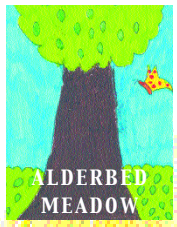
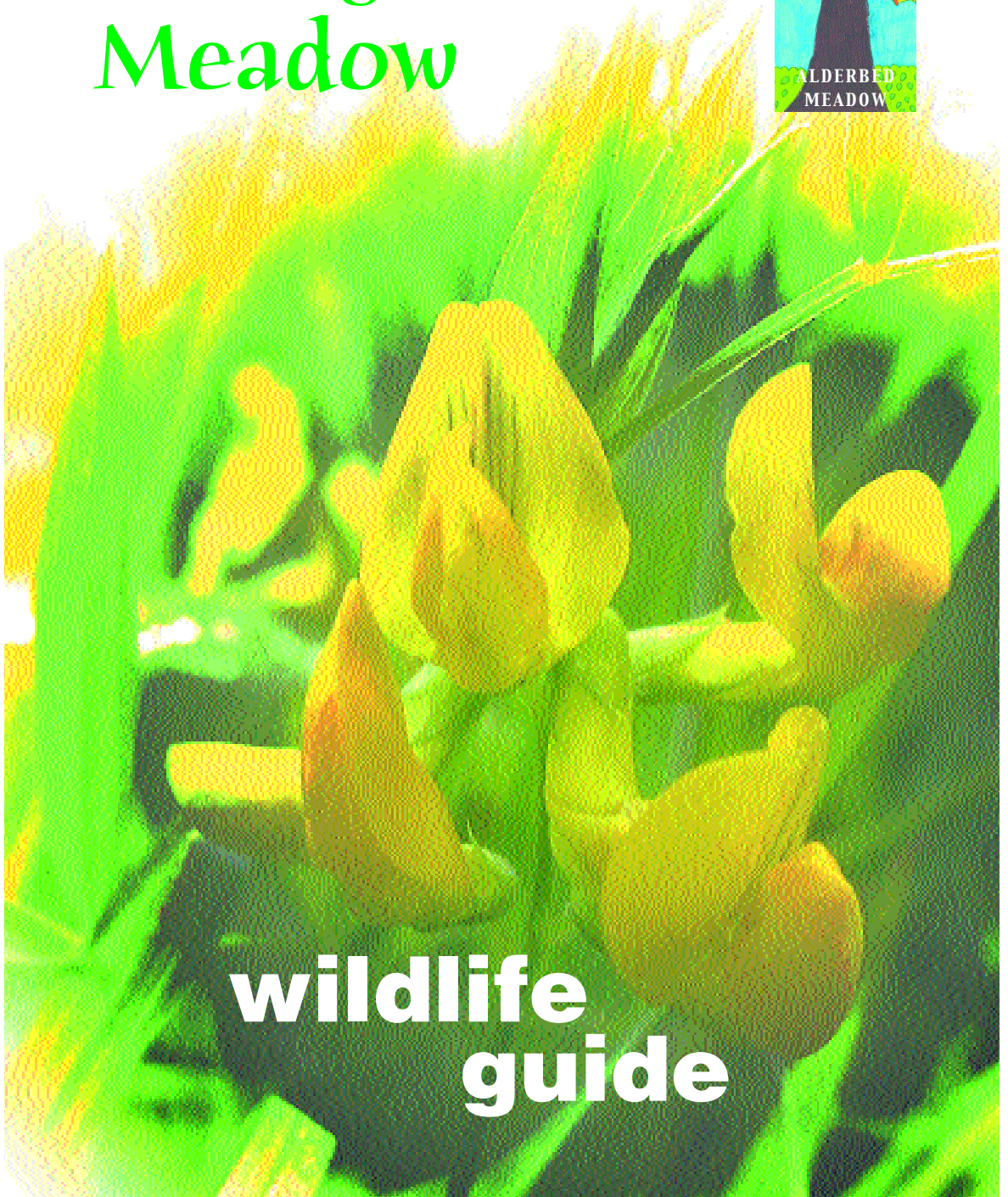
Charing Alderbed Meadow





