



DISCOVER

It's our nature!

For most of human history our lives have been shaped by the local landscape: our survival depended on knowing it well. Knowledge of the wildlife and the habitats around us was second nature when most of us worked on the land and walked to our work places. Today, you might think we no longer need nature but the more you think about your connections with nature – and we hope this guide will inspire you to think about them – the more you see them everywhere. What's the paper in this book made from? What are you breathing, without even noticing, while you read this?

What's more nature makes us feel good. Close your eyes and think of somewhere really beautiful. The chances are your beautiful place was outdoors. Perhaps there was a river nearby (water makes us feel really good), maybe the sun was shining through the fresh leaves of a tree, and there's a good chance birds were singing in the background or a butterfly was chasing around.

The **DISCOVER** section of this guide introduces you to some of the important habitats that are found in the **Gaywood Valley Living Landscape** and tells you about the wildlife you can discover here.

Do I really need healthy ecosystems and a wildlife rich landscape?

Even if you are sitting indoors while you read this, the life-giving oxygen in the next breath you take will have been provided by green plants and the carbon dioxide you breathe out will be taken from the air by those same green plants. This is a big part of what regulates our climate and makes it habitable, and it's done all the time, for nothing, and with nobody noticing, by nature. It's what we call an ecosystem service. The balance of gases in our atmosphere is maintained by living creatures, in their habitats, functioning in ecosystems.

It's happening all around you! Natural habitats in the Gaywood Valley and the wild species that live in them help reduce man-made climate change: the peat-forming mire at Roydon Common takes carbon dioxide from the atmosphere and locks it away in buried layers of wet peat. Trees everywhere in our Gaywood woodlands, parks and streets also lock away atmospheric carbon in their timber.

And what did you eat for breakfast? Many of our food crops still depend on wild bees and other

wild insects to pollinate them and of course all of our food plants depend on the ecosystems that maintain healthy soils. The majority of land in the Gaywood Valley is farmland. All of this farmland, whether producing crops or livestock, depends of supplies of fresh water. The wetland habitats in the Gaywood Valley help prevent flooding after heavy rains and hold water like sponges when it's plentiful, releasing it slowly during the summer months and helping make sure the river doesn't run dry. Nature's doing all this, and much, much more, all the time, and for nothing!

We may take it for granted, but the natural beauty of our local landscape – its woods, heaths, lakes, river and green spaces – helps keep us happy healthy and sane! Scientists call this function of the landscape a cultural service. From the first cave paintings to 21st century art, nature has been the single greatest source of human inspiration. So read on: we hope this guide to the Gaywood Valley Living Landscape will inspire you. This Living Landscape is a source of food, clean water, clean air, healthy soils, amazing wildlife and stunning natural beauty. If you live in it or visit it, you are part of it and it in turn plays a huge part in your quality of life.

Discover the Gaywood Valley Explore A Living Landscape



WT Reffley Wood p51



St James' Church (Bawsey Ruins) p44



NWT Roydon Common p48



Congham Heath Woods p56



NWT Grimston Warren p46



Bawsey Country Park p42



Harding's Pits p55



The Walks p53



Gaywood Plantation p57



Key to map

- Gaywood Valley Living Landscape
- Gaywood River
- Nature reserves / sites to visit
- Urban / built-up areas
- Major roads

1km



Woods in the Gaywood Valley

Woods have been part of the Gaywood Valley for thousands of years. Today there are woods of several kinds in the valley including birch woods and ancient oak woods. There are also recent plantations of conifers, grown for timber, and very small areas of wet woodland dominated by alder and willow. Overall the area of woodland in the Gaywood Valley is very small and each wood is a precious island for woodland wildlife, usually isolated from the next by farmland, roads or housing. In total the Gaywood Valley holds 256 hectares of deciduous woodland, 178 hectares of conifer plantation and 133 hectares of mixed woodland.



orange birch bolete

How were they formed?

Thousands of years ago, after the retreat of the last Ice Age, the Gaywood Valley, like most of Norfolk, would have been colonised by birch woodland, followed in time by richer deciduous woodland. From the Bronze Age onward, prehistoric people deforested this vast wildwood creating the open landscape we associate with West Norfolk today. Since then, woodland has only covered a small area of the Gaywood Valley. In some places, often on former heaths and commons, there are conifer plantations, most of them planted since the Second World War. Even natural woodland can spring up remarkably quickly and areas of birch woodland on former heathland have developed very recently. Today there is increased interest in planting native deciduous trees in Norfolk but the area of woodland in the Gaywood Valley remains small and very fragmented.

How have people used them?

