

RANA DI MONTAGNA

Rana temporaria



The Common Frog, *Rana temporaria* also known as the European Common Frog or European Common Brown Frog is found throughout much of Europe as far east as the Urals, except for most of Iberia, southern Italy, and the southern Balkans. It has been introduced to Ireland. The skin colour ranges between green and brown and adults can grow to 10cm.

The Common Frog can be distinguished from the Common toad by the skin which is smoother and is moist, the rear legs are longer and the feet more prominently webbed. Frogs move by hopping whereas toads more often crawl.

The adult common frog eats insects and small invertebrates such as earthworms and slugs which they catch with a long sticky tongue. Over winter they hibernate in the mud on the bottom of ponds.

Common frogs breed in shallow, still, fresh water such as ponds, with breeding commencing in March. The adults congregate in the ponds, where the males compete for females. The courtship ritual involves croaking, and a successful male grasps the female under the forelegs. During the mating season the males can be recognised by a darkened swelling, the *nuptial pad* on their 'thumbs'. The females, which are generally larger than the males, lay up to 4000 eggs which float in large clusters.



ROSPO COMUNE

Bufo bufo

Bufo, Laurenti, 1768, is a large genus of more than 250 species of true toads in the amphibian family *Bufo*nidae.

This is a truly cosmopolitan genus, able to live under adverse conditions. However, they do not occur in the Arctic regions, Australia, with the exception of the introduced Marine Toad (*Bufo marinus*), New Guinea and the neighbouring islands.

They have in common a stocky figure and short legs, which makes them poor jumpers. As with all members of the toad family Bufonidae, they lack a tail, they lack teeth and they have horizontal pupils. Their dry skin is thick and warty.

Behind their eyes, *Bufo* species have a wartlike structure, the parotid glands. These glands distinguish the true toads from all other tailless amphibians. They secrete a fat, white poisonous substance which acts as a deterrent to predators. Ordinary handling of toads is not dangerous (and it certainly does not cause warts!). The venom of most if not all toads contains bufotoxin; the venom of the Sonoran Desert Toad, *Bufo alvarius*, is a potent hallucinogen containing 5-MeO-DMT and bufotenin. The venom's psychoactive effects is said to have been known to Precolumbian Native Americans.

Toads can also inflate their bodies when threatened. Males are usually smaller than females. Male toads also possess the organ of Bidder, an incomplete ovary. The adult males of many species show a dark throat.

Two species are found in the British Isles: the Common Toad (*Bufo bufo*), and the Natterjack Toad, (*Bufo calamita*). The former is found almost everywhere. The Natterjack, which differs in its shorter limbs with nearly free toes (which are so short that the toad never hops but proceeds in a running gait) and in usually possessing orange/red warts,



green eyes & a pale yellow line along the middle of the back, is local in England, the south-west of Scotland, and the west of Ireland. It is further remarkable for the very loud croak of the males, produced by a large vocal bladder on the throat which, when inflated, is larger than the head.



TO
PO
SELVATICO
Apodemus sylvaticus

The Wood Mouse (*Apodemus sylvaticus*) or Long-tailed Field Mouse is a common rodent, closely related to the Yellow-necked Mouse, that was recognised as a distinct species in 1894. It differs in that it has no band of yellow fur around the neck, has slightly smaller ears, and is usually slightly smaller overall: around 90mm in length. If a wood mouse is caught by its tail, it can quickly shed the end part of it, but the tail may never grow again. It does not hibernate and, despite its name, it prefers hedgerows to woodland. It is found across most of Europe, extending north into southern Scandinavia and the British Isles. Almost entirely nocturnal, field mice burrow extensively, digging a series of chambers and runs. Their usual habitat is woodlands, fields and hedgerows, although they are also found in open grassland.

