

The background is a vibrant yellow. It is decorated with several abstract geometric shapes in shades of blue, teal, and white. In the top right, there are overlapping circles and a teardrop shape. In the bottom left, there are elongated rounded shapes and circles. On the right edge, there are circular elements that appear to be cut off by the page boundary. The overall style is modern and clean.

## Appendix A12.1

### Desk Study

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

Plant species which are legally protected under the Flora (Protection) Order, 2022 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                          |
| Black Horehound <i>Ballota nigra</i>               | n/a          | Near threatened | NBDC online database record                          |
| Blue Fleabane <i>Erigeron acer</i>                 | n/a          | Least concern   | NBDC online database record, NPWS Consultation 2021, |
| Blunt-fruited Pottia <i>Tortula modica</i>         | n/a          | Vulnerable      | NBDC online database record                          |
| Chalk Screw-moss <i>Tortula vahliana</i>           | n/a          | Vulnerable      | NBDC online database record                          |
| Common Extinguisher-moss <i>Encalypta vulgaris</i> | n/a          | Near threatened | NBDC online database record                          |
| Common Gromwell <i>Lithospermum officinale</i>     | n/a          | Near threatened | NBDC online database record                          |
| Common Sorrel <i>Rumex acetosa</i>                 | n/a          | Near threatened | NBDC online database record                          |
| Dittander <i>Lepidium latifolium</i>               | n/a          | Vulnerable      | NBDC online database record                          |
| Dwarf Mallow <i>Malva neglecta</i>                 | n/a          | Near threatened | NBDC online database record                          |
| Fringed Heartwort <i>Ricciocarpos natans</i>       | n/a          | Near threatened | NBDC online database record                          |
| Corn Marigold <i>Glebionis segetum</i>             | n/a          | Near threatened | NBDC online database record                          |
| Great Burnet <i>Sanguisorba officinalis</i>        | FPO          | Vulnerable      | NBDC online database record                          |
| Greater Knapweed <i>Centaurea scabiosa</i>         | n/a          | Near threatened | NBDC online database record                          |

