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## Arran Chemical Company Limited

Unit 1-3 Monksland Industrial Estate,
Athlone,
County Roscommon

Appropriate Assessment Screening & Natura Impact Statement

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Consent of congright owner required for any other use.

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Appendix I: Site Classification - Fossitt

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#### 1. Introduction

#### 1.1 Purpose of the Report

The Habitats Directive (Council Directive 92/43/EEC) requires that certain plans and projects requiring planning permission must be screened for potential impact on Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). This process aims to establish whether a full Appropriate Assessment as required by Article 6 of the Directive is required in any particular case. In this instance the Environmental Protection Agency have requested, as part of an Industrial Emissions licence review application, that the applicant submit an AA screening and NIS as part of the licence review.

AXIS environmental services were commissioned to undertake an Appropriate Assessment (AA) Screening and Natura Impact Statement in relation to the existing and proposed development at Monksland Industrial Estate, Co. Roscommon. The proposed development consists of the construction of an Emissions Abatement Plant System (EAPS) together with all associated site works.

The existing site and proposed development are located in Monksland Industrial Estate, which is located at geographic coordinate system X: 600673, Y: 740993. See Figure 1. Monksland is linked to Athlone, part of the Midland Gateway with direct access to the M6 motorway and rail services. The Arran facility is within a 1km radius of three other EPA licensed sites which include Alexion, Alkermes and Jazz Pharmaceuticals. The Roscommon Local Area Plan for Monksland/Bellanamullia outlines the importance of the pharmaceutical sector in the area in terms of current and future economic development.

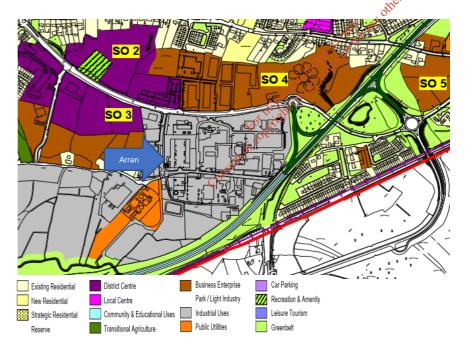


Figure 1: ITM: X200723, Y240969

Screening is the first stage of an Appropriate Assessment (AA) and aims to establish whether a proposed plan or project either alone or in combination with other plans or projects, could have significant negative effects on a Natura 2000 site in view of the site's conservation objectives. The obligation to undertake Appropriate Assessment arises from Articles 6 (3) and (4) of the European Union (EU) Council Directive 92/43/EEC (Habitats Directive) and transposed into Irish Law by the European Communities (Birds and Natural Habitats) Regulations S.I. No 477 of 2011.

Natura 2000 sites are Special Areas of Conservation (SACs) designated under the EU Habitats Directive, and Special Protection Areas (SPAs), designated under the EU Birds Directive. As members of the EU and signatories



to these Directives, Ireland has designated prime areas of ecological importance as SACs and SPAs and these are part of a network of Natura 2000 sites that span across the EU.

The purpose of this assessment is to determine if the development could have any potential impacts on the conservation objectives of nearby European conservation designations.

#### 1.2 Project Site and Description

The site is situated on a no through road serving Alkermes and Alexion Pharmaceuticals. The facility has been in operation at this location since 1988 and was granted its first EPA licence in 1996. It currently owns Building 1 on the West side which has an area of  $1612m^2$  (not including outbuildings) and leases Building 2 which is owned by the IDA and located on the east side which has an area of  $1340m^2$ . The site has a shared delivery yard which is a right of way. The main area in total consists of 1.54ha approximately and is owned and leased as outlined in Figure 2.

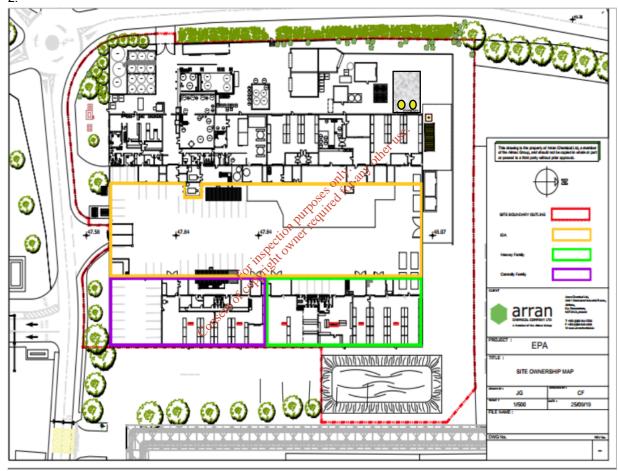


Figure 2

The proposed new development which will be located within the existing site boundary, will consist of a new Emission Abatement Plant system with 15m high flue to the north end of the facility. The supporting works will include a steel frame with modifications to the existing piping and racking arrangement and a 10m high platform. Planning permission was granted for this development by Roscommon County Council under application number 19400.

The site will require an Industrial Emissions (IE) licence review from the Environmental Protection Agency (EPA) for the installation and operation of this treatment system. The licenced activity is currently and will remain Activity: 5.16; The production of pharmaceutical products including intermediates (production means the production on an industrial scale by chemical or biological processing).



#### 2. Methodology

This screening report has been completed in line with the following legislation and guidance:

- European Commission (Nov 2018) Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC
- Appropriate Assessment of Plans and Projects in Ireland–Guidance for Planning Authorities. (Department of the Environment, Heritage and Local Government, 2010).
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 & PSSP 2/10.
- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance
  on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission
  Environment Directorate-General,2001). The Guidance within this document provides a non-mandatory
  methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC (EC Environment Directorate-General, 2000).
- Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC. Clarification of the Concepts
  of Alternative Solutions, Imperative Reasons of Over-riding Public Interest, Compensatory Measures,
  Overall Coherence. Opinion of the European Commission (European Commission, January 2007).

#### 2.1 Desk Based Studies

A desk-based review of information sources was completed. Information contained on the websites of the National Parks and Wildlife Service (NPWS) and the National Biodiversity Data Centre (NBDC) were reviewed. In addition, reports submitted with planning application 18/23 and planning application 18/23 with Roscommon County Council, were reviewed and the following publications and websites were also consulted:

- Ordnance Survey of Ireland mapping and devial photography available fromwww.heritagemaps.ie;
- Online data available on European sites as held by the National Parks and Wildlife Service (NPWS) fromwww.npws.ie;
- Information on water quality and water body mapping in the area available from EPA ENVISION mapping;
   http://maps.epa.ie/internetmapviewer/mapviewer.aspx
- EPAwww.epa.ie/QValue/webusers
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, Article 17 Reports 2019)
- Water Framework Ireland websitehttp://www.wfdireland.ie/maps.html
- River Basin Management District 2018-2021;
- Natura Impact Statement of the RBMP 2018-2021;
- The National Parks and Wildlife Service (NPWS) websitewww.npws.ie
- National Biodiversity Data Centre (NBDC)<u>www.NBDC.ie</u>
- Roscommon County Development Plan 2014-2020
- Monksland/Bellanamullia Local Area Plan 2016-2022
- A Guide to Habitats in Ireland, Fossitt, October 2000



#### 2.2 Site Survey

A site survey was conducted by Axis environmental services on the 12<sup>th</sup> February 2020. Whilst the survey date was outside the optimal botanical survey period, given the industrial nature of the area and the modified habitats present, it is considered appropriate for the purposes of this assessment. A site walkover was conducted to compile a list of any flora and fauna onsite or neighbouring boundaries. The following surveys were carried out.

- Habitats were classified according to the classification scheme outlined in the Heritage Council Publication A
  Guide to Habitats in Ireland (Fossitt, 2000). Habitats were cross referenced with Habitats Directive Annex 1
  habitats.
- The facility was surveyed for invasive species and rare floral species.
- All bird species recorded during the walkover survey and habitat survey were recorded.
- A general mammal survey was carried out in conjunction with the habitat survey.

Most of the Arran facility is composed of buildings and artificial surfaces (BL3) with low species diversity and minimal ecological value. There are some small areas of amenity grassland (GA2) at either side of the front entrance and at the eastern boundary. The southern-western boundary has a Leylandii (Cypress) Treeline (WL2) and some deciduous trees, primarily birch, along the northern and eastern boundary. (Appendix VII)

The area for the proposed abatement equipment is on existing hard-standing (BL3) of no biodiversity value.

The habitats present and their ecological value are described below in Table 1:

Table 1: Habitats present and their ecological value

Habitat	·	Comments	Ecological value (NRA guidelines)
Buildings	and	Highly modified habitat, with no species diversity	No importance
artificial	surfaces	and of no ecological value.	
(BL3)		alil dil	
Amenity	Grassland	Low species diversity grassland.	Local importance (Lower value)
(GA2)		ecti wher	. , , , ,
Treelines (	WL 2)	The treelines recorded within the site are composed	Local importance (Lower value)
		of non-native species Leylandii and native Birch.	, ,

#### Birds and Mammals

There are 18 records of terrestrial mammals for Ordnance Survey National Grid 10km square N04, of these 11 are protected (including 5 species of bats).

The 6 non-volant species are:

- Eurasian Pygmy Shrew (Sorex minutus),
- Eurasian Badger (Meles meles)
- Eurasian Red Squirrel (Sciurus vulgaris),
- European Otter (Lutra lutra),
- Pine Martin (Martes martes) and
- West European Hedgehog (Erinaceus europaeus).

#### The 5 bat species are:

- Brown Long-eared Bat (Plecotus auritus),
- Daubenton's Bat (Myotis daubentonii),
- Lesser Noctule (Nyctalus leisleri),
- Pipistrelle (Pipistrellus pipistrellus sensu lato) and
- Soprano Pipistrelle (Pipistrellus pygmaeus).

The National Biodiversity Centre online database lists 106 species of bird from within grid square N04. Of these 106 species, 19 are listed under Annex I of the Birds Directive, namely, Common Kingfisher (Alcedo atthis), Common Tern (Sternahirundo), Corm Crake (Crex crex), European Golden Plover (Pluvialis Apricaria), Hen Harrier (Circus cyaneus), Little Egret (Egretta garzette), Merlin (Falco columbarius), Peregrine Falcon (Falco peregrinus), Snowy Owl (Bubo scandiaca) and Whooper Swan (Cygnus Cygnus).



During the site visit signs of mammals were searched for while surveying the study area, in particular along the boundaries. There was no evidence of badger setts or fox dens on the perimeter. Any evidence of birds nesting or potential for nesting was recorded. Overall, the study area is of little value for bird species due to lack of trees and foraging areas. Genera of small passerine birds listed onsite include the Great Tit (Parus Major), the Wren (troglodyte) and the Wood Pigeon (Palumba Columbus).

#### 2.3 Appropriate Assessment Methodology

#### 2.3.1 Regulatory Context

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna better known as "The Habitats Directive" provides the framework for legal protection for habitats and species of European importance. Articles 3 to 9 of the Directive provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC) (better known as "The Birds Directive").

Article 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment:

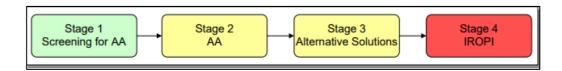
"Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans and projects, shall be subjected to appropriate assessment of its implications for the site view of the site's conservation objectives. In light of the conclusions of the assessment of the implication for the site and subject to the provisions of paragraph 4, the component national authorities shall agree to the plant project only after having ascertained that it will not adversely affect the integrity of the site concerned and proportiate, after having obtained the opinion of the general public".

Articles 6(3) and 6(4) of the Habitats Directive require an Appropriate Assessment of plans to prevent significant adverse effects on European conservation sites, also known as Natura 2000 sites. In this particular case the purpose of Appropriate Assessment is to assess the potential impacts of the licensed activity on the conservation objectives of European sites. The assessment will determine whether the plan would have significant adverse effects upon the integrity of each site in terms of its nature conservation objectives.

The integrity of the site has been defined as "the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified" (PPG 9, UK Department of the Environment, October 1994). Where negative effects are identified other options should be thoroughly examined to avoid any potential damaging effects prior to implementing the plan.

#### 2.3.2 AA Process

There are four stages in the process to complete the AA which are outlined below.



The European Commission's Methodological Guidance recommends a 4-stage approach:



#### Stage 1: Screening

Determining whether the plan 'either alone or in combination with other plans or projects' is likely to have a significant effect on a European site.

Stage 2: Determining whether, in view of the site's conservation objectives, the plan 'either alone or in combination with other plans or projects would have an adverse effect (or risk of this) on the integrity of the site. If not, the plan can proceed.

Stage 3: Where it has not been proven that measures considered will not avoid or mitigate the adverse effect on the Natura 2000 site, then an assessment of the alternatives will be required; and if none are acceptable then Stage 4 is required to be considered.

Stage 4: Assessment where no Alternative Solutions Exist & where Adverse Impacts Remain

This will involve assessment where the Plan is considered to result in adverse impacts on the Natura 2000 site
and no alternative solutions remain—the imperative reasons of overriding public interest (IROPI) test must be met
before authorization, permission or adoption of the Plan is agreed. This includes the agreement of compensatory
measures. This report covers Stage 1 of Appropriate Assessment-Screening. The outcome of each stage
determines whether a further stage in the process is required.

This report comprises Stage 1; in addition to a Natura Impact Assessment which can be considered an intermediary step to assist the Environmental Protection Agency undertake Stage 2 of the Appropriate Assessment.

### 3. Stage I: Screening for Appropriate Assessment 💸

In accordance with the Department of Environment Heritage and Local Government (DoEHLG) Guidelines screening is the process that addresses two tests of Article 6(3) of the Habitats Directive:

- i. whether a plan or project is directly connected to or necessary for the management of the site, and
- ii. whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2. The screening assessment for the facility follows the following steps in accordance with the DoEHLG guidelines:

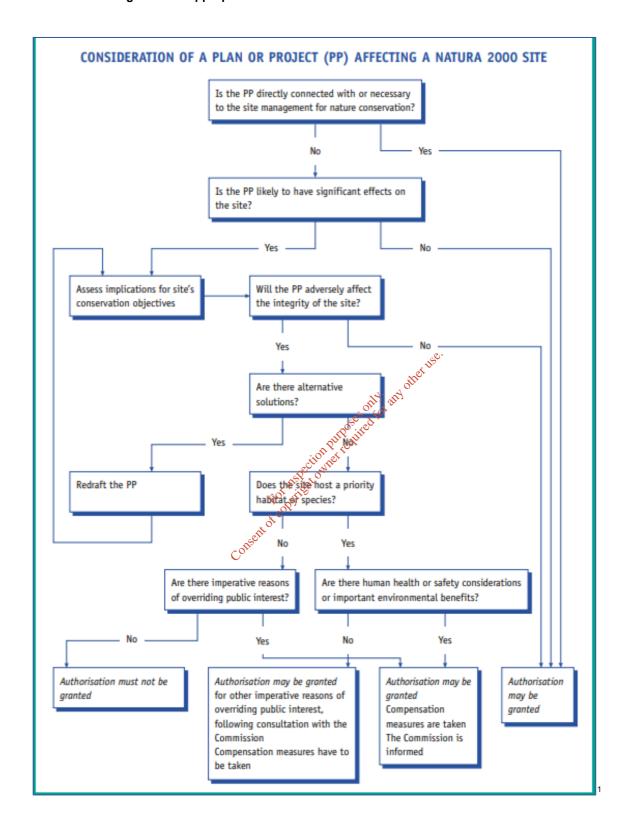
i. Description of plan or project, and local site or plan area characteristics.

COTT

- ii. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives.
- iii. Assessment of likely effects-direct, indirect and cumulative-undertaken on the basis of available information as a desk study or field survey or primary research as necessary.
- iv. Screening statement with conclusions.



#### 3.1 Stages of the Appropriate Assessment



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<sup>1</sup> https://ec.europa.eu/environment/nature/natura2000/management/docs/art6/natura 2000 assess en.pdf



#### 3.2 Identification of Natura 2000 sites

There are no environmental designations pertaining to the study area itself. Thus, the site of the proposed works does not form part of any Natural Heritage Area (NHA), Special Protection Area (SPA), Special Area of Conservation (SAC), candidate Special Area of Conservation (cSAC), Nature Reserve, or National Park. Departmental guidance suggests an assessment of Natura 2000 sites within a zone of influence of 15km which can be revised down depending on the proposed development and location of Natura 2000 sites. There are 12 SACs and 4 SPAs located within 15km (c. 706km.sq²) of the proposed development site:

River Shannon Callows SAC	
Lough Ree SAC	
Fin Lough SAC	
Mongan Bog SAC	
Lough Croan Turlough SAC	
Lough Funshinagh SAC	
Castlesampson Esker SAC	
Pilgrim's Road Esker	
Killeglan Grassland SAC	
Carn Park Bog SAC	
Carn Park Bog SAC  Crosswood Bog SAC	
Ballynamona Bog and Corkip Louigh SAC	
Mongan Bog SPA	
Lough Ree SPA	
Middle Shannon Callows SPA	
Lough Croan Turiough SPA	



Figure 3



The project site has no hydrological connectivity and no relevant biological connectivity to these sites with the exception of the two listed below. The site is drained by ditches which discharge to the Cross River to the southwest. The Cross River is a tributary of the River Shannon c. 6 km downstream and flows through the following two European sites c. 4 km downstream:

- 000216 River Shannon Callows SAC
- 004096 Middle Shannon Callows SPA



Figure 4

All other sites are screened out of the assessment at this pre-screening stage. Details of the qualifying interests of the River Shannon Callows SAC and Middle Shannon Callows SPA are listed in Table 2 and Table 3 below and Site Synopses are available from the NPWS website and Appendix II of this report. Spatial boundary data on the Natura 2000 network was extracted from the NPWS website most recent update from December 2019. The focation of the development site is presented in Figure 4 and 5 below in relation to the nearby Natura 2000 sites.

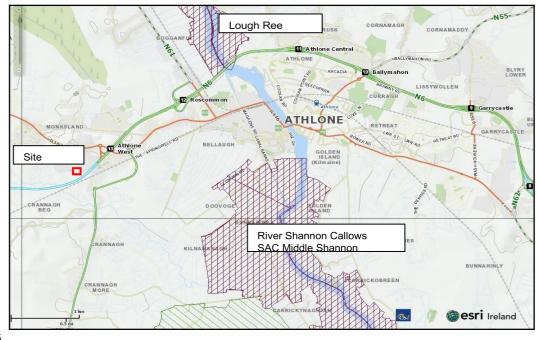


Figure 5



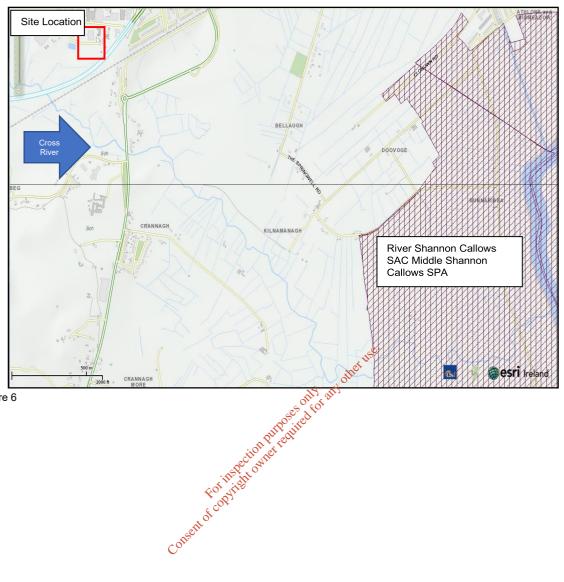


Figure 6



The following sections describe the Conservations Objectives and Qualifying Interests of Middle Shannon Callows SPA and River Shannon Callows SAC which may be affected by the project.

Table 2: Characteristics of the River Shannon Callows SAC (\*indicates priority habitat).

Site	Site Name	Qualifying Habitats	Qualifying
Code			Species
000216	River	6410 <i>Molinia</i> meadows on calcareous, peaty	1355 Otter
	Shannon Callows SAC	or clayey-silt-laden soils ( <i>Molinion caer∪leae</i> )	L∪tra l∪tra
	Callows SAC	6510 Lowland hay meadows ( <i>Alopecuru</i> s	
		pratensis, Sang∪isorba of icinalis) 8240	
		Limestone pavements*	
		91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion,	
		Alnion incanae, Salicion albae)*	

Table 3: Characteristics of the Middle Shannon Callows SPA.

Site	Site Name	Qualifying Habitats	Qualifying Species
Code			
004096	Middle	Wetlands	A038 Whooper Swan Cygnus cygnus
	Shannon Callows SPA		A050 Wigeon Anas penelope
	Canows of A	ald; art	A122 Corncrake <i>Crexcrex</i>
		Ses dioi	A140 Golden Plover Pluvialis apricaria
		a purpoquire	A142 Lapwing <i>Vanellus vanellus</i>
		For inspection during required for any	A156 Black-tailed Godwit <i>Limosa</i> limosa
		For It is the second of the se	A179 Black-headed Gull Chroiccephalus ridibundus

The Special Conservation Interests (SCI) species for River Shannon Callows SAC and SPA are included in Appendix V below.

#### 3.3 Conservation Objectives

For SPA sites, conservation objectives are defined for attributes relating to defined bird species populations, and for attributes related to the maintenance and protection of habitats that support them. These attributes are (1) populations trend; (2) population distribution, and (3) habitat range area.

Site-specific conservation objectives for Middle Shannon Callows SPA were published in 2018 and are listed in Table 5 below:



Objective 1 To maintain or restore the favourable conservation condition of the bird species listed as	<ul> <li>(a) Ta be favourable, the long-term population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird population's ore deemed to be unfavourable when they have declined by 25% or more, as assessed by the national trend analysis.</li> <li>(b) To be favourable, there should be no significant decrease in the range, timing or</li> </ul>
Special Conservation Interests	intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.
Objective 2 To maintain or restore the favourable conservation condition of the wetland habitat at Middle Shannon Callows SPA as a resource for the	To be favourable, the permanent area occupied by the wetland habitat (2587 ha) should be stable and not significantly less than the measured area, other than that occurring from natural patterns of variation.

Table 5: Conservation Objectives - Middle Shannon Callows SPA 2018 (004096)

#### Conservation Status

regularly-occurring

waterbirds

migratory

that utilise it

The Middle Shannon Callows is part of the River Shannon Callows, the flood plain of the River Shannon which drains more than 20% of the country. The callows are extensive areas of seasonally flooded, semi natural wet grassland which were once flanked by raised bog which has mostly disappeared due to mechanical peat-cutting. <sup>2</sup>This site is of international importance for wintering waterfowl and regularly supports over 20,000 wintering birds. The Shannon callows are one of the last strongholds for the globally threatened Crex crex in Ireland and are also of importance for breeding waders, particularly Tringa totanus. Additional wintering species that occur in numbers of national importance, include Cygnus olor (575 birds, 1995), Anas penelope (3,135 birds, 1996), Anas crecca (576 birds, 1995), Aythya fuligula (200 birds, 💖🕉, Vanellus vanellus (15,400 birds, 1995) and Calidris alpina (1,250 birds, 1996). The callows are threatened by changes in farming practice, mainly intensification, with serious implications for breeding birds, particularly Crex crex. BirdWatch Ireland, with support from NPW and RSPB, operates a grant scheme to encourage farming practices that favour Crex crex, and breeding numbers have recently stabilized. However, problems remain due to earlier mowing of hay and the replacement of hay with silage (which involves earlier mowing, increased use of fertilizer, and multiple cuts per year). Further, an extension of the grazing season and higher stocking rates have increased the risk of disturbance to breeding waders. The River Shannon is of high recreational value, being used by anglers, water- and jet-skiers, and for boating holidays (motor-cruisers), all of which may cause some disturbance to birds. Pressure to develop the recreation potential of the river has increased, with particular pressure for marina developments away from existing towns. Siltation of the river due to extensive mechanical peat extraction within the surrounding area is a further threat. Athlone town is expanding, with increasing pressure for drainage of callow habitat.

