

County Mammal Recorder

# Dumfries and Galloway Mammal Handbook

A guide to the mammal species found within  
the Dumfries & Galloway Region (excluding  
Bats).

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Throughout this document “status” refers to the situation within the Dumfries and Galloway region.

The species accounts contain some outline information together with ID tips. In the introduction of the manual there is a brief general section on identification which helps to separate look-alikes and also to identify signs of mammals that you may find when you are out in the field.

Bats are not covered in this handbook as identifying them to species level without training is not possible.

It is hoped that this booklet will help you to identify some mammal species within the Dumfries & Galloway Region. If you have any comments or queries, then please send them or **ANY RECORDS** to

**[dgmammals@aol.com](mailto:dgmammals@aol.com)**

If you would like to learn more about mammals in the region then field courses at grades from introductory to advanced are available. For more information contact Andy Riches, the County Mammal Recorder. e-mail [dgmammals@aol.com](mailto:dgmammals@aol.com) or telephone 07792 142446.

## Introduction

Mammals are present in considerable numbers throughout the region but can be a difficult group to observe because of their nocturnal or crepuscular habits and their natural reticence where humans are concerned. This means that sightings are often fleeting glimpses of something scurrying through the undergrowth or disappearing over the brow of a hill. The presence of mammals is frequently revealed by the signs that they leave in the landscape or by the presence and behaviour of other animals that depend on them.

**Droppings:** Determining a species in the field solely from its droppings can be a difficult, as well as smelly operation. Saving a small quantity in a well-sealed bag for later DNA analysis can be an excellent method of identification if you have access to such testing. For those that do not, a few simple rules can narrow things down.

Hedgehogs and shrews are insectivores. Their droppings tend to be made up of chitin, the outer cases of insects. Shrew droppings are the size of grains of rice. When dry they crumble to dust if rubbed between a (plastic gloved) finger and thumb. Beware though, accumulations of such droppings under trees or adjacent to walls can be from bats which are also insectivores. Hedgehog droppings tend to be larger than shrew and often smell of linseed oil. Shiny insect cases are usually clearly visible.

Mice and voles produce similar rice grain sized droppings to shrews but they are much more malleable and will not crumble to dust even when dry. They often have an unpleasant smell, especially in the case of house mice.

Rat droppings are similar to mice and voles but larger.

Water vole droppings have the size and appearance of small liquorice comfit sweets. When dry they turn from light to dark green, and if they are cut, a clear layer system can be seen. Droppings are frequently grouped in latrines used by a number of animals.

Stoat and weasel droppings are smaller than fox and often contain hair and ground bone from prey species.

Fox droppings are larger than stoat and weasel droppings and are often found on raised points such as tree stumps or earth mounds. They also contain hair and bones from prey species but, because of the foxes size, it is sometimes possible to spot identifiable teeth or bone fragments.

Otter eat mainly fish and their droppings, called spraints, almost always contain fish bones and scales. The smell is quite distinctive and often said to be similar to jasmine tea. Spraints are a form of territory marking and signalling and are often found around bridges.

Badgers are omnivores with a strong liking for earthworms when they are available. They tend to dig a pit and leave their droppings in it. Groups of dung pits are called latrines and frequently mark territorial boundaries.

**Dens:** Many terrestrial mammals live in underground burrows. The natural world can be a dangerous place and small mammals have entrances to their burrows that are just big enough for them to get in and no bigger. This can give them valuable time to make an escape whilst a predator is digging its way in.

A hole the size of a penny is sufficient for most shrews but one the size of a two penny piece will be necessary for voles or mice. A water vole will need a hole whose diameter is the height of a bank card whereas the rat will need one whose diameter is the width of the same card.

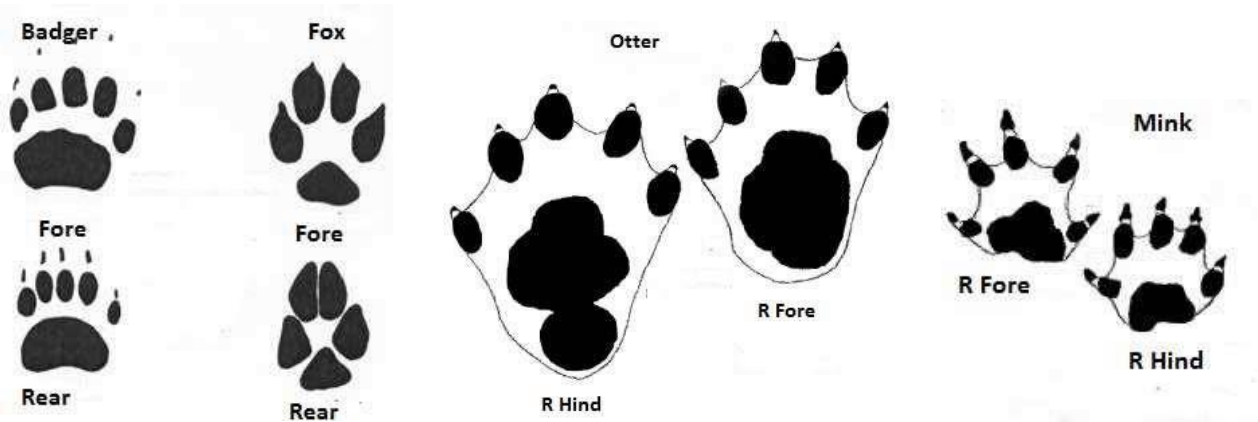
Rabbits tend to live communally in warrens dug in hedgerows or field banks. The tunnels are 10-15cm in diameter. The spoil they have thrown out is never as much as from a badger sett and is usually sandier, with very few stones.

