## **Essex Recorders partnership Datasearch Report**

#### **Essex Field Club**

In partnership with

Basildon Council

Buglife

Butterfly Conservation

Essex Amphibian & Reptile Group

Essex Bat Group

Essex Birdwatching Society

GeoEssex



Registered Charity Number 1113963

Bio and Geodiversity data regarding

# Project Wainsford Farm WAINSFORD Customer Reference: Wainsford

On behalf of

## Mr Roman Pardon Pardon Chambers Architects

EFC5241, 02-08-2022

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The Essex Field Club, Registered Charity Number 1113963.

Registered Office: Green Centre, Wat Tyler Country Park, Pitsea Hall Lane, Pitsea, Basildon, Essex SS16 4UH Website: www.essexfieldclub.org.uk. Email: datasearch@essexfieldclub.org.uk or Phone: 01375 371571















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### Essex Recorders partnership Datasearch Report

Project Wainsford Farm
Search Area: WAINSFORD
Our Reference: EFC5241
Customer Reference: Wainsford
Dated: 02 Aug 2022

#### On behalf of:

## Mr Roman Pardon Pardon Chambers Architects

This report was compiled using records held by the County Recorders of the Essex Field Club, Basildon Council, Buglife, Butterfly Conservation, Essex Amphibian & Reptile Group, Essex Bat Group, Essex Birdwatching Society, GeoEssex available at the time of creation

Enclosed within this report is the following information specific to the enquiry site area:

All of a Buzz in Thames Gateway Sites	~
B-lines	<b>~</b>
Nature Improvement Areas	<b>~</b>
Special Areas of Conservation	<b>~</b>
Special Protection Areas	<b>~</b>
Ramsar Sites	<b>~</b>
Marine Conservation Zones	<b>~</b>
Sites of Special Scientific Interest details	~
Areas of Outstanding Natural Beauty	<b>~</b>
Local Nature Reserves	~
Local Wildlife Site details	~
Country Parks	~
Common Land	~
Ancient Woodland Inventory	~
Wood-Pasture and Parkland Inventory	~
Traditional Orchard Inventory	~
Priority Habitat Inventory	~
Important Invertebrate Areas	~
Invertebrate Assemblage Information	~
Protected Species	~
Priority Section 41 Species	<b>✓</b>
National Red List and Scarce Species	~
Essex Red Data List Species	<b>✓</b>
All Species Records	
Invasive Species	~
Geological Sites	~

#### 1. Introduction

Biological species recording is largely undertaken by committed naturalists on a voluntary basis and on land with public access. Recording is much more rarely undertaken for planning and development purposes, or such data subsequently provided to centralised biological recording specialists, the County Recorders. Desk studies can therefore only ever provide guidance on what is already known about the species recorded in an area, and absence of species records for a search area does not mean they may not occur. For any site with potential nature conservation significance a full ecological site appraisal should be undertaken and species surveys carried out to complement the information contained in this report.

#### Copyrights

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All site boundaries have been mapped using Ordnance Survey OS OpenData subject to the OS OpenData Licence. Persons viewing this material should contact Ordnance Survey for advice if they wish to licence Ordnance Survey data for their own use.

#### **Data accuracy**

The Essex Recorders partnership does not guarantee the accuracy of any information supplied and shall have no liability for any loss, damage or expense incurred as the result of reliance on any information supplied.

The Essex Recorders partnership can only provide information based on the data held by us. In particular, the absence of records for a species does not necessarily indicate that the species itself is absent, merely that it not been recorded, that we have not received records for it or the data are unavailable in suitable format at this time.

#### Access and use of data

The data provided in this report must not be added to a permanent database without the prior permission of the Essex Recorders partnership or copyright holder. Resale or transfer to third parties is strictly prohibited.

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When publishing information derived from these data, the Essex Field Club, Essex Recorders partnership and any other copyright holders and the date of receipt must be acknowledged.

The data held by the Essex Recorders partnership is updated regularly and will become out-of-date. If you intend to use this data after a period of six months please contact us to confirm that we have no new records.

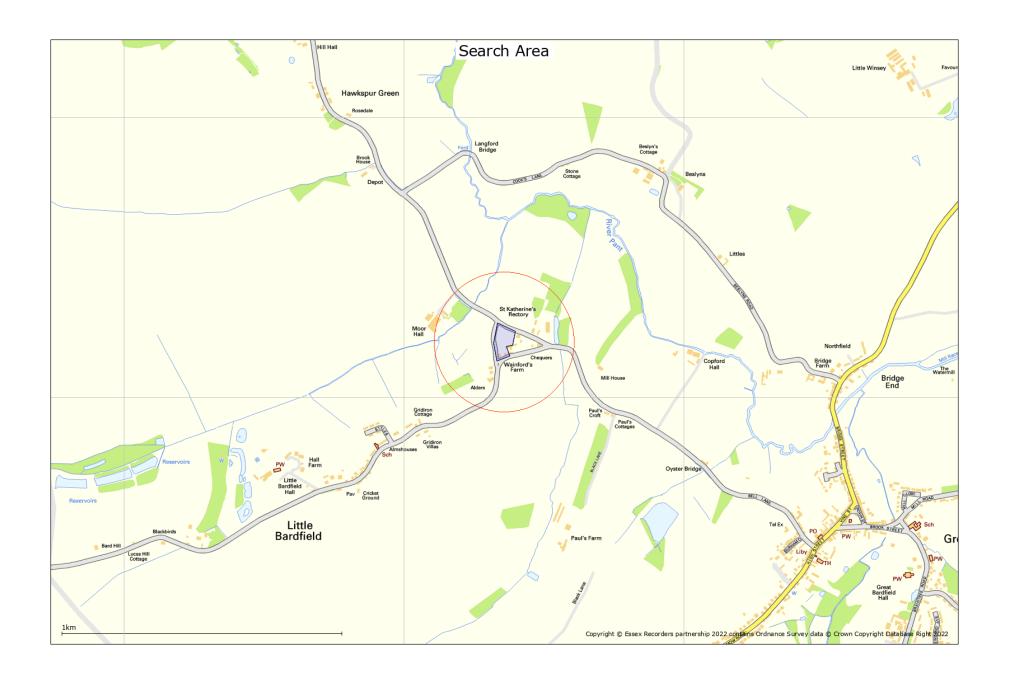
#### **Designations**

Except for Essex designations included in the Essex Biodiversity Action Plan or Essex Red Data List, or where otherwise indicated, designations used in this report are derived from the Joint Nature Conservation Committee (JNCC) Master list regardless of the status of the species in the county.

## 2. Data available through the Essex Recorders partnership

This report provides access to the following species datasets:

Data Provider	Species Group	County Coverage	
EFC/Essex Amphibian & Reptile Group	amphibians and reptiles	County data	
Essex Field Club	honey bee and bumblebees	Countywide data	
Essex Field Club	bees and wasps	County data	
Essex Field Club	ants	County data	
Essex Field Club	beetles	Available county data	
Essex Field Club	centipedes and millipedes	County data	
Essex Field Club	hoverflies	Available county data	
Essex Field Club	soldier flies and allies	County data	
Essex Field Club	flies (other)	County data	
Essex Field Club	grasshoppers, crickets and	County data	
	allies		
Essex Field Club/Butterfly Conservation	butterflies	County data	
Essex Field Club/Essex Moth Group	larger moths	County data	
Essex Field Club/Essex Moth Group	micro moths	County data	
Essex Field Club	leafhoppers and allies	Available county data	
Essex Field Club	true bugs	Available county data	
Essex Field Club	spiders	County data	
Essex Field Club	harvestmen	County data	
Essex Field Club	pseudoscorpions	County data	
Essex Field Club	flowering plant	Available county data	
Essex Field Club	woodlice	County data	
Essex Field Club	dragonflies & damselflies	Available county data	
Essex Field Club	non-vascular plants	Available county data	
Essex Field Club	other Hymenoptera	County data	
Essex Field Club	molluscs	County data	
Essex Field Club	lichens	Sample of data	
Essex Field Club	fungi	Available county data	
Essex Field Club	other mammals	County data	
Essex Field Club	bats	County data	
Essex Field Club	galls	Available data	
Essex Field Club	Invasive species	Available data	
Essex Field Club	birds	Club records	
Essex Field Club/From the UK Caddisfly	caddisflies	County/National	
Recording Scheme dataset (2019)		Recording Scheme data	
Essex Field Club	slime moulds	Small number of records	
EFC Schemes	EFC Schemes records	EFC Schemes records	
Essex Bat Group	bats	Dataset	
Essex Birdwatching Society	birds, with incorporated	County data	
	Birdtrack data		



## Sections on site designations

The following sections provide data on site designations in relation to the datasearch request search area. For statutory designated conservation sites, these are provided on maps expanded to cover a 5km radius.

We can provide information on Local Wildlife Sites for this local authority area.

## 3. All of a Buzz in the Thames Gateway

No All of a Buzz in the Thames Gateway sites are identified in relation to the search area

#### 4. Nature Improvement Areas (NIAs)

See www.naturalengland.org.uk/ourwork/conservation/biodiversity/funding/nia/default.aspx

Nature Improvement Areas (NIAs) were introduced by the Government's Natural Environment White

Paper to 'enhance and reconnect nature on a significant scale' in England.

Nature Improvement Areas encompass areas of land that include natural features and wildlife habitats but also include roads, housing developments and other man-made elements. They are areas that have been identified for their opportunities to restore nature at a landscape-scale alongside other land-uses.

These areas will become much better places for wildlife – creating more and better-connected habitats at a landscape scale, providing space for wildlife to thrive and adapt to climate change.

They will help people as well as wildlife – through enhancing a wide range of benefits that nature provides, such as recreation opportunities, flood protection, cleaner water and carbon storage.

