



Appendix IV  
Desk Study

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## **Appendix IV Desk Study**

## 1. Desk Study Results

Desktop records of protected, rare, or other notable flora and fauna species within the vicinity of the Proposed Scheme are listed below in Table 1.

Plant species which are legally protected under the Flora (Protection) Order, 2015 and / or are listed as Critically Endangered, Endangered or Vulnerable on Ireland Red List No. 10: Vascular Plants (Wyse Jackson *et al.*, 2016) and Ireland Red List No. 8 Bryophytes (Lockhart *et al.*, 2012) are listed.

In relation to amphibian, reptile and mammal species those which are protected under the Wildlife Acts, the Habitats Directive and / or are listed as threatened (Vulnerable to Critically Endangered) on Ireland Red List No. 12: Terrestrial Mammals (Marnell *et al.*, 2019); Ireland Red List No. 5: Amphibians, Reptiles & Freshwater Fish (King *et al.*, 2011).

In the case of bird species, only those species listed in Annex I of the Birds Directive or on the Birds of Conservation Concern in Ireland (BoCCI) Red List are included in the table below.

For invertebrate species, those which are listed as threatened (Vulnerable to Critically Endangered) on Ireland Red List No. 4 – Butterflies (Regan *et al.*, 2010); Ireland Red List No.6: Damselflies & Dragonflies (Nelson *et al.*, 2011); Ireland Red List No. 2 – Non-Marine Molluscs.(Byrne *et al.*, 2009); Ireland Red List No. 1 – Water beetles (Foster *et al.*, 2009); Ireland Red List No. 9: Macro-moths (Allen *et al.*, 2016); Ireland Red List No. 7: Mayflies (Kelly-Quinn *et al.*, 2012); Ireland Red List No. 13: Stoneflies (Feeley *et al.*, 2020); and Regional Red List of Irish Bees (Fitzpatrick *et al.*, 2006).

Desktop records of invasive plant species which are scheduled under articles 49 and 50 of the Birds and Habitats Regulations are considered as a potential threat in respect of biodiversity. S.I.477 species within the vicinity of the Proposed Scheme are listed in Table 2.

**Table 1: Records of Protected, Red-listed or Notable Flora Recorded from the Desk Study in the Vicinity of the Study Area**

Common Name / Scientific name	Legal Status	Red List Status	Source
<b>Plants</b>			
Betony <i>Betonica officinalis</i>	FPO	Near Threatened	NBDC online database record
Blunt-fruited Pottia <i>Tortula modica</i>	n / a	Vulnerable	NBDC online database record
Bog Orchid <i>Hammarbya paludosa</i>	FPO	Vulnerable	NBDC online database record
Bright Silk-moss <i>Plagiothecium laetum</i>	n / a	Vulnerable	NBDC online database record
Bristle-leaf <i>Brachydontium trichodes</i>	n / a	Vulnerable	NBDC online database record
Ceruous Thread-moss <i>Bryum uliginosum</i>	FPO	n / a	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record
Dittander <i>Lepidium latifolium</i>	n / a	Vulnerable	NBDC online database record
Dwarf Haircap <i>Pogonatum nanum</i>	n / a	Endangered	NBDC online database record
Dwarf Streak-moss <i>Rhabdoweisia fugax</i>	n / a	Vulnerable	NBDC online database record
Good-King-Henry <i>Chenopodium bonus-henricus</i>	n / a	Vulnerable	NBDC online database record
Great Burnet <i>Sanguisorba officinalis</i>	FPO	Vulnerable	NBDC online database record
Hairy St John's-wort <i>Hypericum hirsutum</i>	n / a	Vulnerable	NBDC online database record
Hairy Violet <i>Viola hirta</i>	FPO	Vulnerable	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record
Irish Whitebeam <i>Sorbus hibernica</i>	n / a	Vulnerable	NBDC online database record
Lance-leaved Pottia <i>Tortula lanceola</i>	n / a	Critically endangered	NBDC online database record
Many-seasoned Thread-moss <i>Bryum intermedium</i>	FPO	Endangered	NBDC online database record
Meadow Barley <i>Hordeum secalinum</i>	FPO	Vulnerable	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record
Meadow Crane's-bill <i>Geranium pratense</i>	n / a	Vulnerable	NBDC online database record