Badgers tend to dig setts in sloping ground sheltered by woodland but they will also dig in flat open fields, cliff faces or quarries on occasion. Because their tunnels are so big they need natural geology, tree roots or bushes like gorse and rhododendron to provide structure to the ground above to prevent a collapse. The tunnels are shaped like a D set on its side and are 25-30cm wide. The spoil heaps can be huge often containing large stones.

Foxes dig dens in soft ground with tunnels about 20cm across and slightly higher than wide. They often share badger setts especially when they have young.

**Trails:** Trails are the routes animals use to move through the countryside and are especially noticeable in woodland or where fences, dykes or burns are crossed. Most trails are used by multiple species including man. Look for animal tracks and for places where obstacles are crossed. Does the animal jump over a low branch (fox or deer) or does it go under (badger)? If it jumps look for tracks where it lands. Constant use by low slung animals like badgers can make noticeable tracks of smooth bare earth and fallen logs polished clean of moss where they are crossed.

**Tracks:** These are the prints left by animals paws. Because of the types of soil we have in the region, the tracks of small mammals are rarely seen. The most common tracks likely to be encountered are shown below. They are NOT drawn to scale.



**Hairs:** Identifying hairs is a fairly specialist task but one species, the badger, has a very distinctive guard hair which is oval and therefore feels 'bumpy' when rolled between fore-finger and thumb. These hairs are often found on badger setts and on barbed wire at the base of fences where badgers pass through.

**Feeding signs:**

The wood mouse leaves parallel teeth marks on the inner rim and rough marks on the nut surface.



The bank vole leaves neat parallel grooves on the inner rim, but no teeth marks on the nut surface.



Squirrels crack nuts which look very variable but always with smooth lines.



Wood Mice nibble cones smoothly and neatly.



Squirrels leave cones ragged and untidy.



Water voles cut stems to convenient lengths to eat them. Some lengths of food often remain at their feeding sites.



**Small Mammals:** These can be very difficult to tell apart so some brief tips are included here. Check the species accounts for more details.

**Shrews (Three Species):** Very pointed face. Tail never more than three quarters of body length. Red tipped teeth. Often found dead in the open without apparent injury. Can be very small.

**Voles (Two Species):** Rounded face. Tail never more than half body length. Teeth not red tipped.

**Mice (Two Species):** Pointed face, prominent ears, hairless tail as long as body.

**Clues from other species:** A kestrel hovering over a field or road verge is hunting for small mammals, probably Short-tailed Field Voles. Using its height and levels of vision on the ultra-violet spectrum, it is able to locate the runs of its prey and pinpoint the junctions where it has most chance of success. Watching kestrels and buzzards can be a good guide to the presence of small mammals. Owls hunt prey at night and swallow it whole. The bones and other indigestible parts (hair etc) are regurgitated later in pellets. When found, these pellets can be examined and reveal a great deal of information about the small mammals of the area. Owl pellets are particularly useful in gathering information about shrews which have glands on their flanks containing substances that make them extremely unpleasant to eat. Because of this shrews are frequently avoided as prey by other species but owls, who swallow their food whole, are unaffected by the glands and are happy to dine on them.



## Hedgehog *Erinaceus europaeus*

### Status: Fairly Common/Fairly Widespread/Stable

Adult Head & body length: Up to 30cm

Adult Tail length: 2cm

Adult Weight: 450-1600g

Lifespan: Average 2 years. Maximum 5 years. Half the population die in the first year.

Diet: Invertebrates, particularly beetles, caterpillars, slugs and earthworms. Occasionally takes the eggs of ground nesting birds.

Habitat: Mainly semi-rural gardens due to the relative scarcity of hedgerows and broadleaf woodland.

Reproduction: A single litter produced between late April and late August.

Gestation: 31-35 days

Litter size: 2-7 (average 5)

Weight at birth: 10-25g

Weaned at: 5 weeks

Sexually mature: In the spring following birth.

Threats and Limiting Factors: Accidents with garden machinery, loss of food due to use of poisons for slugs etc and loss of habitat as use and style of gardens changes.

Predators: Occasionally foxes and badgers.

Lookalikes: None.

ID Tip: Unmistakeable when seen. Leaves cylindrical dropping, which smells of linseed and contains parts of shiny, black insect cases.





## Mole *Talpa europaea*

### Status: Common/Widespread/Stable

Adult Head & body length: 12-17cm

Adult Tail length: 2-4cm

Adult Weight: 70-130g

Lifespan: Average 2 years. Maximum 5 years

Diet: Invertebrates, particularly slugs, earthworms, insect larvae and myriapods. Will take carrion

Habitat: Deciduous woodland, rough grazing, gardens, arable fields and road edges.

Reproduction: A single litter produced between late April and early August.

Gestation: 28 days.

Litter size: 3-4

Weight at birth: 3.5g

Weaned at: 28-35 days.

Sexually mature: In the spring following birth.

Threats and Limiting Factors: Often considered a pest by man and trapped, especially in the west of the region. Fragmented nature of areas of suitable habitat.

Predators: Owls, stoats and man.

Lookalikes: None.

ID Tip: Although the animals are rarely seen the molehills they create as they burrow are readily recognised. Moles are solitary creatures so each group of hills will represent a single animal.