wildlife guide

Introduction


Alder cones

The Charing Alderbed Meadow is a landscape of wet grassland and woodland at the foot of the North Downs, lying 1/4 mile east of the village of Charing (for location map see back cover). It consists of 2.5 acres (1 ha) of woodland and 4 acres (1.6 ha) of grassland, both wet in character due to the presence of small streams that rise from the spring line at the base of the Downs. Designated as a Local Wildlife Site, it is being conserved by the Charing Playing Field Committee (Alderbed Meadow Steering Group) for the benefit of wildlife and the local community. Local volunteers and school children are involved in day to day management of the site.


Fen bedstraw

This booklet will tell you all about the habitats and wildlife of the Alderbed Meadow. You will learn how the site was spared from agricultural improvement, about the folklore of some of the many wild plants, the lifestyles of the eight small mammal species recorded here, and that there 43 different types of daddy-long-legs living here!


Grass snake

- Please enjoy your visit and help to keep this place special.
- Please keep to footpaths and boardwalks.
- Please do not pick plants or disturb wildlife.

If you would like to get involved in caring for this special place, or join in an organised event, contact the Kentish Stour Countryside Project on 01233 813307.


Charing School's 'Green Gang'

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Volunteers fencing

You can also find more information on the panels at the site, or at www.charing.info

Woodland habitat - a wildlife village

The woodland at the Alderbed Meadow may be small, but it is a fantastic place for wildlife. That's because it is a very 'diverse' habitat - it has lots of different places for wildlife to live.

Imagine two villages. One village is made up of only one type of house, while the other has a variety of dwellings - terraced houses, large executive homes, sheltered housing for old people, and so on. The village with all the different housing types will have a much more varied population, and it's the same with a wildlife habitat - the more variety there is, the greater the number of different species that can live there.


Mature oak

The woodland at the Alderbed Meadow is very varied. Parts of it are dense and dark, while others are open and sunny. There are centuries-old oaks, tiny young saplings and every age of tree in between. It has boggy areas with many alder trees and drier areas dominated by ash. There are living trees, dying trees, and dead trees still standing. There's a lot going on in a small space, and the woodland can look wild and quite chaotic - but that's a good thing: a tidy woodland may be more appealing to the human eye, but is less appealing to wildlife.

One reason this woodland is so diverse is that it has been here a long time. We cannot be sure, but it is probably an 'ancient' woodland, which means it is at least 400 years old, and may be much older. A number of plants growing here, such as wood anemone, are classed as 'ancient woodland indicators' and may be a clue to its great age. Ancient woodlands are a living link to the primeval forest that once covered Britain, known as the 'wild-wood'. Despite this wild ancestry, ancient woodlands also have a history of man-agement by humans that has been going on for so long that many woodland species have adapted to it.

At the heart of this management is coppicing - the ancient practice of cutting down small areas of woodland and allow-ing the trees to re-grow as many thin stems. As you walk around the woodland you will see that most of it has been coppiced in the past, and that this traditional method has now been brought back, creating open, sunny patches which are vital for many plants and butterflies. As small patches are coppiced over the years, areas with varying tree height and density are created - this is just one way that the Alderbed Meadow is being managed to create homes for wildlife.


Coppice management

How this grassland survived the 20th century

The story of the grassland at the Alderbed Meadow is one of survival against the odds. It's like an ancient building surrounded by modern tower blocks - a little piece of history that has ridden out great changes.

At one time, wet grasslands like this would have been common along the foot of the North Downs. After World War Two, farmers were encouraged to 'improve' their land to maximise yields. Most wet grasslands were drained and either ploughed up or fertilised, with the loss of their special wildlife. So how did the grassland here survive this process?

The answer is, somewhat by accident. The Alderbed Meadow was originally part of Palace Farm. After the development of nearby housing and the creation of the playing field in the 1960s, the Alderbed Meadow became isolated from the rest of the farm. It fell into dis-use and remained so for decades, until it was donated to the Charing Playing Fields Committee in 1999.

