



## Protected species in Essex

Note to users;

links to the bookmarks in the list below for individual species may not work in the Google Chrome browser, please scroll down to the required species section.

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Gerald Downey

## Badgers

### Where they can be found

Badgers could be living in, and under, woodland, scrub or hedgerows. They like to dig into a bank or slope, so look in old pits or quarries, steep banks under hedges, any change of level. They will forage over a wide area, using open grassland, gardens, woods, anywhere they can find food.

### Characteristic signs

Entrances to the setts are typically a flattened arch shape around 20-30cm high by 25-35cm wide. Outside the entrance holes will be spoil heaps of excavated soil. Badgers are rarely seen, useful field signs are therefore: tufts of hair caught on barbed wire fences; conspicuous badger paths; footprints; latrines (small excavated pits in which droppings are deposited); snuffle holes (small scrapes where badgers have searched for insects and plant tubers); day nests (bundles of grass and other vegetation where badgers may sleep above ground) and scratch marks on trees (usually near the sett).

### Aim

The principle aim is to retain setts, foraging areas and corridors used to travel between setts. Loss of any foraging areas should be compensated through improving the quality of the remaining areas of grassland (subject to other biodiversity interests). Where impacts are unavoidable, see "Badgers on site" below for issues to address.

### The Law

Badgers and their places of residence (normally called setts) are protected by the Protection of Badgers Act 1992. This legislation was introduced to prevent cruelty to badgers, particularly that associated with badger baiting. The level of protection that the Act gives badgers is unique for a wild mammal that is not considered rare. Work that disturbs badgers without a licence may be illegal; badgers may be disturbed even if the work does not directly interfere with or cause damage to their sett.

English Nature guidelines suggest that a buffer zone between the sett entrances and the building work is established. For example, use of heavy machinery should only be carried out at distances greater than 30m from the sett, work with lighter machinery at distances greater than 20m and light work such as hand digging or scrub clearance at distances greater than 10m.

While badgers are protected, the Government recognises that there may be occasions where it is necessary to undertake activities normally prohibited by the Act. To this end the legislation includes provisions for the issue of licences permitting action to be taken for certain clearly specified purposes.

Natural England issue licences in England for the development of land and for a number of specialist purposes, including conservation, research, law enforcement and archaeological investigation. For a full explanation follow our link (below) to their website.

Natural England only usually licenses sett interference after detailed planning permission has been granted so that there is no conflict with the planning process. Local authorities and developers need to be aware that for many projects it may be necessary for an environmental assessment to be carried out if the proposed development site hosts badgers. Before the planning application is determined, the local planning authority should request a detailed ecological survey/report and developers should be prepared to provide information, including:

- the numbers of badgers on the site, or that are affected by the proposal;
- the impact that the proposal is likely to have on badgers and what can be done in the way of mitigation;
- if the impact is necessary or acceptable;
- if a licence will be required from Natural England.

Planning and licensing applications are separate legal functions: planning permission from the Local Planning Authority is no guarantee that development operations will not breach the Protection of Badgers Act 1992. It is important, therefore, that developers and planners take adequate account of badgers at the planning stage in order to ensure that a licence is likely to be issued by Natural England.

### Badgers on site – organising work

- When any protected species is thought to occur on site, early advice should be sought from professional consultants, or from local experts, as this can prevent costly delays at a later date. Following the advice below will help developers to avoid committing offences and increase the likelihood of obtaining a licence from Natural England if necessary. Any scheme proposed to offset the effects of development must be based on competent advice and an appropriate survey carried out at the correct time of the year; Observations may be necessary over a period of time before insight can be gained into how badgers are using a site. Bait marking (a method used to map defended territorial ranges) and other survey techniques are usually effective only at certain times of the year;

