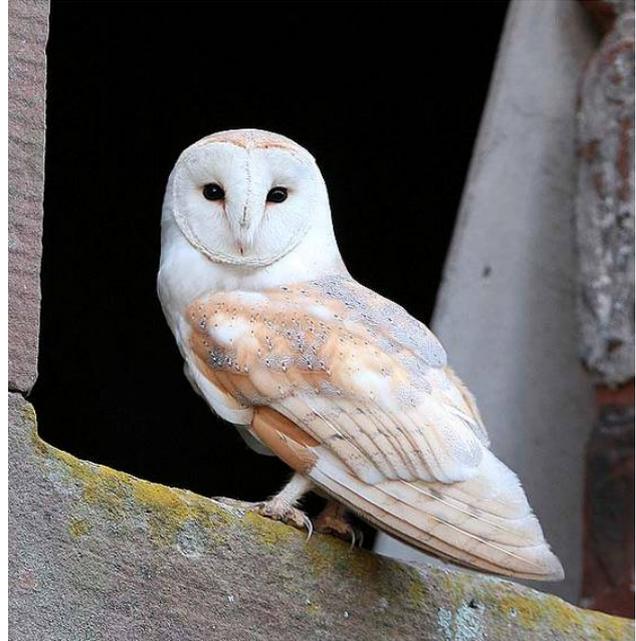


BARN OWL *Tyto alba*

Barn Owls, their nests and eggs are protected by UK legislation. The greatest threats to Barn Owl populations in Cumbria are loss of suitable nest sites through barn conversions etc, and lack or loss of feeding habitat through agricultural intensification.

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Barn Owl © David Hickson

Legal & Conservation status

- UK Protected Species
- Cumbria Biodiversity Action Plan species

The Barn Owl is protected under:

- Section 1 of the Wildlife and Countryside Act 1981 (as amended).

All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Barn Owls are listed on Schedule 1 which gives them special protection.

It is an offence to:

- Intentionally kill, injure, or take (handle) any wild Barn Owl.
- Intentionally take, damage or destroy any wild Barn Owl nest whilst in use or being 'built' (Barn Owls do not 'build' a nest but may make a nest scrape).
- Intentionally take or destroy a wild Barn Owl egg.
- Have in one's possession or control a wild Barn Owl (dead or alive), or egg.
- Intentionally or recklessly disturb any wild Barn Owl whilst 'building' a nest or whilst in, on, or near a nest containing eggs or young.
- Intentionally or recklessly disturb any dependent young of wild Barn Owls.

(This summarizes the main points of the law.)

Habitat

Barn Owls hunt over areas of rough grassland, roadside verges, woodland-edge and wide arable field margins/conservation headlands, where small mammals are plentiful. Where all these features occur at an altitude of less than 200 metres there is a reasonable expectancy that Barn Owls should occur.

Cumbria Key Habitats that are particularly important for Barn Owls include:

Wood Pasture & Parkland	Calcareous Grassland
Hedgerows	Hay Meadows & Pastures
Lowland Dry Acid Grassland	Arable Field Margins (no habitat statement)

Ecology

The Barn Owl is largely nocturnal, although it is often active at dusk and can be seen hunting along the edges of fields and along roadside verges. 90% of their diet is made up of voles, mice, rats and shrews.

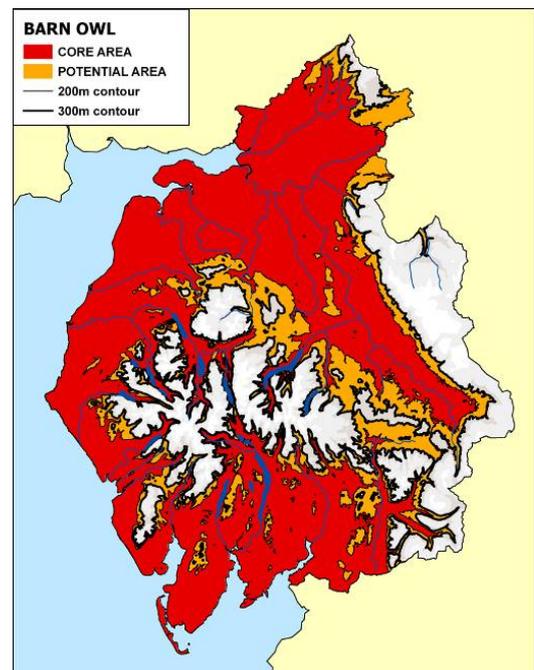
The adults usually remain as a pair throughout winter and, provided there is enough prey for them to reach breeding condition, the main breeding season begins in March and ends as late as October. Although nesting has been recorded in every month of the year, the eggs are usually laid in April and larger clutches can occur in areas where prey is especially abundant. Occasionally, two clutches are laid.

Distribution

Current strongholds are in north and west Cumbria: the western Border Uplands, the Solway Basin, the lower Eden Valley, the northern portion of the West Cumbria Coastal Plain and the western edge of the Lake District Fells and Dales. Small numbers are found in the south of the county. The species appears to be scarce within the Lake District.

The majority of breeding sites are below 200m but they can breed up to 300m. In the early 1980s the Cumbria population was estimated to be 120 pairs (5000 nationally), a decline of 84% in the county since the 1930s). This has since recovered to 300-350 pairs.

The Barn Owl is listed as an amber species on the list of Birds of Conservation Concern.



Conservation Issues

Overall, loss of suitable habitat has probably had the most significant effect upon Barn Owl populations. This includes the impacts of intensive agriculture, decrease in hedgerows, loss of nest and roost sites through barn conversions and the general decay of agricultural buildings, coupled with the loss of mature trees. Toxic pesticides and secondary poisoning due to eating poisoned prey have had a significant impact in the recent past. Increased road construction and traffic lead to increased road deaths.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- The re-use of rural buildings has significantly contributed to the population decline of Barn Owls in Cumbria. However, if properly planned and implemented, the redevelopment of such buildings can retain, protect, and enhance resting and breeding opportunities for the species.
- Active Barn Owl nests are afforded protection against disturbance, as are breeding adults and dependent young whilst at or near the nest. Nesting has been recorded in every month of the year.
- Any proposed development affecting barns and outbuildings, and other buildings with undisturbed roof voids with direct access to open countryside, should trigger a survey for Barn Owls.
- Any development that would impact upon Barn Owls would require adequate protection and mitigation measures.
- Development during the breeding season should be avoided where there is any evidence of occupation by Barn Owls. In cases where a roosting-only site is affected it is entirely possible that the development may have a detrimental 'knock on' effect if the Barn Owl has a nest nearby.

Enhancement Opportunities

- Incorporation of Barn Owl boxes and other suitable structures within buildings in appropriate locations, especially barn conversions. Barn Owls will also use externally mounted boxes.
- Provision of rough grassland and woodland edge habitat for foraging, in particular linking to existing habitat.
- Promotion of the above through appropriate planning conditions.

Further Information

[Barn owls on site A guide for developers and planners](#), English Nature and The Barn Owl Trust 2002 – note: local knowledge needs to be taken into consideration

[Barn owl boxes](#), RSPB

[Barn owl information](#), RSPB

[Cumbria Biodiversity Action Plan](#)

[Barn Owl Trust](#)

Contacts

- **The Barn Owl Trust**, Waterleat, Ashburton, Devon TQ13 7HU, Tel: 01364 653026, info@barnowltrust.org.uk, website: www.barnowltrust.org.uk
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk
- **World Owl Trust** has expert knowledge of Barn Owls in south Cumbria: The Owl Centre, Muncaster Castle, Ravenglass, Cumbria. CA18 1RQ, Tel: 01229 717393, website: www.owls.org

Current Action in Cumbria

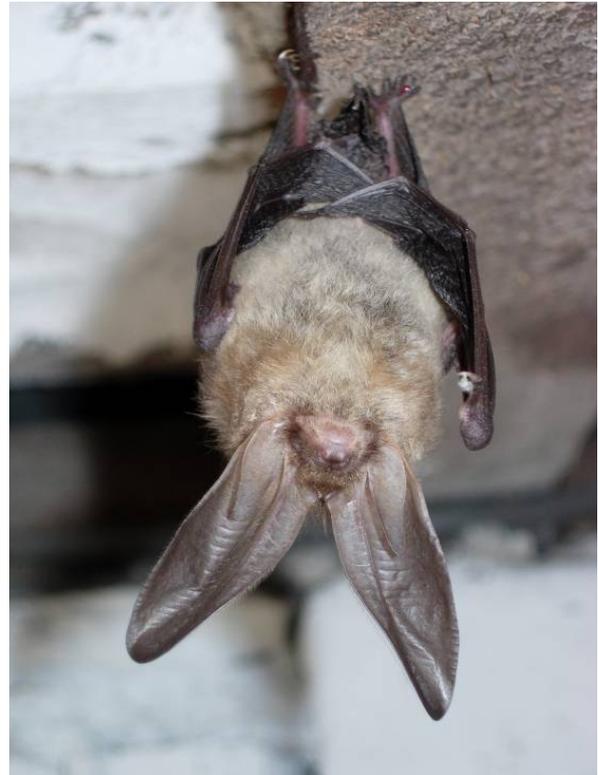
- Annual population monitoring through a network of schedule 1 licence holders takes place in North Cumbria.
- The national ringing scheme of The British Trust for Ornithology, ring/mark individual Barn Owls in the North Cumbria breeding population to study juvenile dispersal, longevity, mortality, breeding success and site fidelity. This study has been ongoing for over 30 years.
- Provision of nest sites and site protection - agri-environment schemes provide grants for the restoration of traditional barns, including provision for Barn Owls.

BATS *All species*

Bats and their roosting sites are protected by UK and European legislation. The greatest threat to bats comes from loss of roosts due to demolition, alteration and repair of buildings or structures, felling of trees, and through direct disturbance of breeding and hibernation roosts.

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Brown Long-eared Bat © John Hooson/National Trust

Legal and Conservation Status

- Annex IV Habitats Directive (European Protected Species)
- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England (in Cumbria Soprano Pipistrelle, Brown Long-eared and Noctule)
- Cumbria Biodiversity Action Plan species

All bats are protected under:

- Regulation 39 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended) (Schedule 2) as European Protected Species ¹.
- Section 9 of Wildlife and Countryside Act 1981 (as amended) (Schedule 5) ².

It is an offence to:

- Intentionally ² or deliberately ¹ capture, injure or kill a bat.
- Damage or destroy the breeding or resting place (roost) of a bat ¹, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection ².
- Intentionally or recklessly disturb a bat in its roost ² or deliberately disturb bats in such a way as to be likely significantly to affect (i) the ability of any significant group of bats to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance ¹.
- Intentionally or recklessly obstruct access to a bat roost ².
- Possess a bat (alive or dead), or any part of a bat ².

(This summarizes the main points of the law.)

Habitat

Bats require insect-rich habitats in which to feed. These can include woodlands, pasture, wetlands, gardens and parkland.

Bats roost in a variety of situations, including bridges, tunnels, caves, mines, trees, bat boxes and a wide range of buildings (e.g. barns, churches, industrial and commercial buildings and houses of different ages). They will use many roosts throughout the year, moving frequently between roosts, even in the winter.