Humans have depended on woodland for countless resources for centuries. Traditional products included timber for construction of houses, ships and furniture, wood for burning or making charcoal, stakes for wattle, wicker and poles, bark for tanning leather, and pannage of acorns for pigs. Many other natural resources such as fruit, nuts, wild medicines, meat from game and grazing for domestic livestock have also traditionally come from woods. In recent decades we have largely lost our interest in the management of woods for this wide range of natural resources, though the trend towards heating homes with wood fuels is reason to hope this may yet change.



spotted flycatcher



wood anemone

What are their special habitats?

Every wood provides a great range of habitats. Within a wood there are generally several structurally distinct habitats including the topsoil and leaf-litter, the ground flora, low scrub and growing trees, and the canopy of older trees. Each layer is inhabited by different wildlife species. Dead wood is also important for invertebrates and fungi but is often largely absent from managed woodland. Ancient woods support the greatest diversity of wildlife and in general large woods will support a greater range of species than smaller woodlands. The largest area of ancient woodland in the Gaywood Valley is Reffley Wood, a Woodland Trust nature reserve. Though most of the ancient woodland in the Gaywood Valley has been greatly modified by human activity, including the planting of conifers and introduction of other non-native species, the Woodland Trust is managing areas such as Reffley Wood and Gaywood Plantation to restore them to a more natural state.



wren



Reeves' muntjac

What special wildlife lives there?

Woods are hugely diverse and are home to an enormous number of species. Plants which indicate a site is an ancient wood include bluebell, wood anemone, wood sorrel, yellow archangel, yellow pimpernel and goldilocks buttercup. Woods are typically more diverse than other habitats in insects such as moths and as a result are rich in birdlife and mammals.



jay



bluebell

These are just a few of the species you could see in your local Gaywood Valley woods:

- primrose
- red campion
- herb robert
- ivy
- honeysuckle
- bluebell
- wood anemone
- wood sorrel
- yellow archangel

- great spotted woodpecker
- jay
- sparrowhawk
- long-tailed tit
- blue tit
- great tit
- coal tit
- robin
- wren

- grey squirrel
- badger
- hedgehog
- bank vole
- wood mouse
- Reeves' muntjac
- roe deer

- comma butterfly
- red admiral
- speckled wood



What conservation challenges are there?

The chief conservation challenge in woodland in the Gaywood Valley is to restore connectivity between isolated sites to allow populations of woodland wildlife to move through the farmed landscape and the built environment. In commercial woods, the challenge is to maintain productivity while encouraging both biodiversity and recreational use. A priority in King's Lynn is to protect the few remaining ancient woods and to ensure that as the town grows new woods are developed in urban areas and the urban fringe. This will benefit both people and wildlife, forming green links which enable wildlife to move between rural and urban areas.

In the woods, there is a strong sense of immersion in the dancing shadow play of the leafy depths, and the rise and fall of the sap that proclaims the seasons is nothing less than a tide, and no less influenced by the moon.

Roger Deakin
Wildwood, A Journey Through Trees

It's all in the timing

In spring, broadleaved woodlands are alive with sights and sounds and it can be hard to see the wood for the trees! Among the most complex and fascinating relationships is between green plants (the producers), herbivores (the consumers) and predators : for example trees, moth caterpillars and birds such as blue tits. As soon as oak leaves start to unfurl in April, many species of night-flying moth emerge and lay their eggs on the new leaves. These very soon hatch as tiny, well-camouflaged, bright green caterpillars which feast on the unrivalled source of food represented by these countless fresh leaves. Amazingly, birds such as blue tits have timed the laying and incubation of their eggs so that their chicks will hatch just when the billions of tiny caterpillars are starting to

feed on the leaves. It's therefore possible for the parents to find the food necessary for the healthy growth of their chicks. The chicks' growth is so perfectly tuned to their prey that as the caterpillars grow larger so too does the chicks' appetite for bigger meals!

Meanwhile, predators such as sparrowhawks will time the fledging of their chicks – a dangerous time for the chicks which need to learn to feed themselves – to coincide as closely as possible with the fledging of the tit chicks. When there are lots of dopey tit chicks around, learning to fly and to fend for themselves, it's definitely the best time of year for a sparrowhawk chick to be learning to hunt them.



fly agaric

I went to the woods because I wished to see if I could not learn what life had to teach – and not, when I came to die, discover that I had not lived.

Henry David Thoreau

The Bluebird Carries the Sky on his Back

Woodland changes a landscape ...

Woodland changes a landscape, shortening horizons and softening vistas. Its verdant summer growth casts a shade of deep green, the air beneath the canopy still and heavy with the sound of a thousand buzzing insect wings. Come autumn and the liquid greens are drained, as trees draw back nutrients and seal off their leaves. The colour palette shifts to dry browns and golden yellows before these autumnal hues slip from the trees to make a crisp carpet ripe for crunching footsteps. Come winter and a wood opens itself to the elements, the network of branches and twigs stark against brooding sky. The trees linger in a state of limbo until the first warming days of spring, when tight buds burst forth to release the new season's growth.