| Common Name / Scientific name                           | Legal Status        | Red List Status          | Source  |
|---|---------------------|--------------------------|---|
| Hairy Violet <i>Viola hirta</i>                         | FPO                 | Vulnerable               | NBDC online database record<br>NPWS Consultation 2021,<br>Dublin City Biodiversity Action<br>Plan 2021-2025 |
| Irish Whitebeam <i>Sorbus hibernica</i>                 | n/a                 | Vulnerable               | NBDC online database record   |
| Lance-leaved Pottia <i>Tortula lanceola</i>             | n/a                 | Critically<br>endangered | NBDC online database record   |
| Meadow Barley <i>Hordeum secalinum</i>                  | FPO                 | Vulnerable               | NBDC online database record,<br>Dublin City Biodiversity Action<br>Plan 2015-2020                           |
| Meadow Crane's-bill <i>Geranium pratense</i>            | n/a                 | Vulnerable               | NBDC online database record,<br>NPWS Consultation 2021,   |
| Opposite-leaved Pondweed <i>Groenlandia densa</i>       | FPO                 | Near threatened          | NBDC online database record,<br>Dublin City Biodiversity Action<br>Plan 2021-2025                           |
| Oval-leaved Pottia <i>Pterygoneurum ovatum</i>          | n/a                 | Regionally extinct       | NBDC online database record,<br>NPWS Consultation 2021,   |
| Pale Flax <i>Linum bienne</i>                           | n/a                 | Near threatened          | NBDC online database record   |
| Purple Spurge <i>Euphorbia pepelis</i>                  | n/a                 | Regionally extinct       | NBDC online database record   |
| Rigid Aloe-moss <i>Aloina rigida</i>                    | n/a                 | Regionally extinct       | NBDC online database record   |
| Round-leaved Crane's-bill <i>Geranium rotundifolium</i> | n/a                 | Least concern            | NBDC online database record   |
| Sausage Beard-moss <i>Didymodon tomaculosus</i>         | n/a                 | Vulnerable               | NBDC online database record   |
| Shady Beard-moss <i>Didymodon umbrosus</i>              | n/a                 | Vulnerable               | NBDC online database record   |
| Small Cudweed <i>Filago minima</i>                      | FPO                 | Near threatened          | NBDC online database record   |
| Smooth Brome <i>Bromus racemosus</i>                    | n/a                 | Near threatened          | NBDC online database record   |
| Spiral Chalk-moss <i>Pterygoneurum lamellatum</i>       | n/a                 | Regionally extinct       | NBDC online database record   |
| Spring Vetch <i>Vicia lathyroides</i>                   | n/a                 | Least concern            | NBDC online database record   |
| Starke's Pottia <i>Microbryum starckeanum</i>           | n/a                 | Regionally extinct       | NBDC online database record   |
| Tall Aloe-moss <i>Aloina ambigua</i>                    | n/a                 | Endangered               | NBDC online database record   |
| Tiny Feather-moss <i>Amblystegium confervoides</i>      | n/a                 | Near threatened          | NBDC online database record   |
| Tubular Water-dropwort <i>Oenanthe fistulosa</i>        | n/a                 | Near threatened          | NBDC online database record   |
| Tufted Feather-moss <i>Scleropodium cespitans</i>       | n/a                 | Near threatened          | NBDC online database record   |
| Twisting Thread-moss <i>Bryum torquescens</i>           | n/a                 | Vulnerable               | NBDC online database record   |
| Upright Brome <i>Bromopsis erecta</i>                   | n/a                 | Near threatened          | NBDC online database record   |
| Water-violet <i>Hottonia palustris</i>                  | n/a                 | Critically<br>endangered | NBDC online database record   |
| <b>Mammals</b>  |                     |                          |   |
| Brown Long eared Bat <i>Plecotus auritus</i>            | HD IV, WA           | Least concern            | NBDC online database record<br>Dublin City Biodiversity Action<br>Plan 2021-2025                            |
| Common Porpoise <i>Phocoena phocoena</i>                | HD II, HD<br>V, WA  | Not Evaluated            | NBDC online database record   |
| Daubenton's Bat <i>Myotis daubentonii</i>               | HD IV, WA           | Least concern            | NBDC online database record,<br>Dublin City Biodiversity Action<br>Plan 2015-2020                           |
| Eurasian Badger <i>Meles meles</i>                      | WA                  | Least concern            | NBDC online database record,<br>Dublin City Biodiversity Action<br>Plan 2021-2025                           |
| 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<br>IV, WA | Least concern            | NBDC online database record   |
| Grey Seal <i>Halichoerus grypus</i>                     | HD II, HD<br>V, WA  | Least concern            | NBDC online database record   |
| Irish Hare <i>Lepus timidus subsp. hibernicus</i>       | WA                  | Least concern            | NBDC online database record   |

| Common Name / Scientific name                           | Legal Status  | Red List Status    | Source  |
|---|---------------|--------------------|---|
| 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, Dublin City Biodiversity Action Plan 2021-2025 |
| 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, Dublin City Biodiversity Action Plan 2021-2025 |
| Soprano Pipistrelle <i>Pipistrellus pygmaeus</i>        | HD IV, WA     | Least concern      | NBDC online database record   |
| European Rabbit <i>Oryctolagus cuniculus</i>            | WA            | Least concern      | NBDC online database record   |
| Striped Dolphin <i>Stenella coeruleoalba</i>            | HD IV, WA     | Not Evaluated      | NBDC online database record   |
| Whiskered Bat <i>Myotis mystacinus</i>                  | HD IV, WA     | Least concern      | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Wolf <i>Canis lupus</i>                                 | n/a           | Regionally extinct | NBDC online database record   |
| House Mouse <i>Mus musculus</i>                         | WA            | Least concern      | NBDC online database record   |
| Wood Mouse <i>Apodemus sylvaticus</i>                   | WA            | Least concern      | NBDC online database record   |
| <b>Birds</b>  |               |                    |   |
| Alpine Swift <i>Apus melba</i>                          | WA            | n/a                | NBDC online database record   |
| American Golden Plover <i>Pluvialis dominica</i>        | WA            | n/a                | NBDC online database record   |
| American Herring Gull <i>Larus smithsonianus</i>        | WA            | n/a                | NBDC online database record   |
| Arctic Tern <i>Sterna paradisaea</i>                    | SCI, BD I, WA | Amber              | NBDC online database record   |
| Baird's Sandpiper <i>Calidris bairdii</i>               | WA            | n/a                | NBDC online database record   |
| Bar-headed Goose <i>Anser indicus</i>                   | WA            | n/a                | 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 | Red                | NBDC online database record   |
| Black Brant <i>Branta bernicla subsp. nigricans</i>     | WA            | Green              | NBDC online database record   |
| Black Guillemot <i>Cephus grylle</i>                    | WA            | Amber              | NBDC online database record   |
| Black Redstart <i>Phoenicurus ochruros</i>              | WA            | Green              | NBDC online database record   |
| Black Swan <i>Cygnus atratus</i>                        | WA            | n/a                | NBDC online database record   |
| Black-billed Magpie <i>Pica pica</i>                    | WA            | Green              | NBDC online database record   |
| Blackcap <i>Sylvia atricapilla</i>                      | WA            | Green              | NBDC online database record   |
| Black-headed Gull <i>Larus ridibundus</i>               | SCI, 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   |
| Blue Tit <i>Cyanistes caeruleus</i>                     | WA            | Green              | NBDC online database record   |
| Blue-winged Teal <i>Anas discors</i>                    | WA            | n/a                | NBDC online database record   |
| Bohemian Waxwing <i>Bombycilla garrulus</i>             | WA            | Green              | NBDC online database record   |
| Bonaparte's Gull <i>Larus philadelphia</i>              | WA            | n/a                | NBDC online database record   |
| Brambling <i>Fringilla montifringilla</i>               | WA            | Green              | NBDC online database record   |
| Brent Goose <i>Branta bernicla</i>                      | WA            | Amber              | NBDC online database record   |
| Carrion Crow <i>Corvus corone</i>                       | WA            | Green              | NBDC online database record   |

