

Somerset Requirements for information on Biodiversity and Geological Conservation to be submitted with applications for planning permission

Including 'Criteria and Indicative Thresholds' providing guidance
on when protected species surveys will be needed

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**Produced for Somerset Planning Authorities by
Somerset Nature Officers Group**

PART I SOMERSET REQUIREMENTS FOR PROTECTED AND PRIORITY SPECIES

I (a) Protected Species

The planning authority has a duty to consider the conservation of biodiversity when determining a planning application; this includes having regard to the safeguard of species protected under the Wildlife and Countryside Act 1981, the Conservation (Natural Habitats etc) Regulations 1994 or the Badgers Act 1992. Where a proposed development is likely to affect protected species, the applicant must submit a ***Protected Species Survey and Assessment***.

If the application involves any of the development proposals shown in **Table 1** (Column 1), a protected species survey and assessment must be submitted with the application. Exceptions to when a survey and assessment may not be required are also explained in this table. The **Survey** should be undertaken and prepared by competent persons with suitable qualifications and experience and must be carried out at an appropriate time and month of year, in suitable weather conditions and using nationally recognised survey guidelines/methods where available*. Reports of surveys submitted with planning applications should indicate:

- The qualifications and experience of the surveyors;
- times and dates of survey work undertaken;
- prevailing weather conditions at the time of the survey;
- methods utilised.

The survey may be informed by the results of a search for ecological data from Somerset Environmental Records Centre (SERC) [<http://www.somerc.com>]. The survey must be to an appropriate level of scope and detail and must:

- Record which species are present and identify their numbers (may be approximate);
- Map their distribution and use of the area, site, structure or feature (e.g. for feeding, shelter, breeding).

The **Assessment** must identify and describe potential development impacts likely to harm the protected species and/or their habitats identified by the survey (these should include both direct and indirect effects both during construction and afterwards). Where harm is likely, evidence must be submitted to show:

- How alternative designs or locations have been considered;
- How adverse effects will be avoided wherever possible;
- How unavoidable impacts will be mitigated or reduced;
- How impacts that cannot be avoided or mitigated will be compensated.

In addition, proposals are to be encouraged that will enhance, restore or add to features or habitats used by protected species. The Assessment should also give an indication of how species numbers are likely to change, if at all, after development e.g. whether there will be a net loss or gain.

The information provided in response to the above requirements are consistent with those required for an application to Natural England for a European Protected Species Licence. A protected species survey and assessment may form part of a wider Ecological Assessment and/or part of an Environmental Impact Assessment.

* Further information on appropriate survey methods can be found in *Guidance on Survey Methodology* published by the Institute of Ecology and Environmental Management; available at:

<http://www.ieem.org.uk/Guidelines%20for%20Survey%20Methodology.htm>

TABLE 1

Somerset Requirements for Protected Species: Criteria and Indicative Thresholds (Trigger List) for when a Survey and Assessment is Required

Column 1 Proposals for Development That Will Normally Trigger a Protected Species Survey	Protected Species Likely To Be Affected And For Which A Survey Will Be Required														
	Bats	Barn Owls	Breeding Birds	Gt. Crested Newts	Otters	Dormouse	Water Vole	Badger	Reptiles	Amphibians	Birds in Table 2A	Plants in Table 2B	Mosses etc in Table 2C	Insects in Table 2D	Others in Table 2E
<p>Proposed development which includes the modification conversion, demolition or removal of buildings and structures (especially roof voids) involving the following:</p> <ul style="list-style-type: none"> ▪ all agricultural buildings (e.g. farmhouses and barns) particularly of traditional brick or stone construction and/or with exposed wooden beams greater than 20cm thick; ▪ all buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water; ▪ pre-1960 detached buildings and structures within 200m of woodland and/or water; ▪ pre-1914 buildings within 400m of woodland and/or water; ▪ pre-1914 buildings with gable ends or slate roofs, regardless of location; ▪ all tunnels, mines, kilns, ice-houses, adits, military fortifications, air raid shelters, cellars and similar underground ducts and structures; ▪ all bridge structures, aqueducts and viaducts (especially over water and wet ground). 	•	•	•												
Proposals involving lighting of churches and listed buildings or flood lighting of green space within 50m of woodland, water, field hedgerows or lines of trees with obvious connectivity to woodland or water.	•	•	•												
Proposals involving construction of wind turbines (either singly or in groups)	•		•												
Proposals affecting woodland, or field hedgerows and/or lines of trees with obvious connectivity to woodland or water bodies.	•		•			•		•							
<p>Proposed tree work (felling or lopping) and/or development affecting:</p> <ul style="list-style-type: none"> ▪ old and veteran trees that are older than 100 years; ▪ trees with obvious holes, cracks or cavities (N.B. where such trees are next to watercourses or waterbodies they should be checked for signs of use by Otters), ▪ trees with a girth greater than 1m at chest height. 	•		•		•								•		