NIAs should enhance existing ecological networks by:

- Increasing the number of wildlife sites
- Increasing the size of existing wildlife sites
- Improving connectivity between sites
- Creating wildlife corridors
- Improving the management of existing wildlife sites

The twelve initial NIAs extend from Morecambe Bay in the North West to the Wild Purbeck in the South West. One affecting Essex is the Greater Thames Marshes NIA in the south of the county.

No Nature Improvements Areas are identified near the search area

#### 5. B-Lines network

Map shows routes within the B-Lines network, identified by Buglife and a wide range of conservation and landowner partners. B-Lines aims to coordinate the delivery of wildflower-rich habitats to aid pollinator movement across the landscape. For more information visit www.buglife.org.uk/b-lines

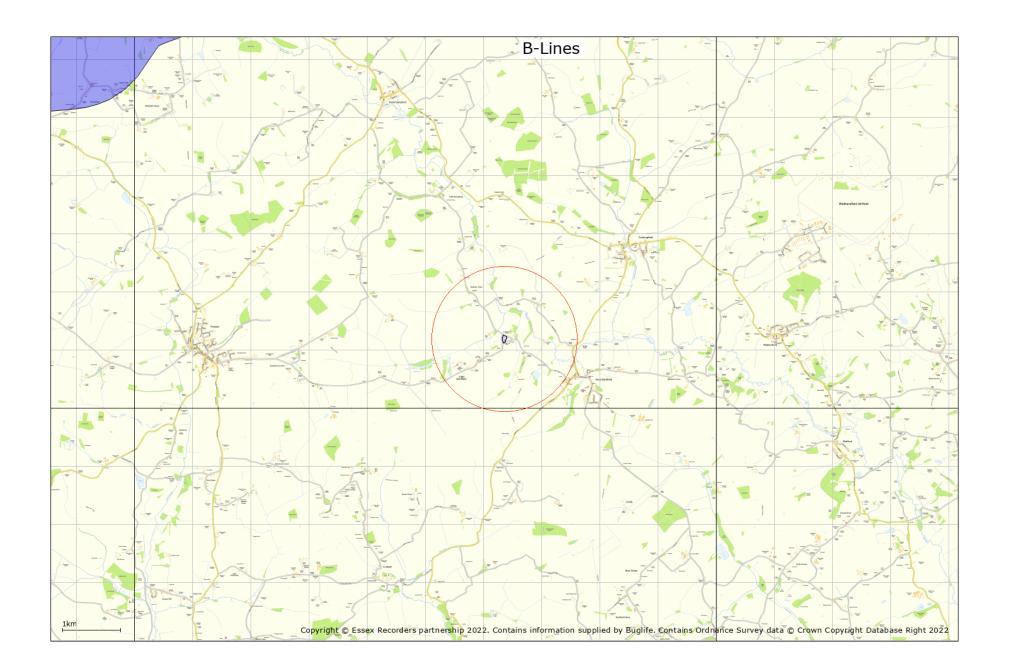
B-Lines is a landscape scale initiative to enhance declining pollinator populations by connecting up the best remaining wildflower-rich habitats through the creation or restoration of wildflower habitats. B-Lines was identified as a method to reverse pollinator declines in the National Pollinator Strategy's Implementation Plan, by aiding their movement across the fragmented landscape.

B-Lines are 3km corridors within which wildflower habitat restoration and creation can be focused and co-ordinated to maximise gains for pollinators. Habitat can be delivered by organisations, landowners, businesses, communities or individuals. Contribution to the B-Lines can be achieved through a variety of wildflower enhancement methods, such as habitat restoration (e.g. scrub clearance/re-introducing management/green haying), wildflower meadow creation in species poor grasslands, wildlife gardens, landowners entering agri-environment schemes, orchard planting, disturbance management and brownfield habitat creation, bee friendly formal planting, living roofs, etc.

Where relevant, planning applications in or around B-Lines should consider what they can contribute to the growing resources of pollinators in B-Lines. This will help to ensure that mitigation proposals align with ongoing work in the surrounding area for pollinators. It is important to note, however, that any planning applications should seek to protect and enhance the wildlife interests of all taxonomic groups and habitats, not pollinators and their requirements in isolation.

Buglife's online B-Lines hub includes an interactive map where habitat work can be uploaded to collate information on wildflower enhancements across the UK, as well as specific pollinator advice.

B-Lines identified in relation to the search area are shown on the map.



#### 6. Special Areas of Conservation

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A Special Area of Conservation (SAC) is an area which has been given special protection under the European Union's Habitats Directive. SACs provide increased protection to a variety of wild animals, plants and habitats and are a vital part of global efforts to conserve the world's biodiversity.

See www.naturalengland.org.uk/ourwork/conservation/designations/sac/

No Special Area/s of Conservation are identified in relation to the search area

#### 7. Special Protection Areas

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A Special Protection Area (SPA) is an area of land, water or sea which has been identified as being of international importance for the breeding, feeding, wintering or the migration of rare and vulnerable species of birds found within the European Union. SPAs are European designated sites, classified under the European Wild Birds Directive which affords them enhanced protection.

See www.naturalengland.org.uk/ourwork/conservation/designations/spa/

No Special Protection Area/s are identified in relation to the search area

#### 8. Ramsar sites

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Ramsar sites are wetlands of international importance, designated under the Ramsar Convention.

Wetlands are defined as areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres.

Ramsar sites may also incorporate riparian (banks of a stream, river, pond or watercourse) and coastal zones adjacent to the wetlands, and islands or bodies of marine water deeper than six metres at low tide lying within the wetlands.

#### What is the Ramsar Convention?

The Ramsar Convention is an international agreement signed in Ramsar, Iran, in 1971, which provides for the conservation and good use of wetlands. The UK Government ratified the Convention and designated the first Ramsar sites in 1976.

See www.naturalengland.org.uk/ourwork/conservation/designations/ramsars/

No Ramsar Site/s are identified in relation to the search area

#### 9. Marine Conservation Zone/s

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Marine Conservation Zones (MCZs) are a type of Marine Protected Area. They protect areas that are important to conserving the diversity of nationally rare or threatened habitats and/or species and those places containing habitats and/or species that are representative of the biodiversity in our seas.

The Marine and Coastal Access Act 2009 (Part 5) enables Defra Ministers to designate and protect Marine Conservation Zones (MCZs). These are a type of marine protected area, which will exist alongside European marine sites [Special Areas of Conservation (SACs) and Special Protected Areas (SPAs)], SSSIs and Ramsar sites to form an ecologically coherent network of marine protected areas.

See http://www.naturalengland.gov.uk/ourwork/marine/mpa/mcz/default.aspx

No Marine Conservation Zone/s are identified in relation to the search area

#### 10. National Nature Reserves

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England's National Nature Reserves (NNRs) represent many of the finest wildlife and geological sites in the country. Our first NNRs emerged in the postwar years alongside the early National Parks, and have continued to grow since then.

Natural England is the body empowered to declare NNRs in England, the Reserves being a selection of the very best parts of England's Sites of Special Scientific Interest. It is this underlying designation which gives NNRs their strong legal protection. The majority also have European nature conservation designations.

Nearly every type of vegetation is found in England's NNRs, from coastal salt-marshes, dunes and cliffs to downlands, meadows and the subtle variations of our native woodlands. Scarce and threatened habitats such as chalk downs, lowland heaths and bogs and estuaries are conserved in NNRs.

Many NNRs contain nationally important populations of rare flowers, ferns and mosses, butterflies and other insects, and of course nesting and wintering birds. Examples include unique alpine plants at Upper Teesdale and the beautiful field of fritillary lilies at North Meadow, Cricklade, Wiltshire.

See www.naturalengland.org.uk/ourwork/conservation/designations/nnr/default.aspx

No National Nature Reserve/s are identified in relation to the search area

#### 11. Sites of Special Scientific Interest

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There are over 4,100 Sites of Special Scientific Interest (SSSIs) in England, covering around 7% of the country's land area. Over half of these sites, by area, are internationally important for their wildlife, and designated as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites. Many SSSIs are also National Nature Reserves (NNRs) or Local Nature Reserves (LNRs).

SSSIs are the country's very best wildlife and geological sites. They include some of our most spectacular and beautiful habitats - large wetlands teeming with waders and waterfowl, winding chalk rivers, gorse and heather-clad heathlands, flower-rich meadows, windswept shingle beaches and remote uplands moorland and peat bog.

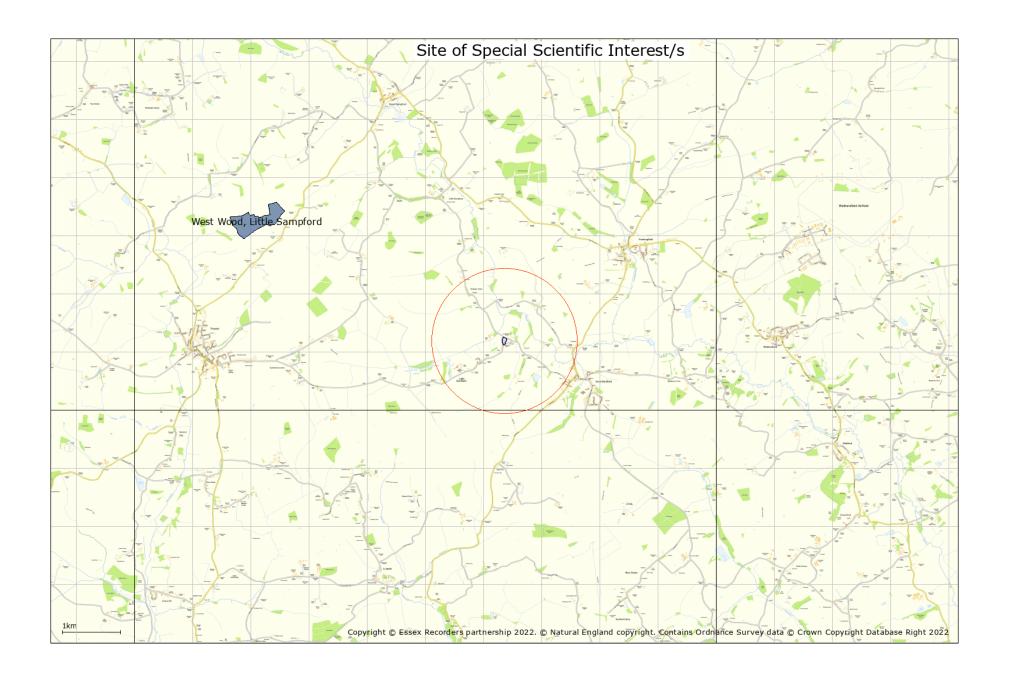
It is essential to preserve our remaining natural heritage for future generations. Wildlife and geological features are under pressure from development, pollution, climate change and unsustainable land management. SSSIs are important as they support plants and animals that find it more difficult to survive in the wider countryside. Protecting and managing SSSIs is a shared responsibility, and an investment for the benefit of future generations.