## Common Shrew *Sorex araneus*

### Status: Common/Fairly Widespread/Stable

Adult Head & body length: 6-8cm

Adult Tail length: 3-4cm

Adult Weight: 5-15g

Lifespan: 18 months 50% die in first two months

Diet: Invertebrates, particularly slugs, earthworms, insect larvae and beetles.

Habitat: Woodland, dry stane dykes, hedgerows and thickly grassed road verges. Nests are built under logs and in grass tussocks or the burrows of other species.

Reproduction: One or two litters between April and August.

Gestation: 20-25 days.

Litter size: 4-8 (average 6)

Weight at birth: 0.47g

Weaned at: 25 days

Sexually mature: In the spring following birth.

Threats and Limiting Factors: Habitat loss, pesticides and pollution.

Predators: Mainly owls because they swallow their prey whole and avoid the nasty taste. Stoats, weasels and foxes will take them but only reluctantly because of their foul taste. Cats kill but do not eat them.

Lookalikes: Pygmy Shrew smaller. Water Shrew larger.

ID Tip: Often found dead in the open. Look for pointed face, un-domed head, **three tone coat** and red tipped teeth and tail 50% of body length.



## Pygmy Shrew *Sorex minutus*

### Status: Fairly Common/Fairly Widespread/Stable

Adult Head & body length: 4-6.5cm

Adult Tail length: 3-4.5cm

Adult Weight: 3.5-7g (up to 10g in breeding season).

Lifespan: 18 months (50% die in first winter and very few survive second winter).

Diet: Small invertebrates such as fly larvae, beetles, spiders and woodlice. They are generally too small to take earthworms.

Habitat: Deciduous woodland, rough grassland, dry stane dykes, hedgerows. May be found in gardens. Often live at greater height than Common Shrews, sometimes occurring at over 600m.

Reproduction: Two or three litters between May and September.

Gestation: 22 days.

Litter size: 4-9 (average 6)

Weight at birth: 0.25g

Weaned at: 21 days

Sexually mature: In spring following birth.

Threats and Limiting Factors: Habitat loss, pesticides and pollution.

Predators: Mainly owls because they swallow their prey whole and avoid the nasty taste. Stoats, weasels and foxes will take them but only reluctantly because of their foul taste. Cats kill but do not eat them.

Lookalikes: Common Shrew larger. Water Shrew larger. Both have un-domed heads.

ID Tip: Often found dead in the open. Look for pointed face, **domed head, two tone coat**, red tipped teeth and tail 70% of body length.



## Water Shrew *Neomys fodiens*

### Status: Uncommon/Localised/Uncertain

Adult Head & body length: 6-10cm

Adult Tail length: 5-8cm

Adult Weight: 8-23g

Lifespan: 14-19 months

**Diet:** Invertebrates, especially crustaceans, tadpoles and efts when in water and earthworms, molluscs and insects when on land.

**Habitat:** Prefer clear flowing water but will use lochs, reed-beds, marshes and garden ponds. Will travel considerable distances on land and are often found far from water.

**Reproduction:** One or two litters between May and September.

**Gestation:** 14-21 days.

**Litter size:** 3-15 (average 8)

**Weight at birth:** 1g

**Weaned at:** 28 days.

**Sexually mature:** Usually in the second spring after birth.

**Threats and Limiting Factors:** Habitat loss, pesticides and pollution.

**Predators:** Mainly owls because they swallow their prey whole and avoid the nasty taste. Stoats, weasels and foxes will take them but only reluctantly because of their foul taste. Cats kill but do not eat them. Larger fish (eg pike) will take them in their aquatic habitat.

**Lookalikes:** Common Shrew smaller. Pygmy Shrew much smaller.

**ID Tip:** Often found dead in the open. Look for pointed face, sharp demarcation line between black back and silver underside, **un-domed head** and red tipped teeth.





## Red Squirrel *Sciurus vulgaris*

### Status: Common/Widespread/Seriously Endangered

Adult Head & body length: 18-24cm

Adult Tail length: 14-20cm

Adult Weight: 250-300g

Lifespan: Up to 6 years.

Diet: Pine cones, berries, fruit, seeds, young tree shoots, bark and lichens.

Habitat: Woodland, especially large pine forests of 50 hectares or more. Essentially arboreal.

Reproduction: Two litters each year. The first in March to April and the second in May to July.

Gestation: 36-42 days.

Litter size: 1-6

Weight at birth: 10-15g.

Weaned at: 70 days.

Sexually mature: At 10-12 months.

Threats and Limiting Factors: Competition from Grey squirrels, squirrel pox virus and clear felling of habitat. Fragmentation and reduction of habitat.

Predators: Polecat, pine marten and goshawk.

Lookalikes: Grey Squirrel

ID Tip: Fur not always red. Look for the ear tufts. Spends more time in trees.



## Grey Squirrel *Sciurus carolinensis*

### Status: Common/Fairly Widespread/Invasive Pest

Adult Head & body length: 24-28cm

Adult Tail length: 19-24cm

Adult Weight: 400-600g

Lifespan: Up to 9 years.

Diet: Acorns, beech mast, pine cones, nuts, bulbs tree bark and shoots.

Habitat: Woodland, with a preference for deciduous. Also uses ornamental parks and gardens. Travels along riparian corridors using the bankside trees for food and shelter. Will cover quite large distances on the ground. Much less arboreal than its red cousin.

Reproduction: Two litters each year. The first in March to April and the second in July to October.

