



An identification guide to the
Carnivores
of Cornwall and the Isles of Scilly

Celebrating Cornwall's Mammals - from dormice to dolphins!

A Guide to the Carnivores of Cornwall and the Isles of Scilly

Contents

| | | Page |
|---|---------------------|------|
| | Introduction | 1 |
|  | Red Fox | 2 |
|  | Badger | 4 |
|  | Otter | 6 |
|  | American Mink | 8 |
|  | Stoat | 10 |
|  | Weasel | 12 |
|  | Footprints | 14 |
|  | Droppings | 15 |
| | Further information | 16 |
| | Further reading | 17 |

Introduction

Carnivores (meat eaters) evolved 58 million years ago. There are six species of Carnivore found in Cornwall; these are Red Fox *Vulpes vulpes*, Badger *Meles meles*, Stoat *Mustela erminea*, Weasel *Mustela nivalis*, American Mink *Mustela vison* and Otter *Lutra lutra*. None of the Carnivore species are found on the Isles of Scilly.

Apart from being adored by many for their cute and fluffy appearance and immense character, carnivores occupy the top of the food chain and therefore play an important role in controlling other populations lower down the food chain. Carnivores can also be indicators of good habitat and are part of our natural heritage.

The primary purpose of producing this guide is to assist in the recognition of the Carnivore species and their tracks and signs, and to encourage their recording. The guide is divided into sections for each species, each one giving clear illustrations of the mammal, there is also a section on their tracks and signs at the end of the guide.

A simple recording form is included with the pack to aid recording. All you have to do is record **what** carnivore species you see, **where** and **when** you see them, and **who** you are.

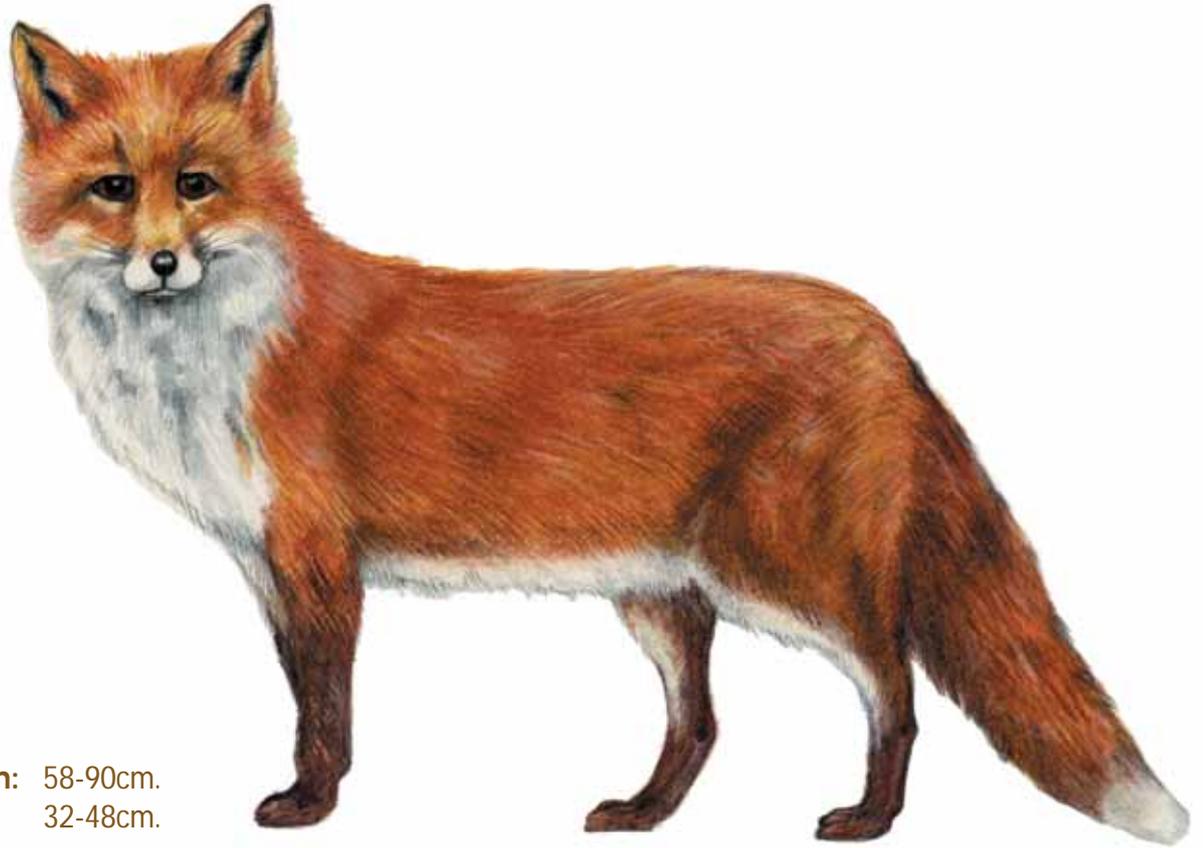
The recording form can be photocopied and taken into the field with you. Further copies can be obtained from the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS) or downloaded from our website www.ercis.co.uk. All completed recording forms should be sent to ERCCIS (address given below).

