

Biodiversity Report

North Hertfordshire District Council Local Plan Site GR1

Dr Desiree Scott, January 2018



Real Environmental Group of Graveley

Part 1 and 2 – Methodology and Results

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Part 1 – Methodology

Study area

The study area looked at by the Real Environmental Group of Graveley was the proposed building site GR1 from the North Hertfordshire District Council Local Plan.

This was a paper audit to demonstrate the biodiversity of this area to inform those making decisions about their future.

Data collation

As suggested in the Houses of Parliament Parliamentary Office of Science and Technology direction, the source of Biodiversity Data was from the National Biodiversity Network website.

The structure of this interactive site allows the user to place a pointer on a geographical point and to see all the species logged over a set of variable radius distances from that point. I used the smallest radius, 1 kilometre, from a point approximately in the centre of the proposed building site.

I also reviewed all available published records for the distribution of wildlife species within the study area. These were the atlases in book form and internet database form produced by the Hertfordshire Natural History Society.

Clark, M. (2001) *Mammals, Amphibians and Reptiles of Hertfordshire*, Training Publications Limited, Watford, Hertfordshire, England

Dony, J. (1967) *Flora of Hertfordshire*, Hitchin Urban District Council, Hitchin, Hertfordshire, England

Foster, Arthur H. (1914) *The Birds of North Hertfordshire: Being Notes on the Birds of Hitchin and Surrounding District of North Herts : with Table of Dates of Arrival of Summer Migrants Since the Year 1908*, Paternoster and Hales

Gladwin, T. and Sage, B. (1986) *The Birds of Hertfordshire*, Castlemead Publications, Ware, Hertfordshire, England

Hertfordshire Natural History Society (not dated) www.hnhs.org/

Hine, Reginald L. (editor) (1934) *The Natural History of the Hitchin Region*, Hitchin and District Regional Survey Association, Hitchin, Hertfordshire, England

James, T. (2009) *Flora of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Mead, C. and Smith, K.W. (1982) *The Hertfordshire Breeding Bird Atlas*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Plant, C. (2008) *The Moths of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Pryor, A.R. [edited by Jackson, B.D.] (1887) *A Flora of Hertfordshire*, Gurney and Jackson, London

Reynolds, A., Gladwin, T. and Shepperson, C. (2008) *Dragonflies and Damselflies of Hertfordshire*,

Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Sawford, Brian (1987) *The Butterflies of Hertfordshire*, Castlemead, Ware, Hertfordshire, England

Sawford, Brian (1990) *Wild Flower Habitats of Hertfordshire*, Castlemead, Ware, Hertfordshire, England

Smith, K.W., Dee, C.W. Fearnside, J.D. and Ilet, M. (2015) *Birds of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Smith, K.W., Dee, C.W. Fearnside, J., Fletcher, E.W. and Smith, R.N. (1993) *The Breeding Birds of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Wood, A. (2016) *Butterflies of Hertfordshire and Middlesex*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Table 1

The wildlife books and atlases available for Hertfordshire, and the Hertfordshire Natural History Society website

National Biodiversity Network (2017) National Biodiversity Network Atlas <https://nbn.org.uk/>

Table 2

National Biodiversity Network website

Results

Recording coverage

The number of species covered was limited by the interest of the limited number of people who had the skill to identify species, and the will to send the information in to be collated. This meant that many groups of the small, rather ugly or slimy species that are not popular were not included. This made a significant difference to the total biodiversity, the missing species are the ones that contribute the most to biomass.

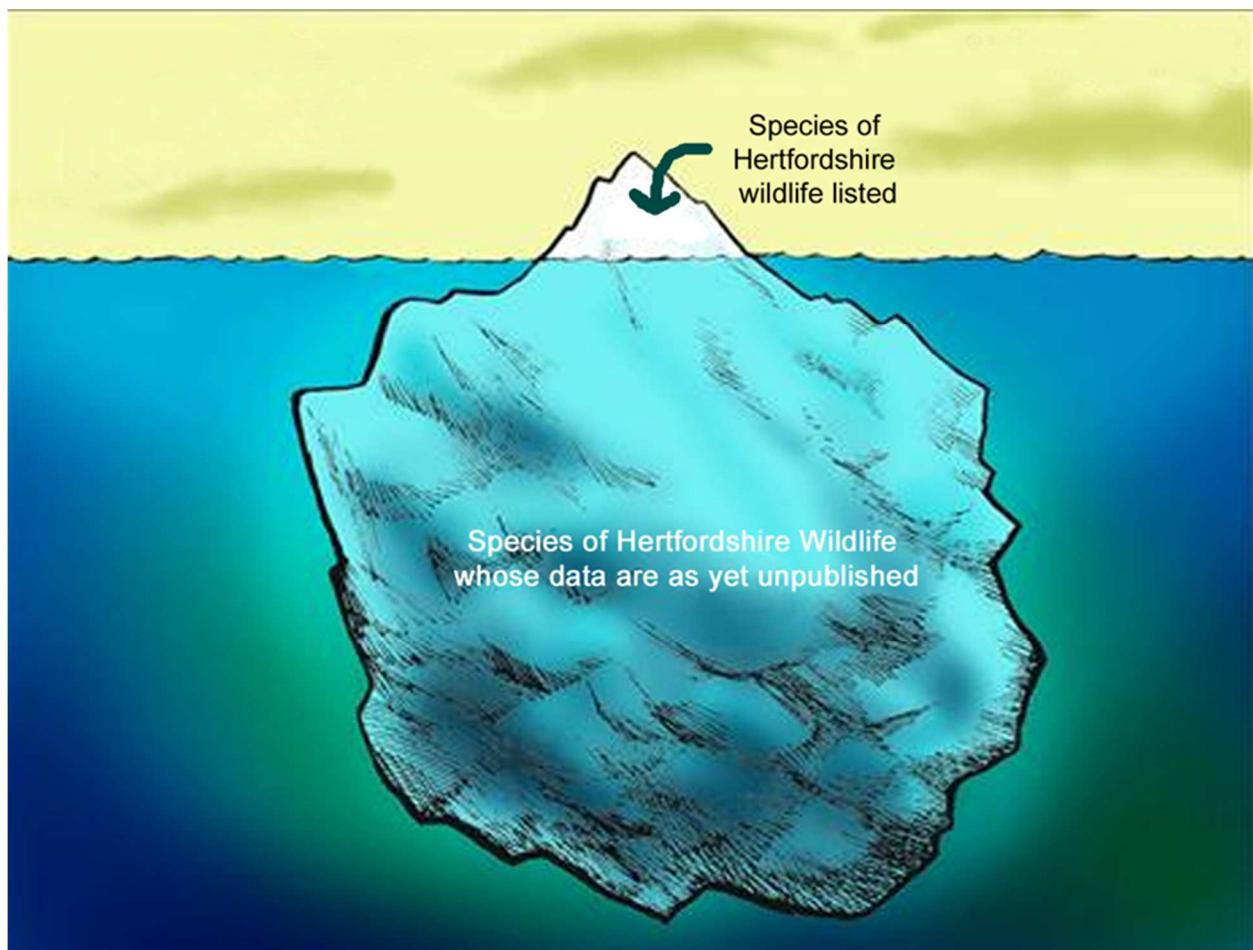


Figure 1

Diagrammatic representation of the data available for Hertfordshire wildlife

Bacterium	Annelid	Cockroach (Dictyoptera)
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Diatom	Acari	True bug (Hemiptera)
Slime mould	Spider (Araneae)	Thrips (Thysanoptera)
Fungoid	Harvestman (Opiliones)	Snakefly (Raphidioptera)
Fungus	False scorpion (Pseudoscorpiones)	Alderfly (Megaloptera)
Alga	Crustacean	Booklouse (Psocoptera)
Stonewort	Millipede	Lacewing (Neuroptera)
Liverwort	Centipede	Beetle (Coleoptera)
Hornwort	Springtail (Collembola)	Scorpion fly (Mecoptera)
Clubmoss	Two-tailed bristletail (Diplura)	Flea (Siphonaptera)
Sponge (Porifera)	Mayfly (Ephemeroptera)	Caddis fly (Trichoptera)
Rotifer	Bristletail (Archaeognatha)	True fly (Diptera)
Coelenterate (cnidarian)	Stonefly (Plecoptera)	Hymenopteran
Flatworm (Turbellaria)	Annelid	Bryozoan
Roundworm (Nematoda)	Orthopteran	Jawless fish (Agnatha)
Waterbear (Tardigrada)	Stick insect (Phasmida)	Cartilagenous fish
Sponge (Porifera)	Earwig (Dermaptera)	Bony fish (Actinopterygii)

Table 2

Species groups missing, a few due to the habitat conditions in GR1 [e.g. the fish], but mainly due to the lack of specialist biologists/naturalists in these minority fields surveying the biodiversity of this site.

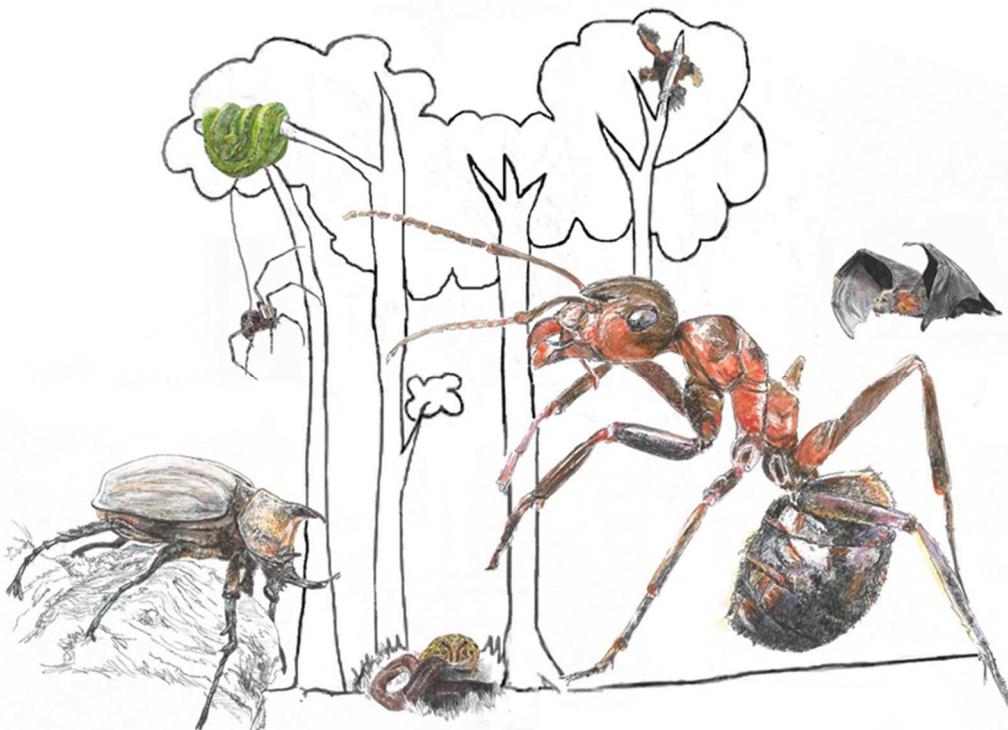


Figure 2

Rainforest with animals representative of their species groups, drawn to the scale of their biomass (number of individuals present, as opposed to biodiversity which is number of species present). The scale of the animal biomass in the rainforest is quite comparable to that for many other environments, and this certainly is so for that in North Hertfordshire. As illustrated, the species groups missing contribute the greatest amount to biodiversity and biomass. Insects in particular are massively underrepresented. And it is correct to assume that the real total number of species includes many that are endangered. The real situation, the real number of imperilled wildlife species is much worse than the list provided.

