burrows/nests

Reproduction

Sexual maturity

Mating

Diet

1 Coypu
[Myocastor coypus]

40–65 cm

up to 10 kg

3–10 years

30–45 cm
Circular cross-section,
barely hairy

almost black, through brown, to light-
beige (see coat pattern on the left)

large orange incisors,
white whiskers

yes, only between the 1st and
4th toes

South America (introduced to Europe)

sociable, often in groups

burrows in the riverbank (entrance
above water), but also nests in reeds

2–3 litters per year with 2–13
young; ready to conceive again im-
mediately after giving birth

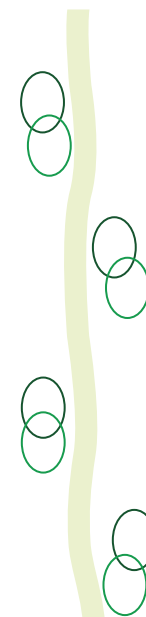
at 5–6 months

all year round

aquatic plants, roots, mussels



Size comparison footprints — 5 cm —



Trail with footprints and drag mark from the tail

2

Muskrat[*Ondatra zibethicus*]

25–40 cm

up to 2 kg

3–10 years

20–25 cm
flattened laterally
(upright oval)

brown

Incisors light orange, smaller than
coypu, narrower head

no

North America (introduced to Europe)

somewhat territorial

In water bodies with banks: burrows
on the banks. Without banks: nests
made of reeds (entrance underwater)

2–3 litters per year with 2–8 young

at 5–6 months

March–September
(also possible all year round)

aquatic plants, mussels, crabs



3

Beaver[*Castor fiber*]

80–100 cm

up to 35 kg

bis 20–25 years

30–35 cm
wide, flat,
paddle-shaped

brown

very large body, broad tail

yes, between all toes

Europe and Asia (native to Europe)

territorial; family groups consist only
of this year's and last year's youngburrows and large lodges (entrance
under water), dams to regulate
waterlevels

1 litter per year with 1–5 young

at 3–4 years of age

January–March

tree bark, twigs, aquatic plants



2



3

Legal classification

EU law protects diversity – Implementation at national level

EU-wide regulations

Regulation (EU) No 1143/2014 protects biodiversity against invasive alien species. Species on the Union list that are considered particularly problematic may not be introduced, kept, sold or released. Member States must detect invasive species at an early stage, prevent their spread and control existing populations in order to avoid ecological, health and economic damage.



1

Legal situation in Germany

In Germany, there is no uniform nationwide regulation regarding nutria control. The legal framework consists of the following provisions:

- Federal Hunting Act (BJagdG): A framework law for hunting, which leaves the details to the state hunting laws.
- State hunting laws: In many federal states, the coypu is listed as a huntable species and is therefore subject to hunting seasons and closed seasons. However, this is not the case nationwide – some states lack corresponding regulations. Furthermore, the requirements may change at any time due to the continued spread of the coypu.

Recommendation: Before starting coypu control measures, the current local legal provisions must be checked.

1

New, structurally diverse reedbed at the Bienener Altrhein in 2021 after the removal of the coypu.

Specific regulations in North Rhine-Westphalia (NRW)

In NRW, the coypu is not subject to hunting legislation. A certificate of competence is required for trapping and killing them.

- General species protection (Section 39 of the Federal Nature Conservation Act (BNatSchG)):

The killing of wild animals is generally prohibited. Exceptions apply where there is a reasonable justification, for example to prevent significant damage to water management infrastructure or agriculture, or to protect native fauna and flora (see Section 4 of the Federal Species Protection Ordinance (BArtSchV)).

- For hunters:

With a hunting licence and hunting permit, coypu may be killed as part of hunting activities (Decree of the Ministry of Agriculture and Consumer Protection (MLV) NRW dated 27 December 2022).

- For non-hunters:

A certificate of competence (confirmed by the veterinary authority) and, where applicable, a firearms licence from the police authority are required. In addition, the local authorised hunting representatives should be contacted to avoid conflicts.

Cooperative coordination with the authorities and compliance with animal welfare and species conservation regulations are essential.

Muskrat and coypu control in North Rhine-Westphalia

Until 1999, muskrat and coypu control was organised – and in some cases also carried out – by the Chambers of Agriculture (LWK) through their employed muskrat and coypu hunters. In addition, officially appointed muskrat and coypu hunters were active and received a bounty for each animal killed. The legal basis for this was the Muskrat Ordinance, which formed part of the Plant Protection Act. In 2000, this was repealed without replacement and the LWK ceased its muskrat and coypu control activities.

