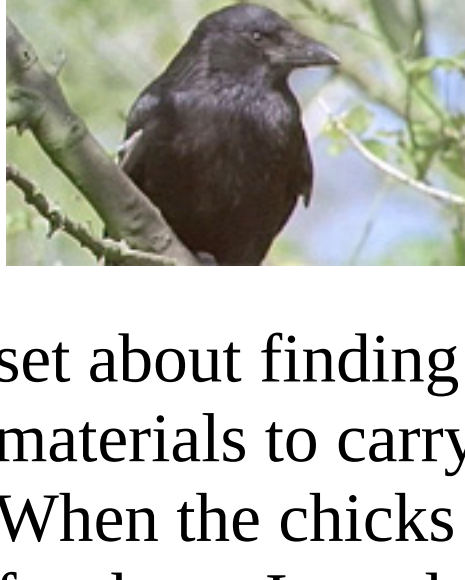
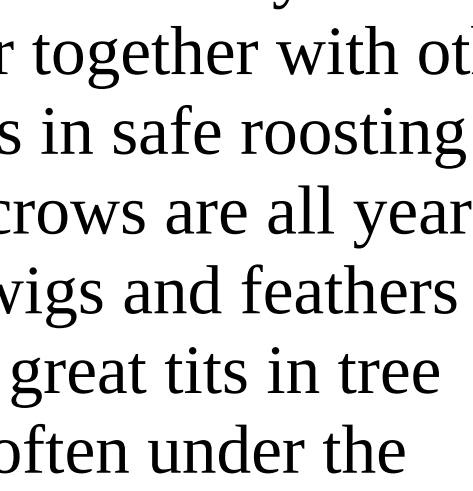


TOWN BIRDS

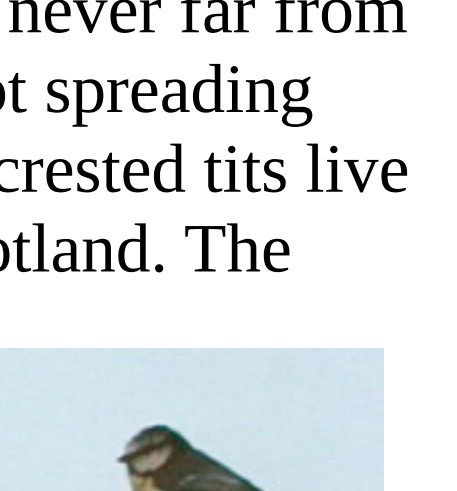


For birds the annual cycle follows a regulated pattern. In Spring they seek out a mate. Some birds like the crow keep the same partners for life, others seek out new partners. They mate and set about finding a site for their nest, gather nesting materials to carry them back and forth to build their nest. When the chicks are born both parents bring food back for them. In early summer the chicks leave the nest, hopping from nearby branch to branch, closely guarded and fed by their parents, until they become independent and forage for themselves, with their parents never too far away. As autumn approaches the families gather together with other families to feed and rest in large flocks in safe roosting trees. Doves, sparrows, great tits and crows are all year residents. Doves build their nests of twigs and feathers hidden in tree branches, sparrows and great tits in tree holes when they can find them, more often under the eaves of house roofs, crows nest in the safety of colonies in trees.



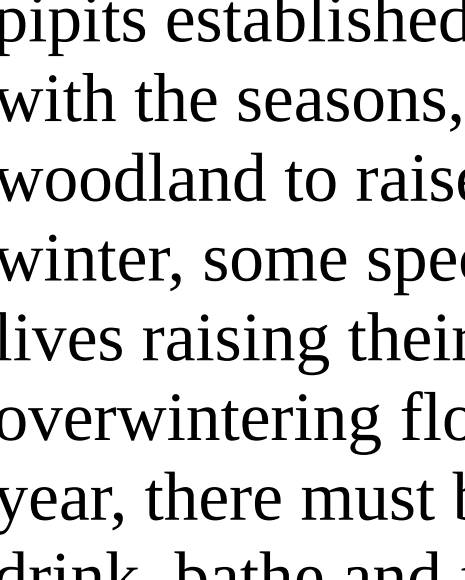
Migrants like the house martins and swallows arrive in spring, as the airborne insects hatch. During their short visit they raise a family, building their intricate mud nests attached to the roofs of balconies and porches. In September they gather on electricity cables before setting off to overwinter in Northern Africa. As the house martins fly south, wading birds arrive on the reservoirs from Northern Europe escaping their harsh winters.

We are burning fossil fuels, driving our cars, heating and cooling our homes, flying away on our holidays blind to the effects on bird populations. Insects and birds fail to adapt as climate changes.