The grassland is now being managed in the traditional way - by grazing. You may be wondering, if this grassland did so well with no human interference for so long, why it now needs to be managed. The

Cattle - four-legged conservationists

reason is that there is a very powerful force of nature acting on it. It is called 'succession'. Woodland is the natural state for most of our landscape, and nature is constantly trying to push it in that direction, through the process of succession. Left unmanaged, the grassland here would be colonised by trees, become scrubby, and eventually that scrub would turn into woodland.

Another reason to graze is to increase the diversity of the grassland. Grazing stops the more vigorous species from dominating, and makes room for a greater variety of plants. And it's not just plants that this special grassland supports - as you will see in later sections of this booklet, it is also home to water shrews and other small mammals, grass snakes, and a wide variety of insects.

The grassland at the Alderbed Meadow is very rich in plants

Ex-stream-ly important!

There are many features of the Alderbed Meadow that make it special, but perhaps most important of all are the chalk streams that flow through it.

They start from a spring at the foot of the downs (see diagram). These little streams may look small and insignificant, but they influence everything here.

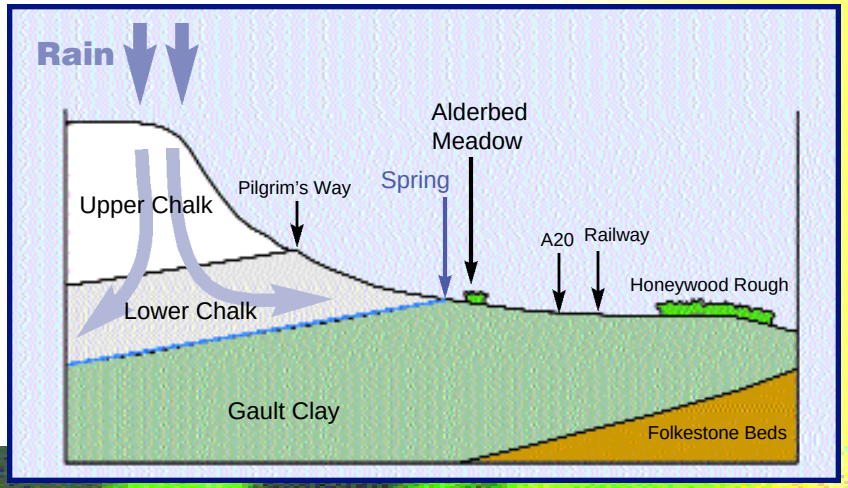
Without them, the grassland would look completely different - the rushes, sedges and wet-loving plants like ragged robin and meadowsweet would not survive. The wet woodland here is very special, because of its alder carr and the flora and fauna that thrive in its boggy areas, all of which is due to the water brought in by the streams. Water shrews, grass snakes and whole groups of insects such as the many craneflies recorded, would all disappear without the clear, un-polluted waters.

Regardless of how they affect the land around them, the streams are superb habitats in their own right. They are 'headwaters' - streams forming the source of a larger waterway. After their journey through the Alderbed Meadow, they flow into the Charing Stream, which in turn joins the Great Stour. Headwaters have their own unique wildlife, but on a very small scale: tiny freshwater shrimps, pea mussels and leeches, the larvae of caddis flies and other insects, all thrive in these trickling waters. Surveys revealed that the headwaters at the Alderbed Meadow are particularly diverse, indicating a high water quality and a pristine habitat.

Just as important as the water quality is the variation in the character of the streams - wide in places, narrow in others; slow flowing sections with a silty stream bed, and faster sections over gravel. In places the water flows over tufa - an unusual rock formed as a limestone deposit in chalk streams. Seasonal changes are also important: low flow in summer creates damp margins important for many insects; in winter, the main streams flood, supporting the fen vegetation of the wettest areas.

These characteristics show that the streams are very natural, forming a wetland ecosystem little altered by man, and the streams are being protected to ensure that they remain so.