Since then, only a few volunteer muskrat and coypu trappers (with proof of competence), as well as hunters with authorisation from the authorities, have remained active. Since 2008 (updated in 2022), hunters have been permitted, under a decree issued by the Ministry of Agriculture and Consumer Protection (MLV) of NRW, to kill coypu by shooting them as part of authorised hunting activities. Water and land associations/dyke associations currently pay varying bounties per coypu.

2

The raccoon [*Procyon lotor*] was introduced from North America. As an intelligent, adaptable species that has adapted to human settlements, it can have a significant impact on native bird, bat and amphibian populations through predation and competition.

3

The Himalayan balsam [*Impatiens glandulifera*] was introduced from Asia and is now overrunning the natural riparian vegetation in many stream valleys.



2



3

Invasive species – The underestimated threat

Facts & Figures

- ① Non-native species are introduced into new regions as a result of human activity. Only a few species are able to establish themselves permanently. Most cause no problems, but some become invasive: they displace native species, destroy their habitats, transmit diseases or modify the gene pool. Central Europe has historically been less affected, but global warming is increasing the risk. Invasive species can also cause economic and health problems.
- ① In Germany, 181 out of 2,249 non-native species are classified as invasive.
- ① Legal regulations in Germany and the EU are designed to protect biodiversity. The strategies follow the precautionary principle: preventing introduction, halting spread at an early stage and mitigating the impacts of existing species.
- ① Non-native invasive species are the fifth-largest driver of biodiversity loss worldwide. Furthermore, in 2019 they caused at least US\$423 billion in damage globally (IPBES 2023). In Europe alone, the figure was around €116 billion in 2020 (HAUBROCK et al. 2021).

Coypu control methods

Before the hunt –

Area, strategy, trap locations

Successful and sustainable coypu trapping begins with detailed planning. The aim is to systematically map trapping areas, develop suitable trapping strategies and place traps in the most promising locations.



1



1



1



1

1

Typical feeding marks, droppings and tracks of coypu.

2

Coypu burrows in the riverbank.

3

Typical coypu trails.

Area analysis –

The basis for solid planning

Overview

To begin with, maps, aerial photographs and GIS applications (e.g. QGIS, WMS map services) should be analysed. In particular should be recorded: the course of watercourses and the length of their banks in kilometres, bottle-necks and migration corridors, bank slopes and potential colony sites, cover structures, and connections between watercourses.



2

Permits and Consultations

Before catching activities begin, the necessary permits must be obtained and the relevant authorities must be consulted. These include, in particular, exemptions under nature conservation, wildlife and hunting legislation, the consent of those authorised to hunt, and consultation with the local nature conservation and hunting authorities, water and soil management associations, dyke associations and site managers in protected areas (e.g. biological stations). Informing local residents at an early stage increases acceptance of the measures.

Field survey

During the initial survey, signs of feeding, track impressions, droppings, burrows and current and potential colony sites are recorded and documented on a map.

Practical tips

To estimate staffing, time and material requirements, it is advisable to measure the work area in km of shoreline. In the LIFE project, around 52 km of watercourse banks and 10 km of ditches were monitored throughout the year. Avoid longer breaks in trapping to prevent recolonisation. If trapping effort has to be reduced, a trapping zone that has already been cleared should, in view of the approximately 130-day gestation period, be trapped again within 80–100 days for a minimum of four weeks.



3



3

Developing a trapping strategy – targeted and systematically

Systematically clear trapping zones

Trapping zones are defined on the basis of the area analysis. A concentric approach has proven effective:

- Set up the first traps in the centre or at existing colonies, as well as along migration corridors,
- clear the trapping zone completely,
- leave one monitoring trap in the area,
- move the remaining traps to the next trapping zone,
- gradually expand the trapping area outwards.

Areas that have been cleared must continue to be monitored. To achieve this, individual traps should remain permanently active at particularly successful locations, known migration routes should be checked regularly, and camera traps should be used to monitor activity.

Take water levels into account

Fluctuating water levels have a significant impact on migration patterns. During high water in particular, new migration corridors form, burrows are flooded and migration activity increases. Where necessary, these areas should be incorporated into the trapping strategy at short notice.