Bats use linear features such as hedgerows, rivers, woodland edges and roadside verges as flight-lines along which they both feed and travel between roosting and feeding areas.

Cumbria Key Habitats that are particularly important for bats include:

Semi-natural Woodland	Fen, Marsh and Swamp
Hay Meadows & Lowland Pastures	Rivers
Lakes, Ponds and Tarns	Hedgerows

Ecology

Bats hibernate in the winter, when they go into a state of torpor by reducing heart rate, breathing rate and body temperature. At this time bats are particularly vulnerable to disturbance which causes them to wake and use up fat reserves.

In late spring female bats congregate to form nursery colonies where each generally produces a single pup, usually in June. At this time colonies are particularly vulnerable to disturbance which can cause the abandonment of the flightless young. The babies are weaned at around six weeks, after which they are able to fly out at dusk with the adults and feed using ultrasonic echolocation to locate insect prey. Generally the nursery roost disperses around August, although it is common for some individuals to continue to use the roost into the autumn. Sexual maturity is usually reached in the second year.

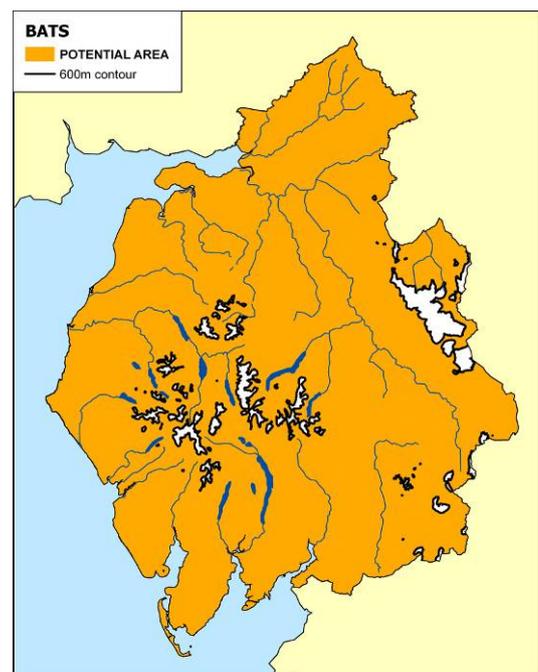
Distribution

[Links to further information](#) in Table 1:

Noctule – *Nyctalus noctula*
 Daubenton's Bat – *Myotis daubentonii*
 Natterer's Bat – *Myotis nattereri*
 Whiskered Bat – *Myotis mystacinus*
 Brandt's Bat – *Myotis brandtii*
 Brown Long-eared Bat – *Plecotus auritus*
 Common Pipistrelle – *Pipistrellus pipistrellus*
 Soprano Pipistrelle – *Pipistrellus pygmaeus*
 (Leisler's and Nathusius's Pipistrelle may occur in the county but, as yet, there are no confirmed records)

Conservation Issues

The most direct impacts are direct disturbance, loss of, or obstruction of access to roosts, and killing and injuring, due to demolition/alteration of buildings or structures, any ground works affecting caves or rock habitats, and the felling and de-limbing of trees.



Development and changes in land use and management can result in the loss of insect-rich feeding habitats and flight line features such as tree-lines, ditches and hedgerows. Similarly micro and midi wind turbines can kill and injure bats, disrupt flight lines/ feeding areas, and affect access to roosts.

Re-roofing, any other building alterations and timber treatment for insect pests/rot in lofts are major causes of loss of roost sites and direct disturbance.

Some species, e.g. Brown Long-eared and *Myotis* bats, are disturbed by light and lights shining on roost entrances and across regular flight lines can have a detrimental effect.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Bats are mobile creatures and almost any building, structure, cave, mine or tree has the potential to be used by bats.
- Bat roosts are protected whether bats are present or not.
- Any proposed development that may affect a bat roost or bat habitat requires a survey – see Bat Surveys - Good Practice Guidelines.
- Consideration must be given to the maintenance and provision of habitat corridors that are used for feeding or as flight routes.
- Surveys of buildings and structures for summer and autumn roost sites may take place at any time of the year as the signs of roosting bats such as droppings, urine staining, bodies and bones should remain throughout the year, though signs on the outside of buildings such as droppings and staining may be removed by the weather especially during the winter months. Hibernating bats may be found during winter surveys. Access would need to be gained to the entirety of the building or structure to ensure that all parts have been assessed. If this is not possible and there is bat potential (e.g. potential bat access points and roost sites) then further survey when bats are active would be necessary.
- If bat roosts are present, summer surveys will be required to determine species and population size, and their use of surrounding habitat in order to assess the potential impacts of development and appropriate protection and mitigation measures.
- Any development that would impact upon bats, their roosts and/or significant bat habitat would require adequate protection and mitigation measures, and the developer would require a European Protected Species Mitigation Licence, under the Habitats Regulations 1994, to proceed.

Enhancement Opportunities

- Incorporation of new roost features, such as bat bricks, within buildings or other structures. Projects such as the refurbishment of derelict or semi-derelict buildings, barn conversions, alterations to non-domestic premises, including churches, or other structures can all provide opportunities for roost features to be incorporated.
- Provision of wildlife-friendly shrubs, trees and grassland to improve feeding habitat.
- Creation of hedgerows, tree-lines and other linear features linking feeding and roosting habitats (corridors).
- Enhancement of the foraging habitat and movement corridors, and provision of bat boxes and other structures on trees and buildings, in areas where bats may occur.

Further Information

[Natural England Wildlife Management & Licensing Service](#)

[European Protected Species: Mitigation Licensing - How to get a licence](#), Natural England 2009

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

[Bat Mitigation Guidelines](#), English Nature 2004

[Bats and single large wind turbines](#), Natural England

[Eurobats: Guidelines for consideration of bats in wind farm projects](#)

[Bat Surveys – Good Practice Guidelines](#), Bat Conservation Trust 2007

[Bat Conservation Trust advice on 'Bats, Buildings and Development'](#)

[Bat Boxes](#), Bat Conservation Trust

[Focus on Bats: discovering their lifestyle and habitats](#), Natural England 2007

[Bats: European protected species. Natural England Species Information Note SIN010](#)

[Bats and Lighting in the UK](#), Bat Conservation Trust

[Bats and Lighting, Alison Fure](#), The London Naturalist, No. 85, 2006

[Gardening for Bats](#), Bat Conservation Trust

[UK Biodiversity Action Plan](#) for Common Pipistrelle

[Cumbria Biodiversity Action Plan](#) for all bats in Cumbria

Phillips, S (2008). Bats in Cumbria: Habitat management and legal obligations, contact Cumbria Wildlife Trust for copy.

Contacts

- **Bat Conservation Trust**, Unit 2, 15 Cloisters House, 8 Battersea Park Road, London, SW8 4BG. Tel: 020 7627 2629, enquiries@bats.org.uk, website: www.bats.org.uk
- **Cumbria Bat Helpline**, Tel: 017687 76911
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk
- **Westmorland and Furness Bat Group**, Tony Marshall Tel: 015395 68304
- **Cumberland Bat Group**, Sally Phillips Tel: 017687 76911

Current Action in Cumbria

- Free advice to private householders and members of the public is provided by the Natural England Bat Helpline and Volunteer Bat Wardens.
- The Cumberland and the Westmorland and Furness Bat Groups monitor bat populations and seek to improve public understanding through events.
- Following the Cumbria Bats in Bridges Survey, Cumbria County Council has put a mechanism in place to protect actual and potential bridge roosts.

Table 1 Local status and habitat of Cumbria's bat species

- With links for further information

Species	Local Status	Habitat
Noctule Nyctalus noctula	Widespread but uncommon; mobile populations; breeding roosts recorded.	Tree dweller; predominantly in lowlands. Occupies woodpecker and rot holes. Seldom in buildings. Will utilise bat boxes. Feeds over deciduous woodland, parkland, pasture, water and forest edges.
Daubenton's Bat Myotis daubentonii	Widespread; hibernacula and breeding roosts recorded.	Roosts in bridges, tunnels, caves, mines, stone buildings and trees. Has been found hibernating underground at high altitude (550m). Feeds low over rivers, canals and other water bodies. Will forage in riverside woodland.
Natterer's Bat Myotis nattereri	Widespread; hibernacula and breeding roosts recorded. Less common than Daubenton's.	Similar to Daubenton's Bat and both species can be found together; roosts in bridges, old buildings, barns, trees and underground sites. Feeds in woodland and parkland. Has recently been recorded in some upland areas, mainly using riverside habitats.
Whiskered Bat Myotis mystacinus	Widespread but uncommon; breeding roosts and hibernacula recorded.	Older, mainly stone buildings, churches, trees and often in bat boxes. Feeds mainly in deciduous woodland.
Brandt's Bat Myotis brandtii	Widespread but uncommon; hibernacula and breeding roosts recorded. "Swarming" sites recorded.	Similar to Whiskered Bat.
Brown Long-eared Bat Plecotus auritus	Widespread and common; hibernacula and breeding roosts recorded.	Roosts in large open roof voids in old buildings, churches, barns (often with trees close by), underground sites and trees. Often found in bat boxes. Feeds in deciduous and coniferous woodland often within the canopy; around parkland trees, gardens, along hedgerows. Rarely flies across open spaces and often flies low to the ground.
Common Pipistrelle Pipistrellus pipistrellus (45kHz)	Widespread and common; breeding roosts recorded but species only recently distinguished from Soprano Pipistrelle.	Wide age range of buildings; favours modern structures, trees occasionally and bat boxes. Feeds over diverse habitats; rural and urban gardens, woodland, farmland, or near water. Often found hibernating behind wooden cladding on buildings, behind fascia boarding and in gaps in wooden window frames.
Soprano Pipistrelle Pipistrellus pygmaeus (55kHz)	Widespread and common; breeding roosts recorded but species only recently distinguished from Common Pipistrelle; rarely found in hibernation. Larger roosts than Common Pipistrelle.	As Common Pipistrelle, but further work is required to establish how these two species differ in habitat requirements. Tends to be more closely associated with water than the Common Pipistrelle; follows riverside habitats.

GREAT CRESTED NEWT

Triturus cristatus

Great Crested Newts and their breeding and foraging habitats are protected by UK and European legislation. The greatest threat to Great Crested Newts in Cumbria is destruction of their ponds and surrounding terrestrial habitat.

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Great Crested Newt © Jim Foster/Natural England

Legal and Conservation Status

- Annex IV Habitats Directive (European Protected Species)
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species

The Great Crested Newt is protected under:

- Regulation 39 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended) (Schedule 2) as European Protected Species ¹.
- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5) ².

It is an offence to:

- Intentionally ² or deliberately ¹ capture, injure or kill a Great Crested Newt.
 - Damage or destroy the breeding or resting place of a Great Crested Newt ¹, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection ².
 - Intentionally or recklessly disturb a Great Crested Newt in a place used for shelter or protection ², or deliberately disturb Great Crested Newts in such a way as to be likely significantly to affect (i) the ability of any significant group to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance ¹.
 - Intentionally or recklessly obstruct access to a place used for shelter or protection ².
 - Possess a Great Crested Newt (alive or dead), or any part of a Great Crested Newt ².
- (This summarizes the main points of the law.)