| Common Name / Scientific name                       | Legal Status             | Red List Status | Source                      |
|---|--------------------------|-----------------|-----------------------------|
| Carrion/Hooded Crow <i>Corvus corone</i> agg.       | WA                       | Green           | NBDC online database record |
| Chaffinch <i>Fringilla coelebs</i>                  | WA                       | Green           | NBDC online database record |
| Coal Tit <i>Periparus ater</i>                      | WA                       | Green           | NBDC online database record |
| Common Blackbird <i>Turdus merula</i>               | WA                       | Green           | NBDC online database record |
| Common Bullfinch <i>Pyrrhula pyrrhula</i>           | WA                       | Green           | NBDC online database record |
| Common Buzzard <i>Buteo buteo</i>                   | WA                       | Green           | NBDC online database record |
| Common Chiffchaff <i>Phylloscopus collybita</i>     | WA                       | Green           | NBDC online database record |
| Common Coot <i>Fulica atra</i>                      | SCI, WA                  | Amber           | NBDC online database record |
| Common Cuckoo <i>Cuculus canorus</i>                | WA                       | Green           | 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                       | Green           | 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                       | Red             | 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 Moorhen <i>Gallinula chloropus</i>           | WA                       | Green           | 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, WA                  | Red             | NBDC online database record |
| Common Raven <i>Corvus corax</i>                    | WA                       | Green           | 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>                       | WA                       | Red             | NBDC online database record |
| Common Tern <i>Sterna hirundo</i>                   | SCI, BD I, WA            | Amber           | NBDC online database record |
| Common Whitethroat <i>Sylvia communis</i>           | WA                       | Green           | 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 |
| Curlew Sandpiper <i>Calidris ferruginea</i>         | WA                       | Green           | 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 Golden Oriole <i>Oriolus oriolus</i>       | WA                       | n/a             | NBDC online database record |
| Eurasian Hobby <i>Falco subbuteo</i>                | WA                       | Green           | NBDC online database record |
| Eurasian Jackdaw <i>Corvus monedula</i>             | WA                       | Green           | NBDC online database record |
| Eurasian Jay <i>Garrulus glandarius</i>             | WA                       | Green           | NBDC online database record |
| Eurasian Oystercatcher <i>Haematopus ostralegus</i> | SCI, WA                  | Red             | NBDC online database record |
| Eurasian Siskin <i>Carduelis spinus</i>             | WA                       | Green           | NBDC online database record |