For SAC sites conservation objectives are based on the maintenance or restoration of Annex I habitats and /or Annex II species which were listed in Table 2 above. The conservation objective(s) are outlined in Table 6 below.

<sup>&</sup>lt;sup>2</sup> BirdLife International (2020) Important Bird Areas factsheet: River Shannon callows: Portumna-Athlone. Downloaded from <a href="http://www.birdlife.org">http://www.birdlife.org</a>



Table 6: Conservation Objectives - River Shannon Callows SAC (000216)

Objective 1 To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:	<ul> <li>(a) Ta be favourable, the conservation status of a habitat is achieved when: <ul> <li>Its natural range, and area it covers with that range, are stable or increasing, and</li> <li>The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future, and</li> <li>The conservation status of its typical species is favourable</li> </ul> </li> <li>(b) To be favourable, the conservation status of a species is achieved when: <ul> <li>Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and</li> <li>The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and</li> <li>There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.</li> </ul> </li></ul>

#### 3.4 Screening Assessment of Likely Effects

The potential for impact on the features of interest and conservation objectives of Middle Shannon Callows SPA and River Shannon Callows SAC are considered below. A number of factors were examined at this stage and dismissed, or carried forward for appropriate assessment as relevant.

According to the EC guidance for the management of European Site (EC, 2018) and recent decisions of the CJEU, the integrity of the Natura 2000 sites involves its ecological functions and the need to preserve the site at a favourable conservation status.

The potential for significant impacts resulting from the proposed works were determined based on a range of indicators, including:

- Habitat loss or alteration;
- Disturbance and/or displacement of species;
- Habitat/species fragmentation;
- Changes in population density;
- Changes in water quality;
- Introduction of Invasive Species.

An assessment on each of the above indicators is given below for Middle Shannon Callows SPA and River Shannon Callows SAC.

#### 3.4.1 Habitat Loss/Alteration

None of the site is designated as part of Middle Shannon Callows SPA and River Shannon Callows SAC and in this regard habitat loss and alteration as an impact to these Natura 2000 sites are screened out. The site is already a hardstanding light industrial site. General mitigation as regards site clearance will be given in section 4.4.

#### 3.4.2 Disturbance and/or Displacement of Species

During installation works there is potential for temporary noise disturbance, however, given the industrial nature of the area many species will have habitualised to background noise and disturbance generated by the facility, other adjacent facility's and the redevelopment of the nearby Alexion site. The project involves the installation of a pre-assembled treatment system significantly reducing the project timeline. The proposed installation area is within the existing site boundary which also bounded on four sides by existing warehousing and treelines which will act as a noise barrier to the SPA. The SPA is located more than 2km south east of the site at the opposite side of the M6 motorway. With these considerations the potential for noise disturbance from the development is therefore screened out.



#### 3.4.3 Habitat/Species Fragmentation

Habitat fragmentation has been defined as the 'reduction and isolation of patches of natural environment' usually due to an external disturbance such that an alteration of spatial composition of a habitat occurs that alters the habitat and creates isolated or tenuously connected patches of the original habitat. This results in spatial separation of habitat units which had previously been in a state of greater continuity. As there will be no direct habitat loss of qualifying interest within any Natura 2000 sites, it is not considered that habitat fragmentation will arise from the proposed works and is therefore screened out.

#### 3.4.4 Changes in Population Density

It is not expected that the proposed works will cause any reduction in the baseline population of any species and is therefore screened out.

#### 3.4.5 Changes in Water Quality

The facility is located 450m north of the Cross River\_030. The only discharges to surface water from the facility is storm water via the surface water network serving the local area. This storm water network was recently upgraded as part of recent road works including the New and Old Tuam Roads as well as the Monksland Industrial Road. The Cross River is currently classed at moderate status and has alternated between good to moderate over the monitoring periods 2007 to 2018. The Cross River\_030 is classified 'Not at Risk' under Cycle 2 of the WFD.



Figure 7

The current groundwater status underlying the facility is classed 'Not At Risk'.

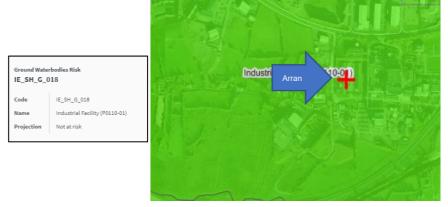


Figure 8



The directional groundwater flow from the facility is toward the River Shannon via the Cross River. During 2018, routine groundwater monitoring detected a contamination plume which was subsequently investigated and a remediation programme implemented and submitted to the EPA. In 2019 a separate sump leak was detected but as a consequence of the current high frequency testing procedures in place the leak was detected and repaired the following week. The initial leak resulted in significant concentrations of contaminants in proximity and downgradient of the influenced area however as a result of remediation measures, lab reports have shown a decrease of contaminants in wells close to the leak. Part of the remediation programme includes the extraction of groundwater at a borehole beside the facility which is serving to decrease the contamination within the Zone of Influence. The extracted water is then diverted to the onsite balancing tanks and from there to the Monksland Waste Water Treatment Plant. Increased rates of groundwater pumping to the balancing tanks and subsequently the WWTP have increased from 10 to 20m3/day from July 2019. All these remediation actions have so far led to an overall reduction in contaminants in wells in proximity to the leaks and reduced the potential for impact on areas downstream of the facility and the potential for impact on any receiving watercourses. The concentration of substances in this area will start to come down as a consequence of the natural attenuation (degradation, dispersion and dilution)<sup>3</sup> and remediation measures. Changes in water quality cannot be screened out and will be included in Section 4: Natura Impact Statement.

#### 3.4.6 Introduction/Spread of Invasive Species

Annex I habitats could potentially be affected by invasive species. During the site survey on the 12<sup>th</sup> February there were no invasive species recorded on or adjacent to the site (Appendix VII - photos). Additionally, as part of an Invasive Species survey conducted by Irish Water as part of the Monksland upgrade works 2018 (Appendix VIII), the facility which is located c.100m south of Arran recorded no invasive species at the site or boundary. As part of the proposed development there will be no change to existing ground levels and as it is currently a hardstanding area much of the materials will be re-used on site and there will be no import of soils/materials that would have the potential to carry invasive species. For this reason, the risk of introduction/spread of invasive species is screened out.

# 3.5 Screening Statement Conclusions of

According to NPWS (2009), the Appropriate Assessment Screening exercise can either identify that an Appropriate Assessment is not required, or that there is no potential for significant effects, or that significant effects are certain, likely or uncertain (in which case it proceeds to Stage 2 AA) or can be rejected.

The site of the existing/proposed works has a hydrogeological connection to both the River Shannon Callows SAC and Middle Shannon Callows SPA. Through the screening process the potential for effects on either or both of these sites cannot be ruled out during the construction and operational phases therefore based on the precautionary approach a Natura Impact Statement is therefore required in order to assess the significance of these potential impacts.

Minerex Environmental Limited 2018 Hydrogeological Report



#### 4.0 Natura Impact Statement

Based on the results of the screening assessment (Section 3) a Natura Impact Statement (NIS) is required to assist the Environmental Protection Agency undertake an Appropriate Assessment. This NIS concludes the findings of a Natura Impact Assessment (NIA).

#### 4.1 Stages of the Natura Impact Assessment

The stages of the Natura Impact Assessment are broadly in line with those required for an Appropriate Assessment in accordance with the European Commission Methodological Guidance on the provision of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC (EC 2001) and the European Commission Guidance 'Managing Natura 2000 Sites' (EC 2018).

In complying with the obligations under Article 6 and following the above Guidelines, this NIA has been structured in a stage by stage approach outlined in Table 7.

Table 7: Stages of the NIA

Stages of the NIA	Description of Requirements in accordance with Article 6
Stages 1 & 2	Identification of the location and compilation of the information required regarding the Natura
	2000 sites and the qualifying interests and conservation objectives for the sites.
Stage 3	Undertake an assessment of likely significant effects. As part of Stage 3 it is required to provide the following:  •Description of the project.  •Identification of the main features of the proposed project, (scale and size, physical changes that will result from the project).
Stage 4	Assessment of 'in combination effects. These include ex situ and in situ projects/developments
Stage 5	Conclusion as to whether or not the project may give rise to significant effects.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First the project should aim to avoid any negative impacts on European sites by identifying possible impacts early in the planning stage, and designing the project in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the NIA process to the point, where no adverse impacts on the site(s) remain. If the project is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected. If no alternative solutions are identified and the project is required for imperative reasons of overriding public interest (IROPI test) under Article 6 (4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

#### 4.2 Stages 1 & 2 of Natura Impact Assessment

This stage of the NIS identifies and provides information regarding River Shannon Callows SAC and Middle Shannon Callows SPA, that is selected for the NIA, and the features of interest and conservation objectives for this site.





Figure 4: SPA/SAC Overview

#### 4.2.1 River Shannon Callows SAC

The River Shannon Callows is a long and diverse site which consists of seasonally flooded, semi-natural, lowland wet grassland, along and beside the river between the towns of Athlone and Portumna. It is approximately 50km long and averages about 0.75km wide (reaching 1.5km wide in places). Along much of its length the site is bordered by raised bogs (many, but not all, of which are subject to large-scale harvesting), esker ridges and limestone-bedrock hills. The soils grade from silty-alluvial to peat. This site has a common boundary, and is closely associated, with two other sites with similar habitats, River Suck Callows and Little Brosna Callows.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the EU Habitats Directive.

Table 8: SAC species/habitats

Table of Ofte openion habitat	<u> </u>
Natura Code	Habitat
6410	Molinia Meadows
6510	Lowland Hay Meadows
8240	Limestone Pavement*
91E0	Alluvial Forests*
1355	Otter (Lutra lutra)
+ 1 1 1 1 1	·

<sup>\*</sup> denotes priority

The site is of International importance for wintering waterfowl as numbers regularly exceed the 20,000 thresholds. Of particular note is an internationally important population of Whooper Swans (287). A further five species have populations of national importance. These include Mute Swan, Wigeon, Golden Plover, Lapwing and Black-tailed Godwit. Species which occur in numbers of regional or local importance include Bewicks's Swan, Tufted Duck, Dunlin, Curlew and Redshank. The population of Dunlin is notable as it is one of the few regular inland flocks in Ireland. Small flocks of Greenland White-fronted Goose use the Shannon Callows; these are generally associated with larger flocks which occur on the adjacent Little Brosna Callows and River Suck Callows.

This site holds a population of Otter, a species listed on Annex II of the E.U. Habitats Directive, while the Irish Hare, which is listed in the Irish Red Data Book, is a common sight on the callows.



The Shannon Callows are used for summer dry-stock grazing (mostly cattle, with some sheep and a few horses), and permanent hay meadow. About 30 ha is a nature reserve owned by voluntary conservation bodies. The River Shannon is used increasingly for recreational purposes with coarse angling and boating accounting for much of the visitor numbers. Intermittent and scattered damage to the habitats has occurred due to over-deepening of drains and peat silt deposition, water-skiing, ploughing and neglect of hay meadow (or reversion to pasture). However, none of these damaging activities can yet be said to be having a serious impact. Threats to the quality of the site may come from the siting of boating marinas in areas away from centres of population, fertilising of botanically-rich fields, the use of herbicides, reversion of hay meadow to pasture, neglect of pasture and hay meadow, disturbance of birds by boaters, anglers, birdwatchers and the general tourist. The maintenance of generally high-water levels in winter and spring benefits all aspects of the flora and fauna, but in this regard, summer flooding is a threat to breeding birds, and may cause neglect of farming.

The Shannon Callows has by far the largest area of lowland semi-natural grassland and associated aquatic habitats in Ireland, and one in which there is least disturbance of natural wetland processes. Botanically, it is extremely diverse with two legally protected species of plants and many scarce species. Excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive occur within the site - Molinia meadows and lowland hay meadows with good examples of a further two Annex habitats (both with priority status). In winter the site is internationally important for numbers and species of waterfowl. In spring it feeds large numbers of birds on migration, and in summer it holds very large numbers of breeding waders, rare breeding birds and the endangered Corncrake, as well as a very wide variety of more common grassland and wetland birds. The presence of Otter, an Annex II species, adds further importance to the site.

The conservation objective for River Shannon Callows SAC is: Objective 1: To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected in Table 8 above. A County Printed Redditied

#### 4.2.2 Middle Shannon Callows SPA

The Middle Shannon Callows SPA is a long and diverse site which extends for approximately 50 km from the town of Athlone to the town of Portumna; it lies within Counties Galway, Roscommon, Westmeath, Offaly and Tipperary. The site averages about 0.75 km in width though in places is up to 1.5 km wide. Water levels on the site are greatly influenced by the very small fall between Athlone and Portumna and by the weir at Meelick. The site has extensive areas of callow, or seasonally flooded, semi-natural, lowland wet grassland, along both sides of the river. The callows are mainly too soft for intensive farming but are used for hay or silage or for summer grazing. Other habitats of smaller area which occur alongside the river include lowland dry grassland, freshwater marshes, reedbeds and wet woodland. The diversity of semi-natural habitats present and the sheer size of the site attract an excellent diversity of bird species, including significant populations of several.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Whooper Swan, Wigeon, Corncrake, Golden Plover, Lapwing, Black-tailed Godwit and Black-Headed Gull. It is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The Shannon Callows is the largest site monitored as part of I-WeBS and many parts of it are inaccessible on the ground. Annual monitoring of the wintering waterbirds of the Shannon Callows is undertaken by aerial surveys in January/February with some areas also covered by ground counts. The importance of the site for some species may have been underestimated if count coverage missed the brief spring peaks for these species, e.g. peak counts of Lapwing (23,409) and Black-tailed Godwit (1,096) recorded in the baseline period (1995/96 to 1999/2000) have been considerably higher than the four year means. . A wide range of other species occurs within the site, including Mute Swan (407), Teal (88), Tufted Duck (41), Dunlin (335), Curlew (162) and Redshank (39). Small numbers of Greenland White-fronted Goose use the Shannon Callows (peak 55 in 1998/99) and these are generally associated with larger flocks which occur on the adjacent Little Brosna Callows and River Suck Callows. The callow grasslands



provide optimum feeding grounds for these various species of waterfowl, while many of the birds also roost or rest within the site.

The Shannon Callows is also an important site for breeding waders with the total population on the Shannon and Little Brosna Callows being one of three major concentrations in Ireland and Britain in 1987. Numbers of some species have declined since then but a survey of the Shannon Callows in 2002 recorded the following breeding waders - Lapwing (63 pairs), Redshank (116 pairs), Snipe (139 drumming birds) and Curlew (8 pairs). Black-tailed Godwit, a very rare breeding species in Ireland, nests or attempts to nest in small numbers each year within the site. A further scarce breeding species, Shoveler, also nests in small numbers each year.

The Middle Shannon Callows SPA supports a breeding population of Corncrake (19 pairs - five-year mean peak between 2003 and 2007, based on records of calling males). Corncrake winter in southern and eastern Africa, migrating northwards to arrive on their breeding grounds from early April onwards, departing again in August and September. They require the cover of tall vegetation throughout their breeding cycle and are strongly associated with meadows which are harvested annually, where they nest and feed. Annual cutting of these meadows creates a sward which is easy for the birds to move through. Other habitats, which can provide cover for Corncrake in the early and late stages of the breeding season, are also important for this species. Corncrake is listed on the 2010 International Union for Conservation of Nature (IUCN) Red List of Threatened Species. This is due to population and range declines of more than 50% in the last 25 years across significant parts of its range. Quail, a related, scarce species, is also known to breed within the callow grasslands.

The Conservation Objectives for Middle Shannon Callows SPA are:

Objective 1: To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. This species is listed in Pable 9 below:

Bird Code	Common Name	Scientific Name
A038	Whooper Swan	Cygnus Cygnus
A050	Wigeon	Anas Penelope
A122	Corncrake The little	Crex crex
A140	Golden Płover	Pluvialis apricaria
A142	Lapwings	Vanellus vanellus
A156	Black tailed Godwit	Limosa limosa
A179	Black-headed Gull	Chroicocephalus ridibundus

Objective 2: To maintain or restore the favourable conservation condition of the wetland habitat at Middle Shannon Callows SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Factors or threats that can adversely affect the achievement of these objectives include:

- Habitat modification: activities that modify discrete areas or the overall habitat(s) within the SPA in terms of how one or more of the listed species use the site (e.g. as a feeding resource) could result in the displacement of these species from areas within the SPA and/or reduction in their numbers;
- Disturbance: anthropogenic disturbance that occurs in or near the site and is either singular or cumulative in nature could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers;
- Ex-situ factors: several of the listed waterbird species may at times use habitats situated within the
  immediate hinterland of the SPA or in areas outside the SPA but ecologically connected to it. The
  reliance on these habitats will vary from species to species and from site to site. Significant habitat
  change or increased levels of disturbance within these areas could result in the displacement of one
  or more of the listed waterbird species from areas within the SPA, and/or a reduction in the numbers.



#### 4.2.3 The Cross River

The Cross River\_030 which passes within 450m to the south of the Arran facility is currently classified as being of Moderate status under the Water Framework Monitoring Programme 2013-2018. The previous round of monitoring classed the river at Good Status. The most recent Q-value for the Cross River which was taken in 2017 approximately 800m downstream at Doyle's Bridge was scored at 3-4 Moderate for Biological Quality.

The Water Framework Directive also determines the 'Risk' level of river and coastal waters as follows: 1a – At Risk of not achieving Good Status, 2a – Expected to achieve Good Status, 2b – strongly expected to achieve Good Status. The Cross River is considered as being 'Not at Risk'. According to the most recent data the Cross River is not subject to environmental pressures including abstraction, agriculture, anthropogenic, atmospheric, extractive industry, wastewater or water treatment pressures. The only pressure identified was hydro morphological. This category can include pressures from channelization, embankment, dams, barriers, weirs, locks, culverts, land drainage, overgrazing and bank erosion.

The Cross River is part of the Upper Shannon (Mid Shannon) Catchment 26G. It is a small catchment which covers an area of 383km² and is comprised of the area from Athlone to Shannonbridge. The Shannon flows into the catchment through Athlone, heading south before being joined from the west by the Cross River. Monksland Wastewater Treatment Plant which is the largest in Roscommon is located 100m south of the Arran facility. It treats the wastewater from all the local industries and has recently undergone upgrade works to ensure all discharges to the Cross River are compliant with EPA emission limit values.

#### 4.3 Stage 3: Assessment of Likely Significant Effects

In this section the likely significant effects on the designated site from the operational and proposed works are outlined and listed below:

#### 4.3.1 Water Quality

Pollution of surface water and/or groundwater, from accidental run-off during the construction phase of the development or accidental release of contaminants during the operational phase. The SAC/SPA is 2.3km southeast of the facility. The nearest surface water body is the Cross River 450m south. There is potential for indirect damage to the physical nature of the SAC/SPA without appropriate controls and response measures put in place. Mitigation measures will be outlines in Section 4.5 of this report.

#### 4.4 Stage 4: In Combination Effects of Plans & Projects

The Habitats Directive requires that due consideration needs to be given to any plan or project which is likely to have a significant effect on a Natura 2000 site alone or in-combination with other plans and projects.

The Local Area plan for Monksland/Bellanamullia 2016-2022 includes as part of its policies and objectives to 'Contribute towards the protection of habitats and species listed in the annexes to and/or covered by the EU Habitats Directive (92/43/EEC, as amended), Birds Directive (2009/147/EC), the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations 20085, and regularly occurring-migratory birds and their habitats, and species protected under the Wildlife Acts 1976-2000 and the Flora Protection Order.' The LAP policies also commit to 'Contribute towards the protection of the water resources, including rivers, streams, lakes, wetlands, turloughs, groundwater, as well as aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the Western River Basin District Management Plan 2009-2015, Shannon International River Basin Management Plan 2009-2015 and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). A Roscommon County Council in complying with these requirements

Monksland/Bellanamullia (Athlone West) Local Area Plan 2016-2022



and policies would review all projects and planning applications alone and in combination with other projects to ensure that the habitats and surface waters would be protected.

In the past 3 years a total of 36 planning applications for planning permission in the Monksland area have been submitted to Roscommon County Council. Of these 18 have currently been granted conditional planning permission. Each of these would be subject to Appropriate Assessment by Roscommon County Council if it was considered to have potential impacts to Natura 2000 sites.

In-combination effects may arise from the development of other projects in the vicinity of the site, such as construction of housing, roads, rail, water and wastewater infrastructure, gas, electricity, provision of tourism facilities and telecommunications infrastructure, however, the in-combination effects of other developments would depend on factors such as the distance in relation to the site, the scale and the characteristics e.g. the types and quantities of emissions.

As of the 23<sup>rd</sup> March 2020, Arran were granted planning permission for 3 wet scrubbing units to form part of the pre-permitted abatement system enhancements to serve the E.A.P.S unit, with a 15m high flue together with all associated pipework, steel frame supports and access platform. The permission also included additional open yard area with a 1.5m high wall on the boundary side and a Chemical Storage Building of approx. 338sq.m. The purpose of the new development is to install a scrubber system to pre-treat potential acidic vapours before the Regenerative Thermal Oxidiser and will reduce the significance of any potential emissions during any bypass periods. An additional scrubber and carbon bed filtration will be integrated into the A2 abatement system to improve emission results through the relocated A2 emission stack.

The new development will be within the current site boundary and located directly adjacent to the RTO. There will be no habitat uptake with the exception of artificial surfaces. The area will re develop approximately 980sq.m of existing hard surfaced yard area. With the exception of thickened concrete slab and the boundary wall the majority of the work will be prefabricated. During installation all storm water drains adjacent to the works area will be fitted with filters to prevent any ingress of silt. All drains within the works area will be capped and any run-off diverted to process drain.

During operation there will be no change in the volumes of effluent discharged to sewer as the new installation will be replacing an existing system. Also, the Chemical Store will house materials that are already located in another part of the facility. There will be no increase in the volumes of chemical materials stored onsite and the new area will be bunded and integrity tested in accordance with the conditions set out in the Industrial Emissions licence.

As part of the planning permission application, Roscommon County Council would have determined through Appropriate Assessment that the project would not have potential significant effects on any Natura sites.