Proposals affecting gravel pits or quarries and natural cliff faces and rock outcrops with crevices, caves or swallets.	•		•						•						
Major proposals within 500*m of a pond or Minor proposals within 100*m of pond (Note: A major proposals is one that is more than 10 dwellings or more than 0.5 hectares or for non-residential development is more than 1000m ² floor area or more than 1 hectare)				•											
Proposals affecting or within 200*m of rivers, streams, canals, lakes (including flooded minerals workings), or other aquatic habitats.	•		•		•		•			•	•				
Proposals affecting 'derelict' land (brownfield sites), allotments and railway land or involving construction of buildings on established gardens.			•	•				•	•	•					
Proposed development affecting any buildings, structures, feature or locations where <u>protected species are known to be present</u> **.	•	•	•	•	•	•	•	•	•	•	•	•	•		
* Distances may be amended to suit local circumstance on the advice of the local Natural England team and/or Local Biodiversity Partnership ** Confirmed as present by either a data search (for instance via the Somerset Environmental Records Centre) or as notified to the developer by the local planning authority, and/or by Natural England, the Environment Agency or other nature conservation organisation.	Bats	Barn Owls	Breeding Birds	Great Crested Newt	Otters	Dormouse	Water Vole	Badgers	Reptiles	Amphibians	Birds in Table A in Appendix 1	Plants in Table B in Appendix 1	Mosses etc in Table C in Appendix 1	Insects in Table D in Appendix 1	Others in Table E in Appendix 1

Exceptions for When a Full Species Survey and Assessment may not be Required

- a. Following consultation by the applicant at the pre-application stage, the LPA has stated in writing that no protected species surveys and assessments are required.
- b. If it is clear that no protected species are present, despite the guidance in the above table indicating that they are likely, the applicant should provide evidence with the planning application to demonstrate that such species are absent (e.g. this might be in the form of a letter or brief report from a suitably qualified and experienced person, or a relevant local nature conservation organisation).
- c. If it is clear that the development proposal will not affect any protected species present, then only limited information needs to be submitted. This information should, however, (i) demonstrate that there will be no significant affect on any protected species present and (ii) include a statement acknowledging that the applicant is aware that it is a criminal offence to disturb or harm protected species should they subsequently be found or disturbed.

In some situations, it may be appropriate for an applicant to provide a protected species survey and report for only one or a few of the species shown in the Table above e.g. those that are likely to be affected by a particular activity. Applicants should make clear which species are included in the report and which are not because exceptions apply.