Habitat

Great Crested Newts need ponds for breeding, and terrestrial habitats, generally within 500m of their breeding ponds, for foraging and hibernation. The majority of time is spent on land.

The best breeding ponds are unpolluted and of medium size (500-750m²). Isolated populations can occur using a single pond, but to ensure continued viability a population requires a high density of ponds (at least three per km²) which should be interconnected by suitable habitat, such as hedgerows with associated corridors of rough grassland. Creation of new ponds, and linking of ponds, are therefore important active conservation measures.

Great Crested Newts rarely survive in ponds where fish are present because the fish eat the newt larvae. Ponds that dry out in some years can therefore be excellent for Great Crested Newts because fish cannot survive in them.

It is estimated that 250 adult newts need at least a hectare of suitable terrestrial habitat adjacent to their breeding pond. This should consist of a mosaic of woodland, scrub and rough grassland. Stone quarries, even when mostly bare rock and spoil, can, surprisingly, provide good habitat for Great Crested Newts.

Cumbria Key Habitats that are particularly important for Great Crested Newts include:

Hedgerows

Heathland

Bogs

Lakes, Ponds and Tarns

Ecology

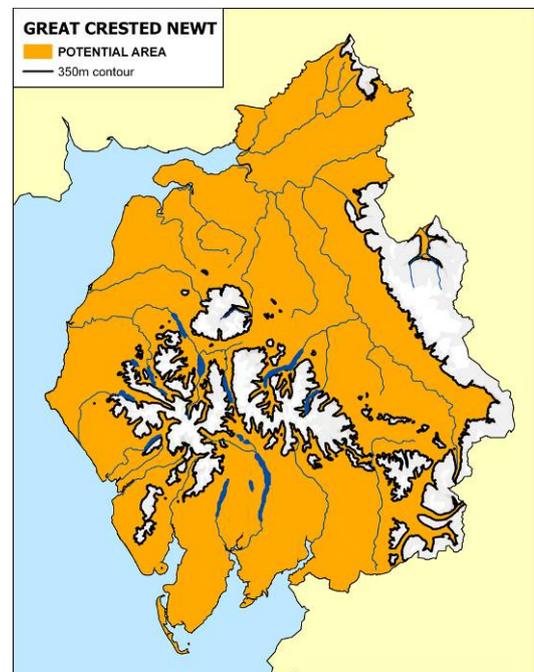
In the winter Great Crested Newts hibernate in frost free holes in the ground and under stones. The breeding adults return to their breeding pond in the spring to court, mate and lay eggs. These are laid singly in the folded leaves of water plants and hatch into legless larvae. The adults can usually be found in their breeding ponds between mid-March and mid-June. This is the time when they are easiest to find.

The larvae develop for about three months into young newts which then leave the water. These young newts generally stay away from their birth pond for up to three years until sexually mature. Great Crested Newts can live for up to 18 years in the wild, and spend the majority of their life cycle on land.

They cannot co-exist with carnivorous fish species which predate the newt larvae.

Distribution

The UK is a major stronghold for this species in the European context, where it is still widespread. It has, however, suffered a decline in recent years, with studies in the 1980s indicating a national rate of colony loss of about 2% every five years.



Surveys in recent years suggest that the Great Crested Newt is scattered throughout Cumbria below about 350m, and it is possible that newts will be found anywhere in the low lying areas of Cumbria. The current distribution is probably under-estimated as detailed surveys undertaken for potential developments each year find a high incidence of Great Crested Newts in surveyed ponds, whether newts were known to be present or not.

Great Crested Newts can be found in a variety of habitats including fell tarns, farmland and garden ponds, quarry pools and brownfield sites.

Conservation Issues

The loss of ponds through neglect, in-filling and development has reduced the number of potential Great Crested Newt breeding sites. Fragmentation of terrestrial habitats is making it harder for newts to move between ponds, and when populations become extinct the ponds cannot easily be re-colonised. Stocking of ponds with fish is normally detrimental to Great Crested Newts. The presence of domestic wildfowl reduces pond suitability through nutrient enrichment of water and vegetation damage. The general lowering of ground water levels in urban, industrial and intensive agriculture areas causes ponds to dry out. Pollution, such as run-off of agricultural chemicals, degrades Great Crested Newt habitat.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Great Crested Newts have been found throughout Cumbria, including some unlikely-looking places such as working quarries.
- Any proposed development that may affect a Great Crested Newt pond or its terrestrial habitat requires a Great Crested Newt survey; as a guide any proposed development within 0.5km of a pond has the potential to impact upon their activity.
- Consideration must be given to the maintenance and provision of habitat corridors that are used for foraging or dispersal between ponds, and as terrestrial habitat.
- Surveys for Great Crested Newts cannot be carried out adequately during the autumn and winter months. This may mean that decisions have to be delayed until after a suitable survey window.
- Any development that would impact on Great Crested Newts and their breeding and resting places and/or significant habitat would require adequate protection and mitigation measures, and the developer would require a European Protected Species Mitigation Licence, under the Habitats Regulations 1994, to proceed.

Enhancement Opportunities

- Incorporation of wildlife ponds, including suitable adjoining terrestrial habitat, into new developments, even if Great Crested Newts are not affected by the development. Where they are affected mitigation measures should include recreation of ponds on a two for one basis.
- Creation of 'networks' of ponds linked by suitable terrestrial habitat.
- Creation/enhancement of refuges/over-wintering sites within existing as well as new habitat.

Further Information

[Natural England Wildlife Management & Licensing Service](#)

[European Protected Species: Mitigation Licensing - How to get a licence](#), Natural England 2009

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

[Great Crested Newt Mitigation Guidelines](#), English Nature 2001

[Great Crested Newt Conservation Handbook](#), Froglife 2001

[Special Area of Conservation \(SAC\) Species Account](#), JNCC

[The Conservation of Great Crested Newts – A brief guide to habitat management](#), 2002

[Herpetofauna Workers Manual](#)

[Amphibians in your garden](#), Natural England

[UK Biodiversity Action Plan](#)

[Cumbria Biodiversity Action Plan](#)

Contacts

- **Amphibian and Reptile Conservation**, 655A Christchurch Road, Boscombe, Bournemouth, Dorset BH1 4AP. Tel: 01202 391319, website: www.arc-trust.org
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk.
- **Cumbria Amphibian and Reptile Group (CARG)**, Sam Griffin Tel: 016973 23939

Current Action in Cumbria

- The Cumbria Amphibian and Reptile Group monitors Great Crested Newt populations and seeks to improve public understanding through events.

HEN HARRIER *Circus cyaneus*

Hen Harriers, their nests and eggs are protected by UK and European legislation. In Cumbria the greatest planning-related threat to Hen Harriers arises from developments which threaten specific breeding and winter roost locations.

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Hen Harrier © Pearson Douglas

Legal and Conservation Status

- Annex I Birds Directive (protection through Special Protection Areas)
- UK Protected Species
- Species of Principal Importance in England

The Hen Harrier is protected under:

- Section 1 of the Wildlife and Countryside Act 1981 (as amended).

All birds, their nests and eggs are protected by law under Part 1 of the Wildlife and Countryside Act 1981 (as amended). Hen Harriers are listed on Schedule 1 which gives them special protection.

It is an offence to:

- Intentionally kill, injure, or take (handle) any wild Hen Harrier.
- Intentionally take, damage or destroy any wild Hen Harrier's nest whilst in use or being built.
- Intentionally take or destroy a wild Hen Harrier egg.
- Have in one's possession or control a wild Hen Harrier (dead or alive), or egg.
- Intentionally or recklessly disturb any wild Hen Harrier whilst building a nest or whilst in, on, or near a nest containing eggs or young.
- Intentionally or recklessly disturb any dependent young of wild Hen Harriers.

(This summarizes the main points of the law.)

Habitat

Favoured wintering Hen Harrier habitat is characterised by generally lightly-managed vegetation including long grass, rush beds and heath which in addition to providing roost sites are likely to hold high populations of small birds and mammals, and hence are also productive foraging areas.

Roosts sites are often colonial. They may change between years but roosts are often present as 'roost complexes' within a defined area which may be used for decades if conditions remain correct. Within seasons more than one roost may be used simultaneously within a discrete area.

Hen Harriers breed in upland heather moorland areas, predominantly (but not exclusively) within designated Special Protection Areas.

Cumbria Key Habitats that are particularly important for Hen Harriers include:

Fen, Marsh and Swamp

Bogs

Heathland

Ecology

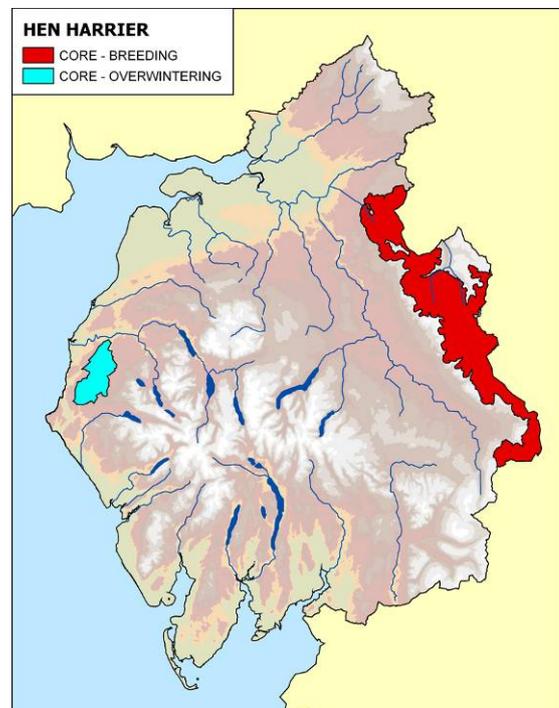
The Hen Harrier is a ground nesting bird of prey associated with open country. Hen Harriers require large expanses of suitable open habitat for hunting. Prey consists primarily of small birds and mammals. Larger prey such as red grouse and rabbit also form part of the diet. Hen Harriers are shy and easily disturbed.

Distribution

Hen Harriers occur all year round in Cumbria and are of the highest conservation importance, with only a few breeding pairs each year in the County and some internationally important winter roost sites.

Hen Harriers over-winter in a number of locations in Cumbria and regularly use a discrete area of West Cumbria in internationally important numbers. In some years this 'West Cumbria foothills' roost complex is the third biggest roost site in England. Breeding sites are predominantly in the North Pennines and form part of a very restricted northern England range.

Mapping of additional areas on the Solway Plain in preparation.



Conservation Issues

In Cumbria, there is a major conservation issue in relation to the loss or fragmentation of winter roosting areas and associated feeding grounds. This habitat loss and damage can come from a variety of development and management activities including wind farm development, conversion to bioenergy, agricultural change, inappropriate agri-environment schemes, e.g. rush cutting and disturbance through increased public access.

