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Extended Phase 1 Habitat Survey

Report Prepared on behalf of Nick Tibbets

For the site of Royal Free hospital in Hampstead Pond St NW3 2QG.

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Phase 1 Habitat Survey

Background to Survey

The client, Mr. Nick Tibbets, has commissioned Arbtech Consulting Ltd. to undertake a Phase 1 Habitat survey for a car park redevelopment at Royal Free hospital in Hampstead Pond St NW3 2QG. The proposed plans involve demolishing an existing car park structure which has small garden area on top of it.

Summary of Recommendations

If all protected species or their habitats are absent from the site then no further survey effort needs to be performed. Otherwise, a Phase 1 Habitat Survey in which protected species or their habitats are present is not normally considered sufficient.

Taking into consideration the desk study and site survey findings, this report concludes that the proposed development of the site presents a low probability of harm to protected species or habitats.

Summary of Potential Mitigation, Potential Impact, Loss and Gain

Habitat/Species concerned	Potential impact/loss?	Potential mitigation required*	Potential ecological gain?
Habitats	Hampstead Heath Woods SSSI lies approx. 1, 370m north and is unlikely to be affected by the redevelopment of an already developed site. No loss to the SSSI. Adjacent to the site to the north, west and south is BAP Deciduous Woodland Habitat. This may be impacted by additional lighting created by the new development. Trees and shrubs on the existing garden will be lost.	Lighting should be downward facing so that adjacent woodland is not brightly lit. The development proposals are to include new areas of green space to compensate for the loss of the garden habitat: a brown roof will be introduced to the main building roof, an amenity garden between the new building and the main hospital, and there will be planting added to the terrace facing Hampstead Green. The brown roof will be planted with a wildflower meadow, as well as small section of green roof planted with sedum species. The north side of the building will have woodland character with some native vegetation. Terraces would consist of ornamental evergreen grasses mixed with wildflower species.	By creating new green spaces, a range of native plant species can be added to increase biodiversity. The site will still have the same, if not more ecological value with the new development if the new areas are planted and maintained wisely.
Invertebrates	There are log piles and flower/shrub beds which could support a good diversity of invertebrates. Log piles are important breeding habitat for Stag Beetles *Lucanus Cervus*. These features are to be lost, this could have a negative impact on invertebrate biodiversity and the successful breeding population of stag beetles.	At least one log pile will be added to the amenity garden or wherever it is possible to do so. These will be partially below ground, with a loose damp substrate around the base of the logs such as bark chippings. This will also incorporate native shrub planting in the area and flower beds to encourage and sustain an invertebrate population. Flowers and shrubs known to encourage butterflies and moths should be planted and insect hotels should be erected.	There are many records of notable and BAP invertebrates in the area, particularly butterflies and moths. By tailoring planting towards encouraging these species, and stag beetles, invertebrate diversity may be increased.
Breeding Bird	Although no nests were found on site, birds could use the trees or hedges for	Any works which affect the trees and shrubs on site could have an impact on nesting birds. Since all	Bird boxes will be installed on retained trees.

	this in the future.	in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal should be undertaken outside the period 1st March to 31st August. If this time frame cannot be avoided, a close inspection of trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within 5.0m of any in-use nest and with an Ecological Clerk of Works present	

The proposed scheme includes a number of features that will act as ecological enhancement measures and should improve opportunities for biodiversity on the site. The development proposals are to include new areas of green space to compensate for the loss of the garden habitat: a brown roof will be introduced to the main building roof, amenity gardens between the new building and the main hospital, and there will be planting added to the terrace facing Hampstead Green.

The planting strategy is set out in detail in the Design and Access Statement. This includes a range of planting that will benefit biodiversity. Native shrub planting encourages and sustains an invertebrate population. Flowers and shrubs also encourage butterflies and moths. The planting also includes a range of trees of various sizes including native woodland species.

A brown roof of approximately 315 sqm will be planted with a wildflower meadow, as well as small section of green roof planted with sedum species. The north side of the building will have woodland character with some native vegetation. Terraces would consist of ornamental evergreen grasses mixed with wildflower species.

Overall it is considered that these enhancement measures will improve opportunities for biodiversity on the site.

1.0 The Company and Contact Information

Established in 2005, Arbtech Consulting Limited provides arboricultural and ecological consultancy services in respect to planning and development, throughout the UK.