I (b): UK Priority Species and Somerset Priority Species

Local Planning Authorities are required to take measures to protect 'Species of Principal Importance for the conservation of biodiversity' (as these are defined by the CROW Act 2000 - see paragraphs 15 and 16 of PPS 9). These are largely the species that are recognised in the UK BAP as 'UK Priority Species'. According to Government Circular ODPM 06/2005 'Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system':

"The potential effects of a development, on habitats or species listed as priorities in the UK Biodiversity Plan (BAP), and by Local Biodiversity Partnerships, together with policies in the England Biodiversity Strategy, are capable of being a material consideration in the preparation of regional spatial strategies and local development documents and the making of planning decisions." (Section 84, p30)

The body that steers Somerset's Local Biodiversity Partnership is the Somerset Biodiversity Management Group. The Group, in consultation with individual experts and specialist organisations within Somerset and outside, has produced lists of those species regarded as being 'Priority Species' in the county. These lists as well as the criteria that have been used in order to compile them can be accessed from the County Council's website:

<http://www.somerset.gov.uk/somerset/ete/countryside/biodiversity/index.cfm?override=subtopic&infoid=3756>

It should be noted that the Somerset Priority Lists include all UK BAP Priority Species where these are known to occur within the county.

Not all legally protected species are included in the Somerset Priority Lists.

PART II SOMERSET REQUIREMENTS FOR DESIGNATED SITES, PRIORITY HABITATS AND GEOLOGICAL CONSERVATION

The planning authority has a duty to consider the conservation of biodiversity and geodiversity when determining a planning application; this includes having regard to the safeguard of designated sites and priority habitats. Where a proposed development is likely to affect such a site, habitat or geological feature, the applicant must submit an **Ecological/Geological Survey and Assessment**.

If the application is likely to affect any of the designated sites, priority habitats or biodiversity features listed in **Table 2** or geological features listed in **Table 3**, a survey and assessment for the relevant feature must be submitted with the application. Exceptions to when a survey and assessment may not be required are also explained in these tables.

Development within 5km of the boundary of SACs will require careful assessment where these have been designated because of bat roosts. The reason for this is because off-site developments have the potential to affect bat foraging areas or commuting routes away from the roosts. Development within 2km of the boundary of other SACs and of SPAs or Ramsar Sites will require careful assessment. This is because Somerset SACs, SPAs and Ramsar sites include habitats vulnerable to off site developments that may generate significant atmospheric pollution or affect water quantity or quality).

The **Survey** should be undertaken and prepared by competent persons with suitable qualifications and experience and must be carried out at an appropriate time and month of year, in suitable weather conditions and using nationally recognised survey guidelines/methods where available*. The survey may be informed by the results of a search for ecological or geological data from a local environmental records centre. The survey must be to an appropriate level of scope and detail and must:

- Record which habitats and features are present on and where appropriate around the site;
- Identify the extent/area/length present;
- Map their distribution on site and/or in the surrounding area shown on an appropriate scale plan.

The **Assessment** should identify and describe potential development impacts likely to harm designated sites, priority habitats, other listed biodiversity features or geological features (these should include both direct and indirect effects both during construction and afterwards). Where harm is likely, evidence must be submitted to show:

- How alternative designs or locations have been considered;
- How adverse effects will be avoided wherever possible;
- How unavoidable impacts will be mitigated or reduced;
- How impacts that cannot be avoided or mitigated will be compensated.

In addition, proposals are to be encouraged that will enhance, restore or add to designated sites priority habitats, other biodiversity features or geological features. The Assessment should give an indication of likely change in the area (hectares) of priority habitat on the site after development e.g. whether there will be a net loss or gain. An ecological/geological survey and assessment may form part of a wider Environmental Impact Assessment.

Notes:

Further information on appropriate survey methods can be found in *Guidance on Survey Methodology* published by the Institute of Ecology and Environmental Management; available at:
<http://www.ieem.org.uk/Guidelines%20for%20Survey%20Methodology.htm>

Existing environmental information may be available from Local Record Centres, Wildlife Trusts, and Local RIGS Groups etc. Also online information on internationally and nationally designated sites can be found at:
www.natureonthemap.org.uk

TABLE 2

**Local Requirements for Designated Sites and Priority Habitats
Criteria (Trigger List) for When a Survey and Assessment are Normally Required**