In addition illegal persecution and loss of suitable nesting habitat remains a major issue given the low numbers of harriers; significantly below the carrying capacity of the northern England uplands. Management of public rights of way and open access issues can impact upon breeding birds both on and off protected sites.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- The main winter roost complex area and associated foraging areas are vulnerable to impacts from developments. Any development proposals that fall within, or adjacent to, this area will require assessment of potential impacts upon the wintering population and its habitat requirements.
- The wintering Hen Harrier population of the 'West Cumbria foothills' should be considered to be equivalent to Special Protection Area quality. There is evidence that some of the Hen Harriers which winter in the 'West Cumbria foothills' area breed on SPAs in the North of England and the Isle of Man. West Cumbria Hen Harriers are therefore functionally linked to these SPAs.
- Since over-wintering can occur on other extensive areas of rush and heath, hen harriers may sometime be an issue for developments outside the current mapped area; developers should be encouraged to seek advice from Natural England or the Cumbria Bird Club.
- Developments within the uplands of Cumbria may impact upon Hen Harriers during the breeding season. This may occur on or off protected sites, and may include extensions to quarries, re-opening of mines, new buildings and tracks.

Enhancement Opportunities

- Developments within the areas identified have potential for enhancement and creation of habitat through planning agreements and obligations, and restoration schemes.

Further Information

[Hen Harrier information](#), RSPB

[Wind Turbines and Sensitive Bird Populations: A Spatial Planning Guide for on-shore wind farm developments in Cumbria](#), RSPB 2007

Contacts

- **RSPB**, Tim Youngs, Hill Top Farmhouse, Colby, Appleby-in-Westmorland, Cumbria, CA16 6BD Tim.Youngs@rspb.org.uk.
- **Cumbria Bird Club**, Dave Piercy, Derwentwater Youth Hostel, Borrowdale, Keswick, CA12 5UR, Tel: 017687 77246, daveandkathypiercy@toscali.co.uk
- **Cumbria Wildlife Trust**, Neil Harnott, Plumgarths, Crook Road, Kendal, Cumbria, LA8 8LX Tel: 01539 816300
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk

Current Action in Cumbria

- Selected winter roosts are currently surveyed by members of the Cumbria Bird Club and the RSPB in order to more fully understand the numbers involved and their functional linking to breeding sites.

NATTERJACK TOAD

Epidalea calamita

Natterjack Toads and their breeding sites are protected by UK and European legislation. Inappropriate or lack of management is currently the greatest threat to the Natterjack Toad at its existing sites in Cumbria.

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Natterjack Toad © Stephen Hewitt

Legal and Conservation Status

- Annex IV Habitats Directive (European Protected Species)
- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species

The Natterjack Toad is protected under:

- Regulation 39 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended) (Schedule 2) as European Protected Species ¹.
- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5) ².

It is an offence to:

- Intentionally ² or deliberately ¹ capture, injure or kill a Natterjack Toad.
- Damage or destroy a breeding or resting place of a Natterjack Toad ¹, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection ².
- Intentionally or recklessly disturb a Natterjack Toads in a place used for shelter or protection ², or deliberately disturb Natterjack Toads in such a way as to be likely significantly to affect (i) the ability of any significant group to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance ¹.
- Intentionally or recklessly obstruct access to a place used for shelter or protection ².
- Possess a Natterjack Toad (alive or dead), or any part of a Natterjack Toad ².

(This summarizes the main points of the law.)

Habitat

In Cumbria the Natterjack Toad is largely coastal in distribution, using shallow, freshwater pools in sand dunes, and ponds and ditches in the upper regions of saltmarshes and low lying fields. Occasional tidal inundation of such pools can be beneficial to Natterjacks, which can tolerate some salinity, since it tends to make them unsuitable for other amphibians and predatory species. However, an input of fresh water is essential to reduce the salinity in time for the Natterjack Toad breeding season.

One Cumbrian population is on a previously industrial ironworks site and there are two inland sites in the county, one in a disused sand quarry where the toads breed in shallow depressions, the other on heather moorland where peat bog streams and pools are used for breeding.

In southern England Natterjack Toads are found on lowland heath areas.

Cumbria Key Habitats that are particularly important for Natterjack Toads include:

Heathland	Coastal Habitats above High Water
Open Mosaic Habitats on Previously Developed Land	Coastal and Floodplain Grazing Marsh

Ecology

Natterjack Toads require a combination of suitable breeding pools for spawning and larval development and an adequate area of terrestrial habitat for adults and juveniles once metamorphosed.

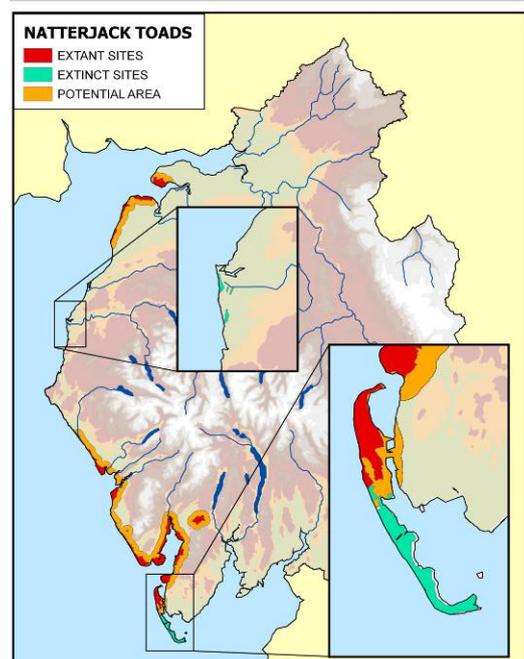
The breeding season starts later than most amphibians in April with the male making a distinctive call to attract females to the ponds. Natterjacks can travel quite long distances to locate new breeding pools. The toad has a long breeding season (late April to July). Spawn is laid in strings and tadpoles are small and black. Shallow water warms up quickly, aiding the development of tadpoles and enabling them to metamorphose before the pools dry up. Natterjacks favour pools which tend to dry up in late summer since they also tend to support fewer invertebrate predators of toad tadpoles, and are less likely to be used by common frogs and common toads which compete with natterjacks for food and other resources.

Natterjacks develop quickly in the shallow warm water and the yellow stripe along the back is soon visible on young toadlets. They are active predators and need large areas of bare ground or very short vegetation for hunting their invertebrate prey.

Outside the breeding season Natterjack Toads live on dry land so this is as important habitat as the breeding ponds. It is also essential that suitable places to hide throughout the day and to hibernate in winter are available. Sandy banks allow them to create burrows and stone walls or piles of stones also provide excellent hiding places.

Distribution

The Natterjack Toad is confined to Europe and the UK currently holds about 6% of all known Natterjack Toad sites. In the past 100 years 75% of the known UK sites have been lost.



Cumbria currently supports about 50% of all UK Natterjack Toad sites. They are found along the Cumbria coast with a sizeable gap covering the urban west Cumbrian towns. The Natterjack Toad became extinct at its Workington site around 1988, and many other sites appear to support declining numbers of adults, mainly due to habitat deterioration.

Conservation Issues

The loss of breeding ponds by siltation or destruction by infilling or inappropriate management/over-deepening has reduced the number of breeding sites. Deterioration in the quality of breeding ponds due to the encroachment of vegetation, or the presence of predators or competitors is resulting in a reduction in numbers. Some ponds dry up too quickly during the breeding season in dry summers. Developments which either prevent tidal inundation or affect the freshwater input (such as sea walls) are likely to be detrimental.

Loss of terrestrial habitat through unsuitable management, or development, impacts upon feeding and hibernation habitat. Disruption to habitat through beach cleaning operations, the driving of motor vehicles along the shore and other activities will impact upon the formation of embryo dunes and damage the dynamic process of sand dune formation. Increased public access may lead to increased disturbance and habitat damage. Fragmentation of habitat and barriers to movement are creating fragmented, isolated and potentially unviable populations.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Natterjack Toads have a limited distribution on coastal sand dunes, saltmarshes and specific other locations. Terrestrial habitat is as important to the survival of the population as breeding ponds.
- Any proposed development that may affect Natterjack Toads should trigger a survey; as a guide any proposed development within 1km of a known Natterjack site has the potential to impact upon their activity.
- Surveys for Natterjack Toads and their use of habitat cannot be carried out adequately during the winter months. This may mean that decisions have to be delayed until after a suitable survey window.
- Any development that would impact upon Natterjack Toads and/or significant habitat would require adequate protection and mitigation measures and the developer would require a European Protected Species Mitigation Licence, under the Habitats Regulations 1994, to proceed.

Developments with potential impacts are:

- Sea defence schemes which are damaging because they prevent the tidal inundation of upper saltmarsh pools, disrupt the flushing of the remaining saltmarsh by fresh water from the land, and therefore impact upon the natural cycle of sediment deposition that creates new saltmarsh and dune.
- Housing, industrial and leisure industry developments (golf courses and holiday developments), as well as to forestry and agriculture, which can lead to direct habitat loss.
- Developments that encourage concentrated access to coastal sites that support Natterjack Toads.

Enhancement Opportunities

- In areas where Natterjack Toads may occur the potential for enhancement of breeding ponds, foraging habitat and movement corridors should be maximised.
- New developments may provide opportunities to create or restore habitat to link Natterjack Toad sites, or to create new breeding ponds, terrestrial habitat or hibernation areas, in particular creation of satellite sites within 1 km of a known breeding site.
- Tidal inundation and managed retreat would provide significant opportunities for habitat creation.
- Sand and Gravel extraction has tremendous potential for Natterjack conservation through future habitat creation and restoration schemes.

Further Information

[Natural England Wildlife Management & Licensing Service](#)

[European Protected Species: Mitigation Licensing - How to get a licence](#), Natural England 2009

[Natterjack Toad: European Protected Species, Natural England Species Information Note SIN009](#)

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

[Natterjack Toad information](#), Herpetological Conservation Trust

[Herpetofauna Workers Manual](#)

[Natterjack Toad Conservation Handbook](#), English Nature Species Recovery Programme 1996

[UK Biodiversity Action Plan](#)

[Cumbria Biodiversity Action Plan](#)

Contacts

- **Amphibian and Reptile Conservation**, 655A Christchurch Road, Boscombe, Bournemouth, Dorset BH1 4AP. Tel: 01202 391319, website: www.arc-trust.org
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk
- **Cumbria Amphibian and Reptile Group (CARG)**, Sam Griffin, Tel: 016973 23939

Current Action in Cumbria

- ARC organises bi-annual partnership meetings to discuss population monitoring and management.
- ARC is also carrying out a Natural England Countdown 2010 funded project, which will run until March 2011. For more information contact William Shaw on 01229 719658.
- The Cumbria Amphibian and Reptile Group monitor toad populations and seek to improve public understanding through events.
- Natural England promotes appropriate management on SSSIs through Higher Level Stewardship Schemes and through direct management work on National Nature Reserves managed by Natural England.
- Site management to benefit Natterjack Toads carried out by a wide variety of land management organisations across Cumbria.

OTTER *Lutra lutra*

The Otter, its holts and resting places are protected by UK and European legislation. The greatest threats to Otters come from habitat loss, often associated with watercourse development, road mortality and water pollution, and disturbance.

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Otter © David Hickson

Legal and Conservation Status

- Annex IV of Habitats Directive (European Protected Species)
- Annex II Habitats Directive (protection through Special Areas of Conservation)
- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species (from 2010)

The Otter is protected under:

- Regulation 39 of the Conservation (Natural Habitats &c) Regulations 1994 (as amended) (Schedule 2) as European Protected Species ¹.
- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5) ².

