

**Biodiversity Action Plan for the
Kilmuckridge Village, Co. Wexford**



**Report Prepared for Kilmuckridge Village Tidy Towns Group
with funding from
Community Foundation Ireland
Environment and Nature - Biodiversity Grants 2022.**

FINAL REPORT

28th September 2023



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**Biodiversity Action Plan for the
Kilmuckridge Village, Co. Wexford**

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Biodiversity Action Plan for the Kilmuckridge Village, Co. Wexford

1. INTRODUCTION

1.1 Background

Faith Wilson Ecological Consultant was commissioned by Kilmuckridge Tidy Towns to prepare a biodiversity action plan for Kilmuckridge Village, Co. Wexford as shown on **Figure 1** below. Kilmuckridge Tidy Towns successfully received funding for the study from the Community Foundation Ireland under Strand 1 of the Environment and Nature Fund 2022.



Figure 1. Kilmuckridge Village (indicated by the red arrow) (Google Maps).



Figure 2. Kilmuckridge Village (indicated by the red arrow) (Google Maps).

According to Wikipedia:

“Kilmuckridge (Irish: Cill Mhucraise) formerly Ford or The Ford, is a village in County Wexford in Ireland, near the Irish Sea coast. As of the 2016 census, the village had a population of 722 people, having more than tripled in size (from 235) in the 20 years since the 1996 census. It is known for the nearby beach at Morriscastle.

The village is in the civil parish of Kilmuckridge and in the Catholic parish of Litter (from the Irish language Leitir, meaning a hillside). On older maps, the village is sometimes referred to by its older name of Ford, or The Ford. The name Kilmuckridge originally referred to a small road junction about 1.5 km from the main village and site of the Church of Ireland church. This junction was previously the location of the village post office and it is said that when the post office was moved to The Ford, the latter place name gradually declined in use”.

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Kilmuckridge Tidy Towns to develop local biodiversity plan thanks to funding boost

Kilmuckridge Tidy Towns who participated in the Kilmuckridge Klean Up on Saturday. Pic: jim Campbell

Amy Lewis
Gorey Guardian
Wed 3 May 2023 at 02:00

Kilmuckridge Tidy Towns will soon team up with ecologist Faith Wilson to produce a plan aimed at protecting and improving the plant and animal life of Kilmuckridge.

The group has received a €4,500 grant from Community Foundation Ireland to

Plate 1. Press release.

2. METHODOLOGY

2.1 Desktop Research

A desk study was carried out to collate the available information on the ecological environment within the wider environs of Kilmuckridge Village. The National Parks and Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage (DHLGH) database of designated conservation areas and NPWS records of rare and protected plant species was checked. Information on protected species of fauna and flora listed for protection under Annex II of the EU Habitats Directive (92/43/EEC), Annex I of the Birds Directive (79/409/EEC) and the Wildlife (Amendment) Act (2000) was also sought from NPWS, the National Biodiversity Data Centre and published sources. Recent, high resolution, colour aerial photographs were also used to identify and map habitats.

Consideration was also given to other flora and fauna as defined under the following legislative instruments and red data books:

- species protected under the **Wildlife Act (1976 (amended 2000))**, such as bats, badger, pine marten and common frog,
- plant species listed under the **Flora (Protection) Order (2022)**,
- vascular plant species listed in the **Irish Red List for Vascular Plants**¹,
- bird species listed under the **'Birds of Conservation Concern in Ireland'** document²,
- mammals listed in the **Irish Red List for Terrestrial Mammals**³,
- amphibians and reptiles listed in the **Irish Red List for Amphibians, Reptiles & Freshwater Fish**⁴,
- invasive species listed under Schedule 3 of the **'Birds and Natural Habitats Regulations 2011'** and the **EU Regulation on Invasive Alien Species (EU Regulation 1143/2014)**⁵.

2.2 Field Surveys

The flora and habitats within the environs of Kilmuckridge Village were surveyed in 2023 using the Phase 1 habitat survey methodology (JNCC, 1993) and Best Practice Guidance for Habitat Survey and Mapping (Smith *et al.*, 2011) to assess the vegetation communities and habitats present. These are described using Fossitt

¹ Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016). Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

² Gilbert G, Stanbury A and Lewis L.J. 2021. Birds of Conservation Concern in Ireland 2020 -2026. Irish Birds 43, 1-22.

³ Marnell, F., Looney, D. & Lawton, C. (2019). Ireland Red List No. 12: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Culture, Heritage and the Gaeltacht, Dublin, Ireland.

⁴ King, J.L., Marnell, F., Kingston, N., Rosell, R., Boylan, P., Caffrey, J.M., Fitzpatrick, Ú., Gargan, P.G., Kelly, F.L., O'Grady, M.F., Poole, R., Roche, W.K. & Cassidy, D. (2011). Ireland Red List No. 5: Amphibians, Reptiles & Freshwater Fish. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

⁵ S.I. No. 477 of 2011. The European Communities (Birds and Natural Habitats) Regulations 2011. Irish Government, Government Publications Office, Molesworth Street, Dublin 2.

2000)⁶. Plant identification follows Parnell *et al* (2012)⁷, and species nomenclature follows Scannell & Synnott (1987)⁸.

2.3 Relevant Legislation

2.3.1 Nature Conservation Designations

International Conservation Designations

Special Areas of Conservation (SACs) are habitats of international significance that have been identified by NPWS and submitted for designation to the EU. SAC is a statutory designation, which has a legal basis under the EU Habitats Directive (92/43/EEC) as transposed into Irish law through the European Communities (Natural Habitats) Regulations, 1997, which were amended in 1998, 2005 and 2011. The European Communities (Birds and Natural Habitats) Regulations 2011 consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats)(Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in the Court of Justice of the European Union (CJEU) judgements.