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2.0 The Surveyor

The surveyor and principal author of this report is Natalie Evans HND, BA(hons), MA.

3.0 Protected Species Licenses

Bats

England: CLS03477

4.0 The Client

The client is Nick Tibbets.

5.0 The Site of Proposed Development

The client is preparing a planning application to redevelop at Royal Free Hospital, NW3 2QG.

6.0 The Survey Brief

The client commissioned Arbtech to undertake a Phase 1 Habitat Survey; referring to a method of ecological assessment outlined in the Joint Nature Conservation Committee ("JNCC") Handbook for Phase 1 Habitat Survey a technique for environmental audit (2010).

These guidelines state that the aim of the Phase 1 Survey is to observe, map and catalogue "*the potential value of the habitat*." Since its publication the ecological consultancy industry has adapted the survey to make recommendations for further survey work as appropriate.

7.0 Controls

This survey provides a 'snap-shot' of the potential habitat and wildlife value of the sites at the time of survey only and may require further survey effort to provide robust, scientifically valid evidence of species absence.

8.0 Data Searches

A Biological records search has also been ordered from Greenspace Information for Greater London.

9.0 Date of the Survey

26th March 2014.

10.0 Seasonality

This survey can be conducted at any time of year.

11.0 Informative

Table 1: Summary of Pertinent Legislation and Planning Policy Relevant to the Protection of Bats in the UK

Location of Site	Transposing EC Habitats Directive	Other Relevant Legislation	Planning Policy
England	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	National Planning Policy Framework ("NPPF").
Wales	Conservation of Habitats and Species Regulations 2010.	Wildlife and Countryside Act 1981 as amended. Countrywide and Rights of Way Act 2000. Natural Environment and Rural Communities Act 2006.	Technical Advice Note ("TAN") 5.
Scotland	Conservation (Natural Habitat & c.) Regulations 1994 as amended.	Wildlife and Countryside Act 1981 as amended. The Nature conservation (Scotland) Act 2004.	National Planning Policy Guidance ("NPPG") 14 and Planning Advice Note ("PAN") 60.

A summary of legislation relevant to individual species can be found at Appendix IV.

12.0 The Survey Methodology

In order to fully assess the potential value of habitats at the site, the surveyor has observed widely accepted national standards set out in the JNCC (2010) publication Handbook for Phase 1 Habitat Survey: a technique for environmental audit.

The survey includes for a mapping exercise (found at Appendix I), in addition to a full species list and target notes (found at Appendix II.)

Inspections make use of binoculars and cameras where appropriate.

The survey is performed during daylight hours and provides an opportunity to exclude the need for further survey work, if the following species and features suitable for use by the following groups can be confirmed absent from the site of proposed development:

1. Amphibians.
2. Invertebrates
3. Badgers
4. Bats.
5. Barn Owls.
6. Breeding Birds.
7. Reptiles.
8. Terrestrial mammals e.g. Otter, dormouse and water vole.

If evidence of recent activity and or features suitable for the species cannot be confirmed absent from the site of proposed development, this report will make recommendations for further survey work and or mitigation where this is consistent with national guidelines and considered appropriate by the surveyor in the context of the proposed development.

13.0 Protected Taxa Habitat Potential

Table 2: Species potential defined by integrating national guidelines e.g. Hundt 2012

Confirmed	Species are found to be present during the survey. Evidence of species' activity is found to be present during the survey.
High	Buildings, trees or other structures with features of particular significance for use by protected species e.g. nesting habitat, roosting opportunities, ponds. Habitat of high quality for foraging e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting species e.g. river and or stream valleys and hedgerows. Site is close to known locations of records for protected species.
Medium	Several potential habitat opportunities in buildings, trees or other structures. Habitat could be used for foraging e.g. trees, shrub, grassland or water. Site is connected with the wider landscape by linear features that could be used by commuting species e.g. lines of trees and scrub or linked back gardens.
Low	A small number of less significant habitat opportunities. Isolated habitat for foraging e.g. a lone tree or patch of scrub. An isolated site not connected by prominent linear landscape features.
Negligible	No suitable habitats observed.