Common Name / Scientific name	Legal Status	Red List Status	Source
Opposite-leaved Pondweed <i>Groenlandia densa</i>	FPO	Near Threatened	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record; NPWS Consultation 2021
Papillose Bog-moss <i>Sphagnum papillosum</i>	HD V	n / a	NBDC online database record
Ribbonwort <i>Pallavicinia lyellii</i>	FPO	Endangered	NBDC online database record
Round-fruited Grimmia <i>Grimmia orbicularis</i>	n / a	Vulnerable	NBDC online database record
Shady Beard-moss <i>Didymodon umbrosus</i>	n / a	Vulnerable	NBDC online database record
Slender Pocket-moss <i>Fissidens exilis</i>	n / a	Vulnerable	NBDC online database record
Stream Water-crowfoot <i>Ranunculus penicillatus</i>	n / a	Vulnerable	NBDC online database record
Tall Aloe-moss <i>Aloina ambigua</i>	n / a	Endangered	NBDC online database record
Twisting Thread-moss <i>Bryum torquescens</i>	n / a	Vulnerable	NBDC online database record
Water-violet <i>Hottonia palustris</i>	n / a	Critically endangered	NBDC online database record
<i>Weissia longifolia</i> var. <i>angustifolia</i>	n / a	Vulnerable	NBDC online database record
Wood Bitter-vetch <i>Vicia orobus</i>	FPO	Vulnerable	NBDC online database record
<b>Mammals</b>			
Brown Long-eared Bat <i>Plecotus auritus</i>	HD IV, WA	Least Concern	NBDC online database record
Common Porpoise <i>Phocoena phocoena</i>	HD II, HD V, WA	Least concern	NBDC online database record
Daubenton's Bat <i>Myotis daubentonii</i>	HD IV, WA	Least Concern	NBDC online database record
Eurasian Badger <i>Meles meles</i>	WA	Least Concern	NBDC online database record
Eurasian Pygmy Shrew <i>Sorex minutus</i>	WA	Least Concern	NBDC online database record
Eurasian Red Squirrel <i>Sciurus vulgaris</i>	WA	Least Concern	NBDC online database record
European Otter <i>Lutra lutra</i>	HD II, HD IV, WA	Least Concern	NBDC online database record
Grey Seal <i>Halichoerus grypus</i>	HD II, HD V, WA	Least Concern	NBDC online database record
Irish Hare <i>Lepus timidus</i> subsp. <i>hibernicus</i>	WA	Least Concern	NBDC online database record
Lesser Noctule <i>Nyctalus leisleri</i>	HD IV, WA	Least Concern	NBDC online database record
Nathusius's Pipistrelle <i>Pipistrellus nathusii</i>	HD IV, WA	Least Concern	NBDC online database record
Natterer's Bat <i>Myotis nattereri</i>	HD IV, WA	Least Concern	NBDC online database record
Pine Marten <i>Martes martes</i>	HD V, WA	Least Concern	NBDC online database record
Pipistrelle <i>Pipistrellus pipistrellus sensu lato</i>	HD IV, WA	Least Concern	NBDC online database record
Red Deer <i>Cervus elaphus</i>	WA	Least Concern	NBDC online database record
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	HD IV, WA	Least Concern	NBDC online database record
Sperm Whale <i>Physeter macrocephalus</i>	WA	Vulnerable	NBDC online database record
West European Hedgehog <i>Erinaceus europaeus</i>	WA	Least Concern	NBDC online database record
Whiskered Bat <i>Myotis mystacinus</i>	HD IV, WA	Least Concern	NBDC online database record
<b>Birds</b>			
Arctic Tern <i>Sterna paradisaea</i>	SCI, BD I, WA	Amber	NBDC online database record
Barn Owl <i>Tyto alba</i>	WA	Red	NBDC online database record
Barn Swallow <i>Hirundo rustica</i>	WA	Amber	NBDC online database record
Barnacle Goose <i>Branta leucopsis</i>	SCI, BD I, WA	Amber	NBDC online database record
Bar-tailed Godwit <i>Limosa lapponica</i>	SCI, BD I, WA	Amber	NBDC online database record
Black Guillemot <i>Cephus grylle</i>	WA	Amber	NBDC online database record
Black Kite <i>Milvus migrans</i>	BD I, WA	n / a	NBDC online database record
Black-crowned Night Heron <i>Nycticorax nycticorax</i>	BD I, WA	n / a	NBDC online database record
Black-headed Gull <i>Chroicocephalus ridibundus</i>	WA	Amber	NBDC online database record
Black-legged Kittiwake <i>Rissa tridactyla</i>	SCI, WA	Red	NBDC online database record
Black-tailed Godwit <i>Limosa limosa</i>	SCI, WA	Red	NBDC online database record