Choosing the right trap locations – basis for successful trapping

Optimal Placement and Maintenance

The location of the trap is crucial to the success of trapping. Suitable areas are those near colonies and migration routes, in particular small headlands, flat or open banks, landing sites and areas with plenty of cover. Signs of feeding, footprints and droppings are indicators of suitable locations.

The traps should be placed immediately beside the water's edge, easily accessible to coypu (Motto: 'Smooth passage – smooth catch') and as inconspicuously as possible. Short distances for inspection and minimal disturbance to sensitive areas should also be taken into account. A wind direction blowing from land towards the water is favourable, so that the smell of the bait is carried across the water. In areas with variable water levels, floating rafts have proved effective.



- 1 Prepare the trapping site on land well.
- 2 Trap placed on a floating platform in the reed bed.
- 3 With clever positioning, two traps can be operated using one single trap alarm.

Test the site in advance

Before trapping, it is advisable to carry out a one- or two-week baiting phase using carrots. The bait should be checked every one or two days and replenished if necessary. Wildlife cameras make it easier to evaluate activity, population size and age structure, and help with site selection.

Multiple traps at colony sites

At colony sites or where there is a high density of coypu, several traps should be deployed simultaneously. This allows multiple animals to be trapped at the same time, enables colonies to be cleared more quickly and ensures staff are deployed more efficiently.

Baiting

Carrots have proven to be a reliable standard bait.



- 4 Carrots have proved effective as bait.
- 5 Ideal trap site at a colony, with feeding signs in the reed bed and clearly visible animal runs (AI-generated).



Practical tips

Fruit (e.g. apples) should be avoided where possible, as fruit acids corrode galvanised metal parts. To make the bait more effective, it is advisable to slice carrots lengthways into thin slices. They do not roll away, stay on the raft and in the trap more effectively, and release more smell due to their larger surface.

Regularly closing and resetting all traps is time-consuming and reduces the effective trapping time. Where logistically possible, it is therefore advisable to carry out trapping operations throughout the year.

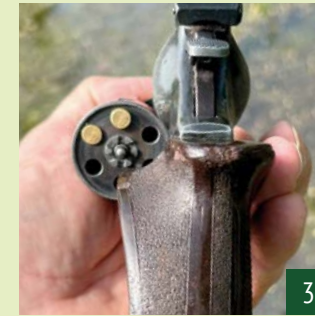


1

- 1 Catch alert in the trap Alert app.
- 2 Killing shot in a dispatch cage, on soft ground and with protective equipment.
- 3 Load the gun with two bullets just before firing. The CCI Copper-22 LR bullet with 217 joules has proven effective.

After trapping – Catch shot, safety, documentation

Once the animal has been captured, the priority is on handling it in accordance with animal welfare principles, removing and killing it quickly, ensuring the safety of those involved, and documentation. The data collected provides the basis for evaluating and optimising the trapping strategy.



3



3



2

Safe removal – Minimising suffering

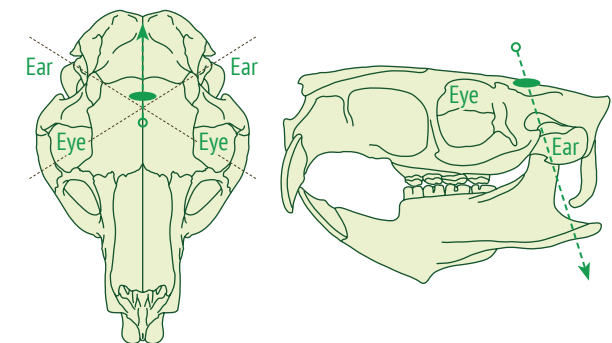
When removing and killing coypu, the local regulations governing animal welfare, firearms and hunting, as well as the safety regulations, must be observed:

- Transport the firearm only when unloaded.
- Wear appropriate personal protective equipment (hearing protection, a face shield with visor, and gloves).
- Kill the coypu in a dispatch cage in accordance with animal welfare standards immediately after removal.
- When firing the killing shot, place the dispatch cage on soft, natural ground to ensure the bullet is safely absorbed.
- Hits to the cage mesh may cause bullet fragments or ricochets. Therefore, wear protective equipment and keep unprotected persons out of the danger zone.
- Unload the firearm after firing.

Practical tip – The killing shot: painless and safe

A correctly placed killing shot to the head (above the centre of an imaginary cross between the eyes and ears) immediately causes loss of consciousness, breathing and heart function, and ensures a quick death in accordance with animal welfare principles.