| Common Name / Scientific name                     | Legal Status                   | Red List Status | Source                      |
|---|--------------------------------|-----------------|-----------------------------|
| Eurasian Sparrowhawk <i>Accipiter nisus</i>       | WA                             | Green           | 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 Treecreeper <i>Certhia familiaris</i>    | WA                             | Green           | 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 Bee-eater <i>Merops apiaster</i>         | WA                             | n/a             | NBDC online database record |
| European Golden Plover <i>Pluvialis apricaria</i> | SCI, BD I BD II(II), WA        | Red             | NBDC online database record |
| European Goldfinch <i>Carduelis carduelis</i>     | WA                             | Green           | NBDC online database record |
| European Greenfinch <i>Carduelis chloris</i>      | WA                             | Amber           | NBDC online database record |
| European Robin <i>Erithacus rubecula</i>          | WA                             | Green           | NBDC online database record |
| European Serin <i>Serinus serinus</i>             | WA                             | n/a             | NBDC online database record |
| European Shag <i>Phalacrocorax aristotelis</i>    | SCI, WA                        | Amber           | NBDC online database record |
| European Turtle Dove <i>Streptopelia turtur</i>   | WA                             | Red             | NBDC online database record |
| Fieldfare <i>Turdus pilaris</i>                   | WA                             | Green           | NBDC online database record |
| Forster's Tern <i>Sterna forsteri</i>             | WA                             | n/a             | NBDC online database record |
| Franklin's Gull <i>Larus pipixcan</i>             | WA                             | n/a             | NBDC online database record |
| Gadwall <i>Anas strepera</i>                      | SCI, WA                        | Amber           | NBDC online database record |
| Glaucous Gull <i>Larus hyperboreus</i>            | WA                             | Green           | NBDC online database record |
| Goldcrest <i>Regulus regulus</i>                  | WA                             | Amber           | NBDC online database record |
| Great Black-backed Gull <i>Larus marinus</i>      | WA                             | Green           | 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 Egret <i>Ardea alba</i>                     | WA                             | n/a             | NBDC online database record |
| Great Grey Shrike <i>Lanius excubitor</i>         | WA                             | n/a             | NBDC online database record |
| Great Knot <i>Calidris tenuirostris</i>           | WA                             | n/a             | 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                       | Green           | NBDC online database record |
| Great Tit <i>Parus major</i>                      | WA                             | Green           | 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>               | WA                             | Red             | NBDC online database record |
| Grey Plover <i>Pluvialis squatarola</i>           | SCI, WA                        | Red             | NBDC online database record |
| Grey Wagtail <i>Motacilla cinerea</i>             | WA                             | Red             | NBDC online database record |
| Hawfinch <i>Coccothraustes coccothraustes</i>     | WA                             | n/a             | 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 |

| Common Name / Scientific name                                   | Legal Status                  | Red List Status | Source                      |
|---|-------------------------------|-----------------|-----------------------------|
| Herring Gull <i>Larus argentatus</i>                            | SCI, WA                       | Amber           | NBDC online database record |
| Hooded Crow <i>Corvus cornix</i>                                | WA                            | Green           | NBDC online database record |
| Hooded Merganser <i>Lophodytes cucullatus</i>                   | WA                            | n/a             | 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 |
| Iceland Gull <i>Larus glaucooides</i>                           | WA                            | Green           | NBDC online database record |
| Icterine Warbler <i>Hippolais icterina</i>                      | WA                            | n/a             | NBDC online database record |
| Ivory Gull <i>Pagophila eburnea</i>                             | WA                            | n/a             | NBDC online database record |
| Kentish Plover <i>Charadrius alexandrinus</i>                   | BD I, WA                      | n/a             | NBDC online database record |
| Kumlien's Iceland Gull <i>Larus glaucooides subsp. kumlieni</i> | WA                            | n/a             | NBDC online database record |
| Laughing Gull <i>Larus atricilla</i>                            | WA                            | n/a             | NBDC online database record |
| Lesser Black-backed Gull <i>Larus fuscus</i>                    | SCI, WA                       | Amber           | NBDC online database record |
| Lesser Redpoll <i>Carduelis cabaret</i>                         | WA                            | Green           | NBDC online database record |
| Lesser Whitethroat <i>Sylvia curruca</i>                        | WA                            | Amber           | NBDC online database record |
| Lesser Yellowlegs <i>Tringa flavipes</i>                        | WA                            | n/a             | NBDC online database record |
| Light-bellied Brent Goose <i>Branta bernicla subsp. hrota</i>   | SCI, WA                       | Amber           | NBDC online database record |
| 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 Gull <i>Hydrocoloeus minutus</i>                         | BD I, WA                      | Amber           | NBDC online database record |
| Little Plover <i>Charadrius dubius</i>                          | WA                            | Amber           | NBDC online database record |
| Little Tern <i>Sternula albifrons</i>                           | BD I, WA                      | Amber           | NBDC online database record |
| Long-billed Dowitcher <i>Limnodromus scolopaceus</i>            | WA                            | n/a             | NBDC online database record |
| Long-eared Owl <i>Asio otus</i>                                 | WA                            | Green           | NBDC online database record |
| Long-tailed Tit <i>Aegithalos caudatus</i>                      | WA                            | Green           | NBDC online database record |
| Magnificent Frigatebird <i>Fregata magnificens</i>              | WA                            | n/a             | 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, 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 |
| Melodious Warbler <i>Hippolais polyglotta</i>                   | WA                            | n/a             | NBDC online database record |
| Mew Gull <i>Larus canus</i>                                     | SCI, WA                       | Amber           | NBDC online database record |
| Mistle Thrush <i>Turdus viscivorus</i>                          | WA                            | Green           | 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 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 |