Finally, the following plans and objectives and policies therein were reviewed and considered for possible incombination effects with the proposed works:

- Roscommon County Development Plan 2014-2020;
- Monksland/Bellanamullia Local Area Plan 2016-2022;
- Athlone Town Development Plan 2014-2020;
- River Basin Management Plan (RBMP) 2018-2021;
- Natura Impact Statement of the RBMP 2018-2021;

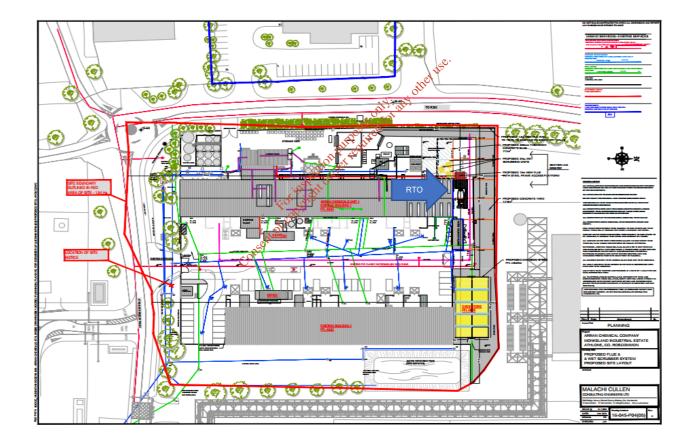


#### 4.5 Mitigation

#### 4.5.1 Water Quality

The Cross River\_030, running to the south of the Arran facility and the underlying groundwater body are both classified as 'Not at Risk' of not achieving their objectives under the Water Framework Directive. The objective is to protect/enhance all ground/surface and coastal waster to achieve 'Good' status under the Water Framework Directive. Whilst these water bodies are currently designated moderate/good the purpose of the mitigation measures outlined below is to ensure there will be no risk of deterioration.

Installation Phase: The installation will be completed over a phased basis ensuring there will only be small numbers of contractors onsite at any one time. Once the ground works are completed the flue infrastructure and connections for the RTO will be installed before final installation and commissioning of the RTO. During installation Arran will at all times adhere to the limits to sewer and surface water in accordance with the values set out in its Industrial Emissions licence. All surface water drains within the works area will be capped to ensure no accidental discharges to surface water drains. All drains shall be kept free from earth, debris and other obstructions during works. All works will comply with the requirements of the Local Byelaws and the engineering department of the Local Sanitary Authority. All of these measures are outlined in the Structural Specification in Appendix VI of this report.





A summary of the mitigation measures and residual impacts is listed below in Table 9:

Table 9 Impact 8 Potential	Assessment Potential Project Outcome	Mitigation	Residual
Describe the individual elements of the project (either alone or in combination with other projects) likely to give rise to impacts on the Natura 2000 site).	Installation Phase The facility is more than 2km from the River Shannon Callows SAC and Middle Shannon Callows SPA. The only potential for pollution during construction arises from (1) uncontrolled surface water run off (2) accidental spillage of fuels;  Operation Phase The operator phase is the continued operation of the Arran site. All emissions will be monitored under IE Licence. The installation is designed to improve compliance with the existing and proposed licence conditions	All site works will be carried out in accordance with the civil and structural specifications outlined in Appendix VI. All drains will be fitted with filters to prevent any debris etc from entering storm drains. Any surface water from the works area will diverted to the adjacent process drain network.	Impacts No significant impact.
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on Natura 2000 sites by virtue of; Size and scale Land-take Distance from or key features of the Natura 2000 site Resource requirements Emissions Excavation requirements Transportation requirements Duration of construction, operation, etc.	Installation Phase The proposed project will not result in any loss of habitat within the Natura 2000 network. The nearest SPA/SAC is 2.3km south. If the installation is not appropriately managed there could potentially occur;  • Uncontrolled surface water run off  Surface waters generated during construction have the potential to carry silts, oils, cements and other toxic chemicals to ground and potentially to surface water. Any of these car impact water quality and thus threaten marine species and birds. The drainage system of the facility will be modified for the duration of the construction to ensure no potentially contaminated water can enter the river. For this period surface water from the works area will be diverted to the process drain which runs directly adjacent to the works area. contained in a bunded area surface water within diverted to soakaway and sewer.  • Accidental spillage of fuels, oils and greases.  All refuelling and associated works will take place on a specified hard stand area on-site.  Operation Phase The operator phase will be the continued operation of the Arran facility. Arran are in the process of applying for an Industrial Emissions licence review from the EPA. Both the current and proposed licence will outline strict emission values concerning air, water, noise and odour. When a site operates under licence, they are obliged to ensure that the operation of the facility may have no negative impact on the environment.	Full implementation of the Civil and Structural Engineering Plan No access to surface water drains from construction works areas.	No significant impact.
Describe any likely changes to the site as a result of: Reduction of habitat area, disturbance to key species, habitat or species fragmentation, reduction in species density, changes in key indicators of conservation value or	There will be no direct reduction in habitat area, disturbance to species/habitat or changes in species density of fragmentation. The proposed installation will result in improved compliance with air emissions and will therefore have a positive climate impact.	None required	No significant impact.



climate change.			
Describe any likely impacts on the Natura 2000 site as a whole in terms of: Interference with the key relationships that define the structure of the site and the function of the site.	No such changes are predicted as a result of the proposed project.	None required	No significant impact.

#### 4.6 Stage 5: Conclusion of Natura Impact Assessment

Arran have operated under Licence P0110 since 1996. The licence outlines emission limit values and parameters for surface water and emissions to sewer. In accordance with the licence conditions Arran Chemical Company will adhere to these limits and will ensure that all works carried out on-site comply with the environmental quality standards as outlined in their management system which is accredited to ISO 14001:2015. A programme of continuous investment upgrades will ensure that the facility will maintain standards to a high level of environmental compliance.

Due to the potential impacts upon the River Shannon Callows and Middle Shannon Callows, an Appropriate Assessment of the impacts of the proposed installation on its own or in combination with other plans, was required. As a result of the proposed mitigation measures, this Matura Impact Statement is able to conclude that the proposed works will not result in impacts on the integrity of River Shannon Callows and Middle Shannon Callows or any other Natura 2000 sites.



### Appendix I Site Classification

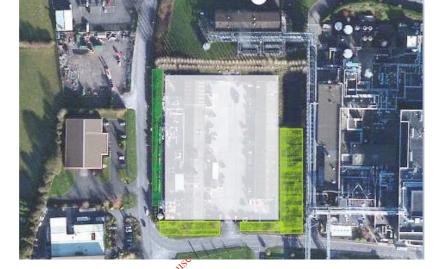
### **Fossitt Habitats**

National Grid W77K

BL3: Buildings and Artificial Surfaces

GA2: Amenity grassland (improved)

WL1: Hedgerows



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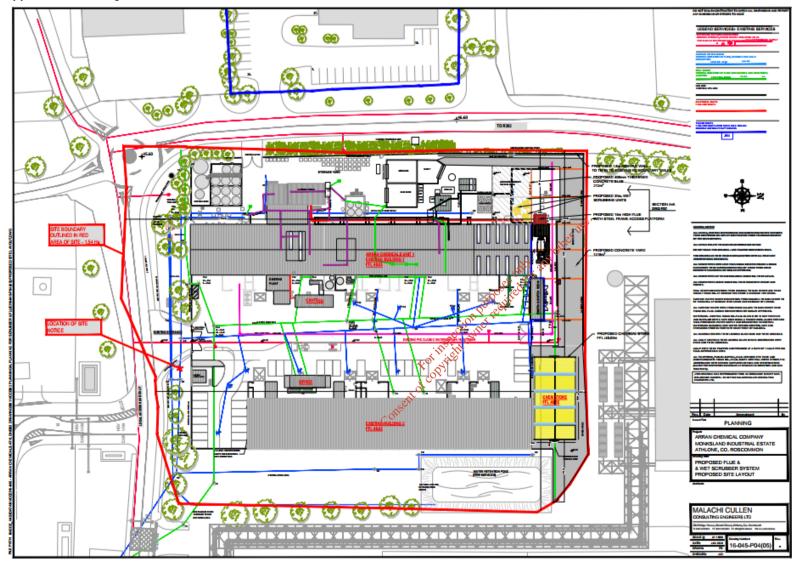


**Appendix II Site Synopsis** 

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### Appendix III Site Layout Plan





**Appendix IV Species List N04** 

Grid square	Species group	Species name	Record count	Date of last record	Title of dataset	Designation
Custom	acarine (Acari)	Hydracarina	2	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	acarine (Acari)	Oribatei	1	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	alga	Ceratium	2	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Chlorella	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Chlorogonium		03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Chrysococcus	1	03/07/2001 03/07/2001 03/07/2001 03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Cryptomonas	2	03/07/2001 A TOTAL PORT OF THE	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Dinobryon	2	03/07/2001 T	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Mallomonas	2 چې	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Peridinium	2. Insperi	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Rhodomonas	900°	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Scenedesmus Consent C	2	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	alga	Uroglena	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	amphibian	Common Frog (Rana temporaria)	11	15/03/2018	Amphibians and reptiles of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
Custom	amphibian	Smooth Newt (Lissotriton	9	15/04/2015	Amphibians and reptiles of Ireland	Protected Species: Wildlife Acts
Custom	annelid	Limnodrilus	1	24/04/2007	Aquatic Oligochaeta of Ireland	
Custom	annelid	Limnodrilus hoffmeisteri	3	24/04/2007	Aquatic Oligochaeta of Ireland	
Custom	annelid	Potamothrix	2	24/04/2007	Aquatic Oligochaeta of Ireland	
Custom	annelid	Potamothrix heuscheri	2	24/04/2007	Aquatic Oligochaeta of Ireland	
Custom	annelid	Potamothrix moldaviensis	1	23/03/2002	Aquatic Oligochaeta of Ireland	
Custom	annelid	Potamothrix vejdovskyi	1	23/03/2002	Aquatic Oligochaeta of Ireland	
Custom	bacterium	Aphanizomenon flos- aquae	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes	



Custom	bacterium	Aphanocapsa	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes	
Custom	bird	Barn Owl (Tyto alba)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Barn Swallow (Hirundo rustica)	10	07/09/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Black-billed Magpie (Pica	10	02/02/2015	Birds of Ireland	
Custom	bird	Blackcap (Sylvia	7	07/09/2016	Birds of Ireland	
Custom	bird	Black-headed Gull (Larus ridibundus)	11 \$\cdot\cdot\cdot\cdot\cdot\cdot\cdot\cdot	07/09/2016 of the fact of the	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Blue Tit (Cyanistes	11 8	01/05/2016	Birds of Ireland	
Custom	bird	Chaffinch (Fringilla	1411	07/09/2016	Birds of Ireland	
Custom	bird	Coal Tit (Periparus ater)	91	22/05/2016	Birds of Ireland	
Custom	bird	Common Blackbird	15	11/07/2017	Birds of Ireland	
Custom	bird	Common Bullfinch	6	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Common Buzzard (Buteo	8	15/11/2017	Birds of Ireland	
Custom	bird	Common Chiffchaff (Phylloscopus collybita)	4	07/09/2016	Birds of Ireland	



Custom	bird	Common Coot (Fulica atra)	12	11/07/2017	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Cuckoo	5	22/05/2016	Birds of Ireland	
Custom	bird	Common Goldeneye (Bucephala clangula)	2	22/05/2016 31/12/2011  The production that required for any other use of the production that required for any other use of the production	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern >> Amber List
Custom	bird	Common Grasshopper Warbler (Locustella naevia)	3 Consent of	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Kestrel (Falco tinnunculus)	7	01/05/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Custom	bird	Common Kingfisher (Alcedo atthis)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Linnet (Carduelis cannabina)	5	31/12/2011  31/12/2011  22/05/2016 Of the English of the Line of t	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Moorhen (Gallinula chloropus)	4	31/12/2011 of the different of the second of	Bird Atlas 2007 - 2011	
Custom	bird	Common Pheasant (Phasianus colchicus)	5	22/05/2016 Posterined To Septiment Programmer To Septi	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Custom	bird	Common Pochard (Aythya ferina)	C. S.	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Raven (Corvus	4	21/05/2016	Birds of Ireland	



Custom	bird	Common Redshank (Tringa totanus)	5	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Common Sandpiper (Actitis hypoleucos)	2	31/07/1991	The Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Snipe (Gallinago gallinago)	6 F	31/12/2011  31/12/2011  31/12/2011  22/05/2016	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Starling (Sturnus vulgaris)	CÎ1	22/05/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Swift (Apus apus)	5	22/05/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Custom	bird	Common Tern (Sterna hirundo)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Common Whitethroat (Sylvia communis)	3	07/09/2016	Birds of Ireland	CONCERN ANDER EIST
Custom	bird	Common Wood Pigeon (Columba palumbus)	10	07/09/2016	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species
Custom	bird	Corn Crake (Crex crex)	2 Yousent of Consent o	07/09/2016  31/07/1991 required for any other use of the best owner required for any other testing of the best of	The Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Eurasian Collared Dove (Streptopelia decaocto)	7	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Eurasian Curlew (Numenius arquata)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List



Custom	bird	Eurasian Dotterel	1	10/11/1906	Rare birds of Ireland	
		(Charadrius morinellus)	10	02/02/2015		
Custom	bird	Eurasian Jackdaw	12	02/02/2015	Birds of Ireland	
Custom	bird	Eurasian Jay (Garrulus	4	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Eurasian Oystercatcher (Haematopus ostralegus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Eurasian Siskin	2	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Eurasian Sparrowhawk (Accipiter nisus)	7	26/11/2016	Birds of Ireland	
Custom	bird	Eurasian Teal (Anas crecca)	3	26/11/2016  26/11/2016  26/11/2016  26/11/2016  31/12/2011	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Eurasian Treecreeper (Certhia familiaris)	242	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Eurasian Wigeon (Anas penelope)	3	08/09/2016	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List



Custom	bird	Eurasian Woodcock (Scolopax rusticola)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	European Golden Plover (Pluvialis apricaria)	2 Figure 2 Consent of Co	31/12/2011  31/12/2011  31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	European Goldfinch (Carduelis carduelis)	8	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	European Greenfinch (Carduelis chloris)	10	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	European Robin	13	07/09/2016	Birds of Ireland	
Custom	bird	Ferruginous Duck (Aythya		21/01/1893	Rare birds of Ireland	
Custom	bird	Fieldfare (Turdus pilaris)	2	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Garden Warbler (Sylvia	3	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Glaucous Gull (Larus hyperboreus)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84.	
Custom	bird	Goldcrest (Regulus	7	07/09/2016	Birds of Ireland	



Custom	bird	Great Black-backed Gull (Larus marinus)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Great Cormorant (Phalacrocorax carbo)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Great Crested Grebe (Podiceps cristatus)	8	11/07/2017  11/07/2017  07/09/2016  02/08/2017  031/12/2011	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Great Tit (Parus major)	12	07/09/2016	Birds of Ireland	
Custom	bird	Grey Heron (Ardea	10	02/08/2017	Birds of Ireland	
Custom	bird	Grey Wagtail (Motacilla	~		Bird Atlas 2007 - 2011	
Custom	bird	Hedge Accentor (Prunella	8	<b>3</b> 1/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Hen Harrier (Circus cyaneus)	1 of onsent of	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Herring Gull (Larus argentatus)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84.	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Hooded Crow (Corvus	6	31/12/2011	Bird Atlas 2007 - 2011	



Custom	bird	House Martin (Delichon urbicum)	4	22/05/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	House Sparrow (Passer domesticus)	7	22/05/2016	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Lesser Black-backed Gull (Larus fuscus)	4	31/12/2011  31/12/2011  31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Lesser Redpoll (Carduelis	6	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Little Egret (Egretta garzetta)	3 Sent of	03709/2016	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species
Custom	bird	Little Grebe (Tachybaptus ruficollis)	9	02/02/2015	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Long-eared Owl (Asio	3	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Long-tailed Tit	6	07/09/2016	Birds of Ireland	
Custom	bird	Mallard (Anas platyrhynchos)	11	11/07/2017	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species



Custom	bird	Meadow Pipit (Anthus	4	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Merlin (Falco columbarius)	1	29/02/1984	The First Atlas of Wintering Birds in Britain and Ireland: 1981/82-1983/84.	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Mew Gull (Larus canus)	3	31/12/2011  31/12/2011 ose of the art offer tise.  11/07/2013 tedited the control of the control	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Mistle Thrush (Turdus	6	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Mute Swan (Cygnus olor)	9	31/12/2011 see all 11/07/2013 trade light of the light of	Birds of Ireland	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Northern Lapwing (Vanellus vanellus)	9 ent	07/09/2016	Birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List



Custom	bird	Northern Pintail (Anas acuta)	2	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Northern Shoveler (Anas clypeata)	2	31/12/2011  31/12/2011  31/12/2011  17/06/1888	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section III Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bird	Pallas's Sandgrouse (Syrrhaptes paradoxus)	1sent	17/06/1888	Rare birds of Ireland	
Custom	bird	Peregrine Falcon (Falco peregrinus)	1	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species
Custom	bird	Pied Wagtail (Motacilla alba subsp. yarrellii)	3	11/07/2017	Birds of Ireland	



Custom	bird	Red Grouse (Lagopus	1	31/07/1972	The First Atlas of Breeding Birds in	Protected Species: Wildlife Acts
		lagopus)			Britain and Ireland: 1968-1972.	Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red
						List
Custom	bird	Red-breasted Merganser	2	29/02/1984	The First Atlas of Wintering Birds in	Protected Species: Wildlife Acts
		(Mergus serrator)		29/02/1984  31/12/2011 05 control and other in a 1/12/2011 05 control and other in a 1/12/2014 of the interval	Britain and Ireland: 1981/82- 1983/84.	Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section II Bird Species
Custom	bird	Redwing (Turdus iliacus)	2	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Reed Bunting (Emberiza	9	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird		sento	31/12/2011 0 10 10 10 10 10 10 10 10 10 10 10 1	The First Atlas of Breeding Birds in Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Rock Pigeon (Columba (livia)	3	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species
Custom	bird	Rook (Corvus frugilegus)	9	22/05/2016	Birds of Ireland	
Custom	bird	Sand Martin (Riparia riparia)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Sedge Warbler (Acrocephalus	6	31/12/2011	Bird Atlas 2007 - 2011	



Custom	bird	Sky Lark (Alauda arvensis)	4	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Snowy Owl (Bubo scandiaca)	1	22/05/2016 colly and a	Rare birds of Ireland	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Song Thrush (Turdus	10	22/05/2016	Birds of Ireland	
Custom	bird	Spotted Flycatcher (Muscicapa striata)	3	of in Rection purpose in the control of the control	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Stock Pigeon (Columba oenas)	1 of Consent of	31/07/1972	The First Atlas of Breeding Birds i Britain and Ireland: 1968-1972.	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Stonechat (Saxicola	4	26/03/2016	Birds of Ireland	



Custom	bird	Tufted Duck (Aythya	5	31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts
		fuligula)				Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex II, Section I Bird Species    Protected Species: EU Birds Directive >> Annex III, Section II Bird Species    Threatener Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Water Rail (Rallus aquaticus)	3	31/12/2011  01/05/30167 office difference of the property of t	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Whimbrel (Numenius	1	01/05/2016	Birds of Ireland	
Custom	bird	White Wagtail (Motacilla	7	31/12/2011	Bird Atlas 2007 - 2011	
Custom	bird	Whooper Swan (Cygnus cygnus)	3 Sonsent of	31/12/2011 31/12/2011	Bird Atlas 2007 - 2011	Protected Species: Wildlife Acts    Protected Species: EU Birds Directive    Protected Species: EU Birds Directive >> Annex I Bird Species    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
Custom	bird	Willow Warbler (Phylloscopus trochilus)	6	27/06/2017	Birds of Ireland	
Custom	bird	Winter Wren (Troglodytes	8	22/05/2016	Birds of Ireland	
Custom	bird	Yellowhammer (Emberiza citrinella)		31/07/1991	The Second Atlas of Breeding Birds in Britain and Ireland: 1988-1991	Protected Species: Wildlife Acts    Threatened Species: Birds of Conservation Concern    Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
Custom	bony fish (Actinopterygii)	Common Bream x Roach (Abramis brama x Rutilus	1	31/12/1999	Freshwater Fish in Irish Lakes	



Custom	bony fish (Actinopterygii)	European Eel (Anguilla anguilla)	1	31/12/1999	Freshwater Fish in Irish Lakes	Threatened Species: OSPAR Convention    Threatened Species: Critically Endangered
Custom	bony fish (Actinopterygii)	Perch (Perca fluviatilis)	2	31/12/1999	Freshwater Fish in Irish Lakes	, 3
Custom	bony fish (Actinopterygii)	Pike (Esox lucius)	2	31/12/1999	Freshwater Fish in Irish Lakes	
Custom	bony fish (Actinopterygii)	Roach (Rutilus rutilus)	1	31/12/1999	Freshwater Fish in Irish Lakes	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	bony fish (Actinopterygii)	Rudd (Scardinius	2	31/12/1999	Freshwater Fish in Irish Lakes	
Custom	conifer	Douglas Fir (Pseudotsuga	1	24/05/2005	. Species Data from the National	Invasive Species: Invasive Species
		menziesii)		24/05/2005  21/06/2005  21/06/2005  31/12/2016 required for any other tree	Vegetation Database	Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	conifer	European Larch (Larix decidua)	2	21/06/2005 Office of the control of	Species Data from the National Vegetation Database	
Custom	conifer	Lawson's Cypress (Chamaecyparis	2	31/12/2010 Politic	BSBI tetrad data for Ireland	
Custom	conifer	Monterey Pine (Pinus radiata)	2	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	conifer	Norway Spruce (Picea	3 🔷	31/12/2010	BSBI tetrad data for Ireland	
Custom	conifer	Scots Pine (Pinus	7	<b>3</b> 1/12/2010	BSBI tetrad data for Ireland	
Custom	conifer	Sitka Spruce (Picea sitchensis)	2 of	19/05/2005	Species Data from the National Vegetation Database	
Custom	conifer	Yew (Taxus baccata)	311	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	crustacean	Asellus aquaticus	2	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	crustacean	Crangonyx pseudogracilis	4	06/08/2004	National Invasive Species Database	
Custom	crustacean	Freshwater White-clawed Crayfish (Austropotamobius pallipes)		25/06/2014	River Biologists' Database (EPA)	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
Custom	crustacean	Hemimysis anomala	10	16/06/2009	National Invasive Species Database	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species



Custom	crustacean	Mysis relicta	2	21/03/2009	Survey of the native freshwater opossum shrimp (Mysis relicta) in Ireland
Custom	diatom	Asterionella formosa	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes
Custom	diatom	Cyclotella	2	03/07/2001	Quantitative Phytoplankton data from Irish lakes
Custom	diatom	Fragilaria	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes
Custom	diatom	Fragilaria crotonensis	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes
Custom	diatom	Gomphonema	1	03/07/2001	Quantitative Phytoplankton data from Irish lakes
Custom	diatom	Synedra	2	03/07/2001	Quantitative Phytoplankton data from Irish lakes
Custom	diatom	Tabellaria flocculosa	1	03/07/2001  01/06/2011  25/02/2019 One of the land of	Quantitative Phytoplankton data from Irish lakes
Custom	fern	Adder's-tongue (Ophioglossum vulgatum)	3	01/06/2011 OTF OF SELECTION OF	Species Data from the National Vegetation Database
Custom	fern	Bracken (Pteridium aquilinum)	16	25/02/2019 Politic	Online Atlas of Vascular Plants 2012- 2020
Custom	fern	Broad Buckler-fern (Dryopteris dilatata)	15	31/12/2010	BSBI tetrad data for Ireland
Custom	fern	Hard-fern (Blechnum spicant)	1 .	15/09/2005	Species Data from the National Vegetation Database
Custom	fern	Hart's-tongue (Phyllitis scolopendrium)	10 of	25/02/2019	Online Atlas of Vascular Plants 2012- 2020
Custom	fern	Intermediate Polypody (Polypodium interjectum)	Ž	21/06/2005	Species Data from the National Vegetation Database
Custom	fern	Lady-fern (Athyrium filix- femina)	4	15/09/2005	Species Data from the National Vegetation Database
Custom	fern	Maidenhair Spleenwort (Asplenium trichomanes)	2	19/05/2005	Species Data from the National Vegetation Database
Custom	fern	Male-fern (Dryopteris filix- mas)	14	30/05/2011	Species Data from the National Vegetation Database
Custom	fern	Marsh Fern (Thelypteris	2	31/12/2010	BSBI tetrad data for Ireland
Custom	fern	Polypodium vulgare	4	31/12/2010	BSBI tetrad data for Ireland
Custom	fern	Polypody (Polypodium vulgare)	6	15/09/2005	Species Data from the National Vegetation Database
Custom	fern	Royal Fern (Osmunda regalis)	1	15/09/2005	Species Data from the National Vegetation Database
Custom	fern	Scaly Male-fern (Dryopteris affinis)	8	15/09/2005	Species Data from the National Vegetation Database