Common Name / Scientific name	Legal Status	Red List Status	Source
Chaffinch <i>Fringilla coelebs</i>	BD I, WA	Green	NBDC online database record
Common Coot <i>Fulica atra</i>	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
Common Crane <i>Grus grus</i>	BD I, WA	n / a	NBDC online database record
Common Eider <i>Somateria mollissima</i>	SCI, BD II(II) BD III(II), WA	Red	NBDC online database record
Common Goldeneye <i>Bucephala clangula</i>	SCI, BD II(II), WA	Red	NBDC online database record
Common Grasshopper Warbler <i>Locustella naevia</i>	WA	Amber	NBDC online database record
Common Greenshank <i>Tringa nebularia</i>	SCI, WA	Green	NBDC online database record
Common Guillemot <i>Uria aalge</i>	SCI, WA	Amber	NBDC online database record
Common Kestrel <i>Falco tinnunculus</i>	WA	Amber	NBDC online database record
Common Kingfisher <i>Alcedo atthis</i>	SCI, BD I, WA	Amber	NBDC online database record
Common Linnet <i>Carduelis cannabina</i>	WA	Amber	NBDC online database record
Common Pheasant <i>Phasianus colchicus</i>	BD II(I) BD III(I), WA	Green	NBDC online database record
Common Pochard <i>Aythya ferina</i>	SCI, BD II(I) BD III(II), WA	Red	NBDC online database record
Common Redshank <i>Tringa totanus</i>	SCI, WA	Red	NBDC online database record
Common Sandpiper <i>Actitis hypoleucos</i>	WA	Amber	NBDC online database record
Common Shelduck <i>Tadorna tadorna</i>	SCI, WA	Amber	NBDC online database record
Common Snipe <i>Gallinago gallinago</i>	BD II(I) BD III(III), WA	Red	NBDC online database record
Common Starling <i>Sturnus vulgaris</i>	WA	Amber	NBDC online database record
Common Swift <i>Apus apus</i>	SCI, BD II(II) BD III(III), WA	Red	NBDC online database record
Common Tern <i>Sterna hirundo</i>	SCI, WA	Amber	NBDC online database record
Common Wood Pigeon <i>Columba palumbus</i>	BD II(I) BD III(I), WA	Green	NBDC online database record
Corn Crake <i>Crex crex</i>	SCI, BD I, WA	Red	NBDC online database record
Dunlin <i>Calidris alpina</i>	SCI, BD I, WA	Red	NBDC online database record
Eurasian Collared Dove <i>Streptopelia decaocto</i>	WA	Green	NBDC online database record
Eurasian Curlew <i>Numenius arquata</i>	SCI, BD II(II), WA	Red	NBDC online database record
Eurasian Oystercatcher <i>Haematopus ostralegus</i>	SCI, WA	Red	NBDC online database record
Eurasian Spoonbill <i>Platalea leucorodia</i>	BD I, WA	n / a	NBDC online database record
Eurasian Teal <i>Anas crecca</i>	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
Eurasian Tree Sparrow <i>Passer montanus</i>	WA	Amber	NBDC online database record
Eurasian Wigeon <i>Anas penelope</i>	SCI, BD II(I) BD III(II), WA	Red	NBDC online database record
Eurasian Woodcock <i>Scolopax rusticola</i>	BD II(I) BD III(III), WA	Red	NBDC online database record
European Golden Plover <i>Pluvialis apricaria</i>	SCI, BD I BD II(II) BD III(III), WA	Red	NBDC online database record
European Greenfinch <i>Carduelis chloris</i>	WA	Amber	NBDC online database record
European Shag <i>Phalacrocorax aristotelis</i>	SCI, BD I, WA	Amber	NBDC online database record
European Turtle Dove <i>Streptopelia turtur</i>	WA	Amber	NBDC online database record
Gadwall <i>Anas strepera</i>	SCI, BD II(I), WA	Amber	NBDC online database record
Goldcrest <i>Regulus regulus</i>	WA	Amber	NBDC online database record
Goosander <i>Mergus merganser</i>	WA	Amber	NBDC online database record
Great Black-backed Gull <i>Larus marinus</i>	WA	Amber	NBDC online database record