See www.sssi.naturalengland.org.uk/Special/sssi/index.cfm

Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to: Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. They define zones around each site which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. For information on SSSI Impact Risk Zones (IRZs) is available from Natural England

There is 1 Site of Special Scientific Interest/s identified in relation to the search area.

West Wood, Little Sampford



#### 12. Areas of Outstanding Natural Beauty

AONBs are designated areas where protection is afforded to protect and manage the areas for visitors and local residents. Under the Countryside and Rights of Way Act 2000, Natural England has the power to designate areas of outstanding natural beauty (AONBs) in England that are outside national parks and that are considered to have such natural beauty it is desirable they are conserved and enhanced; issue a variation order to change an existing AONB boundary. It also holds a duty to give advice on developments taking place in an AONB; take into account the conservation and enhancement of AONBs in its work.

Two AONBs are relevant to Essex, the Dedham Vale AONB and the extended Suffolk Coast and Heaths Area of Outstanding Natural Beauty which sees the AONB expand by around 38 square kilometres, taking in a rich tapestry of attractive river valleys, ancient woodland, reed beds, wildlife-rich estuaries, and windswept beaches. The area includes the Stour estuary – one of the most important wildlife estuaries in Europe and of international importance for wildfowl and waders.

No Areas of Outstanding Natural Beauty are identified in relation to the search area

#### 13. Local Nature Reserves

© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2022]. NB This national dataset is "indicative" not "definitive". Definitive information can only be provided by individual local authorities and you should refer directly to their information for all purposes that require the most up to date and complete dataset.

Local Nature Reserve (or LNR) is a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949, and amended by Schedule 11 of the Natural Environment and Rural Communities Act 2006, by principal local authorities.

Local Nature Reserves (LNRs) are for both people and wildlife. They are places with wildlife or geological features that are of special interest locally. They offer people special opportunities to study or learn about nature or simply to enjoy it.

By declaring Local Nature Reserves (LNRs), local authorities can provide many benefits for both people and wildlife.

#### To:

- increase people's awareness and enjoyment of their natural environment
- provide an ideal environment for everyone to learn about and study nature
- help to build relationships with national and local nature conservation organisations and local people protect wildlife habitats and natural features provide a great opportunity for people to become involved in managing their local environment offer a positive use for land which they would prefer was left undeveloped make it possible to apply bye-laws which can help in managing and protecting the site.

See www.naturalengland.org.uk/ourwork/conservation/designations/lnr/

No Local Nature Reserve/s are identified in relation to the search area

#### 14. Essex Local Wildlife Sites (LOWS)

Local Wildlife Sites (LoWS), previously known as Sites of Importance for Nature Conservation (SINC) or County Wildlife Sites (CoWS), are areas of land with significant wildlife value. Local Wildlife Sites support both locally and nationally threatened wildlife, and many sites will contain habitats and species that are priorities under the Essex or UK Biodiversity Action Plans (BAP), which sets out strategies for the conservation of much of our most vulnerable wildlife.

Sites can be found throughout Essex and together with nationally and internationally statutory protected areas, such as Sites of Special Scientific Interest (SSSI) and Special Protection Areas (SPA), they represent the best areas for wildlife in the County. Local Wildlife Sites, together with statutory protected areas, are fundamental as they provide a vital contribution in maintaining the current levels of wildlife in Essex.

Local Wildlife Sites are protected within the local planning system. They are a 'material consideration' in the determination of planning applications, and this should ensure that there is a general presumption against development upon them.

See www.wildlifetrusts.org/local-wildlife-sites and

www.essexwt.org.uk/protecting-wildlife/landscape-conservation/local-wildlife-sites

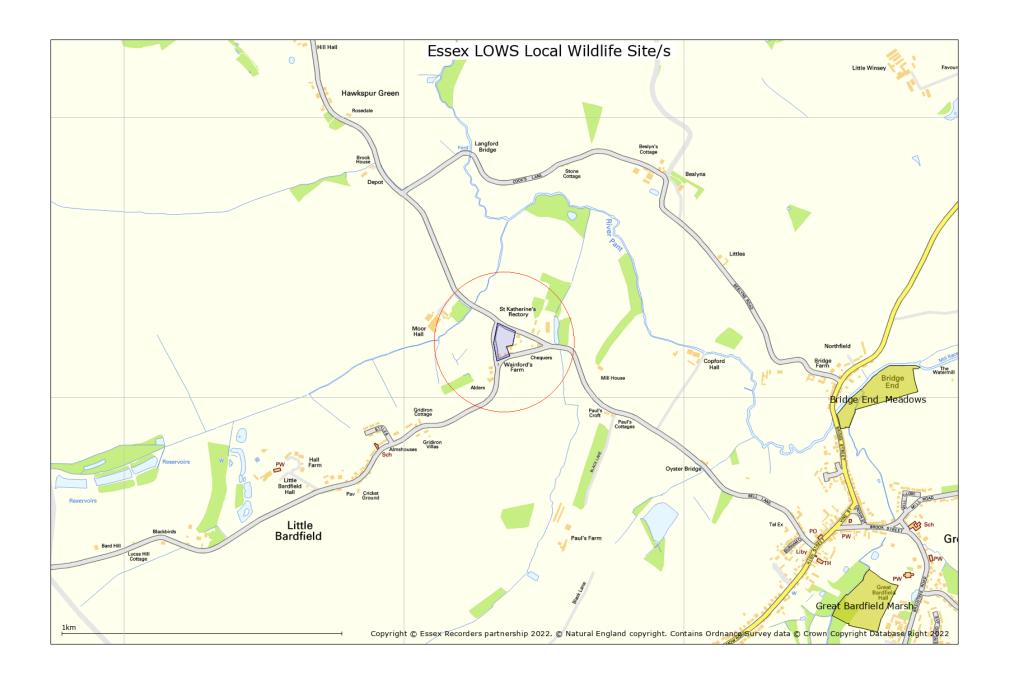
#### **Caveats and Potential Local Wildlife Sites (pLoWS)**

The reviews for Basildon, Castle Point, Rochford, and Thurrock have yet to be confirmed and incorporated into their Local Plan documents.

Sites identified as Potential LoWS are ones where there was reason to think that they may qualify as a LoWS during a published LoWS review, but there was insufficient information available to confirm this at the time. Ecological information supporting developments affecting an identified PLoWS should include a thorough assessment of the site against the Essex LoWS Selection Criteria. Potential LoWS are not yet available here.

There are 2 Essex LOWS Local Wildlife Site/s identified in relation to the search area.

Bra11 Great Bardfield Marsh Bra9 Bridge End Meadows



#### 15. Country Park/s

Natural England recognises country parks as significant places that contribute to England's accessible natural greenspace.

Many are located near or within towns and cities and therefore close to where people live. All provide a wide range of opportunities for recreation, health and education and improve the quality of life for their local communities.

Country Parks were established as a result of the 1968 Countryside Act and there are currently more than 400 sites that call themselves Country Parks in England. They are visited by over 70 million visitors a year.

They are public green spaces often at the edge of urban areas which provide places to enjoy the outdoors and experience nature in an informal semi-rural park setting. Country Parks normally have some facilities such as a car park, toilets, perhaps a cafe or kiosk, paths and trails, and visitor information. There is not necessarily public right of access, although most are publicly accessible; some charge entry others do not.

See www.naturalengland.gov.uk/ourwork/enjoying/places/countryparks/default.aspx

No Country Park/s are identified in relation to the search area

#### 16. Open Country and Common Land

#### **Conclusive Map Data of Open Country:**

Created under the Countryside and Rights of Way (CROW) Act 2000, the Open Country (OC) data was digitised from OS MasterMap by the contractors Black and Veatch Consulting Limited on behalf of the Countryside Agency. It consists of all land that appears to the Countryside Agency to consist wholly or predominantly of mountain, moor, heath and down and is not registered common land. It includes any modifications determined by the Planning Inspectorate as a result of appeals. It includes areas of land that are excepted from the rights of access as specified in Part 1 of Schedule 1 of the CROW Act. It may be amended for certain errors under current error regulations. The map must be reviewed not more than 10 years after its issue in conclusive form.

#### **Conclusive Map Data of Registered Common Land:**

Created under the CROW Act 2000, the Registered Common Land (RCL) data was digitised from DNF Landline by the contractors Geodata on behalf of the Countryside Agency. It is a digitised copy of land registered as common land under the Commons Registration Act 1965. It includes any modifications determined by the Planning Inspectorate as a result of appeals. It includes areas of land that are excepted from the rights of access as specified in Part 1 of Schedule 1 of the CROW Act. It may be amended for certain errors under current error regulations. The map must be reviewed not more than 10 years after its issue in conclusive form.

