

The background is a vibrant yellow. It is decorated with several abstract geometric shapes in shades of blue, teal, and white. These shapes include circles, teardrop-like forms, and rounded rectangles, some of which are partially cut off by the edges of the page. The overall aesthetic is modern and clean.

Appendix A12.1

Desk Study

Contents

Appendix 12.1: Desk Study..... 1

1.1 Desk Study Results 1

1.2 References: 9

Appendix 12.1: Desk Study

1.1 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
Plants			
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
Blue Fleabane <i>Erigeron acer</i>	n / a	Least concern	NPWS Consultation 2021
Ceruous Thread-moss <i>Bryum uliginosum</i>	n / a	Endangered	Dublin City Biodiversity Action Plan 2015 - 2020
Dittander <i>Lepidium latifolium</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>	FPO	Vulnerable	NBDC online database record
Hairy Violet <i>Viola hirta</i>	FPO	Vulnerable	NBDC online database record, NPWS Consultation 2021, Dublin City Biodiversity Action Plan 2015 - 2020
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>	n / a	Endangered	NBDC online database record
Meadow Barley <i>Hordeum secalinum</i>	FPO	Vulnerable	NBDC online database record, NPWS Consultation 2021, Dublin City Biodiversity Action Plan 2015 - 2020
Meadow Crane's-bill <i>Geranium pratense</i>	n / a	Vulnerable	NBDC online database record
Meadow Saxifrage <i>Saxifraga granulata</i>	FPO	Regionally extinct*	NPWS Consultation 2021, Dublin City Biodiversity Action Plan 2015 - 2020
Lesser Centaury <i>Centaureum pulchellum</i>	FPO	Endangered	Dublin City Biodiversity Action Plan 2015 - 2020
Many-seasoned Thread-moss <i>Bryum intermedium</i>	n / a	Endangered	Dublin City Biodiversity Action Plan 2015 - 2020
Opposite-leaved Pondweed <i>Groenlandia densa</i>	FPO	Near Threatened	NBDC online database record, NPWS Consultation 2021, Dublin City Biodiversity Action Plan 2015 - 2020
Petalwort <i>Petalophyllum ralfsii</i>	FPO	Least concern	Dublin City Biodiversity Action Plan 2015 - 2020
Ribbonwort <i>Pallavicinia lyellii</i>	FPO	Endangered	NBDC online database record
Shady Beard-moss <i>Didymodon umbrosus</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
Stream Water-crowfoot <i>Ranunculus penicillatus</i>	n / a	Vulnerable	NBDC online database record
Warne's Thread-moss <i>Bryum warneum</i>	FPO	Endangered	Dublin City Biodiversity Action Plan 2015 - 2020
Mammals			
Brown Long-eared Bat <i>Plecotus auritus</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Daubenton's Bat <i>Myotis daubentonii</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Eurasian Badger <i>Meles meles</i>	WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Eurasian Pygmy Shrew <i>Sorex minutus</i>	WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Eurasian Red Squirrel <i>Sciurus vulgaris</i>	WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
European Hedgehog <i>Erinaceus europaeus</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, Dublin City Biodiversity Action Plan 2015 - 2020
Fallow deer <i>Dama dama</i>	HD III, WA	n / a	Dublin City Biodiversity Action Plan 2015 - 2020
Irish Hare <i>Lepus timidus subsp. hibernicus</i>	WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020