| Common Name / Scientific name                                 | Legal Status       | Red List Status | Source                      |
|---|--------------------|-----------------|-----------------------------|
| Pacific Golden Plover <i>Pluvialis fulva</i>                  | WA                 | n/a             | NBDC online database record |
| Pallas's Sandgrouse <i>Syrhaptes paradoxus</i>                | WA                 | n/a             | 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 |
| Pied Wagtail <i>Motacilla alba subsp. yarrellii</i>           | WA                 | Green           | NBDC online database record |
| Pine Bunting <i>Emberiza leucocephalos</i>                    | WA                 | n/a             | NBDC online database record |
| Pink-footed Goose <i>Anser brachyrhynchus</i>                 | WA                 | n/a             | NBDC online database record |
| Red Kite <i>Milvus milvus</i>                                 | BD I, WA           | Red             | NBDC online database record |
| Red Knot <i>Calidris canutus</i>                              | SCI, WA            | Red             | 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-legged Partridge <i>Alectoris rufa</i>                    | WA                 | n/a             | NBDC online database record |
| Red-necked Grebe <i>Podiceps grisegena</i>                    | WA                 | n/a             | NBDC online database record |
| Red-rumped Swallow <i>Cecropis daurica</i>                    | WA                 | n/a             | NBDC online database record |
| Red-throated Diver <i>Gavia stellata</i>                      | SCI, BD I, WA      | Amber           | NBDC online database record |
| Redwing <i>Turdus iliacus</i>                                 | WA                 | Red             | NBDC online database record |
| Reed Bunting <i>Emberiza schoeniclus</i>                      | WA                 | Green           | NBDC online database record |
| Ring-billed Gull <i>Larus delawarensis</i>                    | WA                 | Green           | NBDC online database record |
| Ringed Plover <i>Charadrius hiaticula</i>                     | SCI, WA            | Amber           | NBDC online database record |
| Rock Pigeon <i>Columba livia</i>                              | WA, BD II(I)       | Green           | NBDC online database record |
| Rook <i>Corvus frugilegus</i>                                 | WA                 | Green           | NBDC online database record |
| Rosy Starling <i>Sturnus roseus</i>                           | WA                 | n/a             | NBDC online database record |
| Rough-legged Buzzard <i>Buteo lagopus</i>                     | WA                 | n/a             | NBDC online database record |
| Ruddy Turnstone <i>Arenaria interpres</i>                     | SCI, WA            | Amber           | NBDC online database record |
| Ruff <i>Calidris pugnax</i>                                   | BD I, WA           | Amber           | 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 |
| Sedge Warbler <i>Acrocephalus schoenobaenus</i>               | WA                 | Green           | NBDC online database record |
| Sempalmated Sandpiper <i>Calidris pusilla</i>                 | WA                 | n/a             | NBDC online database record |
| Short-billed Dowitcher <i>Limnodromus griseus</i>             | WA                 | n/a             | NBDC online database record |
| Short-eared Owl <i>Asio flammeus</i>                          | BD I, WA           | Amber           | NBDC online database record |
| Sky Lark <i>Alauda arvensis</i>                               | WA                 | Amber           | NBDC online database record |
| Slavonian Grebe <i>Podiceps auritus</i>                       | BD I, WA           | Red             | NBDC online database record |
| Smew <i>Marcellus albellus</i>                                | BD I, WA           | Amber           | NBDC online database record |
| Snow Goose <i>Anser caerulescens</i>                          | WA                 | n/a             | NBDC online database record |
| Snowy Owl <i>Bubo scandiaca</i>                               | WA                 | Red             | NBDC online database record |
| Song Thrush <i>Turdus philomelos</i>                          | WA                 | Green           | NBDC online database record |
| Southern Cormorant <i>Phalacrocorax carbo subsp. sinensis</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>                   | WA                 | Amber           | NBDC online database record |