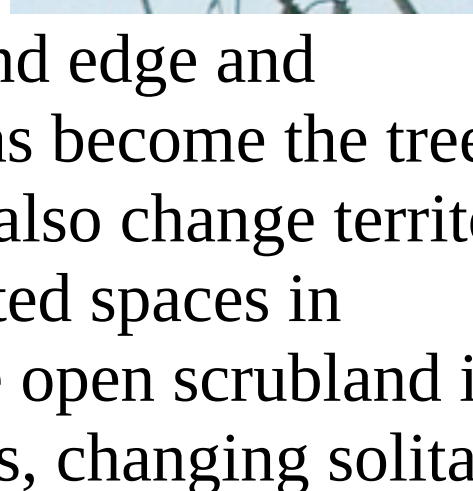


The house sparrow, the bird that was common everywhere, has lost 62 percent of its population since the 1980s.

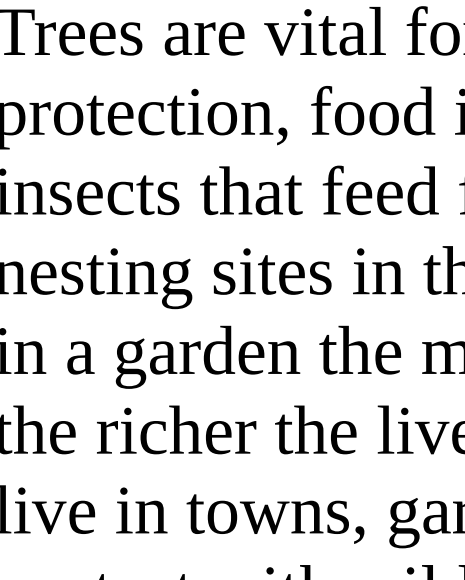
HABITAT



Most birds, wrens, starlings and crows, are adaptable to different habitats, but some depend on a particular habitat for survival. Kingfishers will always be near water, treecreepers never far from woodland. Other species are localized, not spreading outside their specific part of the country, crested tits live only in the Caledonian pine forests in Scotland. The availability of food and shelter are among the variables influencing birds distribution. Tree pipits need high perches to use as song posts to establish territory, and an open landscape to hunt for insects. Woodland edge and heathland satisfy both needs and so has become the tree pipits established territory. Birds will also change territory with the seasons, moving from protected spaces in woodland to raise their young to more open scrubland in winter, some species, sparrows and tits, changing solitary lives raising their chicks to communal living gathering in overwintering flocks. In all habitats at all times of the year, there must be a supply of water for the birds to drink, bathe and feed.

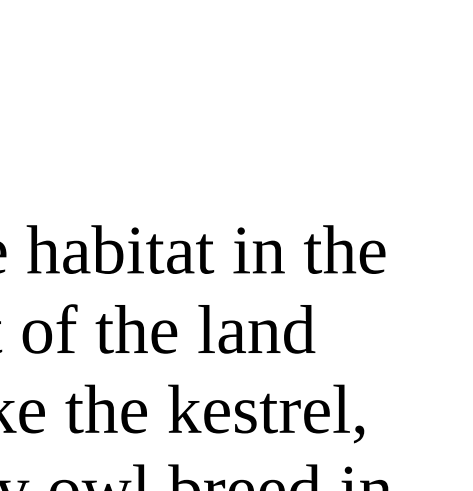


GARDENS

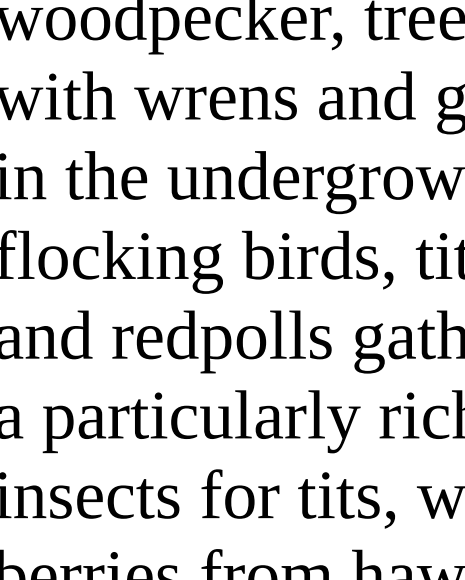


Most garden birds are woodland birds. They have been drawn to towns by the regular supply of food, insects and fruit from town trees, and the edible waste from dustbins. This gives birds confidence that in building their nests that they will have enough for themselves and their chicks. Blue tits, great tits, robins, blackbirds are common garden visitors, starlings, carrion crows and rooks scavenge from household waste.