It is an offence to:

- Intentionally ² or deliberately ¹ capture, injure or kill an Otter.
- Damage or destroy a breeding or resting place of an Otter ¹, or intentionally or recklessly damage or destroy any structure or place used for shelter or protection ².
- Intentionally or recklessly disturb an Otter in a place used for shelter or protection ², or deliberately disturb Otters in such a way as to be likely significantly to affect (i) the ability of any significant group of Otters to survive, breed, rear or nurture their young, or (ii) the local distribution or abundance ¹.
- Intentionally or recklessly obstruct access to a place used for shelter or protection ².
- Possess an Otter (alive or dead), or any part of an Otter ².

(This summarizes the main points of the law.)

Habitat

Otters may use any body of freshwater, including lakes, streams, rivers, ponds and ditches, as long as there is good supply of food and cover. Otters may also live along the coast and estuaries, in salt water, but require regular access to freshwater to waterproof their fur. They require a range of habitat features within their home range which can be as much as 30 km of river.

Otters are mobile creatures with large home ranges containing a variety of habitats. Within an otter's home range it will have a number of resting sites (holts, lying up sites) which can be in tree roots, patches of scrub, reedbeds and sometimes man-made structures.

Cumbria Key Habitats that are particularly important for Otters include:

Rivers	Fen, Marsh and Swamp
Semi-natural Woodland, in particular wet woodland	Lakes, Ponds and Tarns

Ecology

In Cumbria Otters are widely distributed on our rivers and lakes where they are largely nocturnal and seldom seen. Otters feed on a variety of fish, especially eels, but their diet can also include birds, insects, frogs, crustaceans, such as crayfish, and sometimes small mammals.

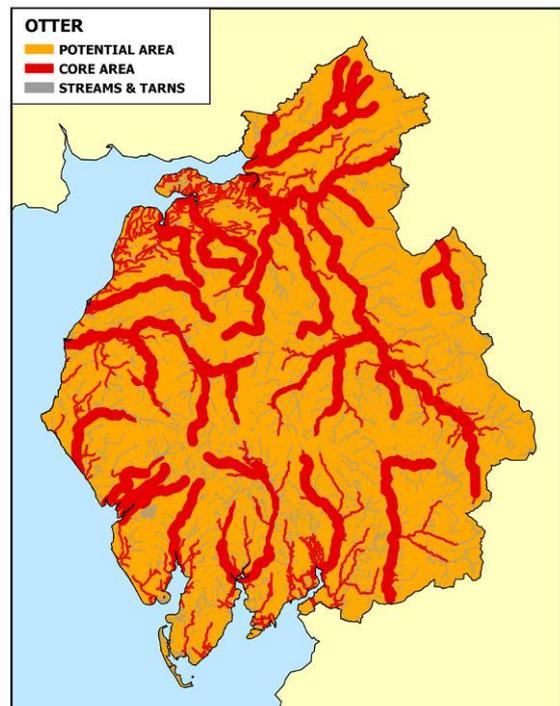
Breeding can take place at any time of year and the cubs will stay with the mother for about a year before dispersing to find new territories.

Distribution

In the 1960s and 70s the Cumbrian Otter population was very low and the species was absent from large parts of the county. Since the 1980s the population has recovered and all of Cumbria's rivers have been re-colonised from remnant populations and adjacent Otter populations to the north.

Conservation Issues

Habitat loss along the main rivers, their side tributaries and within the catchment can affect lying up and breeding sites, including hollows in large riverside tree roots, scrub patches, reedbeds and floodplain wetlands. Poor water quality or pollution will impact upon prey, or act directly upon otters, e.g. PCBs. Increased access to river and stream-sides is likely to lead to disturbance, especially by dogs. Otters are occasionally killed on our roads or drowned in eel traps.



Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Otters are widespread and may be affected by any development that impacts on a watercourse or on habitat adjacent to a watercourse.
- Any proposed development that may affect Otters or their holts should trigger a survey and assessment of potential impacts.
- Any development that would disturb Otters, impact upon their breeding and resting places and/or significant habitat would require adequate protection and mitigation measures, and the developer would require a European Protected Species Development Licence, under the Habitats Regulations 1994, to proceed.
- Otter holts and couches are covered by the legislation whether or not an Otter is present. During any work it is essential that Otter holts are not disturbed – at least 50m either side of a holt should be left unmanaged or undisturbed if possible.
- A range of developments can affect otters and otter habitat: these include built developments adjacent to rivers, tributary streams and ditches, riverside lighting, river bank modification, road construction, bridge works over waterways or culverting, flood alleviation works and new fishing lakes/ponds.
- In addition to direct impacts through disturbance, or habitat change, developments may impact on water quality, through pollution or siltation, any degradation of which would be detrimental to otters.

Enhancement Opportunities

- Enhancement to riverbank vegetation, by fencing off to allow regeneration of riverbank habitat.
- Creation of lying up and breeding sites (holts).
- Provision/enhancement of buffer strips between developments and watercourses.

Further Information

[Natural England Wildlife Management & Licensing Service](#)

[European Protected Species: Mitigation Licensing - How to get a licence](#), Natural England 2009

[Otter: European Protected Species, Natural England Species Information Note SIN006](#)

[Special Area of Conservation \(SAC\) Species Account](#), JNCC

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

[Otter predation](#), Environment Agency

[UK Biodiversity Action Plan](#)

Contacts

- **Environment Agency**, Biodiversity Team , Northern Area Office, Ghyll Mount, Gillan Way, Penrith 40 Business Park, Penrith, Cumbria, CA11 9BP, Tel: 08708 506506
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk
- **Cumbria Wildlife Trust**, Plumgarths, Crook Road, Kendal, Cumbria, LA8 8LX, Tel: 01539 816300

Current Action in Cumbria

- A National Survey has been carried out by the Environment Agency as the lead partner. The last National Survey occurred in 2008. Parts of Cumbria were not included within this survey as only alternate 50km grid squares are included.
- The Environment Agency locally carries out a rolling three year survey of all the catchments in Cumbria.
- Highways Agency are installing otter mitigation measures on all new road schemes in Cumbria and retro-fitting otter ledges at identified sites.

RED SQUIRREL *Sciurus vulgaris*

Red Squirrels and their dreys are protected by UK legislation. The greatest threat to Red Squirrels is the spread of the non-native Grey Squirrel which competes for food and carries disease.

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Red Squirrel © David Hickson

Legal and Conservation status

- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species

Red Squirrels are protected under:

- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5).

It is an offence to:

- Intentionally kill, injure or take a wild Red Squirrel.
- Have in possession or control any live or dead Red Squirrel or any part of it.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which Red Squirrels use for shelter or protection.
- Intentionally or recklessly disturb Red Squirrels while they are occupying such a place.

(This summarizes the main points of the law.)

Habitat

Red Squirrels are essentially woodland animals, spending the majority of their lives in the canopy. Although Red Squirrels can live in all types of woodland, they cannot compete against Grey Squirrels in mixed and deciduous woodlands, especially if large-seeded broadleaved trees (oak, beech, hazel) are present. Red Squirrels have more of a competitive advantage against Grey Squirrels in coniferous woodlands and this habitat difference is being used in the strategy for Red Squirrels in England.

Habitat connectivity between woodlands through tree-lines and hedgerows is important for Red Squirrels, as they are more reluctant than grey squirrel to cross large distances of open ground.

Cumbria Key Habitats that are particularly important for Red Squirrels include:

Semi-natural Woodland

Hedgerows

Ecology

Red Squirrels predominantly live on tree seeds but their diet also includes berries, buds, shoots, flowers, lichens, fungi and, occasionally, insects. The autumn and winter seed harvest is extremely important both for over-winter survival and for breeding success the following year. Red Squirrels do not hibernate and need to increase their body weight by 10% in order to survive the winter and maintain good condition for breeding in the spring. The first litter is usually born in March with a second litter, if conditions are right, in July/August. The autumn and winter food runs out by late spring and between April and August natural food becomes scarce.

Red Squirrels build spherical nests in trees using twigs and other material such as mosses, leaves and lichens. These nests are called dreys and a squirrel will use 4 -5 dreys at any time.

Causes of mortality include lack of food, disease, predation and road deaths.

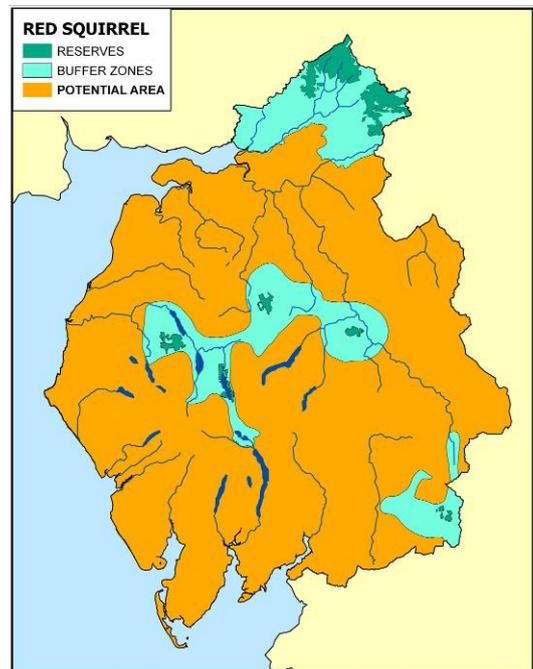
The introduction of Grey Squirrels from North America in the 19th Century has had a devastating impact on Red Squirrels not only through competition for resources, but also through spreading the squirrelpox virus which is nearly always fatal to Red Squirrels.

Distribution

Once ubiquitous in Britain, the species has undergone a drastic decline over the last 50 years and is now essentially restricted to Scotland, Cumbria, Northumberland, County Durham, West Lancashire, Merseyside some parts of Wales, including Angelsey, and island populations such as Brownsea and the Isle of Wight..

Red Squirrels still occur throughout Cumbria but have been declining rapidly in the last 10-15 years. The decline is most advanced in South Cumbria as Grey Squirrels originally colonised Cumbria from Lancashire. It is anticipated that scattered populations in small woods will continue to decline throughout Cumbria within the next 20 years.

The main conservation action in Cumbria is concentrated on Red Squirrel 'reserves' and their buffer zones at Greystoke, Whinfall, Whinlatter and Thirlmere plus Garsdale/Mallerstang on the North Yorkshire border and south west of Kielder.



Conservation Issues

The most important threat to the survival of the Red Squirrel in Cumbria is the spread of the Grey Squirrel. Grey Squirrels compete with Red Squirrels for resources and are also thought to act as a carrier of the squirrelpox virus, which has been identified as one of the main causes of the decline of Red Squirrels in the UK. Red Squirrels also suffer from road mortality and loss, fragmentation and unsympathetic management of woodland habitats.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Red Squirrels breed throughout Cumbria and potentially any woodland within Cumbria may contain squirrels and their dreys. Woodlands or individual trees or groups of trees that are used for breeding are also material to planning decisions.
- Red Squirrels may be impacted by development which affects individual or small groups or trees, by poor management, loss of larger areas of woodland, and by the loss of tree lines and hedgerows that link woodland patches.
- Any development that may impact upon Red Squirrels and their habitat would require a Red Squirrel survey with particular focus on their protected dreys and, as necessary, adequate protection and mitigation measures.
- In Red Squirrel reserves and buffer zones the potential for protection and enhancement of habitat should be optimised where ecologically appropriate.