Table 2 (above) presents a scale continuum against which the significance of habitat value and opportunities for protected species at the site can be graded. By referring to this continuum and using their expert judgment, surveyors classify features such as habitats, buildings etc. as representing low, medium, high value or confirmed presence.

14.0 Survey Results

Table 3: Desk study results, habitats and species recorded on site

<table>
<tr><td>Desk Study Records</td><td>The survey preparation has been informed by the use of a desk study utilising: - aerial images from Google Earth, MAGIC and other freely available information e.g. Natural England's nature on the map website, and OS Opendata 2010 using grid reference TQ271853 and postcode NW3 2QG.
MAGIC results:
Belsize Wood LNR lies approx. 300m south east of the site. The site is surrounded on the north, west and south by a small area of Deciduous Woodland BAP Habitat. Isolated areas of this habitat is also found approx. 240m south east, 260m north east, and 260m north west. Approx. 260m north lies a large area of habitat (Hampstead Heath) with the following classifications: Undetermined Grassland BAP Priority Habitat (England) and Deciduous Woodland BAP Priority Habitat (England), Woodpasture and Parkland BAP Priority Habitat (England) and Lowland Heathland BAP Priority Habitat (England).
The results from GIGL are as follows:
Within the 1km search radius there are 246 records of protected and notable species, all of which are more than 250m away from the site. There are no statutory sites present within 500m and one local nature reserve located approx. 300m south east.</td></tr>
<tr><td>Local Environment</td><td>Site Location:
The site is surrounded by housing and shops for most of the area. Many of the roads are tree lined with small pockets of woodland. Approx. 200m to the north Hampstead Heath begins and woodland and open grassland can be found in small amounts within the 1km radius.
The following habitat features for protected species in general are present:

<table>
<tr><th>Landscape Features</th><th>Present within 1km + notes (distances)</th></tr>
<tr><td>Woodlands</td><td>Pockets of woodland are located in the area with larger areas on Hampstead Heath. (See MAGIC results).</td></tr>
<tr><td>Linear Features e.g. tree lines, hedges, gardens</td><td>Some roads are tree lined, as is the railway line which lies approx. 160m north of the site.</td></tr>
<tr><td>Lowland Heathland BAP Priority Habitat</td><td>Found on Hampstead Heath (see MAGIC results)</td></tr>
<tr><td>Undetermined Grassland BAP Priority Habitat</td><td>Found on Hampstead Heath (see MAGIC results)</td></tr>
</table>
</td></tr>
</table>

	Weather conditions at time of survey: Temperature: 7ºC Cloud Cover: 95% Wind: 3/8 Precipitation: None.	
Habitats	**Description of Features**	
J1 Cultivated/Disturbed Land (Including Arable, Amenity Grassland, Introduced Scrub)	Amenity grassland is located in the center of an area of introduced shrubs and trees.	
J3 Built Up Areas Including Buildings and Hard Standing	A hard standing footpath runs between the grassland and shrub and tree borders. The carparks below the garden are entirely hard standing. There is one small brick storage building with a flat roof.	
Species	**Species potential defined in Table 2.**	**Description of features suitable to support a population OR external habitat connectivity to the site**
Invertebrates	Low	The log pile on site could present breeding habitat for Stag Beetles. There are records of this species within 1km.
Amphibian	Negligible	There is no suitable habitat on site for amphibian foraging or refuge, the grass is too thin and does not provide enough cover. There are no ponds within 300m.
Badger	Negligible	No badger setts were found to be present on site. No other badger evidence, e.g. latrines, runs or hair were found to be present.
Bat	Negligible	The buildings and trees on site are not suitable to be used as roosting features by bats.
Barn Owl	Negligible	There are no buildings or trees on site for barn owl roosting or nesting. There is also no suitable habitat on site for barn owl foraging. The grass is of too poor quality to sustain a small mammal population.

Bird	High	The trees and bushes on site have potential for bird roosting and nesting.
Other terrestrial mammals e.g. otter, water vole	Negligible	No evidence of any other protected mammal was found.
Reptile	Negligible	The grassland present on site is not of suitable quality to support a reptile population. No evidence of reptiles e.g. shed skins was found.
Invasive Species	Negligible	None Found

A Phase 1 map can be found at Appendix I illustrating the habitats.