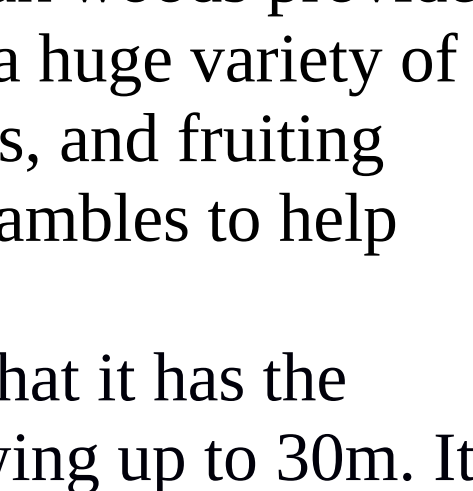
Trees are vital for town birds. They offer protection, food in their fruit and the insects that feed from their flowers, and nesting sites in their trunks and branches. The more trees in a garden the more birds will choose to live there and the richer the lives of the residents. For those of us who live in towns, garden birds are often the only regular contact with wild animals.



WOODLAND



Woodland is now a rare habitat in the UK, covering 8 percent of the land surface. Larger birds like the kestrel, sparrowhawk and tawny owl breed in woods in the spring, alongside hole nesting birds like the woodpecker, tree creeper and nuthatch, with wrens and garden warblers nesting in the undergrowth. In the autumn flocking birds, tits, goldcrests, siskins and redpolls gather in the tree canopy. Oak woods provide a particularly rich habitat for birds, with a huge variety of insects for tits, warblers and woodpeckers, and fruiting berries from hawthorn, elderberry and brambles to help birds through the winter.



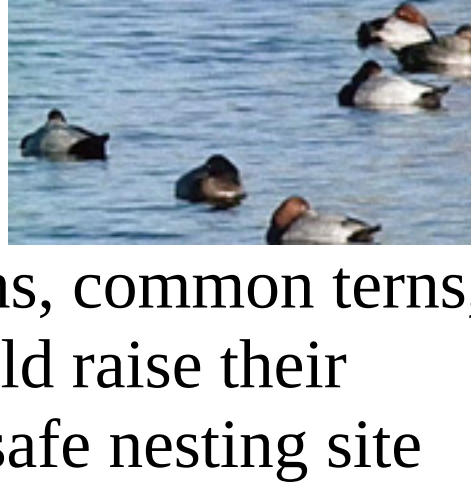
Woodland differs from other habitats in that it has the extra dimension of height, with tree growing up to 30m. It has four levels of vegetation, at the lowest level the litter and soil, above that the field layer small plants and mosses, ferns and flowers, extending up to 2 meters, the level supporting the most wildlife. Above it at the shrub layer, the under storey, with young trees, shrubs and bushes, hazel, blackthorn, buckthorn, dog rose, elder, hawthorn and spindle. High above that is the canopy layer, the branches and leaves of mature trees, the oaks, ashes and beeches. Each layer is a home for insects, birds and mammals. The wood that displays all four layers will have plenty of light penetrating the canopy to reach the ground plants. As the trees nutritious leaves unfurl in spring, insects descend in huge numbers, caterpillars and moths. in turn becoming food for tits, warblers, finches, redstarts, pied flycatchers and starlings. Crows, sparrow hawks, kestrels, woodpeckers and nuthatches nest in tree crevices. Bats hunt around the tops of the trees. Grey squirrels thrive among oaks and sweet chestnuts, leaping between branches, feeding on nuts, tree bark, shoots fungi and birds eggs, building its its untidy spherical dray high in the branches. The shrub layer, entwined with ivy and honeysuckle is where the solitary nocturnal dormouse lives, preferring dense growth, with hazel, beech and sweet chestnut the dominant species. Plants that lack chlorophyll, like ferns, do not need carbon dioxide to grow, instead taking their nutrients from dead organic matter in the ground, thrive in the shade of the wood's canopy. Among the ferns the live hedgehogs, shrews and wood mice. Speckled wood, green veined and white butterflies rest on the leaves. Mosses and fungi grow on the ground. Mosses often cover the trunks of fallen trees, fungi, sending up toadstools in autumn, grow alongside tree roots providing xx to the roots and taking xxx from the roots in a symbiotic relationship. The flowering plants looking for insect pollinators grow in clearings and along the woodland edge.