Gestation: 42-45 days.

Litter size: 2-4

Weight at birth: 14-18g.

Weaned at: 56-70 days

Sexually mature: At 10-12 months.

Threats and Limiting Factors: This is an introduced species which is the subject of a cull to reduce its disastrous effects on the native red squirrel.

Predators: Polecat, pine marten and fox.

Lookalikes: Red Squirrel

ID Tip: Larger than Red cousin, spends more time on the ground and has no ear tufts. The tail hairs have a white tip giving a characteristic light fringe around the tail known as the halo effect.



## Bank Vole *Myodes glareolus*

### Status: Common/Widespread/Stable

Adult Head & body length: 8-12cm

Adult Tail length: 4-6cm

Adult Weight: 14-40g

Lifespan: Up to 18 months. More than half die before 4 months.

Diet: Grass, roots, fruit, berries, seeds, insects and earthworms.

Habitat: Broadleaf woodland, dry stane dykes, hedgerows, scrub and occasionally gardens.

Reproduction: Two or three litters in a year between April and September.

Gestation: 16-18 days.

Litter size: 3-5

Weight at birth: 2g.

Weaned at: 14 days.

Sexually mature at: 45 days, but late season young do not mature until the following spring.

Threats and Limiting Factors: Habitat loss and pesticide use.

Predators: Owls, stoats, weasels and foxes.

Lookalikes: Field Vole and to a lesser extent other small rodents.

ID Tip: Rusty coat with tail more than 40% length of body. Difficult to distinguish from Short-tailed Field Vole except in the hand. **NB habitat.**





## Short-tailed Field Vole *Microtus agrestis*

Status: Abundant/Widespread/Stable

Adult Head & body length: 8-13cm

Adult Tail length: 2.5-4cm

Adult Weight: 14-50g

Lifespan: Up to 2 years.

Diet: Grasses and herbaceous plants.

Habitat: Rank grassland especially on road verges, but also montane heath, clear fell and newly planted woodland.

Reproduction: Five or six litters in a year between April and September.

Gestation: 18-20 days.

Litter size: 4-6

Weight at birth: 2g.

Weaned at: 21 days.

Sexually mature: At 40 days in male and 28 days in female.

Threats and Limiting Factors: Loss of rank grassland due to agricultural improvements, cutting of verges and severe grazing by rabbits.

Predators: Owl, kestrel, mustelid, fox, snake.

Lookalikes: Bank Vole and to a lesser extent other small rodents.

ID Tip: Greyish brown back, tail 30% length of body. Difficult to distinguish from Bank Vole except in the hand. **NB habitat.**



## Water Vole *Arvicola amphibious*

### Status: Uncommon/Fairly Localised/Endangered

Adult Head & body length: 12-20cm

Adult Tail length: 6-10cm

Adult Weight: 200-300g

Lifespan: 18 months. Less than 20% survive the second winter.

Diet: Grasses, common reeds and sedges. Fruit and berries. Occasionally invertebrates.

Habitat: Overgrown, steep banks on slow moving burns, lochs and moorland drainage ditches. Retreated to higher ground, especially moorland, when assaulted by mink at lower levels. Now beginning to make a comeback on larger lowland rivers and lochs since culling is controlling mink numbers.

Reproduction: Up to four litters between April and September.

Gestation: 20-22 days.

Litter size: 2-8 (average 5).

Weight at birth: 3.5-7.5g.

Weaned at: 21 days.

Sexually mature: In spring following first winter.

Threats and Limiting Factors: Habitat loss, pollution and predation by American mink.

Predators: American mink, fox, mustelids, pike, heron and cat.

Lookalikes: Brown Rat.

ID Tip: Look for blunt face, less obvious ears and short, hairy tail.



## Wood (or Long-tailed Field ) Mouse *Apodemus sylvaticus*

Status: Common/Widespread/Stable

Adult Head & body length: 8-11cm

Adult Tail length: 8-11cm

Adult Weight: 16-27g

Lifespan: 20 months.

Diet: Seeds, nuts, fruit, snails, insects, fungi and moss.

Habitat: Principally woodland and rank grassland but also dry stane dykes, hedgerows, ditches, gardens and out buildings. Will enter houses, especially in winter.

Reproduction: Up to five litters between April and October.

Gestation: 19-20 days.

Litter size: 4-8 (average 5).

Weight at birth: 1-2g.

Weaned at: 21 days.

Sexually mature: In year of birth, for early born animals and in following spring for late born animals.

Threats and Limiting Factors:

Predators: Owls, raptors, foxes, small mustelids and cats.

Lookalikes: House Mouse and to a lesser extent other small rodents.

ID Tip: Look for long tail, wide eyes and obvious ears. Lighter fur than House Mouse. NB habitat.





## Harvest Mouse *Micromys minutus*

### Status: Rare/Very Localised/Endangered

Adult Head & body length: 5-8cm

Adult Tail length: 5-8cm

Adult Weight: 5-11g

Lifespan: Up to 18 months.

Diet: Grass, seeds fruit and berries. Occasionally invertebrates in winter.

Habitat: Reed beds.

Reproduction: Up to four litters between May and September.

Gestation: 17-19 days

Litter size: 3-8 (average 5).

Weight at birth: 0.7g.

Weaned at: 14 days.

Sexually mature: At two months old.

Threats and Limiting Factors: Severely at risk due to very limited areas of suitable habitat and small, isolated nature of population.

Predators: Owls, small mustelids and crows.