Custom	fern	Soft Shield-fern (Polystichum setiferum)	3	01/09/2005	Species Data from the National Vegetation Database	
O	£		2	24 /07 /4 000		
Custom	fern	Wall-rue (Asplenium ruta- muraria)	3	31/07/1980	Species Data from the National Vegetation Database	
Custom	flatworm (Turbellaria)	Arthurdendyus triangulatus	1	12/03/2009	New Zealand Flatworm (Arthurdendyus triangulates) Database	Invasive Species: Invasive Species   Invasive Species: Invasive Species >> High Impact Invasive Species
Custom	flatworm (Turbellaria)	Dendrocoelum lacteum	2	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	flowering plant	Alder (Alnus glutinosa)	17	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Alder Buckthorn (Frangula alnus)	1	02/06/2019	Online Atlas of Vascular Plants 2012- 2020	Threatened Species: Vulnerable
Custom	flowering plant	Amphibious Bistort (Persicaria amphibia)	4	21/09/2011 the time that the time the time that the time that the time the time that the time the time that the time the time the time the time that the time the tim	Species Data from the National Vegetation Database	
Custom	flowering plant	Annual Meadow-grass	9	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Arctium minus agg.	1	21/09/2011  31/12/2010  31/01/2005  31/12/2010 OF THE	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Arrowhead (Sagittaria	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Ash (Fraxinus excelsior)	27	ectionine!	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Autumn Hawkbit (Leontodon autumnalis)	7	01706/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Barren Strawberry (Potentilla sterilis)	8	् <sup>®</sup> 1/08/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Bay Willow (Salix pentandra)	1 Sent Or	11/05/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Bee Orchid (Ophrys apifera)	2	27/06/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Beech (Fagus sylvatica)	15	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Bilberry (Vaccinium myrtillus)	3	15/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Black Bog-rush	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Black Medick (Medicago lupulina)	7	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Black-poplar (Populus	3	31/12/1999	BSBI tetrad data for Ireland	
Custom	flowering plant	Blackthorn (Prunus spinosa)	20	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Bladder Campion (Silene vulgaris)	1	12/08/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Blue Anemone (Anemone apennina)	1	29/03/2018	Online Atlas of Vascular Plants 2012- 2020	



Custom	flowering plant	Bluebell (Hyacinthoides non-scripta)	14	19/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Bog Pimpernel (Anagallis tenella)	1	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Bog Stitchwort (Stellaria alsine)	2	24/05/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Bogbean (Menyanthes trifoliata)	4	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Bottle Sedge (Carex rostrata)	5	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Bramble (Rubus fruticosus agg.)	30	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Bright-leaved Pondweed (Potamogeton gramineus x perfoliatus = P. x nitens)	1	31/12/1999	BSBI tetrad data for Ireland	
Custom	flowering plant	Broad-leaved Dock (Rumex obtusifolius)	11	21/09/2011  24/05/2005  16/06/2013 to the standard and other trees.	Species Data from the National Vegetation Database	
Custom	flowering plant	Broad-leaved Pondweed (Potamogeton natans)	1	24/05/2005 2014 and office 24/05/2005 2014 and o	Species Data from the National Vegetation Database	
Custom	flowering plant	Broad-leaved Willowherb (Epilobium montanum)	13	16/06/2017 Leguin	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Brooklime (Veronica beccabunga)	1	30/99/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Brown Sedge (Carex disticha)	7	31/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Buckthorn (Rhamnus	12 💸	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Bugle (Ajuga reptans)	5 ent	31/08/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Bulbous Buttercup (Ranunculus bulbosus)	8	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Bulbous Rush (Juncus bulbosus)	1	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Burnet-saxifrage (Pimpinella saxifraga)	6	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Bush Vetch (Vicia	10	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Butterfly-bush (Buddleja davidii)	2	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species



Custom	flowering plant	Canadian Waterweed	2	31/12/2010	BSBI tetrad data for Ireland	Invasive Species: Invasive Species
		(Elodea canadensis)				Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	flowering plant	Carex echinata x dioica = C. x gaudiniana	2	31/12/1999	BSBI tetrad data for Ireland	
Custom	flowering plant	Carnation Sedge (Carex panicea)	14	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Cat's-ear (Hypochaeris radicata)	11	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Cerastium fontanum	5	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Charlock (Sinapis	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Cherry Laurel (Prunus laurocerasus)	1	31/12/2010 25/02/2019 10/04/2019 05 06 11 11 10/04/2019 05 11 10/04/2019 05 06 11 11 11 11 11 11 11 11 11 11 11 11 11	Online Atlas of Vascular Plants 2012- 2020	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species
Custom	flowering plant	Cleavers (Galium aparine)	17	10/04/2019 set ed te	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Cock's-foot (Dactylis glomerata)	24	10/04/2019 con	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Coltsfoot (Tussilago farfara)	2	of wright	Online Atlas of Vascular Plants 2012-2020	
Custom	flowering plant	Columbine (Aquilegia	1	<b>№</b> 1/12/1929	BSBI tetrad data for Ireland	
Custom	flowering plant	Common Bent (Agrostis capillaris)	11 of	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Bird's-foot- trefoil (Lotus corniculatus)	18	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Broomrape (Orobanche minor)	1	31/08/2005	Species Data from the National Vegetation Database	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	flowering plant	Common Chickweed (Stellaria media)	9	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Club-rush (Schoenoplectus	8	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Cottongrass (Eriophorum	3	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Couch (Elytrigia repens)	3	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Dog-violet (Viola riviniana)	8	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Duckweed	3	31/12/2010	BSBI tetrad data for Ireland	



Custom	flowering plant	Common Figwort (Scrophularia nodosa)	5	01/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Knapweed (Centaurea nigra)	16	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Meadow-rue (Thalictrum flavum)	1	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Milkwort (Polygala vulgaris)	3	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Mouse-ear (Cerastium fontanum)	14	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Nettle (Urtica dioica)	20	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Ragwort (Senecio jacobaea)	21	06/01/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Reed (Phragmites australis)	6	06/01/2018 12/01/2018 07/06/2018 16/06/2017 05 5 0 10 10 10 10 10 10 10 10 10 10 10 10 1	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Sedge (Carex nigra)	13	07/06/2018 Only and	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Sorrel (Rumex acetosa)	15	16/06/2017 osessed to	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Spike-rush (Eleocharis palustris)	7	07/06/2018 C	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Spotted-orchid (Dactylorhiza fuchsii)	10	03/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Common Twayblade (Listera ovata)	8	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Valerian (Valeriana officinalis)	3 ent	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Water-starwort (Callitriche stagnalis)	1	21/06/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Common Yellow-sedge (Carex viridula subsp.	1	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Compact Rush (Juncus conglomeratus)	5	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Corn Mint (Mentha	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Cotoneaster	1	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Cow Parsley (Anthriscus sylvestris)	6	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Cowbane (Cicuta virosa)	2	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Cowslip (Primula veris)	10	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	



Custom	flowering plant	Crab Apple (Malus sylvestris)	5	01/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Creeping Bent (Agrostis stolonifera)	31	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Creeping Buttercup (Ranunculus repens)	20	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Creeping Cinquefoil (Potentilla reptans)	2	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Creeping Thistle (Cirsium arvense)	9	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Crested Dog's-tail (Cynosurus cristatus)	12	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Crested Hair-grass (Koeleria macrantha)	2	01/06/2011	Species Data from the National	
Custom	flowering plant	Cuckooflower (Cardamine pratensis)	8	01/06/2011  30/05/2011  21/09/2011  07/06/2018	Species Data from the National Vegetation Database	
Custom	flowering plant	Curled Dock (Rumex crispus)	2	30/05/2011 of the arm of	Species Data from the National Vegetation Database	
Custom	flowering plant	Cut-leaved Crane's-bill (Geranium dissectum)	1	21/09/2011 05 tred to	Species Data from the National Vegetation Database	
Custom	flowering plant	Dactylorhiza incarnata subsp. incarnata	2	07/06/2018; OT	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Dactylorhiza incarnata subsp. pulchella		Y 6Y	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Daisy (Bellis perennis)	13	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Dame's-violet (Hesperis matronalis)	2 ente	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Devil's-bit Scabious (Succisa pratensis)	17	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Dog-rose (Rosa canina)	10	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Downy Birch (Betula pubescens)	22	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Downy Oat-grass (Helictotrichon	8	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Eared Willow (Salix aurita)	3	15/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Early Dog-violet (Viola reichenbachiana)	3	25/04/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Early Marsh-orchid (Dactylorhiza incarnata)	2	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Early-purple Orchid (Orchis mascula)	3	30/05/2011	Species Data from the National Vegetation Database	



Custom	flowering plant	Elder (Sambucus nigra)	14	25/02/2019	Online Atlas of Vascular Plants 2012-	
	, and a second process				2020	
Custom	flowering plant	Enchanter's-nightshade (Circaea lutetiana)	15	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Euphrasia officinalis agg.	4	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Fairy Flax (Linum catharticum)	7	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	False Fox-sedge (Carex otrubae)	1	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	False Oat-grass (Arrhenatherum elatius)	9	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	False-brome (Brachypodium	14	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Fen Bedstraw (Galium uliginosum)	3	01/06/2011 01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Fen Dandelion	1	31/12/1986	BSBI tetrad data for Ireland	
Custom	flowering plant	Fennel Pondweed (Potamogeton pectinatus)	3	31/12/1986 31/12/2010 only and and an analysis of the state of the sta	BSBI tetrad data for Ireland	
Custom	flowering plant	Festuca rubra agg.	3	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Field Forget-me-not (Myosotis arvensis)	1	coll wife.	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Field Maple (Acer campestre)	1	1.7/05/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Field Scabious (Knautia	2	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Field Wood-rush (Luzula campestris)	7 ent	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Field-rose (Rosa arvensis)	5	01/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Flat-stalked Pondweed (Potamogeton friesii)	1	31/12/1999	BSBI tetrad data for Ireland	
Custom	flowering plant	Flea Sedge (Carex pulicaris)	5	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Floating Sweet-grass (Glyceria fluitans)	10	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Fox-and-cubs (Pilosella aurantiaca)	1	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Foxglove (Digitalis	4	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Fragrant Agrimony (Agrimonia procera)	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Germander Speedwell (Veronica chamaedrys)	9	30/05/2011	Species Data from the National Vegetation Database	



Custom	flowering plant	Giant Fescue (Festuca gigantea)	1	01/09/2005	Species Data from the National Vegetation Database	
C. rata wa	flavoring plant	,	14	21/00/2011		
Custom	flowering plant	Glaucous Sedge (Carex flacca)	14	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Goat Willow (Salix	5	01/09/2005	Species Data from the National	
243:0	normaning plant	caprea)		0 = 1, 0 = 3, = 0 = 0	Vegetation Database	
Custom	flowering plant	Goldenrod (Solidago	3	31/08/2005	Species Data from the National	
		virgaurea)			Vegetation Database	
Custom	flowering plant	Goldilocks Buttercup	2	19/05/2005	Species Data from the National	
		(Ranunculus auricomus)			Vegetation Database	
Custom	flowering plant	Gooseberry (Ribes uva-	1	30/08/2005	Species Data from the National	
		crispa)			Vegetation Database	
Custom	flowering plant	Gorse (Ulex europaeus)	5	15/09/2005	Species Data from the National	
				9.	Vegetation Database	
Custom	flowering plant	Great Fen-sedge	1	24/05/2005	Species Data from the National	
		(Cladium mariscus)		ather	Vegetation Database	
Custom	flowering plant	Great Willowherb	2	30/05/2011	Species Data from the National	
		(Epilobium hirsutum)		official	Vegetation Database	
Custom	flowering plant	Great Yellow-cress	2	24/05/2005  30/05/2011  31/12/2010 05 07 07 07 07 07 07 07 07 07 07 07 07 07	BSBI tetrad data for Ireland	
		(Rorippa amphibia)		auth airt		
Custom	flowering plant	Greater Bird's-foot-trefoil	1	30/05/2011	Species Data from the National	
		(Lotus pedunculatus)		ectimité.	Vegetation Database	
Custom	flowering plant	Greater Plantain			Species Data from the National	
		(Plantago major)	l Q	of stript.	Vegetation Database	
Custom	flowering plant	Greater Stitchwort	1	319/05/2005	Species Data from the National	
		(Stellaria holostea)	\ \Zo	• ]	Vegetation Database	
Custom	flowering plant	Greater Tussock-sedge	1 ento	24/05/2005	Species Data from the National	
			011		Vegetation Database	
Custom	flowering plant	Grey Poplar (Populus	1	21/09/2011	Species Data from the National	
		alba x tremula = P. x			Vegetation Database	
Custom	flowering plant	Ground-elder	3	25/02/2019	Online Atlas of Vascular Plants 2012-	
		(Aegopodium podagraria)			2020	
Custom	flowering plant	Ground-ivy (Glechoma	11	25/02/2019	Online Atlas of Vascular Plants 2012-	
		hederacea)			2020	
Custom	flowering plant	Groundsel (Senecio	7	30/05/2011	Species Data from the National	
		vulgaris)			Vegetation Database	
Custom	flowering plant	Guelder-rose (Viburnum	15	25/05/2016	Online Atlas of Vascular Plants 2012-	
		opulus)			2020	
Custom	flowering plant	Gypsywort (Lycopus	3	16/06/2017	Online Atlas of Vascular Plants 2012-	
		europaeus)			2020	
Custom	flowering plant	Hairy Lady's-mantle	1	30/08/2005	Species Data from the National	
		(Alchemilla filicaulis)			Vegetation Database	
Custom	flowering plant	Hairy Rock-cress (Arabis	1	12/08/2005	Species Data from the National	
		hirsuta)			Vegetation Database	



Custom	flowering plant	Hairy Sedge (Carex hirta)	7	21/09/2011	Species Data from the National Vegetation Database	
Cuatana	flavoring plant	Hand Duch /Juneus	10	21/00/2011	-	
Custom	flowering plant	Hard Rush (Juncus inflexus)	10	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Harebell (Campanula	1	31/08/2005	Species Data from the National	
		rotundifolia)			Vegetation Database	
Custom	flowering plant	Hare's-foot Clover	1	21/09/2011	Species Data from the National	
		(Trifolium arvense)			Vegetation Database	
Custom	flowering plant	Hawthorn (Crataegus	26	25/02/2019	Online Atlas of Vascular Plants 2012-	
		monogyna)			2020	
Custom	flowering plant	Hazel (Corylus avellana)	25	30/05/2011	Species Data from the National	
	3,	(11,111111,			Vegetation Database	
Custom	flowering plant	Heath Wood-rush (Luzula	1	30/05/2011	Species Data from the National	
	The state of the s	multiflora)	-		Vegetation Database	
Custom	flowering plant	Heather (Calluna	2	21/06/2005		
	The state of the s	vulgaris)	-	ener sher	Vegetation Database	
Custom	flowering plant	Heath-grass (Danthonia	3	01/06/2011	Species Data from the National	
-	novering plant	decumbens)		21/06/2005  01/06/2011  21/09/2011  31/12/3010 country 16/06/2017	Vegetation Database	
Custom	flowering plant	Hedge Bindweed	4	21/09/2011	Species Data from the National	
Castoni	novering plane	(Calystegia sepium)	'	11703/2011 OS stilled	Vegetation Database	
Custom	flowering plant	Hedge Mustard	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Hedge Woundwort	4	16/06/2017	Online Atlas of Vascular Plants 2012-	
00000000	novering plant	(Stachys sylvatica)		2000	2020	
Custom	flowering plant	Hemp-agrimony	4	31/12/2010	BSBI tetrad data for Ireland	
	The state of the s	(Eupatorium cannabinum)	\ \ \ \	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )		
Custom	flowering plant	Herb-Robert (Geranium	25 8	25/02/2019	Online Atlas of Vascular Plants 2012-	
	The state of the s	robertianum)	25 of	,,	2020	
Custom	flowering plant	Himalayan Honeysuckle	Oliz	05/09/2016	Online Atlas of Vascular Plants 2012-	Invasive Species: Invasive Species
	The state of the s	(Leycesteria formosa)	1	33,33,233	2020	Invasive Species: Invasive Species
		(20,000.00.00.00)				>> Medium Impact Invasive Species
						· ·
Custom	flowering plant	Hoary Willowherb	8	21/09/2011	Species Data from the National	
Custom	novering plane	(Epilobium parviflorum)		21,03,2011	Vegetation Database	
Custom	flowering plant	Hogweed (Heracleum	19	25/02/2019	Online Atlas of Vascular Plants 2012-	
Custom	nowering plane	sphondylium)	15	23, 62, 2013	2020	
Custom	flowering plant	Holly (Ilex aquifolium)	16	25/02/2019	Online Atlas of Vascular Plants 2012-	
Custom	nowering plane	Tiony (nex additionally	10	23, 62, 2613	2020	
Custom	flowering plant	Honeysuckle (Lonicera	20	25/02/2019	Online Atlas of Vascular Plants 2012-	
2330111	nowering plant	periclymenum)	20	25,02,2015	2020	
Custom	flowering plant	Hook-lobed Dandelion	2	31/12/1986	BSBI tetrad data for Ireland	
Castoni	nowering plant	(Taraxacum hamatum)	_	31,12,1300	DODI CCI da data 101 II Cidila	
Custom	flowering plant	Hop Trefoil (Trifolium	1	21/09/2011	Species Data from the National	
Custom	nowering plant	campestre)	*	21/03/2011	Vegetation Database	
		campesire)			vegetation batabase	



Custom	flowering plant	Horse-chestnut (Aesculus	1	21/06/2005	Species Data from the National	
		hippocastanum)			Vegetation Database	
Custom	flowering plant	Hybrid Cinquefoil (Potentilla anglica x	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Indian Balsam (Impatiens glandulifera)	2	17/10/2011	National Invasive Species Database	Invasive Species: Invasive Species   Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	flowering plant	Intermediate Lady's- mantle (Alchemilla	1	17/05/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Irish Whitebeam (Sorbus	7	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Ivy (Hedera helix)	29	25/02/2019	Online Atlas of Vascular Plants 2012-	
			_	100000		
Custom	flowering plant	Ivy Broomrape	7	16/06/2017	Online Atlas of Vascular Plants 2012-	
C t	flancasia a ralanat	(Orobanche hederae)		13/00/2000 114. 2014	2020	
Custom	flowering plant	Ivy-leaved Duckweed	1	13/08/2008	River Biologists' Database (EPA)	
Custom	flowering plant	Ivy-leaved Toadflax (Cymbalaria muralis)	3	31/0//1980 30 cd	Species Data from the National Vegetation Database	
Custom	flowering plant	Japanese Knotweed (Fallopia japonica)	15 \$	31/12/2010 25/02/2019 16/06/2017 13/08/2008 31/07/1980 11/10/2019 territory of the last of the la	Online Atlas of Vascular Plants 2012- 2020	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	flowering plant	Jointed Rush (Juncus articulatus)	10th	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Kidney Vetch (Anthyllis vulneraria)	2	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Knotgrass (Polygonum aviculare)	3	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Lady's Bedstraw (Galium verum)	12	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Lesser Burdock (Arctium	5	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Lesser Celandine (Ranunculus ficaria)	11	31/03/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Lesser Hawkbit (Leontodon saxatilis)	2	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Lesser Meadow-rue (Thalictrum minus)	1	31/08/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Lesser Spearwort (Ranunculus flammula)	9	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	



Custom	flowering plant	Lesser Stitchwort (Stellaria graminea)	7	16/06/2017	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Lesser Trefoil (Trifolium	2	21/09/2011	Species Data from the National	
		dubium)			Vegetation Database	
Custom	flowering plant	Lesser Water-parsnip	3	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Lesser Water-plantain	6	07/06/2018	Online Atlas of Vascular Plants 2012-	
		(Baldellia ranunculoides)		' '	2020	
Custom	flowering plant	Long-stalked Yellow-	2	31/12/2010	BSBI tetrad data for Ireland	
		sedge (Carex viridula				
Custom	flowering plant	Lords-and-Ladies (Arum	15	25/02/2019	Online Atlas of Vascular Plants 2012-	
		maculatum)			2020	
Custom	flowering plant	Love-in-a-mist (Nigella	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Malus sylvestris sens.lat.	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Marsh Arrowgrass	5	01/06/2011	Species Data from the National	
		(Triglochin palustre)		, use	Vegetation Database	
Custom	flowering plant	Marsh Cinquefoil	7	31/05/2011	Species Data from the National	
		(Potentilla palustris)		14. 290	Vegetation Database	
Custom	flowering plant	Marsh Lousewort	1	31/05/2011 30/05/2011 31/12/2006 0 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Species Data from the National	
		(Pedicularis palustris)		Ses alte	Vegetation Database	
Custom	flowering plant	Marsh Pea (Lathyrus	20	31/12/2006 7 111	Irish Crop Wild Relative Database	
Custom	flowering plant	Marsh Pennywort	13		Online Atlas of Vascular Plants 2012-	
		(Hydrocotyle vulgaris)		OCT WITH	2020	
Custom	flowering plant	Marsh Ragwort (Senecio	7	.30/05/2011	Species Data from the National	
		aquaticus)	Ŷ <sup>(</sup>	3 Vijest	Vegetation Database	
Custom	flowering plant	Marsh Stitchwort	3	30/07/2019	Online Atlas of Vascular Plants 2012-	
		(Stellaria palustris)	, of		2020	
Custom	flowering plant	Marsh Thistle (Cirsium	100	16/06/2017	Online Atlas of Vascular Plants 2012-	
		palustre)	Ons		2020	
Custom	flowering plant	Marsh Willowherb	5	11/05/2018	Online Atlas of Vascular Plants 2012-	
		(Epilobium palustre)			2020	
Custom	flowering plant	Marsh-bedstraw (Galium	19	16/06/2017	Online Atlas of Vascular Plants 2012-	
		palustre)			2020	
Custom	flowering plant	Marsh-marigold (Caltha	9	30/05/2011	Species Data from the National	
		palustris)			Vegetation Database	
Custom	flowering plant	Meadow Buttercup	20	21/09/2011	Species Data from the National	
		(Ranunculus acris)			Vegetation Database	
Custom	flowering plant	Meadow Fescue (Festuca	1	21/06/2005	Species Data from the National	
		pratensis)			Vegetation Database	
Custom	flowering plant	Meadow Foxtail	1	30/05/2011	Species Data from the National	
		(Alopecurus pratensis)			Vegetation Database	
Custom	flowering plant	Meadow Thistle (Cirsium	6	16/06/2017	Online Atlas of Vascular Plants 2012-	
		dissectum)			2020	
Custom	flowering plant	Meadow Vetchling	7	21/09/2011	Species Data from the National	
		(Lathyrus pratensis)			Vegetation Database	