Biodiversity of GR1

Species in order of ‘protectedness’

1	Bird	<i>Cuculus canorus</i>	Linnaeus, 1758	Cuckoo [National Biodiversity Network]
2	Bird	<i>Emberiza citrinella</i>	Linnaeus, 1758	Yellowhammer [National Biodiversity Network]
3	Bird	<i>Emberiza schoeniclus</i>	(Linnaeus, 1758)	Reed Bunting [National Biodiversity Network]
4	Bird	<i>Locustella naevia</i>	(Boddaert, 1783)	Grasshopper Warbler [National Biodiversity Network]
5	Bird	<i>Motacilla flava</i> <i>subsp. flavissima</i>	(Blyth, 1834)	Yellow Wagtail [National Biodiversity Network]
6	Bird	<i>Muscicapa striata</i>	(Pallas, 1764)	Spotted Flycatcher [National Biodiversity Network]
7	Bird	<i>Passer domesticus</i>	(Linnaeus, 1758)	House Sparrow [National Biodiversity Network]
8	Bird	<i>Perdix perdix</i>	(Linnaeus, 1758)	Grey Partridge [National Biodiversity Network]
9	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
10	Insectivore	<i>Erinaceus europaeus</i>	Linnaeus, 1758	Hedgehog [National Biodiversity Network]
1	Bird	<i>Pluvialis apricaria</i>	(Linnaeus, 1758)	Golden Plover [National Biodiversity Network]
1	Bird	<i>Locustella naevia</i>	(Boddaert, 1783)	Grasshopper Warbler [National Biodiversity Network]
2	Bird	<i>Cuculus canorus</i>	Linnaeus, 1758	Cuckoo [National Biodiversity Network]
3	Bird	<i>Muscicapa striata</i>	(Pallas, 1764)	Spotted Flycatcher [National Biodiversity Network]
4	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
5	Bird	<i>Alauda arvensis</i>	Linnaeus, 1758	Skylark [National Biodiversity Network]
6	Bird	<i>Emberiza citrinella</i>	Linnaeus, 1758	Yellowhammer [National Biodiversity Network]
7	Bird	<i>Emberiza schoeniclus</i>	(Linnaeus, 1758)	Reed Bunting [National Biodiversity Network]

UK list of Priority Habitats and Species	Biodiversity Action Plan UK list of priority species	Priority Species
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Birds directive of the Bern Convention	Birds Directive	Annex 1
Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (section 41)	Biodiversity Lists - England	England NERC S.41
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8	Bird	<i>Motacilla flava</i>	(Blyth, 1834)	Yellow Wagtail [National Biodiversity Network]
9	Bird	<i>Passer domesticus</i>	(Linnaeus, 1758)	House Sparrow [National Biodiversity Network]
10	Bird	<i>Perdix perdix</i>	(Linnaeus, 1758)	Grey Partridge [National Biodiversity Network]
11	Bird	<i>Erinaceus europaeus</i>	Linnaeus, 1758	Hedgehog [National Biodiversity Network]
12	Mammal - Lagomorph	<i>Lepus europaeus</i>	Pallas, 1778	Brown Hare [National Biodiversity Network]
1	Mollusc	<i>Candidula gigaxii</i>	(L. Pfeiffer, 1848)	a land snail
2	Mollusc	<i>Macrogastria (Pseudovestia) rolphii</i>	(Turton, 1826)	Rolph's Door Snail [National Biodiversity Network]
3	Conifer	<i>Pinus sylvestris</i>	L.	Scots Pine [National Biodiversity Network]
4	Flowering Plant	<i>Aconitum napellus subsp. napellus</i>	L.	Monk's Hood [A Vascular Plant Red List for England]
1	Bird	<i>Alauda arvensis</i>	Linnaeus, 1758	Skylark [National Biodiversity Network]
2	Bird	<i>Cuculus canorus</i>	Linnaeus, 1758	Cuckoo [National Biodiversity Network]
3	Bird	<i>Emberiza citrinella</i>	Linnaeus, 1758	Yellowhammer [National Biodiversity Network]
4	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
5	Bird	<i>Linaria cannabina</i>	(Linnaeus, 1758)	Linnet [National Biodiversity Network]

Communities Act 2006 - Species of Principal Importance in England (section 41)		
Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (section 41)	Biodiversity Lists - England	England NERC S.41
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A review of the Non-Marine Mollusca of Great Britain - M.B. Seddon, I.J. Killeen & A.P. Fowles. March 2014	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce
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The Vascular Plant Red Data List for Great Britain - 2006 Cheffings, C. and Farrell, L. (Editors)	Rare and scarce species (not based on IUCN criteria)	Nationally Scarce
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Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
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6	Bird	<i>Locustella naevia</i>	(Boddaert, 1783)	Grasshopper Warbler [National Biodiversity Network]
7	Bird	<i>Motacilla cinerea</i>	Tunstall, 1771	Grey Wagtail [National Biodiversity Network]
8	Bird	<i>Motacilla flava</i>	Linnaeus, 1758	Yellow Wagtail [National Biodiversity Network]
9	Bird	<i>Muscicapa striata</i>	(Pallas, 1764)	Spotted Flycatcher [National Biodiversity Network]
10	Bird	<i>Passer domesticus</i>	(Linnaeus, 1758)	House Sparrow [National Biodiversity Network]
11	Bird	<i>Perdix perdix</i>	(Linnaeus, 1758)	Grey Partridge [National Biodiversity Network]
12	Bird	<i>Sturnus vulgaris</i>	Linnaeus, 1758	Starling [National Biodiversity Network]
13	Bird	<i>Turdus iliacus</i>	Linnaeus, 1766	Redwing [National Biodiversity Network]
14	Bird	<i>Turdus philomelos</i>	Brehm, 1831	Song Thrush [National Biodiversity Network]
15	Bird	<i>Turdus pilaris</i>	Linnaeus, 1758	Fieldfare [National Biodiversity Network]
16	Bird	<i>Turdus viscivorus</i>	Linnaeus, 1758	Mistle Thrush [National Biodiversity Network]
17	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Bird	<i>Accipiter nisus</i>	(Linnaeus, 1758)	Sparrowhawk [National Biodiversity Network]
2	Bird	<i>Actitis hypoleucos</i>	Linnaeus, 1758	Common Sandpiper [National Biodiversity Network]
3	Bird	<i>Anas platyrhynchos</i>	Linnaeus, 1758	Mallard [National Biodiversity Network]
4	Bird	<i>Buteo buteo</i>	(Linnaeus, 1758)	Buzzard [National Biodiversity Network]
5	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
6	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
7	Bird	<i>Muscicapa striata</i>	(Pallas, 1764)	Spotted Flycatcher [National Biodiversity Network]
8	Bird	<i>Pluvialis apricaria</i>	(Linnaeus, 1758)	Golden Plover [National Biodiversity Network]
9	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]

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Convention on Migratory Species	Convention on Migratory Species	Appendix 2	
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1	Bird	<i>Motacilla alba</i> Linnaeus, 1758	Pied Wagtail [National Biodiversity]

				Network]
2	Bird	<i>Athene noctua</i>	(Scopoli, 1769)	Meadow Pipit [National Biodiversity Network]
3	Bird	<i>Carduelis carduelis</i>	(Linnaeus, 1758)	Little Owl [National Biodiversity Network]
4	Bird	<i>Chloris chloris</i>	(Linnaeus, 1758)	Goldfinch [National Biodiversity Network]
5	Bird	<i>Cyanistes caeruleus</i>	(Linnaeus, 1758)	Greenfinch [National Biodiversity Network]
6	Bird	<i>Delichon urbicum</i>	(Linnaeus, 1758)	Blue Tit [National Biodiversity Network]
7	Bird	<i>Dendrocopos major</i>	(Linnaeus, 1758)	House Martin [National Biodiversity Network]
8	Bird	<i>Emberiza citrinella</i>	Linnaeus, 1758	Yellowhammer [National Biodiversity Network]
9	Bird	<i>Emberiza schoeniclus</i>	(Linnaeus, 1758)	Reed Bunting [National Biodiversity Network]
10	Bird	<i>Erythacus rubecula</i>	(Linnaeus, 1758)	Continental Robin [National Biodiversity Network]
11	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
12	Bird	<i>Hirundo rustica</i>	Linnaeus, 1758	Swallow [National Biodiversity Network]
13	Bird	<i>Linaria cannabina</i>	(Linnaeus, 1758)	Linnet [National Biodiversity Network]
14	Bird	<i>Motacilla cinerea</i>	Tunstall, 1771	Grey Wagtail [National Biodiversity Network]
The Convention on the		Bern Convention		Appendix 2

Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)		
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15	Bird	<i>Motacilla flava</i>	Linnaeus, 1758	Yellow Wagtail [National Biodiversity Network]
16	Bird	<i>Muscicapa striata</i>	(Pallas, 1764)	Spotted Flycatcher [National Biodiversity Network]
17	Bird	<i>Oenanthe oenanthe</i>	(Linnaeus, 1758)	Wheatear [National Biodiversity Network]
18	Bird	<i>Parus major</i>	Linnaeus, 1758	Great Tit [National Biodiversity Network]
19	Bird	<i>Periparus ater</i>	(Linnaeus, 1758)	Coal Tit [National Biodiversity Network]
20	Bird	<i>Picus viridis</i>	Linnaeus, 1758	Green Woodpecker [National Biodiversity Network]
21	Bird	<i>Prunella modularis</i>	(Linnaeus, 1758)	Dunnock [National Biodiversity Network]
22	Bird	<i>Regulus regulus</i>	(Linnaeus, 1758)	Continental Goldcrest [National Biodiversity Network]
23	Bird	<i>Sitta europaea</i>	Linnaeus, 1758	Nuthatch [National Biodiversity Network]
24	Bird	<i>Spinus spinus</i>	(Linnaeus, 1758)	Siskin [National Biodiversity Network]
25	Bird	<i>Strix aluco</i>	Linnaeus, 1758	Tawny Owl [National Biodiversity Network]
26	Bird	<i>Troglodytes troglodytes</i>	(Linnaeus, 1758)	Wren [National Biodiversity Network]
27	Mammal - Insectivore	<i>Erinaceus europaeus</i>	Linnaeus, 1758	Hedgehog [National Biodiversity Network]

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 2
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The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 3

1	Bird	<i>Actitis hypoleucus</i>	Linnaeus, 1758	Common Sandpiper [National]
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				Biodiversity Network]
2	Bird	<i>Anas platyrhynchos</i>	Linnaeus, 1758	Mallard [National Biodiversity Network]
3	Bird	<i>Ardea cinerea</i>	Linnaeus, 1758	Grey Heron [National Biodiversity Network]
4	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]
5	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
6	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
7	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
8	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
9	Bird	<i>Phalacrocorax carbo</i>	(Linnaeus, 1758)	Cormorant [National Biodiversity Network]
10	Bird	<i>Pluvialis apricaria</i>	(Linnaeus, 1758)	Golden Plover [National Biodiversity Network]
11	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Bird	<i>Pluvialis apricaria</i>	(Linnaeus, 1758)	Golden Plover [National Biodiversity Network]
2	Bird	<i>Alectoris rufa</i>	(Linnaeus, 1758)	French Partridge [National Biodiversity Network]
3	Bird	<i>Anas platyrhynchos</i>	Linnaeus, 1758	Mallard [National Biodiversity Network]
4	Bird	<i>Columba palumbus</i>	Linnaeus, 1758	Woodpigeon [National Biodiversity Network]
5	Bird	<i>Perdix perdix</i>	(Linnaeus, 1758)	Grey Partridge [National Biodiversity Network]
6	Bird	<i>Phasianus colchicus</i>	Linnaeus, 1758	Pheasant [National Biodiversity Network]
7	Bird	<i>Alauda arvensis</i>	Linnaeus, 1758	Skylark [National Biodiversity Network]
8	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]
9	Bird	<i>Columba oenas</i>	Linnaeus, 1758	Stock Dove [National Biodiversity Network]
10	Bird	<i>Corvus corone</i>	Linnaeus, 1758	Carrion Crow [National Biodiversity Network]

Agreement on the Conservation of African-Eurasian Migratory	Convention on Migratory Species	AEWA Annex II
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Waterbirds (AEWA)		
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Birds directive	Birds Directive	Annex 1
Birds directive	Birds Directive	Annex 2.1
Birds directive	Birds Directive	Annex 2.1
Birds directive	Birds Directive	Annex 2.1
Birds directive	Birds Directive	Annex 2.1
Birds directive	Birds Directive	Annex 2.1
Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2

11	Bird	<i>Corvus frugilegus</i>	Linnaeus, 1758	Rook [National Biodiversity Network]
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12	Bird	<i>Corvus monedula</i>	Linnaeus, 1758	Jackdaw [National Biodiversity Network]
13	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
14	Bird	<i>Garrulus glandarius</i>	(Linnaeus, 1758)	Jay [National Biodiversity Network]
15	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
16	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
17	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
18	Bird	<i>Pica pica</i>	(Linnaeus, 1758)	Magpie [National Biodiversity Network]
19	Bird	<i>Pluvialis apricaria</i>	(Linnaeus, 1758)	Golden Plover [National Biodiversity Network]
20	Bird	<i>Streptopelia decaocto</i>	(Frivaldszky, 1838)	Collared Dove [National Biodiversity Network]
21	Bird	<i>Sturnus vulgaris</i>	Linnaeus, 1758	Starling [National Biodiversity Network]
22	Bird	<i>Turdus iliacus</i>	Linnaeus, 1766	Redwing [National Biodiversity Network]
23	Bird	<i>Turdus merula</i>	Linnaeus, 1758	Blackbird [National Biodiversity Network]
24	Bird	<i>Turdus philomelos</i>	Brehm, 1831	Song Thrush [National Biodiversity Network]
25	Bird	<i>Turdus pilaris</i>	Linnaeus, 1758	Fieldfare [National Biodiversity Network]
26	Bird	<i>Turdus viscivorus</i>	Linnaeus, 1758	Mistle Thrush [National Biodiversity Network]
27	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Bird	<i>Actitis hypoleucos</i>	Linnaeus, 1758	Common Sandpiper [National Biodiversity Network]
2	Bird	<i>Anas platyrhynchos</i>	Linnaeus, 1758	Mallard [National Biodiversity Network]
3	Bird	<i>Anthus pratensis</i>	(Linnaeus, 1758)	Meadow Pipit [National Biodiversity Network]
4	Bird	<i>Apus apus</i>	(Linnaeus, 1758)	Common Swift [National Biodiversity Network]
5	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]