Woodland is part of me. Having grown up within its tender folds I welcome its comforting embrace and I feel exposed when I find myself in a landscape without some patch of woodland cover. For others, perhaps those who have grown up not knowing the childhood pleasures of a woodland playground, a wood may seem threatening, its deep shadows the haunt of unnamed creatures conjured from folk tales handed down. There is nothing to fear from our woodlands though. There are no creatures of menace but, instead, a rich biodiversity of animal and plant life, from the spring flush of colour that appears before the canopy closes through to the birds whose songs resonate at dawn. Spending time in a wood returns rich rewards.



sparrowhawk

The birds made the still ridings rinse and ring with their music. There were violets and many other small, pretty flowers, unknown to my dumb mind, all over the floors of the woods. The grey squirrels ran angrily between their nests. The wise and charming rooks flew about with twigs in their mouths. The nightingales sang like angels.

T. H. White

The Goshawk



grey squirrel

You learn that if you sit down in the woods and wait, something happens.

Henry David Thoreau

DISCOVER - WOODS

**Birch woodland at
NWT Roydon Common**

Woodland Trust Reffley Wood

Woodland Trust Gaywood Plantation

Urban trees in The Walks

Congham Heath Woods

Heathland in the Gaywood Valley

At one time extensive heaths existed on the sandy soils to the east of King's Lynn. Faden's map of 1797 shows heathland around Leziate, Grimston, Roydon and Massingham. Today the best remaining heath in the Gaywood Valley, and one of the best in Norfolk, is NWT Roydon Common. There are also small heathy grasslands within Bawsey Country Park on the sandy soils exposed by mineral extraction. Heathland occupies around 150 hectares of the Gaywood Valley but significant additional areas of former heathland are being restored by Norfolk Wildlife Trust.

How was it formed?

Heaths are the product of a combination of natural and human factors. They occur where woodland on sandy, often acidic soils has been felled and the subsequent open land has been impoverished further by centuries of grazing. The result is a low scrubby habitat which is baked by the sun in summer and is consequently home to hotter-climate wildlife than would occur in our shady, native woodlands. The chief domestic animals that would have grazed heaths in West Norfolk were geese, sheep, cows, donkeys and ponies. It is likely that areas of heathland have existed in the Gaywood Valley since the Bronze Age when early people first settled, cleared and grazed the valley.

How have people used it?

Heaths would traditionally have been of great importance for grazing and for the gathering of natural materials, such as bracken for animal bedding, and gorse for burning in bread ovens and grinding to feed to livestock. The wetter areas, such as the mire at Roydon Common, were dug for peat for use as fuel to heat homes and for cooking. Heathland was often common land over which local people had rights and it played a vital part in the local economy.



minotaur beetle

What are its special habitats?

The most widespread heathland habitat is heather heath. However, there are also several other associated habitats including acid wetlands, known as bogs, and woods, often dominated by birch.

What special wildlife lives there?

Heathland in the Gaywood Valley is dominated by heather, also known as common ling, and, where there is water, cross-leaved heath. European gorse and bracken are also common, along with low-growing species such as sheep's sorrel, mosses and lichens. Among the key animal species to be found on Gaywood heaths are adders and their prey including common lizards and slow-worms. Several rare or scarce birds nest here including nightjars, woodlarks and stonechats. Rare insect specialists include the black darter dragonfly, green tiger and minotaur beetles, and butterflies such as grayling, small copper and green hairstreak.



grass snake

adder

What conservation challenges are there?

The chief threat facing the Gaywood Valley's remaining heaths today is regeneration of woodland as a result of the discontinuation of traditional grazing. On nature reserves, such as Roydon Common, Norfolk Wildlife Trust grazes livestock including Dartmoor ponies to help stop scrub and trees encroaching. However cutting by hand and machine and control of bracken are also needed, making maintaining the heathland an expensive and never-ending task. The other key challenge in the Living Landscape is to restore or recreate heathland areas which have been damaged or destroyed. Work underway at NWT Grimston Warren is one of the largest and most important heathland restoration projects in the country.



slow worm

*There's a wind on the heath, brother;
if I could only feel that, I would gladly
live for ever.*

George Borrow
Lavengro

*Certain is it that a man who knows
and loves the heathland always has
with him the memory of its
spaciousness, of its peaceful solitudes,
of its heather and bracken and lichens
and wood sage, of the calls of its birds,
and the scent of its air.*

W. G. Clarke
In Breckland Wilds

*When the bees' feet shake the bells
of the heather, and the ruddy strings
of the sap-stealing dodder are twined
about the green spikes of the furze,
it is summertime on the commons.*

Henry Williamson
Tarka the Otter

Traditional heathland management

Heaths only came about because of human management of the landscape. They are the product of ancient forest clearance and subsequent grazing on sandy, acidic soils. In the twentieth century huge areas of heathland have been lost. Conservation organisations now spend large sums on preserving the remaining areas of heathland and who better to recruit to do the job than the traditional breeds of livestock which helped create the heathland landscape in the first place?