- At times, particularly in winter, it is often extremely difficult, even for the experts, to tell whether or not a sett is occupied. For this reason, and due to the possible presence of a pregnant or nursing sow with cubs and the reluctance of badgers to emerge for long periods in winter, sett exclusion and destruction should normally be limited to between the beginning of July and the end of November;
- Those in charge of a development must ensure that clear instructions are given to all the workforce where care needs to be taken not to cause unlicensed damage to setts or disturbance to badgers; Machinery used near setts should be operated by experienced persons with fine control of excavators or other groundwork technology, preferably supervised by someone who can advise competently on badgers;
- Fires should only be lit, and chemicals stored, well away from setts;
- Any trenches left open overnight should have a means of escape for any animals that might fall in;
- Trees should be felled so that they fall away from active setts;
- Account should be taken of the effect the work will have on the territory of each badger social group. For large developments it may be necessary to provide artificial setts, enhanced feeding areas and access routes for badgers both before and during building work. Small developments should ensure that badger paths are not obstructed and small, but seasonally important, water sources and feeding areas are not destroyed;
- The law does not permit licences to capture badgers for development purposes, so physically moving them out of the way of development is not an option. Similarly, if inappropriate development (e.g. that isolates a badger territory by surrounding it with roads) results in problems such as increased road deaths, licences cannot be relied upon to move the badgers afterwards;
- Badgers can cause considerable damage to gardens and they should not be encouraged to rely solely upon these as a source of food or for places in which to dig new setts;
- Destruction of main setts should be considered only as a last resort.

### Further Information

#### Natural England Badger legislation advice

(Natural England) *Badgers and Development. A Guide for Planners and Developers*

(RSPCA) *Problems with Badgers* (available from RSPCA HQ, Wildlife Dept. Tel: 08700 101181)

Guidance on the issue of disturbance to badgers

[http://www.naturalengland.org.uk/Images/WMLG16\\_tcm6-11814.pdf](http://www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf)



David Harrison

## Barn Owls

### Where they can be found

Barn owls are often found in close proximity to humans, making use of farm buildings, dovecotes, church towers, bale stacks and a wide variety of derelict and unused buildings, as well as hollow trees and cliff sites where available.

### Characteristic signs

Beams or wall ledges will reveal long and thick white splashing on beams, rafters and floor, often with a build up of pellets beneath the favoured roost sites. The pellets will contain the indigestible remains of prey species such as bone, fur and feathers. Pellets are dense, cylindrical masses averaging 5-6cm in length, although can vary between 1cm-10cm. Fresh pellets have a black, shiny appearance.

### Aim

The principle aim is to protect the roost and breeding site. Provision for Barn Owls can be incorporated into the parts of the development site used by the birds and new nest boxes can be provided or other nearby buildings which are not due for development.

### The Law

In addition to the basic protection afforded to all wild birds (see Nesting Birds), those listed in Schedule 1 of the Wildlife & Countryside Act 1981 (as amended), including birds of prey, an offence is committed if they are recklessly disturbed while building a nest or is in, on or near a nest containing eggs or young or disturbs dependent young of such a bird.

### Further information

*Barn Owls on Site: A Guide for Developers and Planners.* Barn Owl Trust and English Nature 1995

Barn Owls and Development

<http://www.barnowltrust.org.uk/infopage.html?id=244>

Leaflets about Barn Owls in a series of Rural Planning proposal scenarios  
<http://www.barnowltrust.org.uk/infopage.html?id=54#>



## Bats

All species of Bat are European Protected Species.

### Where they can be found

Bats require safe summer roosts / hibernation sites and suitable foraging areas. Bats may use several roost sites during the year. They will often return to a roost site at the same time each year. Buildings are most frequently used in summer but any age and type of building may be utilised. Cave-like places, such as tunnels or cellars buildings such as churches and timber-framed barns, and trees with holes and crevices, are used for hibernation.

Bats could be living in the roof of a house, a barn (including inside the loose fitting timber joints), inside almost any building. Bats are commonly found in roofs. Outside they may roost above soffit and behind fascia and barge boarding, between underfelt and boards/tiles, under lead-work – such as flashing around chimneys, and between or under stone tiles. Inside they may be found along the roof ridge beam and under the ridge tiles (or lead ridge), hanging from roofing felt or roof supporting timbers, around the chimney breast, in the joints of joists, such as mortice and tenon joints that have become twisted or warped or have 'shrunk' allowing bats access, and in splits in old timbers in roof voids.

Bats also roost in old trees – look for cracks, splits, under bark, holes where branches have broken off. Bats can use these roosts in both summer and winter, and wherever possible old trees should be retained except where there is a safety risk. Cutting back old branches and reducing the weight on the tree can often extent its life.

Bats follow linear features such as hedgerows when feeding at night, they fly around tree canopies, and they follow rivers too. Bats are strongly associated with water. Feeding sites can be anywhere e.g.. woodland, parkland, hedgerows/linear features, grassland and water bodies.

### Characteristic signs

The most characteristic signs are droppings. These are roughly the size and shape of mouse droppings but they will crumble to a powder when dry and they are generally found either stuck to walls or scattered beneath where the bats hang or beneath the roost exit. Brown staining at entrance holes, or white urine stains on timber are another sign of long-term roosts.

