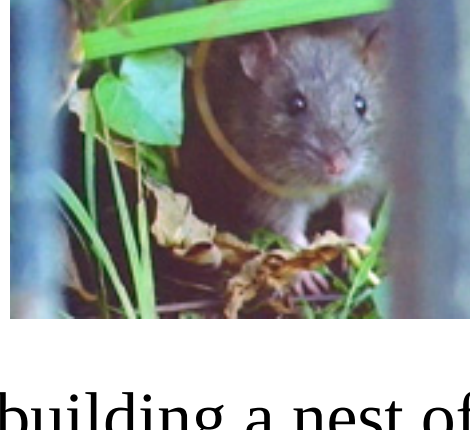
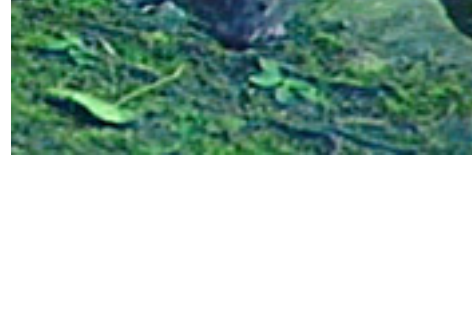


MAMMALS

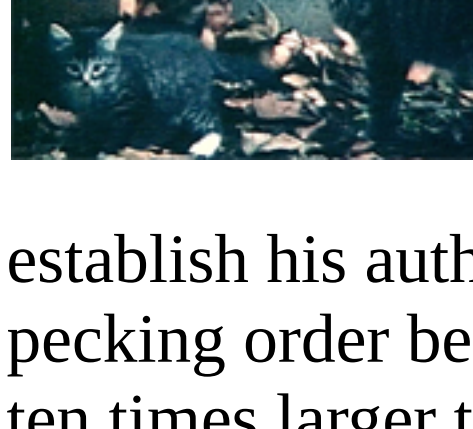
BROWN RAT



Makes their home in sheds and other outbuildings. They are good swimmers and divers and cope well living alongside water. They will excavate a burrow to raise and protect a family, building a nest of straw, rags and feathers. Gestation lasts 21-24 days. The size of the litter depends on the size of the mother, 16 cubs is normal for a large mother, 6 for a small one. The cubs are born naked and blind, opening their eyes after 6 days, and weaned after 3 weeks. Breeding can take place through the year but concentrates in the summer months.

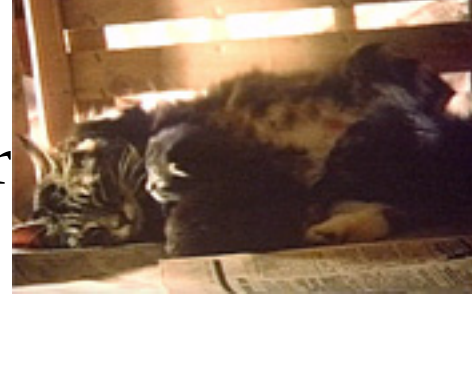


CAT

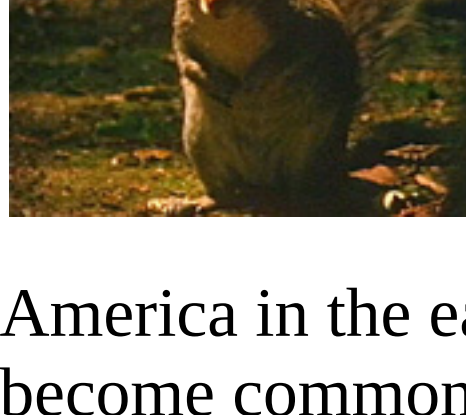


Feral cats tend to form colonies usually in isolated spots, gathering in a communal meeting place, where some kind person may bring them food. In the colony one cat, usually male, will establish his authority with a hierarchy of other cats in the pecking order beneath him. Males have a home territory ten times larger than the territory held by females, marking their territory with a strong smelling spray, and by rubbing scent glands from under their chin, the top of their head, the middle of their back and on their tail, against walls and fences. Scent marks give information of the cat's sex, maturity and fitness to other cats, and establish a mating hierarchy. They raise their tails and rub heads greeting each other, after spending most of the day dozing. A cat is naturally a hunter, catching birds and rodents.

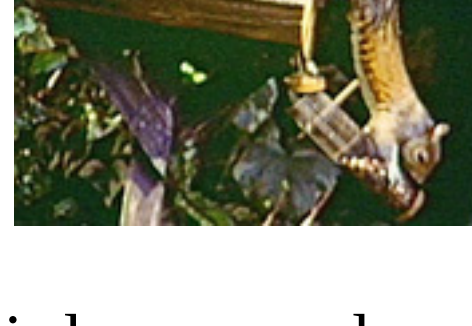
The females will seek out a quiet place in their home territory to give birth to their kittens, having an average of four kittens surviving to adulthood. Cats will stay in families with their mother and with their siblings, transferring their scent and reinforcing their group identity.



GREY SQUIRREL



Grey squirrels naturally live in or near woodland, to take advantage of the autumn nuts and fruits, but have adapted to town parks and gardens feeding from bird tables. Introduced from North America in the early 20th century the grey squirrel has become common, outcompeting the native red squirrel which is now confined to parts of Norfolk, Lake District, Northumberland and Durham. They nibble on anything that grows on trees, stripping the tree bark to feed from the sap beneath, and foraging for birds eggs and fruit. In the autumn the grey squirrel will build caches which it will fill with the ample autumn food to supplement the scarce supply during the winter. It is agile, jumping with ease from branch to branch. It has keen eyesight and strong sense of smell.