Birds directive	Birds Directive	Annex 2.2
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Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2
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Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2
Birds directive	Birds Directive	Annex 2.2
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
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Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
6	Bird	<i>Columba oenas</i>
		Linnaeus, 1758
		Stock Dove [National Biodiversity Network]

7	Bird	<i>Delichon urbicum</i>	(Linnaeus, 1758)	House Martin [National Biodiversity Network]
8	Bird	<i>Emberiza schoeniclus</i>	(Linnaeus, 1758)	Reed Bunting [National Biodiversity Network]
9	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
10	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
11	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
12	Bird	<i>Phylloscopus trochilus</i>	(Linnaeus, 1758)	Willow Warbler [National Biodiversity Network]
13	Bird	<i>Prunella modularis</i>	(Linnaeus, 1758)	Dunnock [National Biodiversity Network]
14	Bird	<i>Pyrrhula pyrrhula</i>	(Linnaeus, 1758)	Bullfinch [National Biodiversity Network]
15	Bird	<i>Strix aluco</i>	Linnaeus, 1758	Tawny Owl [National Biodiversity Network]
1	Flowering Plant	<i>Fragaria vesca</i>	L.	Wild Strawberry [National Biodiversity Network]
2	Flowering Plant	<i>Knautia arvensis</i>	(L.) Coult.	Field Scabious [National Biodiversity Network]
3	Flowering Plant	<i>Plantago media</i>	L.	Hoary Plantain [National Biodiversity Network]
1	Bird	<i>Fringilla montifringilla</i>	Linnaeus, 1758	Brambling [National Biodiversity Network]
2	Bird	<i>Turdus iliacus</i>	Linnaeus, 1766	Redwing [National Biodiversity Network]
3	Bird	<i>Turdus pilaris</i>	Linnaeus, 1758	Fieldfare [National Biodiversity Network]
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)		Red data categories - birds (not based on IUCN criteria)		Bird Population Status - amber

Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
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Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
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A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 1 - Part 1
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 1 - Part 1
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 1 - Part 1

4	Flowering Plant	<i>Hyacinthoides non-scripta</i>	(L.) Chouard ex Rothm.	Bluebell [National Biodiversity Network]
1	Bird	<i>Accipiter nisus</i>	(Linnaeus, 1758)	Sparrowhawk [National

				Biodiversity Network]
2	Bird	<i>Athene noctua</i>	(Scopoli, 1769)	Little Owl [National Biodiversity Network]
3	Bird	<i>Buteo buteo</i>	(Linnaeus, 1758)	Buzzard [National Biodiversity Network]
4	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
5	Bird	<i>Strix aluco</i>	Linnaeus, 1758	Tawny Owl [National Biodiversity Network]

Wildlife and Countryside Act Schedules 1, 5 and 8 (protected)	Wildlife and Countryside Act 1981	Schedule 8
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birds, animals and plants)		
CITES UK Species only	EC Cites	Annex A
CITES UK Species only	EC Cites	Annex A
CITES UK Species only	EC Cites	Annex A
CITES UK Species only	EC Cites	Annex A
CITES UK Species only	EC Cites	Annex A

Biodiversity of GR 1
Table 4 – Species Summary

The minimum number of endangered and protected species, a full on the ground biodiversity study, counting each animal and plant present, would find many, many more.

1	Cuckoo [National Biodiversity Network]	<i>Cuculus canorus</i>
2	Yellowhammer [National Biodiversity Network]	<i>Emberiza citrinella</i>
3	Reed Bunting [National Biodiversity Network]	<i>Emberiza schoeniclus</i>
4	Grasshopper Warbler [National Biodiversity Network]	<i>Locustella naevia</i>
5	Yellow Wagtail [National Biodiversity Network]	<i>Motacilla flava subsp. <i>flavissima</i></i>
6	Spotted Flycatcher [National Biodiversity Network]	<i>Muscicapa striata</i>
7	House Sparrow [National Biodiversity Network]	<i>Passer domesticus</i>
8	Grey Partridge [National Biodiversity Network]	<i>Perdix perdix</i>
9	Green Plover [National Biodiversity Network]	<i>Vanellus vanellus</i>
10	Hedgehog [National Biodiversity Network]	<i>Erinaceus europaeus</i>
11	Brown Hare [National Biodiversity Network]	<i>Lepus europaeus</i>
12	Golden Plover [National Biodiversity Network]	<i>Pluvialis apricaria</i>
13	Skylark [National Biodiversity Network]	<i>Alauda arvensis</i>
14	a land snail	<i>Candidula gigaxii</i>
15	Rolph's Door Snail [National Biodiversity Network]	<i>Macrogaster (<i>Pseudovestia</i>) rolphii</i>
16	Scots Pine [National Biodiversity Network]	<i>Pinus sylvestris</i>
17	Monk's Hood [A Vascular Plant Red List for England]	<i>Aconitum napellus subsp. <i>napellus</i></i>
18	Herring Gull [National Biodiversity Network]	<i>Larus argentatus</i>
19	Linnet [National Biodiversity Network]	<i>Linaria cannabina</i>
20	Grey Wagtail [National Biodiversity Network]	<i>Motacilla cinerea</i>
21	Starling [National Biodiversity Network]	<i>Sturnus vulgaris</i>
22	Redwing [National Biodiversity Network]	<i>Turdus iliacus</i>
23	Song Thrush [National Biodiversity Network]	<i>Turdus philomelos</i>
24	Fieldfare [National Biodiversity Network]	<i>Turdus pilaris</i>
25	Mistle Thrush [National Biodiversity Network]	<i>Turdus viscivorus</i>
26	Sparrowhawk [National Biodiversity Network]	<i>Accipiter nisus</i>
27	Common Sandpiper [National Biodiversity Network]	<i>Actitis hypoleucos</i>
28	Mallard [National Biodiversity Network]	<i>Anas platyrhynchos</i>
29	Buzzard [National Biodiversity Network]	<i>Buteo buteo</i>
30	Kestrel [National Biodiversity Network]	<i>Falco tinnunculus</i>
31	Moorhen [National Biodiversity Network]	<i>Gallinula chloropus</i>
32	Golden Plover [National Biodiversity Network]	<i>Pluvialis apricaria</i>
33	Meadow Pipit [National Biodiversity Network]	<i>Anthus pratensis</i>
34	Common Swift [National Biodiversity Network]	<i>Apus apus</i>
35	Black-Headed Gull [National Biodiversity Network]	<i>Chroicocephalus ridibundus</i>
36	Stock Dove [National Biodiversity Network]	<i>Columba oenas</i>
37	House Martin [National Biodiversity Network]	<i>Delichon urbicum</i>
38	Reed Bunting [National Biodiversity Network]	<i>Emberiza schoeniclus</i>
39	Common Gull [National Biodiversity Network]	<i>Larus canus</i>
40	Lesser Black-Backed Gull [National Biodiversity Network]	<i>Larus fuscus</i>
41	Willow Warbler [National Biodiversity Network]	<i>Phylloscopus trochilus</i>
42	Dunnock [National Biodiversity Network]	<i>Prunella modularis</i>
43	Bullfinch [National Biodiversity Network]	<i>Pyrrhula pyrrhula</i>
44	Grey Heron [National Biodiversity Network]	<i>Ardea cinerea</i>
45	Cormorant [National Biodiversity Network]	<i>Phalacrocorax carbo</i>
46	Brambling [National Biodiversity Network]	<i>Fringilla montifringilla</i>
47	Bluebell [National Biodiversity Network]	<i>Hyacinthoides non-scripta</i>
48	French Partridge [National Biodiversity Network]	<i>Alectoris rufa</i>
49	Woodpigeon [National Biodiversity Network]	<i>Columba palumbus</i>

50	Pheasant [National Biodiversity Network]	<i>Phasianus colchicus</i>
51	Stock Dove [National Biodiversity Network]	<i>Columba oenas</i>
52	Carrion Crow [National Biodiversity Network]	<i>Corvus corone</i>
53	Rook [National Biodiversity Network]	<i>Corvus frugilegus</i>
54	Jackdaw [National Biodiversity Network]	<i>Corvus monedula</i>
55	Jay [National Biodiversity Network]	<i>Garrulus glandarius</i>
56	Magpie [National Biodiversity Network]	<i>Pica pica</i>
57	Collared Dove [National Biodiversity Network]	<i>Streptopelia decaocto</i>
58	Blackbird [National Biodiversity Network]	<i>Turdus merula</i>
59	Little Owl [National Biodiversity Network]	<i>Athene noctua</i>
60	Tawny Owl [National Biodiversity Network]	<i>Strix aluco</i>

Conclusions

There are 60 species that are endangered/protected found on the proposed building site GR1, as determined by the National Biodiversity Network online Atlas. With further ecological survey many more would be found.

GR1 is a site of great wildlife value.

Species surveys have to be done for all of the ones listed before planning permission can be granted for building on the site.

North Hertfordshire District Council have a legal requirement to inform Natural England about all the areas for which building was proposed by the Local Plan. I will forward this document to Natural England to aid their decision making concerning this Local Plan.

Legal requirements for surveys:

Gov.UK (2016) Protected species; how to review planning application – surveys are needed for

- **Barn owls**
- **Breeding birds**
- **Wintering birds**
- **Birds listed in Schedule 1 of the Wildlife and Countryside Act (1981)**
- **Birds listed in Section 41 of the Natural Environment and Rural Communities Act 2006**
- **Red and Amber list birds of conservation concern**
- **Protected Invertebrates if distribution and historical records suggest they may be present**
- **Protected plants if distribution, habitat assessments and historical records suggest they may be present.**
- **Reptiles if the site has habitat suitable for them**
- **Reptiles if the building work will break apart suitable habitat for them**
- **Reptiles if distribution and historical records suggest they may be present**

Biodiversity Report

**Stevenage Borough Council
Proposed building site at
SG1 4DE**

Dr Desiree Scott



Real Environmental Group of Graveley

Part 1 and 2 – Methodology and Results

Biodiversity of SG1 4DE

Table 3 - Species in order of 'protectedness'

1	Bird	<i>Acanthis cabaret</i>	(Müller, 1776)	Lesser Redpoll [National Biodiversity Network]
2	Insect - Moth	<i>Acronicta psi</i>	(Linnaeus, 1758)	Grey Dagger [National Biodiversity Network]
3	Insect - Moth	<i>Amphipyra tragopoginis</i>	(Clerck, 1759)	Mouse Moth [National Biodiversity Network]
4	Insect - Moth	<i>Apamea anceps</i>	([Denis & Schiffermüller], 1775)	Large Nutmeg [National Biodiversity Network]
5	Bird	<i>Emberiza citrinella</i>	Linnaeus, 1758	Yellowhammer [National Biodiversity Network]
6	Mammal	<i>Erinaceus europaeus</i>	Linnaeus, 1758	Hedgehog [National Biodiversity Network]
7	Insect - Moth	<i>Hoplodrina blanda</i>	([Denis & Schiffermüller], 1775)	Rustic [National Biodiversity Network]
8	Bird	<i>Locustella naevia</i>	(Boddaert, 1783)	Grasshopper Warbler [National Biodiversity Network]
9	Mammal	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
10	Bird	<i>Passer domesticus</i>	(Linnaeus, 1758)	House Sparrow [National Biodiversity Network]
11	Bird	<i>Phylloscopus sibilatrix</i>	(Bechstein, 1793)	Willow Warbler [National Biodiversity Network]
12	Mammal	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network]
13	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Bird	<i>Alectoris rufa</i>	(Linnaeus, 1758)	French Partridge [National Biodiversity Network]
2	Bird	<i>Columba palumbus</i>	Linnaeus, 1758	Woodpigeon [National Biodiversity Network]
3	Bird	<i>Phasianus colchicus</i>	Linnaeus, 1758	Pheasant [National Biodiversity Network]
4	Bird	<i>Scolopax rusticola</i>	Linnaeus, 1758	Woodcock [National Biodiversity Network]
5	Bird	<i>Alauda arvensis</i>	Linnaeus, 1758	Skylark [National Biodiversity Network]
6	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]
7	Bird	<i>Columba oenas</i>	Linnaeus, 1758	Stock Dove [National Biodiversity Network]
8	Bird	<i>Corvus corone</i>	Linnaeus, 1758	Carrion Crow [National Biodiversity Network]
9	Bird	<i>Corvus frugilegus</i>	Linnaeus, 1758	Rook [National Biodiversity Network]
10	Bird	<i>Corvus monedula</i>	Linnaeus, 1758	Jackdaw [National Biodiversity Network]
11	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
12	Bird	<i>Garrulus glandarius</i>	(Linnaeus, 1758)	Jay [National Biodiversity Network]