### The Law

Bats are protected under The Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). (They are often referred to as European Protected Species because they enjoy the extra protection under the Habitats Regulations.

Under this legislation, it is illegal to:

- Intentionally kill, injure, or capture bats or their young
- Intentionally or recklessly damage, destroy or obstruct access to areas used by bats for shelter or protection
- Intentionally or recklessly disturb bats while they are occupying a structure or place which is used for that purpose.

### Licensing

Planners should be aware that developments affecting bats need a license from Natural England, and in most cases planning permission will be required before the license application is made, and before work is carried out. If planning permission is given for proposals that Natural England considers does not satisfy the licensing requirements, the license application may be turned down and the development cannot then go ahead.

Planners also need to be aware that where a planning application proposal is likely to trigger an offence of disturbance to a European Protected Species the planning authority must satisfy itself that the proposed development meets the three licensing tests as set out in the Directive and Habitat Regulations.

- The proposed development must meet a purpose of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

-In addition the authority must be satisfied that,

a) that there is no satisfactory alternative" and

b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Failure to apply these tests may result in legal challenge to a planning decision, and ultimately it may be quashed.



It is for the developer to ensure compliance with the law during the actual implementation of the development, not the planning authority. It is for the planning authority to monitor whether planning conditions are being properly discharged.

#### Further information

*Bat Mitigation Guidelines* English Nature Jan 2004.

<http://publications.naturalengland.org.uk/publication/69046>

*General guidance for all European protected species –*

[www.naturalengland.org.uk/ourwork/regulation/default.aspx](http://www.naturalengland.org.uk/ourwork/regulation/default.aspx)

*Natural England web page on bats*

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/bats.aspx>

*Bats in Roofs. A Guide for Surveyors.* (available from English Nature's website or enquiry service). A CD on mitigation in barn conversions is available from Hertfordshire Biological Record Centre ([biorec.info@hertscc.gov.uk](mailto:biorec.info@hertscc.gov.uk))

*Natural England Advice on Licensing Process*

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/epslicensing.aspx>

The Association of Local Government Ecologists (ALGE) have an on-line **Interactive Bat Protocol** giving guidance for Local Planning Authorities on determining planning applications where Bats are involved.

[http://www.biodiversityplanningtoolkit.com/bats/bio\\_bats.html](http://www.biodiversityplanningtoolkit.com/bats/bio_bats.html)



Harold McSweeney -  
picture taken under license  
from the Nature Conservancy  
Council

## Nesting birds

### Where they can be found

Found especially in woodland, scrub and hedgerows, but ground-nesting birds can occur anywhere. Birds also nest in buildings, cliffs and cliff-banks.

### The Law

All nesting birds are protected under Wildlife & Countryside Act 1981. It is illegal to kill or disturb them. Some species have extended protection covering young away from nests.

No work should take place in nesting habitats between 1 March to 31 July. There are some exceptions where breeding continues after July, e.g.. Sand Martins to mid September. Warmer summers are leading to longer breeding seasons. The duration of breeding season can vary depending on the weather.

Vegetation can be cleared outside the breeding season from the end of October to mid February. If nests are discovered, work should stop immediately and the site fenced and protected under ecological supervision. Work can only continue after the young have left the nest.

### Further information

Royal Society for the Protection of Birds (RSPB) <http://www.rspb.org.uk/advice/law/>

and a guide on Birds and the Law (PDF)

[https://www.rspb.org.uk/Images/WBATL\\_tcm9-132998.pdf](https://www.rspb.org.uk/Images/WBATL_tcm9-132998.pdf)



Chris Gibson

## Dormice

The Dormouse is a European Protected Species.

### Where they can be found

Most dormice live in old deciduous woodland and thick hedgerows.

### Characteristic signs

The best indicator of the presence of a dormouse is opened hazel nutshells on the woodland floor. Dormice open these nuts by making a neat round hole on one side and leave characteristic tooth marks around the edge of the hole.

### The Law

Bats are protected under The Conservation of Habitats and Species Regulations 2010 and the Wildlife and Countryside Act 1981 (as amended). (They are often referred to as European Protected Species because they enjoy the extra protection under the Habitats Regulations.

Under this legislation, it is illegal to:

- Intentionally kill, injure, or capture bats or their young
- Intentionally or recklessly damage, destroy or obstruct access to areas used by bats for shelter or protection
- Intentionally or recklessly disturb bats while they are occupying a structure or place which is used for that purpose.