The geographical isolation and recent glacial history of Shetland have resulted in a depleted mammalian fauna. The field mouse (*Apodemus sylvaticus* L.), along with the brown rat (*Rattus norvegicus* Berkenhout) and the house mouse (*Mus musculus domesticus* Schwartz & Schwartz), are one of only three recorded types of rodent present on the island. Based largely on morphological studies of epigenetic variations, the source of the original founding population has been attributed to Norway with the most obvious date of introduction being presumed to be around the 9th century AD with the arrival of the Vikings. However, archaeological evidence now suggests that this species was present during the Middle Iron Age (around 200 BC - AD 400), and one theory proposes that *Apodemus* was in fact introduced from Orkney where a population had existed since at the least the Bronze Age (Nicholson *et al.*, 2005).

TASSO
Meles meles



The Eurasian or European badger, *Meles meles*, is a mammal indigenous to most of Europe (excluding northern Scandinavia, Iceland, Corsica, Sardinia, Sicily and Cyprus) and to many parts of Asia, from about 15° to 65° North, and from about 10° West to 135° East. It is particularly abundant in Britain and Ireland.

It is a member of the Mustelidae family, and so is related to the stoats, otters, weasels, minks and other badgers. The Eurasian badger is the only species classified in the genus *Meles*. Accepted subspecies include *Meles meles meles* (Western Europe), *Meles meles marianensis* (Spain and Portugal), *Meles meles leptorynchus* (Russia), *Meles meles leucurus* (China and Tibet), and *Meles meles anaguma* (Japan).

The general hue of its fur is grey above and black on the under parts with a distinctive black and white striped face and white-tipped ears.

Eurasian badgers are around 90 cm long (including a 20 cm tail) and weigh 10 kg on average, but weights can vary enormously. In the northern area of the range (only), badgers hibernate and put on fat in the autumn to help them through the winter months. In parts of Russia, badgers may weigh as much as 32 kg in the autumn. Badgers are omnivorous; most of their diet consists of earthworms, although they also eat insects, beetles, small mammals, lizards, frogs, eggs, young birds, berries, roots, bulbs, nuts, fruit, and other plant matter. They also dig up the nests of wasps in order to eat the larvae. Badgers prefer grazed pasture and woodland, which have high numbers of earthworms exposed, and dislike clay soil, which is difficult to dig even with their powerful claws. In urban areas, some badgers scavenge food from bins and gardens.

Badgers are nocturnal and spend the day in their setts, or extensive networks of tunnels. Setts enable them to survive through very hot or cold weather.

They are territorial, but can be found in groups (called clans) of up to 12. Each clan has a dominant male and female which are often (but not always) the only members of the clan to reproduce. Female badgers can display delayed implantation: after mating at any time of the year, they keep the fertilised eggs in suspended development until an appropriate time, at which stage the eggs are implanted and begin developing. Badgers have a gestation period of 7-8 weeks and give birth to 1-5 offspring. Males are called *boars* and females *sows*; the young are *cubs*. Badgers live for up to 15 years (average 3 years) in the wild, and up to 19 years in captivity. If they survive their first year, the most common cause of death is by road traffic.

Fossil remains of the badger have been found in England in deposits of Pleistocene age. Badgers are prone to Baylisascaris infestations. They can catch and carry rabies and are believed to transmit bovine tuberculosis (see below).

Badger baiting, in which a badger is attacked by a succession of dogs, often accompanied by heavy gambling, has been practiced since at least the Middle Ages in Europe. When the

badger is no longer able to fight, it is killed. Badger digging is the process of sending dogs down the tunnels of a badger sett in order to locate the badger, after which the diggers try to dig down to the badger.

In the UK, the Badger Trust believes that lamping (night-time hunting on foot with strong lamps) for badgers, badger baiting and badger digging persist despite all being illegal. Badger baiting was outlawed in 1835; badger digging in 1973. Lamping with dogs is legal only if rabbits are hunted since the passing of the Hunting Act 2004, lamping with guns is legal only for species not protected under the Wildlife and Countryside Act 1981. Under the Protection of Badgers Act of 1992 it is an offence to kill a badger or to interfere with a sett without a licence from the government (typically for culling).

The results of the first national badger survey published in 1990 estimated that 9,000 badgers were killed each year by badger digging.