On many of its heathland nature reserves, Norfolk Wildlife Trust keeps tough, traditional breeds of sheep and pony which are at home year-round in these unimproved habitats. These animals include Shetland sheep and Dartmoor ponies; they are critical to heathland conservation as they eat the woody

plants which would otherwise take over to create habitats unsuitable for the sun-loving specialists found on heaths.

Norfolk Wildlife Trust's Flying Flock includes over 1,000 sheep and 100 ponies, all of tough, traditional breeds. These help create just the right conditions needed by rare heathland wildlife species. Please do not feed any livestock – this will discourage them from doing their vital job maintaining the heathland habitat.



The Gaywood Valley heathland is packed full of wildlife,
just look at what you could see:



common heather
sheep's sorrel
bracken
mosses and lichens
sundews
wood sage
silver birch
tormentil



skylark
stonechat
kestrel
buzzard
magpie
meadow pipit
linnet
goldfinch
green woodpecker



brown hare
rabbit
adder
common lizard
fox
roe deer
Reeves' muntjac
red deer
slow worm



minotaur beetle
black darter
dragonfly
green tiger beetle
small copper
green hairstreak



Green tiger beetle

Woodlark

Woodlark

Be honest: have you ever heard of the woodlark? If you haven't, part of the reason will be that it's really rare in Norfolk. Being a heathland specialist, the woodlark has suffered greatly from the change of traditionally-managed heaths to scrub and woodland in the twentieth century. This has been caused by the loss of traditional grazing and by the introduction of myxomatosis which almost wiped out the rabbits that previously kept the

heaths short and sun-baked. The decline of this lovely bird is typical of many species which have become much rarer with the loss of traditional ways of managing the landscape. The woodlark's simple, plaintive song is among the most beautiful of all British birds'. It may still be heard in spring in the upper reaches of the Gaywood catchment, on heathland at NWT Roydon Common and Grimston Warren.



DISCOVER - HEATHLAND

NWT Roydon Common
NWT Grimston Warren
Bawsey Country Park

Rivers and lakes in the Gaywood Valley

The Gaywood is a short chalk river some 13km in length that rises from springs near Derby Fen and flows westwards to the historic town of King's Lynn. The river discharges into the Great Ouse at King's Lynn, and then into the North Sea through the Wash estuary. The river's course is not prominent in the landscape and even people who live in the valley are often unaware of it. The catchment of the River Gaywood is approximately 5,700 ha and includes much of urban King's Lynn. The river used to meander across a wide floodplain, but today is channelled into a series of deep, straight drains. In urban King's Lynn parts have even been piped underground making its course impossible to follow. The largest lakes in the Gaywood Valley are man-made and are found in the Bawsey and Leziate areas. There are still some small ponds in the valley but their number is much reduced, many having been drained as farming has intensified and land has been developed over the past fifty years. Today 149 ponds and lakes are found in the Valley.



white water-lily

the result that soil types can vary hugely in just a small area of the valley. Changes in relative sea-level have also had a big impact on the Gaywood Valley and in Roman times present day villages including Castle Rising and Bawsey were on the edge of a much larger tidal estuary. The Gaywood probably once flowed into the Great Ouse estuary at North Lynn but in mediaeval times it was diverted to form part of a moat for the town's defences. Since then the river's course has been extensively modified to prevent flooding and to enable both drainage and irrigation.

How was the Gaywood River formed?

The Gaywood River is a feature of the landscape with a long history. Half a million years ago the Gaywood River was a stream draining westward from high chalk hills in the Grimston area. Then 450,000 years ago the whole landscape was in the grip of ice. Ice sheets up to 1km deep advanced up the Gaywood Valley eroding the chalk by up to 65 metres, broadening the valley, and pushing the crest of the chalk escarpment back to its present day position at Great Massingham. It was this Anglian ice advance that exposed some of the rocks lying beneath the chalk, including the sandstones and Jurassic clays which are seen in parts of the valley today. When the ice sheets retreated they also left behind a complex mix of glacial deposits – sands, clays and gravels – with



kingfisher



How have people used water in the Gaywood Valley?