### Licensing

Planners should be aware that developments affecting dormice need a license from Natural England, and in most cases planning permission will be required before the license application is made, and before work is carried out. If planning permission is given for proposals that Natural England considers does not satisfy the licensing requirements, the license application may be turned down and the development cannot then go ahead.

Planners also need to be aware that where a planning application proposal is likely to trigger an offence of disturbance to a European Protected Species the planning authority must satisfy itself that the proposed development meets the three licensing tests as set out in the Directive and Habitat Regulations.

- The proposed development must meet a purpose of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

-In addition the authority must be satisfied that,

a) that there is no satisfactory alternative" and

b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Failure to apply these tests may result in legal challenge to a planning decision, and ultimately it may be quashed.

It is for the developer to ensure compliance with the law during the actual implementation of the development, not the planning authority. It is for the planning authority to monitor whether planning conditions are being properly discharged.

### Further information

*Dormouse Conservation Handbook*. English Nature / Natural England  
<http://publications.naturalengland.org.uk/publication/80018?category=32020>

Advice, licensing and legislation

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/hazeldormice.aspx>



## Great Crested Newts

The Great Crested Newt is a European Protected Species

### Where they can be found

Great Crested Newts (GCN) breed in ponds, but spend most of the year outside the pond in long grass or rough vegetation up to 500 metres away. They hibernate in the gaps between stones in walls or rockeries, and in piles of logs. Any pond in Essex can have GCN resident, from small garden ponds up to farm field type ponds.

### The Law

Great crested newts are protected under The Conservation of Habitats and Species Regulations 2010 (aka the Habitats Regulations) and the Wildlife and Countryside Act 1981 (as amended). They are often referred to as European Protected Species (EPS) because they enjoy the extra protection under the Habitats Regulations.

Under this legislation, it is illegal to:

- Intentionally kill, injure, or capture great crested newts or their young; (this includes the eggs of great crested newts)
- Intentionally or recklessly damage, destroy or obstruct access to areas used by great crested newts for shelter or protection
- Intentionally or recklessly disturb great crested newts while they are occupying a structure or place which is used for that purpose.

### Licensing

Planners should be aware that developments affecting Great Crested Newt need a license from Natural England, and in most cases planning permission will be required before the license application is made, and before work is carried out. If planning permission is given for proposals that Natural England considers does not satisfy the licensing requirements, the license application may be turned down and the development cannot then go ahead.

Planners also need to be aware that where a planning application proposal is likely to trigger an offence of disturbance to a European Protected Species the planning authority must satisfy itself that the proposed development meets the three licensing tests as set out in the Directive and Habitat Regulations.

- The proposed development must meet a purpose of “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

-In addition the authority must be satisfied that,

a) that there is no satisfactory alternative” and

b) that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

Failure to apply these tests may result in legal challenge to a planning decision, and ultimately it may be quashed.

It is for the developer to ensure compliance with the law during the actual implementation of the development, not the planning authority. It is for the planning authority to monitor whether planning conditions are being properly discharged.

It is considered best practice for survey work for protected species (including great crested newt) to be carried out prior to any planning application. Where a development is subject to the Environmental Impact Assessment Regulations, it is a legal requirement that planning authorities assess the potential impact of development upon great crested newts before issuing planning permission.

Any report which accompanies a planning application and which deals with great crested newts must be accompanied by:

- A survey, which identifies presence/likely absence, relative population size, etc.;
- An assessment of the development's impact on great crested newts; and
- A mitigation strategy.

Has an appropriate methodology been used?



The most important survey methods for detecting great crested newts in water bodies are bottle trapping, torching and egg searching. More detailed information describing these survey techniques can be found in *Great crested newt mitigation guidelines*. These techniques can only be carried out by a licensed surveyor.