Custom	flowering plant	Meadowsweet (Filipendula ulmaria)	30	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Molinia caerulea subsp.	3	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Montbretia (Crocosmia pottsii x aurea = C. x	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Mouse-ear-hawkweed (Pilosella officinarum)	1	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Narrow-leaved Helleborine	2	31/12/2010	BSBI tetrad data for Ireland	Threatened Species: Endangered
Custom	flowering plant	Nipplewort (Lapsana communis)	15	16/06/2017	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Nordstedt's Dandelion (Taraxacum nordstedtii)	1	31/12/1986	BSBI tetrad data for Ireland	
Custom	flowering plant	Northern Bedstraw (Galium boreale)	6	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Oval Sedge (Carex ovalis)	1	30/05/2011 30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Oxeye Daisy (Leucanthemum vulgare)	4	01/06/2011 of to the	Species Data from the National Vegetation Database	
Custom	flowering plant	Pampas-grass (Cortaderia selloana)	1	31/12/1986  07/06/2018  30/05/2011  01/06/2011  10/04/2019 Today and Today a	Online Atlas of Vascular Plants 2012- 2020	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	flowering plant	Pedunculate Oak (Quercus robur)		COX	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Pellitory-of-the-wall (Parietaria judaica)	1 of	31/07/1980	Species Data from the National Vegetation Database	
Custom	flowering plant	Perennial Rye-grass (Lolium perenne)	Ñ	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Perfoliate Pondweed (Potamogeton perfoliatus)	3	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Perforate St John's-wort (Hypericum perforatum)	4	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Phleum pratense	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Pignut (Conopodium majus)	20	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Pineappleweed	6	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Polygonum aviculare agg.	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Populus nigra subsp.	3	31/12/1999	BSBI tetrad data for Ireland	
Custom	flowering plant	Prickly Sow-thistle (Sonchus asper)	6	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Primrose (Primula vulgaris)	20	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	



Custom	flowering plant	Procumbent Pearlwort (Sagina procumbens)	9	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Purple Moor-grass	12	01/06/2011	Species Data from the National	
		(Molinia caerulea)			Vegetation Database	
Custom	flowering plant	Purple-loosestrife	11	30/05/2011	Species Data from the National	
		(Lythrum salicaria)			Vegetation Database	
Custom	flowering plant	Pyramidal Orchid	1	30/06/2017	Online Atlas of Vascular Plants 2012-	
		(Anacamptis pyramidalis)			2020	
Custom	flowering plant	Quaking-grass (Briza	11	01/06/2011	Species Data from the National	
		media)			Vegetation Database	
Custom	flowering plant	Ragged-Robin (Lychnis	2	16/06/2017	Online Atlas of Vascular Plants 2012-	
		flos-cuculi)			2020	
Custom	flowering plant	Ramsons (Allium	4	25/02/2019	Online Atlas of Vascular Plants 2012-	
		ursinum)			2020	
Custom	flowering plant	Ranunculus flammula	3	31/07/2004	Irish vascular plant data 1999-2009	
Custom	flowering plant	Raspberry (Rubus	4	12/09/2006	Species Data from the National	
		idaeus)		4. A	Vegetation Database	
Custom	flowering plant	Red Bartsia (Odontites	3	31/07/2004 12/09/2006 21/09/2011 21/06/2005 Political Po	Species Data from the National	
		vernus)		Ses die	Vegetation Database	
Custom	flowering plant	Red Campion (Silene	4	21/06/2005	Species Data from the National	
		dioica)		on green	Vegetation Database	
Custom	flowering plant	Red Clover (Trifolium	20	21/09/2011	Species Data from the National	
		pratense)		.nsp <sub>rt</sub> o	Vegetation Database	
Custom	flowering plant	Red Currant (Ribes	2 💸	30/08/2005	Species Data from the National	
		rubrum)		COS.	Vegetation Database	
Custom	flowering plant	Red Dead-nettle (Lamium		31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Red Fescue (Festuca	2400	21/09/2011	Species Data from the National	
		rubra)	Olist		Vegetation Database	
Custom	flowering plant	Red Valerian	1	31/07/1980	Species Data from the National	
		(Centranthus ruber)			Vegetation Database	
Custom	flowering plant	Red-osier Dogwood	1	19/07/2018	Online Atlas of Vascular Plants 2012-	
		(Cornus sericea)			2020	
Custom	flowering plant	Redshank (Persicaria	3	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Reed Canary-grass	16	21/09/2011	Species Data from the National	
		(Phalaris arundinacea)			Vegetation Database	
Custom	flowering plant	Remote Sedge (Carex	5	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Rhododendron ponticum	2	25/02/2019	Online Atlas of Vascular Plants 2012-	Invasive Species: Invasive Species
		· ·			2020	Invasive Species: Invasive Species
						>> High Impact Invasive Species
						Invasive Species: Invasive Species
						>> Regulation S.I. 477 (Ireland)
Custom	flowering plant	Ribwort Plantain	23	21/09/2011	Species Data from the National	
		(Plantago lanceolata)		,,	Vegetation Database	
		(riantago lanceolata)			vegetation patabase	



Custom	flowering plant	Rosebay Willowherb (Chamerion	5	30/05/2011	Species Data from the National Vegetation Database	
2 1	g : 1 :		-	04 (06 (2044		
Custom	flowering plant	Rough Hawkbit (Leontodon hispidus)	7	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Rough Meadow-grass	15	21/09/2011	Species Data from the National	
		(Poa trivialis)			Vegetation Database	
Custom	flowering plant	Rowan (Sorbus	11	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Rumex crispus subsp.	1	29/07/2004	Irish vascular plant data 1999-2009	
Custom	flowering plant	Rumex sanguineus	10	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Russian Comfrey (Symphytum officinale x asperum = S. x	1	16/06/2017	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Rusty Willow (Salix cinerea subsp. oleifolia)	5	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Salix cinerea	17	21/09/2011  31/12/2010 31/12/2010 21/09/2011 25/02/2019 tenting the continuous and the co	Species Data from the National Vegetation Database	
Custom	flowering plant	Salix cinerea x aurita = S.	5	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Sanicle (Sanicula	17	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Scentless Mayweed	1	21/09/2011	Species Data from the National	
		(Tripleurospermum		att Paint	Vegetation Database	
Custom	flowering plant	Selfheal (Prunella vulgaris)	17	25/02/2019 cour	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Sessile Oak (Quercus	1	36/08/2005	Species Data from the National	
		petraea)		17.37	Vegetation Database	
Custom	flowering plant	Shepherd's-purse (Capsella bursa-pastoris)	3	03/07/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Shining Pondweed (Potamogeton lucens)	4 ente	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Shoreweed (Littorella	6	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Short-fruited Willowherb	5	21/06/2005	Species Data from the National	
	3 1	(Epilobium obscurum)		, ,	Vegetation Database	
Custom	flowering plant	Silver Birch (Betula	2	13/08/2008	River Biologists' Database (EPA)	
Custom	flowering plant	Silverweed (Potentilla	16	21/09/2011	Species Data from the National	
		anserina)			Vegetation Database	
Custom	flowering plant	Skullcap (Scutellaria	1	24/07/2006	Species Data from the National	
		galericulata)			Vegetation Database	
Custom	flowering plant	Slender St John's-wort	6	21/09/2011	Species Data from the National	
		(Hypericum pulchrum)			Vegetation Database	
Custom	flowering plant	Slender-leaved	1	31/12/1999	BSBI tetrad data for Ireland	
		Pondweed (Potamogeton				
Custom	flowering plant	Small Pondweed	1	31/12/1999	BSBI tetrad data for Ireland	
		(Potamogeton berchtoldii)				
Custom	flowering plant	Small-fruited Yellow- sedge (Carex viridula	2	31/12/2010	BSBI tetrad data for Ireland	



Custom	flowering plant	Smooth Hawk's-beard (Crepis capillaris)	5	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Smooth Meadow-grass (Poa pratensis)	8	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Smooth Sow-thistle (Sonchus oleraceus)	3	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Sneezewort (Achillea ptarmica)	8	16/06/2017	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Snowberry (Symphoricarpos albus)	1	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Soft-rush (Juncus effusus)	14	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Spear Thistle (Cirsium vulgare)	9	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Spindle (Euonymus	15	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Spring-sedge (Carex caryophyllea)	4	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Square-stalked St John's- wort (Hypericum	5	31/12/2010 01/06/2011 21/09/2011 01/09/2005 0000 01/04/2019 01/09/2005 00000 01/04/2019	Species Data from the National Vegetation Database	
Custom	flowering plant	Squinancywort (Asperula cynanchica)	2	01/09/2005 Control of the Control of	Species Data from the National Vegetation Database	
Custom	flowering plant	Squirreltail Fescue	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Star Sedge (Carex echinata)	2	34705/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Sticky Mouse-ear (Cerastium glomeratum)	1 8	30/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Stone Bramble (Rubus	2 ent	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Sweet Vernal-grass (Anthoxanthum	20	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Sweet Violet (Viola odorata)	2	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Sweet-briar (Rosa rubiginosa)	2	21/06/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Sycamore (Acer pseudoplatanus)	20	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	flowering plant	Tall Fescue (Festuca arundinacea)	7	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Taraxacum aggregate	33	10/04/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Tawny Sedge (Carex hostiana)	5	01/06/2011	Species Data from the National Vegetation Database	



Custom	flowering plant	Thyme-leaved Sandwort	1	12/08/2005	Species Data from the National	
		(Arenaria serpyllifolia)		20/05/2011	Vegetation Database	
Custom	flowering plant	Thyme-leaved Speedwell	3	30/05/2011	Species Data from the National	
		(Veronica serpyllifolia)			Vegetation Database	
Custom	flowering plant	Timothy (Phleum pratense)	9	30/07/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Tormentil (Potentilla erecta)	15	01/06/2011	Species Data from the National Vegetation Database	
Custom	flowering plant		1	21/06/2005		
Custom	flowering plant	Trailing Tormentil (Potentilla anglica)	1	21/06/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Traveller's-joy (Clematis vitalba)	3	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	flowering plant	Tubular Water-dropwort (Oenanthe fistulosa)	3	30/07/2019  21/09/2011  07/06/2018 Gentle of the last	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Tufted Hair-grass	10	21/09/2011	Species Data from the National	
		(Deschampsia cespitosa)		Office div	Vegetation Database	
Custom	flowering plant	Tufted Vetch (Vicia cracca)	16	07/06/2018 05 Ted 12	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Tufted-sedge (Carex	8	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Tutsan (Hypericum	8	31/08/2005	Species Data from the National	
		androsaemum)		inspirator	Vegetation Database	
Custom	flowering plant	Upright Hedge-parsley (Torilis japonica)	,	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Various-leaved Pondweed (Potamogeton	2 of	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Velvet Bent (Agrostis canina)	200	01/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Veronica serpyllifolia subsp. serpyllifolia	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Vicia sativa	1	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Water Dock (Rumex hydrolapathum)	1	19/05/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Water Forget-me-not (Myosotis scorpioides)	4	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Water Germander (Teucrium scordium)	8	30/07/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Water Mint (Mentha aquatica)	19	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Water-cress (Rorippa nasturtium-aquaticum)	2	05/10/2006	River Biologists' Database (EPA)	



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Custom	flowering plant	Water-plantain (Alisma plantago-aquatica)	5	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Wavy Bitter-cress (Cardamine flexuosa)	4	31/05/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	White Clover (Trifolium repens)	24	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Wild Angelica (Angelica	20	01/06/2011	Species Data from the National	
Custom	flowering plant	sylvestris) Wild Carrot (Daucus	6	21/09/2011	Vegetation Database Species Data from the National	
Custom	flowering plant	carota) Wild Privet (Ligustrum	1	16/06/2017	Vegetation Database Online Atlas of Vascular Plants 2012-	
Custom	flowering plant	vulgare) Wild Strawberry (Fragaria	Q	15/09/2005	2020 Species Data from the National	
		vesca)			Vegetation Database	
Custom	flowering plant	Wilson's Honeysuckle	2	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Winter Heliotrope (Petasites fragrans)	10	31/03/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Wood Anemone (Anemone nemorosa)	9	25/02/2019 Off of the	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Wood Avens (Geum urbanum)	12	31/12/2010 31/03/2019 25/02/2019 15/09/2005 on the land of the	Species Data from the National Vegetation Database	
Custom	flowering plant	Wood Meadow-grass (Poa nemoralis)	4	21/06/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Wood Melick (Melica uniflora)	4 💸	31/08/2005	Species Data from the National	
	a	uniliora)	2 8	.07	Vegetation Database	
Custom	flowering plant	Wood Speedwell (Veronica montana)	9 of of	22/09/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Woodruff (Galium odoratum)	A.	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Wood-sedge (Carex sylvatica)	7	31/08/2005	Species Data from the National Vegetation Database	
Custom	flowering plant	Wood-sorrel (Oxalis acetosella)	17	25/02/2019	Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Wych Elm (Ulmus glabra)	4	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Yarrow (Achillea millefolium)	11	01/06/2011	Species Data from the National	
Custom	flowering plant	Yellow Iris (Iris pseudacorus)	13	01/06/2011	Vegetation Database Species Data from the National	
Custom	flowering plant	Yellow Loosestrife (Lysimachia vulgaris)	5	16/06/2017	Vegetation Database Online Atlas of Vascular Plants 2012- 2020	
Custom	flowering plant	Yellow Pimpernel	9	31/12/2010	BSBI tetrad data for Ireland	
Custom	flavoring alast	(Lysimachia nemorum)	1	21/12/2010	DCDI totrad data for Ivoland	
Custom	flowering plant	Yellow Sedge (Carex	1	31/12/2010	BSBI tetrad data for Ireland	
Custom	flowering plant	Yellow Water-lily (Nuphar	1	13/08/2008	River Biologists' Database (EPA)	



Custom	flowering plant	Yellow-rattle (Rhinanthus minor)	9	21/09/2011	Species Data from the National Vegetation Database	
P	flamatica alant	,	2	21/00/2011	-	
Custom	flowering plant	Yellow-wort (Blackstonia perfoliata)	2	21/09/2011	Species Data from the National Vegetation Database	
Custom	flowering plant	Yorkshire-fog (Holcus lanatus)	24	21/09/2011	Species Data from the National Vegetation Database	
Custom	fungoid	Aphanomyces astaci	2	05/11/2018	National Invasive Species Database	Invasive Species: Invasive Species   Invasive Species: Invasive Species >> High Impact Invasive Species
Custom	harvestman (Opiliones)	Leiobunum blackwalli	1	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Leiobunum rotundum	1	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Nelima gothica	2	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Nemastoma bimaculatum	2		` ' '	
Custom	harvestman (Opiliones)	Oligolophus hanseni	1	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Oligolophus tridens	1	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Opilio saxatilis	2	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Paroligolophus agrestis	3	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Phalangium opilio	2	06/10/1996	Harvestmen (Opiliones) of Ireland	
Custom	harvestman (Opiliones)	Platybunus triangularis	1	06/10/19967	Harvestmen (Opiliones) of Ireland	
Custom	horsetail	Field Horsetail	15	21/09/2011	Species Data from the National	
		(Equisetum arvense)		06/10/1996 06/10/1996 06/10/1996 06/10/1996 06/10/1996 06/10/1996 06/10/1996 21/09/2011	Vegetation Database	
Custom	horsetail	Great Horsetail	2	.21/06/2005	Species Data from the National	
Castoni	norsetta.	(Equisetum telmateia)			Vegetation Database	
Custom	horsetail	Marsh Horsetail	7 ′	16/06/2017	Online Atlas of Vascular Plants 2012- 2020	
Custom	horsetail	Shore Horsetail	1 ent or	31/12/2010	BSBI tetrad data for Ireland	
			_	16/06/2017		
Custom	horsetail	Variegated Horsetail (Equisetum variegatum)	1	16/06/2017	Online Atlas of Vascular Plants 2012- 2020	
Custom	horsetail	Water Horsetail (Equisetum fluviatile)	16	07/06/2018	Online Atlas of Vascular Plants 2012- 2020	
Custom	insect - alderfly (Megaloptera)	Indet. Alder Fly (Sialis)	1	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	insect - beetle (Coleoptera)	14-spot Ladybird (Propylea	1	16/06/2014	Ladybirds of Ireland	
Custom	insect - beetle (Coleoptera)	2-spot Ladybird (Adalia	1	11/06/2014	Ladybirds of Ireland	
Custom	insect - beetle (Coleoptera)	7-spot Ladybird (Coccinella	2	16/04/2014	Ladybirds of Ireland	
Custom	insect - beetle (Coleoptera)	Agabus (Acatodes)	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Agabus (Gaurodytes)	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Agabus (Gaurodytes)	2	11/07/1996	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Agabus (Gaurodytes)	2	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Anacaena globulus	1	31/03/1910	Water Beetles of Ireland	



Custom	insect - beetle (Coleoptera)	Anaspis (Anaspis)	1	20/05/2010	Saproxylic Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Anaspis (Anaspis)	1	20/05/2010	Saproxylic Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Cercyon (Cercyon) tristis	1	19/04/2004	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Cercyon (Paracercyon)	1	18/04/2006	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Chaetarthria seminulum	1	01/06/1980	Water Beetles of Ireland	Threatened Species: Data deficient
Custom	insect - beetle (Coleoptera)	Cis nitidus	1	01/01/0001		
Custom	insect - beetle (Coleoptera)	Colymbetes fuscus	2	11/07/1996	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Donacia clavipes	3	06/07/2000	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Donacia impressa	1	31/12/1900	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Dryops (Dryops) ernesti	1	30/06/1980	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Dryops (Dryops) luridus	1	04/06/1982	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Elmis aenea	1	05/10/2006	River Biologists' Database (EPA)	
Custom	insect - beetle (Coleoptera)	Enochrus testaceus	1	31/12/1898	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Georissus crenulatus	1	31/12/1898 01/06/1980 20/06/1976 31/03/1910 31/03/1910 20/05/2010 et al. (1) and	Water Beetles of Ireland	Threatened Species: Data deficient
Custom	insect - beetle (Coleoptera)	Grammoptera ruficornis	1	20/06/1976	Saproxylic Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Graptodytes granularis	1	31/03/1910	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Great Diving Beetle	1	31/03/1910	Water Beetles of Ireland	
		(Dytiscus marginalis)		20 (07 (200 a Chili		
ustom	insect - beetle (Coleoptera)	Grynobius planus	1	20/05/2010	Saproxylic Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Gyrinus aeratus	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Gyrinus caspius	2	19/04/2004		
Custom	insect - beetle (Coleoptera)	Gyrinus distinctus	,	31/03/1910	Water Beetles of Ireland	Threatened Species: Near threatened
ustom	insect - beetle (Coleoptera)	Gyrinus marinus	1 of	30/06/1976	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Gyrinus paykulli	2 en	31/03/1910	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Gyrinus substriatus	OP	24/06/1983	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hairy Whirligig Beetle (Orectochilus villosus)	2	30/06/1976	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Haliplus (Haliplinus)	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Haliplus (Haliplinus) lineolatus	1	24/06/1983	Water Beetles of Ireland	Threatened Species: Near threatened
ustom	insect - beetle (Coleoptera)	Haliplus (Haliplinus)	2	19/04/2004	Water Beetles of Ireland	an eateried
ustom	insect - beetle (Coleoptera)	Haliplus (Haliplus)	1	31/03/1910	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Haliplus (Liaphlus)	1	31/03/1910	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Haliplus (Liaphlus) fulvus	1	31/03/1910	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Haliplus (Neohaliplus)	1	31/03/1910	Water Beetles of Ireland	
ustom	insect - beetle (Coleoptera)	Heather Ladybird	1	10/02/2019	Ladybirds of Ireland	
ustom	insect - beetle (Coleoptera)	(Chilocorus bipustulatus) Helophorus (Atracthelophorus)	2	19/04/2004	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Helophorus (Helophorus)	1	04/06/1982	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydraena britteni	1	31/03/1910	Water Beetles of Ireland	



Custom	insect - beetle (Coleoptera)	Hydraena riparia	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydraena rufipes	1	31/12/1898	Water Beetles of Ireland	Threatened Species: Endangered
Custom	insect - beetle (Coleoptera)	Hydrobius fuscipes	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydrophilidae	1	06/07/2001	Littoral Macroinvertebrate Data From	
	,	' '		' '	Irish Lakes	
Custom	insect - beetle (Coleoptera)	Hydroporinae	1	06/07/2001	Littoral Macroinvertebrate Data From	
	,	' '			Irish Lakes	
Custom	insect - beetle (Coleoptera)	Hydroporus discretus	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus nigrita	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus palustris	3	19/04/2004	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus pubescens	2	24/06/1983	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus striola	2	04/06/1982	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus tessellatus	2	30/06/1976	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hydroporus umbrosus	1	30/06/1900 11/07/1996	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hygrotus (Hygrotus)	2	==/0//=550	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hygrotus (Hygrotus)	4	19/04/2004	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Hygrotus (Hygrotus)	1	24/06/1983	Water Beetles of Ireland	Threatened Species: Vulnerable
Custom	insect - beetle (Coleoptera)	Ilybius fuliginosus	1	24/06/1983	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Ilybius quadriguttatus	1	21/02/18106	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Laccobius bipunctatus	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Laccobius minutus	2	19/04/2004	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Laccobius striatulus	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Leiopus nebulosus	1	20/06/1976	Saproxylic Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Limnebius nitidus	1 of	31/03/1910	Water Beetles of Ireland	Threatened Species: Endangered
Custom	insect - beetle (Coleoptera)	Limnebius truncatellus	OPS	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Nebrioporus	3	06/07/2001	Littoral Macroinvertebrate Data From	
	,	(Nebrioporus) assimilis			Irish Lakes	
Custom	insect - beetle (Coleoptera)	Nebrioporus (Nebrioporus) depressus	1	30/06/1900	Water Beetles of Ireland	Threatened Species: Data deficient
Custom	insect - beetle (Coleoptera)	Ochthebius (Homalochthebius)	1	31/03/1910	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Oulimnius tuberculatus	1	30/06/1976	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Porhydrus lineatus	4	26/07/1998	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Rhagium (Megarhagium)	2	20/06/1976	Saproxylic Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Rhantus (Rhantus)	3	11/07/1996	Water Beetles of Ireland	
Custom	insect - beetle (Coleoptera)	Rhinoceros Beetle	1	31/12/1900	Saproxylic Beetles of Ireland	
		(Sinodendron	-			
Custom	insect - beetle (Coleoptera)	Rutpela maculata	1	20/06/1976	Saproxylic Beetles of Ireland	
Custom	insect - butterfly	Brimstone (Gonepteryx	63	10/05/2019	Butterflies of Ireland	
Custom	insect - butterfly	Common Blue	13	07/06/2018	Butterflies of Ireland	