Where do the streams come from?
This cross-section shows how rain water drains through the chalk of the North Downs and when it meets underlying clay seeps out of the ground as springs



Moggies, mead and mattresses
the folklore of wild flowers

If the plants at the Alderbed Meadow could talk, what a story they would tell! - the story of their survival, as all around the landscape has changed so much.

But in a way they do tell us that story, just by growing here together. Plants that grow in valuable habitats are not just random collections of species - they are 'communities' of associated plants that are found together time and time again, and can tell us a lot about the origins of that habitat.

Woodland plants in particular speak volumes about history, as you may have read in the section on woodland habitats. The rich grassland plant communities at the Alderbed Meadow also tell us a lot - they don't just appear overnight, and suggest that the grassland is also old.

The individual plants also have some fascinating folklore associated with them. This section tells you about the traditional uses and names for some of the plants at the Alderbed Meadow.

Ramsons or wild garlic

This plant loves damp woods, and carpets the woodland at the Alderbed Meadow in spring. Just as impressive as the show of white flowers at this time is the unmistakable reek of garlic. It's no wonder that traditional names for this plant include stinking nanny, stink bombs and stink onions. Despite these off-putting names, ramsons leaves have long been used to supplement the diet of country people when times were hard, added to salads, stews and soups. This plant is an indicator of ancient woodland.


Ramsons or wild garlic

Wood anemone


Wood anemone

One of the ancient woodland indicator plants, wood anemone tells us perhaps more than any other plant that the woodland at the Alderbed Meadow is very old. In Kent it rarely grows outside ancient woodlands, and spreads very slowly - an estimated six feet per century! Wood anemone is also known as 'windflower'. It's more obscure traditional names include 'Grandmother's nightcap', and in parts of Derbyshire it is known as 'moggie night-gown' (this doesn't refer to miniature cats - in that part of a world a 'moggie' is a mouse!).

Meadowsweet

The origins of this plant's name seem obvious - it grows in meadows and it smells sweet. In fact, the name is thought to have come originally from its use as a flavouring in mead - 'mead-sweet' - and over time this changed to meadowsweet because of the habitat it prefers. It thrives in the damp grassland of the Alderbed Meadow, and is one of its most distinctive species.

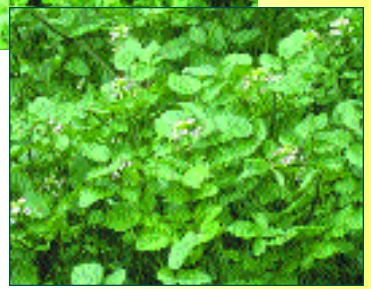

Meadowsweet

Lady's bedstraw and fen bedstraw


Lady's bedstraw

Bedstraws get their name from the tradition of putting them in straw mattresses. Lady's bedstraw in particular was used in the beds of women about to give birth. It grows in a variety of habitats, including chalk downland and sand dunes. Fen bedstraw, however, is restricted to wet grassland. It is scarce in Kent and is one of the rarest plants at the Alderbed Meadow.


Fen bedstraw


Above: fool's watercress. Right: watercress

Watercress and fool's watercress

If you want to see the difference between the edible and delicious watercress and the bland, tasteless fool's watercress, the Alderbed Meadow is a good place to do so, as they grow very close to each other, along the chalk streams. As the photographs show, the flowers of these two species are arranged differently. They are in fact from different botanical families and not closely related, but are easy to confuse. Watercress became a commercially cultivated plant on a large scale in the 19th century; special railways known as 'watercress lines' were even built to transport the crop to London. Before that it was eaten from the wild, but this is a risky business, as it can harbour the liver-fluke larvae which, once consumed, attacks the liver and can be deadly.

We would ask visitors not to pick the plants at the Alderbed Meadow, and advise that eating wild plants can be dangerous without expert knowledge.

A home, a summer residence and a restaurant

For such a small site, the Alderbed Meadow boasts a surprising number of birds - some 30 different species have been recorded here! The reason for this is the rich variety of the site's habitats, providing for the needs of many different feathered residents and visitors.