A .22 LR caliber revolver with a projectile energy of at least 200 joules has proven effective. The weapon should be loaded with at least two bullets so that a follow-up shot can be fired immediately if necessary. As coypu are usually caught near waters, lead-free ammunition should be used to protect water bodies. Regular shooting practice and safe handling of the weapon are essential for a safe killing shot.



Firing position – top view

Trajectory of the bullet – side view



After the catch – is before the catch

Preparing the trap for the next catch

After removing the animal, the trap should be made ready for immediate reuse. This includes cleaning the trap, checking that it functions correctly (particularly the trigger), rebaiting, resetting it for capture, and removing any obstructions around the trap that may interfere with trapping.

Recording catch data and documentation

Comprehensive documentation simplifies the organisation of trap management, enables the assessment of trapping success and supports the optimisation of the trapping strategy. A catch log should be kept for each trap location.

- 1 Preparing for the next catch: Replace the bait and keep the access clear.
- 2 Documentation: Determine weight, record data, catch table.

Status	Period	Recommendation
green	Days 1–5	Bait sufficiently attractive
yellow	Days 6–14	Check the bait
red	After day 14	Replace the bait

3

When using digital trap alert systems, some data can be recorded directly in the associated app. The following details, in particular, must be documented:

- Date and time of trigger and inspection
- Coypu caught (Yes/No)

If a coypu is caught:

- Weight (age class; over 2 kg = adult)
- Sex

If the trap is empty:

- Presumed reason for triggering (if ascertainable)

In the case of by-catch:

- Species and any notable characteristics

Additional information:

- Visible external injuries and possible cause
- Technical damage to the trap or raft
- Site-specific observations (e.g. water level, limited accessibility)

Replace the bait regularly

If you have a large number of traps, a clear Excel spreadsheet with colour-coding makes it easier to plan when to change the bait [3](#).



1

Coypu meat is a natural, species-appropriate, and high-quality food source for carnivorous mammals in zoos and wildlife parks, as well as for scavengers in the wild.

2

Coypu meat and pelts can also be used for human consumption and for the production of clothing.

Utilisation – Death supports Life

Utilising hunted coypu as fully and meaningfully as possible is in line with the principles of sustainable wildlife management. At the same time, there should be no market demand that encourages the long-term exploitation of the population. The primary objective remains the complete eradication of this invasive species.

Coypu can be used in zoos or wildlife parks as natural food for carnivorous wildlife (e.g. lynx, wolves, bears or birds of prey).

Coypu carcasses are biodiversity hotspots and important components of natural nutrient cycles. Following consultation with the relevant veterinary authority, coypu may be left in suitable locations within the area to serve as a food source for numerous scavengers such as birds of prey, carnivorous mammals, insects and other decomposers. Where legally permissible, this form of utilisation can offer ecological benefits.

Coypu meat is lean, low in cholesterol and versatile. Since June 2020, trichina testing has no longer been mandatory in Germany. However, the local applicable food hygiene regulations must still be observed.

Coypu fur has a dense, soft undercoat and are used for warm clothing, blankets and accessories.



1



1



2



2

Equipment

The trapping system – trap, dispatch cage, raft and trap alarm

The box trap used in the project is a design developed specifically for the animal-friendly live capture of coypu. Its construction, the adapted trap opening and its use on floating rafts significantly reduce by-catch. In areas inhabited by beavers, two threaded rods can be fitted in front of the trap opening to act as a beaver barrier. The trap consists of durable black PE panels with corrosion-resistant metal components; it is accessible from both sides, fully enclosed and features an aluminium inspection grid, a safety lock and clear identifying markings. Weighting around 16 kg, it is easy to transport.

A detailed description of the trap and the raft is available for download:

lebendige-roehrichte.de/service/downloads-offener-bereich



Further suitable trap models are also available from specialist retailers, of which two were also tested in the project and proved to be effective.