Custom	insect - butterfly	Dingy Skipper (Erynnis tages)	6	09/05/2019	Butterflies of Ireland	Threatened Species: Near threatened
Custom	insect - butterfly	Green Hairstreak	3	09/05/2019	Butterflies of Ireland	
Custom	insect - butterfly	Green-veined White	49	10/05/2019	Butterflies of Ireland	
Custom	insect - butterfly	Holly Blue (Celastrina	11	31/03/2019	Butterflies of Ireland	
Custom	insect - butterfly	Large Heath (Coenonympha tullia)	1	31/12/1984	Distribution Atlas of Butterflies in Ireland 1979 (An Foras Forbartha)	Threatened Species: Vulnerable
Custom	insect - butterfly	Large White (Pieris	9	19/05/2018	Butterflies of Ireland	
Custom	insect - butterfly	Marsh Fritillary (Euphydryas aurinia)	8	09/06/2018	Butterflies of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Threatened Species: Vulnerable
Custom	insect - butterfly	Meadow Brown (Maniola	76	07/06/2018	Butterflies of Ireland	
Custom	insect - butterfly	Orange-tip (Anthocharis	29	10/05/2019	Butterflies of Ireland	
Custom	insect - butterfly	Painted Lady (Vanessa	2	29/07/2018	Butterflies of Ireland	
Custom	insect - butterfly	Peacock (Inachis io)	50	10/05/2019	Butterflies of Ireland	
Custom	insect - butterfly	Red Admiral (Vanessa	11	05/09/2017 of the difference o	Butterflies of Ireland	
Custom	insect - butterfly	Ringlet (Aphantopus	43	31/07/2016	Irish Butterfly Monitoring Scheme	
Custom	insect - butterfly	Silver-washed Fritillary (Argynnis paphia)	15	10/05/2019 05/09/2017 Only any of the standard	Butterflies of Ireland	
Custom	insect - butterfly	Small Blue (Cupido minimus)	9	20/05/2019	Butterflies of Ireland	Threatened Species: Endangered
Custom	insect - butterfly	Small Copper (Lycaena	11	29/07/2018	Butterflies of Ireland	
Custom	insect - butterfly	Small Heath (Coenonympha	2	329/07/2018 07/06/2018	Butterflies of Ireland	Threatened Species: Near threatened
Custom	insect - butterfly	Small Tortoiseshell	31ent	10/05/2019	Butterflies of Ireland	
Custom	insect - butterfly	Small White (Pieris	· B	30/04/2018	Butterflies of Ireland	
Custom	insect - butterfly	Speckled Wood (Pararge	98	22/06/2018	Butterflies of Ireland	
Custom	insect - butterfly	Wood White (Leptidea	11	07/06/2018	Butterflies of Ireland	
Custom	insect - caddis fly (Trichoptera)	Agapetus ochripes	5	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Agraylea multipunctata	4	31/12/1978	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Agrypnia obsoleta	3	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Agrypnia varia	7	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Anabolia nervosa	3	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Apatania wallengreni	1	31/12/1978	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Athripsodes albifrons	18	31/12/2015	Caddisflies (Trichoptera) of Ireland	



Custom	insect - caddis fly (Trichoptera)	Athripsodes aterrimus	16	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Athripsodes bilineatus	3	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Athripsodes cinereus	14	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Athripsodes commutatus	7	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Ceraclea albimacula	4	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Ceraclea annulicornis	5	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Ceraclea dissimilis	13	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Ceraclea fulva	11	31/12/2015  31/12/2015  31/12/1910 see of the arm offer use of the arm of the	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Ceraclea senilis	8	31/12/2015 ally ally of	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Cheumatopsyche lepida	2	31/12/1910 05 C 101	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Cyrnus flavidus	3	31/12/1977; edi	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Cyrnus trimaculatus	9	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)		5	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Glyphotaelius pellucidus	2 sent c	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)		8	31/12/1977	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Grammotaulius nigropunctatus	1	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Holocentropus picicornis	6	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Hydropsyche angustipennis	3	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Hydropsyche contubernalis	2	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)		5	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Hydropsyche siltalai	6	31/12/2015	Caddisflies (Trichoptera) of Ireland
Custom	insect - caddis fly (Trichoptera)	Hydroptila forcipata	6	31/12/2015	Caddisflies (Trichoptera) of Ireland



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Custom	insect - caddis fly (Trichoptera)	Hydroptila martini	1	19/07/1888	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Hydroptila sparsa	2	31/12/1910	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Hydroptila tineoides	9	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Lepidostoma hirtum	15	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus affinis	9	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus auricula	10	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus binotatus	1	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus elegans	1	31/12/2015  31/12/2015  31/12/2015  31/12/2015  31/12/2015  31/12/2015  31/12/2015  31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus flavicornis	1	31/12/2015 all of the	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus fuscinervis	4	31/12/2015 05 5 1 10 1	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus griseus	4	31/12/2015 teda	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus hirsutus	6	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)		4	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus incisus	4 entor	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)		15	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus luridus	6	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus marmoratus	10	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus sparsus	10	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus stigma	4	31/12/1910	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Limnephilus vittatus	9	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Mesophylax impunctatus	1	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Metalype fragilis	15	31/12/2015	Caddisflies (Trichoptera) of Ireland	



insect - caddis fly (Trichoptera)	Micropterna lateralis	3	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Molanna albicans	5	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Mystacides azurea	6	31/12/2013	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Mystacides longicornis	10	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Neureclipsis bimaculata	6	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oecetis furva	7	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oecetis lacustris	13	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oecetis ochracea	12	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oecetis testacea	6	31/12/2015 all of	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Orthotrichia angustella	1	10/08/1888 05 0 10 10 10 10 10 10 10 10 10 10 10 10 1	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oxyethira falcata	1	31/12/2015 (200	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oxyethira flavicornis	13	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)		1	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Oxyethira simplex	2 sent	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)		4	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Phryganea grandis	3	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Plectrocnemia conspersa	6	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Polycentropodidae	1	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
insect - caddis fly (Trichoptera)	Polycentropus flavomaculatus	12	31/12/2015	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Polycentropus irroratus	5	31/12/1910	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Psychomyia pusilla	5	31/12/1910	Caddisflies (Trichoptera) of Ireland	
insect - caddis fly (Trichoptera)	Rhyacophila dorsalis	2	31/12/1910	Caddisflies (Trichoptera) of Ireland	
	insect - caddis fly (Trichoptera)	insect - caddis fly (Trichoptera) Phryganea bipunctata  insect - caddis fly (Trichoptera) Phryganea grandis  insect - caddis fly (Trichoptera) Plectrocnemia conspersa  insect - caddis fly (Trichoptera) Polycentropodidae  insect - caddis fly (Trichoptera) Polycentropus flavomaculatus	insect - caddis fly (Trichoptera) Molanna albicans  insect - caddis fly (Trichoptera) Mystacides azurea  insect - caddis fly (Trichoptera) Mystacides longicornis  insect - caddis fly (Trichoptera) Neureclipsis bimaculata  insect - caddis fly (Trichoptera) Oecetis furva  insect - caddis fly (Trichoptera) Oecetis furva  insect - caddis fly (Trichoptera) Oecetis lacustris  insect - caddis fly (Trichoptera) Oecetis testacea  insect - caddis fly (Trichoptera) Orthotrichia angustella  insect - caddis fly (Trichoptera) Oxyethira falcata  insect - caddis fly (Trichoptera) Oxyethira flavicornis  insect - caddis fly (Trichoptera) Oxyethira firci  insect - caddis fly (Trichoptera) Oxyethira simplex  insect - caddis fly (Trichoptera) Oxyethira simplex  insect - caddis fly (Trichoptera) Phryganea bipunctata  insect - caddis fly (Trichoptera) Phryganea grandis  insect - caddis fly (Trichoptera) Plectrocnemia conspersa  insect - caddis fly (Trichoptera) Polycentropodidae  insect - caddis fly (Trichoptera) Polycentropus flavomaculatus  insect - caddis fly (Trichoptera) Polycentropus irroratus  insect - caddis fly (Trichoptera) Polycentropus irroratus	insect - caddis fly (Trichoptera)  Molanna albicans  5 31/12/2015  insect - caddis fly (Trichoptera)  Mystacides azurea  6 31/12/2015  insect - caddis fly (Trichoptera)  Mystacides longicornis  10 31/12/2015  insect - caddis fly (Trichoptera)  Mystacides longicornis  10 31/12/2015  insect - caddis fly (Trichoptera)  Neureclipsis bimaculata  6 31/12/2015  insect - caddis fly (Trichoptera)  Oecetis furva  7 31/12/2015  insect - caddis fly (Trichoptera)  Oecetis lacustris  13 31/12/2015  insect - caddis fly (Trichoptera)  Oecetis ochracea  12 31/12/2015  insect - caddis fly (Trichoptera)  Oecetis testacea  6 31/12/2015  insect - caddis fly (Trichoptera)  Orthotrichia angustella  1 10/08/1888 ochracea  1 10/08/1888 ochracea  Insect - caddis fly (Trichoptera)  Oxyethira flacata  Insect - caddis fly (Trichoptera)  Oxyethira flavicornis  Insect - caddis fly (Trichoptera)  Oxyethira frici  Insect - caddis fly (Trichoptera)  Oxyethira frici  Insect - caddis fly (Trichoptera)  Oxyethira firici  Insect - caddis fly (Trichoptera)  Oxyethira simplex  Oxye	insect - caddis fly (Trichoptera) Molanna albicans 5 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Mystacides azurea 6 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Mystacides longicornis 10 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oecetis furva 7 31/12/2015 Caddisflies (Trichoptera) of Ireland Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oecetis furva 7 31/12/2015 Caddisflies (Trichoptera) of Ireland Caddisflies (Trichoptera) of Ireland Caddisflies (Trichoptera) of Ireland Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oecetis sochracea 12 31/12/2015 Caddisflies (Trichoptera) of Ireland Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oecetis testacea 6 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oecetis testacea 1 10/08/1888 Application Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oxyethira flaciata 1 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oxyethira flavicornis 1 3 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oxyethira find 1 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Oxyethira simplex 3 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Phryganea grandis 3 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Phryganea grandis 3 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Phryganea grandis 1 06/07/2001 Libraral Macroinverbetrate Data From Irish Lakes Polycentropus flavomaculatus Polycentropus irroratus 5 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Polycentropus irroratus 5 31/12/2015 Caddisflies (Trichoptera) of Ireland Insect - caddis fly (Trichoptera) Polycentropus irroratus 5 31/12/1910 Caddisflies (Trichoptera)



Custom	insect - caddis fly (Trichoptera)	Sericostoma personatum	9	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Silo nigricornis	4	31/12/1910	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Tinodes maclachlani	2	31/12/1910	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Tinodes maculicornis	18	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Tinodes waeneri	15	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Triaenodes bicolor	1	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - caddis fly (Trichoptera)	Wormaldia subnigra	3	31/12/2015	Caddisflies (Trichoptera) of Ireland	
Custom	insect - dragonfly (Odonata)	Azure Damselfly (Coenagrion puella)	4	12/05/2016  31/12/1900  04/08/2003 of the little of the li	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Black Darter (Sympetrum danae)	2	31/12/1900 only any	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Black-tailed Skimmer (Orthetrum cancellatum)	3	04/08/2003 05 dt dt	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Blue-tailed Damselfly (Ischnura elegans)	13	activatio,	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Brown Hawker (Aeshna grandis)	10	04/09/2011	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Common Blue Damselfly (Enallagma cyathigerum)	21	N6/06/2013	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Common Darter (Sympetrum striolatum)	16th	02/10/2013	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Common Hawker (Aeshna juncea)	7	09/09/2002	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Emerald Damselfly (Lestes sponsa)	6	16/08/2003	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Four-spotted Chaser (Libellula quadrimaculata)	4	25/05/2016	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Keeled Skimmer (Orthetrum coerulescens)	1	10/07/2013	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Large Red Damselfly (Pyrrhosoma nymphula)	4	10/07/2013	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Migrant Hawker (Aeshna mixta)	2	27/09/2015	Dragonfly Records	
Custom	insect - dragonfly (Odonata)	Ruddy Darter (Sympetrum sanguineum)	5	04/08/2003	Dragonfly Ireland	
Custom	insect - dragonfly (Odonata)	Scarce Emerald Damselfly (Lestes dryas)	2	06/09/2015	Dragonfly Records	Threatened Species: Near threatened



Custom	insect - dragonfly (Odonata)	Variable Damselfly (Coenagrion pulchellum)	1	24/06/1983	Dragonfly Ireland	
Custom	insect - earwig (Dermaptera)	Common Earwig	5	31/05/2006	Grasshoppers, Crickets and Allied	
	3(11)	(Forficula auricularia)		, , , , , , , , , , , , , , , , , , , ,	Insects (Orthoptera) of Ireland	
Custom	insect - flea (Siphonaptera)	a shrew flea (Doratopsylla	2	31/12/1996	Fleas (Siphonaptera) of Ireland	
	,	dasycnema subsp.				
Custom	insect - flea (Siphonaptera)	Ctenophthalmus	2	31/12/1996	Fleas (Siphonaptera) of Ireland	
Custom	insect - flea (Siphonaptera)	Human Flea (Pulex	2	31/12/1996	Fleas (Siphonaptera) of Ireland	
Custom	insect - hymenopteran	Barbut's Cuckoo Bee	1	27/06/1899	Bees of Ireland	Threatened Species: Endangered
		(Bombus (Psithyrus)				
Custom	insect - hymenopteran	Bombus (Bombus)	2	11/03/2014	Bees of Ireland	
ustom	insect - hymenopteran	Bombus (Bombus)	1	11/03/2014	Bees of Ireland	
ustom	insect - hymenopteran	Bombus lucorum agg.	5	05/06/2019	Bees of Ireland	
Custom	insect - hymenopteran	Common Carder Bee	10	26/08/2019	Bees of Ireland	
		(Bombus (Thoracombus)		, 186		
Custom	insect - hymenopteran	Early Bumble Bee	6	05/06/2019	Bees of Ireland	
		(Bombus (Pyrobombus)		14.19		
Custom	insect - hymenopteran	Gipsy Cuckoo Bee	1	26/08/2019  05/06/2019  20/06/1976  27/05/2014 Fedition  22/05/2016	Bees of Ireland	Threatened Species: Near
		(Bombus (Psithyrus)		000 SQ.		threatened
Custom	insect - hymenopteran	Heath Bumble Bee	2	27/05/2014	Bees of Ireland	
		(Bombus (Pyrobombus)		on River		
Custom	insect - hymenopteran	Large Red Tailed Bumble	4	22/05/2016	Bees of Ireland	Threatened Species: Near
		Bee (Bombus				threatened
Custom	insect - hymenopteran	Lasioglossum (Evylaeus)	1	27/06/1899 20/05/2019 27/06/1899	Bees of Ireland	
Custom	insect - hymenopteran	Marsham's Nomad Bee	1	<u>√</u> 20/05/2019	Bees of Ireland	
		(Nomada marshamella)	X Of			
Custom	insect - hymenopteran	Shaggy Mining Bee	1 sett	27/06/1899	Bees of Ireland	
Custom	insect - hymenopteran	Small Garden Bumble	2	16/06/2013	Bees of Ireland	
		Bee (Bombus				
Custom	insect - hymenopteran	Sphecodes ephippius	1	27/06/1899	Bees of Ireland	
Custom	insect - lacewing (Neuroptera)	Hemerobius atrifrons	1	31/12/1910	Lacewings (Neuroptera) of Ireland	
Custom	insect - mayfly	Alainites muticus	3	31/12/1910	Mayflies (Ephemeroptera) of Ireland	
	(Ephemeroptera)				, , , , , , , , , , , , , , , , , , , ,	
Custom	insect - mayfly	Angler's Curse (Caenis	4	06/07/2001	Littoral Macroinvertebrate Data From	
	(Ephemeroptera)	luctuosa)		, ,	Irish Lakes	
Custom	insect - mayfly	Baetis rhodani	6	13/08/2008	River Biologists' Database (EPA)	
	(Ephemeroptera)			, ,	,	
Custom	insect - mayfly	Caenis horaria	7	06/07/2001	Littoral Macroinvertebrate Data From	
	(Ephemeroptera)				Irish Lakes	
Custom	insect - mayfly	Caenis macrura	3	31/12/1996	Mayflies (Ephemeroptera) of Ireland	
	(Ephemeroptera)					



Custom	insect - mayfly (Ephemeroptera)	Caenis rivulorum	2	31/12/1977	Mayflies (Ephemeroptera) of Ireland	
Custom	insect - mayfly (Ephemeroptera)	Centroptilum luteolum	9	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	insect - mayfly	Cloeon simile	5	06/07/2001	Littoral Macroinvertebrate Data From	
Custom	(Ephemeroptera) insect - mayfly	Ecdyonurus insignis	1	31/12/1910	Irish Lakes Mayflies (Ephemeroptera) of Ireland	
Custom	(Ephemeroptera) insect - mayfly	Ecdyonurus venosus	3	31/12/1910	Mayflies (Ephemeroptera) of Ireland	
	(Ephemeroptera)					
Custom	insect - mayfly (Ephemeroptera)	Green Drake (Ephemera danica)	6	31/12/1996	Mayflies (Ephemeroptera) of Ireland	
Custom	insect - mayfly (Ephemeroptera)	Heptagenia sulphurea	8	31/12/1977	Mayflies (Ephemeroptera) of Ireland	
Custom	insect - mayfly (Ephemeroptera)	Paraleptophlebia cincta	4	31/12/1910 the true	Mayflies (Ephemeroptera) of Ireland	
Custom	insect - mayfly (Ephemeroptera)	Procloeon bifidum	1	31/12/1910 31/12/1910 12/08/2008 05 07 17 17 17 17 17 17 17 17 17 17 17 17 17	Mayflies (Ephemeroptera) of Ireland	Threatened Species: Vulnerable
Custom	insect - mayfly (Ephemeroptera)	Serratella ignita	12	12/08/2008 See al 10	River Biologists' Database (EPA)	
Custom	insect - mayfly (Ephemeroptera)	Siphlonurus alternatus	5	31/12/1996 cour	Mayflies (Ephemeroptera) of Ireland	
Custom	insect - mayfly (Ephemeroptera)	Siphlonurus lacustris		31/12/1910	Mayflies (Ephemeroptera) of Ireland	
Custom	insect - moth	Acleris holmiana	1 ',	<b>34</b> /08/1888	Moths Ireland	
Custom	insect - moth	Agapeta hamana	4	11/07/1894	Moths Ireland	
Custom	insect - moth	Agapeta zoegana	3 ent	09/07/1894	Moths Ireland	
Custom	insect - moth	Agriphila geniculea	CAS .	10/07/1894	Moths Ireland	
Custom	insect - moth	Alder Lift (Heliozela	1	06/11/1999	Moths Ireland	
Custom	insect - moth	Amblyptilia	1	16/08/1888	Moths Ireland	
Custom	insect - moth	Apotomis betuletana	2	28/07/1888	Moths Ireland	
Custom	insect - moth	Argyresthia curvella	1	21/07/1888	Moths Ireland	
Custom	insect - moth	Ash Bud Moth (Prays	1	06/07/1888	Moths Ireland	
Custom	insect - moth	Aspilapteryx	1	17/07/1888	Moths Ireland	
Custom	insect - moth	August Thorn (Ennomos	1	02/09/2007	Moths Ireland	
ustom	insect - moth	Bactra lancealana	1	14/07/1888	Moths Ireland	
Custom	insect - moth	Barred Fruit-tree Tortrix (Pandemis cerasana)	1	05/07/1888	Moths Ireland	
Custom	insect - moth	Beautiful China-mark (Nymphula stagnata)	3	11/07/1894	Moths Ireland	
Custom	insect - moth	Beautiful Yellow Underwing (Anarta	1	20/06/2004	Moths Ireland	
Custom	insect - moth	Bee Moth (Aphomia	2	11/07/1894	Moths Ireland	
Custom	insect - moth	Bilberry Tortrix (Aphelia	1	08/07/1888	Moths Ireland	
,	111001	Directify Fordix (Apricia	-	55, 57, 1000	II ciaria	



Custom	insect - moth	Blastodacna hellerella	3	06/07/1888	Moths Ireland	
Custom	insect - moth	Brown China-mark (Elophila nymphaeata)	1	19/07/1894	Moths Ireland	
Custom	insect - moth	Brown House-moth (Hofmannophila	1	12/08/1986	Moths Ireland	
Custom	insect - moth	Bucculatrix nigricomella	1	30/07/1888	Moths Ireland	
Custom	insect - moth	Bud Moth (Spilonota	3	21/07/1888	Moths Ireland	
Custom	insect - moth	Buff Ermine (Spilosoma	1	11/06/2007	Moths Ireland	
Custom	insect - moth	Caloptilia betulicola	1	20/07/1888	Moths Ireland	
Custom	insect - moth	Celypha cespitana	3	15/07/1888	Moths Ireland	
Custom	insect - moth	Celypha rivulana	3	20/07/1888	Moths Ireland	
Custom	insect - moth	Clepsis consimilana	2	16/08/1888	Moths Ireland	
Custom	insect - moth	Cochylimorpha straminea	3	09/07/1894	Moths Ireland	
Custom	insect - moth	Codling Moth (Cydia				
Custom	insect - moth	Common Carpet	1	02/09/2007	Moths Ireland	
Custom	insect - moth	Common Grass-veneer (Agriphila tristella)	2	11/07/1894 Officer	Moths Ireland	
Custom	insect - moth	Common Heath	1	20/06/2004	Moths Ireland	
Custom	insect - moth	Common Marbled Carpet (Chloroclysta truncata)	1	31/12/1888 02/09/2007 11/07/1894 20/06/2004 02/09/2007 13/08/1894-edited 09/08/1888	Moths Ireland	
Custom	insect - moth	Common Purple & Gold (Pyrausta purpuralis)	3	13/08/1894 200	Moths Ireland	
Custom	insect - moth	Cosmiotes freyerella	1	09/08/1888	Moths Ireland	
Custom	insect - moth	Crambus lathoniellus	2	09/08/1894	Moths Ireland	
Custom	insect - moth	Crambus pascuella	20	13/07/1888	Moths Ireland	
Custom	insect - moth	Crambus perlella	16	11/07/1894	Moths Ireland	
Custom	insect - moth	Cydia ulicetana	1 ent	15/07/1888	Moths Ireland	
Custom	insect - moth	Dark Fruit-tree Tortrix (Pandemis heparana)	Of S	31/12/1888	Moths Ireland	
Custom	insect - moth	Dark-barred Twin-spot Carpet (Xanthorhoe	1	02/09/2007	Moths Ireland	
Custom	insect - moth	Dichrorampha	2	17/08/1888	Moths Ireland	
Custom	insect - moth	Dichrorampha aeratana	1	13/08/1888	Moths Ireland	
Custom	insect - moth	Dichrorampha alpinana	1	17/07/1888	Moths Ireland	
Custom	insect - moth	Dichrorampha petiverella	3	13/08/1888	Moths Ireland	
Custom	insect - moth	Dichrorampha plumbana	6	17/08/1888	Moths Ireland	
Custom	insect - moth	Dusky Pearl (Udea	2	19/07/1894	Moths Ireland	
Custom	insect - moth	Ectoedemia occultella	1	14/07/1888	Moths Ireland	
Custom	insect - moth	Elachista argentella	1	12/07/1888	Moths Ireland	
Custom	insect - moth	Elephant Hawk-moth (Deilephila elpenor)	1	12/06/2016	Moth Records of Ireland	
Custom	insect - moth	Emmelina monodactyla	3	16/10/1999	Moths Ireland	
Custom	insect - moth	Epagoge grotiana	3	19/07/1894	Moths Ireland	
Custom	insect - moth	Epiblema scutulana	1	04/07/1888	Moths Ireland	