13	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
14	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
15	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
16	Bird	<i>Pica pica</i>	(Linnaeus, 1758)	Magpie [National Biodiversity Network]
17	Bird	<i>Streptopelia decaocto</i>	(Frivaldszky, 1838)	Collared Dove [National Biodiversity Network]
18	Bird	<i>Sturnus vulgaris</i>	Linnaeus, 1758	Starling [National Biodiversity Network]
19	Bird	<i>Turdus iliacus</i>	Linnaeus, 1766	Redwing [National Biodiversity Network]
20	Bird	<i>Turdus merula</i>	Linnaeus, 1758	Blackbird [National Biodiversity Network]
21	Bird	<i>Turdus philomelos</i>	Brehm, 1831	Song Thrush [National Biodiversity Network]
22	Bird	<i>Turdus pilaris</i>	Linnaeus, 1758	Fieldfare [National Biodiversity Network]
23	Bird	<i>Turdus viscivorus</i>	Linnaeus, 1758	Mistle Thrush [National Biodiversity Network]
24	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
2	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
3	Mammal - Bat	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
4	Mammal - Bat	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
1	Lichen	<i>Flavoplaca arcis</i>	(Poelt & Vězda) Arup, Frödén & Söchting	a lichen
2	Lichen	<i>Flavoplaca dichroa</i>	(Arup) Arup, Frödén & Söchting	a lichen
3	Lichen	<i>Lecania inundata</i>	(Hepp ex Körb.) M. Mayrhofer	a lichen
4	Lichen	<i>Lecanora horiza</i>	(Ach.) Röhl.	a lichen
5	Lichen	<i>Xanthoria ucrainica</i>	S.Y. Kondr.	a lichen

Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Birds directive of the Bern Convention	Birds Directive	Annex 2.2
Habitats Directive of the Bern Convention	Habitats Directive	Annex 4
Habitats Directive of the Bern Convention	Habitats Directive	Annex 4
Habitats Directive of the Bern Convention	Habitats Directive	Annex 4
Habitats Directive of the Bern Convention	Habitats Directive	Annex 4
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce

6	Flowering plant	<i>Tilia platyphyllos</i>	Scop.	Large-Leaved Lime [National Biodiversity Network]
7	Conifer	<i>Pinus sylvestris</i>	L.	Scots Pine [National Biodiversity Network]
8	Lichen	<i>Aspicilia contorta</i> subsp. <i>hoffmanniana</i>	S. Ekman & Fröberg ex R. Sant.	a lichen
1	Flowering plant	<i>Papaver argemone</i>	L.	Prickly Poppy [National Biodiversity Network]
1	Bird	<i>Acanthis cabaret</i>	(Müller, 1776)	Lesser Redpoll [National Biodiversity Network]
2	Bird	<i>Alauda arvensis</i>	Linnaeus, 1758	Skylark [National Biodiversity Network]
3	Bird	<i>Emberiza citrinella</i>	Linnaeus, 1758	Yellowhammer [National Biodiversity Network]
4	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
5	Bird	<i>Linaria cannabina</i>	(Linnaeus, 1758)	Linnet [National Biodiversity Network]
6	Bird	<i>Locustella naevia</i>	(Boddaert, 1783)	Grasshopper Warbler [National Biodiversity Network]
7	Bird	<i>Motacilla cinerea</i>	Tunstall, 1771	Grey Wagtail [National Biodiversity Network]
8	Bird	<i>Motacilla flava</i>	Linnaeus, 1758	Yellow Wagtail [National Biodiversity Network]
9	Bird	<i>Passer domesticus</i>	(Linnaeus, 1758)	House Sparrow [National Biodiversity Network]
10	Bird	<i>Phylloscopus sibilatrix</i>	(Bechstein, 1793)	Willow Warbler [National Biodiversity Network]
11	Bird	<i>Scolopax rusticola</i>	Linnaeus, 1758	Woodcock [National Biodiversity Network]

The Vascular Plant Red Data List for Great Britain - 2006 Cheffings, C. and Farrell, L. (Editors)	Rare and scarce species (not based on IUCN criteria)	Nationally Scarce
The Vascular Plant Red Data List for Great Britain - 2006 Cheffings, C. and Farrell, L. (Editors)	Rare and scarce species (not based on IUCN criteria)	Nationally Scarce
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Nationally Scarce, Nationally Rare and Other Species	Nationally Scarce
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Endangered
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red

12	Bird	<i>Sturnus vulgaris</i>	Linnaeus, 1758	Starling [National Biodiversity Network]
13	Bird	<i>Turdus iliacus</i>	Linnaeus, 1766	Redwing [National Biodiversity Network]
14	Bird	<i>Turdus philomelos</i>	Brehm, 1831	Song Thrush [National Biodiversity Network]
15	Bird	<i>Turdus pilaris</i>	Linnaeus, 1758	Fieldfare [National Biodiversity Network]
16	Bird	<i>Turdus viscivorus</i>	Linnaeus, 1758	Mistle Thrush [National Biodiversity Network]
17	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Bird	<i>Accipiter nisus</i>	(Linnaeus, 1758)	Sparrowhawk [National Biodiversity Network]
2	Bird	<i>Buteo buteo</i>	(Linnaeus, 1758)	Buzzard [National Biodiversity Network]
3	Bird	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
4	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
5	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
6	Bird	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
7	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
8	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
9	Bird	<i>Scolopax rusticola</i>	Linnaeus, 1758	Woodcock [National Biodiversity Network]
10	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Mammal - Deer	<i>Dama dama</i>	(Linnaeus, 1758)	Fallow Deer [National Biodiversity Network]
2	Mammal - Insectivore	<i>Erinaceus europaeus</i>	Linnaeus, 1758	Hedgehog [National Biodiversity Network]
Birds of Conservation Concern 4:		Red data categories - birds (not	Bird Population Status - red	

the red list for birds (Red/Amber list and not based on IUCN criteria)	based on IUCN criteria)	
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 3
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 3

3	Mammal – Mustelid	<i>Meles meles</i>	(Linnaeus, 1758)	Badger [National Biodiversity Network]
4	Mammal – Deer	<i>Muntiacus reevesi</i>	(Ogilby, 1839)	Chinese Barking Deer [National Biodiversity Network]
5	Mammal – Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
6	Bird	<i>Apus apus</i>	(Linnaeus, 1758)	Common Swift [National Biodiversity Network]
1	Flowering Plant	<i>Onobrychis viciifolia</i>	Scop.	Sainfoin [National Biodiversity Network]
2	Flowering Plant	<i>Papaver argemone</i>	L.	Prickly Poppy [National Biodiversity Network]
1	Bird	<i>Apus apus</i>	(Linnaeus, 1758)	Common Swift [National Biodiversity Network]
2	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]
3	Bird	<i>Columba oenas</i>	Linnaeus, 1758	Stock Dove [National Biodiversity Network]
4	Bird	<i>Delichon urbicum</i>	(Linnaeus, 1758)	House Martin [National Biodiversity Network]
5	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
6	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
7	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
8	Bird	<i>Prunella modularis</i>	(Linnaeus, 1758)	Dunnock [National Biodiversity Network]

The Convention on the Conservation of European Wildlife	Bern Convention	Appendix 3
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and Natural Habitats (the Bern Convention 1979)		
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 3
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 3
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)	Bern Convention	Appendix 3
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Vulnerable
The Vascular Plant Red Data List for Great Britain - 2006 Cheffings, C. and Farrell, L. (Editors)	Red listing based on 2001 IUCN guidelines	Vulnerable
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber

9	Bird	<i>Pyrrhula pyrrhula</i>	(Linnaeus, 1758)	Bullfinch [National Biodiversity Network]
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10	Bird	<i>Strix aluco</i>	Linnaeus, 1758	Tawny Owl [National Biodiversity Network]
1	Flowering plant	<i>Campanula rotundifolia</i>	L.	Harebell [National Biodiversity Network]
2	Flowering plant	<i>Euphorbia exigua</i>	L.	Dwarf Spurge [National Biodiversity Network]
3	Flowering plant	<i>Gentianella amarella</i>	(L.) Börner	Autumn Gentian [National Biodiversity Network]
4	Flowering plant	<i>Helianthemum nummularium</i>	(L.) Mill.	Common Rock-Rose [National Biodiversity Network]
5	Flowering plant	<i>Knautia arvensis</i>	(L.) Coult.	Field Scabious [National Biodiversity Network]
6	Lichen	<i>Lecanora horiza</i>	(Ach.) Röhl.	a lichen
7	Flowering plant	<i>Onobrychis viciifolia</i>	Scop.	Sainfoin [National Biodiversity Network]
8	Flowering plant	<i>Sanicula europaea</i>	L.	Sanicle [National Biodiversity Network]
1	Bird	<i>Ardea cinerea</i>	Linnaeus, 1758	Grey Heron [National Biodiversity Network]
2	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]
3	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
4	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
5	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
6	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
7	Bird	<i>Scolopax rusticola</i>	Linnaeus, 1758	Woodcock [National Biodiversity Network]
8	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Bird	<i>Accipiter nisus</i>	(Linnaeus, 1758)	Sparrowhawk [National Biodiversity Network]
2	Bird	<i>Buteo buteo</i>	(Linnaeus, 1758)	Buzzard [National Biodiversity Network]
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN		Red data categories - birds (not based on IUCN criteria)		Bird Population Status - amber

criteria)		
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)	Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
A Conservation Evaluation of British Lichens and Lichenicolous Fungi (2012) Woods, R.G. & Coppins, B. J.	Red listing based on 2001 IUCN guidelines	Near Threatened
The Vascular Plant Red Data List for Great Britain - 2006 Cheffings, C. and Farrell, L. (Editors)	Red listing based on 2001 IUCN guidelines	Near Threatened
A Vascular Plant Red List for England - 2014 P.A. Stroh et al.	Red listing based on 2001 IUCN guidelines	Near Threatened
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2

3	Mammal - Bat	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
4	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity

				Network]
5	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
6	Bird	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
7	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
8	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
9	Bird	<i>Scolopax rusticola</i>	Linnaeus, 1758	Woodcock [National Biodiversity Network]
10	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]
1	Mammal - Bat	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
2	Mammal - Bat	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
3	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
4	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
1	Bird	<i>Ardea cinerea</i>	Linnaeus, 1758	Grey Heron [National Biodiversity Network]
2	Bird	<i>Chroicocephalus ridibundus</i>	(Linnaeus, 1766)	Black-Headed Gull [National Biodiversity Network]
3	Bird	<i>Gallinula chloropus</i>	(Linnaeus, 1758)	Moorhen [National Biodiversity Network]
4	Bird	<i>Larus argentatus</i>	Pontoppidan, 1763	Herring Gull [National Biodiversity Network]
5	Bird	<i>Larus canus</i>	Linnaeus, 1758	Common Gull [National Biodiversity Network]
6	Bird	<i>Larus fuscus</i>	Linnaeus, 1758	Lesser Black-Backed Gull [National Biodiversity Network]
7	Bird	<i>Scolopax rusticola</i>	Linnaeus, 1758	Woodcock [National Biodiversity Network]
8	Bird	<i>Vanellus vanellus</i>	(Linnaeus, 1758)	Green Plover [National Biodiversity Network]

Convention on Migratory Species	Convention on Migratory Species	Appendix 2
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Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Convention on Migratory Species	Convention on Migratory Species	Appendix 2
Agreement on the Conservation of Populations of European Bats (EUROBATS)	Convention on Migratory Species	EUROBATS Annex I
Agreement on the Conservation of Populations of European Bats (EUROBATS)	Convention on Migratory Species	EUROBATS Annex I
Agreement on the Conservation of Populations of European Bats (EUROBATS)	Convention on Migratory Species	EUROBATS Annex I
Agreement on the Conservation of Populations of European Bats (EUROBATS)	Convention on Migratory Species	EUROBATS Annex I
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)	Convention on Migratory Species	AEWA Annex II
1	Bird <i>Fringilla montifringilla</i>	Linnaeus, 1758 Brambling [National Biodiversity Network]
2	Bird <i>Turdus iliacus</i>	Linnaeus, 1766 Redwing [National Biodiversity]

				Network]
3	Bird	<i>Turdus pilaris</i>	Linnaeus, 1758	Fieldfare [National Biodiversity Network]
4	Mammal - Bat	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
5	Mammal - Bat	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
6	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
7	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
8	Mammal - Bat	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
9	Mammal - Bat	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
10	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
11	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
12	Mammal - Bat	<i>Eptesicus serotinus</i>	(Schreber, 1774)	Serotine [National Biodiversity Network]
13	Mammal - Bat	<i>Nyctalus noctula</i>	(Schreber, 1774)	Noctule [National Biodiversity Network]
14	Mammal - Bat	<i>Pipistrellus pipistrellus</i>	(Schreber, 1774)	45 KHz Pipistrelle [National Biodiversity Network] (Common Pipistrelle)
15	Mammal - Bat	<i>Pipistrellus pygmaeus</i>	(Leach, 1825)	55 KHz Pipistrelle [National Biodiversity Network] (Soprano Pipistrelle)
16	Flowering Plant	<i>Hyacinthoides non-scripta</i>	(L.) Chouard ex Rothm.	Bluebell [National Biodiversity Network]
1	Bird	<i>Accipiter nisus</i>	(Linnaeus, 1758)	Sparrowhawk [National Biodiversity Network]
2	Bird	<i>Buteo buteo</i>	(Linnaeus, 1758)	Buzzard [National Biodiversity Network]
3	Bird	<i>Falco tinnunculus</i>	Linnaeus, 1758	Kestrel [National Biodiversity Network]
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)		Wildlife and Countryside Act 1981		Schedule 1 - Part 1
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)		Wildlife and Countryside Act 1981		Schedule 1 - Part 1

Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 1 - Part 1
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4b
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4b
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4b
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4b
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4c
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4c
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4c
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.4c
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.5a
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.5a
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.5a
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)	Wildlife and Countryside Act 1981	Schedule 5 Section 9.5a
CITES UK Species only	EC Cites	Annex A
CITES UK Species only	EC Cites	Annex A
CITES UK Species only	EC Cites	Annex A

4	Bird	<i>Strix aluco</i>	Linnaeus, 1758	Tawny Owl [National Biodiversity Network]
5	Flowering Plant	<i>Ophrys apifera</i>	Huds.	Bee Orchid [National Biodiversity Network]
1	Mammal - Mustelid	<i>Meles meles</i>	(Linnaeus, 1758)	Badger [National Biodiversity Network]

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CITES UK Species only	EC Cites	Annex A
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CITES UK Species only	EC Cites	Annex B
Protection of Badgers Act (1992)	Protection of Badgers Act	Protection of Badgers Act (1992)

Biodiversity of SG1 4DE
Table 4 – Species Summary

The minimum number of endangered and protected species, a full on the ground biodiversity study, counting each animal and plant present, would find many, many more. The moths are considered together as the presence of all moth species is detected by a single moth trap.