Rivers have traditionally been of great importance in the provision of food (principally fish), energy (water mills), water and transport. Parts of the Gaywood Valley have also been exploited for minerals for many centuries, especially silica-rich sands used in glassmaking and foundry work. The large lakes in the Bawsey and Leziate area were created by sand-extraction for the glass industry and today the Leziate quarries extract some 450,000 tonnes of silica sand each year.

What are the special habitats along the Gaywood River?

The River Gaywood once meandered through large natural wetlands. Faden's map of 1797 shows extensive valley wetlands and fens along the river. Much of this wetland has been lost over the last 200 years as the river has been tamed and its fertile peaty wetlands drained for farming. However there are still remnants of fenland: the wetlands at Leziate Fen, Derby Fen and Sugar Fen are parts of this once-extensive river valley landscape. In its upper reaches the Gaywood is a chalk stream and its valley sides would have once been mainly heathland; this type of landscape can still be seen at Roydon Common.

What special wildlife lives there?

Key species in the River Gaywood include many species of fish, such as brown trout, bullhead and the highly endangered European eel. Otter, water vole, kingfisher and the banded demoiselle damselfly are also typical. The Gaywood River itself, and the various ditches feeding into it, provide habitat for water-loving plants such as wood club-rush, which was thought to be extinct in the county until found recently on Derby Fen. Other attractive water plants in the Valley include water forget-me-not, purple loosestrife, flowering rush and water primrose.



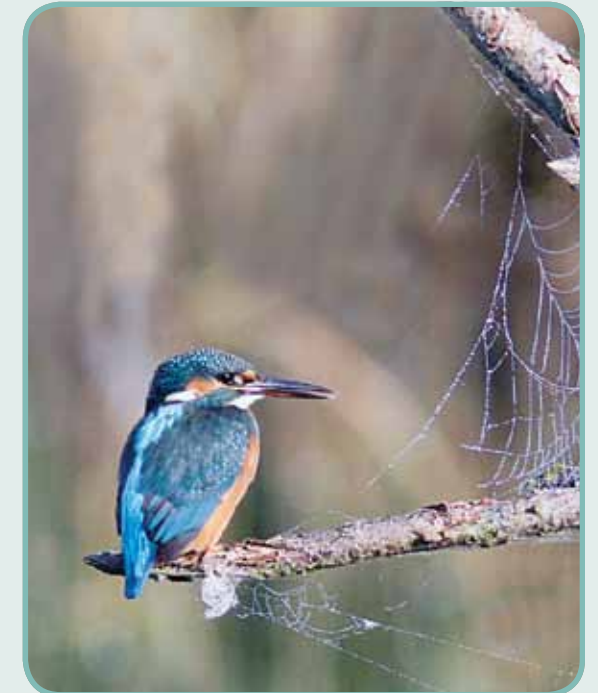
common darter

What conservation challenges are there?

Throughout human history Norfolk's rivers have been dredged, canalised and moved to suit people's designs on the landscape. This has led to a loss of natural processes such as seasonal flooding, a loss of habitat diversity, and consequently a great loss of wildlife. In recent decades rivers have suffered hugely through run-off from agricultural land polluting the water with nitrates. Rivers are also threatened by abstraction of water, reducing flow and by invasion by non-native plants and alien animals such as North American mink. Over-deepening and straightening of the river have disconnected it from its floodplain and pollution in the lower reaches is also a significant problem. The major challenge in the Gaywood Valley is to restore the natural functioning of the river by reconnecting it to the floodplain and to recreate areas of wetland and heathland that once bordered it.

A hundred rivers in one valley

Everyone knows what a river is, right? It's a beautiful feature of the landscape, it's great for wildlife and it's a wonderful place to take the children for a walk. All that's true but a river, indeed any feature of the landscape, is also a complex expression of the prehistory, natural history, human history, mythology and daily bustle that have formed it and surround it still. A river such as the Gaywood filters first through chalk laid down a hundred million years ago in a warm ocean. A river's course is dictated in part by the slow but inexorable movement of glaciers across our landscape during the hundreds of thousands of years of the Ice Age. A river slices through its landscape and is shaped in turn by humans with designs on its water, its fish, its rich soils, and its inherent energy, or by humans fearful of its impacts on their homes and streets. A river is shaped by beavers too, though we have long since banished these from Norfolk. A river is a long walk and solace on a sad day. A river is a child's playground, a canoeist's life away from land, a poet's wordstream, a fisherman's fish and, more importantly, his time to think. A river is the whole wide world to a water vole.



kingfisher

A river, the Gaywood, is the heart of Norfolk Wildlife Trust's vision for a Living Landscape in West Norfolk and weaves its way, at times unseen, through every page of this guide.



water vole

He thought his happiness was complete when, as he ambled aimlessly along, suddenly he stood by the edge of a full-fed river. Never in his life had he seen a river before – this sleek, sinuous, full-bodied animal, chasing and chuckling, gripping things with a gurgle and leaving them with a laugh, to fling itself on fresh playmates that shook themselves free, and were caught and held again. All was a-shake and a-shiver – glints and gleams and sparkles, rustle and swirl, chatter and bubble. The Mole was bewitched, entranced, fascinated.