Lookalikes: Other small rodents.

ID Tip: Mouse features but noticeably smaller. Russet orange fur on back. NB habitat.



## House Mouse *Mus domesticus*

### Status: Common/Widespread/Stable

Adult Head & body length: 6-10cm

Adult Tail length: 6-10cm

Adult Weight: 12-22g

Lifespan: Up to 18 months but 70% die in the first winter.

Diet: Seeds, fruit and small invertebrates.

Habitat: Houses, farm buildings and rubbish tips.

Reproduction: Up to ten litters in a good year

Gestation: 19-20 days.

Litter size: 4-8 (average 6).

Weight at birth: 1.5g.

Weaned at: 14 days.

Sexually mature at: Six weeks old.

Threats and Limiting Factors: Regarded as pest and trapped and poisoned by man. Rarely survives long away from human habitation.

Predators: Owls, small mustelids, rats and cats.

Lookalikes: Wood Mouse and to a lesser extent other small rodents.

ID Tip: Darker fur than wood Mouse. NB habitat.



## Brown Rat *Rattus norvegicus*

### Status: Common/Widespread/Stable

Adult Head & body length: 26-28cm

Adult Tail length: 25-27cm

Adult Weight: 200-400g

Lifespan: Up to 18 months.

Diet: Cereals and root crops on agricultural land and meat, fish, fruit and invertebrates in urban areas.

Habitat: Farms, rubbish tips, ruins, sewers and poorly kept outbuildings. Extremely adaptable.

Reproduction: Up to 5 litters a year.

Gestation: 20-23 days.

Litter size: 6-11 (average 8).

Weight at birth: 15g

Weaned at: 21days.

Sexually mature: At eight to twelve weeks.

Threats and Limiting Factors: Trapping and poisoning by man.

Predators: Cats, foxes and owls predate young rats. The adults have no regular natural predators.

Lookalikes: Water Vole.

ID Tip: Look for pointed face and hairless tail as long as body. Frequently follow runs.



## Rabbit *Oryctolagus cuniculus*

### Status: Common/Widespread/Declining

Adult Head & body length: 30-40cm

Adult Tail length: 6-8cm

Adult Weight: 1.2-2kg

Lifespan: Only 10% survive the first year and few live beyond 2 years.

Diet: Grasses, shoots of young plants, root vegetables and the bark of young trees in winter if snow covers normal foraging.

Habitat: Lighter soils in well drained grassland, sometimes near woodland. A suitable bank for burrows, which is often on a road verge.

Reproduction: Up to 5 litters between March and the end of August in good weather.

Gestation: 28-33 days.

Litter size: 3-7 (average 5).

Weight at birth: 30-35g.

Weaned at: 25 days.

Sexually mature: 4 months.

Threats and Limiting Factors: Hunted by man as an agricultural pest. Rabbit Haemorrhagic Disease and Myxoma virus are very prevalent in the region and there are some areas where rabbits are rare or absent because of these two diseases.

Predators: Fox, stoat, weasel, badger and buzzard. Badgers and buzzards specialise in young rabbits with buzzards timing their breeding to coincide with the presence of young rabbits where possible.

Lookalikes: Brown Hare.

ID Tip: Often in large groups and rarely far from a warren.





## Brown Hare *Lepus europaeus*

Status: Fairly Common/Fairly Widespread/Stable/ **Seriously at risk from persecution by Man**

Adult Head & body length: 48-70cm

Adult Tail length: 8-10cm

Adult Weight: 2-5kg

Lifespan: 2-5 years with fewer than 5% living longer. More than half are dead before the end of the first winter.

Diet: Grasses and arable crops. Shrubs in winter, if snow covers normal foraging.

Habitat: Arable farmland and low moorland with sheltered areas of woodland, long grass or hedges.

Reproduction: Up to 4 litters between late March and the end of August.

Gestation: 41-42 days.

Litter size: 2-4 (average 3).

Weight at birth: 110g.

Weaned at: 28 days.

Sexually mature: Male at 6 months and female at 7 to 8 months.

Threats and Limiting Factors: Hare coursing is a serious, criminal problem throughout the region but particularly in arable farming areas in the east.

Predators: Foxes.

Lookalikes: Rabbit. Mountain Hare.

ID Tip: Black ear tips, golden eyes, tail white with black stripe on top. Often solitary. Hind quarters noticeably raised when walking.



## Mountain Hare *Lepus timidus*

### Status: Uncommon/Localised/Has Declined

Adult Head & body length: 45-60cm

Adult Tail length: 7-9cm

Adult Weight: 2.5-4kg

Lifespan: Up to 6 years. Only 20% survive the first year.

Diet: Heather and moorland grasses.

Habitat: Heather moorland, grassland and hilltops over 300m.

Reproduction: Up to 3 litters between April and August.

Gestation: 50 days.

Litter size: 1-4 (average 2).

Weight at birth: 100g.

Weaned at: 28 days.

Sexually mature: In second year after birth.

Threats and Limiting Factors: Reductions in suitable habitat.

Predators: Fox, stoat and golden eagle.

Lookalikes: Brown Hare.

ID Tip: All white in winter, greyish fur in summer, tail all white, rarely found below 500m and often on mountains with heather.



## Red Fox *Vulpes vulpes*

### Status: Common/Widespread/Stable

Adult Head & body length: 56-75cm

Adult Tail length: 25-38cm

Adult Weight: 4-9.5kg

Lifespan: Up to 9 years. Only 1% lives more than 5 years because of fox control.