1. DESIGNATED SITES	
Internationally designated sites	Special Protection Area (SPA) Special Area of Conservation (SAC) Ramsar Site
Nationally designated sites	Site of Special Scientific Interest (SSSI) National Nature Reserve (NNR)
Regionally and locally designated sites	Local Sites (e.g. Site of Nature Conservation Importance) Local Nature Reserve (LNR)
2. PRIORITY HABITATS (Habitats of Principal Importance for Biodiversity under S.41 of the NERC Act 2006)	
<ul style="list-style-type: none">• Ancient and/or species-rich hedgerows• Blanket bog• Cereal field margins• Chalk rivers• Coastal and floodplain grazing marsh• Coastal saltmarsh• Coastal sand dunes• Coastal vegetated shingle• Eutrophic standing waters• Fens• Lowland beech and yew woodland• Lowland calcareous grassland• Lowland dry acid grassland• Lowland heathland• Lowland meadows• Lowland raised bog• Lowland wood-pasture and parkland• Maritime cliff and slopes• Mesotrophic standing water• Mud habitats in deep water• Mudflats• Purple moor grass and rush pastures• Reedbeds• <i>Sabellaria alveolata</i> reefs• <i>Sabellaria spinulosa</i> reefs• Saline lagoons• Seagrass beds• Sheltered muddy gravels• Sublittoral sands and gravels• Upland calcareous grassland• Lowland mixed deciduous woodland• Upland heathland• Upland mixed ashwoods• Upland oakwood• Wet woodland	

3. OTHER BIODIVERSITY FEATURES

(As identified by the Somerset Biodiversity Partnership - see paragraph 84 ODPM Circular 06/2005))

- Secondary Woodland and Mature/Veteran Trees
- Caves and disused tunnels and mines (e.g. roosts for bats)
- Trees and scrub used for nesting by breeding birds
- Previously developed land with biodiversity interest
- Urban green space (e.g. parks, allotments, flower-rich road verges and railway embankments)
- Wood Pasture and Parkland
- Traditional Orchards
- Ditches and ponds
- Roadside verges and green lanes
- Dry stone walls (Mendip district only)

Exceptions When a Full Survey and Assessment May Not Be Required

International and National Sites: A survey and assessment will not be required where the applicant is able to provide copies of pre-application correspondence with Natural England, where the latter confirms in writing that they are satisfied that the proposed development will not affect any statutory sites designated for their national or international importance.

Regional and Local Sites and Priority Habitats: A survey and assessment will not be required where the applicant is able to provide copies of pre-application correspondence with the Local Planning Authority's ecologist (where employed), or ecological advisor and/or the local Wildlife Trust that they are satisfied that the proposed development will not affect any regional or local sites designated for their local nature conservation importance or any other priority habitats or listed features.

TABLE 3

Local Requirements For Designated Geodiversity Sites And Features Criteria (Trigger List) for when a Survey and Assessment are Required

1. DESIGNATED SITES (as shown on the Council's Development Plan Proposals Map)	
Nationally designated sites	Site of Special Scientific Interest (SSSI) National Nature Reserves (NNRs)
Regionally and locally designated sites	Regionally Important Geological Sites (RIGS) Local Nature Reserves (LNRs)
2. OTHER GEOLOGICAL CONSERVATION FEATURES (Based on the Earth Science Conservation Classification)	
Exposure or Extensive Sites	<ul style="list-style-type: none"> ▪ Active quarries and pits ▪ Disused quarries and pits ▪ Coastal cliffs and foreshore ▪ River and stream sections ▪ Inland outcrops ▪ Exposure underground mines and tunnels ▪ Extensive buried interest ▪ Road, rail and canal cuttings
Integrity Site	<ul style="list-style-type: none"> ▪ Static (fossil) geomorphological ▪ Active process geomorphological ▪ Caves ▪ Karst
Finite Site	<ul style="list-style-type: none"> ▪ Finite mineral, fossil or other geological ▪ Mine dumps ▪ Finite underground mines and tunnels ▪ Finite buried interest

Exceptions When a Full Survey and Assessment May Not Be Required

International and National Sites: A survey and report will not be required where the applicant is able to provide copies of pre-application correspondence with Natural England, where the latter confirms in writing that they are satisfied that the proposed development will not affect any statutory sites designated for their national importance.