1	Moths	For
		<ul style="list-style-type: none"> • <i>Acronicta psi</i> Grey Dagger [National Biodiversity Network] • <i>Amphipyra tragopoginis</i> Mouse Moth [National Biodiversity Network] • <i>Apamea anceps</i> Large Nutmeg [National Biodiversity Network] • <i>Hoplodrina blanda</i> Rustic [National Biodiversity Network]
2	<i>Acanthis cabaret</i>	Waxwing [National Biodiversity Network]
3	<i>Accipiter nisus</i>	Sparrowhawk [National Biodiversity Network]
4	<i>Alauda arvensis</i>	Skylark [National Biodiversity Network]
5	<i>Alectoris rufa</i>	French Partridge [National Biodiversity Network]
6	<i>Apus apus</i>	Common Swift [National Biodiversity Network]
7	<i>Ardea cinerea</i>	Grey Heron [National Biodiversity Network]
8	<i>Aspicilia contorta</i> subsp. <i>hoffmanniana</i>	a lichen
9	<i>Bombycilla garrulus</i>	Waxwing [National Biodiversity Network]
10	<i>Buteo buteo</i>	Buzzard [National Biodiversity Network]
11	<i>Campanula rotundifolia</i>	Harebell [National Biodiversity Network]
12	<i>Carduelis carduelis</i>	Goldfinch [National Biodiversity Network]
13	<i>Chloris chloris</i>	Greenfinch [National Biodiversity Network]
14	<i>Chroicocephalus ridibundus</i>	Black-Headed Gull [National Biodiversity Network]
15	<i>Columba oenas</i>	Stock Dove [National Biodiversity Network]
16	<i>Columba palumbus</i>	Woodpigeon [National Biodiversity Network]
17	<i>Corvus corone</i>	Carrion Crow [National Biodiversity Network]
18	<i>Corvus frugilegus</i>	Rook [National Biodiversity Network]
19	<i>Corvus monedula</i>	Jackdaw [National Biodiversity Network]
20	<i>Cyanistes caeruleus</i>	Blue Tit [National Biodiversity Network]
21	<i>Dama dama</i>	Fallow Deer [National Biodiversity Network]
22	<i>Delichon urbicum</i>	House Martin [National Biodiversity Network]
23	<i>Dendrocopos major</i>	Great Spotted Woodpecker [National Biodiversity Network]
24	<i>Emberiza citrinella</i>	Yellowhammer [National Biodiversity Network]
25	<i>Eptesicus serotinus</i>	Serotine [National Biodiversity Network]
26	<i>Erinaceus europaeus</i>	Hedgehog [National Biodiversity Network]
27	<i>Erithacus rubecula</i>	Continental Robin [National Biodiversity Network]
28	<i>Euphorbia exigua</i>	Dwarf Spurge [National Biodiversity Network]
29	<i>Falco tinnunculus</i>	Kestrel [National Biodiversity Network]
30	<i>Flavoplaca arcis</i>	a lichen
31	<i>Flavoplaca dichroa</i>	a lichen
32	<i>Fringilla montifringilla</i>	Brambling [National Biodiversity Network]
33	<i>Gallinula chloropus</i>	Moorhen [National Biodiversity Network]
34	<i>Garrulus glandarius</i>	Jay [National Biodiversity Network]
35	<i>Gentianella amarella</i>	Autumn Gentian [National Biodiversity Network]
36	<i>Helianthemum nummularium</i>	Common Rock-Rose [National Biodiversity Network]
37	<i>Hirundo rustica</i>	Swallow [National Biodiversity Network]
38	<i>Hyacinthoides non-scripta</i>	Bluebell [National Biodiversity Network]
39	<i>Knautia arvensis</i>	Field Scabious [National Biodiversity Network]
40	<i>Larus argentatus</i>	Herring Gull [National Biodiversity Network]
41	<i>Larus canus</i>	Common Gull [National Biodiversity Network]
42	<i>Larus fuscus</i>	Lesser Black-Backed Gull [National Biodiversity Network]
43	<i>Lecania inundata</i>	a lichen

44	<i>Lecanora horiza</i>	a lichen
45	<i>Linaria cannabina</i>	Linnet [National Biodiversity Network]
46	<i>Locustella naevia</i>	Grasshopper Warbler [National Biodiversity Network]
47	<i>Meles meles</i>	Badger [National Biodiversity Network]
48	<i>Motacilla alba</i>	Pied Wagtail [National Biodiversity Network]
49	<i>Motacilla cinerea</i>	Grey Wagtail [National Biodiversity Network]
50	<i>Motacilla flava</i>	Yellow Wagtail [National Biodiversity Network]
51	<i>Muntiacus reevesi</i>	Chinese Barking Deer [National Biodiversity Network]
52	<i>Nyctalus noctula</i>	Noctule [National Biodiversity Network]
53	<i>Onobrychis viciifolia</i>	Sainfoin [National Biodiversity Network]
54	<i>Ophrys apifera</i>	Bee Orchid [National Biodiversity Network]
55	<i>Papaver argemone</i>	Prickly Poppy [National Biodiversity Network]
56	<i>Parus major</i>	Great Tit [National Biodiversity Network]
57	<i>Passer domesticus</i>	House Sparrow [National Biodiversity Network]
58	<i>Periparus ater</i>	Coal Tit [National Biodiversity Network]
59	<i>Phasianus colchicus</i>	Pheasant [National Biodiversity Network]
60	<i>Phylloscopus collybita</i>	Chiffchaff [National Biodiversity Network]
61	<i>Phylloscopus sibilatrix</i>	Willow Warbler [National Biodiversity Network]
62	<i>Pica pica</i>	Magpie [National Biodiversity Network]
63	<i>Picus viridis</i>	Green Woodpecker [National Biodiversity Network]
64	<i>Pinus sylvestris</i>	Scots Pine [National Biodiversity Network]
65	<i>Pipistrellus pipistrellus</i>	45 KHz Pipistrelle [National Biodiversity Network]
66	<i>Pipistrellus pygmaeus</i>	55 KHz Pipistrelle [National Biodiversity Network]
67	<i>Prunella modularis</i>	Dunnock [National Biodiversity Network]
68	<i>Pyrrhula pyrrhula</i>	Bullfinch [National Biodiversity Network]
69	<i>Regulus regulus</i>	Continental Goldcrest [National Biodiversity Network]
70	<i>Sanicula europaea</i>	Sanicle [National Biodiversity Network]
71	<i>Scolopax rusticola</i>	Woodcock [National Biodiversity Network]
72	<i>Sitta europaea</i>	Nuthatch [National Biodiversity Network]
73	<i>Streptopelia decaocto</i>	Collared Dove [National Biodiversity Network]
74	<i>Strix aluco</i>	Tawny Owl [National Biodiversity Network]
75	<i>Sturnus vulgaris</i>	Starling [National Biodiversity Network]
76	<i>Tilia platyphyllos</i>	Large-Leaved Lime [National Biodiversity Network]
77	<i>Troglodytes troglodytes</i>	Wren [National Biodiversity Network]
78	<i>Turdus iliacus</i>	Redwing [National Biodiversity Network]
79	<i>Turdus merula</i>	Blackbird [National Biodiversity Network]
80	<i>Turdus philomelos</i>	Song Thrush [National Biodiversity Network]
81	<i>Turdus pilaris</i>	Fieldfare [National Biodiversity Network]
82	<i>Turdus viscivorus</i>	Mistle Thrush [National Biodiversity Network]
83	<i>Vanellus vanellus</i>	Green Plover [National Biodiversity Network]
84	<i>Xanthoria ucrainica</i>	a lichen

Conclusions

There are 87 species that are endangered/protected found on the proposed building site SG1 4DE, as determined by the National Biodiversity Network online Atlas. With further ecological survey many more would be found.

SG1 4DE is a site of great wildlife value, as well as being of great heritage importance, as explained at length by the Friends of Forster Country in their depositions concerning the Stevenage Borough Council Local Plan.

Species surveys have to be done for all of the ones listed before planning permission can be granted for building on the site.

Stevenage Borough Council must inform Natural England of the proposal to build. I will forward this document to make it easier for them to order the species surveys that must be done before planning permission can be given if the destruction of this very important site is deemed more important than shabbily built, but still expensive houses for non-local people.

Legal requirements for surveys:

Gov.UK (2016) Protected species; how to review planning application – surveys are needed for

- **Barn owls**
- **Breeding birds**
- **Wintering birds**
- **Birds listed in Schedule 1 of the Wildlife and Countryside Act (1981)**
- **Birds listed in Section 41 of the Natural Environment and Rural Communities Act 2006**
- **Red and Amber list birds of conservation concern**
- **Protected Invertebrates if distribution and historical records suggest they may be present**
- **Protected plants if distribution, habitat assessments and historical records suggest they may be present.**
- **Reptiles if the site has habitat suitable for them**
- **Reptiles if the building work will break apart suitable habitat for them**
- **Reptiles if distribution and historical records suggest they may be present**

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Part 1 – Methodology

Study area

The study area looked at by the Real Environmental Group of Graveley was the proposed building site H03 from the Stevenage Borough Council Local Plan.

This was a paper audit to demonstrate the biodiversity of this area to inform those making decisions about their future.

Data collation

As suggested in the Houses of Parliament Parliamentary Office of Science and Technology direction, the source of Biodiversity Data was from the National Biodiversity Network website.

The structure of this interactive site allows the user to place a pointer on a geographical point and to see all the species logged over a set of variable radius distances from that point. I used the smallest radius, 1 kilometre, from a point approximately in the centre of the proposed building site, as demonstrated on the satellite map.

I also reviewed all available published records for the distribution of wildlife species within the study area. These were the atlases in book form and internet database form produced by the Hertfordshire Natural History Society.

Clark, M. (2001) *Mammals, Amphibians and Reptiles of Hertfordshire*, Training Publications Limited, Watford, Hertfordshire, England

Dony, J. (1967) *Flora of Hertfordshire*, Hitchin Urban District Council, Hitchin, Hertfordshire, England

Foster, Arthur H. (1914) *The Birds of North Hertfordshire: Being Notes on the Birds of Hitchin and Surrounding District of North Herts : with Table of Dates of Arrival of Summer Migrants Since the Year 1908*, Paternoster and Hales

Gladwin, T. and Sage, B. (1986) *The Birds of Hertfordshire*, Castlemead Publications, Ware, Hertfordshire, England

Hertfordshire Natural History Society (not dated) www.hnhs.org/

Hine, Reginald L. (editor) (1934) *The Natural History of the Hitchin Region*, Hitchin and District Regional Survey Association, Hitchin, Hertfordshire, England

James, T. (2009) *Flora of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Mead, C. and Smith, K.W. (1982) *The Hertfordshire Breeding Bird Atlas*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Plant, C. (2008) *The Moths of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Pryor, A.R. [edited by Jackson, B.D.] (1887) *A Flora of Hertfordshire*, Gurney and Jackson, London

- Reynolds, A., Gladwin, T. and Shepperson, C. (2008) *Dragonflies and Damselflies of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England
- Sawford, Brian (1987) *The Butterflies of Hertfordshire*, Castlemead, Ware, Hertfordshire, England
- Sawford, Brian (1990) *Wild Flower Habitats of Hertfordshire*, Castlemead, Ware, Hertfordshire, England
- Smith, K.W., Dee, C.W. Fearnside, J.D. and Ilet, M. (2015) *Birds of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England
- Smith, K.W., Dee, C.W. Fearnside, J., Fletcher, E.W. and Smith, R.N. (1993) *The Breeding Birds of Hertfordshire*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England
- Wood, A. (2016) *Butterflies of Hertfordshire and Middlesex*, Hertfordshire Natural History Society, Welwyn Garden City, Hertfordshire, England

Table 1

The wildlife books and atlases available for Hertfordshire, and the Hertfordshire Natural History Society website

- Anonymous Citizen Scientist/Naturalist/Biologist (2017) Lichen data, National Biodiversity Network Atlas
- Anonymous Citizen Scientist/Naturalist/Biologist (2017) Slug and Snail data, National Biodiversity Network Atlas
- National Biodiversity Network (2017) National Biodiversity Network Atlas <https://nbn.org.uk/>

Table 2

National Biodiversity Network website, and a grateful acknowledgement of the successful efforts of the [most probably only] two workers in the minority areas of molluscs and lichen

Results

Recording coverage

The number of species covered was limited by the interest of the limited number of people who had the skill to identify species, and the will to send the information in to be collated. This meant that many groups of the small, rather ugly or slimy species that are not popular were not included. This made a significant difference to the total biodiversity, the missing species are the ones that contribute the most to biomass.