Enhancement Opportunities

- Take opportunities to manage the mix of species required by Red Squirrels in the reserves and buffer zones. This may include planting the correct tree species or retaining conifers within woodlands, avoiding large-seeded broadleaved species such as oak and beech.
- Design layout of developments, including new roads, in such a manner that habitat links are created or maintained.

Further Information

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

[Save Our Squirrels](#)

[Red Squirrel Survival Trust](#)

[Northern Red Squirrels](#)

[Red Squirrel information](#), Forestry Commission

[UK Biodiversity Action Plan](#)

[Cumbria Biodiversity Action Plan](#)

Contacts

- **Joint Nature Conservation Committee**, Melanie Hardie, Species Advisor (mammals), Tel: 01733 866912, melanie.hardie@jncc.gov.uk
- **Save our Squirrel Project**, Northumberland Wildlife Trust, Gosforth, Newcastle Tel: 0845 3479375
- **Cumbria Save our Squirrels**, Cumbria Wildlife Trust, Gosling Syke Farm, Houghton Road, Houghton, Carlisle, CA3 0LD Tel: 01228 598799, simono@cumbriawildlifetrust.org.uk
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk

Current Action in Cumbria

- The main conservation action in Cumbria is concentrated on the Red Squirrel reserves and their buffer zones. The Red Squirrel conservation partnership Red Alert North England launched the 'Save Our Squirrels'(SOS) project to help take forward the conservation of these Reserves and advise landowners and managers on how best to manage their habitat for Red Squirrels.
- A number of Red Alert North England/SOS and independent Red Squirrel volunteer groups collate squirrel sightings and undertake Grey Squirrel control in the reserves and buffer zones. They also take Grey Squirrel blood samples to aid research into the squirrelpox virus.
- Additionally Red Squirrel Survival Trust and Northern Red Squirrels carry out Grey Squirrel control and awareness-raising activities in the areas outside the reserves and buffer zones. They are also actively pursuing the idea to turn Cumbria into a red squirrel county.

REPTILES *All native species*

Four reptile species are found in Cumbria: Common Lizard *Lacerta vivipara*, Slow-worm *Anguis fragilis* (a legless lizard), Grass Snake *Natrix natrix* and Adder *Vipera berus*. All are protected by UK legislation. The greatest threats to reptiles in Cumbria are from habitat loss and fragmentation due to unsympathetic management and development.

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Common or Viviparous Lizard © David Hickson

Legal and Conservation Status

- All are UK protected species
- All are UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species (from 2010)

Cumbria's native reptiles are protected under:

- Section 9 of the Wildlife and Countryside Act 1981 (as amended), in respect of sections 9(1) as far as it relates to killing and injuring and in respect of section 9(5) (Schedule 5).

It is an offence to:

- Intentionally or recklessly kill or injure a Common Lizard, Adder, Grass Snake or Slow-worm.

(This summarizes the main points of the law.)

Habitat

Reptiles require habitat with good structural diversity providing basking areas, feeding opportunities and hibernation sites.

Being cold-blooded they need to be able to bask to raise their body temperature. The open, dry nature of heathlands, limestone and acid grasslands, and the rough grasslands of



Adder, Drigg Dunes © Stephen Hewitt

roadside verges and railway embankments often provide these basking areas, as well as plenty of cover and food. In the urban environment many previously developed land (brownfield) sites, particularly associated with the coastal strip in Cumbria, and allotments, can provide suitable habitat for high densities of reptiles. The exception is the Grass Snake, which has more affinity with wetland habitats.



Grass Snake © Stephen Hewitt

Adders are most often found on heathland and lowland bogs.

Common Lizards have broad habitat requirements. They have been reported from brownfield sites, allotments, coastal sand dunes, sheltered woodland clearings, lowland mires, heathland, limestone pavement and open fellsides up to an altitude of 600m as well as rough grasslands of previously developed land and other man made habitats.

Grass Snakes are often associated with wetland areas and ponds, where they feed on frogs, but they range over large areas and can be found away from water in open woodland and scrub as well as gardens.



Slow-worm © Stephen Hewitt

Slow-worms are found throughout the county in open woods, lightly-managed grassland including gardens, churchyards, allotments, roadside verges, and post industrial land, up to an altitude of about 300m. The open, rock-strewn woodlands of some Lakeland valleys also provide suitable conditions. The highest densities of slow-worms can often be found in under-utilised allotments.

Cumbria Key Habitats that are particularly important for the above species include:

- | | |
|---|--------------------------------------|
| Heathland | Coastal and Floodplain Grazing Marsh |
| Bogs | Limestone Pavements |
| Calcareous Grassland | Semi-natural Woodlands |
| Open Mosaic Habitats on Previously Developed Land | Lakes, Ponds and Tarns |
| Coastal Habitats above High Water | |

Ecology

Depending on weather conditions, British reptiles are inactive from about mid-October to March hibernating below ground in disused mammal burrows, inside buried stonework, deep within grass tussocks or among tree roots. When they emerge in the spring they can often be seen basking in the open. Adders from a large area may hibernate together and therefore a few hibernation sites can be vital to the survival of a whole population.

Slow-worms and Common Lizards live mostly on invertebrates – insects, spiders and small slugs and snails. The two snakes hunt by stealth, preying on amphibians, small mammals and even their smaller reptilian cousins.

Reptiles lay eggs with leathery shells that do not dry out on land, and so do not require water in order to breed. However of the four species in Cumbria only the Grass Snake actually lays eggs, frequently in compost heaps. The other species are able to develop the eggs inside the body and give birth to live young. This is particularly useful for reptiles living in our cool, northern climate as the pregnant females are able to move into warm situations to promote the development of the young inside them.

Distribution

All reptiles are under-recorded. Common Lizards and Slow-worms are likely to occur on most lowland previously developed land sites and lightly-managed grassland. Adders occur at low density over much of Cumbria in natural or semi-natural habitats. Grass Snakes are probably confined to south Cumbria and the coastal strip.

Conservation Issues

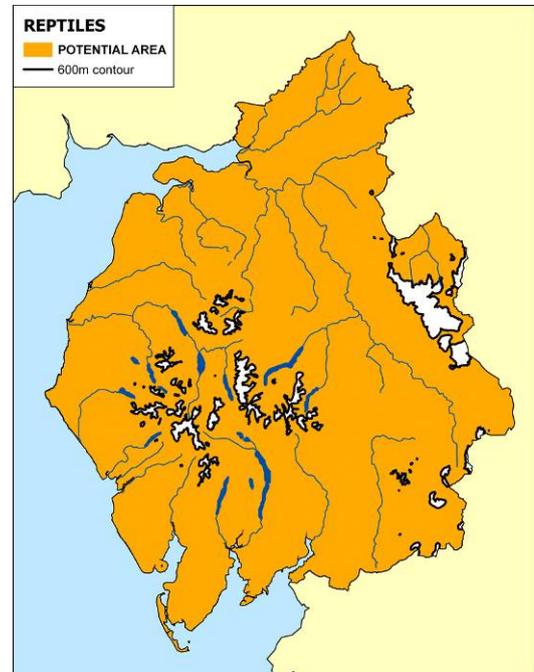
Development and unsuitable land management have reduced the amount of habitat available for reptiles. Reptiles require habitat with good structural diversity providing basking areas, adequate feeding opportunities and hibernation sites. These features are often reduced through intensive mowing, over-grazing, burning (accidental or deliberate), intensive recreational use or simply scrub colonisation.

Fragmentation of populations can be caused by roads or urban development, as well as by more subtle features such as ploughed fields or expanses of short mown grass.

Persecution may still be a significant cause of decline for Adder, Grass Snake and Slow-worm; the Adder is the only venomous snake but the other species may be erroneously considered to be a danger to the public.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Any proposed development that may affect reptiles would require a reptile survey.
- Surveys for reptiles and their use of habitat cannot be carried out adequately during the winter months. This may mean that decisions have to be delayed until after a suitable survey window.
- Any development that would impact upon reptiles and their habitat would require adequate protection and mitigation measures.



Enhancement Opportunities

- Creation of wildlife corridors through urban and semi-urban spaces could include open grassland habitat, sown with native species and with structural diversity, e.g. rock and wood refuge piles, built in for reptiles.
- Species-rich grasslands on previously developed land could be enhanced for reptiles to form core areas of reptile habitat.
- Creation of refuges/over-wintering sites to enhance existing sites.

Further Information

[Reptiles: Guidelines for developers](#), English Nature 2004

[Reptiles in your garden: your questions answered](#), Natural England 2007

[Dragons in your Garden](#), ARC 2009

[Reptile information](#), The Wildlife Trusts

[Herpetofauna Workers Manual](#)

[Reptile Survey](#), Froglife Advice Sheet 10

Reptile Mitigation Guidelines, Natural England (in preparation)

Contacts

- **Amphibian and Reptile Conservation**, 655A Christchurch Road, Boscombe, Bournemouth, Dorset BH1 4AP. Tel: 01202 391319, website: www.arc-trust.org
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria. LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk
- **Cumbria Amphibian and Reptile Group (CARG)**, Sam Griffin, Tel: 016973 23939

Current Action in Cumbria

- The Cumbria Amphibian and Reptile Group monitor reptile populations and seek to improve public understanding through events.

SMALL BLUE *Cupido minimus*

The Small Blue butterfly is particularly vulnerable to the loss of habitat through development of brownfield sites or through scrub encroachment leading to the loss of kidney vetch, its food plant.

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Small Blue © Stephen Hewitt

Legal and Conservation Status

- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species (from 2010)

The Small Blue is protected under:

- Section 9 (in respect of section 9(5) only) of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5).

It is an offence to:

- Sell or offer for sale a Small Blue butterfly.
(This summarizes the main points of the law.)

Habitat

The Small Blue relies on grassland habitats that have a very specific combination of shelter, to provide a warm micro-climate for the adults, and sparse species-rich grassland or eroding vegetation where kidney vetch, on which the caterpillars feed, can flourish. Most good sites are a mosaic of short and tall grassland with some light scrub. A survey of the strongest colony of Small Blues in Workington in 2009 highlighted the importance of nearby suitable roosting habitat for adult butterflies. Such habitat is longer clumps of grass usually, but not always, alongside hedges, fences or in ditches which can also provide shelter during adverse weather conditions.

Cumbria Key Habitats that are particularly important for the Small Blue include:

Open Mosaic Habitats on Previously Developed Land

Ecology

Our smallest resident butterfly is often confined to small patches. Males set up territories in sheltered positions, perching on tall grass or scrub. Once mated, the females disperse to lay eggs but both sexes may be found from late afternoon onwards in communal roosts, facing head down in long grass.

Eggs are laid singly, tucked into the young flower heads of prominent kidney vetch plants. The caterpillars feed on the developing flowers. When fully grown they descend to the ground and pass the winter in soil crevices or under moss. They pupate the following spring also at ground level and emerge in May.