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Great Cormorant <i>Phalacrocorax carbo</i>	SCI, WA	Amber	NBDC online database record
Great Crested Grebe <i>Podiceps cristatus</i>	SCI, WA	Amber	NBDC online database record
Great Northern Diver <i>Gavia immer</i>	SCI, BD I, WA	Amber	NBDC online database record
Great Spotted Woodpecker <i>Dendrocopos major</i>	BD I, WA	Amber	NBDC online database record
Greater Scaup <i>Aythya marila</i>	SCI, BD II(II) BD III(III), WA	Red	NBDC online database record
Grey Heron <i>Ardea cinerea</i>	SCI, WA	Green	NBDC online database record
Grey Partridge <i>Perdix perdix</i>	BD II(I) BD III(I), WA	Red	NBDC online database record
Grey Plover <i>Pluvialis squatarola</i>	SCI, WA	Amber	NBDC online database record
Grey Wagtail <i>Motacilla cinerea</i>	WA	Red	NBDC online database record
Greylag Goose <i>Anser anser</i>	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
Hedge Accentor <i>Prunella modularis</i>	WA	Green	NBDC online database record
Hen Harrier <i>Circus cyaneus</i>	SCI, BD I, WA	Amber	NBDC online database record
Herring Gull <i>Larus argentatus</i>	SCI, WA	Amber	NBDC online database record
House Martin <i>Delichon urbicum</i>	WA	Amber	NBDC online database record
House Sparrow <i>Passer domesticus</i>	WA	Amber	NBDC online database record
Kentish Plover <i>Charadrius alexandrinus</i>	BD I, WA	n / a	NBDC online database record
Lesser Black-backed Gull <i>Larus fuscus</i>	SCI, WA	Amber	NBDC online database record
Lesser Whitethroat <i>Sylvia curruca</i>	WA	Amber	NBDC online database record
Light-bellied Brent Goose <i>Branta bernicla subsp. hrota</i>	SCI, WA	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Little Egret <i>Egretta garzetta</i>	BD I, WA	Green	NBDC online database record
Little Grebe <i>Tachybaptus ruficollis</i>	SCI, WA	Green	NBDC online database record
Little Tern <i>Sternula albifrons</i>	BD I, WA	Amber	NBDC online database record
Mallard <i>Anas platyrhynchos</i>	SCI, BD II(I) BD III(I), WA	Amber	NBDC online database record
Manx Shearwater <i>Puffinus puffinus</i>	SCI, BD I, WA	Amber	NBDC online database record
Meadow Pipit <i>Anthus pratensis</i>	WA	Red	NBDC online database record
Mediterranean Gull <i>Larus melanocephalus</i>	BD I, WA	Amber	NBDC online database record
Merlin <i>Falco columbarius</i>	SCI, BD I, WA	Amber	NBDC online database record
Mew Gull <i>Larus canus</i>	SCI, WA	Amber	NBDC online database record
Montagu's Harrier <i>Circus pygargus</i>	BD I, WA	n / a	NBDC online database record
Mute Swan <i>Cygnus olor</i>	WA	Amber	NBDC online database record
Northern Gannet <i>Morus bassanus</i>	SCI, WA	Amber	NBDC online database record
Northern Goshawk <i>Accipiter gentilis</i>	WA	Amber	NBDC online database record
Northern Lapwing <i>Vanellus vanellus</i>	SCI, BD II(II), WA	Red	NBDC online database record
Northern Pintail <i>Anas acuta</i>	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
Northern Shoveler <i>Anas clypeata</i>	SCI, BD II(I) BD III(III), WA	Red	NBDC online database record
Northern Wheatear <i>Oenanthe oenanthe</i>	WA	Amber	NBDC online database record
Peregrine Falcon <i>Falco peregrinus</i>	SCI, BD I, WA	Green	NBDC online database record
Pied Avocet <i>Recurvirostra avosetta</i>	BD I, WA	n / a	NBDC online database record
Red Grouse <i>Lagopus lagopus</i>	BD II(I) BD III(I), WA	Red	NBDC online database record
Red Kite <i>Milvus milvus</i>	BD I, WA	Amber	NBDC online database record
Red Knot <i>Calidris canutus</i>	SCI, WA	Amber	NBDC online database record
Red-backed Shrike <i>Lanius collurio</i>	BD I, WA	n / a	NBDC online database record