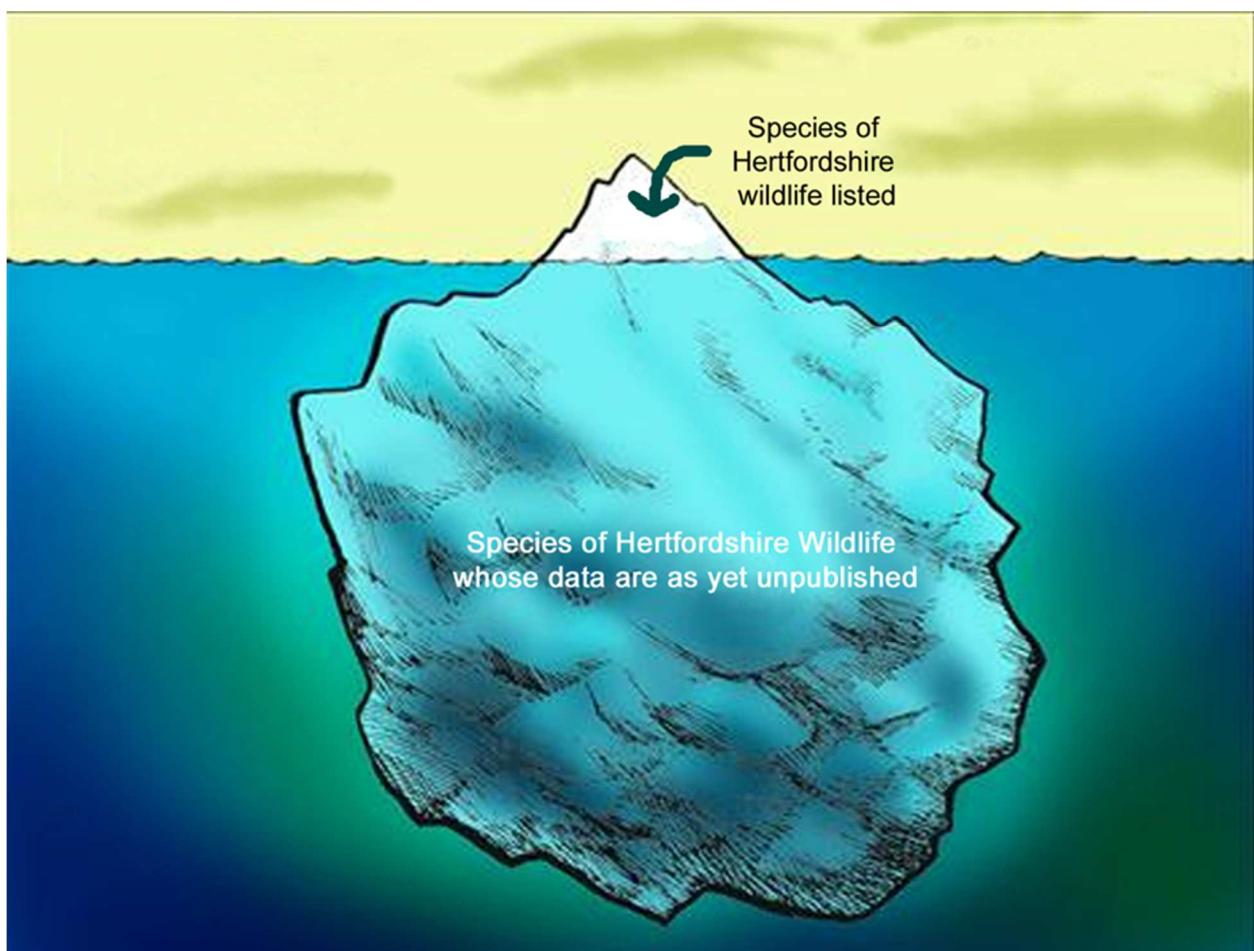


Figure 1
Diagrammatic representation of the data available for Hertfordshire wildlife

Bacterium	Annelid	Cockroach (Dictyoptera)
Diatom	Acari	True bug (Hemiptera)
Slime mould	Spider (Araneae)	Thrips (Thysanoptera)
Fungoid	Harvestman (Opiliones)	Snakefly (Raphidioptera)
Fungus	False scorpion (Pseudoscorpiones)	Alderfly (Megaloptera)
Alga	Crustacean	Booklouse (Psocoptera)
Stonewort	Millipede	Lacewing (Neuroptera)
Liverwort	Centipede	Beetle (Coleoptera)
Hornwort	Springtail (Collembola)	Scorpion fly (Mecoptera)
Clubmoss	Two-tailed bristletail (Diplura)	Flea (Siphonaptera)
Sponge (Porifera)	Mayfly (Ephemeroptera)	Caddis fly (Trichoptera)
Rotifer	Bristletail (Archaeognatha)	True fly (Diptera)
Coelenterate (cnidarian)	Stonefly (Plecoptera)	Hymenopteran
Flatworm (Turbellaria)	Annelid	Bryozoan
Roundworm (Nematoda)	Orthopteran	Jawless fish (Agnatha)
Waterbear (Tardigrada)	Stick insect (Phasmida)	Cartilagenous fish
Sponge (Porifera)	Earwig (Dermaptera)	Bony fish (Actinopterygii)

Table 2

Species groups missing, a few due to the habitat conditions in H03 [e.g. the fish], but mainly due to the lack of specialist biologists/naturalists in these minority fields surveying the biodiversity of this site.

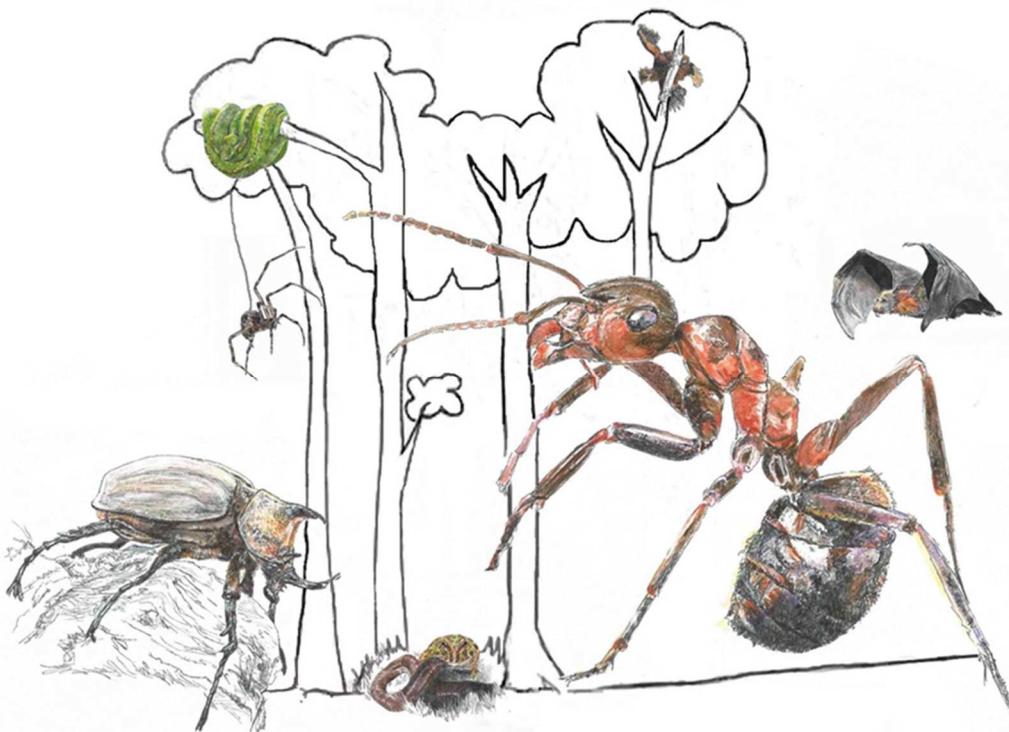


Figure 2

Rainforest with animals representative of their species groups, drawn to the scale of their biomass (number of individuals present, as opposed to biodiversity which is number of species present).

The scale of the animal biomass in the rainforest is quite comparable to that for many other environments, and this certainly is so for that in North Hertfordshire. As illustrated, the species groups missing contribute the greatest amount to biodiversity and biomass. Insects in particular are massively underrepresented. And it is

correct to assume that the real total number of species includes many that are endangered. The real situation, the real number of imperilled wildlife species is much worse than the list provided based on .

1 Species 1	Mammal 1	Mammal	Lagomorph	<i>Lepus europaeus</i>
2 Species 1	Mammal 1	Mammal	Lagomorph	<i>Lepus europaeus</i>
3 Species 2	Mammal 2	Mammal	Insectivore	<i>Erinaceus europaeus</i>
4 Species 2	Mammal 2	Mammal	Insectivore	<i>Erinaceus europaeus</i>
5 Species 2	Mammal 2	Mammal	Insectivore	<i>Erinaceus europaeus</i>
Species 3	Mammal 3	Mammal	Mustelid	<i>Meles meles</i>
Species 3	Mammal 3	Mammal	Mustelid	<i>Meles meles</i>
Species 4	Mammal 4	Mammal	Deer	<i>Muntiacus reevesi</i>
Species 5	Bird 1	Bird	Anatidae	<i>Anas platyrhynchos</i>
Species 5	Bird 1	Bird	Anatidae	<i>Anas platyrhynchos</i>
Species 5	Bird 1	Bird	Anatidae	<i>Anas platyrhynchos</i>
Species 5	Bird 1	Bird	Anatidae	<i>Anas platyrhynchos</i>
Species 6	Bird 2	Bird	Phasianidae	<i>Alectoris rufa</i>
Species 7	Bird 3	Bird	Phasianidae	<i>Perdix perdix</i>
Species 7	Bird 3	Bird	Phasianidae	<i>Perdix perdix</i>
Species 7	Bird 3	Bird	Phasianidae	<i>Perdix perdix</i>
Species 7	Bird 3	Bird	Phasianidae	<i>Perdix perdix</i>
Species 8	Bird 4	Bird	Phasianidae	<i>Phasianus colchicus</i>
Species 9	Bird 5	Bird	Accipitridae	<i>Accipiter nisus</i>
Species 9	Bird 5	Bird	Accipitridae	<i>Accipiter nisus</i>
Species 10	Bird 6	Bird	Accipitridae	<i>Buteo buteo</i>
Species 10	Bird 6	Bird	Accipitridae	<i>Buteo buteo</i>
Species 11	Bird 7	Bird	Charadriinae	<i>Vanellus vanellus</i>
Species 11	Bird 7	Bird	Charadriinae	<i>Vanellus vanellus</i>
Species 11	Bird 7	Bird	Charadriinae	<i>Vanellus vanellus</i>
Species 11	Bird 7	Bird	Charadriinae	<i>Vanellus vanellus</i>
Species 11	Bird 7	Bird	Charadriinae	<i>Vanellus vanellus</i>
Species 11	Bird 7	Bird	Charadriinae	<i>Vanellus vanellus</i>
Species 12	Bird 8	Bird	Charadriinae	<i>Pluvialis apricaria</i>
Species 12	Bird 8	Bird	Charadriinae	<i>Pluvialis apricaria</i>
Species 12	Bird 8	Bird	Charadriinae	<i>Pluvialis apricaria</i>
Species 12	Bird 8	Bird	Charadriinae	<i>Pluvialis apricaria</i>
Species 13	Bird 9	Bird	Scolopacidae	<i>Saxicola rubicola</i>
Species 13	Bird 9	Bird	Scolopacidae	<i>Saxicola rubicola</i>
Species 13	Bird 9	Bird	Scolopacidae	<i>Saxicola rubicola</i>