Regional and Local Sites: A survey and report will not be required where the applicant is able to provide copies of pre-application correspondence with appropriate local geological experts (such as the Local RIGS Group) that they are satisfied that the proposed development will not affect any regional or local sites designated for their local nature conservation importance.

APPENDIX 1 - TABLE A: Some Legally Protected Bird Species¹ known to have occurred recently in Somerset with notes on county status and distribution² and comments on their relationship with certain kinds of development

English Name	Scientific Name	Notes on status and distribution in Somerset and association with development ²
Barn Owl ³	<i>Tyto alba</i>	Uncommon resident breeder. Recorded throughout Somerset. Barn conversions, road schemes and large-scale development affecting foraging habitat can have impacts on populations.
Peregrine	<i>Falco peregrinus</i>	Scarce, but increasing resident breeder; common winter visitor and passage-migrant. Quarries and coastal cliffs provide potential nesting sites.
Kingfisher	<i>Alcedo atthis</i>	Fairly common resident breeder; some winter on the coast. Presumably also passage-migrant. Records throughout the county. Development affecting river or stream banks has the potential to disturb nest sites.
Little Ringed Plover	<i>Charadrius dubius</i>	Rare migrant breeder (first record 1995); scarce passage-migrant. May nest in open areas in the floor of quarries.
Cetti's Warbler	<i>Cettia cetti</i>	Resident breeder, locally fairly common; rare passage-migrant. Frequently found in association with old peat or clay workings, where there is reed and willow scrub.
Common Scoter	<i>Melanitta nigra</i>	Uncommon winter visitor and passage-migrant. Small groups recorded in Bristol Channel. Offshore developments such as windfarms, barrages or marine sand extraction can affect shallow-water feeding areas.

Notes

1. All birds on this list are included on Schedule 1 of the Wildlife and Countryside Act (WCA) 1981 (as amended). Not all birds on Schedule 1 that have been recorded from Somerset are listed here, only those that it is believed may be especially vulnerable to or dependent upon development being carried out in a particular way. It should be noted that it is an offence to intentionally kill, injure or take **any** wild bird, intentionally damage or destroy the nest of **any** wild bird while it is being built or is in use or to possess **any** live or dead wild bird or any part of **any** wild bird or its egg. 'Schedule 1 Birds' enjoy additional legal protection to this, in that it is an offence recklessly or intentionally to disturb them while they are building or in, on or near a nest containing young or eggs. It is also an offence recklessly or intentionally to disturb the dependent young of 'Schedule 1 Birds'.

2. The status is as reported in 'Somerset Birds 2003' The 90th Annual Report of the Somerset Ornithological Society. Distribution is interpreted from the species account given in the same source.

3. The Barn Owl is already mentioned in Table 1 above.

APPENDIX 1 - TABLE B: Legally Protected Plant Species known to have occurred recently in Somerset with notes on county distribution¹