Diet: Invertebrates, lagomorphs, small mammals, ground nesting birds, fruit and vegetables. Will scavenge rubbish bins and predate captive birds where available.

Habitat: A mosaic of habitats. Small, recently planted, conifer woodlands can provide a nearly impenetrable barrier around an earth within a fox's territory.

Reproduction: Single litter with peak births in late March or early April.

Gestation: 52-53 days.

Litter size: 3-5 (average 4).

Weight at birth: 100g.

Weaned at: 35 days.

Sexually mature: At 10 months.

Threats and Limiting Factors: Hunting and other forms of control. Although foxes have adapted well to urban areas in other parts of the UK the D&G population are essentially 'country' animals and are less successful when their territory is developed by man.

Predators: Dogs and golden eagles. Badgers may predate young in areas where setts are shared with foxes. They rarely eat them and it may be that this very occasional behaviour is territorial.

Lookalikes: None

ID Tip: Unmistakeable



## Pine Marten *Martes martes*

Status: Scarce/Very Localised/**Endangered**

Adult Head & body length: 36-55cm

Adult Tail length: 20-25cm

Adult Weight: 1.2-1.9kg

Lifespan: Up to 10 years.

Diet: Invertebrates, small rodents, small birds and their eggs. Will occasionally take rabbits and grey squirrels where they are available. Will feed at bird tables in the west of the region.

Habitat: Larger conifer woodlands. Often using artificial nest boxes in the Galloway Forest where a re-introduction program is in progress. In the east tend they tend to use holes in or under trees.

Reproduction: A single litter of 2 kits is born in May.

Gestation: 28-30 days.

Litter size: 1-6 (usually 3).

Weight at birth: 30g.

Weaned at: Eight to ten weeks.

Sexually mature at: In their 3<sup>rd</sup> year.

Threats and Limiting Factors: Habitat fragmentation and illegal persecution.

Predators: Fox and golden eagle.

Lookalikes: Polecat and mink in some situations.

ID Tip: Blue eye shine when seen on camera trap at night.



## Stoat *Mustela erminea*

Status: Fairly Common/Widespread/Stable

Adult Head & body length: 16-31cm

Adult Tail length: 9-14cm

Adult Weight: 90-445g

Lifespan: Up to 8 years.

Diet: Small mammals, rabbits, ground nesting birds and their eggs. Can climb and take tree nesting birds and eggs as well.

Habitat: Ubiquitous.

Reproduction: Female stoats have delayed implantation. This means that they mate during the summer, just after they have given birth, and then carry fertilised eggs, which they implant in the wall of the womb in ???, giving birth to young the following summer. They allow male stoats to mate with both them, and their female kits, so that all female stoats which leave the nest are carrying fertilised eggs. This makes the stoat a pioneer species par excellence.

Gestation: 21-28 days.

Litter size: 9-13 (average 11).

Weight at birth: 3-4g.

Weaned at: 35 days.

Sexually mature at: Females; immediately on birth and males in their first summer.

Threats and Limiting Factors: Trapped by man to protect gamebirds (and sometimes wild birds).

Predators: Foxes, owls, kestrels and cats.

Lookalikes: Weasel.

ID Tip: Medium length tail with **black tip**, straight flank colour division, often turns white in winter.





## Weasel *Mustela nivalis*

### Status: Fairly Common/Widespread/Stable

Adult Head & body length: 17-25cm

Adult Tail length: 3-12cm

Adult Weight: 48-108g

Lifespan: Up to 3 years.

Diet: Small rodents, occasionally rabbits and ground nesting birds and their eggs in spring. May raid arboreal bird nests if there is scarcity of rodents.

Habitat: Ubiquitous.

Reproduction: Up to 2 litters between April and July.

Gestation: 34-37 days.

Litter size: 4-5

Weight at birth: 1.5-3.5g.

Weaned at: 28 days.

Sexually mature: Usually in spring following birth.

Threats and Limiting Factors: Trapped by man to protect gamebirds (and sometimes wild birds).

Predators: Foxes, owls, kestrels and cats.

Lookalikes: Stoat.

ID Tip: Smaller than Stoat, short tail with no black tip, wavy flank colour division.



## Polecat *Mustela putorius*

### Status: Rare/Very Localised/Endangered

Adult Head & body length: 30-45cm

Adult Tail length: 12-17cm

Adult Weight: 700-1,400g

Lifespan: Up to 4 years.

Diet: Small rodents, rabbits, frogs and toads.

Habitat: Woodland and coastal dunes. Often small copses on farmland.

Reproduction: A single litter is born between May and July.

Gestation: 42 days.

Litter size: 5-10 (average 7).

Weight at birth: 9-10g.

Weaned at: 30 days.

Sexually mature: In spring following first winter.

Threats and Limiting Factors: Trapped by man to protect gamebirds.

Predators: Dogs and occasionally foxes.

Lookalikes: Ferret, Polecat Ferret and Mink.

ID Tip: It can be difficult to distinguish live specimens from other mustelids without a clear and protracted view. Even dead specimens can be hard to distinguish from Polecat ferrets without DNA analysis.





## Badger *Meles meles*

Status: Common/Widespread/ Seriously at risk from persecution by Man

Adult Head & body length: 65-80cm

Adult Tail length: 12-17cm

Adult Weight: 8-12kg

Lifespan: Up to 8 years. More than half do not survive their first year.