Common Name / Scientific name	Legal Status	Red List Status	Source
Irish Stoat <i>Mustela erminea subsp. hibernica</i>	WA	Least concern	Dublin City Biodiversity Action Plan 2015 - 2020
Lesser Noctule <i>Nyctalus leisleri</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Nathusius's Pipistrelle <i>Pipistrellus nathusii</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Natterer's Bat <i>Myotis nattereri</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Pipistrelle <i>Pipistrellus pipistrellus sensu lato</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Whiskered Bat <i>Myotis mystacinus</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Common Porpoise <i>Phocoena phocoena</i>	HD II, HD V, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Grey Seal <i>Halichoerus grypus</i>	HD II, HD V, WA	Least concern	NBDC online database record
Striped Dolphin <i>Stenella coeruleoalba</i>	HD IV, WA	n / a	NBDC online database record
Pine Marten <i>Martes martes</i>	HD V, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Red Deer <i>Cervus elaphus</i>	WA	Least concern	NBDC online database record
Sperm Whale <i>Physeter macrocephalus</i>	HD IV, WA	Near Threatened	NBDC online database record
Whiskered Bat <i>Myotis mystacinus</i>	HD IV, WA	Least concern	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Birds			
Arctic Tern <i>Sterna paradisaea</i>	SCI, BD I, WA	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
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, Dublin City Biodiversity Action Plan 2015 - 2020
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, Dublin City Biodiversity Action Plan 2015 - 2020
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
Brent Goose <i>Branta bernicla</i>	WA	Amber	NBDC online database record
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 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, Dublin City Biodiversity Action Plan 2015 - 2020

Common Name / Scientific name	Legal Status	Red List Status	Source
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 Scoter <i>Melanitta nigra</i>	SCI, BD II(II) BD III(III), WA	Red	NBDC online database record
Common Shelduck <i>Tadorna tadorna</i>	SCI, WA	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
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, Dublin City Biodiversity Action Plan 2015 - 2020
Common Wood Pigeon <i>Columba palumbus</i>	BD II(I) BD III(I), WA	Green	NBDC online database record
Corn Crane <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, Dublin City Biodiversity Action Plan 2015 - 2020
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, Dublin City Biodiversity Action Plan 2015 - 2020
Eurasian Teal <i>Anas crecca</i>	SCI, BD II(I) BD III(II), WA	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
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	Amber	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, Dublin City Biodiversity Action Plan 2015 - 2020
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>	BD II(II), WA	Amber	NBDC online database record
Great Black-backed Gull <i>Larus marinus</i>	WA	Amber	NBDC online database record
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)	Red	NBDC online database record

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Grey Plover <i>Pluvialis squatarola</i>	SCI, WA	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Grey Wagtail <i>Motacilla cinerea</i>	WA	Red	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
Jack Snipe <i>Lymnocyptes minimus</i>	BD II(I) BD III(III)	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, Dublin City Biodiversity Action Plan 2015 - 2020
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
Mandarin Duck <i>Aix galericulata</i>	WA	n / a	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, Dublin City Biodiversity Action Plan 2015 - 2020
Merlin <i>Falco columbarius</i>	SCI, BD I	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Mew Gull <i>Larus canus</i>	SCI, WA	Amber	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 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)	Amber	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
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, Dublin City Biodiversity Action Plan 2015 - 2020
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)	Red	NBDC online database record
Red Kite <i>Milvus milvus</i>	BD I	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
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
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, Dublin City Biodiversity Action Plan 2015 - 2020
Sand Martin <i>Riparia riparia</i>	WA	Amber	NBDC online database record