#### Important Notes:

There is no right of access to land shown as OC or RCL until the relevant Commencement Order for the area becomes effective.

There is no right of access to land shown as OC or RCL where such land meets any of the descriptions of excepted land as specified in Part 1 of Schedule 1 of the CROW Act. This includes areas of land such as racecourses, aerodromes and military byelaw land.

There may be restrictions on the right of access in some areas of land. Under the CROW Act, landowners or tenants of access land have a 28-day allowance of restrictions each calendar year and can also apply for longer term restrictions. Digital data of restrictions to the rights of access will not be made available to third parties. All restrictions can be viewed on the website www.countrysideaccess.gov.uk. More information about restrictions can be found here: www.openaccess.gov.uk

No Open Country area/s are identified in relation to the search area

No Common Land area/s are identified in relation to the search area

#### 17. Ancient Woodland Inventory

Ancient Woodlands (England). © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2022]

Ancient woodland is land that has had a continuous woodland cover since at least 1600 AD and may be ancient semi-natural woodland (ASNW), which retains a native tree and shrub cover that has not been planted, although it may have been managed by coppicing or felling and allowed to regenerate naturally, or plantation on ancient woodland sites (PAWS) where the original tree cover has been felled and replaced by planting, often with conifers, and usually over the last century.

See www.naturalengland.org.uk/about\_us/whatwedo/partnership/casestudies/ancientwoodland.aspx

No Ancient Woodland Inventory polygon/s are identified in relation to the search area

#### 18. Wood-Pasture and Parkland BAP Priority Habitat Inventory

Natural England Wood-Pasture and Parkland BAP Priority Habitat Inventory for England (England) v2.0© Natural England [2022], reproduced with the permission of Natural England, www.naturalengland.org.uk/copyright/. © Crown Copyright and database rights [2022] Ordnance Survey licence number 100022021.

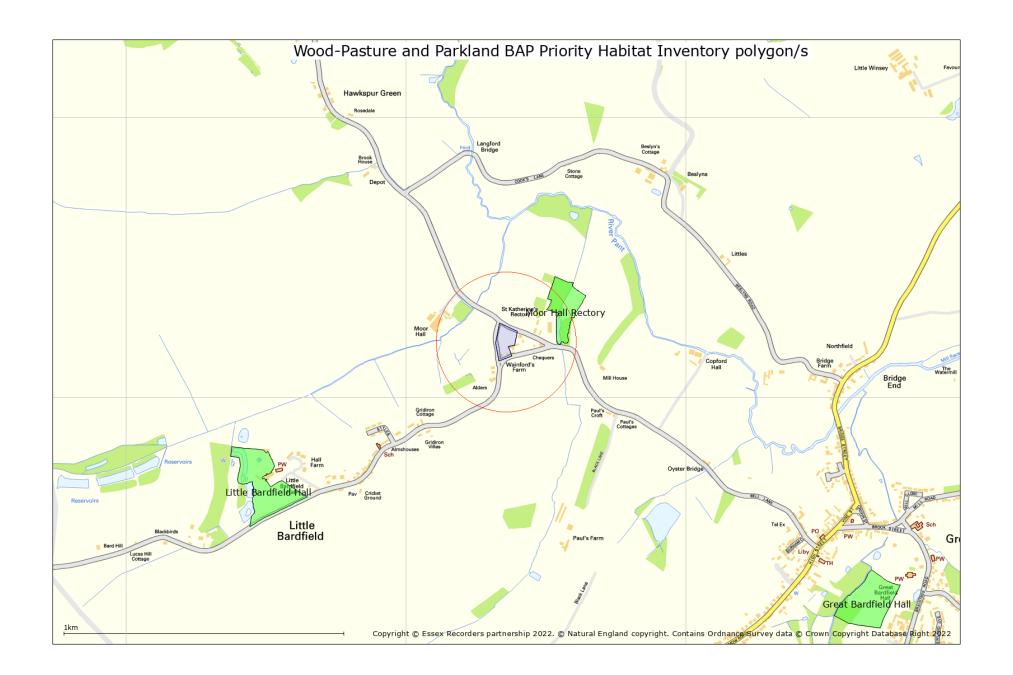
Parkland was defined as areas with a minimum of 3 trees, excluding boundary trees, which had less than 250 m between trees. Park extent was mapped to boundary features where park trees were less than 100 m from the boundary or the boundary included a large tree which was less than 250 m from a park tree.

Some areas of woodland were included where possible park trees were present. Some open areas and wooded areas were not removed as the precise extent of parkland habitat was difficult to determine from aerial photography.

Cemeteries and churchyards were excluded unless they were entirely within the park boundary.

The minimum mappable unit for the inventory was 0.25ha. Metalled roads and rivers were excluded according to Natural England mapping rules, therefore some areas <0.25ha may be present if separated by a road.

There are 3 Wood-Pasture and Parkland BAP Priority Habitat Inventory polygon/s identified in relation to the search area.



#### 19. Traditional Orchard Inventory

Natural England Traditional Orchard Inventory (Provisional) for England© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2022]

#### **Definitions**

#### **Traditional Orchard**

For the purpose of the inventory, Traditional Orchards are defined as sites where at least five fruit trees must be present with no more than 20m between their crown edges. Traditional Orchards are managed in a low intensity way with the orchard floor grazed or mown for hay and with little or no chemical input.

#### The Traditional Orchard Inventory for England

The inventory identifies Traditional Orchard sites in England. Traditional Orchards are located using aerial photography, Ordnance Survey MasterMap, external datasets compiled from historic surveys, and ground survey ("ground-truthing"). The information recorded about each orchard and stored on the Inventory Database includes its grid reference, its area in hectares, management features of the site and its condition (based on condition assessment criteria).

#### **Limitations of the Traditional Orchard Inventory:**

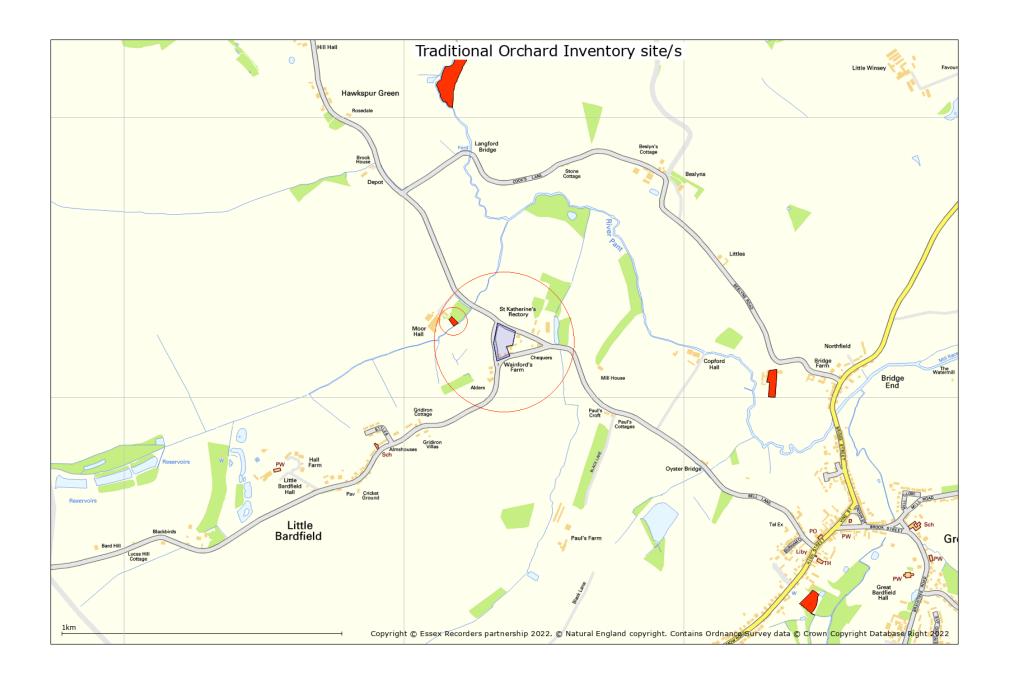
The inventory is classed as 'provisional' because it is under a constant system of review and is updated as new information is received or actual changes are recorded. If you have information that would help Natural England to update the inventory please let them know.

#### Traditional Orchards HAP Definition

Traditional orchards are defined, for priority habitat purposes, as groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland; and managed in a low intensity way. Cobnut plats are also included.

The minimum size of a traditional orchard is defined as five trees with crown edges less than 20m apart. However, the potential biological and genetic interest of sites with fewer trees, such as relict orchards and individual trees within gardens is noted. Where appropriate these should be considered as potential restoration sites. It is recognised that other sites which fall outside the definition, such as organic bush orchards and fruit collections in walled gardens may also have biodiversity value, as well as historic, cultural and genetic importance.

There are 4 Traditional Orchard Inventory site/s identified in relation to the search area.