English Name	Scientific Name	Known Distribution in Somerset ²
Early Gentian ³	<i>Gentianella anglica</i>	Hatch Hill nr Compton Dundon, Thurlbear Wood nr West Hatch, Lollover Hill nr Dundon, Young Wood nr Orchard Portman, Woodram Copse, Pitminster.
Bluebell ⁴	<i>Hyacinthoides non-scripta</i>	Common in wooded areas of the county.
Meadow Clary	<i>Salvia pratensis</i>	Introduced. Railway bank at Crewkerne Railway Station.
Cut-grass	<i>Leersia oryzoides</i>	Possibly extinct but formerly in Bridgwater and Taunton Canal, North Newton.
Deptford Pink	<i>Dianthus armeria</i>	Introduced. A churchyard in Bruton, Muchelney Pottery and below Cheddar Wood nr Axbridge. Formerly in Bossington – Selworthy area.
Field Eryngo	<i>Eryngium campestre</i>	Pasture land nr Waterrow
Rough Marsh-mallow	<i>Althaea hirsuta</i>	A hillside nr Aller, Jenny Cridland's Copse, nr Watchet
Lizard Orchid	<i>Himantoglossum hircinum</i>	Dunes nr Burnham-on-Sea (e.g. at Berrow Golf Course).
Perfoliate Pennycress	<i>Thlaspi perfoliatum</i>	Possibly introduced. Quarries, roads, trackways and railway embankments at Charlton Mackrell
Pennyroyal	<i>Mentha pulegium</i>	Introduced. Porlock and river bank at Pawlett Hams.
Cheddar Pink	<i>Dianthus gratianopolitanus</i>	Cheddar Gorge and Ram's Cliff at Cheddar, Pink Rocks nr Charterhouse. Also introduced to Shute Shelve Hill nr Axbridge, Fore Cliffs nr Cheddar, Draycott Sleights nr Draycott, Brean Down nr Brean and Vigo Wood nr Rookham.
Alpine Rock-cress	<i>Arabis alpine</i>	Introduced. Roadside at Millards Hill House, Trudoxhill.
Bristol Rock-cress	<i>Arabis scabra</i>	Introduced, Cannington Park, nr Cannington and Skimmerton Lane, Wembdon nr Bridgwater.
Starved Wood-sedge	<i>Carex depauperata</i>	Cheddar Wood nr Cheddar.

Notes

1. All plants on this list are included on Schedule 8 of the Wildlife and Countryside Act (WCA) 1981 (as amended).

2. The distribution is as reported in Green P R, Green I P & Crouch, G A (1997) The Atlas Flora of Somerset.

3. Early Gentian is included on Schedule 8 of the WCA 1981 (as amended) but is listed also in Schedule 4 of the Conservation (Natural Habitats & C.) Regulations 1994 as a European Protected Species of Plant protected under Regulation 42.

4. Bluebell is protected only in respect of section 13 (2) of the WCA 1981 which prohibits the sale of specimens obtained from the wild

APPENDIX 1 - TABLE C: Legally Protected¹ Mosses², Liverworts³, Fungi⁴ and Lichens⁵ known to have occurred recently in Somerset with notes on county distribution

English Name	Scientific Name	Known Distribution in Somerset
Long-leaved Anomodon (A Moss)	<i>Anomodon longifolius</i>	There is an old record from the vicinity of Wells (Source: NBN).
Knothole Moss	<i>Zygodon forsteri</i>	There is an old record from the vicinity of Minehead (Source: NBN).
Petalwort (A Liverwort)	<i>Petalophyllum ralfsii</i>	Old records from Berrow Dunes nr Burnham-on-Sea
Hedgehog Fungus	<i>Hericium erinaceum</i>	Fyne Court nr Broomfield and from vicinity of Minehead. On old living trees and on the ends of felled trunks in deciduous woods. It often grows high up on its host trees, which are usually Beech, but may also be Oak.
Convolutad Cladonia (A Lichen)	<i>Cladonia convoluta</i>	On limestone grassland and screes in the Mendips. Purn Hill and below Crook Peak, Wavering Down to Fry's Hill, Burrington Combe and Dolebury Warren, Goblin Combe and Charterhouse.
Churchyard Lecanactis (A Lichen)	<i>Lecanactis hemisphaerica</i>	On plaster and limestone of wall of tower of church at Kingsbury Episcopi.
Golden Hair Lichen	<i>Teloschistes flavicans</i>	Hurlstone Point in cliff-top heathland.
River Jelly Lichen	<i>Collema dichotomum</i>	River Barle.