#### Further information

*Great Crested Newt Mitigation Guidelines* English Nature Aug 2001

<http://publications.naturalengland.org.uk/publication/810429>

*Great Created Newt Conservation Handbook* (Froglife)

<https://duckduckgo.com/l/?kh=-1&uddg=http%3A%2F%2Fwww.froglife.org%2Finfo-advice%2Fgreat-crested-newt-conservation-handbook%2F>

*Great Crested Newts: Conservation Licences for Pond Management Work*

<http://publications.naturalengland.org.uk/publication/132014?category=30014>

*Natural England Advice on Licensing Process*

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/epslicensing.aspx>



Peter Harvey

*The Blue Carpenter Bee Ceratina cyanea is a rare bee confined to southern England, with most recent records from West Sussex and Kent. Rediscovered in Essex after nearly 100 years in 1993 at a site in Thurrock, where it was present in very large numbers, but the site is now a large housing estate. Other more recently discovered sites have also been lost to development or are under threat. It nests in dead broken bramble stems, so the presence of a certain amount of bramble scrub in open situations where dead stems are exposed to the sun is crucial to its survival. It is likely to prefer bramble growing in drought-stressed and mineral-deficient situations. The bee collects pollen from a variety of flowers including yellow composites, knapweed and bird's-foot trefoil.*

## Invertebrates

### Where they can be found

Invertebrates are remarkable for the extent to which they have successfully adapted to a multitude of different habitats.

Essex supports a range of wildlife habitats that favour many invertebrates, some of which we are familiar with e.g.. Butterflies, moths, dragonflies and beetles, while other groups we know less well. Among the latter are some that are extremely rare in Britain including a number of UK Biodiversity Action Plan species, which occur in nationally important metapopulations in the South Essex Region.

Some of the best habitats for invertebrates are those where nature has been allowed to take its course free from significant human intervention. Key habitats to watch out for include:

- Areas of flower rich grassland free from regular mowing regimes.
- Areas of early successional or 'pioneer' habitats (e.g. some brownfield sites).
- Wetlands including damp flushes, pools, wet woodland and coastal habitats.
- Scrubland especially where mixed with other habitats like grassland or a wetland.

Brownfield sites are of particular significance in Essex and include various types of post industrial land and old quarries. Habitats here offer a number of characteristics that you can watch out for when assessing the value of a site for biodiversity. These include:

- Bare ground and a sunny aspect - Essential for ground nesting invertebrates as well as for helping invertebrates to reach operating temperature (they are all cold blooded).
- Rubble, metal, roofing felt, dead wood – if they are in direct sunshine these can all offer warm spots for basking.
- Free draining substrates (e.g.. sand, gravel, chalk, PFA).
- Parched conditions that slow down the natural process of succession and favour plants that support scarce invertebrate species.
- Such substrates are often nutrient poor, another factor that exerts stress on the plants, with benefits for invertebrates.
- Varied habitat structure

- A range of conditions from bare ground to grassland in varying states (anything from short rabbit grazed turf through to tall tussock forming grasses) to scrub species – a mixture of these habitats (or 'mosaic') adds value.
- Lack of intensive management
- Invertebrates have annual life cycles and need continuity of environmental conditions to ensure breeding success.
- Brownfield sites offer refuges from fertilisers and pesticides that have contributed to an impoverished invertebrate resource in the wider countryside.

See reading and references for more detailed information on habitat features and the requirements of invertebrates.

### Planning guidance

Since 1994 a wide range of invertebrate species have been identified for special attention as part of the UK Biodiversity Action Plan. In 2002 The England Biodiversity Strategy *Working with the Grain of Nature* referred to the need to integrate brownfield site biodiversity issues into policies and programmes for sustainable urban communities. Planning Policy Statement (PPS) 9 – *Biodiversity and Geological Conservation* (2004) provides UK BAP species with 'priority species' status and signals that measures to address the conservation of their populations are a regional planning issue (via the Regional Spatial Strategy for the East of England – RSS14) while planning applications should be determined with consideration for the proposed development's effect upon both protected and priority species.

### European Protected Species

Fisher's Estuarine Moth is included in the list of European Protected Species and all provisions relating to the law and licensing apply to this species as can be seen for example in relation to bats.

### Further information

Advice from Buglife on Invertebrate Conservation

<http://www.buglife.org.uk/conservation/>



Alan Williams

## Otters

Otters are a European Protected Species

### Where they can be found

Otters are now on the increase in Essex Rivers, they have long territories and are very mobile. Any riverside development could affect them. Survey might not reveal their passing use of a particular spot. They are also found in streams and lakes. Holts are made in undisturbed riverbanks especially under exposed tree roots.

### Characteristic signs

Otter droppings are black or dark greenish and tar-like when fresh. With age, droppings fade to grey but retain their sweet, musky smell. Fish bones are usually clearly visible. Otter droppings are found in conspicuous places such as ledges under bridges, on prominent rocks and grass hummocks. In wooded river reaches otters will frequently spraint on overhanging tree roots or boughs.