Common Name / Scientific name	Legal Status	Red List Status	Source
Red-breasted Merganser <i>Mergus serrator</i>	SCI, BD II(II), WA	Amber	NBDC online database record
Red-footed Falcon <i>Falco vespertinus</i>	BD I, WA	n / a	NBDC online database record
Red-throated Diver <i>Gavia stellata</i>	SCI, BD I, WA	Amber	NBDC online database record
Ring Ouzel <i>Turdus torquatus</i>	WA	Red	NBDC online database record
Ringed Plover <i>Charadrius hiaticula</i>	SCI, WA	Amber	NBDC online database record
Ruddy Turnstone <i>Arenaria interpres</i>	SCI, WA	Green	NBDC online database record
Sand Martin <i>Riparia riparia</i>	WA	Amber	NBDC online database record
Sanderling <i>Calidris alba</i>	SCI, WA	Green	NBDC online database record
Sky Lark <i>Alauda arvensis</i>	WA	Amber	NBDC online database record
Smew <i>Marcellus albellus</i>	BD I, WA	Amber	NBDC online database record
Snowy Owl <i>Bubo scandiaca</i>	BD I, WA	n / a	NBDC online database record
Spotted Crake <i>Porzana porzana</i>	BD I, WA	Amber	NBDC online database record
Spotted Flycatcher <i>Muscicapa striata</i>	BD I, WA	Amber	NBDC online database record
Squacco Heron <i>Ardeola ralloides</i>	BD I, WA	n / a	NBDC online database record
Stock Pigeon <i>Columba oenas</i>	WA	Amber	NBDC online database record
Stone-curlew <i>Burhinus oedichnemus</i>	BD I, WA	n / a	NBDC online database record
Tufted Duck <i>Aythya fuligula</i>	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record
Tundra Swan <i>Cygnus columbianus</i>	SCI, WA	n / a	NBDC online database record
Twite <i>Carduelis flavirostris</i>	WA	Red	NBDC online database record
Water Rail <i>Rallus aquaticus</i>	WA	Amber	NBDC online database record
Whinchat <i>Saxicola rubetra</i>	WA	Red	NBDC online database record
White Stork <i>Ciconia ciconia</i>	BD I, WA	n / a	NBDC online database record
Whooper Swan <i>Cygnus cygnus</i>	SCI, BD I, WA	Amber	NBDC online database record
Wood Lark <i>Lullula arborea</i>	BD I, WA	n / a	NBDC online database record
Wood Warbler <i>Phylloscopus sibilatrix</i>	WA	Amber	NBDC online database record
Yellowhammer <i>Emberiza citrinella</i>	WA	Red	NBDC online database record
<b>Reptiles</b>			
Common Lizard <i>Zootoca vivipara</i>	WA	n / a	NBDC online database record
<b>Amphibians</b>			
Common Frog <i>Rana temporaria</i>	HD II	Least concern	NBDC online database record
Smooth Newt <i>Lissotriton vulgaris</i>	WA	Least concern	NBDC online database record
<b>Fish</b>			
European Eel <i>Anguilla anguilla</i>	OSPAR, Fisheries Acts	Critically endangered	NBDC online database record
<b>Invertebrates</b>			
Blind Snail <i>Cecilioides Cecilioides acicula</i>	n / a	Vulnerable	NBDC online database record
Brown Snail <i>Zenobiella subrufescens</i>	n / a	Vulnerable	NBDC online database record
Common Shelled Slug <i>Testacella haliotideia</i>	n / a	Vulnerable	NBDC online database record
Desmoulin's Whorl Snail <i>Vertigo Vertigo moulinsiana</i>	HD II	Endangered	NBDC online database record
Duck Mussel <i>Anodonta Anodonta anatina</i>	n / a	Vulnerable	NBDC online database record
Ear Pond Snail <i>Radix auricularia</i>	n / a	Vulnerable	NBDC online database record
English Chrysalis Snail <i>Leiostyla anglica</i>	n / a	Vulnerable	NBDC online database record
Freshwater White-clawed Crayfish <i>Austropotamobius pallipes</i>	HD II, HD V	Not evaluated	NBDC online database record
Glutinous Snail <i>Myxas glutinosa</i>	n / a	Endangered	NBDC online database record
Heath Snail <i>Helicella itala</i>	n / a	Vulnerable	NBDC online database record
Lake Orb Mussel <i>Musculium lacustre</i>	n / a	Vulnerable	NBDC online database record
Lesser Bulin <i>Merdigera obscura</i>	n / a	Endangered	NBDC online database record