Custom	insect - moth	Epiblema sticticana	1	18/07/1888	Moths Ireland	
Custom	insect - moth	Epiblema trimaculana	4	06/07/1888	Moths Ireland	
Custom	insect - moth	Epinotia immundana	1	18/08/1888	Moths Ireland	
Custom	insect - moth	Epinotia nisella	5	18/08/1888	Moths Ireland	
Custom	insect - moth	Epinotia ramella	7	18/08/1888	Moths Ireland	
Custom	insect - moth	Eucalybites auroguttella	1	15/07/1888	Moths Ireland	
Custom	insect - moth	Eucosma cana	5	17/07/1888	Moths Ireland	
Custom	insect - moth	Eucosma hohenwartiana	19	30/07/1888	Moths Ireland	
Custom	insect - moth	Eudonia mercurella	9	12/08/1986	Moths Ireland	
Custom	insect - moth	Eudonia truncicolella	1	11/07/1894	Moths Ireland	
Custom	insect - moth	Eupoecilia angustana	3	16/08/1888	Moths Ireland	
Custom	insect - moth	Frosted Orange (Gortyna	1	31/10/1963	Moths Ireland	
Custom	insect - moth	Garden Carpet	1	02/09/2007	Moths Ireland	
Custom	insect - moth	Garden Grass-veneer				
Custom	llisect - Illotti	(Chrysoteuchia culmella)	177	19/07/1094	Mours relatio	
Custom	insect - moth	Garden Pebble	1	31/12/1888	Moths Ireland	
Custom	insect - moth	Grapholita janthinana	1	06/07/1888	Moths Ireland	
Custom	insect - moth	Grass Wave (Perconia	1	20/06/2004	Moths Ireland	
Custom		·	1	25/07/1999	Moths Ireland	
Custom	insect - moth	Grey Tortrix (Cnephasia stephensiana)	1	19/07/1894  31/12/1888 06/07/1888 20/06/2004 25/07/1888 16/08/1888 28/07/1888	Mours freiding	
Custom	insect - moth	Holly Tortrix (Rhopobota	1	16/08/1888	Moths Ireland	
Custom	insect - moth	Honeysuckle Moth	1	28/07/1888	Moths Ireland	
		(Ypsolopha dentella)		A ROLL OT		
Custom	insect - moth	July Highflyer	1	02/09/2007	Moths Ireland	
Custom	insect - moth	Lesser Broad-bordered	1	02/09/2007	Moths Ireland	
		Yellow Underwing	0			
Custom	insect - moth	Little Grey (Dipleurina	4 ent	15/07/1894	Moths Ireland	
Custom	insect - moth	Long-horned Flat-body	OF S	02/08/1888	Moths Ireland	
		(Carcina quercana)	1			
Custom	insect - moth	Long-streak Midget	1	06/11/1999	Moths Ireland	
		(Phyllonorycter		, ,		
Custom	insect - moth	Lozotaenia forsterana	2	15/07/1894	Moths Ireland	
Custom	insect - moth	Magpie (Abraxas	1	05/09/2010	Moths Ireland	
Custom	insect - moth	Marbled Orchard Tortrix	4	08/07/1888	Moths Ireland	
		(Hedya nubiferana)	-		1 10 10 21 21 21 21	
Custom	insect - moth	Notch Wing Tortix	1	18/08/1888	Moths Ireland	
Custom	insect - moth	Nut Bud Moth (Epinotia	2	02/08/1888	Moths Ireland	
Custom	insect - moth	Nut Leaf Blister Moth	1	06/11/1999	Moths Ireland	
		(Phyllonorycter coryli)		, ,		
Custom	insect - moth	Oblique Carpet	1	11/06/2007	Moths Ireland	
Custom	insect - moth	Ochsenheimeria taurella	1	30/07/1888	Moths Ireland	
Custom	insect - moth	Opsibotys fuscalis	1	05/07/1888	Moths Ireland	
Custom	insect - moth	Oxyptilus parvidactylus	2	13/07/1888	Moths Ireland	
Custom	insect - moth	Paraswammerdamia	1	25/07/1888	Moths Ireland	
		1 11 11 11			1	



Custom	insect - moth	Parornix anglicella	1	28/06/1888	Moths Ireland
Custom	insect - moth	Pea Moth (Cydia	2	13/07/1888	Moths Ireland
Custom	insect - moth	Phycitodes binaevella	1	15/07/1888	Moths Ireland
Custom	insect - moth	Phyllonorycter hostis	1	06/11/1999	Moths Ireland
Custom	insect - moth	Phyllonorycter	1	06/11/1999	Moths Ireland
Custom	insect - moth	Pink-barred Sallow	1	16/10/1999	Moths Ireland
Custom	insect - moth	Plum Tortrix (Hedya	1	28/06/1888	Moths Ireland
Custom	insect - moth	Poplar Hawk-moth	1	12/06/2016	Moth Records of Ireland
Custom	insect - moth	Pyrausta despicata	2	19/07/1894	Moths Ireland
Custom	insect - moth	Ringed China-mark	1	11/07/1894	Moths Ireland
		(Parapoynx stratiotata)			
Custom	insect - moth	Rose Leaf Miner	1	06/11/1999	Moths Ireland
Custom	insect - moth	Rosy Rustic (Hydraecia	2	05/09/2010	Moths Ireland
Custom	insect - moth	Rush Veneer (Nomophila	1	14/08/1888	Moths Ireland
Custom	insect - moth	Rush Wainscot	1	02/09/2007	Moths Ireland
Custom	insect - moth	Scoparia ambigualis	1	14/08/1888	Moths Ireland
Custom	insect - moth	Scoparia pyralella	2	08/07/1894	Moths Ireland
Custom	insect - moth	Scythris picaepennis	2	28/07/1888	Moths Ireland
Custom	insect - moth	Sorhagenia lophyrella	1	14/08/1888 02/09/2007 14/08/1888 08/07/1894 28/07/1888 28/07/1888 19/07/1894 19/07/1894 19/07/1894 19/07/1894 19/07/1894 19/07/1894 19/07/1894	Moths Ireland
Custom	insect - moth	Spindle Ermine	1	19/07/18940 Line	Moths Ireland
		(Yponomeuta cagnagella)		15/01/10 pt real	
Custom	insect - moth	Square-spot Rustic	1	02/09/2067	Moths Ireland
		(Xestia xanthographa)		SSP COM	
Custom	insect - moth	Stenoptilia	5	01/07/1894	Moths Ireland
Custom	insect - moth	Stenoptilia pterodactyla	2	<b>8</b> /07/1888	Moths Ireland
Custom	insect - moth	Stigmella aurella	1 8	06/11/1999	Moths Ireland
Custom	insect - moth	Stigmella hemargyrella	1 ent	06/11/1999	Moths Ireland
Custom	insect - moth	Stigmella microtheriella	OP	06/11/1999	Moths Ireland
Custom	insect - moth	Stigmella plagicolella	1	06/11/1999	Moths Ireland
Custom	insect - moth	Stigmella salicis	3	06/11/1999	Moths Ireland
Custom	insect - moth	Stigmella tityrella	1	06/11/1999	Moths Ireland
Custom	insect - moth	Straw Grass-veneer	2	24/08/1894	Moths Ireland
		(Agriphila straminella)			
Custom	insect - moth	Syncopacma cinctella	1	17/07/1888	Moths Ireland
Custom	insect - moth	Treble-bar (Aplocera	1	14/06/2004	Moths Ireland
Custom	insect - moth	Udea lutealis	3	11/07/1894	Moths Ireland
Custom	insect - moth	Udea olivalis	1	12/07/1894	Moths Ireland
Custom	insect - moth	White-shouldered House-	3	21/05/2000	Moths Ireland
		moth (Endrosis			
Custom	insect - moth	Zeiraphera isertana	1	28/07/1888	Moths Ireland
Custom	insect - orthopteran	Common Green	2	08/07/2015	Grasshoppers, Crickets and Allied
		Grasshopper (Omocestus			Insects (Orthoptera) of Ireland
Custom	insect - orthopteran	Field Grasshopper	1	14/08/1989	Grasshoppers, Crickets and Allied
		(Chorthippus brunneus)			Insects (Orthoptera) of Ireland



Custom	insect - orthopteran	Large Marsh	1	13/08/2012	Grasshoppers, Crickets and Allied	
Custom	insect orthopearun	Grasshopper	•	15/00/2012	Insects (Orthoptera) of Ireland	
Custom	insect - orthopteran	Slender Ground-hopper	2	30/06/1976	Grasshoppers, Crickets and Allied	
		(Tetrix subulata)			Insects (Orthoptera) of Ireland	
Custom	insect - stonefly (Plecoptera)	Nemoura avicularis	1	02/05/1977	Stoneflies (Plecoptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Aphelocheirus	1	13/08/2008	River Biologists' Database (EPA)	
		(Aphelocheirus) aestivalis				
Custom	insect - true bug (Hemiptera)	Broad Damselbug (Nabis	2	02/07/1980	True Bugs (Heteroptera) of Ireland	
		(Nabicula)				
Custom	insect - true bug (Hemiptera)	Bronze Shieldbug (Troilus luridus)	1	20/06/1976	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Callicorixa praeusta	1	06/07/2000	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Charagochilus	1	30/06/1899	True Bugs (Heteroptera) of Ireland	
		(Charagochilus)		other		
Custom	insect - true bug (Hemiptera)	Chartoscirta cincta	1	20/06/1976 OILY AITY	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Common Backswimmer (Notonecta (Notonecta)	1	30/06/1899 20/06/1976 26/07/1998 See Off Her Just of Her Line of	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Common Pondskater (Gerris (Gerris) lacustris)	1	30/06/1976 cod	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Common Shorebug (Saldula saltatoria)	1	.06/07/2000	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Corixinae	2	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes	
Custom	insect - true bug (Hemiptera)	Cymatia bonsdorffii	1sent of	31/12/1977	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Cymus glandicolor	1	30/06/1899	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Dark Green Apple Capsid (Orthotylus (Orthotylus)	1	30/06/1899	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Fine Streaked Bugkin (Miris striatus)	1	20/06/1976	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Forest Bug (Pentatoma rufipes)	2	03/09/2013	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Leptopterna ferrugata	1	30/06/1899	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Loricula elegantula	1	06/07/2000	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Lygocoris (Neolygus) contaminatus	1	30/06/1899	True Bugs (Heteroptera) of Ireland	
Custom	insect - true bug (Hemiptera)	Marsh Damselbug (Nabis (Dolichonabis) limbatus)	1	02/07/1980	True Bugs (Heteroptera) of Ireland	



Custom	insect - true bug (Hemiptera)	Mecomma (Globicellus) dispar	1	31/08/1939	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Mecomma (Mecomma) ambulans	1	30/06/1899	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Micronecta	1	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes
Custom	insect - true bug (Hemiptera)	Pithanus maerkelii	1	30/06/1899	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Psallus (Mesopsallus) ambiguus	2	06/07/2000	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Psallus (Psallus) varians	1	30/06/1899	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Salda littoralis	1	20/06/1976	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Salda muelleri	1	20/06/1976 HE	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Sigara (Subsigara) fallenoidea	3	20/06/1976  06/07/2001  07/06/2014  30/06/1899 certified by 10/10/2000  06/07/2000	Littoral Macroinvertebrate Data From Irish Lakes
Custom	insect - true bug (Hemiptera)	Sloe Shieldbug (Dolycoris baccarum)	1	07/06/2014 oses different	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Timothy Grassbug (Stenotus binotatus)	1	30/06/1899	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Velia (Plesiovelia) saulii		17.67	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Water Measurer (Hydrometra stagnorum)	3	06/07/2000	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Water Scorpion (Nepa cinerea)	3 entor	06/07/2000	True Bugs (Heteroptera) of Ireland
Custom	insect - true bug (Hemiptera)	Water Singer (Micronecta (Micronecta) poweri)	1	30/06/1976	True Bugs (Heteroptera) of Ireland
Custom	insect - true fly (Diptera)	Ablabesmyia longistyla	3	15/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Apsectrotanypus	2	15/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Arctopelopia barbitarsis	1	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Arctopelopia griseipennis	1	15/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Ceratopogonidae	2	06/07/2001	Littoral Macroinvertebrate Data From Irish Lakes
Custom	insect - true fly (Diptera)	Cheilosia albitarsis	2	18/06/2015	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Cheilosia antiqua	1	04/06/1980	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Chironomus tentans	1	24/04/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Cladotanytarsus mancus	1	13/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Clinotanypus nervosus	1	26/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Conchapelopia melanops		15/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Conchapelopia pallidula	1	31/12/1929	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Cricotopus sylvestris	1	11/09/2007	The Chironomidae (Diptera) of
	7 (	, , , , , , ,		1 1 1	· · · ·



Custom	insect - true fly (Diptera)	Cryptochironomus	2	15/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Cryptotendipes	3	16/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Diptera larva (Diptera)	2	06/07/2001	Littoral Macroinvertebrate Data From
				' '	Irish Lakes
Custom	insect - true fly (Diptera)	Endochironomus	6	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Erioconopa trivialis	2	28/09/1977	Craneflies of Ireland
Custom	insect - true fly (Diptera)	Erioptera fuscipennis	1	14/05/1970	Craneflies of Ireland
Custom	insect - true fly (Diptera)	Eristalis horticola	1	30/07/2013	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Eristalis intricarius	1	30/07/2013	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Eristalis pertinax	2	13/05/2013	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Eristalis tenax	3	08/07/2015	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Eukiefferiella claripennis	1	24/04/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Glyptotendipes	4	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Glyptotendipes foliicola	6	16/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Glyptotendipes pallens	1	16/08/2007 13/06/2007 24/04/2007 14/05/1970 10/09/2007 30/07/2013 18/06/2015 11/09/2007; children in the control of the	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Glyptotendipes scirpi	1	24/04/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Gonomyia tenella	1	14/05/1970	Craneflies of Ireland
Custom	insect - true fly (Diptera)	Harnischia curtilamellata	6	10/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Helophilus hybridus	2	30/07/2013	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Helophilus pendulus	2	18/06/2015	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Heterotanytarsus apicalis	5	11/05/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Heterotrissocladius	1	25/04/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Marmalade Hoverfly	1	08/07/2015	Hoverflies (Syrphidae) of Ireland
		(Episyrphus balteatus)	\ \alpha \( \alpha \)	11/10/11076	
Custom	insect - true fly (Diptera)	Melanogaster hirtella	I '	N9/06/19/6	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Melanostoma scalare	1 8	19/06/1976	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Myathropa florea	1 of	19/06/1976	Hoverflies (Syrphidae) of Ireland
Custom	insect - true fly (Diptera)	Nanocladius dichromus	OI.	13/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Neolimnomyia adjuncta	1	28/09/1977	Craneflies of Ireland
Custom	insect - true fly (Diptera)	Orthocladius consobrinus	1	13/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Orthocladius holsatus	1	26/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Orthocladius oblidens	4	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Orthocladius olivaceus	1	24/04/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Orthocladius rivinus	1	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Pagastiella orophila	2	26/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Parachironomus arcuatus		10/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Parachironomus	1	26/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Paracladopelma	1	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Paracladopelma	1	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Parakiefferiella coronata	1	26/06/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Parakiefferiella Pe1	2	15/08/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Paratanytarsus	2	10/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Paratanytarsus grimmii	1	11/09/2007	The Chironomidae (Diptera) of
Custom	insect - true fly (Diptera)	Paratanytarsus inopertus	7	11/09/2007	The Chironomidae (Diptera) of



Custom	insect - true fly (Diptera)	Paratanytarsus	2	11/09/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Paratanytarsus tenuis	1	11/09/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Paratrissocladius	1	24/04/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Phylidorea ferruginea	1	14/05/1970	Craneflies of Ireland	
Custom	insect - true fly (Diptera)	Platycheirus clypeatus	1	18/06/2015	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	Platycheirus granditarsus	1	08/07/2015	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	Polypedilum	2	11/09/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Polypedilum	4	10/09/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Polypedilum cultellatum	1	26/06/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Potthastia gaedii	4	15/08/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Procladius (Psilotanypus)	2	15/08/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Procladius choreus	1	24/04/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Procladius crassinervis	2	24/04/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Procladius signatus	1	24/04/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Procladius simplicistylis	3	25/04/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Prodiamesa olivacea	1	24/04/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Psectrocladius	1	24/04/2007 25/04/2007 24/04/2007 24/04/2007 26/06/2007 05/06/2013 15/08/2007 11/09/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Pseudochironomus	1	26/06/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Rhingia campestris	1	05/06/2013	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	Stempellina bausei	7	15/08/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Stempellinella edwardsi	11	11/03/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Synorthocladius	8	11/09/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Tanypus vilipennis	2	15/08/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Tanytarsus medius	1	26/06/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Tanytarsus signatus	1	<b>£</b> 5/08/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)	Thienemannimyia	3 &	15/08/2007	The Chironomidae (Diptera) of	
Custom	insect - true fly (Diptera)		1 00	14/05/1970	Craneflies of Ireland	
Custom	insect - true fly (Diptera)	Tricyphona immaculata	(2)S	28/09/1977	Craneflies of Ireland	
Custom	insect - true fly (Diptera)	Volucella bombylans	1	18/06/2015	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	Volucella pellucens	1	19/06/1976	Hoverflies (Syrphidae) of Ireland	
Custom	insect - true fly (Diptera)	Xenochironomus	1	15/08/2007	The Chironomidae (Diptera) of	
Custom	liverwort	Anomalous Flapwort (Mylia anomala)	2	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Bifid Crestwort (Lophocolea bidentata)	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Bitter Scalewort (Porella arboris-vitae)	1	31/12/1978	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Bog Germanderwort (Riccardia latifrons)	1	31/12/1935	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Bog Notchwort (Cladopodiella fluitans)	3	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Bog Pouchwort (Calypogeia sphagnicola)	2	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern



Custom	liverwort	Bog-moss Flapwort (Odontoschisma sphagni)	4	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Bristly Fingerwort (Kurzia pauciflora)	4	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Cliff Scalewort (Porella cordaeana)	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Near threatened
Custom	liverwort	Common Pouchwort (Calypogeia fissa)	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Dark-green Flapwort (Jungermannia	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Dilated Scalewort (Frullania dilatata)	5	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Endive Pellia (Pellia endiviifolia)	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Even Scalewort (Radula complanata)	2	24/09/1970 attention	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Fairy Beads (Microlejeunea ulicina)	1	24/09/1970  24/09/1970  24/09/2007 05-50 draft arry officer of the control of the	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Forcipated Pincerwort (Cephalozia connivens)	4	02/09/2007 selfed to	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Forked Veilwort (Metzgeria furcata)	3	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Greasewort (Aneura pinguis)	2	24709/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Greater Featherwort (Plagiochila asplenioides)	1	23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Hemisphaeric Liverwort (Reboulia hemisphaerica)	1 ent	23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Inflated Notchwort (Gymnocolea inflata)	1	31/12/1989	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Jagged Germanderwort (Riccardia chamedryfolia)	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Lesser Featherwort (Plagiochila porelloides)	3	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	liverwort	Minute Pouncewort (Cololejeunea	2	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Moerckia flotoviana s.str.	1	24/09/1970	Bryophytes of Ireland	
Custom	liverwort	Mueller's Pouchwort (Calypogeia muelleriana)	1	31/12/1989	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Narrow Mushroom- headed Liverwort	2	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Palmate Germanderwort (Riccardia palmata)	1	31/12/1989	Bryophytes of Ireland	Threatened Species: Least concern



Custom	livonvort	Purple Spoonwort	2	30/06/1952	Priorbytos of Iroland	Throatoned Chasings Loagt concorn
Custom	liverwort	(Pleurozia purpurea)	3		Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Radula	2	02/09/2007	Bryophytes of Ireland	
Custom	liverwort	Scarce Notchwort (Leiocolea badensis)	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Spurred Threadwort (Cephaloziella elachista)	2	31/12/1986	Bryophytes of Ireland	Threatened Species: Data deficient
Custom	liverwort	Tamarisk Scalewort (Frullania tamarisci)	1	23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Tumid Notchwort (Lophozia ventricosa)	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	Two-horned Pincerwort (Cephalozia bicuspidata)	1	31/12/1935	Bryophytes of Ireland	Threatened Species: Least concern
Custom	liverwort	White Earwort (Diplophyllum albicans)	1	31/12/1935	Bryophytes of Ireland	Threatened Species: Least concern
Custom	millipede	Ophyiulus pilosus	1	31/05/1977	Millipedes of Ireland	
Custom	millipede	Polydesmus coriaceus	1	31/05/1977	Millipedes of Ireland	
Custom	mollusc	Ancylus fluviatilis	2	31/12/1935 31/05/1977 31/05/1977 25/06/2003 31/12/1918 Republic of the control of the contro	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Arion (Arion)	1	31/12/1910 to chill	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Arion (Carinarion)		1 22 x X 2	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Arion (Kobeltia)		31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Blind Snail (Cecilioides (Cecilioides) acicula)	1 of	31/10/1965	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Brown Lipped Snail (Cepaea (Cepaea)	6	25/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Carychium	1	31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Cellar Snail (Oxychilus (Oxychilus) cellarius)	1	31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Clear Glass Snail (Aegopinella pura)	2	30/09/1970	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Cochlicopa	1	31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Columella aspera	1	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Common Bithynia (Bithynia (Bithynia)	10	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Common Bladder Snail (Physa fontinalis)	8	22/09/2006	All Ireland Non-Marine Molluscan Database	



Custom	mollusc	Common Chrysalis Snail (Lauria (Lauria)	3	30/09/1970		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Common Garden Snail (Cornu aspersum)	2	31/12/1940		All Ireland Non-Marine Molluscan Database	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	mollusc	Common Whorl Snail (Vertigo (Vertigo)	2	05/08/1998		All Ireland Non-Marine Molluscan Database	Threatened Species: Near threatened
Custom	mollusc	Desmoulin's Whorl Snail (Vertigo (Vertigo) moulinsiana)	4	22/09/2006		All Ireland Non-Marine Molluscan Database	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: Wildlife Acts    Threatened Species: Endangered
Custom	mollusc	Duck Mussel (Anodonta (Anodonta) anatina)	3	25/06/2003 31/12/1910 09/08/1998 Ost Only 1	ather use	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Dwarf Pond Snail (Galba (Galba) truncatula)	1	31/12/1910 09/08/1998 0525 01 For 18	MO	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Dwarf Snail (Punctum (Punctum) pygmaeum)	1	09/08/1998 35 ed to		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Eccentric Grass Snail (Vallonia cf. excentrica)	3	actif when		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	English Chrysalis Snail (Leiostyla (Leiostyla)	3	07/08/1998		All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Euconulus	2	31/10/1965		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Euconulus (Euconulus)	2 sent	22/09/2006		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Euconulus (Euconulus) cf. alderi	1	13/08/1998		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Field Slug (Deroceras (Deroceras) agreste)	2	31/12/1940		All Ireland Non-Marine Molluscan Database	Threatened Species: Data deficient
Custom	mollusc	Flat Ramshorn (Hippeutis complanatus)	1	22/09/2006		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Flat Valve Snail (Valvata (Valvata) cristata)	2	22/09/2006		All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Freshwater Nerite (Theodoxus (Theodoxus)	9	12/08/2008		River Biologists' Database (EPA)	
Custom	mollusc	Garlic Snail (Oxychilus (Oxychilus) alliarius)	2	30/09/1970		All Ireland Non-Marine Molluscan Database	