| Common Name / Scientific name                      | Legal Status                 | Red List Status       | Source  |
|--|------------------------------|-----------------------|---|
| Spotted Redshank <i>Tringa erythropus</i>          | WA                           | Amber                 | NBDC online database record   |
| Squacco Heron <i>Ardeola ralloides</i>             | BD I, WA                     | n/a                   | NBDC online database record   |
| Stilt Sandpiper <i>Calidris himantopus</i>         | WA                           | n/a                   | NBDC online database record   |
| Stock Pigeon <i>Columba oenas</i>                  | WA                           | Red                   | NBDC online database record   |
| Stonechat <i>Saxicola torquata</i>                 | WA                           | Green                 | NBDC online database record   |
| Stone-curlew <i>Burhinus oedicnemus</i>            | BD I, WA                     | n/a                   | NBDC online database record   |
| Surf Scoter <i>Melanitta perspicillata</i>         | WA                           | n/a                   | NBDC online database record   |
| Temminck's Stint <i>Calidris temminckii</i>        | WA                           | n/a                   | NBDC online database record   |
| Thayer's Gull <i>Larus thayeri</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   |
| Velvet Scoter <i>Melanitta fusca</i>               | WA                           | Red                   | NBDC online database record   |
| Water Pipit <i>Anthus spinoletta</i>               | WA                           | n/a                   | NBDC online database record   |
| Water Rail <i>Rallus aquaticus</i>                 | WA                           | Amber                 | NBDC online database record   |
| Whiskered Tern <i>Chlidonias hybrida</i>           | WA                           | n/a                   | NBDC online database record   |
| White Stork <i>Ciconia ciconia</i>                 | BD I, WA                     | n/a                   | NBDC online database record   |
| White Wagtail <i>Motacilla alba</i>                | WA                           | Green                 | NBDC online database record   |
| White-rumped Sandpiper <i>Calidris fuscicollis</i> | WA                           | n/a                   | NBDC online database record   |
| White-throated Dipper <i>Cinclus cinclus</i>       | WA                           | Green                 | NBDC online database record   |
| White-winged Tern <i>Chlidonias leucopterus</i>    | WA                           | n/a                   | NBDC online database record   |
| Whooper Swan <i>Cygnus cygnus</i>                  | SCI, BD I, WA                | Amber                 | NBDC online database record   |
| Willow Warbler <i>Phylloscopus trochilus</i>       | WA                           | Green                 | NBDC online database record   |
| Wilson's Phalarope <i>Phalaropus tricolor</i>      | WA                           | n/a                   | NBDC online database record   |
| Winter Wren <i>Troglodytes troglodytes</i>         | WA                           | Green                 | NBDC online database record   |
| Wood Duck <i>Aix sponsa</i>                        | WA                           | n/a                   | NBDC online database record   |
| Wood Lark <i>Lullula arborea</i>                   | BD I, WA                     | n/a                   | NBDC online database record   |
| Woodchat Shrike <i>Lanius senator</i>              | WA                           | n/a                   | 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                           | Least concern         | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| <b>Amphibians</b>                                  |                              |                       |   |
| Common Frog <i>Rana temporaria</i>                 | HD V                         | Least concern         | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Smooth Newt <i>Lissotriton vulgaris</i>            | WA                           | Least concern         | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| <b>Fish</b>  |                              |                       |   |
| European Eel <i>Anguilla anguilla</i>              | OSPAR, Fisheries Acts        | Critically endangered | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| <b>Invertebrates</b>                               |                              |                       |   |