#### 20. Priority Habitat Inventory

Natural England Priority Habitat Inventory © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right [2022]

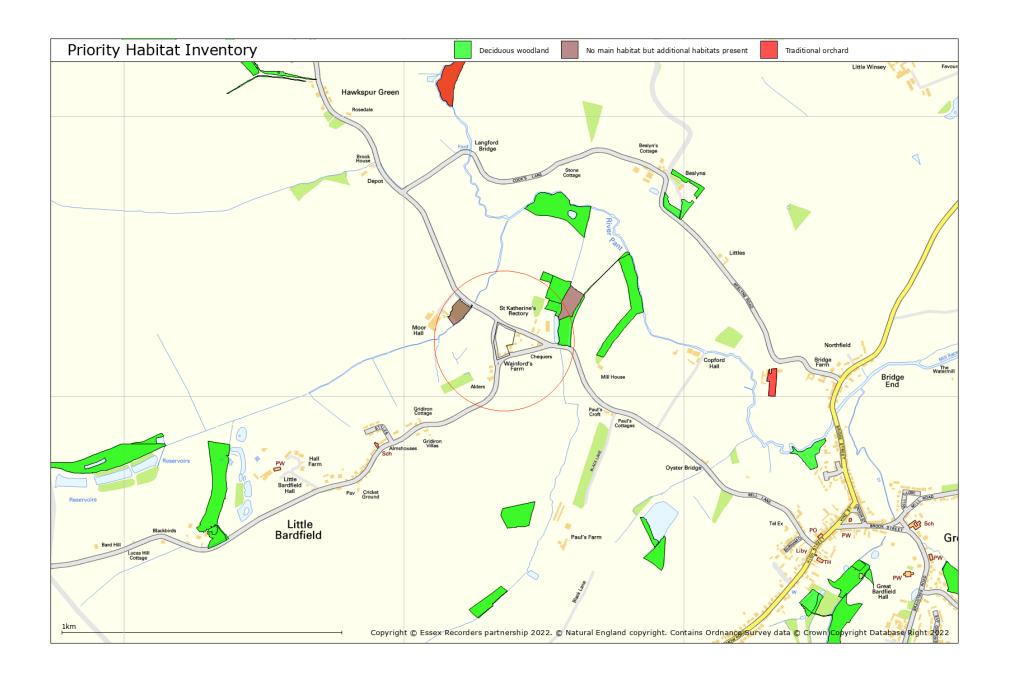
Natural England's Priority Habitats' Inventory (PHI) is a spatial dataset that describes the geographic extent and location of priority habitats in England. The PHI has been developed to replace twenty-four separate Biodiversity Action Plan (BAP) priority habitat inventories.

PHI maps habitats of principal importance for biodiversity in England. These were previously known as Biodiversity Action Plan priority habitats.

The PHI represents the best available information on priority habitats at an England-wide level; it is not and will never be a definitive dataset for priority habitats across England. As such it should be recognised that the PHI provides a generalised map of the priority habitats in an area.

Marine and freshwater habitats are not currently included, nor are Arable field margins, Hedgerows, Inland rock and scree habitats. Some other habitats, such as Open mosaic habitats on previously developed land and Wood-pasture and parkland are also not included in PHI, but have their own separate inventories.

Priority Habitat Inventory identified in relation to the search area are shown on the map.



#### 21. Important Invertebrate Areas

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Important Invertebrate Areas (IIAs) are nationally or internationally significant places for the conservation of invertebrates and the habitats upon which they rely. They are based on Birdlife International's successful Important Bird Areas Project (IBAs), and Plantlife's Important Plant Areas (IPAs) programme across Europe.

Areas not identified as IIAs may still be of national, regional or county importance for their invertebrates, but have not been identified by the IIA criteria.

Please see the following ISIS analyses on existing invertebrate data and ensure that CEH / Natural England's Pantheon tool is used on survey results undertaken to Natural England guidelines.

The UK and its diverse habitats support nearly 40,000 invertebrate species. They are vital to our lives, underpinning the ecosystem services which provide us with food, fertile soils and clean water, and the wildlife-rich habitats which we all enjoy. However, invertebrates are declining in response to widespread habitat loss and fragmentation, urbanisation, changing agricultural and land management practices, environmental pollution, non-native invasive species and many other factors.

IIAs are a vital tool to help identify the sites that support our most threatened and declining species to help develop a coordinated approach to securing sustainable invertebrate populations into the future and prevent their extinction. IIAs uses the knowledge and data of over 85 national recording schemes and over 45 million records, developed closely with data and taxonomic specialists to ensure a rigorous approach. IIAs have been selected where they support a nationally significant assemblage of species or support a single globally endangered, European endangered or national Critically Endangered species.

No Important Invertebrate Areas are identified in relation to the search area

### **Species data**

The following sections provide species data in accordance with the datasearch request. Non-county designations are based on the JNCC Master List which provides information on the conservation listings of different taxa. Please note that species records are included for all 1km squares crossed by the search area. This is because many records are made at 1km resolution, and they could have been recorded anywhere within the 1km square. The data is provided for the search area on this basis and not the wider area shown on the site designation maps.

Search polygons which are not a radius from a point include a 1km extension outside the polygon boundary extents. Search polygons made up of a corridor may however include data from a wider area as defined by the east, west, south and north edges of the area.

Natural England provides new standard advice on how to address invertebrates and their habitats within the planning system. The standard advice is hosted at http://habitatsurveys.esdm.co.uk/Data/Sites/1/media/invertebrate-standard-advice-fo r-essex-oct-2014.pdf

#### 22. Invertebrate Assemblage Information

This information is based on the use of Natural England's ISIS (2010) methodology. Assemblages are identified from records for the search area and 1km squares crossed by the search area. Please note: these assemblages are identified from existing data and the results only indicate significance already identified from untargeted survey. Specific targeted specialist survey work should be undertaken of the search area to further evaluate identified invertebrate assemblages and identify others which may be important.

#### **Broad Assemblage Types**

Invertebrate assemblages are helpful in identifying nature conservation significance of a recorded invertebrate fauna. The following Broad Assemblage Types are highlighted:

#### **Broad Assemblage Types identified:**

#### **Specific Assemblage Types**

Specific Assemblage Types (SATs) are characterised by ecologically restricted species and are generally only expressed in lists from sites with conservation value. They have intrinsic value for nature conservation and are designed to be used in setting invertebrate conservation objectives on SSSIs (Lott, 2008).

#### Specific Assemblage Types identified:

slow-flowing rivers	
rich flower resource	

#### 23. Protected Species

Protected species have protection under national legislation such as the Wildlife and Countryside Act 1981 and European legislation such as the Habitats Directive.

Please note the following:

- (1) If there is no record of a particular protected species, this does not signify that that the species is absent from the site in question. It may mean that it has not been recorded, that the site has not been surveyed for this species, or that data relating to its presence has not been made available to us.
- (2) The presence of a protected species record does not mean that the species is still present. It means that the species was recorded at that time and place. The implications of the record should be further evaluated, and a survey to establish the current status may be required.
- (3) The following summary of legislation is designed purely as a basic guide, if any action is to be taken regarding any of the protected species listed, then it is imperative that the full relevant legislation be consulted.
- (4) Information on Badger setts is available from the four Essex Badger Groups by contacting them direct: Essex Badger Protection Group covers the south of the county www.essexbadger.co.uk; North East Essex Badger Group, north to the Suffolk border www.neebg.co.uk; Uttlesford Badger Group covers west Essex www.ubg-uk.org; Harlow Badger Group covers Harlow and Epping Forest Districts www.hbg-uk.org

#### WILDLIFE PROTECTION LEGISLATION IN ENGLAND

Legislation that protects wildlife in England exists at the European and national level.

#### **European Law**

The Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979) was aimed at ensuring conservation and protection of all wild plants and animals, increasing cooperation between states, and affording special protection to the most vulnerable or threatened species. It was implemented by the EC Birds Directive (Council Directive 79/409/EEC) and the EC Habitats Directive (Council Directive 92/43/EEC).

The Bonn Convention on Migratory Species of Wild Animals (1979 & 1994) requires the protection of migratory animals. It was implemented by the EC Birds Directive (Council Directive 79/409/EEC) and the EC Habitats Directive (Council Directive 92/43/EEC).

The EC Habitats Directive aims to establish a network of protected areas in order to maintain the distribution and the abundance of threatened species and habitats. A number of species are listed in the annexes.

Annex II lists animals and plants whose conservation requires the designation of Special Areas of Conservation (SACs).

Annex IV lists animals and plants in need of strict protection. For the animals, this prohibits deliberate capture, killing, disturbance (especially during breeding period), destruction or taking of eggs from wild, and destruction or deterioration of breeding sites or resting places. For the plants, this prohibits deliberate picking, collecting, uprooting, cutting, destruction, and trade in entire plants or parts, at all stages of life.

Annex V lists animals and plants for which taking in the wild may be subject to management measures.

#### **National Law**

#### Wildlife and Countryside Act

The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. A statutory five-yearly review of Schedules 5 and 8 (protected wild animals and plants) is undertaken by the relevant authorities. Species protection is provided under Schedules 1, 5, 6 and 8:

Schedule 1 lists bird species that are rare, endangered, declining or vulnerable. The Schedule is divided into two parts. Part I lists birds which receive special protection, these birds receive additional protection from disturbance at the nest. Part II lists birds that receive the same level of special protection, but only during the breeding season.

Schedule 5 protects animal (other than bird) species from certain actions, according to the sections of the Act under which they are listed:

- S9(1) prohibits the intentional killing, injury or taking.
- S9(2) protection is limited to possessing and controlling.
- S9(4a) prohibits the damaging, destroying or obstructing access to any place used by the animal for shelter or protection.
- S9(4b) prohibits disturbing the animal while it is occupying any structure or place which it uses for shelter or protection.
- S9(5) prohibits the selling, offering for sale, possessing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from such an animal. Species on this Schedule do not appear on the PSI.

Schedule 6 lists animals that may not be killed by certain methods. Even humane trapping for research requires a licence.

Schedule 8 lists plant species for which it is prohibited to intentionally pick, uproot, destroy, trade in, or possess (for the purposes of trade).

Under the Wildlife and Countryside Act, all wild plants in Britain are protected from intentional uprooting by an unauthorised person. Landowners, land occupiers, persons authorised by either of these, or persons authorised in writing by the Local Authority for the area are exempt from this, except for Schedule 8 species.

#### **Conservation Regulations**

The Conservation of Habitats and Species Regulations 2010 (as amended) transpose the EC Habitats Directive into national law. In addition to enabling the designation of SACs, the regulations also provide species protection:

Schedule 2 protects the listed animals from deliberate capture, killing, disturbance or trading in.

