

Rat Control & Water Vole Conservation



Sussex
Wildlife Trust

Why are water voles important?

Water Voles were once a common sight in Sussex but they have declined by over 90% in the last 30 years. Water voles have already become extinct from large areas of Britain and Sussex, making them one of the fastest declining mammal species in the UK.

Their decline has been caused by many factors including habitat destruction and fragmentation, drainage, the introduction of the American mink, the mechanisation of ditch clearance and the intensification of farming (particularly sheep).

Some of our last remaining water voles were exterminated through rat control. **Poorly managed pest control can cause the destruction of colonies of water vole, which are fully protected by law.**



This advice sheet explains how to control pests without damaging water voles.

How does pest control affect water voles?

The water voles common name is the 'Water rat'. This and their large size means that they are commonly mistaken and accidentally destroyed as rats. Damage to water voles can also occur when rat control methods are used carelessly. If carried out within guidelines, rat control can benefit water voles, as adult rats have been known to predate on young water voles. However, there are specific 'safety checks' which you can make to ensure that only rats and not water voles are poisoned.



When consulting your local pest control or extermination officer, check that they know the difference between water voles and rats, and that they know the correct safety procedures to follow if water voles are present (see information below).

Rat Control & Water Vole Conservation

Signs of Water Voles

Most mammals leave what we call 'field signs' behind them when they are active in an area. Looking for these field signs is often easier than trying to see the animal itself. Droppings and feeding signs are the easiest things to look out for with water voles.



Water voles often leave piles of vegetation at the edge of the water, distinctively cut at a 45° angle at each end, and between 4 – 10 cm long.



Water vole latrine on a branch © Wildlife Trusts

Piles of droppings or 'latrines' are a good sign of water vole presence. They leave them in strategic locations around their territories. Droppings are tic-tac sized, have minimal smell, and contain pasty, grassy material only



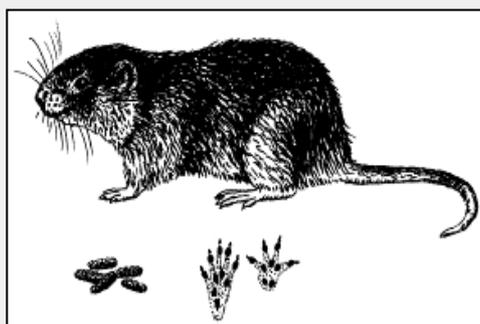
Water Vole burrows © Wildlife Trusts

(If handling animal droppings, be aware of Leptospirosis, a disease transported by rats in water).

Water voles have a network of burrow holes. Holes are 4-10 cm wide and flattened oval shape. There are usually a series of holes adjacent to the water, under the water and into the top of the bank. Water vole holes are cleaner than rat holes, and they rarely have a fan of spoil outside them like rats. Rats usually only have one or two holes, where water voles will have a number of them. It is difficult to tell the difference between rat and water vole footprints.

If all else fails, Sussex Wildlife Trust are occasionally able to loan motion sensor infra red cameras to local community groups to see if they can acquire footage or photos of animals. Call 01273 492630 for more details.

Differences between water voles and rats



Water vole
© Tim Bernhard



Water Vole
© C Burdon

Rat Control & Water Vole Conservation

Differences between water voles and rats



Rat © T Bernhard



Brown rat feeding at a bird table © Sussex Wildlife Trust

The following will help you tell the difference between water voles and rats:-

FEATURE	WATER VOLE (<i>Arvicola amphibious</i>)	BROWN RAT (<i>Rattus norvegicus</i>)
Colour	Usually chestnut brown	Grey or brown with paler underside
Size	Adults up to 11 inches long	Adults over 11 inches long
Weight	Up to 360g (young 60g)	Up to 500g
Ears	Hidden in fur and barely visible	Easily visible
Nose	Blunt/rounded	Pointed
Tail	Hairy	Appears scaly & hairless
Teeth	Obviously orange	Yellowish white
Footprints	Not a reliable guide. Slightly smaller than rat (Up to 42mm). Rear toes on fore paw spread slightly further than rat.	Not a reliable guide. Slightly larger than water vole (up to 44mm long)
Burrows	4-8cm diameter. Usually there are a network of burrows at and around water's edge or up to 3m into bank. Holes are neat	8-10cm diameter. Usually only one or two burrows, may occur well away from water and usually have a spoil heap outside entrance
Paths	Usually one main track along water's edge. Paths rarely stray from water and are normally concealed in vegetation	Usually a network of well trampled paths connecting all burrows. Paths may lead across open land away from water
Behaviour	Rarely more than one individual seen. Shy and tends to stay near water/hidden	Gregarious. Often found eating bird food or in exposed locations. Sometimes swarm.
Activity	Active every few hours day and night	Largely nocturnal but can be seen any time of day
Feeding	Generally feeds only on green wetland plants	Will feed on any food available and particularly chicken feed
Feeding remains	Leaves piles of vegetation cut at 45° angle between 4-10cm long	May leave remains of whatever it is eating
Droppings	Between spring and autumn, droppings left in obvious piles called latrines. Droppings are 5-10mm long, 'tic tac' shaped and rounded at each end. Putty like/grassy texture and smell. Usually dark green or brown and obviously fibrous	One or several droppings left scattered around paths. Droppings are 12-15mm long with a point at one end. Slimy/smooth, usually black and unpleasant smelling
Conservation status	Endangered - extinct in some areas	Extremely common