British farmers and successive governments have long believed that bovine TB was being spread by badgers and infecting the national dairy herd, and since the 1970s badgers have been culled by gassing (now ceased) and shooting in attempts to prevent this spread.

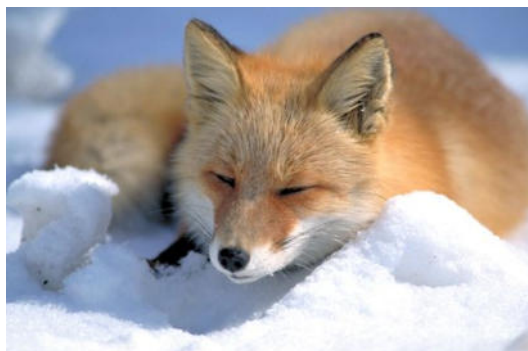
Tests carried out by the Ministry of Agriculture in the early 1970s showed that TB was more common in badgers than in other species. In the first Badger Act (1973), meant that licenses had to be issued for the killing of badgers. However there are various other theories concerning the transmission of TB to cattle, and badger culling remains a contentious issue in the UK. Recent scientific research shows that about 80% of TB in the cattle herd is due to cattle to cattle transmission.

Research into the specific mechanisms of how cattle contract bovine TB from badgers and into normal levels of transmission when culling is not practised is scanty. Following the recommendations of the Krebs report of 1997 (*Bovine Tuberculosis in Cattle and Badgers*), a research trial of badger culling, the Randomised Badger Culling Trial (RBCT), was begun. Part of the aim was to establish baselines which could be used to assess the efficacy of culls in future. As noted in the Godfray report (*Independent Scientific Review of the Randomised Badger Culling Trial and Associated Epidemiological Research*) of March 2004, the trial has experienced major problems, but continues.

Badgers are popular with the general public, if not with farmers, and societies exist to protect the species. The Badger Trust is the umbrella body for a series of groups like the Lancashire Badger Group formed for the conservation of these animals. Their most serious threat is automobile traffic, which kills about 50,000 badgers a year in Britain. In 2004, there were between 250,000 and 300,000 badgers in the wild in Britain.

VOLPE

Vulpes vulpes



The Red Fox (*Vulpes vulpes*) is the most familiar of the foxes. In Britain and Ireland, where there are no longer any other native wild canids, it is referred to simply as the "Fox". It has the widest range not just of any fox but of any terrestrial carnivore. As its name suggests, its fur is predominantly reddish-brown, but there is a naturally occurring grey morph, the Silver Fox; a remarkable strain of tame Silver Fox has been produced from these animals by systematic domestication.

The largest species within the genus *Vulpes*, the Red Fox has a native range spanning most of North America and Eurasia, with several populations in North Africa. A subspecies, the Japanese Red Fox (*Vulpes vulpes japonica*) migrated from India to China and eventually to Japan. It is also known by the Japanese name *kitsune* (狐). It has been introduced to Australia, where it poses a serious conservation problem.

Three subspecies of Red Fox are found in India :-

- *Vulpes vulpes montana* or the Tibetan Fox, found in Ladakh and the Himalayas.
- *Vulpes vulpes griffithi* or the Kashmir Fox, found in Jammu and Kashmir less the Ladakh sector.
- *Vulpes vulpes pusilla* or the Desert Fox, found in the Thar desert of Rajasthan and in Kutch, Gujarat.

The Red Fox is most commonly a rusty red, with white underbelly, black ear tips and legs, and a bushy tail with a distinctive white tip. The "red" tone can vary from crimson to golden, and in fact can be brindled or agouti, with bands of red, brown, black and white on each individual hair when seen close up.

In the wild, two other color phases are also seen. The first is silver or black, comprising 10% of the wild population and most of the farmed. Approximately 30% of wild individuals have additional black patterning, which usually manifests as a stripe across the shoulders and down the center of the back. This pattern forms a "cross" over the shoulders, hence the term "cross fox". "Domesticated" or farmed stock may be almost any color, including spotted, or "marbled", varieties.