They are poor fliers and do not move far in a year, so if lost from a site they may not re-colonise. Kidney vetch is much more widespread in Cumbria than the Small Blue butterfly.

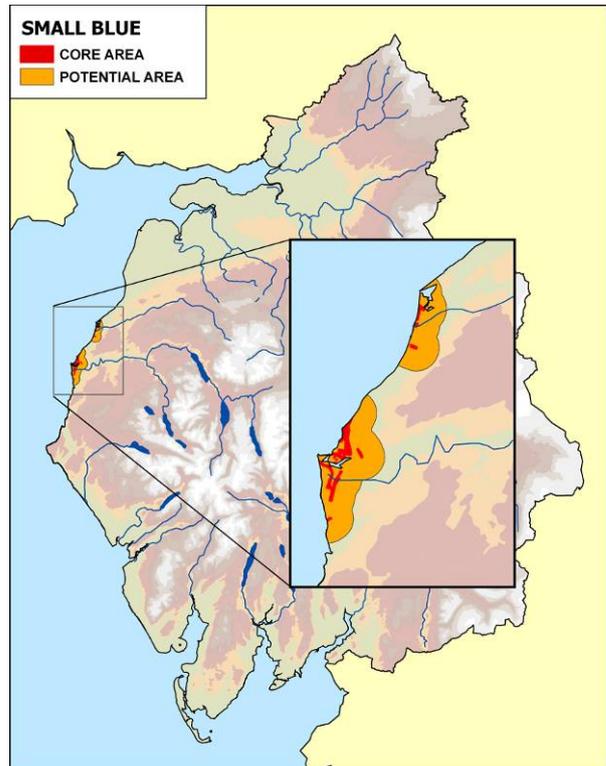
Distribution

One of the rarest butterflies in Cumbria, it is now confined to coastal grassland between Maryport and Workington, mostly on disturbed post or current industrial sites and railway land. Its current distribution is now limited to three main locations; Maryport Coastal Park and Risehow, the Port of Workington/Siddick area and other sites to the south of the River Derwent. Occasional individuals are found between these sites.

The nearest Small Blue colonies to these in Allerdale are more than 100 miles distant.

Other historical Small Blue colonies, such as old railway cuttings and embankments in the Carlisle area, were kept clear of vegetation as a fire prevention measure in the days of steam engines and incidentally provided ideal conditions for Kidney Vetch to thrive. These are long extinct with no realistic chance of re-colonisation.

It is unlikely that the Small Blue will re-colonise naturally beyond 5km of the current distribution, with sites within 2km being more likely. Naturally, therefore, this species has a limited but important distribution in Allerdale.



Conservation Issues

Development on previously-used land in this coastal strip and at the Port of Workington, and habitat loss through scrub encroachment and rank grassland conditions reducing the availability of kidney vetch, are the major threats facing the Small Blue. Their low dispersal ability and the small size of colonies in combination with kidney vetch habitat fragmentation can lead to localized extinctions and poor ability to re-colonize and slow population recovery. Habitat destruction from vandalism, motorbikes, fires and human disturbance e.g. through littering, trampling, dog fouling can also be an issue.

Planning Considerations

- The Small Blue is largely dependant upon previously-used land (brownfield sites) in Cumbria.
- Any proposed development within and nearby the current Small Blue area should trigger a Small Blue assessment. Timing for butterfly survey is restricted to May-June, but kidney vetch can be surveyed throughout the year.
- Development proposals should seek to maintain and/or create a mosaic of habitat and Small Blue population throughout the Small Blue distribution area, and its surrounds.
- The Small Blue is sometimes confused with the Common Blue and Chimney Sweeper Moth.

Enhancement Opportunities

- Management of existing habitat and populations can be successful within current developments provided linked patches of kidney vetch grassland are identified and maintained with open, sunny conditions.
- Creation of new species-rich kidney vetch grassland habitat within the Small Blue butterfly distribution area of Allerdale to provide sites for colonisation from nearby populations.
- Breeding conditions for the Small Blue are relatively easy to create by either allowing sites to colonise naturally with kidney vetch or by planting kidney vetch of local provenance; best results are seen on uneven ground with thin calcareous soils.
- Development proposals should seek to maintain and/or create a mosaic of habitat and Small Blue population throughout the Small Blue distribution area, and its surrounds.

Further Information

[Small Blue Priority Species factsheet](#), Butterfly Conservation,

[Small Blue information](#), Butterfly Conservation

Bourn, N A D and Warren, M S (2000) Small Blue *Cupido minimus* Species Action Plan. Butterfly Conservation, contact BC for copy.

[Status of the Small Blue Butterfly *Cupido minimus* on the West Cumbria Coast](#), Butterfly Conservation Report No. S07-35, Dr Sam Ellis, November 2007

Contacts

- **Butterfly Conservation**, Manor Yard, East Lulworth, Wareham, Dorset, BH20 5QP, Tel: 01929, 400209, info@butterfly-conservation.org
- **Butterfly Conservation (Cumbria)** Steve Doyle, 14 The Willows, Durdar, Carlisle, CA2 4UP, Tel: 01228 544059, stevedoyle44@hotmail.co.uk
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk

Current Action in Cumbria

- Butterfly Conservation undertook a survey of the Small Blue butterfly and its habitat distribution in the core population area in 2007.

WATER VOLE *Arvicola terrestris*

Water Voles and anywhere they use for shelter or resting are protected by UK legislation. The greatest threat to Water Vole populations is through loss of suitable habitat through agricultural intensification and predation by the non-native mink.

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Water Vole © Michelle Waller

Legal and Conservation Status

- UK Protected Species
- UK Biodiversity Action Plan Priority Species and Species of Principal Importance in England
- Cumbria Biodiversity Action Plan species

The Water Vole is protected under:

- Section 9 of the Wildlife and Countryside Act 1981 (as amended) (Schedule 5).

It is an offence to:

- Intentionally kill, injure or take a wild Water Vole.
- Have in possession or control any live or dead Water Vole or any part of it.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which Water Voles use for shelter or protection.
- Intentionally or recklessly disturb Water Voles while they are occupying such a place.

(This summarizes the main points of the law.)



Water Vole habitat, Alston © Stephen Hewitt

Habitat

Water Voles live in and around streams, rivers and other water bodies. Water Voles have been shown to prefer banks greater than 1m high, with slopes of less than 35°, and vegetation down to the water's edge.

It is widely thought to be a mainly lowland species, found at higher densities on slow flowing streams, 1-3m wide, with muddy bottoms.

However, in upland moorland areas, such as the North Pennines, Water Voles are found on small upland streams, possibly at altitudes that mink do not normally reach. In the absence of suitable banks to burrow they can build nests of reeds and grasses in tussocks of grass.

Cumbria Key Habitats that are particularly important for Water Voles include:

Rivers

Lakes, Ponds and Tarns

Ecology

Water Voles live along waterways, in burrows, above and below the water. They are active both day and night, usually for periods of 2-4 hours. They leave their droppings in latrines which often show a trampled mass of old droppings with fresh ones on top.

In summer, they actively range along waterways, but most of the winter is spent within the burrow, although they do not hibernate and need a year round food supply. They are herbivorous, and eat green shoots in preference to fruits and seeds; they rely more on below-ground rhizomes during the winter.

The low life expectancy of Water Voles (average life-span 5 months) if coupled with high predation rates and low immigration from other vole populations, can lead to local extinctions of populations.

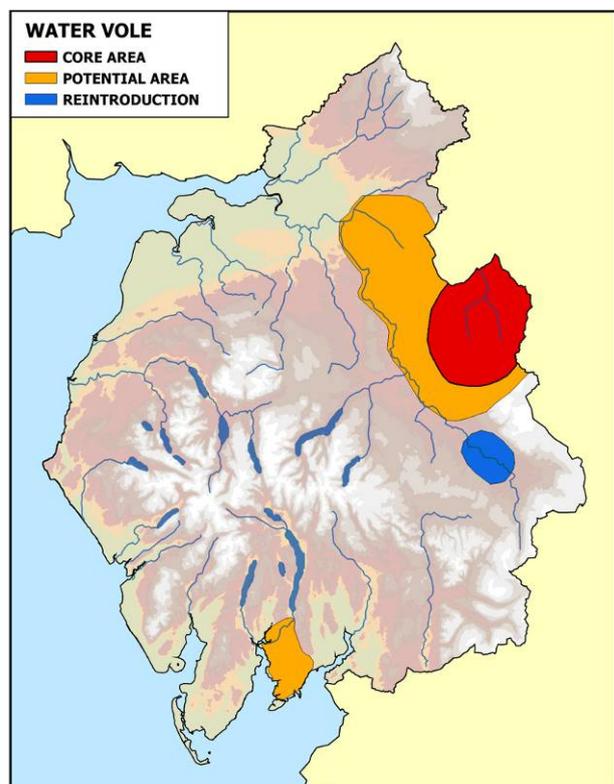
Distribution

Water Voles were once common throughout Cumbria from Furness to the Scottish borders (Macpherson, 1892).

Declines have been due to habitat degradation and loss, habitat fragmentation and predation, especially by Mink.

Recent survey work by Cumbria Wildlife Trust Mammal Group and others has found that the core population remains in the Alston area. A nearby population has recently been found on a couple of streams in the Eden catchment, in the Renwick/Melmerby area.

There may still be isolated, small populations in parts of Cumbria where Water Voles have been recorded post 1980 but not in recent surveys. The potential area may, therefore, be more extensive than shown.



Water Voles could potentially occur throughout Cumbria however the presence of mink throughout the county, and slow re-colonisation rates, make it unlikely that this will occur in the near future. Reintroductions and mink control on the River Eden may extend the population as shown on the plan, with appropriate habitat enhancement.

Conservation Issues

Predation by mink is thought to be the main cause of declines in Water Vole populations. This is exacerbated by habitat loss and fragmentation due to heavy grazing of river banks, river engineering, dredging and clearance of bankside vegetation, and culverting. Water pollution by chemicals such as PCBs and heavy metals, and inputs from agriculture and sewage works could have a detrimental effect.

Planning Considerations

- Part IV of ODPM Circular 06/2005: Biodiversity and Geological Conservation sets out the wide range of legislative provisions for conservation of species protected by national and international law. It emphasizes the need for ecological surveys to establish the presence of protected species and for protection measures to be in place through conditions and/or planning obligations before planning permission is granted. It also advises that local authorities should consult Natural England before the planning decision is made.
- Any modification or management of the banks can impact upon resident Water Voles, such as ditch clearance, flood alleviation works and culverting.
- Any proposed development which may affect the rivers or streams within the Water Voles' current range will potentially affect Water Vole habitat and distribution and should therefore require a Water Vole/Water Vole habitat survey.
- It should be noted that, since it is possible that there may still be isolated, small populations in parts of Cumbria where Water Voles have been recorded post 1980 but not recently, developments that significantly affect suitable watercourses should consider the possibility of Water Voles being present.
- Any development that would impact upon Water Vole or Water Vole habitat would require adequate protection and mitigation measures.
- In areas where Water Voles may occur the potential for enhancement and long-term management of the river/streamside habitat should be maximised.