The basic needs of birds are much the same as ours - food, water, and somewhere safe to live and raise a family. For those species breeding at the Aldberbed Meadow, the diverse habitats have got something for everyone. Because the woodland has large, old trees, woodpeckers, tits and stock doves can find nesting holes. The hedges bordering the grassland provide ideal nesting sites for the linnet, a species that has declined across Britain in recent years, as well as commoner species such as wren and blackbird. Skylarks, also in decline, have been recorded here and may be breeding in shorter areas of the grassland.


Skylark

Another bird that has become a priority for conservation is the song thrush - it breeds in the woodland at the Alderbed Meadow. Its delightful song can be distinguished from others by its repetition of every phrase.

Like some human communities, the bird community at the Alderbed Meadow has both its year-round residents and its summer visitors. Chiffchaffs and whitethroats arrive from north Africa in the spring to nest alongside our more familiar chaffinches and coal tits. The chiffchaff gets its name from its cheerful 'chiff-chaff' song which can be heard in woodlands as early as March. Whitethroats sing their scratchy warble from hedges and can be seen flitting along the tops of hedgerows.


Siskin

While the Alderbed Meadow is a home for many birds, others regard it more as a restaurant. Again, the site's diversity provides for many different tastes. The wet woodland with its alder provides food for the siskin, which feeds on this tree's tiny seed cones. The site is notable for the variety of flies recorded here, which include some scarce species. To swifts and house martins they are breakfast, lunch and dinner - we don't know if the rare ones taste any better! With a taste for somewhat larger prey, kestrels and tawny owls hunt over the grassland; they too have plenty of choice, as the site is home to eight species of small mammal (see the next page).

Once you start to think about feeding relationships like these, you realise how important it is to consider the full range of plants and animals when managing a site like this - all species are part of food chains and food webs, and actions affecting one can have an effect on many others.

If there's a bustle in your hedgerow...

If you hear a scurrying in the undergrowth next time you are walking at the Alderbed Meadow, don't be surprised - its modest six acres are home to an amazing eight species of small mammal! These include three mice, two voles, and all three British species of shrew.

A shrew's lifestyle is all about living fast and dying young. It is a frantic little ball of energy, active both day and night, hunting for prey and aggressively defending its territory. This is down to the fastest of metabolisms: the tiny pygmy shrew, Britain's smallest mammal, has to eat its own body weight in food every day just to stay alive!

Shrews are insectivores, so typical prey are beetles, spiders and woodlice. The water shrew specialises as an aquatic predator - it loves the fresh water shrimps and insect larvae in the chalk streams here (see page 4) and will also take small fish and amphibians. As well as being fierce predators, shrews will fight for their patch of habitat. If you hear a shrill squeaking as you walk through the grassland, it's probably a shrew neighbour dispute kicking off - best not get involved! The stress of these hunting hooligans' hectic lifestyle eventually takes its toll - few shrews live beyond 18 months.

Not that the Alderbed Meadow's rodent residents live to be very 'long in the tooth' either. If a bank vole or field vole lives to be two, it probably deserves a telegram from the Queen! But in other ways, voles' lifestyles are rather different from those of shrews. For a start they are primarily vegetarian; the field vole (Britain's most numerous mammal) feeds on grasses and, to the annoyance of foresters, young tree bark. Voles are also more sociable than shrews, although they will defend their breeding territories.

Britain's smallest and largest mouse species both live at the Alderbed Meadow. The tiny harvest mouse, which finds a habitat in the tall grass and herbs of the grassland, on average weighs about the same as a 2p coin (7g). The yellow-necked mouse is somewhat heftier, the largest weighing in at six times that! It is very much a species of woodland, particularly 'ancient' sites (see page 2). Their specific habitat preferences mean that the Alderbed Meadow's rodent David and Goliath perhaps rarely come face to face.