Kenneth Grahame
The Wind in the Willows

Rivers living things that we must care for

If you could see a natural river from above over a period of many decades you would see a river that is alive, its course shifting over time as it throws out new meanders, splits into multiple channels and reforms. Today of course much of the Gaywood river is controlled, forced into channels that meet our needs: piped underground in parts of Kings Lynn, or in the countryside flowing along straightened, deepened channels into which the drains feed to keep the low-lying land dry.

My local river forms part of my own natural rhythms. It is my guide as I walk to work; it is my companion when I seek somewhere quiet to pause. In summer it is clear, the green of countless waterweeds gently moving in the current but come winter it turns dark and brooding. The river annotates the seasons, catching the blossoms of spring and the spent leaves of autumn. At times it is tranquil, its surface a flat reflection of bright skies and white clouds. On other occasions it is fierce with rushing waters.

It is the wildlife that brings the river to life, the other creatures with which I share its watery environs. The electric blue of a kingfisher as it rushes upstream piping alarm, or the rare glimpse of an otter as it slips gently into the water.

It is a corridor that connects many different habitats, providing linkages that would not otherwise exist. There is a flip side to this connectivity, however, in that damage done in one place may be felt elsewhere along the river's length. The plastic bag carelessly discarded here may choke a creature many miles downstream. The river is not just a water channel it is the totality of the whole valley; it is connected and we must understand that if we are to care for it.



*What would the world be, once bereft
Of wet and of wildness? Let them be left,
O let them be left, wildness and wet;
Long live the weeds and the wilderness yet.*

Gerard Manley Hopkins
Inversnaid

*There are kingfishers by the millrace,
the fastest blue on Earth.*

Ronald Blythe
A Year at Bottengoms Farm



mute swan

Get down to the water's edge, see what you can find:



yellow flag iris
marsh marigold
hemp agrimony
great hairy willowherb
common reed



lapwing
curlew
black-headed gull
mallard
grey heron
cormorant
kingfisher
pie wagtail
little grebe
mute swan
Canada goose
greylag goose



Hemp agrimony



water vole
otter
brown trout
European eel



Grey heron
yellow flag iris



banded demoiselle damselfly
common blue damselfly
blue-tailed damselfly
large red damselfly



Common blue damselfly



Lapwing

DISCOVER – RIVERS and LAKES

Bawsey Country Park
The River Gaywood at Church Farm, Bawsey
The Walks • Lynnsport and Leisure Park

Farmland in the Gaywood Valley

Farmland is the dominant land-use of the Gaywood Valley. There are over 2,900 hectares of arable farmland and 800 hectares of grazing land. Outside urban King's Lynn most of the Gaywood Valley countryside is farmed; the majority is arable with smaller areas of grazing land in fields along the river valley.

How was it formed?

Farmland is clearly a human-dominated landscape and yet it can provide many valuable habitats for wildlife from hedgerows and field margins to cropland and grazing meadows. The agricultural landscape which occupies the great majority of the Gaywood Valley is the product of vast-scale deforestation thousands of years ago, followed by centuries of grazing and agriculture. The countryside we see today is almost entirely a product of human intentions and can change rapidly with shifting economic conditions, making some crops more profitable than others. Soil types in the Gaywood Valley are very variable from peat soils in the valley bottom, to acid sandy soils, base-rich chalky soils and glacial clays. Farming, because it depends so heavily on soil type, is varied too, with crops including wheat, barley, sugar beet and strawberries, and livestock including outdoor pigs, cattle and sheep.

How have people used it?

The light sandy soils of much of the Gaywood Valley made good light grazing for sheep and in mediaeval times were also much used for rabbit-warrening. In the 19th and 20th centuries extensive peaty wetlands along the Gaywood River were drained. The 20th century also saw the decline of the traditional, wildlife-rich, mixed farm on which both livestock and arable crops were produced. In the 21st century, encouraged by payments under the Higher Level Stewardship scheme, some Gaywood Valley farmers are farming commercially using methods which also allow wildlife to thrive. 473 hectares of farmland in the valley are entered into schemes to benefit wildlife on farmland.

What are its special habitats?