### The Law

Otters are protected under The Conservation of Habitats and Species Regulations 2010 (aka the Habitats Regulations) and the Wildlife and Countryside Act 1981 (as amended). This means it is illegal to kill, capture, and disturb Otters or to damage or destroy their places of shelter. Disturbance level not associated with seasons.

### Aim

The principle aim is for development not to destroy otter habitat. Riverside development should leave a corridor for the movement of Otters, and all other waterside wildlife for that matter. Leave an undeveloped corridor at least six metres wide. Where road bridges cross streams provide a ledge under the road and above the waterline. Mitigate habitat loss by creation of features of value/artificial holts.

Maintain access corridors along watercourses during works Reduce road mortality by using fences/culverts at ecologist's direction.

### Licensing

Planners should be aware that developments affecting Otters need a license from Natural England, and in most cases planning permission will be required before the license application is made, and before work is carried out. If planning permission is given for proposals that Natural England considers does not satisfy the licensing requirements, the license application may be turned down and the development cannot then go ahead.

Planners also need to be aware that where a planning application proposal is likely to trigger an offence of disturbance to a European Protected Species the planning authority must satisfy itself that the proposed development meets the three licensing tests as set out in the Directive and Habitat Regulations.

- The proposed development must meet a purpose of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

-In addition the authority must be satisfied that,

a) that there is no satisfactory alternative" and

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Failure to apply these tests may result in legal challenge to a planning decision, and ultimately it may be quashed.

It is for the developer to ensure compliance with the law during the actual implementation of the development, not the planning authority. It is for the planning authority to monitor whether planning conditions are being properly discharged.

### Further information

Natural England Licensing

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/epslicensing.aspx>

## Reptiles

All native reptiles are protected species. Adders, grass snakes, slow worms and common lizards are legally protected species that are likely to be encountered on development sites throughout Essex wherever suitable habitat occurs. Sand Lizard and Smooth Snake are additionally protected as European Protected Species, but are not found in Essex.

### Where they can be found

The **Adder** is Britain's only venomous snake, although it rarely bites (only when threatened). Diamond-shaped pattern along back with blotches on the side and vertical pupils is distinctive, not to be confused with the grass snake that has a yellow collar and round pupils. It favours habitat such as heathland, seawalls, woodland glades, urban fringe, mineral extraction sites and rough grassland. It is largely diurnal, often basking in the sun in open areas not too far from cover. It feeds mainly on small mammals, nestlings and lizards. Adders hibernate from October to March. It is widespread in suitable habitat but declining.

<http://www.arc-trust.org/advice/species-id/reptiles/adder>

**Grass snakes** use a wide variety of habitats containing open sites for basking and wet areas for feeding. Rivers, marshes, damp meadows and still water bodies are all potential habitats. They will also live in drier sites for example open woodland, rough grassland, allotments and heathland. Eggs are laid in a warm environment in early summer e.g. compost or manure heaps, rotting logs and less commonly, moss or piles of dead leaves. Grass snakes hibernate in places such as rubble piles, mammal burrows and tree roots.

<http://www.arc-trust.org/advice/species-id/reptiles/grass-snake>

**Slow worms** prefer to live in damp and warm habitats. Woodland, grassland, railway embankments, allotments and gardens potentially support slow worms. They are also frequently found on wasteland sites. They hibernate in winter under piles of leaves, within tree roots and in ground crevices.

<http://www.arc-trust.org/advice/species-id/reptiles/slow-worm>

**Common lizards** or viviparous lizards favour sheltered habitats containing dry, warm places where they can bask in the sunshine. The majority of lizards are found in grassland,

hedgerows, woodland edges, roadsides and frequently railway embankments and wasteland sites.

<http://www.arc-trust.org/advice/species-id/reptiles/common-lizard>

The **smooth snake** is Britain's rarest reptile and is found on heathlands in Dorset and Hampshire and on one or two heaths in Surrey and West Sussex. There are old records from heaths in adjacent counties. It is a small slender snake that usually only grows to 60-70cm in length. It is generally grey or dull brown in colour with black markings. The markings are arranged in bars or two rows of dots down the back, a heart shaped 'crown' covering the top of the head and an eye stripe that extends from the head along the side of the neck and front part of the body. Its name comes from the fact that its scales are flat and smooth, unlike those of the Grass Snake and Adder which have a ridge or keel down the middle of each scale. Many of the sites on which it occurs are also inhabited by the Sand Lizard.