The fox's eyes are gold to yellow and have distinctive vertically slit pupils, similar to those of a feline. They can see just as well too, and combined with their extreme agility for a canid the Red Fox has been referred to as "the cat-like canid". Its long bushy tail with distinctive white tip provides balance for acrobatic leaps and bounds. Its strong legs allow it to reach speeds of 45 miles per hour. That amazing speed makes it easy for them to catch their prey or to outrun their predators.

The Red Fox may reach an adult weight of 2.7–6.8 kg (6–15 lb), but this varies from region to region; European individuals being larger, on average, than those in North America.

During the autumn and winter, the Red Fox will grow more fur. This so-called 'winter fur' keeps the animal warm in the colder environment. The fox sheds this fur at the onset of spring, reverting back to the short fur for the duration of the summer.

The Red Fox is found in a variety of biomes, from prairies and scrubland to forest settings. It is most suited to lower latitudes but does venture considerably far north, competing directly with the Arctic Fox on the tundra. The Red Fox has also become a familiar sight in suburban and even urban environments both in Europe and in North America, where it shares territory with the much maligned raccoon.

The Red Fox eats rodents, insects, fruits, worms, eggs, mice, birds, and other small animals. It has 42 very powerful teeth that they use to catch their food. The fox regularly consumes from 0.5–1 kg (1–2 lb) of food per day. In urban neighbourhoods, the fox

probably depends mainly on scavenging household waste, though it will also take rodents and birds from gardens and wasteland.

Since it is so adaptable, it has a strong population that is above 20 million

Living as it does in a wide variety of habitats, the Red Fox displays a wide variety of behaviours. In *Biology and Conservation of Wild Canids*, MacDonald and Sillero-Zubiri state that two populations of the Red Fox may be behaviorally as different as two species.

The Red Fox is primarily crepuscular with a tendency to becoming nocturnal in areas of great human interference (and artificial lighting); that is to say, it is most active at night and at twilight. It is generally a solitary hunter. If a fox catches more food than it can eat, it will bury the extra food (cache) to store it for later.

In general, each fox claims its own territory; it pairs up only in winter, foraging alone in the summer. Territories may be as large as 50 square kilometres (19 square miles); ranges are much smaller (<12 square kilometres (4.6 square miles)) in habitats with abundant food sources, however. Several dens are utilized within these territories; dens may be claimed from previous residents such as marmots, or dug anew. A larger main den is used for winter living, birthing and rearing of young; smaller dens are dispersed throughout the territory for emergency and food storage purposes. A series of tunnels often connects them with the main den.

The Red Fox has been considered a monogamous species, however evidence for polygamy (polygyny and polyandry) includes males' extra territorial movements during breeding season (possibly searching for additional mates) and males' home ranges overlapping two or more females' home ranges. Such variability is thought to be linked to variation in the spatial availability of key resources such as food. The Red Fox primarily forms monogamous pairs each winter, which cooperate to raise a litter of 4–6 kits (also called pups) each year; but in various locales and for various incompletely explored reasons they may also practice polygamy (multiple males sharing a single female and/or vice versa). Sometimes young foxes disperse promptly on maturity (approx. 8-10 months); sometimes they remain in their natal territory and assist in raising the next year's offspring.

The reason for this "group living" behaviour is not well understood; some researchers believe the non-breeders boost the survival rate of the litters while others believe there is no significant difference, and such arrangements are made spontaneously due to a resource surplus.

Socially, the fox communicates with body language and a variety of vocalizations. Its vocal range is quite large and its noises vary from a distinctive three-yip "lost call" to a shriek reminiscent of a human scream. It also communicate with scent, marking food and territorial boundary lines with urine and feces.

The Red Fox breeding period varies widely due to its broad distribution; southern populations breed from December to January, central populations from January to February and northern populations from February to April. Females have an annual estrous period of between 1–6 days; ovulation is spontaneous. Copulation is loud and short, usually lasting no more than 20 seconds. Although a female may mate with several males (who fight amongst each other for the right), she will eventually settle with only one.