By recording when and where we see our Carnivore species we can monitor their distributions and gain a greater understanding of their populations and status within the County. This information will enable us to work towards conserving them.

We hope *A Guide to the Carnivores of Cornwall and the Isles of Scilly* will help you to find, recognise, record and enjoy the Carnivores found throughout Cornwall.

**Alex Howie, Mammal's Project Co-ordinator, ERCCIS,
Five Acres, Allet, TRURO, Cornwall, TR4 9DJ**

Red Fox *Vulpes vulpes*



Head - Body length: 58-90cm.

Tail: 32-48cm.

| | |
|------------------|---|
| Colour: | Reddish brown fur, white bib, black tips to ears, black socks on lower legs, tail sometimes has white tip. |
| Habitat: | Found everywhere as easily adaptable and has a varied diet. |
| Home: | Known as an 'Earth' or a 'Den'. Usually has one entrance, mainly used by females to give birth. Female will have two or three earths within territory. Will use old Rabbit holes or disused Badger tunnels. Will find spoil heap outside of entrance with droppings on top. If breeding earth in use, may find feeding remains at entrance to burrow. Strong musky smell surrounds entrance to earth. |
| Food: | Opportunistic and will eat almost anything. Will cache surplus food, each item stored separately. |
| Range: | Great variation with extremes: in agricultural land 200-600 hectares. |
| Activity: | Nocturnal, more diurnal when undisturbed. |
| Breeding: | Mating December-January. Births March-May, one litter per year, four to five cubs in litter. Disperse and independent in Autumn. Food availability determines whether they breed or not, and the litter size. |
| Trails: | Used nightly, along hedges, across meadows, lawns, under fences. Trails not worn down to bare earth. 10cm wide, vegetation disturbed 60cm above ground. |

Badger *Meles meles*



Head - Body length:

65-80cm.

Tail:

Small white tail, 12-24cm.

| | |
|------------------|---|
| Colour: | Coarse grey fur, black underside and legs, white fringes to ears. Black stripe either side of white head covering eye region. You may find some of their hair caught on barbed wire; it feels square-shaped if you rub it between your fingers. |
| Habitat: | Woodlands, pastures, gardens, railway embankments. |
| Home: | Known as a 'Sett'. Three to ten large entrances, □ shape, 30cm diameter maximum. Spoil heaps outside entrance. Tunnels lead to chambers which are lined with bedding e.g. bracken and hay. Discarded bedding often found outside entrances. Badger Setts are found in soil that is easy to dig and free draining, therefore are often found on hillsides. Dry leaves and spider webs in the entrances show they are currently not in use. |
| Food: | Omnivores. Mainly eat earthworms, will also eat insects, berries, fruit, cereals, mice, rats, Hedgehogs, bulbs, bees and wasps nests for honey and larvae, frogs. Eat more vegetation in late summer and autumn, more carnivorous in spring/early summer. |
| Range: | 30-50 hectares in good habitat with plentiful food. 150 hectares elsewhere. |
| Activity: | Nocturnal, most active at dusk and dawn, does not hibernate but has reduced activity during the winter. |
| Breeding: | Mating February-May. Births January-February, one litter per year, one to five cubs in litter, emerge above ground in April-May. |
| Trails: | 24cm wide, 40cm disturbed vegetation above ground. Well used, usually bare ground, lead to latrines, water and feeding sites. |