<http://www.arc-trust.org/advice/species-id/reptiles/smooth-snake>

**Sand Lizard** now only occurs naturally in Surrey, Dorset and Hampshire, where it lives on sandy heathland, and further north in Merseyside where it is confined to coastal sand dune systems. Sand lizards have now been re-introduced to other sites in these counties and also, to restore its range, to sites in North Wales, Devon and Cornwall and West Sussex. The sand lizard is a stocky lizard, that reaches up to 20cm in length. Both sexes have brown varied patterns down the back with two strong dorsal stripes. The male has extremely striking green flanks which are particularly bright during the breeding season in late April and May

<http://www.arc-trust.org/advice/species-id/reptiles/sand-lizard>

### Aim

The principle aim is to avoid any impact on reptile populations. If this cannot be achieved then compensate by small-scale relocation and exclusion combined with habitat creation, enhancement or restoration on-site or in the immediate surrounding area. Where major impact is unavoidable and on-site compensation is not possible reptiles will need to be translocated away from the site, to any area that provides equivalent or better habitats. A higher level of protection is required for Smooth Snake and Sand Lizard.



## The Law

All reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5.

Under this legislation, it is illegal to:

- Intentionally kill or injure adders, grass snakes, slow worms or common lizards.

It is also an offence to sell these species or catch them with the intention of offering for sale.

There is no provision for licensing the intentional killing or injuring of adders, grass snakes, slow worms or common lizards during development. The defence in the Act permits otherwise illegal activity if it is the incidental result of a lawful operation and could not reasonably have been avoided. Implementation of a valid planning permission is a lawful operation but does not give developers *carte blanche* to disregard the law. However, the phrase “could not reasonably have been avoided” provides an important caveat and illustrates why local planning authorities need to have due regard to relevant planning policy guidance.

The European Protected Species (Smooth Snake and Sand Lizard) are protected under The Conservation of Habitats and Species Regulations 2010 (aka the Habitats Regulations) and the Wildlife and Countryside Act 1981 (as amended). They are often referred to as European Protected Species (EPS) because they enjoy the extra protection under the Habitats Regulations.

Under this legislation, it is illegal to:

- Intentionally kill, injure, or capture the European Protected Species or their young;
- Intentionally or recklessly damage, destroy or obstruct access to areas used for shelter or protection
- Intentionally or recklessly disturb the European Protected Species while they are occupying a structure or place which is used for that purpose

## When a licence is required

Certain activities affecting sand lizards and smooth snakes require a licence. Most commonly, licences are needed when a project involves disturbing and handling them, when erecting a fence to exclude them, or destroying key habitat features. Some forms of survey also need a licence, and in this case Natural England is the appropriate

licensing authority. For mitigation projects the licensing authority is also Natural England. An application for a licence must demonstrate that:

- the purpose is for “preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment,” and
- “there is no satisfactory alternative,” and
- “the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.”

Licences cannot be granted retrospectively and are only issued to people considered competent to do the work.

For a local planning authority to be able to determine a planning application that may have an impact on grass snakes, slow worms or common lizards, the planning application must be accompanied by:

- a - survey, which identifies presence/likely absence; population size, etc.
  - b - an assessment of the development’s impact on the reptiles
  - c - a mitigation strategy, if mitigation is feasible without detriment to the species.
- If the application does not include all of the above, the authority should request them prior to determining the application.

For the European Protected Species and where an offence is likely to be committed the local planning authority must apply the three licensing tests when reaching its decision.

It is for the developer to ensure compliance with the law during the actual implementation of the development, not the planning authority. It is for the planning authority to monitor whether planning conditions are being properly discharged.

## Further information

JNCC. 2003. *Herpetofauna Workers' Manual*. JNCC, Peterborough. <http://www.jncc.gov.uk/page-3325> Link to NHBS bookshop.

[Natural England: Standing Advice Species Sheet: Reptiles](#)

General advice from Amphibian and Reptile Trust

<http://www.arc-trust.org/advice>



Terry Whittaker

## Water Voles

### Where they can be found

Water voles live in rivers and streams, down to quite small brooks and ditches.

### Characteristic signs

Droppings are the most characteristic signs and most are usually deposited at discrete latrine sites near the nest or where they leave or enter the water. Water Vole droppings are about 8-12mm long and 4-5mm wide, cylindrical with blunt ends and symmetrical. (Rat droppings are always larger than water vole droppings and have an unpleasant odour).