A fox kit sitting on a stone.

Males will supply food to females up to and after birthing, otherwise leaving the female alone with her kits (also called cubs or pups) in a "maternity den". An average litter size is 5 kits, but may be as large as 13. Kits are born blind and may weigh as much as 150 grams (0.33 pounds). Their eyes are open by two weeks and the kits have taken their first exploratory steps out of the den by five weeks; by 10 weeks they are fully weaned. In autumn of the same year, the young foxes will disperse and claim their own territories. The Red Fox reaches sexual maturity by 10 months of age, and may live for 12 years in captivity but usually live 3 years in the wild.

CAPRIOLO

Capreolus capreolus



The European Roe Deer (*Capreolus capreolus*) is a deer species of Europe and Asia Minor. There is a separate species known as the Siberian Roe Deer (*Capreolus pygargus*) that is found from the Ural Mountains to as far east as China and Siberia. The two species meet at the Caucasus Mountains, with the European species occupying the southern flank of the mountain ranges and adjacent Asia Minor and the Siberian species occupying the northern flank of the mountain ranges. Within Europe, the European Roe Deer occurs in most areas, with the exception of northern Scandinavia and some of the islands, notably Iceland, Ireland, and the Mediterranean Sea islands; in the Mediterranean region it is largely confined to mountainous regions, and is absent or rare at low levels. The Roe Deer is a relatively small deer, with a body length of 95-135 cm, a shoulder height of 65-75 cm, and a weight of 15-30 kg. It has rather short, erect antlers and a reddish body with a grey face. Its hide is golden red in summer, darkening to brown or even black in winter, with lighter undersides and a white rump patch; the tail is very short (2-3 cm), and barely visible. Only the males have antlers, which are lost during winter, but

which re-grow in time for the mating season. The first and second set of antlers are unbranched and short (5-12 cm), while older bucks in good conditions develop antlers up to 20-25 cm long with two or three, rarely even four, points. When the male's antlers begin to regrow, they are covered in a thin layer of velvet-like fur which disappears later on after the hair's blood supply is lost. Males may speed up the process by rubbing their antlers on trees, so that their antlers are hard and stiff for the duels during the mating season. Roebucks are the only type of deer that can regrow their antlers during winter. The Roe Deer is primarily a crepuscular, very quick and graceful, living on high ground or mountains, although it may venture to grasslands and sparse forests. It feeds mainly on grass, leaves, berries and young shoots. A pioneer species commonly associated with biotic communities at an early stage of succession, during the Neolithic period in Europe the Roe Deer was abundant, taking advantage of areas of forest or woodland cleared by Neolithic farmers (Boyle, 2006).

The Roe Deer attains a maximum life span (in the wild) of three to ten years. When alarmed, it will bark a sound much like a dog and flash out its white rump patch. Rump patches differ between the sexes, with the white rump patches heart-shaped on females and kidney-shaped on males. Males may also bark when attracting mates during the breeding season, often luring multiple does into their territory. The Roe Deer spends most of its life alone, preferring to live solitary except when mating during the breeding season. The polygamous Roe Deer males clash over territory in early summer and mate in early fall. During courtship, when the males chase the females, they often flatten the underbrush leaving behind areas of the forest in the shape of a figure eight called 'roe rings'. Males may also use their antlers to shovel around fallen foliage and dirt as a way of attracting a mate. Roebucks enter rutting inappetence during the July and August breeding season. Females are monoestrous and after delayed implantation usually give birth the following June, after a seven-month gestation period, typically to two spotted kids of opposite sexes. The kids remain hidden in long grass from predators until they are ready to join the rest of the herd; they are suckled by their mother several times a day for around three months. Young female Roe Deer can begin to reproduce when they are around 16 months old.