Table 4: Summary of Impacts

Habitat/Species concerned	Potential impact/loss?
Invertebrates	There are log piles and flower/shrub beds which could support a good diversity of invertebrates. Log piles are important breeding habitat for Stag Beetles *Lucanus Cervus*. These features are to be lost, this could have a negative impact on invertebrate diversity and the successful breeding population of stag beetles.
Amphibian	No impact
Badger	No impact
Bat	No impact
Barn Owl	No impact

Bird	Although no nests were found on site, birds could use the trees or hedges for this in the future. Loss of trees will remove potential roosting and nesting areas for birds.
Other terrestrial mammals e.g. otter, water vole	No impact
Reptile	No impact
Invasive Species	No impact

15.0 Conclusions and Recommendations

The NPPF and ODPM Circular 06/05 require that planning decisions are based on complete and timely ecological information. Further, it is required by Natural England's 'Standing Advice' that protected species information must be available before a decision can be made.

Following this guidance, it is highly unlikely that the local planning authority will defer the provision of further protected species survey work as a condition of any planning consent.

At this time we have no reason to believe the local planning authority will consider that this level of survey will provide them with inadequate information or lacks scientific rigour. On occasion though, it can become necessary to perform further surveys even after planning consent is given, where there are extenuating circumstances e.g. if protected species or habitats are found at a later date.

However, separately to mitigating and compensating for unavoidable ecological impacts, government has made it clear through the NPPF and circular 06/05 that development requires the enhancement of the quantity and quality of biodiversity and habitat.

Where the local planning authority is minded to grant consent for the proposed development, some basic and cost effective forms of ecological enhancement could be adequately secured through the use of an appropriately worded condition. Suggestions for such measures are referred to below, in Table 4.

Table 5: Conclusions and Recommendations

Species/Habitats	Species potential defined in Table 2.	Conclusions	Recommendations	Enhancements under NPPF and Circular 06/05
Habitats	Negligible	All species and habitats found are common and widespread, no rare or unusual plants or habitats were found. The works are not close enough to or large enough in scope to affect any statutory sites. There will be no direct impact to Hampstead Green from construction and no impact from shading as confirmed by the DLSL report.	No further surveys.	
Invertebrates	Low	The log pile on site could present breeding habitat for Stag Beetles. There are records of this species within 1km.	No Further Surveys	Insect hotels will be installed on site. Replacement log piles could be installed.
Amphibian	Negligible	There is no suitable habitat on site for amphibian foraging or refuge, the grass is too thin and does not provide enough cover. There are no ponds within 300m.	No further surveys.	
Badger	Negligible	No badger setts were found to be present on site. No other badger evidence, e.g. latrines, runs or hair were found to be present.	No further Surveys.	
Bats	Negligible	The buildings and trees on site are not suitable to be used as roosting features by bats.	No further Surveys.	Bat boxes could be installed on new buildings. Lighting should also be controlled around these.
Barn Owl	Negligible	There are no buildings or trees on site for barn owl roosting or nesting. There is also no suitable habitat on site for barn owl foraging. The grass is of too poor quality to sustain a small mammal population.	No further surveys	

Bird	High	The trees and bushes on site have potential for bird roosting and nesting.	No further surveys. Any works which affect the trees and shrubs on site could have an impact on nesting birds. Since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal should be undertaken outside the period 1st March to 31st August. If this time frame cannot be avoided, a close inspection of trees and shrubs to be removed should be undertaken prior to clearance. Work should not be carried out within 5.0m of any in-use nest and with an Ecological Clerk of Works present.	Bird boxes are to be installed on retained trees.
Other mammals	Negligible	No evidence of any other protected mammal was found.	No further surveys.	
Reptiles	Negligible	The grassland present on site is not of suitable quality to support a reptile population. No evidence of reptiles e.g. shed skins was found.	No further surveys.	
Invasive Species		None found	No further surveys	

The proposed scheme includes a number of features that will act as ecological enhancement measures and should improve opportunities for biodiversity on the site. The development proposals are to include new areas of green space to compensate for the loss of the garden habitat: a brown roof will be introduced to the main building roof, amenity

gardens between the new building and the main hospital, and there will be planting added to the terrace facing Hampstead Green.

The planting strategy is set out in detail in the Design and Access Statement. This includes a range of planting that will benefit biodiversity. Native shrub planting encourages and sustains an invertebrate population. Flowers and shrubs also encourage butterflies and moths. The planting also includes a range of trees of various sizes including native woodland species.