Arable land is surprisingly important for wildlife, though many species such as yellowhammer, grey partridge, skylark and tree sparrow have suffered gravely as a result of recent changes in land management. There are very rare plant species which can only survive on land which is ploughed annually. The Gaywood Valley is an important area for a number of these rare arable weeds. Boundary hedges are hugely important for wildlife too, providing nest sites for birds and corridors for animals and their genes to flow through the landscape. Some hedges in the Gaywood Valley, such as those marking parish boundaries or fringing green lanes, are thought to have existed – and supported wildlife – for hundreds of years.



common poppy

What special wildlife lives there?

Farmland in the Gaywood Valley supports ground-nesting birds, brown hares and harvest mice. Recent studies have highlighted several areas in the Gaywood Valley that are particularly important for arable plants. Some species of arable weed are among the most threatened plants in the UK. Many farmland birds have declined nationally but you can still find grey partridges, yellowhammers and skylarks in good numbers in the valley, all species which are now of high conservation importance. Farm woods and old hedges are important for many butterfly and moth species as well as nesting birds. At the top of the food chain, barn owls, kestrels, sparrowhawks and buzzards can all be seen on farmland in the Gaywood Valley.



harvest mice



yellowhammer

What conservation challenges are there?

The expansion of King's Lynn has developed areas that were previously farmed. Some habitats, such as commercial orchards, have entirely vanished. The post-war shift to intensive, mechanised agriculture has of course affected farms in the Gaywood Valley and has had an immense impact on insects, wildflowers and birds in arable land. The very nature of our countryside, and our relationship with it, has changed in just a few decades. Much has been lost and we are still at risk of losing many more species if we do not find ways to produce enough food while allowing species other than ourselves to thrive. Today new challenges include providing enough food in the face of climate change, growing organic food, and producing green fuels to reduce fossil fuel use. Every farm has the potential to be a nature reserve and if properly managed to allow wildlife to flourish. Many farmers in the Gaywood Valley are working hard to bring back wildlife to their farmland.

When is a weed not a weed?

Weeds: nasty little blighters that pop up in the flowerbeds as soon as you turn your back. Spray them, dig them up, get rid of them! Well no: a weed is just a plant, like any other plant. The problem is that we humans have a loopy need to classify everything around us, according to what we think we can get from it. Crops, therefore, are good plants; but weeds, obviously, are bad plants. They're plants growing in the wrong place and, what's more, they're plants that have the temerity to grow where we want to grow crops. How dare they?

But think again. Think of a field of poppies. Everybody loves poppies. Well, poppies are the ultimate in arable weeds. Like all the other arable weeds they have tiny seeds which are easily dispersed and can live, un-germinated, for decades or even centuries. When soil is disturbed, by a plough for example, these resourceful seeds leap into action, grow fast, flower, and set seeds which may themselves spend decades in the soil before growing. Thought about like that, these weeds are amazing. For centuries they've taken advantage of our methods of farming, to grow in fields intended for our crops. In the 20th century, however, we started farming intensively and using selective herbicides, with the result that arable weeds have become one of the most threatened groups of plants in the UK.

But they're not just rare: they're also beautiful. Arable weeds in Norfolk include such beauties as poppies, Venus' looking-glass, corn marigold, and night-flowering catchfly. If we hadn't already decided they were weeds, we'd love them.

The Gaywood Valley Living Landscape is recognised as nationally significant for its populations of rare arable weeds. People of Gaywood, here's something to be proud of: rare weeds!

Don't ignore farmland - there's plenty of wildlife there too:



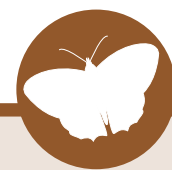
common poppy
common fumitory
hogweed
cow parsley
scarlet pimpernel
common toadflax
scentless
mayweed



skylark
grey partridge
lapwing
yellowhammer
chaffinch
barn owl
kestrel
sparrowhawk
buzzard



brown hare
rabbit
stoat
weasel
field vole
bank vole
common
pipistrelle



brimstone
orange-tip
common blue
holly blue
large white
meadow brown



red poll cattle

It was not all that long ago when the highest we could ascend was a tower or a mountain, a tree or a cliff. What was this to the ascending lark? A poised collection of these incessantly singing creatures seems to be suspended by the intangible nature of their song over the great field leading down to the farm. Although clouds are absent these birds are still too distant to see but their voices are magnified by space.

Ronald Blythe

A Year at Bottengoms Farm

Urban areas in the Gaywood Valley

The mid to lower reaches of the Gaywood River flow through the outskirts and centre of King's Lynn. These areas are a mixture of housing developments with some industrial activity and retail space. Some areas are still being developed. However green spaces, including parks, playing fields, school grounds, wasteland, allotments, gardens and grass verges provide a habitat for an amazing range of wildlife and are a green lung for people. Even if you live in the centre of King's Lynn there is wildlife to discover right on your doorstep. The Gaywood Valley contains 117 hectares of urban green space.