Schedule 4 protects the listed plants from picking, collecting, uprooting, destroying or trading in.

These actions can be made lawful through the granting of licences by the appropriate authorities. Licences may be granted for a number of purposes, but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild the population of the species concerned.

#### **Protection of Badgers Act**

The Protection of the Badgers Act prohibits the killing, injuring or taking of badgers and damage or interference with a badger sett, unless licensed to do so by a statutory authority.

### **International and European Obligations**

In the UK, species receiving protection under international legislation and agreements are protected through the Wildlife and Countryside Act, so are not shown separately in the BMERC notable species lists. For reference, the relevant categories are shown below.

#### Bern Convention on the Conservation of European Wildlife and Natural Habitats

The Bern Convention aims to ensure the conservation of wild flora and fauna species and their habitats.

- Appendix 1 (strictly protected flora) Plants for which contracting parties will prohibit deliberate picking, collecting, cutting or uprooting.
- Appendix 2 (strictly protected fauna) Animals for which contracting parties will prohibit deliberate capture, possession, killing, damage to or destruction of breeding or resting sites, disturbance or destruction or taking of eggs.
- Appendix 3 (protected fauna) Animals for which contracting parties will include closed seasons and regulate their sale, keeping for sale, transport for sale or offering for sale of live and dead wild animals. (Not included in Notable Species List).

#### **Bonn Convention on Migratory Species**

The Bonn Convention aims to conserve terrestrial, marine and avian migratory species throughout their range.

- Appendix 1 (migratory species threatened with extinction) Species for which contracting parties will strictly protect and endeavour to conserve or restore the places where they live, mitigating obstacles to migration and controlling other factors that might endanger them.
- Appendix 2 (migratory species that need or would benefit from international co-operation) Species for which contracting parties will be encouraged to conclude global or regional
  agreements for the conservation and management of individual species or, more often, of a
  group of species. (Not included in Notable Species List).

#### The EC Council Directive on the Conservation of Wild Birds

The Birds Directive provides a framework for the conservation and management of all wild birds in Europe. As well as designating important sites for birds as Special Protection Areas, birds are generally protected from deliberate killing or capture and destruction of or damage to their nests or eggs, and deliberate disturbance. Allowances are made for game birds.

## **Protected Species Table**

Source	Taxon	Group	Vernacular	Status	Location	Position	Records	Latest
Essex Field Club	Milvus milvus	bird	Red Kite	Birds Directive: Annex 1, Convention on Migratory Species: Appendix 2, EC Cites: Annex A, Wildlife and	Little Bardfield	TL6631	1	2018
				Countryside Act 1981: Schedule 1 -				
				Part 1				
Essex Field	Ophrys apifera	flowering plant	Bee Orchid	EC Cites: Annex B	Great Bardfield,	TL6631	1	2012
Club					Cook's Lane			
Essex Field	Pipistrellus pipistrellus	terrestrial mammal	Common Pipistrelle	Bern Convention: Appendix 2, Bern	TL661313	TL661313	1	2014
Club				Convention: Appendix 3, Convention on				
				Migratory Species: Appendix 2,				
				Convention on Migratory Species:				
				Appendix 2, Convention on Migratory				
				Species: EUROBATS Annex I,				
				Convention on Migratory Species:				
				EUROBATS Annex I, Habitats				
				Directive: Annex 4, Habitats Directive:				
				Annex 4, The Conservation of Habitats				
				and Species Regulations 2010:				
				Schedule 2, The Conservation of				
				Habitats and Species Regulations				
				2010: Schedule 2, Wildlife and				
				Countryside Act 1981: Schedule 5				
				Section 9.4b, Wildlife and Countryside				
				Act 1981: Schedule 5 Section 9.4b,				
				Wildlife and Countryside Act 1981:				
				Schedule 5 Section 9.4c, Wildlife and				
				Countryside Act 1981: Schedule 5				
				Section 9.4c, Wildlife and Countryside				
				Act 1981: Schedule 5 Section 9.5a,				
				Wildlife and Countryside Act 1981:				
				Schedule 5 Section 9.5a				

### 24. UK Biodiversity Action Plan Priority Section 41 Species

Biodiversity, or biological diversity, is the whole variety of life on Earth. The Convention on Biological Diversity (CBD) came about as a result of the 1992 Earth Summit. As one of 168 countries to sign up to the CBD, the UK was required to develop a national strategy for the conservation of biodiversity; the UK Biodiversity Action Plan (UKBAP) was born.

The UKBAP is the result of contributions involving a wide range of people and organisations, enabling the identification of species and habitats that are listed as priorities for conservation action. A 2007 review of the UKBAP has resulted in 1149 species and 65 habitats being listed as conservation priorities. For more information see www.ukbap.org.uk.

In addition to the national priorities and targets, action is also being taken at local level. The Essex Biodiversity Project is responsible for implementing the Essex Biodiversity Action Plan, which has 28 priority species and 15 priority habitats currently listed. For more information see www.essexbiodiversity.org.uk.

#### The UK BAP

(from Explanatory Note by Defra and Natural England on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 - Habitats and Species of Principal Importance in England)

The England Biodiversity List has been developed to meet the requirements of Section 41 of the Natural Environment and Rural Communities Act (2006). This legislation requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity.

The S41 list will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions. In particular:

- Regional Planning Bodies and Local Planning Authorities will use it to identify the species and habitats that should be afforded priority when applying the requirements of National Planning Policy framework (NPPF) and PPS9 Circular to maintain, restore and enhance species and habitats.
- Local Planning Authorities will use it to identify the species and habitats that require specific
  consideration in dealing with planning and development control, recognising that under NPPF
  and PPS9 Circular the aim of planning decisions should be to avoid harm to all biodiversity.
- All Public Bodies will use it to identify species or habitats that should be given priority when implementing the NERC Section 40 duty.

#### **Habitats of Principal Importance**

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that have been identified as requiring action in the UK Biodiversity Action Plan (UK BAP). They range from habitats such as upland hay meadows to lowland mixed deciduous woodland and from freshwater habitats such as ponds to marine habitats such as subtidal sands and gravels.

#### **Species of Principal Importance**

There are 943 species of principal importance included on the S41 list. These are the species found

in England which have been identified as requiring action under the UK BAP. In addition, the Hen Harrier has also been included on the List because without continued conservation action it is unlikely that the Hen Harrier population will increase from its current very low levels in England.

#### Relationship with the UK Biodiversity List of Species and Habitats

The UK BAP list of priority species and habitats is an important reference source and will be the focus for conservation action across the UK over the next decade. It has been used to draw up the species and habitats of principal importance in England under S41 of the NERC Act.

The revised UK BAP list of priority species and habitats can be downloaded from the UK Biodiversity Website: http://www.ukbap.org.uk/NewPriorityList.aspx

#### Relationship with the biodiversity duty under Section 40 of the NERC Act

There is a general biodiversity duty in the NERC Act (Section 40) which requires every public body in the exercising of its functions to 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'.

There is no direct relationship between the Section 41 duty on the Secretary of State to publish the list and promote the taking of steps to conserve the habitats and species on it, and the Section 40 duty on public bodies to have regard to the purpose of conserving biodiversity. Importantly:

- (a) Biodiversity, as covered by the Section 40 duty includes all biodiversity and not just the habitats and species of principal importance. However, there is an expectation that public bodies would refer to the S41 list when complying with the section 40 duty.
- (b) The duty on the Secretary of State to promote the taking of steps by others is not restricted to public bodies.

Defra guidance for local authorities and public bodies on implementing the biodiversity duty in the NERC Act draws attention to the S41 list, emphasising that local authorities and public bodies have a role to play in ensuring the protection of these species and habitats. Copies of the guidance can be downloaded

from:\nhttp://archive.defra.gov.uk/environment/biodiversity/documents/pa-guid-english.pdf

#### **Essex Biodiversity Action Plan**

The Essex Biodiversity Project was set up in 1999 for the purpose of implementing the Essex BAP, one of the 162 local BAPs in the UK. These were formed following the UK's signature to the Convention on Biological Diversity (1992) and the subsequent need for action to conserve biodiversity at a local level.

The overall aim of the Essex Biodiversity Project is to protect, conserve and enhance the variety of wildlife species and habitats in Essex through the successful implementation of the Essex Biodiversity Action Plan.

# **UK BAP Priority, Section 41 and Essex BAP Species Table**

Source	Taxon	Group	Vernacular	Status	Location	Position	Records	Latest
Essex Field	Micromys minutus	terrestrial mammal	Harvest Mouse	Biodiversity Action Plan UK list of	TL660317	TL660317	2	1999
Club				priority species: Priority Species,				
				Biodiversity Lists - England: England				
				NERC S.41				İ
Essex Field	Pipistrellus pipistrellus	terrestrial mammal	Common Pipistrelle	Essex BAP: EBAP	TL661313	TL661313	1	2014
Club								

### 25. Global & National Red List and Scarce Designations

#### **Red Data Book Species**

National Red Data Book species are those falling within the Status categories defined in the British Red Data Books (Bratton, 1991; Shirt, 1987). These are internationally recognised species listed in the various Red Data Books published by, or under the auspices of, the International Union for the Conservation of Nature (IUCN). Species included may not be informally removed or transferred between categories. Nationally Endangered (RDB1) taxa are those considered to be in danger of extinction and whose survival is unlikely if the causal factors continue operating. These include species known from only a single locality since 1970, species restricted to habitats which are especially vulnerable, species which have shown a rapid and continuous decline in the last twenty years and are now estimated to exist in five or fewer ten km squares and species believed extinct but which would need protection if re-discovered. Nationally Vulnerable (RDB2) taxa are those that are believed likely to move into the Endangered category in the near future if the causal factors causing their decline continue operating. This includes species declining throughout their range, species in vulnerable habitats and species whose populations are low. Nationally Rare (RDB3) taxa are those with small populations that are not at present Endangered or Vulnerable, but are at risk. This includes species known or estimated to exist in only 15 or fewer post 1970 ten km squares. Insuffiently Known (RDBK) taxa are those suspected of falling into categories 1-3, but about which there is insufficient information to be certain.