Rat Control & Water Vole Conservation

Water Voles and the law

From April 2008, under Section 9 of the Act, the Water vole was given full legal protection which added prohibitions against accidental and intentional killing, taking or injury, possession and sale of water voles. The law now no longer considers it defensible to use the ignorance of water vole presence as a reason to harm them.

You should check for water vole presence and make efforts to show that you have looked for them prior to carrying out pest control. You may be required by Natural England to provide proof of this and of any mitigation measures you have put in place to prevent damage to water vole populations. Licences for water vole mitigation and disturbance can be found at www.gov.uk/government/collections/water-vole-licences

How do I control rats / pests when water voles are present?

- Always check for water voles before carrying out pest control along a waterway. Your local Biodiversity Records Centre can tell you if they know of any records of water voles in your area www.sxbrc.org.uk
- If identification is in doubt seek or seek professional advice. Our Wildcall advice line can help put you in touch with the right people (01273 494777). Sussex Wildlife Trust has staff who can offer free advice. It helps if you can take digital photos of any signs of activity and send them to a local expert.
- Live capture traps are the safest option for rat control where water voles are present. Check traps twice a day to release animals you did not intend to catch. Site traps in the open rather than in dense vegetation to avoid catching water voles. Avoid siting traps at water's edge.
- Break back or snap traps, or Rodenator devices should not be used because they kill indiscriminately.
- Avoid the use of poison gas in burrows as it also kills animals indiscriminately
- Avoid the use of poison bait where water voles occur. Do not place poison inside burrows if not 100% sure that they are rat burrows. It is illegal to block or obstruct water vole burrows.
- Where no alternative is feasible, poison should be covered or enclosed in a bait box. Bait should be placed at least 5m from the water's edge. Avoid the use of poisoned grain or pellets and use wax or soap blocks instead.
- If possible, site the bait off the ground as rats are more likely to climb than water voles.
- Regularly inspect and monitor the control site and remove any poisoned corpses as soon as possible. If dead water voles are found then cease and remove all pest control immediately.
- Please report any water vole sightings to your local Wildlife Trust (www.sussexwt.org.uk)

Rat Control & Water Vole Conservation

Contacts

District and Borough Council Pest Control

Most local District and Borough councils have a pest or vermin control department. Contact your local council for more details.

Wildcall Wildlife Advice Line

01273 494777

wildcall@sussexwt.org.uk

www.sussexwildlifetrust.org.uk/wildlife/index.htm

Sussex Wildlife Trust

www.sussexwt.org.uk

01273 497555

Natural England

0845 600 3078

enquiries.southeast@naturalengland.org.uk
www.naturalengland.org.uk/regions/southeast/contacts.

Environment Agency

Ask for Fisheries & Biodiversity teams

03708 506506

www.environment-agency.gov.uk

Sussex Biodiversity Record Centre

(01273) 492630

www.sxbrc.org.uk

References & Further Reading

- **R. Strachan & D. Jefferies Jan 1993:** The Water Vole in Britain 1989-1990; It's Distribution & Changing Status
- **R. Strachan (Jan 2006):** The Water Vole Conservation Handbook
- **Stephanie Rhode Rider (1962):** Water Voles (Animals of Britain, Series 4)
- Rentokil water vole guide – www.rentokil.co.uk/pest-guides/mice-rats-rodents/water-voles/
- **Lancashire Wildlife Trust:** Know Your Vole www.lancswt.org.uk/uploads/Watervolesandratcontrol.pdf



Water vole © P Stevens