Species 13	Bird 9	Bird	Scolopacidae	<i>Saxicola rubicola</i>
Species 13	Bird 9	Bird	Scolopacidae	<i>Saxicola rubicola</i>
Species 14	Bird 10	Bird	Columbidae	<i>Columba oenas</i>
Species 14	Bird 10	Bird	Columbidae	<i>Columba oenas</i>
Species 15	Bird 11	Bird	Columbidae	<i>Columba palumbus</i>
Species 16	Bird 12	Bird	Columbidae	<i>Streptopelia turtur</i>
Species 16	Bird 12	Bird	Columbidae	<i>Streptopelia turtur</i>
Species 16	Bird 12	Bird	Columbidae	<i>Streptopelia turtur</i>
Species 16	Bird 12	Bird	Columbidae	<i>Streptopelia turtur</i>
Species 16	Bird 12	Bird	Columbidae	<i>Streptopelia turtur</i>
Species 17	Bird 13	Bird	Columbidae	<i>Streptopelia decaocto</i>
Species 18	Bird 14	Bird	Cuculidae	<i>Cuculus canorus</i>
Species 18	Bird 14	Bird	Cuculidae	<i>Cuculus canorus</i>
Species 18	Bird 14	Bird	Cuculidae	<i>Cuculus canorus</i>
Species 19	Bird 15	Bird	Tytonidae	<i>Tyto alba</i>
Species 19	Bird 15	Bird	Tytonidae	<i>Tyto alba</i>
Species 19	Bird 15	Bird	Tytonidae	<i>Tyto alba</i>
Species 19	Bird 15	Bird	Tytonidae	<i>Tyto alba</i>
Species 20	Bird 16	Bird	Strigidae	<i>Athene noctua</i>
Species 20	Bird 16	Bird	Strigidae	<i>Athene noctua</i>
Species 21	Bird 17	Bird	Strigidae	<i>Asio flammeus</i>
Species 21	Bird 17	Bird	Strigidae	<i>Asio flammeus</i>
Species 21	Bird 17	Bird	Strigidae	<i>Asio flammeus</i>
Species 21	Bird 17	Bird	Strigidae	<i>Asio flammeus</i>
Species 22	Bird 18	Bird	Apodidae	<i>Apus apus</i>
Species 23	Bird 19	Bird	Picidae	<i>Picus viridis</i>
Species 24	Bird 20	Bird	Picidae	<i>Dendrocopos major</i>
Species 25	Bird 21	Bird	Falconidae	<i>Falco tinnunculus</i>
Species 25	Bird 21	Bird	Falconidae	<i>Falco tinnunculus</i>
Species 25	Bird 21	Bird	Falconidae	<i>Falco tinnunculus</i>
Species 25	Bird 21	Bird	Falconidae	<i>Falco tinnunculus</i>
Species 26	Bird 22	Bird	Falconidae	<i>Falco subbuteo</i>
Species 26	Bird 22	Bird	Falconidae	<i>Falco subbuteo</i>
Species 26	Bird 22	Bird	Falconidae	<i>Falco subbuteo</i>

Species 26	Bird 22	Bird	Falconidae	<i>Falco subbuteo</i>
Species 26	Bird 22	Bird	Falconidae	<i>Falco subbuteo</i>
Species 27	Bird 23	Bird	Corvidae	<i>Pica pica</i>
Species 28	Bird 24	Bird	Corvidae	<i>Garrulus glandarius</i>
Species 29	Bird 25	Bird	Corvidae	<i>Corvus monedula</i>
Species 30	Bird 26	Bird	Corvidae	<i>Corvus frugilegus</i>
Species 31	Bird 27	Bird	Corvidae	<i>Corvus corone</i>
Species 32	Bird 28	Bird	Regulidae	<i>Regulus regulus</i>
Species 33	Bird 29	Bird	Paridae	<i>Cyanistes caeruleus</i>
Species 34	Bird 30	Bird	Paridae	<i>Parus major</i>
Species 35	Bird 31	Bird	Alaudidae	<i>Alauda arvensis</i>
Species 35	Bird 31	Bird	Alaudidae	<i>Alauda arvensis</i>
Species 35	Bird 31	Bird	Alaudidae	<i>Alauda arvensis</i>
Species 36	Bird 32	Bird	Hirundinidae	<i>Riparia riparia</i>
Species 37	Bird 33	Bird	Hirundinidae	<i>Hirundo rustica</i>
Species 38	Bird 34	Bird	Hirundinidae	<i>Delichon urbicum</i>
Species 38	Bird 34	Bird	Hirundinidae	<i>Delichon urbicum</i>
Species 39	Bird 35	Bird	Aegithalidae	<i>Aegithalos caudatus</i>
Species 40	Bird 36	Bird	Sylviidae	<i>Phylloscopus collybita</i>
Species 41	Bird 37	Bird	Sylviidae	<i>Phylloscopus trochilus</i>
Species 42	Bird 38	Bird	Sylviidae	<i>Sylvia atricapilla</i>
Species 43	Bird 39	Bird	Sylviidae	<i>Sylvia borin</i>
Species 44	Bird 40	Bird	Sylviidae	<i>Sylvia curruca</i>
Species 45	Bird 41	Bird	Sylviidae	<i>Sylvia communis</i>
Species 46	Bird 42	Bird	Certhiidae	<i>Troglodytes troglodytes</i>
Species 47	Bird 43	Bird	Sturnidae	<i>Sturnus vulgaris</i>

Species 47	Bird 43	Bird	Sturnidae	<i>Sturnus vulgaris</i>
Species 47	Bird 43	Bird	Sturnidae	<i>Sturnus vulgaris</i>
Species 47	Bird 43	Bird	Sturnidae	<i>Sturnus vulgaris</i>
Species 48	Bird 44	Bird	Turdinae	<i>Turdus merula</i>
Species 49	Bird 45	Bird	Turdinae	<i>Turdus pilaris</i>
Species 49	Bird 45	Bird	Turdinae	<i>Turdus pilaris</i>
Species 49	Bird 45	Bird	Turdinae	<i>Turdus pilaris</i>
Species 50	Bird 46	Bird	Turdinae	<i>Turdus philomelos</i>
Species 50	Bird 46	Bird	Turdinae	<i>Turdus philomelos</i>
Species 50	Bird 46	Bird	Turdinae	<i>Turdus philomelos</i>
Species 50	Bird 46	Bird	Turdinae	<i>Turdus philomelos</i>
Species 51	Bird 47	Bird	Turdinae	<i>Turdus iliacus</i>
Species 51	Bird 47	Bird	Turdinae	<i>Turdus iliacus</i>
Species 51	Bird 47	Bird	Turdinae	<i>Turdus iliacus</i>
Species 52	Bird 48	Bird	Turdinae	<i>Turdus viscivorus</i>
Species 52	Bird 48	Bird	Turdinae	<i>Turdus viscivorus</i>
Species 53	Bird 49	Bird	Muscicapinae	<i>Erithacus rubecula</i>
Species 54	Bird 50	Bird	Muscicapinae	<i>Saxicola rubicola</i>
Species 55	Bird 51	Bird	Passeridae	<i>Passer domesticus</i>
Species 55	Bird 51	Bird	Passeridae	<i>Passer domesticus</i>
Species 55	Bird 51	Bird	Passeridae	<i>Passer domesticus</i>
Species 56	Bird 52	Bird	Passeridae	<i>Passer montanus</i>
Species 56	Bird 52	Bird	Passeridae	<i>Passer montanus</i>
Species 56	Bird 52	Bird	Passeridae	<i>Passer montanus</i>
Species 57	Bird 53	Bird	Motacillinae	<i>Motacilla flava</i>
Species 57	Bird 53	Bird	Motacillinae	<i>Motacilla flava</i>
Species 57	Bird 53	Bird	Motacillinae	<i>Motacilla flava</i>
Species 57	Bird 53	Bird	Motacillinae	<i>Motacilla flava</i>
Species 58	Bird 54	Bird	Motacillinae	<i>Motacilla cinerea</i>
Species 58	Bird 54	Bird	Motacillinae	<i>Motacilla cinerea</i>
Species 59	Bird 55	Bird	Motacillinae	<i>Motacilla alba</i>
Species 60	Bird 56	Bird	Motacillinae	<i>Anthus pratensis</i>
Species 60	Bird 56	Bird	Motacillinae	<i>Anthus pratensis</i>

Species 61	Bird 57	Bird	Fringillidae	<i>Fringilla coelebs</i>
Species 62	Bird 58	Bird	Fringillidae	<i>Pyrrhula pyrrhula</i>
Species 62	Bird 58	Bird	Fringillidae	<i>Pyrrhula pyrrhula</i>
Species 62	Bird 58	Bird	Fringillidae	<i>Pyrrhula pyrrhula</i>
Species 63	Bird 59	Bird	Fringillidae	<i>Chloris chloris</i>
Species 64	Bird 60	Bird	Fringillidae	<i>Linaria cannabina</i>
Species 64	Bird 60	Bird	Fringillidae	<i>Linaria cannabina</i>
Species 64	Bird 60	Bird	Fringillidae	<i>Linaria cannabina</i>
Species 64	Bird 60	Bird	Fringillidae	<i>Linaria cannabina</i>
Species 64	Bird 61	Bird	Fringillidae	<i>Acanthis cabaret</i>
Species 64	Bird 61	Bird	Fringillidae	<i>Acanthis cabaret</i>
Species 64	Bird 61	Bird	Fringillidae	<i>Acanthis cabaret</i>
Species 65	Bird 62	Bird	Fringillidae	<i>Chloris chloris</i>
Species 66	Bird 63	Bird	Fringillidae	<i>Emberiza citrinella</i>
Species 66	Bird 63	Bird	Fringillidae	<i>Emberiza citrinella</i>
Species 66	Bird 63	Bird	Fringillidae	<i>Emberiza citrinella</i>
Species 66	Bird 63	Bird	Fringillidae	<i>Emberiza citrinella</i>
Species 67	Bird 64	Bird	Fringillidae	<i>Emberiza schoeniclus</i>
Species 67	Bird 64	Bird	Fringillidae	<i>Emberiza schoeniclus</i>
Species 67	Bird 64	Bird	Fringillidae	<i>Emberiza schoeniclus</i>
Species 67	Bird 64	Bird	Fringillidae	<i>Emberiza schoeniclus</i>
Species 68	Bird 65	Bird	Fringillidae	<i>Emberiza calandra</i>
Species 68	Bird 65	Bird	Fringillidae	<i>Emberiza calandra</i>
Species 68	Bird 65	Bird	Fringillidae	<i>Emberiza calandra</i>
Species 69	Insect 1	Insect	Butterfly	<i>Erynnis tages</i>
Species 69	Insect 1	Insect	Butterfly	<i>Erynnis tages</i>
Species 69	Insect 1	Insect	Butterfly	<i>Erynnis tages</i>
Species 70	Insect 2	Insect	Butterfly	<i>Lasiommata megera</i>
Species 70	Insect 2	Insect	Butterfly	<i>Lasiommata megera</i>
Species 70	Insect 2	Insect	Butterfly	<i>Lasiommata megera</i>
Species 71	Insect 3	Insect	Butterfly	<i>Coenonympha pamphilus</i>
Species 71	Insect 3	Insect	Butterfly	<i>Coenonympha pamphilus</i>
Species 71	Insect 3	Insect	Butterfly	<i>Coenonympha pamphilus</i>
Species 72	Insect 4	Insect	Dragonfly (Odonata)	<i>Erythromma najas</i>

Species 73	Insect 5	Insect	Dragonfly (Odonata)	<i>Enallagma cyathigerum</i>
Species 73	Insect 5	Insect	Dragonfly (Odonata)	<i>Enallagma cyathigerum</i>
Species 74	Insect 6	Insect	Dragonfly (Odonata)	<i>Sympetrum striolatum</i>
Species 74	Insect 6	Insect	Dragonfly (Odonata)	<i>Sympetrum striolatum</i>
Species 75	Insect 7	Insect	Dragonfly (Odonata)	<i>Sympetrum sanguineum</i>
Species 75	Insect 7	Insect	Dragonfly (Odonata)	<i>Sympetrum sanguineum</i>

Pallas, 1778	Brown hare [Hertfordshire Natural History Society]
Pallas, 1778	Brown hare [Hertfordshire Natural History Society]

Linnaeus, 1758	Hedgehog [Hertfordshire Natural History Society]
Linnaeus, 1758	Hedgehog [Hertfordshire Natural History Society]
Linnaeus, 1758	Hedgehog [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Badger [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Badger [Hertfordshire Natural History Society]

(Ogilby, 1839) Muntjac deer [Hertfordshire Natural History Society]

Linnaeus, 1758	Mallard [Hertfordshire Natural History Society]
Linnaeus, 1758	Mallard [Hertfordshire Natural History Society]
Linnaeus, 1758	Mallard [Hertfordshire Natural History Society]
Linnaeus, 1758	Mallard [Hertfordshire Natural History Society]

(Linnaeus, 1758) Red-Legged Partridge [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Grey Partridge [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Grey Partridge [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Grey Partridge [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Grey Partridge [Hertfordshire Natural History Society]

Linnaeus, 1758 Pheasant [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Sparrowhawk [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Sparrowhawk [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Common Buzzard [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Common Buzzard [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Golden Plover [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Golden Plover [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Golden Plover [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Golden Plover [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Woodcock [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Woodcock [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Woodcock [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Woodcock [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Woodcock [Hertfordshire Natural History Society]