Common Name / Scientific name	Legal Status	Red List Status	Source
Sanderling <i>Calidris alba</i>	SCI, WA	Green	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
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
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
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	Red	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
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
Yellowhammer <i>Emberiza citrinella</i>	WA	Red	NBDC online database record
Reptiles			
Common Lizard <i>Zootoca vivipara</i>	WA	n / a	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record
Amphibians			
Common Frog <i>Rana temporaria</i>	HD II	Least concern	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record
Smooth Newt <i>Lissotriton vulgaris</i>	WA	Least concern	Dublin City Biodiversity Action Plan 2015 – 2020; NBDC online database record
Fish			
European Eel <i>Anguilla anguilla</i>	OSPAR, Fisheries Acts	Critically endangered	NBDC online database record
Brown / sea Trout <i>Salmo trutta L.</i>	Fisheries Acts and fishing bylaws	Least Concern	IFI Consultation (2020, Dublin City Biodiversity Action Plan 2015 - 2020
River Lamprey <i>Lampetra fluviatilis</i>	HD II, HD V, OSPAR, Fisheries Acts	Least Concern	Kelly et al., (2012), IFI Consultation (2020)
Brook lamprey <i>Lampetra planeri</i>	HD II, Fisheries Acts	Least Concern	IFI Consultation (2020), Dublin City Biodiversity Action Plan 2015 - 2020
Sea lamprey <i>Petromyzon marinu</i>	HD II, Fisheries Acts	Near threatened	Dublin City Biodiversity Action Plan 2015 - 2020
Atlantic salmon <i>Salmo salar</i>	Fisheries Acts and fishing bylaws	Vulnerable	Kelly et al., (2012), IFI Consultation (2020)
Invertebrates			
Freshwater White-clawed Crayfish <i>Austropotamobius pallipes</i>	HD II, HD V	Endangered	NBDC online database record
Brown Snail <i>Zenobiella subrufescens</i>	n / a	Vulnerable	NBDC online database record
Common Shelled Slug <i>Testacella haliotidea</i>	n / a	Vulnerable	NBDC online database record
Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i>	HD II	Endangered	NBDC online database record
Duck Mussel <i>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>Leiostryla anglica</i>	n / a	Vulnerable	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
Lesser Bulin <i>Merdigera obscura</i>	n / a	Endangered	NBDC online database record

Common Name / Scientific name	Legal Status	Red List Status	Source
False Orb Pea Mussel <i>Pisidium pseudosphaerium</i>	n / a	Endangered	NBDC online database record
Iridescent Pea Mussel <i>Pisidium pulchellum</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	Endangered	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
Small Sallow Mining Bee <i>Andrena praecox</i>	n / a	Vulnerable	NBDC online database record
Buffish Mining Bee <i>Andrena nigroaenea</i>	n / a	Vulnerable	NBDC online database record
Water Plantain Sloth Weevil <i>Bagous 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
Dark Green Fritillary <i>Argynnis aglaja</i>	n / a	Vulnerable	NBDC online database record
Yellow Hawk Mayfly <i>Ephemerella notata</i>	n / a	Endangered	NBDC online database record
Feathered Gothic moth <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 rupestris</i>	n / a	Endangered	NBDC online database record
Short-horned Yellow-face Bee <i>Hylaeus brevicornis</i>	n / a	Endangered	NBDC online database record
Dark Olive Mayfly <i>Labiobaetis atrebatinus</i>	n / a	Endangered	NBDC online database record
Marsh Fritillary <i>Euphydryas aurinia</i>	HD II	Vulnerable	NBDC online database record, Dublin City Biodiversity Action Plan 2015 - 2020
Neat Mining Bee <i>Lasioglossum nitidiusculum</i>	n / a	Vulnerable	NBDC online database record
Pale evening mayfly <i>Procloeon bifidum</i>	n / a	Vulnerable	NBDC online database record
March brown mayfly <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
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
Himalayan Balsam <i>Impatiens glandulifera</i>	Third schedule of S.I. 477 / Species of Union concern	NBDC online database record
Water Fern <i>Azolla filiculoides</i>	Third schedule of S.I. 477	NBDC online database record
Brazilian Giant-rhubarb <i>Gunnera manicata</i>	Third schedule of S.I. 477	NBDC online database record
Giant Knotweed <i>Reynoutria sachalinensis</i>	Third schedule of S.I. 477	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
Rhododendron <i>Rhododendron ponticum</i>	Third schedule of S.I. 477	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

Common Name / Scientific name	Legal Status	Source
Three-cornered Garlic <i>Allium triquetrum</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
American Skunk-cabbage <i>Lysichiton americanus</i>	Third schedule of S.I. 477 / Species of Union concern	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
Giant Hogweed <i>Heracleum mantegazzianum</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
Curly Waterweed <i>Lagarosiphon major</i>	Third schedule of S.I. 477 / Species of Union concern	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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