Notes

1. All species on this list are included on Schedule 8 of the Wildlife and Countryside Act (WCA) 1981 (as amended).
2. Information regarding the distribution of Mosses has been obtained from the National Biodiversity Network and from the British Bryological Society.
3. Information regarding the distribution of Liverworts has been obtained from the National Biodiversity Network and from the British Bryological Society.
4. Information regarding the distribution of Fungi has been obtained from the National Biodiversity Network and the UK BAP.
5. Information regarding the distribution of Lichens has been obtained from British Lichen Society.

APPENDIX 1 - TABLE D: Legally Protected¹ Insects², known to have occurred recently in Somerset with notes on county distribution

English Name	Scientific Name	Known Distribution in Somerset ²
Lesser Silver Water Beetle	<i>Hydrochara caraboides</i>	Somerset Levels and Moors
Stag Beetle	<i>Lucanus cervus</i>	Scattered records from Horner Wood locality on Exmoor, Barton St David, Ashill, Martock, Taunton and Hawkrigde Reservoir.
Heath Fritillary	<i>Mellicta athalia</i>	Exmoor
Large Blue ³	<i>Maculinea arion</i>	Went extinct in UK c.1979. Re-introduced populations in Poldens and mid-Mendip Hills.
Adonis Blue	<i>Polyommatus bellargus</i>	Poldens and Mendips
Chalkhill Blue	<i>Polyommatus coridon</i>	Poldens and Mendips
Silver-studded Blue	<i>Plebejus argus</i>	Thought to be extinct now in Somerset.
Small Blue	<i>Cupido minimus</i>	Mainly Poldens and Mendips
Purple Emperor	<i>Apatura iris</i>	There are a few records from central Somerset. This species is associated with woodlands.
Duke of Burgundy Fritillary	<i>Hemearis lucina</i>	Blackdowns and Poldens.
High Brown Fritillary	<i>Argynnis adippe</i>	Thought to be extinct now in Somerset.
Marsh Fritillary ³	<i>Eurodryas aurinia</i>	Blackdowns, Mendips and Somerset Levels and Moors
Pearl-bordered Fritillary	<i>Boloria euphrosyne</i>	Thought to be extinct now in Somerset.
Brown Hairstreak	<i>Thecla betulae</i>	There are records throughout Somerset except Exmoor. The species is associated with woodland and hedgerows. The caterpillar feeds on Blackthorn.
White-letter Hairstreak	<i>Satyrrium w-album</i>	Scattered records throughout Somerset except Exmoor. A woodland/hedgerow species associated with Elm.
Wood White	<i>Leptidia sinapsis</i>	Scattered records in central Somerset but concentrated in woodlands in Taunton Deane, especially in the Blackdown Hills.

Notes

1. All species on this list are included on Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended). In the case of the Stag Beetle and for most of the butterflies, the sole legal protection under WCA 1981 is in relation to it being an offence potentially to sell, transport or trade specimens.

2. Information on distribution of beetles is from Duff (1992) 'Beetles of Somerset'. Information regarding butterfly distribution is from the Somerset Butterfly Group.

3. The Large Blue and Marsh Fritillary butterflies are accorded full protection under the WCA 1981 and, additionally, are listed also in Schedule 2 of the Conservation (Natural Habitats & C.) Regulations 1994 as a European Protected Species of Animal protected under Regulation 38.

APPENDIX 1 - TABLE E: Legally Protected¹ Species other than those previously mentioned which are known to have occurred recently in Somerset with notes on county distribution

English Name	Scientific Name	Known Distribution in Somerset
Atlantic Stream Crayfish	<i>Austropotamobius pallipes</i>	There are records from Monksilver and the upper Tone catchment and from Lopen Brook (near Chard). The main concentration of records is from the Mendips (e.g. Mells River, the Brue at Bruton, tributaries of the River Frome and River Sheppey at Shepton Mallet).
Allis Shad	<i>Alosa alosa</i>	Recorded in Severn Estuary off Minehead (Source:NBN).
Twaite Shad	<i>Alosa fallax</i>	Recorded in Severn Estuary off Minehead, Bossington and Burnham-on-sea (Gore Sands) (Source:NBN).