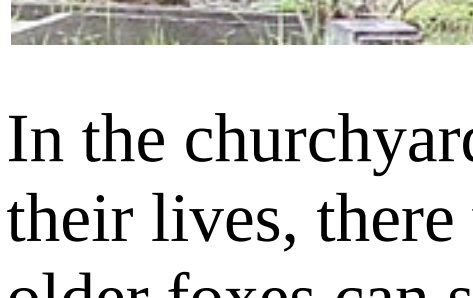


Courtship rituals start in May, which involve male displaying and chasing. The female builds the dray, made up of leaves, twigs, grass lined with moss, built away from the main trunk of the tree. She attends to the 2 or 3 baby squirrels herself, banning the male from the nest tree. She is an attentive parent, offering her milk to her blind and deaf infants for 7 weeks,

feeding them solid food for another 3 weeks. When they are 10 weeks old they start to climb outside the dray, and after a further 3 weeks are out on their own.



RED FOX



Fox has a strong sense of smell and keen hearing, with eyesight adapted for night vision. They can live for ten years but rarely will live that long, the majority dying before the end of their first winter.

In the churchyard, where there will be fewer threats to their lives, there will be a more stable population where older foxes can survive.

City foxes feed by scavenging rather than hunting, invading dustbins and returning to gardens where food has been put out for them. They supplement this diet with small birds, occasional squirrel and voles, fruit, insects and earthworms. Encounters with domestic cats usually ends with the fox high tailing it.

Often living in groups, foxes hold their territory through their life as long as food is available and they are not harassed by people. Young male foxes leave their parents territory in the autumn, young females may remain their entire lives in the their birth territory as long as an ample supply of food supports them and their parents.

They mark the boundaries of their territory with urine scent marks to alert other encroaching foxes. They communicate through a complex variation of calls, and by scent marking.

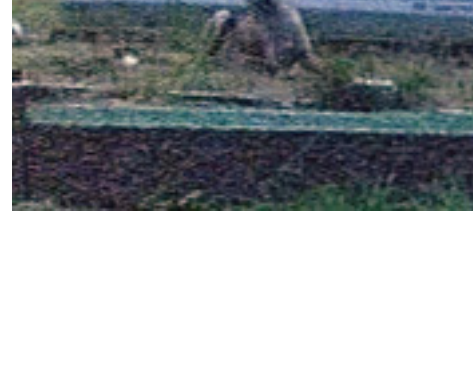


Vixens come into heat for only 3 or 4 days in mid January, attracting males from neighbouring territories. She remains pregnant for 53 days bearing her cubs in spring. While pregnant she will dig exploratory earths, abandoning those that are unsuitable and finally choosing one that are will house her family. It will have two or two three entrances and can stretch for several meters underground. Towards the end of March she gives birth to her cubs, usually no more than 4 in one litter, 130 grams (41/2ozs) in weight, with fur but eyes closed. She remains in the earth for several days, while the dog fox brings back food for her and the cubs. The foxes sometimes live in groups of one dog fox and several vixens where the younger females will not breed, but will help in rearing the cubs of the mother fox. These non breeding vixens may be related to the breeding female and so have a family interest in the survival of the cubs. The cubs are fed with their mother's milk for about 3 weeks, then are fed scraps of meat.

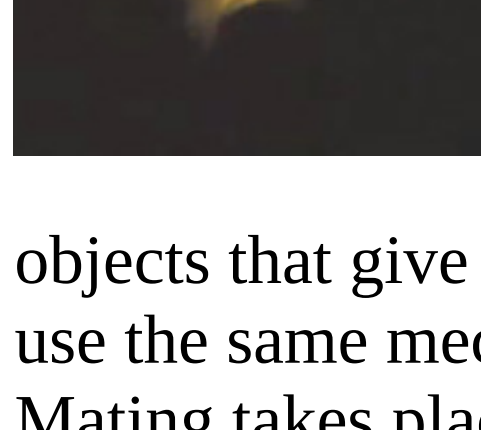


In early May the cubs, now 1 kilo in weight, their grey eyes open still with their dowdy cubs fur, emerge from the den and start to play running back at any sign of danger.

By June, now with the chestnut coloured adult fur, they are out of the earth and from then on spend most of their time outside hiding when necessary in dense vegetation. The family gathers in these new play areas, with the cubs chasing and jumping on each other in mock fights. They are now able to forage for themselves, catching beetles and earthworms. They will follow their mother in her hunting trips learning from her hunting skills. By July the cubs are weighing 5-7 kilos (11-15bs), three quarters of their adult weight. From October the cubs make sorties away from their home territory, returning at night. By December, if food is harder to find, the cubs may move away from their home territory, not usually moving more than one kilometre from their birth place, remaining in touch with each other through scent and sound. If they survive the cold and stress the cubs can expect to live for an average 3 years.



BATS



Bats roost in an enclosed spaces which they can enter and leave safely. A church belfry is ideal. They use echo location to fly in the dark, emitting high intensity ultrasonic sounds which reflect from objects that give a bat a sense of his surroundings. They use the same mechanism to catch night flying insects. Mating takes place in autumn. The female stores the sperm in her uterus until spring, when she ovulates and releases the sperm to fertilise her eggs. Two dozen females gather in summer to raise their young, huddling together on cool days. Males have no place in the roost and do not help with raising the baby bats. They will roost on their own or collect together in a male only roost. The young are born in June and July, weighing one third of its mothers weight. Each mother rears one baby. Once the babies are weened, the males rejoin the family. Bats feed exclusively on insects and so must find ways to conserve energy when insects become scarce.

They hibernate over the winter months. finding a suitable tree or building, where they will huddle together for warmth. Hibernation ends in March.