RESERVOIRS



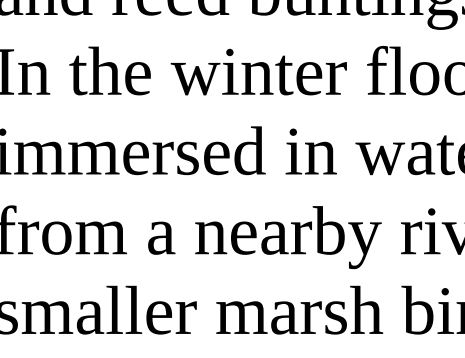
Reservoirs are made to supply the city with water which may not always be compatible with encouraging birdlife. The safe open water attracts flocks of

winter migrants, pochard, tufted duck and cormorants. The water companies have provided sites for nesting birds



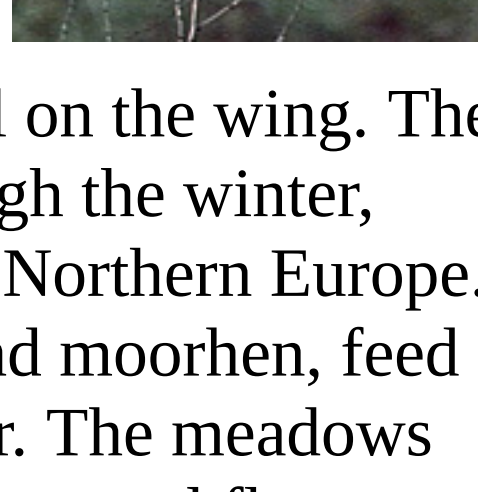
by building central islands where herons, common terns, mallards, grebes and Canada geese could raise their families. Once wildfowl have found a safe nesting site they will often return year after year. With the hope that water companies accommodate the needs of the birds in their corporate plans.

MARSHES



Marshes grow on nutrient rich soil, often with waterlogged pools, with a rich variety of vegetation, reeds and sedges. This develops into carr with buckthorn, alder and willows. The wetter areas attract moorhens and mallards, the marshy areas attract migrating warblers and redpolls to build their nests. Reed beds attract tits and wrens in search of insects and spiders, with swallows, sand martins, yellow wagtails starlings and reed buntings roosting in the autumn.

In the winter flood meadows are immersed in water taking the overflow from a nearby river. Many of the smaller marsh birds, the sedge and marsh warblers have migrated south, to places where their diet if insects are still on the wing. The reed bunting stays on the marshes through the winter, joined by migrating reed buntings from Northern Europe.

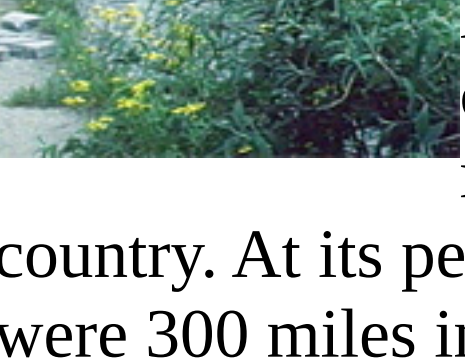


Water birds, the coot and moorhen, feed from larvae in the water. The meadows have a special mix of trees and flowers that can tolerate this annual flooding, with nutrient rich silt deposited by the

flooding fertilising the abundant growth. Insects overwinter as larvae, eggs and pupae, buried in the ground, attached to undergrowth or sunk in the water. Swallowtail pupae cling to the underside of leaves and dragonfly eggs lay underwater.

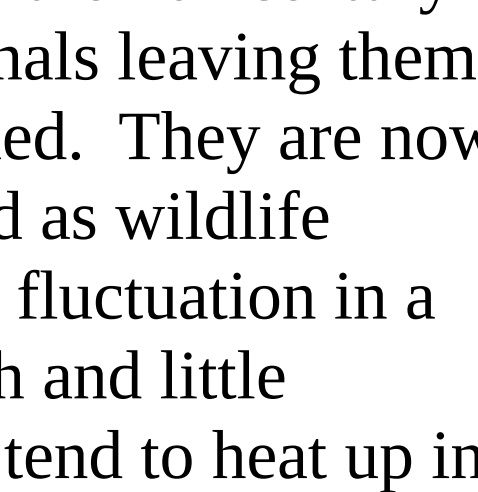
Flood meadows are immersed in water most winters, overflow from a nearby river. They have a special mix of trees and flowers that can tolerate this annual flooding, 60 species of flowering plants, 15 grasses rushes and sedges. Nutrient rich silt deposited by the flooding fertilises the abundant growth. Too often flood meadows are drained to make the land available for agriculture and have become a rare habitat