Common Name / Scientific name	Legal Status	Red List Status	Source
Marsh Whorl Snail <i>Vertigo Vertigo antivertigo</i>	n / a	Vulnerable	NBDC online database record
Moss Bladder Snail <i>Aplexa hypnorum</i>	n / a	Vulnerable	NBDC online database record
Moss Chrysalis Snail <i>Pupilla Pupilla muscorum</i>	n / a	Endangered	NBDC online database record
<i>Pisidium pseudosphaerium</i>	n / a	Endangered	NBDC online database record
Plated Snail <i>Spermodea lamellata</i>	n / a	Endangered	NBDC online database record
Point Snail <i>Acicula fusca</i>	n / a	Vulnerable	NBDC online database record
Smooth Grass Snail <i>Vallonia pulchella</i>	n / a	Vulnerable	NBDC online database record
Smooth Ramshorn <i>Gyraulus laevis</i>	n / a	Endangered	NBDC online database record
Swan Mussel <i>Anodonta cygnea</i>	n / a	Vulnerable	NBDC online database record
Tree Snail <i>Balea perversa</i>	n / a	Vulnerable	NBDC online database record
<i>Andrena praecox</i>	n / a	Vulnerable	NBDC online database record
<i>Andrena coitana</i>	n / a	Endangered	NBDC online database record
<i>Andrena denticulata</i>	n / a	Vulnerable	NBDC online database record
<i>Andrena fuscipes</i>	n / a	Vulnerable	NBDC online database record
<i>Andrena nigroaenea</i>	n / a	Vulnerable	NBDC online database record
<i>Andrena semilaevis</i>	n / a	Vulnerable	NBDC online database record
Bagous <i>alismatis</i>	n / a	Critically endangered	NBDC online database record
Barbut's Cuckoo Bee <i>Bombus barbutellus</i>	n / a	Endangered	NBDC online database record
<i>Coelioxys elongata</i>	n / a	Endangered	NBDC online database record
Dark Green Fritillary <i>Argynnis aglaja</i>	n / a	Vulnerable	NBDC online database record
Enicocerus exsculptus	n / a	Endangered	NBDC online database record
Ephemerella notata	n / a	Endangered	NBDC online database record
Feathered Gothic <i>Tholera decimalis</i>	n / a	Critically endangered	NBDC online database record
Field Cuckoo Bee <i>Bombus campestris</i>	n / a	Vulnerable	NBDC online database record
Gooden's Nomad Bee <i>Nomada goodeniana</i>	n / a	Endangered	NBDC online database record
Great Yellow Bumble Bee <i>Bombus distinguendus</i>	n / a	Endangered	NBDC online database record
Hill Cuckoo Bee <i>Bombus Psithyrus rupestris</i>	n / a	Endangered	NBDC online database record
<i>Hydrocyphon deflexicollis</i>	n / a	Endangered	NBDC online database record
<i>Hylaeus brevicornis</i>	n / a	Endangered	NBDC online database record
<i>Labiobaetis atrebatinus</i>	n / a	Endangered	NBDC online database record
<i>Limnebius nitidus</i>	n / a	Endangered	NBDC online database record
Marsh Fritillary <i>Euphydryas aurinia</i>	HD II	Vulnerable	NBDC online database record
Narrow-bordered Five-spot Burnet <i>Zygaena lonicerae</i>	n / a	Vulnerable	NBDC online database record
Neat Mining Bee <i>Lasioglossum nitidiusculum</i>	n / a	Vulnerable	NBDC online database record
<i>Nomada obtusifrons</i>	n / a	Endangered	NBDC online database record
<i>Nomada striata</i>	n / a	Endangered	NBDC online database record
<i>Ochthebius bicolon</i>	n / a	Vulnerable	NBDC online database record
<i>Procloeon bifidum</i>	n / a	Vulnerable	NBDC online database record
Protonemura praecox	n / a	Critically endangered	NBDC online database record
Tawny Mining Bee <i>Andrena fulva</i>	n / a	Regionally Extinct*	NBDC online database record
Red-tailed Carder Bee <i>Bombus ruderarius</i>	n / a	Vulnerable	NBDC online database record
<i>Rhithrogena germanica</i>	n / a	Vulnerable	NBDC online database record
Scarce Blue-tailed Damselfly <i>Ischnura pumilio</i>	n / a	Vulnerable	NBDC online database record
Small Blue <i>Cupido minimus</i>	n / a	Endangered	NBDC online database record