The wood mouse, in contrast, is much less fussy about where it lives. It is found in woods, but also in a wide range of other habitats. One thing that makes it so adaptable is the way it feeds. It is an 'opportunist', eating pretty much whatever is available in each season - seedlings and buds in spring, centipedes and insect larvae in summer, fruits and fungi in autumn and tree seeds in winter.

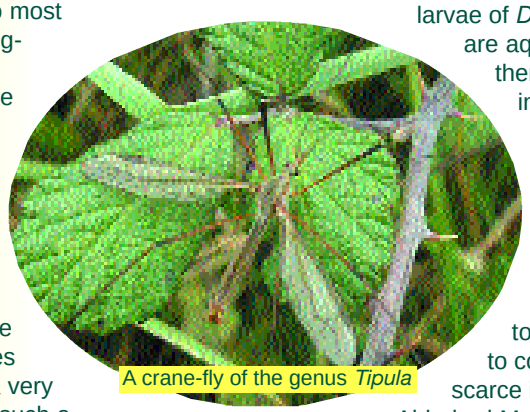
It should be obvious by now that these small residents of the Alderbed Meadow have different approaches to making a living here - that's why so many different species can co-exist. But that is only possible because this small site contains such diverse habitats.

Images to follow from Kent Mammal Group

The secret life of daddy-long-legs

Most people don't spend a great deal of time thinking about flies. We usually only notice them when they become an annoyance in summer. But there are people who study this group of insects, and with nearly 3000 British fly species, many of which we know little about, there is a lot to learn.

If you were a fly enthusiast, you could do worse than pay a visit to the Alderbed Meadow - it's fly central! You would probably get particularly excited about its crane-flies (known to most people as 'daddy-long-legs'), of which 43 different species have been recorded.



A crane-fly of the genus *Tipula*

It probably comes as a surprise to you that there are so many different types of crane-fly. In fact there are about 320 species in Britain, but 43 is a very respectable total for such a small site! Two of these species are described as 'nationally notable', but little is known about what they feed on, their breeding habits or behaviour.

Indeed, if you look down the list of notable flies recorded, the same phrase crops up time and time again - 'biology unknown'. This is due partly to the fact that insect life cycles are not easy to observe in the wild. And the less common species are hard to find, to say the least! They may emerge as adults for just two weeks in a year, in a very few places that possess their specific habitat and feeding requirements. One species found at the Alderbed Meadow was last recorded in Kent in 1965!

Where something is known of how flies live, there are often some surprises in store. The flesh fly *Amobia signata* is what is known as a 'cleptoparasite'. It lays its eggs in the nests of solitary bees and wasps. When the larvae hatch, they eat the food provided by the adult bee or wasp for its own larvae. One of the family known as picture-winged flies (so called because of the translucent patterns on their wings) has a larvae that develops inside a hard gall, that is only found in the seed heads of the plant fleabane. The larvae of *Dixa submaculata* are aquatic - they attach themselves to stones in streams and feed on passing particles and organisms.

With such a wide variety of feeding and breeding habits, it's not hard to see that if we want to conserve these scarce insects, the Alderbed Meadow must not lose any of its natural diversity.

And this diversity also provides habitats for a variety of other insects: beetles (including one species thought to be extinct in Kent), grasshoppers, crickets (such as the uncommon Roesel's bush cricket), dragonflies, bees and butterflies (including the beautiful small copper). So next time you're enjoying the wild flowers and birds at the Alderbed Meadow, don't forget the insect wildlife there is just as important. And please don't swat any flies!

Seasonal guide

Marsh marigold

Spring

❁ The highlight of spring is the carpet of wild flowers in the woodland.

Wood anemone - March and April
Marsh marigold - March and April
Bluebells and wild garlic - April and May
Yellow archangel - May and June

❁ Birds are very active and breeding; summer visitors arrive; males maintain territories by singing so this is a good time to enjoy the dawn chorus and learn your birdsongs.

Great Spotted Woodpecker - drumming in March and April
Linnet - a musical twitter of fluty and twangy notes in spring
Chiff-chaff - usually arrive mid March, 'chiff-chaff' song in woods
Whitethroat - usually arrive mid April, short, scratchy warble from hedge tops.