CANALS

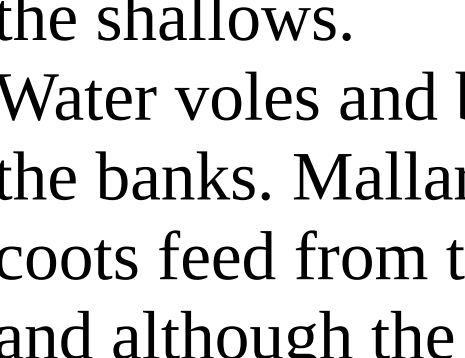


In Britain the major time of canal construction was from the mid 18 hundreds to the mid 19 hundreds, built to carry freight, particularly coal, from the mining industrial north to the rest of the country. At its peak the canals linked to navigable rivers were 300 miles in length. By the start of the 20th century the railways had taken over from the canals leaving them to fall into decline and become abandoned. They are now being revitalised for recreational use and as wildlife sanctuaries. Unlike a river, there is little fluctuation in a canals water level with its uniform depth and little flowing movement of the water. Canals tend to heat up in summer leading to plankton and algal growth, encouraging insects, dragon flies and water snail and fish, sticklebacks, bream, tench and roach, and plant growth in the shallows.

Water voles and brown rats scurry along the banks. Mallards, tufted duck and coots feed from the water invertebrates and although the steep concrete banks do not invite nest building, manage to find a piece of scrubland to build their nest.

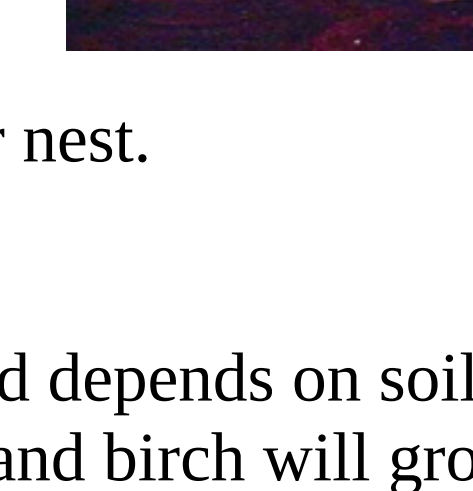


SCRUBLAND

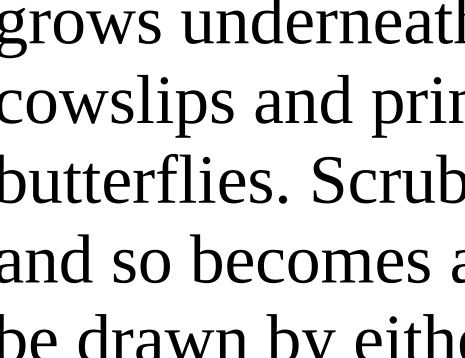


The type of scrubland depends on soil and drainage. Alder and birch will grow on wet soil, sycamore and birch on dryer ground, and as succession advances, giving way to oak and beech. Hawthorn grows underneath the trees and plants, orchids, violets, cowslips and primroses that are particularly attractive to butterflies. Scrubland is a mixture of grass and woodland and so becomes a home a large variety of birds that would be drawn by either habitat. The original grassland draws birds such as the skylark and meadow pipit, and as bushes start to grow migrants first the willow warbler, and, then tree pipit, blackcap, garden warbler and whitethroat. Resident birds wren, dunnoek, robin, blackbird, song thrush and yellow hammer build their nest sites. Colonies of linnets and redpolls may visit. After a few years more birds arrive, heathland birds, the long tailed tit, stonechat and winchat and

woodland birds, blue tit, marsh and willow tit, treecreeper and chiffchaff, tree pipit and white throat, then larger birds settle in finches, magpies, jays, doves and woodpigeons. In autumn passing migrants like the skylark and pied flycatcher may stopover and in winter fieldfares and redwings migrating from Scandinavia fly in to gorge on the hawthorn berries.



CHURCHYARD



The few acres that make up a churchyard will have remained undisturbed for generations and this can very rarely be said about most other habitats. Undisturbed grass, unlike fertilised grassland, will support a large variety of insects and invertebrates. Its flowers are characteristic of ancient meadows and pastures with cowslip, oxeye daisy and knapweed. This herb rich grassland attracts a multitude of insects, which attract a variety of birds. The trees and shrubs provide shade and shelter for the birds to build their nests. A common churchyard tree, the yew invites goldcrests and spotted flycatchers, offering fruit in the autumn. Wood pigeons, nuthatches, woodpeckers robins and tits nest in the sycamore, horse chestnut and birch. Feral pigeons roost on the church roof, kestrels and owls shelter in the church bell tower. A maple protects the nest of the sparrowhawk. The open grassland offers hunting spaces for blackbirds and magpies perched on the gravestones.