Diet: Omnivorous. Earthworms are a favourite where available. Fruit, berries, fungi and slugs.

Habitat: A mosaic of habitats which means that territories can be very large where badgers live and forage on the fell tops at above 600m.

Reproduction: Mating usually between February and May, with young born the following January due to delayed implantation.

Gestation: 49 days.

Litter size: 1-5 (average 3).

Weight at birth: 75-132g.

Weaned at: Twelve to thirteen weeks.

Sexually mature: After second winter.

Threats and Limiting Factors: Road traffic accidents, forestry operations, negligent snaring, baiting and other deliberate persecution. Reduction or removal of suitable foraging habitat by development and other changes of land use.

Predators: Man. Badger baiting is a huge problem within the region.

Lookalikes: None

ID Tip: Unmistakeable



## Otter *Lutra lutra*

### Status: Fairly Common/Widespread/Increasing

Adult Head & body length: 60-110cm

Adult Tail length: 35-45cm

Adult Weight: 7-11kg

Lifespan: Up to 9 years.

Diet: Fish, water birds, frogs and rabbits.

Habitat: Rivers, lochs and coasts. Males often use small ditches to travel between sites.

Reproduction: A single litter between May and August.

Gestation: 61-63 days.

Litter size: 2-3 (average 2).

Weight at birth: 20-25g.

Weaned at: 50 days.

Sexually mature: In second year.

Threats and Limiting Factors: Pollution and road traffic accidents. Reduction of habitat due to changes in land drainage.

Predators: None.

Lookalikes: Mink, (Polecat, Polecat Ferret, Pine Marten when on land).

ID Tip: Swims with only head out of water, creating a bow wave. Long tapering tail.



## American Mink *Neovison vison*

Status: Fairly Common/Fairly Widespread/ **Invasive Pest**

Adult Head & body length: 30-47cm

Adult Tail length: 15-23cm

Adult Weight: 0.5-1.5kg

Lifespan: Up to 5 years.

Diet: An opportunistic, carnivorous predator which takes a wide variety prey.

Habitat: Rivers, lochs and marshy areas.

Reproduction: A single litter, usually in late May.

Gestation: 28 days.

Litter size: 4-6 (average 5).

Weight at birth: 8-9g.

Weaned at: 45days.

Sexually mature: In spring following first winter.

Threats and Limiting Factors: Control measures. Reduction of habitat due to changes in land drainage.

Predators: Otters.

Lookalikes: Otter, (Polecat, Polecat Ferret, Pine Marten when on land).

ID Tip: Dark brown fur all over except for a white chin patch. Cylindrical fluffy tail. Swims with body mostly out of water creating no bow wave.



## Red Deer *Cervus elaphus*

### Status: Common/Fairly Widespread/Stable

Adult shoulder height: 110-120cm.

Adult Tail length: 12-15cm.

Adult Weight: Up to 225kg.

Lifespan: Up to 22 years.

Diet: Leaves, grasses and heather. Tree bark in winter.

Habitat: Conifer plantations, hillside and moorland.

Reproduction: Rut or mating season is in autumn with a single calf born in May or June

Gestation: 225-245 days.

Litter size: 1 (twins are rare but do occur).

Weight at birth: 5-6kg.

Weaned at: Six to ten months.

Sexually mature: Male 1-3 years, female 1-2 years.

Threats and Limiting Factors: Poaching. Largely kept in confinement in this region.

Predators: None.

Lookalikes: Other deer species especially Roe and Fallow if seen from a distance.

ID Tip: Creamy rump patch. Large, branched antlers in stag.



## Roe Deer *Capreolus capreolus*

### Status: Common/Fairly Widespread/Stable

Adult shoulder height: 62-69cm

Adult Tail length: 4-5cm.

Adult Weight: 18-28kg

Lifespan: Up to 9 years.

Diet: Grass and broadleaved fruits and leaves. Heather, acorns and conifer in winter.

Habitat: Woodland with clearings.

Reproduction: Young born in late May or early June.

Gestation: Lasts approximately 300 days including 5 months of embryonic diapause.

Litter size: 1-2.

Weight at birth: 1.3-2.3kg.

Weaned at: 3 months.

Sexually mature at: 15 months.

Threats and Limiting Factors: Poaching, road traffic accidents and reduction in habitat.

Predators: No natural predators.

Lookalikes: Red Deer, Fallow Deer at a distance.

ID Tip: White rump patch. Pronged antlers in buck.





## Fallow Deer *Dama dama*

### Status: Common/Localised/Stable

Adult shoulder height:

Adult Tail length: 16-19cm.

Adult Weight: Male 40-80kg, female 35-50kg.

Lifespan: 12 years.

Diet: Grasses, rushes, leaves, acorns and beechmast. Holly heather and bark in winter.

Habitat: Woodland (usually deciduous but has spread to conifer).

Reproduction: Single fawn born in June or July.

Gestation: 210-225 days.

Litter size: 1

Weight at birth: 4.5kg.

Weaned at: 12 weeks.

Sexually mature: Male at 7- 14 months, female at 16 months.

Threats and Limiting Factors: Poaching and road traffic accidents.

Predators: No natural predators.

Lookalikes: Red Deer and Roe Deer at a distance.

ID Tip: Spotted coat and black tail. Large palmate antlers in stag.



## Wild Boar *Sus scrofa*

Status: Uncommon/ Fairly Widespread/Unknown

Adult shoulder height:

Adult Tail length:

Adult Weight: Male 33-140 kg (average 130kg), female 30-80kg (average 65kg).