Red admiral

❁ Look out for butterflies in their spring broods.

Small, large and green-veined white - April to June.
Speckled wood - April and early May.
Peacocks, red admirals and commas can emerge on warm days very early in spring.

Summer

☼ The meadow comes into its own, with many species in flower.

Ragged-robin - May to September
Meadowsweet - June to September
Fen bedstraw - June to August
Lady's bedstraw - August to September

Ragged-robin

☼ Many butterflies are on the wing.

Meadow brown - June to Sept.
Large skipper - June to August
Small copper - July and August

☼ Other insects are most active.

Dragonflies and damselflies can be seen through spring and summer but July and August are the best months; grasshoppers and crickets peak in late summer.

☼ Summer is a good time to see aquatic plants in flower along the streams.

Watercress - May to October
Fool's watercress - August to September
Brooklime - May to September
Water mint - July to October

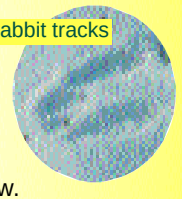
Small copper

Autumn

Autumn before leaves fall is a good time to learn your trees, as they are in fruit.

Spindle - bright pink berries September to October
Ash - 'keys' October to November
Hazel nuts and acorns from oak - September to October.

Berries galore: blackberry, wild raspberry, wild redcurrant, wild gooseberry and elder
Early autumn is when the site is buzzing with craneflies.
Watch out for fungi, particularly in the woodland, after rainy periods.



Rabbit tracks

Winter

✻ Woodland birds active through winter are easily seen as there are no leaves on trees.
✻ After snow, look for animal tracks in the meadow.
✻ The main streams are full and may flood; small seasonal streams start to flow.

How to get to the Alderbed Meadow

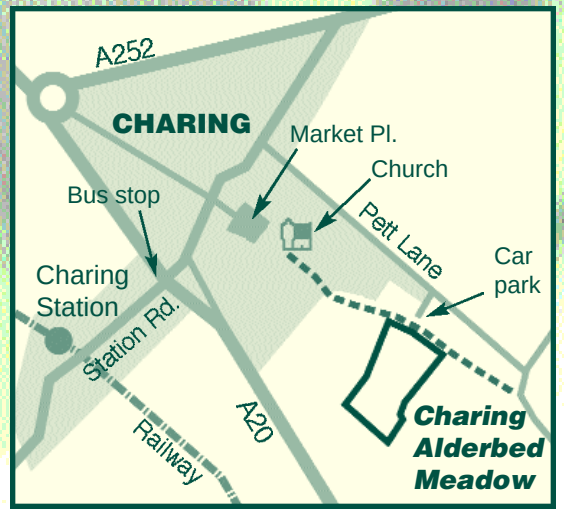
The Alderbed Meadow is situated off Pett Lane 1/4 mile east of Charing village centre, next to the playing fields.

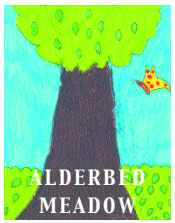
On foot
From Market Place, walk into the churchyard and down the right hand side of the church. Head for a no cycling sign to find a footpath that will lead you into the playing fields. Walk along the side of the playing fields, cross a stile and come to a kissing gate into the Alderbed Meadow.

By car
From the A20, follow signs for Charing Village Centre, drive through the village and turn right into Pett Lane. After about 1/4 mile, take a right turn down a surfaced track alongside a field, which will lead you to the car park.

By bus
The 510 Ashford to Maidstone bus passes through Charing.

By train
The Alderbed Meadow is a short walk from Charing Station.





The Charing Alderbed Meadow is sponsored by:
Living Spaces, EAGGF funding made available through Mid Kent Leader +, Brett Environment Trust, Rail Link Countryside Initiative, Ashford Borough Council, Kentish Stour Countryside Project, Countryside Stewardship Scheme, Charing Playing Field Committee and Charing Parish Council.

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