Name	NZ-Kleve trap	'Trapper-Neozoen' pipe trap	Invasiv Neo/Fallenfuchs
Material	Plastic (PE-HD PE 300), galvanised metal and V2A, aluminium	galvanised steel pipe, linkage made of V2A	galvanised steel, plastic base
Trap design	Box	Pipe	Box
Trigger mechanism	Step plate with rounded corners	Tilting mechanism	Movable rear panel
Weight	16 kg	106 cm: 15 kg / 150 cm: 19 kg	121 cm: 28 kg / 176 cm: 38 kg
Dimensions (L × B × H)	90.0 × 29.6 × 30.0 cm	106.0/150.0 × 36.0 × 63.0 cm	121.0 × 33.0 × 42.0 cm 176.0 × 33.0 × 42.0 cm
Length trap chamber	87.0 cm	104.0 / 148.0 cm	74.0 / 130.0 cm
Manufacturer	Fokkink M.B. Europaweg 33 NL-7137 HN Lievelede Tel. +31 54 4 / 48 88 54 info@fokkinkmb.nl fokkinkmb.nl	Trapper Profi, Raiffeisen Warengenossenschaft Osnabrücker Land eG Schomäckerstraße 4 D-49324 Melle Tel. +49 54 22 / 92 29 54 jagd@rwo-raiffeisen.de trapperprofi.de	Fallenfuchs, Christian Marklewitz & Frank Benka GbR Am Honigshuck 7 D-47506 Neukirchen-Vluyn Tel. +49 28 45 / 98 09 80 8 info@fallenfuchs.de fallenfuchs.com/de

1

Trap with a threaded rod as a beaver barrier



2

Dispatch cages (left new, right after 800 shots)



Infobox

① Another plastic coypu trap, which has not yet been tested, is available from:

Firma Jagdfallen Steingraf,
Berliner Straße 32, D-15378 Hennickendorf,
Tel. +49 33 43 4 / 80 14 00,
shop@jagdfallen.eu



3



3



4



5

Dispatch cage

A wire mesh dispatch cage (26 × 26 × 54 cm, mesh size 2 cm, wire thickness 1.5 mm) is used to ensure humane killing. Due to the strain caused by the capture shot, it should be replaced after approximately 800 shots.

Raft

The floating raft consists of two PE-HD panels with a Styrodur filling and is securely anchored to the water using wire ropes or chains. It ensures that the trap remains securely in position even when water levels fluctuate.

Trap alarms

Automatic trap alarm systems such as Minkpolice (minkpolice.com) or Trapmaster (fallenmelder.de) have proven their worth. They report trigger events and system status via mobile network, significantly reducing the need for inspections.

Weapons and ammunition

A .22 lr calibre revolver with lead-free ammunition has proved effective for the capture shot. For group driven hunts or hunting from a hide, a shotgun or rifle may also be required. Safe storage and transport of firearms require a Class 1 gun safe, a lockable gun case and a holster.

Vehicle

An off-road van with a tow bar, and if necessary an ATV/quad bike, a box trailer and a transport trolley with a hip belt facilitate the transport of equipment and the management of traps.

Boat

In areas that are difficult to access, a boat with the appropriate equipment (paddle or electric motor, life jackets, waterproof container, rope and anchor) makes it easier to place and check traps, as well as to search for tracks.

Practical tips

To prevent condensation, batteries should not be replaced whilst out in the field wherever possible. Energizer Ultimate Lithium batteries have proven their worth in long-term use. Silica gel sachets, regular drying and maintaining the seals with silicone grease will help to keep them in good working order.



6



7

3

Raft viewed from above and from the side, with a Styrodur panel sandwiched between textured PE panels.

4

MP-X trap detector from Minkpolice. In continuous operation for 2 years, without a battery change.

5

Back-friendly transport of a trap across rough terrain using a pilgrim's/backpack trolley.

6

Van with trailer and boat with accessories.

7

Basic equipment including a first-aid kit, work gloves, water, as well as face and hearing protection, wading/rubber boots and a gun case.

Basic equipment

The basic kit includes, in particular:

- Mobile phone for trap alarm notifications and documentation
- Transport aids (backpack, load carrier, handcart, tubs, buckets, lashing straps, 120-litre plastic bags)
- Wading stick (versatile for use in the field!)
- Tools (including a luggage scale, multi-tool, pliers, measuring tape, cordless drill, small parts)
- Field equipment (spade, sledgehammer, pruning shears, folding saw, brush cutter)
- Carrots for baiting and a vegetable slicer
- Protective equipment (face and ear protection, gloves, waders)
- First-aid kit and water for cleaning

Additional equipment

Recommended items include knives, binoculars, a hand brush, a refrigerator for bait and a freezer for coypu carcasses, and information leaflets for local residents and passers-by.

Useful additions

A vacuum sealer makes it easier to store coypu meat (in compliance with all hygiene regulations). In addition, a tracking dog trained to detect coypu can assist with trapping operations.