Otter *Lutra lutra*



Head - Body length:
Tail:

Male 60-90cm, female 59-70cm
36-47cm.



Otter swimming

| | |
|------------------|---|
| Colour: | Brown fur with yellow/white bib. |
| Habitat: | Where there is clean, fresh water and suitable cover - rivers, lakes, canals, marshes and rocky shores (marine). |
| Home: | Known as a 'Holt' - cavity in bank, between tree roots, rock crevices. Entrance may be below water level. Chambers in holt lined with dry vegetation. Will have several holts in territory. Also have 'couches' - area where they lie up - above ground in reed bed and other vegetation. |
| Food: | Mainly fish - favourite food is eel. Occasionally eat birds, frogs, rats, insects, worms, crabs. |
| Range: | Linear, 3-10km at night, up to 40km for a male, 16-22km for a female. |
| Activity: | Mainly nocturnal, diurnal on coast and where undisturbed. |
| Breeding: | All year round, one litter per year or every two years, one to five cubs in litter. Cubs stay with mother for first ten to twelve months. |

American Mink *Mustela vison*



Head - Body length:

37-47cm.

Tail:

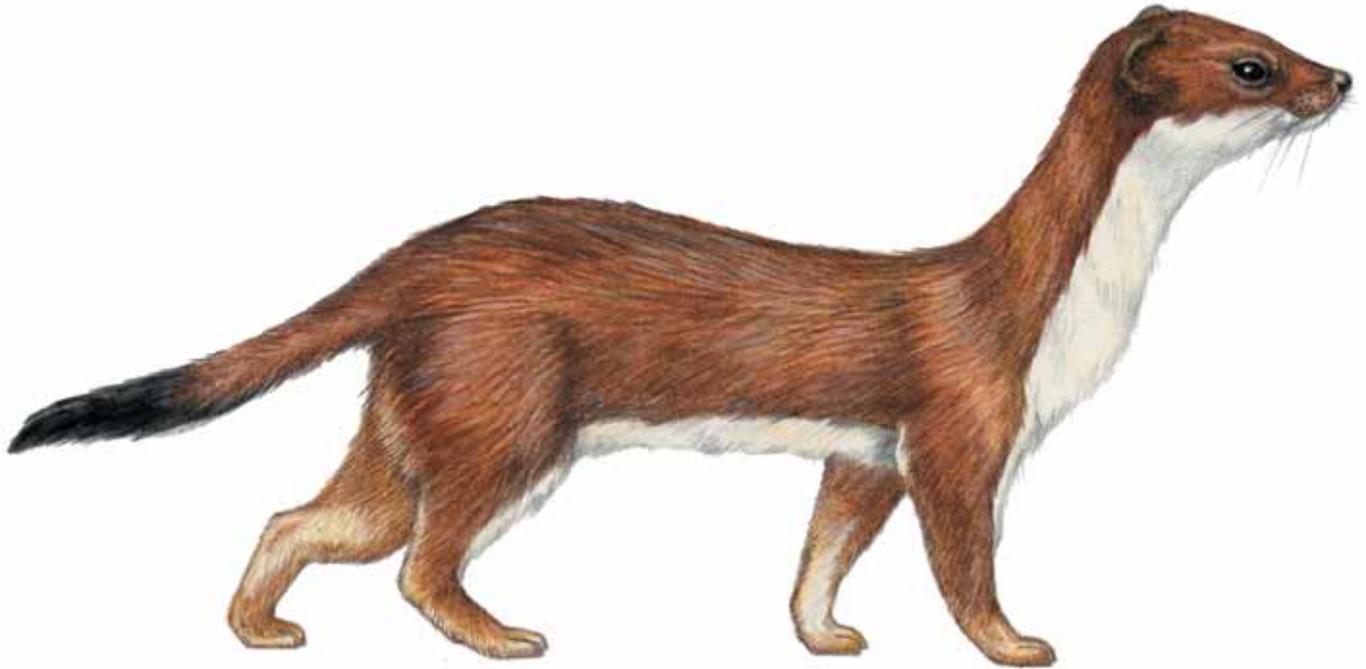
13-23cm, $\frac{1}{2}$ length of body.