| Common Name / Scientific name                             | Legal Status | Red List Status       | Source  |
|---|--------------|-----------------------|---|
| Common Shelled Slug <i>Testacella haliotidea</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   |
| 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          | Near threatened       | NBDC online database record   |
| Moss Chrysalis Snail <i>Pupilla muscorum</i>              | n/a          | Endangered            | NBDC online database record   |
| Mauge's Shelled Slug <i>Testacella maugei</i>             | n/a          | Near threatened       | NBDC online database record   |
| 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   |
| 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   |
| Globular Pea Mussel <i>Pisidium hibernicum</i>            | n/a          | Near threatened       | NBDC online database record   |
| Silky Snail <i>Ashfordia granulata</i>                    | n/a          | Near threatened       | 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   |
| 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   |
| Grayling <i>Hipparchia semele</i>                         | n/a          | Near threatened       | NBDC online database record   |
| Great Yellow Bumble Bee <i>Bombus distinguendus</i>       | n/a          | Endangered            | NBDC online database record   |
| Artist Whirligig <i>Gyrinus urinator</i>                  | n/a          | Near threatened       | NBDC online database record   |
| Bronze Furrow Bee <i>Halictus tumulorum</i>               | n/a          | Near threatened       | 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   |
| Large Red Tailed Bumble Bee <i>Bombus lapidarius</i>      | n/a          | Near threatened       | NBDC online database record   |
| Marsh Fritillary <i>Euphydryas aurinia</i>                | HD II        | Vulnerable            | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Willoughy's Leafcutter Bee <i>Megachile willughbiella</i> | n/a          | Near threatened       | NBDC online database record   |
| Patchwork Leafcutter Bee <i>Megachile centuncularis</i>   | n/a          | Near threatened       | NBDC online database record   |
| Moss Carder-bee <i>Bombus muscorum</i>                    | n/a          | Near threatened       | NBDC online database record   |
| Mouse Moth <i>Amphipyra tragopoginis</i>                  | n/a          | Near threatened       | NBDC online database record   |
| Pale Evening Dun Mayfly <i>Procladius bifidus</i>         | n/a          | Vulnerable            | NBDC online database record   |
| Red-tailed Carder Bee <i>Bombus rudericus</i>             | n/a          | Vulnerable            | NBDC online database record   |
| March Brown Mayfly <i>Rhythrogena 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   |
| Small Heath <i>Coenonympha pamphilus</i>                  | n/a          | Near threatened       | NBDC online database record   |

| Common Name / Scientific name                    | Legal Status | Red List Status       | Source                      |
|--|--------------|-----------------------|-----------------------------|
| Trimmer's Mining Bee <i>Andrena trimmerana</i>   | n/a          | Critically endangered | NBDC online database record |
| V-moth <i>Macaria wauaria</i>                    | n/a          | Regionally extinct    | NBDC online database record |
| Wall butterfly <i>Lasiommata megera</i>          | n/a          | Endangered            | NBDC online database record |
| Wood White <i>Leptidea sinapis</i>               | n/a          | Near threatened       | NBDC online database record |
| Yellow Shell Moth <i>Campptogramma bilineata</i> | n/a          | Near threatened       | 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, Third schedule of 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.

**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   |
| Common Cord-grass <i>Spartina anglica</i>           | Third schedule of S.I. 477                            | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Curly Waterweed <i>Lagarosiphon major</i>           | Third schedule of S.I. 477 / Species of Union concern | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Giant Hogweed <i>Heracleum mantegazzianum</i>       | Third schedule of S.I. 477 / Species of Union concern | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| 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, Dublin City Biodiversity Action Plan 2021-2025 |
| Indian Balsam <i>Impatiens glandulifera</i>         | Third schedule of S.I. 477 / Species of Union concern | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Japanese Knotweed <i>Reynoutria japonica</i>        | Third schedule of S.I. 477                            | NBDC online database record, Dublin City Biodiversity Action Plan 2015-2020 |
| New Zealand Pigmyweed <i>Crassula helmsii</i>       | Third schedule of S.I. 477                            | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Nuttall's Waterweed <i>Elodea nuttallii</i>         | Third schedule of S.I. 477 / Species of Union concern | NBDC online database record, Dublin City Biodiversity Action Plan 2015-2020 |
| Canadian Waterweed <i>Elodea canadensis</i>         | Delisted as S.I. 477                                  | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Parrot's-feather <i>Myriophyllum aquaticum</i>      | Third schedule of S.I. 477 / Species of Union concern | NBDC online database record, Dublin City Biodiversity Action Plan 2015-2020 |
| Rhododendron <i>Rhododendron ponticum</i>           | Third schedule of S.I. 477                            | NBDC online database record, Dublin City Biodiversity Action Plan 2015-2020 |
| Sea-Buckthorn <i>Hippophae rhamnoides</i>           | Third schedule of S.I. 477                            | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |

| Common Name / Scientific name                   | Legal Status               | Source  |
|---|----------------------------|---|
| Spanish Bluebell <i>Hyacinthoides hispanica</i> | Third schedule of S.I. 477 | NBDC online database record, Dublin City Biodiversity Action Plan 2021-2025 |
| Three-cornered Garlic <i>Allium triquetrum</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.