### Aim

The principle aim is for development to avoid water vole habitats, protect the river itself and a strip of land alongside the river at least six metres wide and prevent any activity that could lead to pollution of the river. Only if the destruction of the water vole habitats cannot be avoided consideration should be given to the provision of alternative habitats, preferably located nearby, such as a new pond or ditch or equivalent or greater length or area.

### The Law

On the 6th April 2008 water voles received an increased level of protection, becoming fully covered by the provisions of section 9 of the Wildlife and Countryside Act 1981 (as amended). Prior to this the water vole was only covered by section 9(4) and had limited legal protection.

It is an offence to:

- Intentionally kill, injure or take water voles.
- Possess or control live or dead water voles or derivatives.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection.
- Intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.
- Sell water voles or offer or expose for sale or transport for sale.
- Publish or cause to be published any advertisement which conveys the buying or selling of water voles.

Licenses are available from Natural England for the following activities

- for scientific or educational purposes;
- for the purposes of ringing or marking;

- for conserving wild animals or introducing them into a particular area;
- for preserving public health or public safety
- for preventing serious damage to any form of property or to fisheries.

However, there are no licensing purposes that [explicitly cover development activities or activities associated with the improvement](#) or maintenance of waterways. Planning authorities

- Must ensure checks for the presence of water voles have been made, including water vole surveys by qualified ecologists and checks with local record centres.
- Should attach appropriate mitigation/planning conditions to protect water voles.
- Must consult Natural England for all works affecting water vole habitats.

### Further Information

Natural England - Water Voles and Development

<http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/watervoles.aspx>



*Norfolk Biodiversity  
partnership*

## White-Clawed Crayfish

### Where they can be found

Streams, rivers, canals, lakes, reservoirs, and gravel pits. Clean water, high oxygen, and little sediment. Rocks or tree roots for refuge .

### The Law

Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to take or sell whiteclawed crayfish, which means it is illegal to catch and/or handle without a license

Section 16(3) of the Act allows English Nature to issue licences for conserving the species. Licences may be issued for rescue operations in relation to maintenance or engineering works only if the activity is properly planned and executed and thereby contributes to the conservation of the population. Within Special Areas of Conservation designated for white-clawed crayfish, agreement is again required with English Nature to undertake engineering operations that may affect the species.

### Aim

In areas where white-clawed crayfish are present and work needs to be carried out, all practical measures must be carried out to avoid or minimise the impacts on white-clawed crayfish. The activity should aim to ensure the long term survival of the resident breeding population; once the work has been carried out, the habitat should remain suitable for crayfish in the long term. Depending of the type of project the following mitigation measures may be required:

- \* Minimise the amount of disturbance to the river bank.
- \* Minimise the length of channel affected.
- \* Where feasible, bank and channel work should be carried out in small sections rather than all at once.
- \* Install measures to minimise siltation.
- \* Prevent any pollution of water courses.
- \* Provide a replacement habitat for the crayfish if the work involves a permanent loss of habitat.
- \* Include aquatic and emergent vegetation in channel design.
- \* If relocating crayfish a suitable habitat prepared in advance will be required.

Exclusion of crayfish from construction areas can only take place in April or July to October inclusive.

Aim to reduce alterations to riverbanks and seek mitigation measures where work is inevitable. Rivers should not be disturbed between November and June when activity is reduced and females are carrying eggs.

Works affecting watercourses should be designed and supervised by suitably trained and licensed ecologists. Ecologists to capture and move animals.

### Further Information

Natural England Guidance Note

[http://www.naturalengland.org.uk/Images/whiteclawedcrayfish\\_tcm6-10859.pdf](http://www.naturalengland.org.uk/Images/whiteclawedcrayfish_tcm6-10859.pdf)

## Wildflowers

### Where they can be found

Almost any grassland site that is not closely mown. Valuable sites are roadside verges, railway embankments, arable field margins, meadows and pastureland, and scrubland.

So much species rich grassland has been lost in the past 50 years, (95 percent of the 1945 level by 1995) that any further loss of the remnant grasslands should be resisted. Use development opportunities to create new areas, but see case studies in this guide. Correct management of grassland sites is as important as merely retaining the site.

### The Law

All wild plants, listed under Schedule 8 of the Wildlife & Countryside Act 1981 (as amended), are protected in law from intentional uprooting, picking or destruction. An offence is also committed if an unauthorised person intentionally uproots any plant not included in that Schedule (i.e. without the consent of the owner or occupier of the land).

### Further information

Floralocale; grassland – about and conservation

<http://www.floralocale.org/Grassland+-+about+and+conservation>



Colin Austin