Lifespan: 8-10 years.

Diet: Mainly herbivorous with bulbs and tubers a particular favourite.

Habitat: Woodland (usually deciduous).

Reproduction: One litter a year born in March or April.

Gestation: 115 days.

Litter size: 3-10 (usually 4-7).

Weight at birth: Not known in the wild.

Weaned at: Three to four months.

Sexually mature: At 12 months.

Threats and Limiting Factors: Hunting. Limit to suitable habitat.

Predators: No natural predators.

Lookalikes: None.

ID Tip: Unmistakeable.





## Feral Goat *Capra hircus*

Status: Fairly Common/Very Localised/Possible Decline

Adult Head & body length: 106-152cm.

Adult Tail length: 7-14cm.

Adult Weight: 29-65kg.

Lifespan: 4-6 years.

Diet: Grass, sedge and rush in summer supplemented with dwarf shrubs and gorse in winter.

Habitat: Hilly or mountainous areas with much bare rock and crags.

Reproduction: Usually give birth in March

Gestation: 151 days.

Litter size: 1

Weight at birth: 1.5-2.7kg.

Weaned at: 5-6 months.

Sexually mature: First summer.

Threats and Limiting Factors: Regarded as serious pest by foresters and farmers.

Predators: No natural predators.

Lookalikes: None.

ID Tip: Unmistakeable.



## Common or Harbour Seal *Phoca vitulina*

Status: Fairly Common/Very Localised/Possible Decline

Adult Head & body length: 1.2-1.95m.

Adult Weight: 50-130kg.

Lifespan: 25-30 years.

Diet: Mainly fish.

Habitat: Sheltered coastline. Prefers sandbanks and estuaries.

Reproduction: Mates in July or August, delayed implantation until November-December followed by birth in June.

Gestation: Up to 11 months which includes 1.5-3 months delayed implantation.

Litter size: 1.

Weight at birth: 9-11kg.

Weaned at: 2-6 weeks.

Sexually mature: 4-6 years.

Threats and Limiting Factors: Entanglement in fishing nets.

Predators: None within the region.

Lookalikes: Grey Seal.

ID Tip: Nostrils form V shape, face is “dished” and often adopt “head up tail up” posture when hauled out.



## Grey Seal *Halichoerus grypus*

Status: Fairly Common/Very Localised/Possible Decline

Adult Head & body length: 2.1-3.3m.

Adult Weight: 125-310kg.

Lifespan: 30-50 years.

Diet: Mainly fish.

Habitat: Rocky shores with cliffs but will use sandbanks and east

Reproduction:

Gestation: 11.5 months, which includes 3 months of delayed implantation.

Litter size: 1.

Weight at birth: 14.5kg.

Weaned at: 16-21 days.

Sexually mature: At 5-6 years.

Threats and Limiting Factors: Entanglement in fishing nets.

Predators: None within the region.

Lookalikes: Common or Harbour Seal.

ID Tip: Roman nose, with nostrils almost parallel.



## Atlantic White-sided Dolphin *Lagenorhynchus acutus*

Status: Scarce/Localised/Unknown

Adult Head & body length: 2.0-3.0m.

Adult Weight: 165-215kg

Lifespan: 25 years.

Diet: Fish, squid and crustaceans.

Habitat: Offshore in deeper water along continental slope. Often in schools of 10 – 20.

Reproduction: Mate in May – July and calves in May – July the following year.

Gestation: 10-12 months.

Litter size: 1

Length at birth: 110cm.

Weaned at: 18 months.

Sexually mature: Male 5-6 years. Female 5-8 years.

Threats and Limiting Factors: Entanglement in fishing nets.

Predators: None within the region.

Lookalikes: Other Dolphins and also Porpoises.

ID Tip: Look for the white side as they break the surface and a beak on the face.



## Common or Harbour Porpoise *Phocoena phocoena*

Status: Scarce/Widespread/Unknown

Adult Head & body length: 1.5-2.0m.

Adult Weight: 40-70kg.

Lifespan: 15 years. Maximum recorded 23 years.

Diet: Small fish in schools especially herring.

Habitat: Bays, headlands and estuaries usually water under 50m deep.

Reproduction: Mating from April to September with a peak in July and August

Gestation: 11 months.

Litter size: 1

Weight at birth: 5-8kg. Length 68-80cm.

Weaned at: Usually at 3 months but mothers may produce milk for up to 11 months.

Sexually mature: 5-6 years.

Threats and Limiting Factors: Entanglement in fishing nets.

Predators: None within the region.

Lookalikes: Other Porpoises and also Dolphins.

ID Tip: Look for short face without a beak and triangular fin.





## Minke Whale *Balaenoptera auctorostrata*

Status: Scarce/Very Localised/Unknown

Adult Head & body length: 6.8-8.5m.

Adult Weight: 5-13 tonnes.

Lifespan: 40-50 years.

Diet: Krill, schooling fish and sand eels.

Habitat: Over Continental Shelf, often close to land. Has been seen off Dunskey Point and in Wigton Bay.

Reproduction: Mates January – May with births in December –January.

Gestation: c10 months.

Litter size: 1.

Length at birth: 2.6m.

Weaned at: 4-6 months.

Sexually mature: 7 years.

Threats and Limiting Factors: Entanglement in nets at sea.

Predators: None within the region.

Lookalikes: Other whales.

ID Tip: Look for sickle shaped fin on very large animal.