Various new status reviews have been published in recent years. A brief outline of the revised IUCN criteria and their application, as summarised in these reviews, is given below.

#### **EXTINCT (EX)**

A taxon is Extinct when there is no reasonable doubt that the last individual has died.

#### **EXTINCT IN THE WILD (EW)**

A taxon is Extinct in the wild when it is known to survive only in cultivation, in captivity or as a naturalised population (or populations) well outside the past range. A taxon is presumed extinct in the wild when exhaustive surveys in known and/or expected habitat, at appropriate times (diurnal, seasonal, annual) throughout its range have failed to record an individual. Surveys should be over a time frame appropriate to the taxon's life cycle and life form.

#### **CRITICALLY ENDANGERED (CR)**

A taxon is Critically Endangered when it is facing an extremely high risk of extinction in the wild in the immediate future, as detailed by any of the criteria A to E. \*

#### **ENDANGERED (EN)**

A taxon is Endangered when it is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future, as defined by any of the criteria A to E. \*

#### **VULNERABLE (VU)**

A taxon is Vulnerable when it is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium term future, as defined by any of the criteria A to D. \*

#### LOWER RISK (LR)

A taxon is Lower Risk when it has been evaluated but does not satisfy the criteria for any of the categories Critically Endangered, Endangered or Vulnerable. Taxa included in the Lower Risk category can be separated into three sub-categories:

#### **Conservation Dependent (cd)**

Taxa which are the focus of a continuing taxon-specific or habitat-specific conservation programme targeted towards the taxon in question, the cessation of which would result in the taxon qualifying for one of the threatened categories above within a period of five years.

#### Near Threatened (nt)

Taxa which do not qualify for Lower Risk (Conservation Dependent), but which are close to qualifying for Vulnerable.

#### Least Concern (Ic)

Taxa which do not qualify for Lower Risk (Conservation Dependent) or Lower Risk (Near Threatened).

#### DATA DEFICIENT (DD)

A taxon is Data Deficient when there is inadequate information to make a direct or indirect assessment of its risk of extinction based on its distribution and/or population status. A taxon in this category may be well studied, and its biology well known, but appropriate data on abundance and/or distribution are lacking. Data Deficient is therefore not a category of threat or Lower Risk. Listing of taxa in this category indicates that more information is required and acknowledges the possibility that future research will show that a threatened category is appropriate.

#### **NOT EVALUATED (NE)**

A taxon is Not Evaluated when it has not been assessed against the criteria.

#### **Nationally Scarce species**

The concept of Nationally Scarce (Notable) species was introduced by Ball (1986). They are species which are estimated to occur within the range of 16 to 100 ten-kilometre squares of the British National Grid system since 1970 and are subdivided as follows: Notable/Na refers to species estimated to occur within the range of 16 to 30 10-kilometre squares of the National Grid System. Notable/Nb refers to species estimated to occur within the range 31 to 100 10-kilometre squares of the National Grid System. Diptera (flies) and some Coleoptera (beetles) are not separated. Categorisations have been revised for various taxonomic groups including Araneae (spiders) in Merrett (1990), aculeate Hymenoptera in Falk (1991a), Coleoptera in Hyman & Parsons (1992, 1994), Diptera in Falk (1991b), Hemiptera in Kirby (1992) and Pyralidae (Lepidoptera) in Parsons (1993).

The concept of nationally scarce (Notable) species is unaltered in the new status reviews (e.g. Falk, S.J. & Crossley, R., 2005; Falk, S.J. & Chandler, P., 2005), but the status is now known as Scarce.

In a new national spider review a 'Watching Brief' category in included for some species where the data available suggest a greater level of threat, but there is uncertainty about the evidence of decline. There are also a number of much more widespread and common species where the data suggest strong declines may be occurring. These have placed these in the 'Watching Brief' category outside of the national status review, but these species should be specifically monitored in the future to understand their status more satisfactorily.

A record does not necessarily indicate a native population and for example some plant records may originate from seed mixes or be agricultual variants.

# **National Status Species Table**

Source	Taxon	Group	Vernacular	Status	Location	Position	Records	Latest
Essex Field	Micromys minutus	terrestrial mammal	Harvest Mouse	Red listing based on 2001 IUCN	TL660317	TL660317	2	1999
Club				guidelines (from 2018): Near				i
				Threatened				1

## 26. Essex Red Data List Species

#### Information contained in the Inventory

The Essex Red Data List was compiled in 2002 for English Nature (now Natural England), with the input of County Recorders and other county specialists and with an extensive period of consultation. The full list is available at www.essexfieldclub.org.uk/portal/p/Essex+Red+Data+List.

The list is an important compilation of Essex information, helping to inform and better enable biodiversity and planning decisions throughout the county. As an internet resource, the list has been updated, with changes listed on the website.

Inclusion of species on the list is guided by the following key criteria:

- In the national Red Data List (where one exists)
- Nationally Scarce/Notable (where there is an available definition and list).
- Species which are rare, declining and/or subject to a high degree of threat in Essex (and not in either of the above categories).

Depending on the degree of regional knowledge this is related to:

- Species recorded in few modern sites (X or fewer sites, since 19XX).
- Species with restricted distribution occurring in habitats under a high degree of threat nationally and/or within the county.
- More widespread species which have undergone a substantial decline in number or distribution since 19XX.
- Species which are extinct in Essex, and for which there is significant potential for re-establishment, either naturally or through intervention.

The values of X will vary for different taxonomic groups; County Recorders and other county specialists have used their knowledge to determine the threshold values for each particular taxonomic group in Essex.

In addition, Essex Red Data List Threat Statuses have been assigned to the Arachnida, aculeate Hymenoptera, Syrphidae, larger Brachycera, Orthoptera and Odonata taxonomic groups. These threat categories are defined\* as:

#### **Essex Endangered**

- Species known as a single population within a single post-1980 1km² or only from threatened or vulnerable sites in Essex.
- Species believed extinct in Essex.

#### **Essex Vulnerable**

- Species known from only two populations in Essex.
- Essex Rare species which are restricted to habitats or sites known to be under threat in Essex.
- Species which only occur at sites in Essex known to be vulnerable.
- Species which have shown a continuous decline over the last twenty years and are now known to exist in less than 1% of the covered post-1980 1km² in Essex.

#### **Essex Threatened**

- Essex Scarce species with a Frequency Ratio of less than 1.5 and Tetrad percentage of less than 1.0 indicating widely isolated populations within the county.
- Essex Scarce species which are restricted to habitats or sites known to be under threat in the county.
- Species which have shown a continuous decline over the last twenty years.

#### **Regionally Important**

- Species which are important in a national context because Essex contains a significant proportion of the national populations.
- Species which are important in a national context because they have a close association with a specific nationally threatened habitat included in the Biodiversity Action Plan.
- Species which are important in a national context because they are dominant in or peculiar to a specific habitat for which Essex contains a large percentage of the national habitat.
- \* Detailed information is available at http://www.essexfieldclub.org.uk/portal/p/Essex+Red+Data+threat+statuses

Where a taxon not included in the list has been recorded from 6 or less of the 57 hectads (10km squares) covering the Watsonian VCs 18 and 19 it has been accorded a provisional Essex Red Data List status (pListed) here.

## **Essex Red Species Table**

Source	Taxon	Group	Vernacular	Status	Location	Position	Records	Latest
Essex Field	Petasites hybridus	flowering plant	Butterbur	Listed	Little Bardfield,	TL6631	1	2013
Club					Chequers to			
					Langford Bridge			
					footpath			
Essex Field	Pimpinella major	flowering plant	Greater	Listed	Little Bardfield,	TL6631	1	2013
Club			Burnet-saxifrage		Chequers to			
					Langford Bridge			
					footpath			
Essex Field	Pipistrellus pipistrellus	terrestrial mammal	Common Pipistrelle	Listed	TL661313	TL661313	1	2014
Club								
Essex Field	Platycnemis pennipes	insect - dragonfly	White-legged	Listed	Essex	TL662318	1	2000
Club		(Odonata)	Damselfly					

### 27. Invasive Species

#### Information about invasive species

Invasive species may threaten habitats and species with biodiversity and nature conservation value. Where invasive species are present, action may or may not be appropriate to control their spread or to eliminate them from sites and habitats.

Invasive Species Action Plans are used to help coordinate the response to key invasive non-native species across England, Scotland and Wales. The plans provide a short and strategic overview identifying the key aims, objectives and actions. They can be seen on the Defra website at https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?sectionid=92

#### Action on invasive species

The appropriate response to the presence of an invasive species will vary depending on the species and the degree to which it is or may in the future cause damage to the ecology at the location.