How did King's Lynn develop?

The town was originally named Bishop's Lynn and in the 12th century the town was part of the manor of the Bishop of Norwich. In early mediaeval times King's Lynn was already an important port: sea-water was boiled in huge copper pans to make salt which, with wool and grain, was a major export. By the 14th century, the town ranked as the third port of England. In the Middle Ages German and Baltic merchants from the Hanseatic League traded with King's Lynn and in 1475 a Hanseatic warehouse was built. At this time timber from the Baltic countries was a major import as woodland in the surrounding landscape was already scarce. When Henry VIII dissolved the monasteries in 1538, the town and manor became royal property. The name King's Lynn reflects this change. The town became very prosperous from the 17th century through the export of grain. However, it went into decline thereafter, and was only rescued by the relatively late arrival of the railway in 1847. After the Second World War King's Lynn was designated a London Expansion Town and its population almost doubled. In 2004, a multi-million pound scheme began to regenerate the entire town and its population is set to grow again, with further development planned for parts of the Gaywood Valley.



red admiral

What are its special habitats?

Kings Lynn has many wild secrets: hidden wild spaces, often post-industrial or brownfield sites, where fascinating wild plants and animals may be found. Meanwhile remnants of more natural habitats, such as ancient woodland and unimproved grassland, may be found dotted through the built environment. Green space within King's Lynn is valuable both for wildlife and people.



mistletoe

What special wildlife lives there?

Some wildlife species do best in urban areas or are even restricted to them. These include many plants which have been introduced here from abroad, often by accident, and even some invertebrates. Cities are often warmer than the surrounding countryside so tender plants are able to survive more readily. Patches of derelict ground or disused railway lines are suitable habitats for plants from stony or volcanic ground. A walk round King's Lynn will quickly reveal such plants as Mexican fleabane, Canadian fleabane, Oxford ragwort and red valerian growing from walls. Surprisingly, the Walks is the Norfolk stronghold for mistletoe with over 100 clumps known. Meanwhile, urban foxes and grey squirrels may be seen throughout the town, thousands of people feed birds in their gardens, common seals are a frequent sight in the Great Ouse, and rare peregrines frequent King's Lynn docks. Despite the town's long human history, wildlife, ever resourceful and determined, still finds space to live.



fox

What conservation challenges are there?

Urban areas and their suburbs present great conservation challenges as they are full of people, all of whom have impacts on wildlife and the landscape. In many ways the greatest threat is to town people rather than to the resilient wildlife which lives alongside them. People in towns increasingly suffer by being isolated from nature and, as they lose sight of nature, they also lose sight of its importance and cease to value its conservation. In the Gaywood Valley a key challenge is to ensure that, as the town's population expands, parks and green spaces are left to provide corridors for wildlife and outdoor space for people to enjoy.



A survey of the flora of King's Lynn

Detailed surveys of King's Lynn have resulted in over 800 species of plant being recorded. While this total includes many aliens and garden escapes, it is largely composed of native plants which have survived in pockets of woodland and on small patches of rough ground. Reffley Wood, on the edge of the town, has good populations of ancient woodland plants such as bluebell, primrose and wild garlic, while in small fragments of woodland elsewhere wood anemone and goldilocks buttercup may be found. Among the interesting plants surviving on fragments of wasteland are grass vetchling, bee orchid and southern marsh orchid. The main roads are salted in winter, allowing salt-tolerant coastal plants such as sea couch-grass, dittander and Danish scurvy-grass to establish themselves. Why not see how many plant species you can find in your street today?



You'd be surprised just how much wildlife there is in your local urban areas:



mistletoe
daisy
buddleja
red valerian
rosebay
willowherb
red deadnettle
bird's-foot trefoil
common mallow



starling
jackdaw
chaffinch
robin
swift
black-headed gull
wren
dunnock



grey squirrel
fox
mole
Reeves' muntjac
brown rat



large white
small white
small tortoiseshell
seven-spot
ladybird



Rosebay willowherb



Starling



Robin

Summer, for instance, is black in colour. It weighs about ten kilos. It screams from dawn until dusk. It lives in the middle and upper airspace over our house. All these are the attributes of the swift colony (about two hundred birds) that breeds in this part of Norwich.

Mark Cocker
A Tiger in the Sand

Don't it always seem to go that you don't know what you've got 'till it's gone? They've paved Paradise put up a parking lot.

Joni Mitchell

The wild, overgrown garden was full of the whisper and scurry of small lives.

Arundhati Roy The God of Small Things

DISCOVER – URBAN AREAS

**The River Ouse • The Walks • Hardings Pits
Reffley Wood • Spring Wood**