Common Name / Scientific name	Legal Status	Red List Status	Source
Furry-Bellied Blood Bee <i>Sphcodes hyalinatus</i>	n / a	Vulnerable	NBDC online database record
Trimmer's Mining Bee <i>Andrena trimmerana</i>	n / a	Critically endangered	NBDC online database record

HDII / IV / V = Habitats Directive Annexes II/IV/V; FPO = Flora (Protection) Order, 2015; WA = Wildlife Acts.

HD II / IV / V = Habitats Directive Annexes II/IV/V; BD I / II / III = Birds Directive Annex I / II / III; OSPAR = Convention for the protection of the marine environment of the North-east Atlantic 1992; \* = species considered regional extinct in their respective Red list documents, which have since been rediscovered.

**Table 2 Non-native IAPS species listed under S.I 477 of the Birds and Habitats Regulations 2011**

Common Name / Scientific name	Legal Status	Source
American Skunk-cabbage <i>Lysichiton americanus</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Brazilian Giant-rhubarb <i>Gunnera manicata</i>	Third schedule of S.I. 477	NBDC online database record
Canadian Waterweed <i>Elodea canadensis</i>	Delisted as S.I. 477	NBDC online database record
Common Cord-grass <i>Spartina anglica</i>	Third schedule of S.I. 477	NBDC online database record
Curly Waterweed <i>Lagarosiphon major</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Floating Pennywort <i>Hydrocotyle ranunculoides</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Giant Hogweed <i>Heracleum mantegazzianum</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Giant Knotweed <i>Reynoutria sachalinensis</i>	Third schedule of S.I. 477	NBDC online database record
Giant-rhubarb <i>Gunnera tinctoria</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Himalayan Knotweed <i>Persicaria wallichii</i>	Third schedule of S.I. 477	NBDC online database record
Hottentot-fig <i>Carpobrotus edulis</i>	Third schedule of S.I. 477	NBDC online database record
Indian Balsam <i>Impatiens glandulifera</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Japanese Knotweed <i>Reynoutria japonica</i>	Third schedule of S.I. 477	NBDC online database record
New Zealand Pigmyweed <i>Crassula helmsii</i>	Third schedule of S.I. 477	NBDC online database record
Nuttall's Waterweed <i>Elodea nuttallii</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Parrot's-feather <i>Myriophyllum aquaticum</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Rhododendron <i>Rhododendron ponticum</i>	Third schedule of S.I. 477	NBDC online database record
Salmonberry <i>Rubus spectabilis</i>	Third schedule of S.I. 478	NBDC online database record
Sea-buckthorn <i>Hippophae rhamnoides</i>	Third schedule of S.I. 477	NBDC online database record
Spanish Bluebell <i>Hyacinthoides hispanica</i>	Third schedule of S.I. 477	NBDC online database record
Three-cornered Garlic <i>Allium triquetrum</i>	Third schedule of S.I. 477	NBDC online database record
Water Fern <i>Azolla filiculoides</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Tree-of-heaven <i>Ailanthus altissima</i>	Species of Union concern	NBDC online database record
Wakame <i>Undaria pinnatifida</i>	Third schedule of S.I. 477	NBDC online database record
Wireweed <i>Sargassum muticum</i>	Third schedule of S.I. 477	NBDC online database record

S.I. 477 = Third Schedule of S.I. No. 477/2011 - European Communities (Birds and Natural Habitats) Regulations 2011, Species of Union concern = Regulation (EU) No 1143 / 2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species, and Commission Implementing Regulation (EU) 2017/1263 updating the list of invasive alien species of Union concern established by Implementing Regulation (EU) 2016/1141 pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council.

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