- In the Welsh myth Cad Goddeu, a rare white roebuck is stolen from Arawn of Annwn, symbolic of the soul's journey into death.
- An 11th century legend of the life of St. Maximus of Turin states that a cleric one day followed Maximus with an evil intention to a retired chapel, where the saint was wont to pray. The cleric suddenly became so thirsty that he implored Maximus for help. A roe happened to pass which the saint caused to stop, so that the cleric could partake of its milk. This legend accounts for the fact that St. Maximus is represented in art as pointing at a roe.
- Embryonic diapause, or delayed implantation of the blastocyst, was first described in roe deer.

SCOIATTOLO
Sciurus vulgaris



The red squirrel (*Sciurus vulgaris*), is a species of tree squirrels (genus *Sciurus*). Red squirrels are tree-dwelling omnivorous rodents that are frequently found throughout Eurasia. In Britain, however, numbers have decreased drastically due to the introduction of the Eastern Grey Squirrel from North America.

Red Squirrels have a typical head to body length of 19 to 23 cm, a tail length of 15 to 20 cm and a mass of 250 to 340 g. They are not sexually dimorphic as males and females are the same size. The Red Squirrel is slightly smaller than the Eastern Grey Squirrel which has a head to body length of 25 to 30 cm and weighs between 400 and 800 g. It is thought that the long tail helps the squirrel to balance and steer when jumping from tree to tree and running along branches and may keep the animal warm during sleep.

The coat of the red squirrel varies in colour with time of year and location. There are several different coat colour morphs ranging from black to red. Red coats are most common in Great Britain; in other parts of Europe and Asia the different coat colours co-exist within populations, much like hair colour in humans. The underside of the squirrel is always white-cream in colour. Red Squirrels shed their coats twice a year, switching from a thinner summer coat to a thicker, darker winter coat with noticeably larger ear-tufts (a prominent distinguishing feature of this species) between August and November. A lighter, redder overall coat colour, along with the larger ear-tufts, helps to distinguish the European Red Squirrel from either of the Eastern Grey Squirrel or the American Red Squirrel.

The Red Squirrel, like most tree squirrels, has sharp, curved claws to enable the climbing of trees, even when branches are overhanging.

Mating can occur in late winter during February and March and in summer between June and July. Up to two litters a year per female are possible. Each litter usually contains three or four young although as many as six may be born. Gestation is about 38 to 39 days. The young are looked after by the mother alone, and are born helpless, blind and deaf and weigh between 10 to 15 g. Their body is covered by hair at 21 days, their eyes and ears open after three to four weeks, and they develop all their teeth by 42 days. The juvenile Red Squirrel can eat solids around 40 days following birth and from that point can leave the nest on their own to find food, however they still suckle from their mother until weaning occurs at eight to 10 weeks.

During mating, males detect females that are in oestrus from an odor that they produce, and although there is no courtship the male will chase the female for up to an hour prior to mating. Usually multiple males will chase a single female, until the dominant male, usually the largest in the group, mates with the female. Males and females will mate multiple times with many partners. Females must reach a minimum body mass before they enter oestrus, and heavy females on average produce more young. If food is scarce breeding may be delayed. Typically a female will produce her first litter in her second year. The lifespan of the Red Squirrel is on average three years, although individuals may reach seven years of age, and 10 in captivity. Survival is positively related to availability of autumn–winter tree seeds, on average, 75 to 85% of juveniles disappear during their first winter, and mortality is approximately 50% for winters following the first.



The Red Squirrel is native to usually coniferous forest and it is also found in temperate broadleaf woodlands. The squirrel makes a nest, known as a drey in a branch-fork of a conifer by laying down twigs to make a domed structure about 25 to 30 cm in diameter, then lining it with moss, leaves, grass and bark. Hollows and woodpecker's nests are also used. Red Squirrels are solitary animals and are shy and reluctant to share food with others. However, outside of the breeding season and particularly in winter, multiple Red Squirrels may share a drey to keep warm. Social organization is based on dominance hierarchies among and between sexes, although males are not necessarily dominant to females, the dominant animals tend to be larger and older than subordinate animals and dominant males tend to have larger home ranges than subordinate males or females.