1 Secure storage of firearms and ammunition in a Class 1 gun safe.

2 A holster can be useful for carrying an unloaded firearm in difficult terrain.

3 A load carrier is helpful in very rough terrain.

4 Trap on a floating raft with heat protection.

5 Once the coypu have been removed, common reed is able to recolonise low-water areas through the spread of rhizomes.

6 A new shoot develops at each node along the rhizome.

Practical tips

All small items of equipment used in or around water should be waterproof and secured against loss, e.g. using a coiled cable with a carabiner.

Some items should be available in duplicate, as the traps are usually attended by two people. The wading stick is the most versatile and frequently used piece of equipment and is easy to make yourself.



Effort and costs

Invasive species come at a cost – Doing nothing ends up costing more!

Using the methodology described, a total area of approximately 3,000 ha was kept largely free of coypu between 2019 and 2026. From the second year of trapping onwards, 86 per cent of the coypu caught were captured almost exclusively along the migration routes surrounding the actual core area of 650 ha. Over six years, out of an average of 183 coypu caught per year, only 25 animals (14 %) made it into the core area. This was particularly the case following periods of flooding, or after the annual two-week trapping break over Christmas and New Year's. Thanks to the traps remaining in the core area, these animals were always removed within a few weeks.

The permanently monitored areas amount to a total of 239 ha for the larger bodies of water, with a shoreline length of 52.1 km, and ditches with a total length of 10.2 km (total: 62.3 km).



1

Coypu control also includes all related tasks:

- Managing approx. 25 traps simultaneously, including trap checks and bait renewal at least every 12–14 days
- Regular area patrols/tracking
- Recovery and disposal/recycling of carcasses
- Documentation
- Repairs/maintenance and further development of traps (beaver barriers, sun/heat protection, etc.)
- Maintenance of vehicles, firearms and trap alarms (including battery replacement)
- Purchases: ammunition, bait, various consumables
- Population monitoring using camera traps (installation/removal, replacement of storage media and batteries, analysis and documentation of photographs)
- Maintaining contact with the local hunting community, including the annually scheduled control hunt



2

1

Keeping in contact and exchanging information with the local hunting community following the joint control hunt.

2

On-site consultations on coypu control.

The following employer responsibilities are not included:

- firearms-related applications/permits (including police shooting permits, exemption permits for the capture and killing of coypu, hunting permits with all hunting ground owners, leaseholders, etc.)
- Administrative tasks, bookkeeping, payroll accounting, etc.

Coypu control was carried out by one full-time professional hunter and a second hunter employed on a part-time basis. Per working day, approximately 60 km were covered by car and 10 km on foot. The staff costs for coypu control averaged 51.500,00 € per year over the period 2019–2025. Due to wage increases in recent years, the figure must currently be assumed to be approximately 65.000,00 € per year.

Cost overview	€/year
Staff	65.000,00 €
Material costs	3.500,00 €
Vehicle (including purchase, tax/insurance, repairs, etc.)	5.700,00 €
Trailer	500,00 €
Operating costs	
Bait (Carrots)	300,00 €
Ammunition	100,00 €
Miscellaneous	500,00 €
Total	75.600,00 €

Look to the future



Climate Change – The coypu benefits

As global warming progresses, the distribution area of the nutria in Germany and Europe is expected to expand further. This is indicated, amongst other things, by rising hunting figures in Lower Saxony and North Rhine-Westphalia, as well as by the declining number of days with a maximum daily temperature $\leq 0^\circ\text{C}$ [2].

Experience over recent decades has shown that effective population control, involving a significant reduction in numbers, can hardly be achieved through capture bounties alone. Such schemes tend to encourage the continued exploitation of the population. Result-oriented incentive schemes linked to the verification of coypu-free stretches of water – for example, through test catches, inspection walks or eDNA analyses – could be more effective.

Given the impact of coypu on flood protection, agriculture, water bodies, biodiversity and species and habitat conservation, their control is a responsibility shared by society as a whole. Accordingly, the funding should also be shared by multiple stakeholders.

The Netherlands demonstrates that professional, area-wide coypu control is possible. The country is largely free of coypu and captures 95 per cent of all coypu in the border area with Germany.