A brown roof of approximately 315 sqm will be planted with a wildflower meadow, as well as small section of green roof planted with sedum species. The north side of the building will have woodland character with some native vegetation. Terraces would consist of ornamental evergreen grasses mixed with wildflower species.

Overall it is considered that these enhancement measures will improve opportunities for biodiversity on the site.

16.0 Bibliography

Hundt L (2012) Bat Surveys: Good Practice Guidelines, 2nd edition, Bat Conservation Trust ISBN-13: 9781872745985

http://www.bats.org.uk/publications_detail.php/1127/bat_surveys_good_practice_guidelines_2nd_edition

Joint Nature Conservation Committee (2010). Handbook for Phase 1 habitat survey a technique for environmental audit.

Natural England (2007). Badgers and Development a Guide to Best Practice and Licensing. Natural England. Bristol.

National Planning Policy Framework, 2012
http://www.communities.gov.uk/publications/planningandbuilding/nppf

Paul Edgar, Jim Foster and John Baker (2010). Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth

Tom Langton, Catherine Beckett and Jim Foster (2001). Great Crested Newt Conservation Handbook. Froglife. Suffolk.

17.0 Document Production and Approval Record

Status	Issue	Surveyor	Date
Updated	2	Natalie Evans	16/09/14
Updated	3	Natalie Evans	14/10/14

18.0 Limitations

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19.0 Copyright

Appendix I Phase 1 Habitat Map

Appendix II Species

Common Name	Scientific Binomial
Perennial Ryegrass	*Lolium perenne*
Laurel	*Laurus nobilis*
Stinging Nettle	*Urtica dioica*
Cherry	*Prunus avium*
Mallow	Malva
Silver birch	*Betula pendula*
Edible honeysuckle	*Lonicera caerulea*
Ash	*Fraxinus excelsior*

Appendix III Site Photos

Figure 1: ornamental planting/introduced shrub and amenity grass on carpark roof garden.

Figure 2: amenity grass with scattered trees.

Figure 3: amenity grass and ornamental planting and trees.

Figure 4: outside of car parks.

Figure 5: 2 car park levels with trees from the garden visible on top.

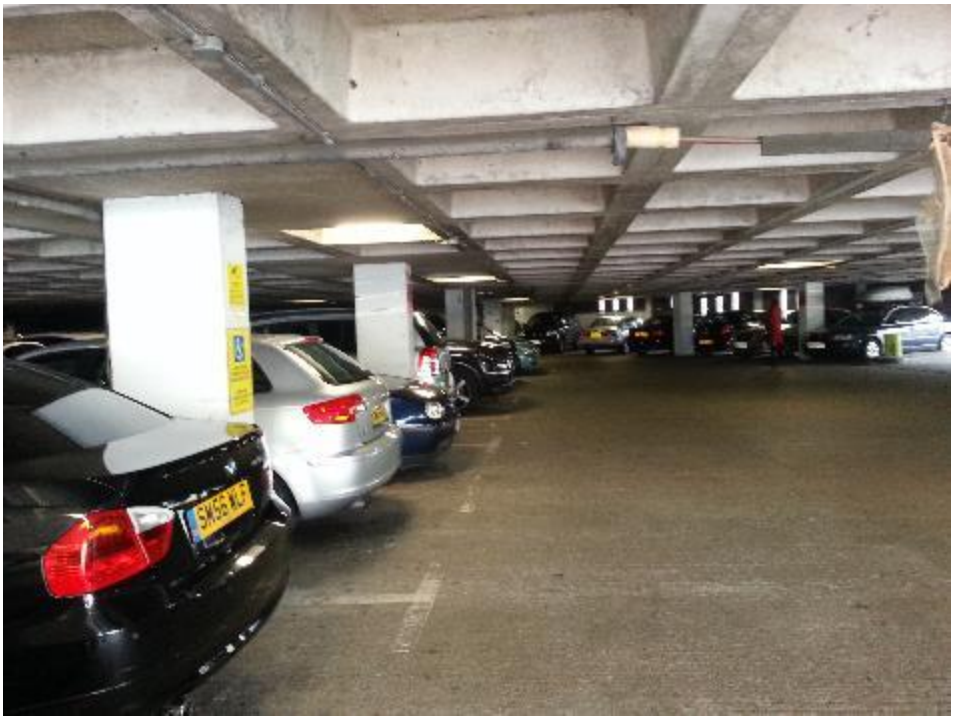

Figure 6: interior of car park.