Red Squirrels eat mostly the seeds of trees, neatly stripping conifer cones to get at the seeds within. Fungi, birds' eggs, berries and young shoots are also eaten. Often the bark of trees is removed to allow access to sap. Between 60% and 80% of active period may be spent foraging and feeding. Excess food is put into caches, either buried or in nooks or holes in trees and eaten when food is scarce. Red Squirrels do not remember where they created caches; they have to search for them when in need, and many caches are never

found again. No territories are maintained, and the feeding areas of individuals overlap considerably.

The active period for the Red Squirrel is in the morning and late afternoon-evening. They often rest in their nests in the middle of the day, avoiding the heat and the high visibility to birds of prey that are dangers during these hours. During the winter, this mid-day rest is often much more brief, or absent entirely, although harsh weather may cause the animal to stay in its nest for up to days at a time.

Arboreal predators include small mammals including the Pine Marten, Wild Cats, and the Stoat which preys on nestlings, birds including owls and raptors such as Goshawk and Buzzard may also take Red Squirrels. The Red Fox, cats and dogs can predate upon the Red Squirrel when they are on the ground. Humans influence the population size and mortality of the Red Squirrel by destroying or altering habitats, causing road casualties, or through controlling populations by hunting.

The Red Squirrel is protected in most of Europe, as it is listed in Appendix III of the Bern Convention; it is also listed as Near Threatened on the IUCN Red List. In some areas it is abundant and hunted for its fur. Although not thought to be under any threat worldwide, the Red Squirrel has drastically reduced in numbers in the United Kingdom. Under 200,000 individuals are thought to be left, approximately 70 to 75% of which are in Scotland. This population decrease is likely to be due to the introduction of the Eastern Grey Squirrel from North America as well as the loss and fragmentation of its native woodland habitat.



red squirrel

In order to conserve remaining numbers of red squirrels, the UK Government in January 2006 announced a mass culling program for grey squirrels. This was welcomed by many conservation groups. The UK has established a local program known as the North East Scotland Biodiversity Partnership, an element of the national Biodiversity Action Plan. This program is administered by the Grampian Squirrel Society, with an aim of protecting the Red squirrel; the program centers on the Banchory and Cults areas.

Outside of the UK and Ireland, the threat from Eastern Grey Squirrels comes from a population in Piedmont, Italy, where two pairs escaped from captivity in 1948. A significant drop in Red Squirrel populations in the area has been observed since 1970, and it is feared that Eastern Grey Squirrels may expand into the rest of Europe.

The Eastern Grey Squirrel population appears to be able to out-compete the Red Squirrel for various reasons:

- The Eastern Grey Squirrel can easily digest acorns, while the Red Squirrel cannot.
- The Eastern Grey Squirrel carries a disease, the squirrel parapoxvirus, that does not appear to affect their health, though will kill most red squirrels.
- When Red Squirrels are put under pressure, they will not breed as often.

It is worth noting that Eastern Grey Squirrels do not usually attack Red Squirrels, and direct violent conflict between these species is not a factor in the decline in Red Squirrel populations.

RICCIO

Erinaceus europaeus e *E.concolor*



The Western European hedgehog (*Erinaceus europaeus*), or simply the European hedgehog, is a hedgehog species found throughout the Palaearctic region, except in the Himalayas and North Africa. It is not commonly found above 60°N in latitude, except for Finland, Sweden and the Northwestern-most parts of Russia.

The hedgehog is about 20 cm in length, and lives in woodland, farmland and suburban areas. It is nocturnal, and if alarmed will roll itself into a ball, protecting itself against potential predators with its spines.

Unlike the smaller, warmer climate species, the European Hedgehog may hibernate in the winter. It feeds on slugs, earthworms, beetles and other insects, and sometimes frogs, small rodents, young birds and birds' eggs.

This species has become a serious pest in the Western Isles of Scotland, where introduced hedgehogs eat the eggs of ground-nesting waders such as Snipe, Dunlin, Redshank and Lapwing.

Gelegentlich kommen Igel mit besonders heller Fellfarbe vor.