Mink swimming

| | |
|------------------|--|
| Colour: | Glossy black/dark brown fur, white chin, throat and underside. |
| Habitat: | Near slow moving water, rivers, lakes, marshes. |
| Home: | Tree roots, stones or hollow tree. Rarely excavates own den because nearly always been kept in captivity. Young born in nest lined with feathers, fur and dry vegetation. Will have a few dens within territory. |
| Food: | Fish, especially eels, small mammals, birds, Rabbits, insects, frogs, Water Voles. Opportunistic. |
| Range: | Mainly along linear features, 1-6km, irregular in marshland 9 hectares. |
| Activity: | Mainly nocturnal, mother diurnal when nursing. Swim and climb well. |
| Breeding: | Mating February-April. Births April-May, one litter per year, five to eight kittens in litter. |

Stoat *Mustela erminea*



Head - Body length: 24-31cm, long sinuous body.
Tail: 9-14cm.

| | |
|------------------|---|
| Colour: | Chestnut brown fur with yellow/white underside - clear line between two colours. Black tip to tail. |
| Habitat: | Found in most habitats that provide cover and food, from shorelines to open moor. |
| Home: | Rock crevices, burrows, tree hollows. |
| Food: | Mainly rodents, Rabbits and birds. Does not like to hunt in the open. Hunts along walls, ditches and hedges and through meadows and marshes in zig zag fashion. Kills prey with quick bite to back of neck. |
| Range: | 2-200 hectares. |
| Activity: | Diurnal. Climbs well. |
| Breeding: | Mating May-June. Births April-May, one litter per year, five to twelve kittens per litter. |

Weasel *Mustela nivalis*



Head - Body length:

17-31cm. Smaller more cylindrical body than Stoat.

Tail:

3-5cm.

| | |
|------------------|--|
| Colour: | Chestnut brown fur on top, white underneath, wavy line between two colours. |
| Habitat: | Found in most habitats where there is food and cover including sand dunes, woodland, grassland. Less common on moorland than Stoats, avoids damp ground. |
| Home: | Nests in old mouse or vole burrows, lined with hay and moss. |
| Food: | Mainly rodents, sometimes Rabbits, birds (and eggs). Weasels are small enough to hunt down the burrows of their prey. |
| Range: | 1-25 hectares. In one night can travel up to 2km. |
| Activity: | Diurnal. Agile climbers, good swimmers. |
| Breeding: | Mating in spring and summer, first litter April/May, second July-August if plenty of food around. One or two litters per year. Four-six kittens in litter. |

Footprints

Red Fox ▼

5cm long, 3-4cm wide.
Four toe pads, four pin
pricks from claws. The two
central claws often imprint
closer together than those
of a dog.



Badger ▲

5cm long, 4cm wide.
Five toe pads, close together
almost in a row, claw marks
clearly seen. Large kidney
shaped central pad.

Otter ▼

6-7cm long, width variable. Five toe
pads, wide spread- sometimes see
webbing and claws in soft mud.
Central pad more elongate than
Badger.



Actual size



Cat

Weasel ►

1.3cm long, 1cm
wide. Five toe pads,
no claw marks.



◀ Stoat

2cm long, 1.5cm wide,
hind 3.5cm by 1.3cm.
Five toe pads, small claw
marks joined to pads.