Look to the future – Management of invasive species

The ongoing LIFE project „LIFE SMART IAS“ brings together partners from Germany, the Netherlands, and Belgium to develop an integrated management system for invasive species such as nutria and muskrat. It is based on four key components:

- Advancement of eDNA monitoring: Environmental DNA from water samples enables the detection of animals and estimates of population size – even for small populations.
- Development of AI-supported live traps: Cameras and artificial intelligence identify target species and reduce by-catch of protected species.
- Establishment of a digital platform: brings together monitoring and trapping data to improve information exchange and cross-border cooperation.

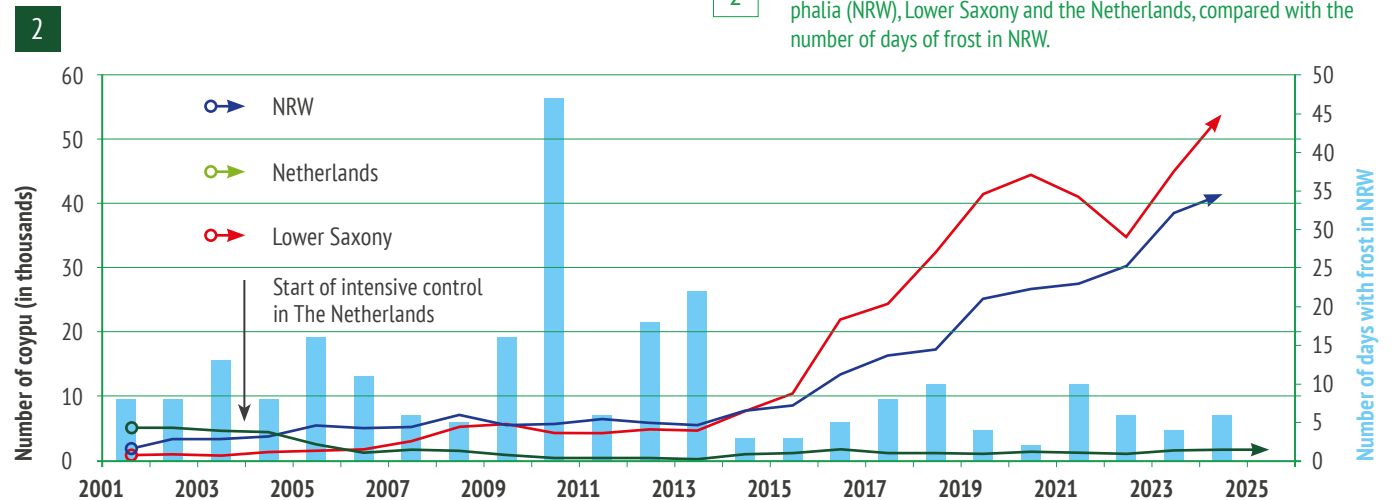


→ Development of apps and decision-making tools: Standardising data collection and optimising operational planning and control measures.

The aim is to achieve more effective, selective and cost-efficient management of invasive species. In addition, a network will be established involving public authorities, water and land management associations, and the hunting community. A training course on the practical skills required for trapping, with a focus on coypu control, is also being developed.

1 Setup of a dummy trap, which is used to take training photos for the AI, enabling the smart live trap to selectively catch targeted species and avoid by-catch and unnecessary animal suffering.

2 Annual development of coypu hunting figures in North Rhine-Westphalia (NRW), Lower Saxony and the Netherlands, compared with the number of days of frost in NRW.



Public relations

Transparency and public awareness – strategic and communicative

As part of the LIFE project, a communication strategy was developed and implemented. Although the risk of negative public debate regarding the culling of coypu in rural areas was considered relatively low, proactive and continuous public communication was regarded as a key factor for success. The aim was to inform the stakeholders involved, the regional public and nature conservation organisations at an early stage and in a transparent manner about the objectives, background and measures of the management programme.

Communication took place via various channels, including press relations, field excursions and regularly held presentations at government offices, public events and local association meetings. An accompanying socio-economic study showed that, thanks to this intensive public relations work, the project became well established in the region and, overall, met with a high level of acceptance amongst the population.

The experience gained from the project highlights that early, transparent and scientifically sound communication is an essential component of management projects involving lethal measures. The experience gained from the project highlights that early, transparent and scientifically sound communication is an essential component of management projects involving lethal measures. Continuous public engagement helps to create understanding of the necessity of the measures, build trust and promote societal acceptance of the management approach.

1

A field trip to the new reed bed and its inhabitants.

2

Workshop on coypu control.



The website with all project details:
lebendige-roehrichte.de

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