Linnaeus, 1758	Stock Dove [Hertfordshire Natural History Society]
Linnaeus, 1758	Stock Dove [Hertfordshire Natural History Society]

Linnaeus, 1758 | Woodpigeon [Hertfordshire Natural History Society]

(Linnaeus, 1758)	Turtle Dove [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Turtle Dove [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Turtle Dove [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Turtle Dove [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Turtle Dove [Hertfordshire Natural History Society]

(Frivaldszky, 1838) Collared Dove [Hertfordshire Natural History Society]

Linnaeus, 1758	Cuckoo [Hertfordshire Natural History Society]
Linnaeus, 1758	Cuckoo [Hertfordshire Natural History Society]
Linnaeus, 1758	Cuckoo [Hertfordshire Natural History Society]

(Scopoli, 1769)	Barn Owl [Hertfordshire Natural History Society]
(Scopoli, 1769)	Barn Owl [Hertfordshire Natural History Society]
(Scopoli, 1769)	Barn Owl [Hertfordshire Natural History Society]
(Scopoli, 1769)	Barn Owl [Hertfordshire Natural History Society]

(Scopoli, 1769)	Little Owl [Hertfordshire Natural History Society]
(Scopoli, 1769)	Little Owl [Hertfordshire Natural History Society]

(Pontoppidan, 1763)	Short-Eared Owl [Hertfordshire Natural History Society]
(Pontoppidan, 1763)	Short-Eared Owl [Hertfordshire Natural History Society]
(Pontoppidan, 1763)	Short-Eared Owl [Hertfordshire Natural History Society]
(Pontoppidan, 1763)	Short-Eared Owl [Hertfordshire Natural History Society]

(Linnaeus, 1758) Swift [Hertfordshire Natural History Society]

Linnaeus, 1758 Green Woodpecker [Hertfordshire Natural History Society]

(Linnaeus, 1758) Great Spotted Woodpecker [Hertfordshire Natural History Society]

Linnaeus, 1758	Kestrel [Hertfordshire Natural History Society]
Linnaeus, 1758	Kestrel [Hertfordshire Natural History Society]
Linnaeus, 1758	Kestrel [Hertfordshire Natural History Society]
Linnaeus, 1758	Kestrel [Hertfordshire Natural History Society]

Linnaeus, 1758	Hobby [Hertfordshire Natural History Society]
Linnaeus, 1758	Hobby [Hertfordshire Natural History Society]
Linnaeus, 1758	Hobby [Hertfordshire Natural History Society]

Linnaeus, 1758	Hobby [Hertfordshire Natural History Society]
Linnaeus, 1758	Hobby [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Magpie [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Jay [Hertfordshire Natural History Society]
Linnaeus, 1758	Jackdaw [Hertfordshire Natural History Society]
Linnaeus, 1758	Rook [Hertfordshire Natural History Society]
Linnaeus, 1758	Carrion Crow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Goldcrest [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Blue Tit [Hertfordshire Natural History Society]
Linnaeus, 1758	Great Tit [Hertfordshire Natural History Society]
Linnaeus, 1758	Skylark [Hertfordshire Natural History Society]
Linnaeus, 1758	Skylark [Hertfordshire Natural History Society]
Linnaeus, 1758	Skylark [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Sand Martin [Hertfordshire Natural History Society]
Linnaeus, 1758	Swallow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	House Martin [Hertfordshire Natural History Society]
(Linnaeus, 1758)	House Martin [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Long-tailed Tit [Hertfordshire Natural History Society]
(Vieillot, 1817)	Chiffchaff [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Willow Warbler [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Blackcap [Hertfordshire Natural History Society]
(Boddaert, 1783)	Garden Warbler [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Lesser Whitethroat [Hertfordshire Natural History Society]
Latham, 1787	Whitethroat [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Wren [Hertfordshire Natural History Society]
Linnaeus, 1758	Starling [Hertfordshire Natural History Society]

Linnaeus, 1758	Starling [Hertfordshire Natural History Society]
Linnaeus, 1758	Starling [Hertfordshire Natural History Society]
Linnaeus, 1758	Starling [Hertfordshire Natural History Society]
Linnaeus, 1758	Blackbird [Hertfordshire Natural History Society]
Linnaeus, 1758	Fieldfare [Hertfordshire Natural History Society]
Linnaeus, 1758	Fieldfare [Hertfordshire Natural History Society]
Linnaeus, 1758	Fieldfare [Hertfordshire Natural History Society]
Brehm, 1831	Song Thrush [Hertfordshire Natural History Society]
Brehm, 1831	Song Thrush [Hertfordshire Natural History Society]
Brehm, 1831	Song Thrush [Hertfordshire Natural History Society]
Brehm, 1831	Song Thrush [Hertfordshire Natural History Society]
Linnaeus, 1766	Redwing [Hertfordshire Natural History Society]
Linnaeus, 1766	Redwing [Hertfordshire Natural History Society]
Linnaeus, 1766	Redwing [Hertfordshire Natural History Society]
Linnaeus, 1758	Mistle Thrush [Hertfordshire Natural History Society]
Linnaeus, 1758	Mistle Thrush [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Robin [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Stonechat [Hertfordshire Natural History Society]
(Linnaeus, 1758)	House Sparrow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	House Sparrow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	House Sparrow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Tree Sparrow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Tree Sparrow [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Tree Sparrow [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellow Wagtail [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellow Wagtail [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellow Wagtail [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellow Wagtail [Hertfordshire Natural History Society]
Tunstall, 1771	Grey Wagtail [Hertfordshire Natural History Society]
Tunstall, 1771	Grey Wagtail [Hertfordshire Natural History Society]
Linnaeus, 1758	Pied Wagtail [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Meadow Pipit [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Meadow Pipit [Hertfordshire Natural History Society]

Linnaeus, 1758	Chaffinch [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Bullfinch [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Bullfinch [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Bullfinch [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Greenfinch [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Linnet [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Linnet [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Linnet [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Linnet [Hertfordshire Natural History Society]
(Müller, 1776)	Lesser Redpoll [Hertfordshire Natural History Society]
(Müller, 1776)	Lesser Redpoll [Hertfordshire Natural History Society]
(Müller, 1776)	Lesser Redpoll [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Greenfinch [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellowhammer [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellowhammer [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellowhammer [Hertfordshire Natural History Society]
Linnaeus, 1758	Yellowhammer [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Reed Bunting [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Reed Bunting [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Reed Bunting [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Reed Bunting [Hertfordshire Natural History Society]
Linnaeus, 1758	Corn Bunting [Hertfordshire Natural History Society]
Linnaeus, 1758	Corn Bunting [Hertfordshire Natural History Society]
Linnaeus, 1758	Corn Bunting [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Dingy Skipper [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Dingy Skipper [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Dingy Skipper [Hertfordshire Natural History Society]
(Linnaeus, 1767)	Wall [Hertfordshire Natural History Society]
(Linnaeus, 1767)	Wall [Hertfordshire Natural History Society]
(Linnaeus, 1767)	Wall [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Small Heath [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Small Heath [Hertfordshire Natural History Society]
(Linnaeus, 1758)	Small Heath [Hertfordshire Natural History Society]
(Hansemann, 1823)	Red Eyed Damselfly [Hertfordshire Natural History Society]

(Charpentier, 1840)	Blue Damselfly [Hertfordshire Natural History Society]
(Charpentier, 1840)	Blue Damselfly [Hertfordshire Natural History Society]

(Charpentier, 1840)	Common Darter [Hertfordshire Natural History Society]
(Charpentier, 1840)	Common Darter [Hertfordshire Natural History Society]

(Muller, 1764)	Ruddy Darter [Hertfordshire Natural History Society]
(Muller, 1764)	Ruddy Darter [Hertfordshire Natural History Society]

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Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (section 41)
UK list of Priority Habitats and Species

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)
Natural Environment and Rural Communities Act 2006 - Species of Principal Importance in England (section 41)
UK list of Priority Habitats and Species

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)
Protection of Badgers Act (1992)

The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)

Convention on Migratory Species
Birds directive
Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA)
Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)

Birds directive

Birds directive
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CITES UK Species only
Convention on Migratory Species

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Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)
Wildlife and Countryside Act Schedules 1, 5 and 8 (protected birds, animals and plants)
CITES UK Species only
The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)
CITES UK Species only
Birds directive
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Convention on Migratory Species
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The Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention 1979)
CITES UK Species only

Birds directive

Birds directive

Birds directive

Birds directive

Birds directive

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Birds directive

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Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)

The IUCN Red List of Threatened Species (2010)

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Birds directive

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Birds of Conservation Concern 4: the red list for birds (Red/Amber list and not based on IUCN criteria)

The IUCN Red List of Threatened Species (2010)

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Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species

Bern Convention	Appendix 3
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species

Bern Convention	Appendix 3
Protection of Badgers Act	Protection of Badgers Act (1992)

Bern Convention	Appendix 3
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Birds Directive	Annex 2.1
Convention on Migratory Species	AEWA Annex II
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Convention on Migratory Species	Appendix 2

Birds Directive	Annex 2.1
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Birds Directive	Annex 2.1
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species

Birds Directive	Annex 2.1
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EC Cites	Annex A
Convention on Migratory Species	Appendix 2

Convention on Migratory Species	Appendix 2
EC Cites	Annex A

Birds Directive	Annex 2.2
Convention on Migratory Species	Appendix 2
Convention on Migratory Species	AEWA Annex II
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species

Convention on Migratory Species	Appendix 2
Birds Directive	Annex 1
Birds Directive	Annex 2.2
Convention on Migratory Species	AEWA Annex II

Convention on Migratory Species	Appendix 2
Birds Directive	Annex 2.1
Convention on Migratory Species	Appendix 2

Birds Directive	Annex 2.1
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red

Birds Directive	Annex 2.2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber

Birds Directive	Annex 2.1
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Birds Directive	Annex 2.1
EC Cites	Annex A
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species

Birds Directive	Annex 2.2
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Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species

Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Bern Convention	Appendix 2
Wildlife and Countryside Act 1981	Schedule 1 - Part 1
EC Cites	Annex A

Bern Convention	Appendix 2
EC Cites	Annex A

Birds Directive	Annex 1
Bern Convention	Appendix 2
EC Cites	Annex A
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber

Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
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Bern Convention	Appendix 2
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Bern Convention	Appendix 2
Convention on Migratory Species	Appendix 2
EC Cites	Annex A
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber

Wildlife and Countryside Act 1981	Schedule 1 - Part 1
EC Cites	Annex A
Convention on Migratory Species	Appendix 2

Bern Convention	Appendix 2
EC Cites	Annex A
Birds Directive	Annex 2.2
Bern Convention	Appendix 2
Bern Convention	Appendix 2
Bern Convention	Appendix 2
Birds Directive	Annex 2.2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species
Bern Convention	Appendix 2
Bern Convention	Appendix 2
Bern Convention	Appendix 2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Global Red list status	Lower risk - least concern
Global Red list status	Lower risk - least concern
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Global Red list status	Lower risk - least concern
Global Red list status	Lower risk - least concern
Global Red list status	Lower risk - least concern
Global Red list status	Lower risk - least concern
Bern Convention	Appendix 2
Birds Directive	Annex 2.2

Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species

Birds Directive	Annex 2.2
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Birds Directive	Annex 2.2
Wildlife and Countryside Act 1981	Schedule 1 - Part 1
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red

Birds Directive	Annex 2.2
Biodiversity Action Plan UK list of priority species	Priority Species
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Lists - England	England NERC S.41

Birds Directive	Annex 2.2
Wildlife and Countryside Act 1981	Schedule 1 - Part 1
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red

Birds Directive	Annex 2.2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red

Bern Convention	Appendix 2
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Bern Convention	Appendix 2
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species

Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species

Bern Convention	Appendix 2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species

Bern Convention	Appendix 2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red

Bern Convention	Appendix 2
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Bern Convention	Appendix 2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber

Global Red list status	Lower risk - least concern
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species
Bern Convention	Appendix 2
Bern Convention	Appendix 2
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species
Bern Convention	Appendix 2
Bern Convention	Appendix 2
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Action Plan UK list of priority species	Priority Species
Bern Convention	Appendix 2
Biodiversity Lists - England	England NERC S.41
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - amber
Biodiversity Action Plan UK list of priority species	Priority Species
Red data categories - birds (not based on IUCN criteria)	Bird Population Status - red
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species
Red listing based on 2001 IUCN guidelines	Vulnerable
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species
Red listing based on 2001 IUCN guidelines	Near Threatened
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species
Red listing based on 2001 IUCN guidelines	Near Threatened
Biodiversity Lists - England	England NERC S.41
Biodiversity Action Plan UK list of priority species	Priority Species
Red listing based on 2001 IUCN guidelines	Least concern

Global Red list status	Lower risk - least concern
Red listing based on 2001 IUCN guidelines	Least concern

Global Red list status	Lower risk - least concern
Red listing based on 2001 IUCN guidelines	Least concern

Global Red list status	Lower risk - least concern
Red listing based on 2001 IUCN guidelines	Least concern