Notes

1. All species on this list are included on Schedule 5 of the Wildlife and Countryside Act (WCA) 1981 (as amended). The two Shad species are listed also in Schedule 3 of the Conservation (Natural Habitats & C.) Regulations 1994, as animals that may not be taken or killed in certain ways. The Atlantic Stream Crayfish (also known as the Freshwater White-clawed Crayfish) is protected under the WCA 1981 only from being taken.

APPENDIX 2 - Figure 2 ECOLOGICAL SURVEY SEASONS Key: Optimal Survey Time

Extending into

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Badgers	Optimal	Optimal	Optimal	Optimal	Extending into	Extending into	Extending into	Extending into	Optimal	Optimal	Extending into	Extending into
Bats (Hibernation Roosts)	Optimal	Optimal	Optimal								Optimal	Optimal
Bats (Summer Roosts)				Extending into	Optimal	Optimal	Optimal	Optimal	Optimal	Extending into		
Bats (Foraging/Commuting)				Extending into	Optimal	Optimal	Optimal	Optimal	Optimal	Extending into		
Birds (Breeding)			Optimal	Optimal	Optimal	Optimal	Optimal	Optimal				
Birds (Over Wintering)	Optimal	Optimal									Optimal	Optimal
Birds (Passage migrants)			Optimal	Optimal	Optimal			Optimal	Optimal	Optimal		
Dormice					Optimal	Optimal	Optimal	Optimal	Optimal			
Great-Crested Newts (Adults)			AQUATIC	Optimal	Optimal	TERRESTRIAL	TERRESTRIAL	TERRESTRIAL	TERRESTRIAL	TERRESTRIAL		
Great-Crested Newts (Eggs & larvae)				Optimal	Optimal	Optimal	Optimal	Optimal				
Terrestrial Invertebrates			Extending into	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Extending into		
Aquatic Invertebrates	Extending into	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Extending into	Extending into	Extending into
Otters	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal
Reptiles				Optimal	Optimal	Optimal	Extending into	Extending into	Optimal	Extending into		
Water Voles		Extending into	Optimal	Optimal	Optimal	Optimal	Extending into	Extending into	Extending into	Extending into	Extending into	
White-Clawed Crayfish				Extending into	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal		
Terrestrial Habitats/Vegetation				Optimal	Optimal	Optimal	Optimal	Optimal	Optimal			
Aquatic Habitats/Vegetation					Optimal	Optimal	Optimal	Optimal				

Points to note regarding surveys are as follows:

- For certain species and habitats surveys can be carried out at any time of year, but for other species, particular times of year are required to give the most reliable results, as indicated in Figure 2
- Surveys conducted outside of optimal times (Figure 2) may be unreliable. For certain species (e.g. Great Crested Newt) surveys over the winter period are unlikely to yield any useful information. Similarly negative results gained outside the optimal period should not be interpreted as absence of a species and further survey work maybe required during the optimal survey season. This is especially important where existing surveys and records show the species has been found previously on site or in the surrounding area. An application may not be valid until survey information is gathered from an optimum time of year.
- Species surveys are also very weather dependent so it may be necessary to delay a survey or to carry out more than one survey if the weather is not suitable, e.g. heavy rain is not good for surveying for otters, as it washes away their spraint (droppings). Likewise bat surveys carried out in wet or cold weather may not yield accurate results.
- Absence of evidence of a species does not necessarily mean that the species is not there, nor that its habitat is not protected (e.g. a bat roost is protected whether any bats are present or not).
- Somerset Environmental Records Centre may have useful existing information and records.

- Competent ecologists should carry out any surveys. Where surveys involve disturbance, capture or handling of a protected species, then only a licensed person can undertake such surveys (e.g. issued by Natural England). Surveys should follow published national or local methodologies. Further details may be found on the following web sites:

IEEM at: (<http://www.ieem.org.uk/Publications.htm> - Guidelines for Survey Methodology)

Natural England: <http://www.naturalengland.org.uk/publications/default.htm>