Appendix IV Summary of Legislation for Various Species

Bats

All 18 species of bat common in the U.K (17 known to be breeding) are fully protected under the Wildlife and Countryside Act 1981 as amended through inclusion in Schedule V. All bat species in the UK. are also included in Schedule II of the Habitats Regulations 2010 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

Intentionally or deliberately kill, injure or capture bats.

Deliberately disturb bats, whether at roost or not.

Damage, destroy or obstruct access to bat roosts.

Possess or transport bats, unless acquired legally.

Sell, barter or exchange bats.

A bat roost is defined by the Bat Conservation Trust publication Bat Surveys—Good Practice Guidelines 2nd Edition as "the resting place of a bat" (BCT 2012). Generally however, the word roost is interpreted as "any structure or place, which any wild bat uses for shelter or protection."

Bats tend to re-use the same roosts; therefore legal opinion is guided by recent case law precedents[1], that a roost is protected whether or not the bats are present at the time. This can include for summer roosts, used for breeding; or winter roosts, used for hibernating.

Common Birds

All common wild birds are protected under The Wildlife and Countryside Act 1981.

This legislation makes it an offence to:

Kill, injure or take wild birds.

Take, damage or destroy the nest of wild birds while it is in use or being built.

Take or destroy the eggs of wild birds.

Certain rare breeding birds are listed on Schedule I of The Wildlife and Countryside Act 1981. Under this legislation they are afforded the same protection as common

[1] Internet search for e.g. the Woolley case (R. Simon Woolley v. Cheshire East Borough Council) and see here: http://www.naturalengland.org.uk/Images/WoolleyVsCheshireEastBC_tcm6-12832.pdf

wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs and or unfledged young e.g. Barn Owl Tyto alba.

Reptiles

There are six species of reptiles in Great Britain (Edgar et al. 2010) and four of these are commonly found; the grass snake Natrix natrix, adder Viper aberus, common lizard Zootoca vivipara and slow worm Anguis fragilis ("common reptiles.")

All native British species of reptiles are legally protected through their in Schedule V of the Wildlife and Countryside Act 1981. As such, all species are protected from deliberate killing or injury. Therefore, where development is permitted, and there will be a significant change in land use, a reasonable effort must be undertaken to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without appropriate licensing.

Two species of reptile; the smooth snake Coronella austriaca and sand lizard Lacerta agilis, are further protected through their inclusion in Schedule II of the Habitats Regulations 2010 which transposes Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive"), which defines European protected species of animals ("rare reptiles.")

This legislation makes it an offence to:

Intentionally or deliberately kill, injure common and rare reptiles.

Deliberately disturb or capture rare reptiles.

Damage, destroy or obstruct access to rare reptile habitat.

Possess or transport a rare reptile or any part of a rare reptile, unless acquired legally.

Sell, barter or exchange common and rare reptiles.

Rare reptile species occupy only highly restricted ranges in the extreme south east of costal England, with isolated populations of sand lizard in e.g. costal Wales and Cornwall. Smooth snake populations are isolated to lowland heaths in e.g. Surrey, Hampshire, Dorest and West Sussex.

Badgers

Badgers Meles meles are vulnerable to baiting, hunting and the detrimental impacts of development on their habitat. Both the badger and its habitat are protected under The Protection of Badgers Act 1992, Schedule V of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention 1979.

This legislation makes it an offence to:

Kill, injure, take or possess a badger.

Interfere with, damage or destroy a badger sett including e.g. obstruct access to a badger sett.

Cruelly treat or harm a badger.

Disturb a badger in a sett.

Penalties for offences are documented (NE 2010) as fines of up to £5,000 and imprisonment for each illegal sett interference or damage or death to a badger.

Great Crested Newts

Populations of great crested newts Triturus cristatus declined considerably in the late twentieth century (Langton et al. 2001) due to the intensification of agriculture. They require ponds with good water quality and as they spend most of their life on land these ponds must be surrounded by high quality terrestrial habitat.