Enhancement Opportunities

- Reduction in the amount of habitat damage, disturbance and burrow destruction by promoting better and more timely bank-side management, e.g. so as not to affect both banks at the same time.
- Protection and/or creation of enhanced bank-side vegetation through fencing and planting and reduced grazing levels, especially within the Water Vole re-introduction area.

Further Information

[Cumbria Water Vole project](#), Cumbria Wildlife Trust and Eden Rivers Trust

[Water voles – the law in practice. Guidance for planners and developers](#), Natural England 2008

[Water voles and development: Licensing policy](#), Natural England 2008

[Disturbance and protected species: understanding and applying the law in England and Wales](#)

Water Vole Conservation Handbook, 2nd Edition, 2006, The Wildlife Conservation Research Unit, hard copy can be ordered from the WCRU, University of Oxford, Tel: 01865 271289 or from www.nhbs.com.

[UK Biodiversity Action Plan](#)

[Cumbria Biodiversity Action Plan](#)

Contacts

- **Environment Agency**, Alastair Driver, National Conservation Manager, Tel: 07836 600868, alastair.driver@environment-agency.gov.uk
- **The Cumbria Water Vole Project**, Cumbria Wildlife Trust, Plumgarths, Crook Road, Kendal, Cumbria, LA8 8LX Tel: 01539 816300, watervole@cumbriawildlifetrust.org.uk
- **The Environment Agency**, Northern Area Office, Ghyll Mount, Gillan Way, Penrith 40 Business Park, Penrith, Cumbria, CA11 9BP Tel: 08708 506506
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk

Current Action in Cumbria

- A reintroduction project of Water Voles into the Warcop area was initiated in 2007, with further releases in 2010. This project has been coordinated by the Cumbria Water Vole Project based at Cumbria Wildlife Trust in partnership with Eden Rivers Trust.
- A few sites are appropriately managed by landowners in conjunction with the Environment Agency and the Cumbria Water Vole Project.
- Trapping of mink occurs widely throughout Cumbria for Water Voles, most intensively on the River Eden catchment where an organised control project is in place, managed by Cumbria Water Vole Project.

WINTERING GEESE AND SWANS

Pink-footed Geese, Barnacle Geese and Whooper Swans winter or pass through Cumbria mainly between September and early May. They are protected by UK and European legislation. The greatest threat to these species comes from development that affects their feeding grounds, especially wind farms.

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Barnacle Geese © David Hickson

Legal and Conservation Status

- Whooper Swan and Barnacle Goose: Annex I Birds Directive (protection through Special Protection Areas, Article 4.1)
- Pink-footed Goose: Birds Directive - regularly occurring migratory species (protection through Special Protection Areas, Article 4.2)

Habitat

All of the birds graze on grasslands during the day including intensively managed agricultural land such as pasture, winter stubble, cereals and root crops.

Whooper Swan - Most Whooper Swans wintering in Britain and Ireland are from the Icelandic breeding population. Whooper Swans favour grazing on intensively managed agricultural land, notably improved pasture, winter stubbles and root crops. The choice of particular pasture fields may be related to the availability of nearby freshwater for drinking, and to the presence of stock. Birds rarely mix with sheep or cattle. Birds may move to roost on estuary mudflats or saltmarshes, or on the sea itself, at coastal sites, but on moonlit nights they may stay inland. Inland feeders may move to roost on adjacent still freshwaters or rivers at dusk.

Pink-footed Goose - The Iceland/Greenland breeding population of Pink-footed Goose winters almost entirely within Britain. Favoured feeding areas are improved grasslands, stubbles, cereals and root crops with nearby estuaries or freshwaters used as roosts (Mitchell & Hearn 2004).

Barnacle Goose - The entire Svalbard-breeding population of Barnacle Geese winters around the Solway estuary. Its preferred grazing habitat is on the estuary's saltmarshes, although it is increasingly being found on neighbouring intensively-managed grassland.

Cumbria Key Habitats that are particularly important for the above species include:

Coastal and Floodplain Grazing Marsh

Intertidal Habitats

Ecology

All are arctic-breeding, single-brooded species which maintain pair-bonds for life. In all species family groups migrate together from the breeding grounds, via a moult area and favoured staging areas, to the wintering grounds. Family groups remain together until late winter.

During winter the geese form large mobile flocks; the swans smaller more sedentary flocks of generally less than 30 birds. Barnacle Geese move around the Solway grazing an area down then moving on to a new area. The swans will use favoured feeding areas for a month or more (though they may move to roost). Pink-footed Geese move around the country.

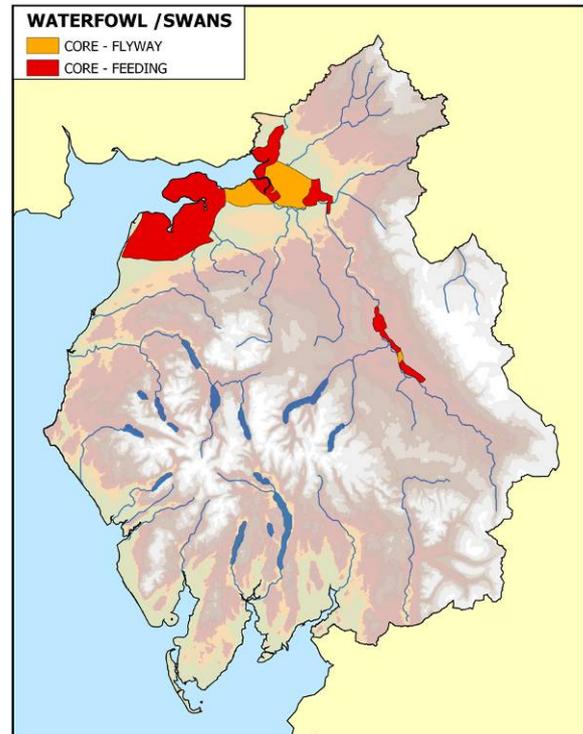
The swans generally move north from Cumbria in late March; geese stay until mid - April, with the last Barnacles leaving in May. Almost all the Solway population of Barnacle Geese gather on Rockcliffe marsh pre-migration.

Distribution

Whooper Swans - In Cumbria there are regular wintering areas around the Solway estuary and inland in the lower Esk Valley at Longtown, the lower Eden Valley east of Carlisle and the middle Eden Valley east of Penrith.

Pink-footed Goose - The Solway estuary and adjacent farmland is the major Cumbria wintering area. The main roosts are on the Blackshaw and Priestsides Banks on the Scottish side, on the sandbanks off Rockcliffe Marsh in both Scotland and England, and in Moricambe Bay at the western end of the inner Firth on the English side. Numbers peak in February and early March when the geese present all winter are joined by birds from Lancashire and Norfolk wintering grounds. At this time geese feed on saltmarshes and fields around Morecambe Bay and the Duddon as well as the Solway.

Barnacle Goose – In winter Barnacle Geese are found on fields within or adjoining the Solway estuary particularly around Mersehead and Caerlaverock on the Scottish side and Rockcliffe Marsh and Moricambe Bay on the English side, and do not range far from these areas. Rockcliffe Marsh is the major roost in Cumbria.



Conservation Issues

These birds are vulnerable to disturbance and/or habitat loss at their feeding grounds, and potential collision along, and disturbance to, their flight routes. They are considered particularly sensitive to wind farm developments because:

- They are large and un-maneuvrable and are vulnerable to collision.
- They often follow discrete flight lines between roosting and feeding areas and make daily flight movements often in low light conditions.
- They may be vulnerable to the effects of displacement by wind turbines which can 'sterilise' key feeding areas.
- They occur in discrete, internationally important populations.

Planning Considerations

- Developments may impact upon the feeding areas directly or may cause impact on the flight-lines of the birds between the feeding areas and roosting areas.
- Any proposed development would require a survey and assessment of use during the appropriate time of year.
- Any development that would impact upon these birds would require adequate mitigation and, where appropriate, compensation.
- Since Pink-footed Geese, Barnacle Geese and Whooper Swan are protected through SPA designation any development that impacts upon these birds, or the habitat on which they depend, when they are off-site may result in an adverse effect on the integrity of the site itself. This would require the planning authority to carry out a Habitats Regulations Assessment under the Habitats Regulations 1994. Further information and advice is available from ODPM Circular 06/2005.
- Any impact on the designated species (or habitat on which the population is dependent), which causes a significant decline in the size, distribution, structure or function of the population within the designated site, should be considered to have an adverse effect on the integrity of the site.
- It should be noted that a clear link would need to be made between the population being impacted upon and the population within the designated site (functionally linked).
- In Cumbria this will be particularly relevant for development within the Core Areas.
- Developers should be encouraged to seek advice from Natural England, RSPB or the Cumbria Bird Club.

Enhancement Opportunities

- Large scale developments can create new, or improve the management of, feeding areas for these birds, both during the operation of the development or as part of the site restoration.
- Pink footed geese are a legal quarry species (during the open season September 1 to January/February), under Section 2, and listed in Schedule 2 Part 1, of the Wildlife and Countryside Act 1981. Large numbers of birds are shot each year. Shooting occurs both on estuaries and on farmland. One form of compensation (associated with developments) is the buying out of shooting rights and the creation of refuges for feeding geese.

Further Information

[Wind Turbines and Sensitive Bird Populations: A Spatial Planning Guide for on-shore wind farm developments in Cumbria](#), RSPB 2007

Pink-footed Goose information, [RSPB](#), [Joint Nature Conservation Committee](#) and [Wildfowl and Wetlands Trust](#)

Barnacle Goose information, [RSPB](#), [JNCC](#) and [WWT](#)

Whooper Swan information, [RSPB](#), [JNCC](#) and [WWT](#)

[Special Protection Areas](#) list

Off-site impacts guidance, English Nature 2004, Review of Consents, Internal policy note on off site impacts affecting designated species and site integrity – contact Natural England.

Contacts

- **RSPB**, Newcastle, 1 Sirius House, Amethyst Road, Newcastle Business Park, Newcastle-upon-Tyne, NE4 7YL, Tel: 0191 233 4300
- **WeBS Secretariat**, WeBS Office, British Trust for Ornithology, The Nunnery, Thetford, Norfolk IP24 2PU, Tel: 01842 750050, webs@bto.org
- **WWT**, Goose and Swan monitoring programme, Slimbridge Wetlands Centre, Slimbridge, Glos GL2 7BT, WWTmonitoring@wwt.org.uk
- **Cumbria Bird Club**, Dave Piercy, Derwentwater Youth Hostel, Borrowdale, Keswick CA12 5UR, Tel: 017687 77246, daveandkathypiercy@tiscali.co.uk
- **RSPB**, Tim Youngs, Hill Top Farmhouse, Colby, Appleby-in-Westmorland, Cumbria, CA16 6BD tim.youngs@rspb.org.uk
- **Natural England**, Juniper House, Murley Moss, Oxenholme Rd, Kendal, Cumbria, LA9 7RL, Tel: 0300 060 2122, cumbriaplanning@naturalengland.org.uk

Current Action in Cumbria

- All the above birds are monitored during the winter as part of the Wetland Birds Survey (WeBS) co-ordinated by the BTO and the National Grey Goose census co-ordinated by the WWT. Information on these surveys can be obtained from the relevant organisation.