## 1.2 References:

FitzPatrick, Ú., Murray, T.E., Byrne, A., Paxton, R.J. and Brown, M.J.F. (2006) Regional Red List of Irish Bees. Report to National Parks & Wildlife Service (Ireland) and Environment & Heritage Service (N. Ireland).

Gilbert, G., Stanbury, A., Lewis, L. (2021). Birds of Conservation Concern in Ireland 4: 2020–2026. Irish Birds 9: 523-544.. RSPB Great Britain and Birdwatch Ireland.

Temple, H.J. and Terry, A. (Compilers), (2007), The Status and Distribution of European Mammals. Luxembourg: Office for Official Publications of the European Communities.

Byrne, A., Moorkens, E.A., Anderson, R., Killeen, I.J. & Regan, E.C. (2009) Ireland Red List No. 2 – Non-Marine Molluscs.

Dublin City Council (2021). Dublin City Biodiversity Action Plan 2021-2025 Available at: [https://www.dublincity.ie/sites/default/files/2022-07/dcc-bioap-2021-2025-webv\\_21.07.22.pdf](https://www.dublincity.ie/sites/default/files/2022-07/dcc-bioap-2021-2025-webv_21.07.22.pdf)

Foster, G. N., Nelson, B. H. & O Connor, Á. (2009) Ireland Red List No. 1 – Water beetles.

Regan, E.C., Nelson, B., Aldwell, B., Bertrand, C., Bond, K., Harding, J., Nash, D., Nixon, D., & Wilson, C.J. (2010) Ireland Red List No. 4 – Butterflies.

King, J.L., Marnell, F., Kingston, N., Rosell, R., Boylan, P., Caffrey, J.M., Fitzpatrick, Ú., Gargan, P.G., Kelly, F.L., O'Grady, M.F., Poole, R., Roche, W.K. & Cassidy, D. (2011) Ireland Red List No. 5: Amphibians, Reptiles & Freshwater Fish.

Nelson, B., Ronayne, C. & Thompson, R. (2011) Ireland Red List No.6: Damselflies & Dragonflies (Odonata).

Kelly F. L., Matson, R., Connor, L., Feeney, R., Morrissey, E., Wogerbauer C., Rocks, K. (2011). Water Framework Directive Fish Stock Survey of Rivers in the Eastern River Basin District, 2011. Inland Fisheries Ireland, Swords Business Campus, Swords, Co. Dublin.

Kelly-Quinn, M. & Regan, E.C. (2012) Ireland Red List No. 7: Mayflies (Ephemeroptera). National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.

Allen, D., O'Donnell, M., Nelson, B., Tyner, A., Bond, K.G.M., Bryant, T., Croy, A., Mellon, C., O'Boyle, J., O'Donnell, E., Rolston, T., Sheppard, R., Strickland, P., Fitzpatrick, U., & Regan, E. (2016) Ireland Red List No. 9: Macro-moths (Lepidoptera).

Dublin City Biodiversity Action Plan 2015 - 2020 (2015), Dublin City Council.

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016) Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

Matson, R., *et. al.*, (2018) Sampling Fish in Rivers 2017 – Camac, Factsheet No. 3. National Research Survey Programme. Inland Fisheries Ireland.

Marnell, F., Looney, D. & Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals.

Nelson, B., Cummins, S., Fay, L., Jeffrey, R., Kelly, S., Kingston, N., Lockhart, N., Marnell, F., Tierney, D. and Wyse Jackson, M. (2019) Checklists of protected and threatened species in Ireland. Irish Wildlife Manuals, No. 116. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Matson, R., Delanty, K., Gordon, P., O'Briain, R., McCarthy, E., Cierpal, D., Connor, L., Corcoran, W., Coyne, J., McLoone, P., Morrissey, McCaffrey, E., Brett, T., Gavin, A., Kelly, F.L., (2019). Sampling Fish in Rivers 2018 - Dodder, Factsheet No. 2. National Research Survey Programme. Inland Fisheries Ireland.

Feeley, H.B., Baars, J-R., Kelly-Quinn, M. & Nelson, B. (2020) Ireland Red List No. 13: Stoneflies (Plecoptera). National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Dublin. Ireland.