Great crested newts are listed in both Annex IV of the EC Habitats Directive and in Schedule V of the Wildlife and Countryside Act 1981.

GCN are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

Deliberately kill, injure or capture a great crested newt.

Deliberately disturb a great crested newt.

Damage, destroy or obstruct access to a structure used for shelter or protection by a great crested newt.

Possess or transport a great crested newt.

Appendix V

European Protected Species

Species	**Type**	**Likely presence?**
Horseshoe Bats	All	No
Typical bats	All	In the area but not roosting on site.
Large blue butterfly	*Felis silvestris*	No
Dolphins, porpoises and whales	All	No
Dormouse	*Muscardinus avellanarius*	No
Sand lizard	*Lacerta agilis*	No
Great Crested Newt	*Triturus cristatus*	No
Otter	*Lutra lutra*	No
Smooth snake	*Coronella austriaca*	No
Sturgeon fish	*Acipenser sturio*	No
Natterjack toad	*Bufo calamita*	No
Marine turtles	*Caretta spp, Lepidochelys kempii, Eretmochelys imbricate, Dermochelys coriacea*	No
Shore dock	*Rumex rupestris*	No
Killarney fern	*Trichomanes speciosum*	No
Early gentian	*Gentianella angelica*	No
Lady's slipper	*Cypripedium calceolus*	No
Creeping marshwort	*Apium repens*	No
Slender naiad	*Najas flexilis*	No
Fen Orchid	Liparis loeselii	No
Floating-leaved water plantain	*Luronium natans*	No
Yellow marsh saxifrage	*Saxifraga hirculus*	No

Nationally Protected Species

Species - Schedule 5 of the Wildlife and Countryside Act 1981	**Latin Name**	**Likely presence?**
Adder 1	*Vipera berus*	No
Allis Shad	*Alosa alosa*	No
Anemone, Ivell's Sea	*Edwardsia ivelli*	No
Anemone, Starlet Sea	*Nematosella vectensis*	No
Apus	*Triops cancriformis*	No
Bats, Horseshoe (all species)	*Rhinolophidae*	No
Bats, Typical (all species)	*Vespertilionidae*	In the area but not roosting on site.
Beetle	*Graphoderus zonatus*	No
Beetle	*Hypebaeus flavipes*	No
Beetle	*Parcymus aeneus*	No
Beetle, Lesser Silver Water	*Hydrochara caraboides*	No
Beetle, Mire Pill3	*Curimopsis nigrita*	No
Beetle, Rainbow Leaf	*Chrysolina cerealis*	No

Beetle, Stag	*Lucanus cervus*	Yes. 1 record within 2km.
Beetle, Violet Click	*Limoniscus violaceus*	No
Burbot	*Lota lota*	No
Butterfly, Northern Brown Argus	*Aricia artaxerxes*	No
Butterfly, Adonis Blue	*Lysandra bellargus*	No
Butterfly, Chalkhill Blue	*Lysandra coridon*	No
Butterfly, Silver-studded Blue	*Plebejus argus*	No
Butterfly, Small Blue	*Cupido minimus*	No
Butterfly, Large Copper	*Lycaena dispar*	No
Butterfly, Purple Emperor	*Apatura iris*	No
Butterfly, Duke of Burgundy Fritillary	*Hamearis lucina*	No
Butterfly, Glanville Fritillary	*Melitaea cinxia*	No
Butterfly, Heath Fritillary	*Mellicta athalia*	No
Butterfly, High Brown Fritillary	*Argynnis adippe*	No
Butterfly, Marsh Fritillary	*Eurodryas aurinia*	No
Butterfly, Pearl-bordered Fritillary	*Boloria euphrosyne*	No
Butterfly, Black Hairstreak	*Strymonidia pruni*	No
Butterfly, Brown Hairstreak	*Thecla betulae*	No
Butterfly, White Letter Hairstreak	*Stymonida w-album*	Yes. 1 record within 1km.
Butterfly, Large Heath	*Coenonympha tullia*	No
Butterfly, Large Blue	*Maculinea arion*	No
Butterfly, Mountain Ringlet	*Erebia epiphron*	
Butterfly, Chequered Skipper	*Carterocephalus palaemon*	No
Butterfly, Lulworth Skipper	*Thymelicus acteon*	No