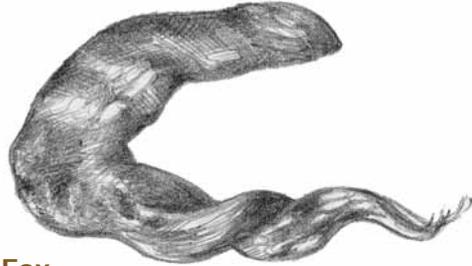
◀ American Mink

2.5-4cm long, 2-4cm wide. Five toe
pads, may see
webbing in soft mud, toe pads and claws often print
together to form tear shape. Splayed star shape.

Dog



Droppings



Red Fox

10cm long, 2cm wide. Known as a 'Scat'. Strong musky smell when fresh, tapered at one end, spirally twisted. Contain fur, feathers, insect remains and broken up bones. Deposited on prominent places to mark territory. Sometimes left at entrance to rabbit warren to indicated feeding ground. In the autumn droppings contain more berries and fruits, especially plums and blackberries.



Weasel

3-6cm long, 1cm wide. Known as 'Scats' - very twisted and curled, longer than Stoat, dark with strong musky smell when fresh, contain fur.



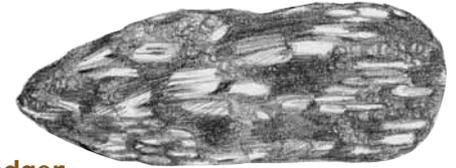
Stoat

4-8cm long, 0.5cm wide. Twisted all the way along with twisted fur at ends. Contains fur, feathers and bone fragments. Found on walls, stones and paths regularly used by animal.



Otter

3-10cm long. Known as 'Spraint', sweet smelling - like jasmine tea. Contains fish bones, scales, and vertebrae. Deposited on prominent places - logs, stones, at intervals along waters edge and where it gets in and out of water, outside holts, ledges under bridges. Tarry black when fresh, turns grey and ash-like with age.



Badger

Size is variable. Droppings deposited in regularly used small shallow pits called latrines which mark the perimeter of territory. Droppings can contain fur, bones, seeds (especially blackberry) and beetle remains. Consistency depends on what they have been eating, can be dry and sausage shaped or soft and runny.



Mink

5-8cm long, 1cm diameter. Known as a 'Scat', strong tarry smell, tapered ends. Deposited on prominent places. More tightly twisted than Otter.

Actual size



Further information

Cornwall Badger Group

www.cornwallbadgergroup.org.uk

Cornwall Wildlife Trust

Five Acres, Allet, Truro, TR4 9DJ

(01872) 273939. Website: www.cornwallwildlifetrust.org.uk

DEFRA (Department for Environment, Food and Rural Affairs)

Information Resource Centre, Lower Ground Floor, Ergon House,

c/o Nobel House, 17 Smith Square, London SW1P 3JR

Helpline: 08459 335577. Website: www.defra.gov.uk

Mammals Trust UK

15 Cloisters House, 8 Battersea Park Rd, London, SW8 4BG

(0207) 498 5262, Website: www.mtuk.org

NFBG (National Federation of Badger Groups)

2B Inworth Street, London SW11 3EP

(0207) 228 6444. Website: www.badger.org.uk

The Mammal Society

2B, Inworth Street, London, SW11 3EP

(0207) 3502200. Website: www.mammal.org.uk

Further reading

A Guide to British mammal tracks and signs (2001)

S. Bullion, Field Studies Council.

Animal Tracks and Signs (2001)

P. Bang, and P. Dahlstrom, Oxford.

Collins Field Guide to Mammals (1993)

D. Macdonald, and P. Barrett, Collins, London.

How to Find and Identify Mammals (2003)

G. Sargent and P. Morris, The Mammal Society.

Mammal Detective (2002)

R. Strachan, Whittet Books



Supported by the
Heritage Lottery Fund



**Environmental
Records Centre for
Cornwall and the
Isles of Scilly**