#### Identification of invasive species

Identification of invasive non-native species is an essential part of invasive species management and guidance can be found on the Defra website at

https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?sectionid=47

#### Invasive species records

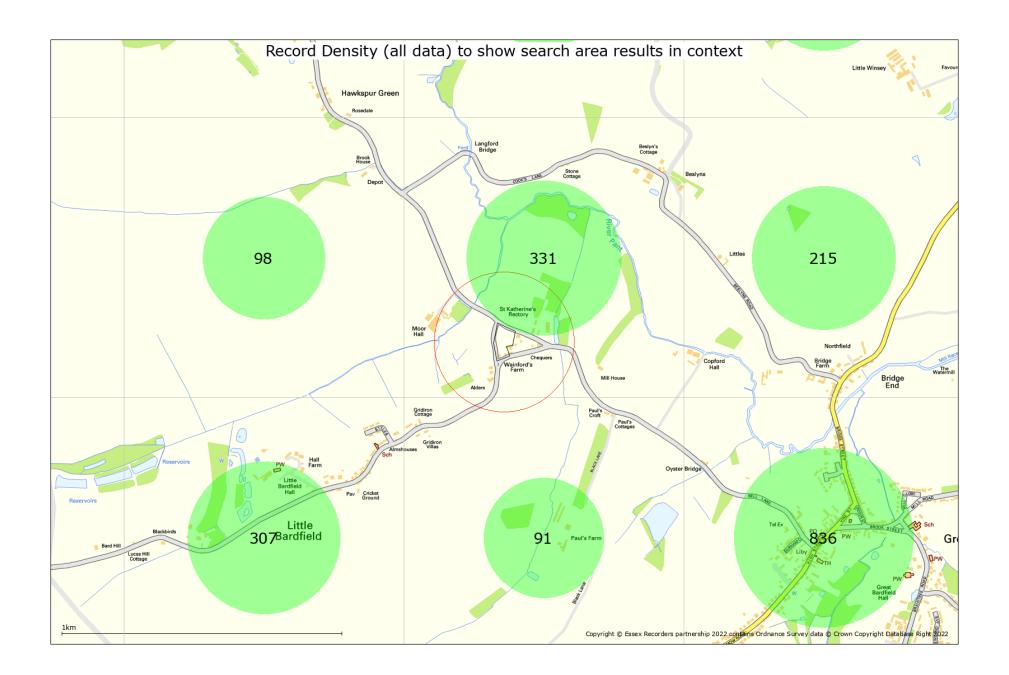
Most existing records of invasive species in Essex are made during general recording, although there are plans to encourage targetted recording of these species in the future.

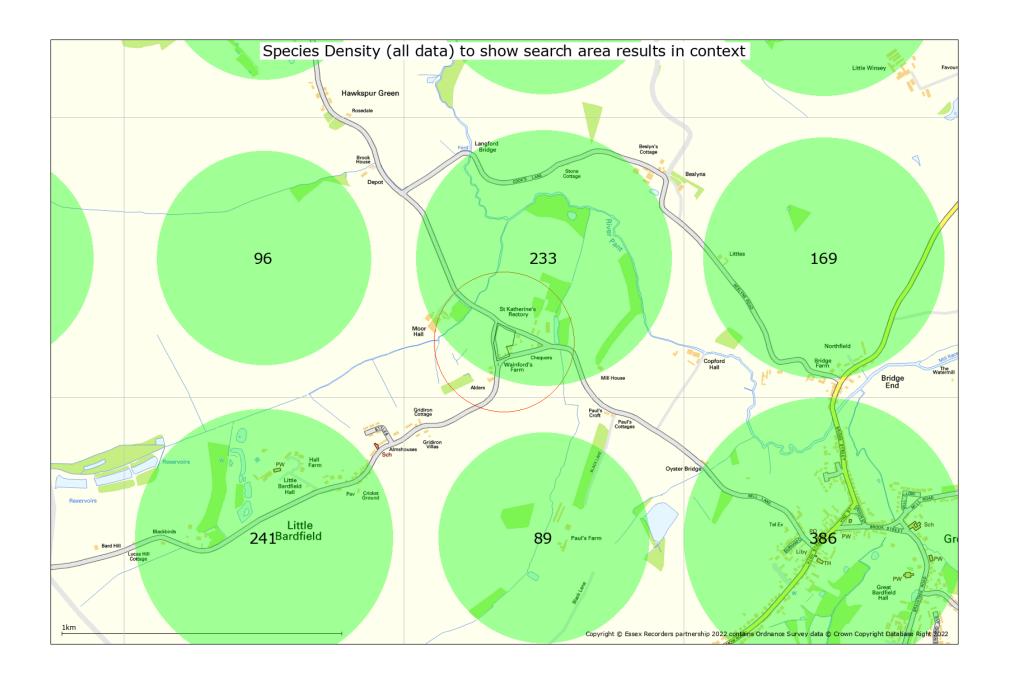
Where you have records of invasive species for the search area, please submit them to us by email to datasearch@essexfieldclub.org.uk or via our website at www.essexfieldclub.org.uk

Where invasive species have been recorded, their records are summarised in the following table.

## **Invasive Species**

Source	Taxon	Group	Vernacular	Location	Position	Records	Latest
Essex Field Club	Heracleum	flowering plant	Giant Hogweed	Little Bardfield, Chequers to	TL6631	1	2013
	mantegazzianum			Langford Bridge footpath			
Essex Field Club	Impatiens glandulifera	flowering plant	Himalayan Balsam	Little Bardfield, Chequers to	TL6631	1	2013
				Langford Bridge footpath			
Essex Field Club	Mustela vison	mammal	American Mink	TL662318	TL662318	3	2003





## **Summary of Species Record Counts**

### **Records of Scheduled Species**

Records in scheduled categories as detailed in this report are enumerated below.

Protected Species Records	3
Priority / NERC S41 Species Records	3
Global & National Red List and Scarce Species Records	2
Essex Red Data List Species Records	4
Invasive Species Records	5

#### Records used in preparing this report

Counts below are for all records within the designated search area used in the preparation of this report. This table is for your information only and is intended to show the relative contribution from each taxonomic group.

Essex Bat Group	0
Essex Birdwatching Society	0

### Essex Field Club County Recorder counts

Lasex Field Club County Recorder Counts	
Aculeata	0
Aculeata: Apinae	3
Aculeata: Formicidae	0
Amphibians and reptiles	0
Araneae	8
Auchenorrhyncha	0
Bats	1
Birds	1
Coleoptera	0
Diptera: Larger Brachycera	0
Diptera: other groups	0
Diptera: Syrphidae	0
Fungi	0
Galls	0
Heteroptera	0
Hymenoptera: other groups	0
Isopoda	0
Lepidoptera: butterflies	1
Lepidoptera: macromoths	0
Lepidoptera: micromoths	0
Lichens	0
Mammals	8
Mollusca	0
Myriapoda	0
Non-vascular plants	7
Odonata	4
Opiliones	0
Orthoptera group	3
Pseudoscorpiones	0
Slime moulds	0
Trichoptera	0
Vascular plants	295

### **Geological Site Information**

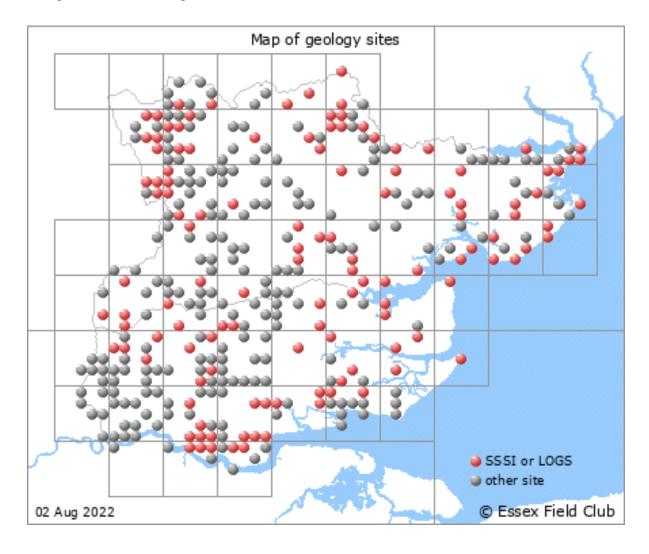
The geological site database includes and describes geological sites which are of regional or local importance for their scientific, historical and/or educational value unlike the strictly scientific criteria applied to the SSSIs (Sites of Special Scientific Interest) which are of national importance. These are not 'second tier' sites but sites of regional and local value in their own right.

Some of these sites are being designated as Local Geological Sites (LOGS), formerly called Regionally Important Geological Sites, or have the potential to be so designated, and these sites are marked as such. Existing SSSIs which have been designated for their geological importance are also included in this database.

Note: Some of the sites in the geological site database are solely of historical interest as a record of an important or interesting discovery. There are also sites which are not strictly geological but nevertheless have a geological connection, for example buildings constructed of local stone. These sites have not been included in this report.

Although many of the sites listed are publicly accessible, inclusion of a site in this database does not imply any rights of access. Permission to visit must always be obtained from the relevant landowner.

There are no geological Sites of Special Scientific Interest, Potential Local Geological or Designated Local Geological Sites identified in relation to the search area.



## **Additional geological Site Information**

The following general geological sites have also been identified. Further information is available from www.essexfieldclub.org.uk/portal/p/A-Z+Geological+Site+Index

Great Bardfield Church Pagan Stones

# **Contents Index**

Information related to the enquiry site area enclosed within this report	3
Introduction	4
Data available through the Essex Recorders partnership	5
Search Area	6
All of a Buzz in the Thames Gateway	8
Nature Improvement Areas (NIAs)	9
B-Lines network	10
Special Areas of Conservation	12
Special Protection Areas	13
Ramsar sites	14
Marine Conservation Zone/s	15
National Nature Reserve/s	16
Sites of Special Scientific Interest	17
Areas of Outstanding Natural Beauty	19
Local Nature Reserves	20
Essex Local Wildlife Sites (LOWS)	21
Country Park/s	23
Open Country and Common Land	24
Ancient Woodland Inventory	25
Wood-Pasture and Parkland BAP Priority Habitat Inventory	26
Traditional Orchard Inventory	28
Priority Habitat Inventory polygon/s	30
Important Invertebrate Areas	32
Invertebrate Assemblage Information	34
Protected Species	35
UK BAP Priority, Section 41 and Essex BAP Species	39
Global & National Red List and Scarce Designation	42
Essex Red Data List Species	45
Invasive Species	48
Record Density Map	50
Species Density Map	51
Summary of Species Record Counts	52
Geological Site Information	53