Butterfly, Silver Spotted Skipper	*Hesperia comma*	No
Butterfly, Swallowtail	*Papilio machaon*	No
Butterfly, Large tortoiseshell	*Nymphalis polychloros*	No
Butterfly, Wood White	*Leptidea sinapis*	No
Cat, Wild	*Felis silverstris*	No
Cicada, New Forest	*Cicadetta montana*	No
Crayfish, Atlantic Stream (White-clawed)	*Austropotamobius pallipes*	No
Cricket, Field	*Gryllus campestris*	No
Cricket, Mole	*Gryllotalpa gryllotalpa*	No
Damselfly, Southern	*Coenagrion mercuriale*	No
Dolphin, Bottle-nosed	*Tursiops truncatus*	No
Dolphin, Common	*Delphinus delphis*	No
Dormouse	*Muscardinus avellanarius*	No
Dragonfly, Norfolk Aeshna	*Aeshna isosceles*	No
Frog, Common	*Rana temporaria*	No
Goby, Couch's	*Gobius couchii*	No
Goby, Giant	*Gobius cobitis*	No
Grasshopper, Wart-biter	*Decticus verrucivorus*	No
Hatchet Shell, Northern	*Thyasira gouldi*	No
Hydroid, Marine	*Clavopsella navis*	No
Lagoon Snail	*Paludinella littorina*	No
Lagoon Snail, De Folin's	*Caecum armoricum*	No
Lagoon Worm, Tentacled	*Alkmaria romijni*	No

Leech, Medicinal	*Hirudo medicinalis*	No
Lizard, Sand	*Lacerta agilis*	No
Lizard, Viviparous	*Lacerta vivipara*	No
Marten, Pine	*Martes martes*	No
Mat, Trembling Sea	*Victorella pavida*	No
Moth, Barberry Carpet	*Pareulype berberata*	No
Moth, Black-veined	*Siona lineata*	No
Moth, Essex Emerald	*Thetidia smaragdaria*	No
Moth, Fiery Clearwing	*Bembecia chrysidiformis*	No
Moth, Fisher's Estuarine	*Gortyna borelii*	No
Moth, New Forest Burnet	*Zygaena viciae*	No
Moth, Reddish Buff	*Acosmetia caliginosa*	No
Moth, Sussex Emerald	*Thalera fimbrialis*	No
Mussel, Fan	*Atrina fragilis*	No
Mussel, Freshwater Pearl	*Margaritifera margaritifera*	No
Newt, Great Crested	*Triturus cristatus*	No
Newt, Palmate	*Triturus helveticus*	No
Newt, Smooth	*Triturus vulgaris*	No
Otter, Common	*Lutra lutra*	No
Porpoise, Harbour	*Phocaena phocaena*	No
Sandworm, Lagoon	*Armandia cirrhosa*	No
Sea Fan, Pink	*Eunicella verrucosa*	No
Sea horse, Short-snouted	*Hippocampus hippocampus*	No
Sea horse, Spiny33	*Hippocampus*	No

	gutulattus	
Sea Slug, Lagoon	*Tenellia adspersa*	No
Shad, Twaite	*Alosa fallax*	No
Shark, Basking	*Cetorhinus maximus*	No
Shark, Angel	*Squatina squatina*	No
Shrimp, Fairy	*Chirocephalus diaphanus*	No
Shrimp, Lagoon Sand	*Gammarus insensiblis*	No
Slow-worm	*Anguis fragilis*	No
Snail, Glutinous	*Myxas glutinosa*	No
Snail, Roman	*Helix pomatia*	No
Snail, Sandbowl	*Catinella arenaria*	No
Snake, Grass	*Natrix helvetica*	No
Snake, Smooth	*Coronella austriaca*	No
Spider, Fen Raft	*Dolomedes plantarius*	No
Spider, Ladybird	*Eresus niger*	No
Squirrel, Red	*Sciurus vulgaris*	No
Sturgeon	Acipenser sturio	No
Toad, Common	*Bufo bufo*	No
Toad, Natterjack	*Bufo calamita*	No
Turtles, Marine (all species)	*Dermochelyidae* and *Cheloniidae*	No
Vendace	Coregonus albula	No
Vole, Water	Arvicola terrestris	No
Walrus	Odebenus rosmarus	No
Whale (all species)	Cetacea	No

Whitefish	Coregonus lavaretus	No