Custom	mollusc	Geyer's Whorl Snail (Vertigo (Vertigo) geyeri)	1	06/08/1998	All Ireland Non-Marine Molluscan Database	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: Wildlife Acts    Threatened Species: Vulnerable
Custom	mollusc	Giant Pea Shell (Pisidium amnicum)	1	31/12/1940	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Globular Pea Mussel (Pisidium hibernicum)	1	31/12/1983	All Ireland Non-Marine Molluscan Database	Threatened Species: Near threatened
Custom	mollusc	Glutinous Snail (Myxas glutinosa)	2	31/07/2004	All Ireland Non-Marine Molluscan Database	Threatened Species: Endangered
Custom	mollusc	Great Black Slug (Arion (Arion) ater)	1	21/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Great Pond Snail (Lymnaea (Lymnaea)	7	22/09/2006  31/12/1965  04/08/1990  04/08/1990  22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Great Ramshorn (Planorbarius corneus)	1	31/12/1965 of y any of	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Hairy Snail (Trochulus (Trochulus) hispidus)	4	04/08/1990 050 dto	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Heath Snail (Helicella itala)	4	04/08/1990 cett	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Horny Orb Mussel (Sphaerium corneum)		17.67	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Irish Yellow Slug	1 (	31/12/1976	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Jenkins' Spire Snail (Potamopyrgus antipodarum)	3 ent of	25/06/2003	All Ireland Non-Marine Molluscan Database	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	mollusc	Keeled Ramshorn (Planorbis carinatus)	8	25/06/2003	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Lake Limpet (Acroloxus lacustris)	1	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Leach's Bithynia (Bithynia (Codiella) leachii)	2	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Lymnaea (Stagnicola)	5	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Margined Ramshorn (Planorbis planorbis)	5	25/06/2003	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Marsh Slug (Deroceras (Deroceras) laeve)	2	21/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Marsh Whorl Snail (Vertigo (Vertigo)	2	22/09/2006	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable



Custom	mollusc	Milky Crystal Snail (Vitrea contracta)	1	31/10/1965	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Moss Bladder Snail (Aplexa hypnorum)	2	31/12/1940	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Moss Chrysalis Snail (Pupilla (Pupilla)	1	31/12/1940	All Ireland Non-Marine Molluscan Database	Threatened Species: Endangered
Custom	mollusc	Nautilus Ramshorn (Gyraulus (Armiger)	1	31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Netted Slug (Deroceras (Deroceras) reticulatum)	1	31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Pellucid Glass Snail (Vitrina pellucida)	1	31/12/1910	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Pfeiffer's Amber Snail (Oxyloma (Oxyloma)	8	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Plaited Door Snail (Cochlodina (Cochlodina)	1	09/08/1977  31/12/1940  10/08/1998 05 of the arry of the tree of the arry of the tree of the arry of t	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Pointed Snail (Cochlicella (Cochlicella) acuta)	2	31/12/1940 olly any	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Rayed Glass Snail (Nesovitrea (Perpolita)	1	10/08/1998 See Little 10	All Ireland Non-Marine Molluscan Database	
ustom	mollusc	Ribbed Grass Snail (Vallonia costata)	1	30/09/1970 colt	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Rock Snail (Pyramidula pusilla)	2	31710/1965	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Rosy Pea Shell (Pisidium milium)	3	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Rounded Snail (Discus (Gonyodiscus)	2 ent of	31/10/1965	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Shining Pea Mussel (Pisidium nitidum)	3	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Shiny Glass Snail (Zonitoides (Zonitoides)	6	21/09/2006	All Ireland Non-Marine Molluscan Database	
ustom	mollusc	Short-ended Pea Mussel (Pisidium subtruncatum)	3	22/09/2006	All Ireland Non-Marine Molluscan Database	
ustom	mollusc	Short-toothed Herald Snail (Carychium	2	22/09/2006	All Ireland Non-Marine Molluscan Database	
ustom	mollusc	Slippery Moss Snail (Cochlicopa cf. lubrica)	2	30/09/1970	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Smooth Glass Snail (Aegopinella nitidula)	2	31/10/1965	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Smooth Grass Snail (Vallonia pulchella)	3	22/09/2006	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Strawberry Snail (Trochulus (Trochulus)	4	04/08/1990	All Ireland Non-Marine Molluscan Database	



Custom	mollusc	Striated Whorl Snail (Vertigo (Vertigo)	1	04/08/1998	All Ireland Non-Marine Molluscan Database	Threatened Species: Near threatened
Custom	mollusc	Striped Snail (Cernuella (Cernuella) virgata)	2	31/12/1940	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Tree Snail (Balea (Balea) perversa)	1	30/09/1970	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	Twisted Ramshorn (Bathyomphalus	3	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Two-toothed Door Snail (Clausilia (Clausilia)	4	31/10/1965	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Vallonia	1	31/12/1940	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Valve Snail (Valvata (Cincinna) piscinalis)	6	22/09/2006	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Vitrea	1	31/12/1910 31/12/1910 13/08/2008	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Wandering Snail (Radix	12	13/08/2008	River Biologists' Database (EPA)	
Custom	mollusc	Whirlpool Ramshorn (Anisus (Disculifer)	4	13/08/2008 30/09/1970 30/09/1970 30/09/1970 30/09/1970 30/09/1970 30/09/1970 30/09/1970 30/09/1970	All Ireland Non-Marine Molluscan Database	Threatened Species: Vulnerable
Custom	mollusc	White Ramshorn (Gyraulus (Gyraulus)	2	30/09/1970 Paris	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	White-lipped Ramshorn (Anisus (Anisus)	1	04/08/1990	All Ireland Non-Marine Molluscan Database	
Custom	mollusc	Wrinkled Snail (Candidula intersecta)	3 Grent of	304/00/11000	All Ireland Non-Marine Molluscan Database	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Specie
Custom	mollusc	Zebra Mussel (Dreissena ( (Dreissena) polymorpha)	À	31/08/2006	National Invasive Species Database	Invasive Species: Invasive Species   Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	moss	Amblystegium serpens var. serpens	2	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Anomalous Bristle-moss (Orthotrichum anomalum)	3	31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Archangelic Thread-moss (Bryum archangelicum)	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Austin's Bog-moss (Sphagnum austinii)	4	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Bank Haircap	2	02/09/2007	Bryophytes of Ireland	
Custom	moss	Barbula sardoa	1	09/05/2009	Bryophytes of Ireland	
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Custom	moss	Beech Feather-moss (Eurhynchium	4	01/09/2007	Bryophytes of Ireland	
Custom	moss	Big Shaggy-moss (Rhytidiadelphus	2	27/10/1981	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Bird's-claw Beard-moss (Barbula unguiculata)	4	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Blunt-leaved Bog-moss (Sphagnum palustre)	3	08/09/2007	Bryophytes of Ireland	
Custom	moss	Bog Groove-moss (Aulacomnium palustre)	3	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Bordered Screw-moss (Tortula marginata)	2	31/12/1970	Bryophytes of Ireland	Threatened Species: Near threatened
Custom	moss	Broom Fork-moss (Dicranum scoparium)	5	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Brown Beard-moss (Didymodon spadiceus)	1	31/12/1910 affect 1580	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Bryum dichotomum	5	02/09/2007 ONLY REPLY	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Campylium stellatum var.	2	24/09/1970	Bryophytes of Ireland	
Custom	moss	Capillary Thread-moss (Bryum capillare)	4	31/12/1910  02/09/2007  24/09/1970  31/12/1988 Required for some state of the control of the con	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Chalk Hook-moss (Drepanocladus	5	31/12/19/0	Bryophytes of Ireland	Threatened Species: Near threatened
Custom	moss	Clustered Feather-moss (Rhynchostegium		01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Common Cord-moss (Funaria hygrometrica)	3 of	31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	(Eurnynchium	8		Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Common Haircap (Polytrichum commune)	1	31/12/1991	Bryophytes of Ireland	
Custom	moss	Common Pocket-moss (Fissidens taxifolius)	1	31/12/1991	Bryophytes of Ireland	
Custom	moss	Common Smoothcap (Atrichum undulatum)	1	23/09/1970	Bryophytes of Ireland	
Custom	moss	Common Striated Feather moss (Eurhynchium	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Common Tamarisk-moss (Thuidium tamariscinum)	4	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Creeping Feather-moss (Amblystegium serpens)	2	31/12/1988	Bryophytes of Ireland	
Custom	moss	Crimson-tuber Thread- moss (Bryum rubens)	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern



Custom	moss	Crisped Pincushion (Ulota crispa)	1	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Ctenidium molluscum var. molluscum	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Curly Crisp-moss (Trichostomum	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Curving Feather-moss (Scorpiurium circinatum)	3	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Cylindric Beard-moss (Didymodon insulanus)	3	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Cypress-leaved Plait- moss (Hypnum	2	31/12/1988	Bryophytes of Ireland	
Custom	moss	Drab Brook-moss (Hygrohypnum luridum)	1	31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Dwarf Swan-neck Moss (Campylopus pyriformis)	1	08/09/2007  24/09/1970  02/09/2007  08/09/2007  08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Elegant Bristle-moss (Orthotrichum pulchellum)	1	24/09/1970 ONLY ONLY	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Fallacious Beard-moss (Didymodon fallax)	4	02/09/2007 set dite	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Feathery Bog-moss (Sphagnum cuspidatum)	5	08/09/3007 <sup>20</sup>	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Fern-leaved Hook-moss (Cratoneuron filicinum)	7	.02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Fertile Feather-moss (Drepanocladus	1 8	31/05/1960	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Fine-leaved Marsh Feather-moss	3 ent	24/09/1970	Bryophytes of Ireland	Threatened Species: Near threatened
Custom	moss	Fissidens taxifolius var. taxifolius	2	09/05/2009	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Flat Neckera (Neckera complanata)	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Fox-tail Feather-moss (Thamnobryum	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Frizzled Crisp-moss (Tortella tortuosa)	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Frizzled Pincushion (Ulota phyllantha)	2	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Giant Spear-moss (Calliergon giganteum)	1	03/07/2002	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Glittering Wood-moss (Hylocomium splendens)	2	27/10/1981	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Golden Bog-moss (Sphagnum pulchrum)	1	11/06/1986	Bryophytes of Ireland	Threatened Species: Least concern



Custom	moss	Golden Feather-moss (Campyliadelphus	1	27/10/1981	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Great Hairy Screw-moss (Syntrichia ruralis)	1	01/09/2007	Bryophytes of Ireland	
Custom	moss	Great Plait-moss (Hypnum lacunosum var.	3	27/10/1981	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Greater Water-moss (Fontinalis antipyretica	1	31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Greater Water-moss (Fontinalis antipyretica)	1	13/08/2008	River Biologists' Database (EPA)	
Custom	moss	Green-tufted Stubble- moss (Weissia	1	23/09/1970	Bryophytes of Ireland	
Custom	moss	Grey-cushioned Grimmia (Grimmia pulvinata)	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Hair-pointed Feather- moss (Cirriphyllum	1	01/09/2007  09/05/2009  03/07/2002  08/09/2007  08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Hart's-tongue Thyme- moss (Plagiomnium	6	09/05/2009 Odily and	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Heart-leaved Spear-moss (Calliergon cordifolium)	1	03/07/2002 selfed to	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Heath Plait-moss (Hypnum jutlandicum)	5	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Heath Star Moss (Campylopus introflexus)	Δ.	or trigge	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Hooded Bristle-moss (Orthotrichum cupulatum)	1	√23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Hooked Scorpion-moss (Scorpidium scorpioides)	1 sent or	23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Hornschuch's Beard- moss (Pseudocrossidium	3	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Hypnum cupressiforme	2	31/12/1935	Bryophytes of Ireland	
Custom	moss	Intermediate Hook-moss (Drepanocladus cossonii)	2	03/07/2002	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Isothecium myosuroides var. myosuroides	1	31/12/1973	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Juniper Haircap (Polytrichum juniperinum)	1	31/12/1991	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Kneiff's Hook-moss (Drepanocladus aduncus)	1	03/07/2002	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Large White-moss (Leucobryum glaucum)	4	08/09/2007	Bryophytes of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Threatened Species: Least concern



Custom	moss	Larger Mouse-tail Moss (Isothecium	1	31/12/1973	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Lateral Cryphaea (Cryphaea heteromalla)	5	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Lesser Bird's-claw Beard- moss (Barbula convoluta)	5	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Long-beaked Thyme- moss (Plagiomnium	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Lustrous Bog-moss (Sphagnum subnitens)	3	31/12/1991	Bryophytes of Ireland	
ustom	moss	Magellanic Bog-moss (Sphagnum	5	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Maidenhair Pocket-moss (Fissidens adianthoides)	2	31/12/1991  01/09/2007  23/09/1970  01/09/2007  08/09/2007  08/09/2007  31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Marsh Bryum (Bryum pseudotriquetrum)	3	01/09/2007 the transfer the control of the control	Bryophytes of Ireland	
Custom	moss	Montagne's Cylinder- moss (Entodon	1	23/09/1970 Odly and O	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Narrow-leaved Pocket- moss (Fissidens	2	01/09/2007 selfed to	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Neat Feather-moss (Scleropodium purum)	6	08/09/3007 <sup>-</sup>	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Nodding Thread-moss (Pohlia nutans)	1	34712/1988	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Pale Glaucous Thread- moss (Pohlia	2	02/09/2007	Bryophytes of Ireland	
Custom	moss	Pale Thread-moss (Bryum pallens)	2 ent	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Palustriella commutata	1	23/09/1970	Bryophytes of Ireland	
ustom	moss	Papillose Bog-moss (Sphagnum papillosum)	5	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Pink-fruited Thread-moss (Pohlia melanodon)	1	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Pohlia wahlenbergii var. wahlenbergii	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Pointed Spear-moss (Calliergonella cuspidata)	8	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Polytrichum commune var. commune	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
ustom	moss	Rambling Tail-moss (Anomodon viticulosus)	4	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Raspberry Bryum (Bryum klinggraeffii)	2	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern



Custom	moss	Red Beard-moss (Bryoerythrophyllum	1	31/12/1991	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Red Bog-moss (Sphagnum capillifolium)	6	08/09/2007	Bryophytes of Ireland	
Custom	moss	Red-neck Forklet-moss (Dicranella cerviculata)	1	08/09/2007	Bryophytes of Ireland	Threatened Species: Near threatened
Custom	moss	Redshank (Ceratodon purpureus)	2	31/12/1991	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Red-stemmed Feather- moss (Pleurozium	4	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Revolute Beard-moss (Pseudocrossidium	2	31/12/1991	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Rigid Beard-moss (Didymodon rigidulus)	4	01/09/2007 01/09/2007 08/09/2007 02/09/2007 School of Arry of Heat 1980 08/09/2007 School of Heat 1980 08/09/2007 School of Heat 1980 08/09/2007 School of Heat	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Rock Pocket-moss (Fissidens dubius)	3	01/09/2007 tige	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Rough-stalked Feather- moss (Brachythecium	7	08/09/2007 Off of the control of the	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Rusty Bog-moss (Sphagnum fuscum)	3	02/09/2007 0505 d. R. W.	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Rusty Swan-neck Moss (Campylopus flexuosus)	3	08/09/3007 <sup>c</sup>	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Schistidium apocarpum	4	31/12/1991	Bryophytes of Ireland	
Custom	moss	Sessile Grimmia (Schistidium apocarpum)	1	31/12/2002	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Shaw's Bristle-moss (Orthotrichum striatum)	1 cent	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Shaw's Bristle-moss (Orthotrichum striatum) Silky Wall Feather-moss (Homalothecium Silver-moss (Bryum	300	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Silver-moss (Bryum argenteum)	4	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Slender Cruet-moss (Tetraplodon mnioides)	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Slender Haircap (Polytrichum longisetum)	2	08/09/2007	Bryophytes of Ireland	
Custom	moss	Small Hairy Screw-moss (Syntrichia laevipila)	1	23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Smaller Lattice-moss (Cinclidotus fontinaloides)	4	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Soft Bog-moss (Sphagnum tenellum)	6	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Sphagnum imbricatum	2	31/12/1991	Bryophytes of Ireland	
Custom	moss	Sphagnum recurvum	1	31/12/1991	Bryophytes of Ireland	



Custom	moss	Sphagnum subnitens var. subnitens	3	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Sphagnum subsecundum	2	31/12/1935	Bryophytes of Ireland	
Custom	moss	Spiral Extinguisher-moss (Encalypta streptocarpa)	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Springy Turf-moss (Rhytidiadelphus	3	08/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Straw Spear-moss (Straminergon	1	31/12/1935	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Strict Haircap (Polytrichum strictum)	4	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Supine Plait-moss (Hypnum cupressiforme	4	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Swan's-neck Thyme- moss (Mnium hornum)	3	31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Swartz's Feather-moss (Oxyrrhynchium hians)	7	31/12/1988 09/05/2009 23/09/1970 Other the standard of the s	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Tall Thyme-moss (Plagiomnium elatum)	1	23/09/1970 off of the	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Tender Feather-moss (Rhynchostegiella tenella)	3	31/12/1988 Penjir	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Thickpoint Grimmia (Schistidium crassipilum)		. A X X X	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Tree-moss (Climacium dendroides)		23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Ulota crispa sensu lato	2 &	02/09/2007	Bryophytes of Ireland	
Custom	moss	Variable Forklet-moss (Dicranella varia)	4 ent	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Verdigris Tufa-moss (Gymnostomum	2	31/12/1991	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Wall Screw-moss (Tortula muralis)	5	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Wall Thread-moss (Bryum radiculosum)	1	24/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Wavy Beard-moss (Didymodon sinuosus)	2	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Weissia controversa var. controversa	1	09/05/2009	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	White-tipped Bristle-moss (Orthotrichum	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Wood Bristle-moss (Orthotrichum affine)	4	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Woolly Fringe-moss (Racomitrium	1	02/09/2007	Bryophytes of Ireland	Threatened Species: Least concern



Custom	moss	Yellow Feather-moss (Homalothecium	2	31/12/1988	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Yellow Fringe-moss (Racomitrium aciculare)	1	23/09/1970	Bryophytes of Ireland	Threatened Species: Least concern
Custom	moss	Zygodon viridissimus var. viridissimus	3	01/09/2007	Bryophytes of Ireland	Threatened Species: Least concern
Custom	reptile	Common Lizard (Zootoca	4	10/06/2018	Amphibians and reptiles of Ireland	Protected Species: Wildlife Acts
Custom	springtail (Collembola)	Arrhopalites principalis	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Ceratophysella scotica	2	31/12/1960	Collembola of Ireland	
Custom	springtail (Collembola)	Folsomia brevicauda	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Friesea mirabilis	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Isotomurus plumosus	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Pachyotoma crassicauda	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Parisotoma notabilis	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Sminthurides malmgreni	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Sminthurides schoetti	1	31/12/1955	Collembola of Ireland	
Custom	springtail (Collembola)	Tetracanthella wahlgreni	1	31/12/1955	Collembola of Ireland	
Custom	terrestrial mammal	American Mink (Mustela vison)	2	31/12/1955 31/12/1955 31/12/1955 21/08/2013 Only any of the last of the las	Atlas of Mammals in Ireland 2010- 2015	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> High Impact Invasive Species    Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
Custom	terrestrial mammal	Bank Vole (Myodes glareolus)	1 cent of	03/04/2002	Atlas of Mammals in Ireland 2010- 2015	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	terrestrial mammal	Brown Long-eared Bat (Plecotus auritus)	<b>D</b>	03/04/2002	National Bat Database of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Custom	terrestrial mammal	Daubenton's Bat (Myotis daubentonii)	16	29/07/2009	National Bat Database of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts



Custom	terrestrial mammal	Eastern Grey Squirrel (Sciurus carolinensis)	2	31/12/2012	Irish Squirrel Survey 2012	Invasive Species: Invasive Species    Invasive Species: Invasive Species
		(Sciards caroniciss)				>> High Impact Invasive Species    Invasive Species: Invasive Species >> EU Regulation No. 1143/2014    Invasive Species: Invasive Species
						>> Regulation S.I. 477 (Ireland)
Custom	terrestrial mammal	Eurasian Badger (Meles	14	31/12/2016	Badger Setts of Ireland Database	Protected Species: Wildlife Acts
Custom	terrestrial mammal	Eurasian Pygmy Shrew (Sorex minutus)	4	31/05/2016	Mammals of Ireland 2016-2025	Protected Species: Wildlife Acts
Custom	terrestrial mammal	Eurasian Red Squirrel (Sciurus vulgaris)	7	11/04/2018	Mammals of Ireland 2016-2025	Protected Species: Wildlife Acts
Custom	terrestrial mammal	European Otter (Lutra lutra)	12	12/12/2015  12/12/2015  04/05/2018 reduced for any other use of the control of th	Atlas of Mammals in Ireland 2010- 2015	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex II    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Custom	terrestrial mammal	European Rabbit (Oryctolagus cuniculus)	7	'tispect own	Mammals of Ireland 2016-2025	Invasive Species: Invasive Species    Invasive Species: Invasive Species >> Medium Impact Invasive Species
Custom	terrestrial mammal	Irish Hare (Lepus timidus subsp. hibernicus)	8	A2/05/2017	Mammals of Ireland 2016-2025	
Custom	terrestrial mammal	Lesser Noctule (Nyctalus leisleri)	1 sent or	29/07/2009	National Bat Database of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Custom	terrestrial mammal	Pine Marten (Martes martes)	7	11/04/2018	Mammals of Ireland 2016-2025	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex V    Protected Species: Wildlife Acts
Custom	terrestrial mammal	Pipistrelle (Pipistrellus pipistrellus sensu lato)	4	21/08/2013	National Bat Database of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Custom	terrestrial mammal	Red Fox (Vulpes vulpes)	15	05/05/2018	Mammals of Ireland 2016-2025	



Custom	terrestrial mammal	Soprano Pipistrelle (Pipistrellus pygmaeus)	6	21/08/2013	National Bat Database of Ireland	Protected Species: EU Habitats Directive    Protected Species: EU Habitats Directive >> Annex IV    Protected Species: Wildlife Acts
Custom	terrestrial mammal	West European Hedgehog (Erinaceus	9	07/08/2018	Mammals of Ireland 2016-2025	Protected Species: Wildlife Acts
Custom	terrestrial mammal	Wood Mouse (Apodemus	1	20/01/2011	Atlas of Mammals in Ireland 2010-	

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## **Appendix V Conservation Objectives**

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## **Appendix VI Civil and Structural Specifications**

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## **Appendix VII Photos**



Photo 2







## Photo 3



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**Appendix VIII: Invasive Species Report Monksland WWTP** 