A Special Protection Area (SPA) is a statutory designation, which has a legal basis under the EU Birds Directive (79/409/EEC). The primary objective of SPAs is to maintain or enhance the favourable conservation status of the birds for which the SPAs have been designated.

National Conservation Designations

Proposed NHAs are habitats or sites of interest to wildlife that have been identified by NPWS. These sites become NHAs once they have been formally advertised and land owners have been notified of their designation. NHAs are protected under the Wildlife (Amendment) Act, 2000, from the date they are formally proposed. NHA is a statutory designation according to the Wildlife (Amendment) Act, 2000.

2.3.2 Bats

Eleven species of bats occur in Ireland and all are protected under both national and international law. Nine species are resident and have confirmed breeding populations while two species are deemed to be vagrants as set out in **Table 2.3.2** below.

⁶ Fossitt, J. (2000) A Guide to Habitats in Ireland. The Heritage Council, Ireland.

⁷ Parnell, J. and Curtis, T. (2012). An Irish flora (8th edn). Cork University Press.

⁸ Scannell, M. and D. Synnott (1987). Census Catalogue of the Flora of Ireland - Clár de Phlandaí na hÉireann. Stationery Office Dublin, Dublin.

Table 2.3.2. Legal protection and status of the Irish bat fauna.

Common and scientific name	Wildlife Act 1976 & Wildlife (Amendment) Acts 2000 & 2010	Irish Red List status	Habitats Directive	Bern & Bonn Conventions
Common pipistrelle <i>Pipistrellus pipistrellus</i>	Yes	Least Concern	Annex IV	Appendix II
Soprano pipistrelle <i>P. pygmaeus</i>	Yes	Least Concern	Annex IV	Appendix II
Nathusius' pipistrelle <i>P. nathusii</i>	Yes	Not referenced	Annex IV	Appendix II
Leisler's bat <i>Nyctalus leisleri</i>	Yes	Near Threatened	Annex IV	Appendix II
Brown long-eared bat <i>Plecotus auritus</i>	Yes	Least Concern	Annex IV	Appendix II
Lesser horseshoe bat <i>Rhinolophus hipposideros</i>	Yes	Least Concern	Annex II Annex IV	Appendix II
Greater horseshoe bat <i>Rhinolophus ferruginous</i>		Data Deficient	Annex II Annex IV	Appendix II
Daubenton's bat <i>Myotis daubentonii</i>	Yes	Least Concern	Annex IV	Appendix II
Natterer's bat <i>M. nattereri</i>	Yes	Least Concern	Annex IV	Appendix II
Whiskered bat <i>M. mystacinus</i>	Yes	Least Concern	Annex IV	Appendix II
Brandt's bat <i>M. brandtii</i>	Yes	Data Deficient	Annex IV	Appendix II

Wildlife Act 1976

In the Republic, under Schedule 5 of the Wildlife Act 1976, all bats and their roosts are protected by law. It is unlawful to disturb either without the appropriate licence. The Act was amended in 2000.

Bern and Bonn Convention

Ireland has also ratified two international conventions, which afford protection to bats amongst other fauna. These are known as the 'Bern' and 'Bonn' Conventions. The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982), exists to conserve all species and their habitats, including bats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was instigated to protect migrant species across all European boundaries, which covers certain species of bat.

EU Habitats Directive

All bat species are given strict protection under Annex IV of the EU Habitats Directive, whilst the lesser horseshoe bat (*Rhinolophus hipposideros*) and greater horseshoe bat (*Rhinolophus ferrumequinum*) are given further protection under Annex II of the EU Habitats Directive. Both are listed as a species of community interest that is in need of strict protection and for which E.U. nations must designate Special Areas of Conservation (SACs). The latter is only known from a single site and no

breeding populations have been recorded to date. The former are a species of the western seaboard of Ireland and have not yet been recorded on the east coast.

Eurobats

This is a Europe-wide (and neighbouring jurisdictions including North Africa and the Middle East) agreement that originates from efforts to apply the Bonn Convention to the protection of bats within areas to which they may migrate from their European summer or winter sites. There are 33 parties (including Ireland) that have entered into a UN forum to protect the 52 species of bat (based on current knowledge) of Europe.

Threats to Irish bats:

The principal pressures on Irish bat species have been identified as follows:

- urbanized areas (e.g. light pollution);
- bridge/viaduct repairs;
- pesticides usage;
- removal of hedges, scrub, forestry;
- water pollution;
- other pollution and human impacts (e.g. renovation of dwellings with roosts);
- infillings of ditches, dykes, ponds, pools and marshes;
- management of aquatic and bank vegetation for drainage purposes;
- abandonment of pastoral systems;
- speleology and vandalism;
- communication routes: roads; and
- inappropriate forestry management.

2.3.3 Badgers

Badgers (*Meles meles*) are common and widespread in Ireland, and are found in all lowland habitats where the soil is dry and not subject to flooding (Hayden and Harrington, 2000). Badgers are social animals that live in complex underground tunnel systems called setts. Badger territories may vary in size from about 60-200 ha (Smal, 1995). Badgers and their setts legally are protected under the provisions of the Wildlife Act, 1976, and the Wildlife Amendment Act, 2000. It is an offence to intentionally kill or injure a protected species or to wilfully interfere with or destroy the breeding site or resting place of a protected wild animal.

2.3.4 Invasive Species

The Birds and Habitats Regulations (2011) included legislation on invasive and non-native species in Sections 49 and 50. Since then the EU Regulation on Invasive Alien Species (EU Regulation 1143/2014) also came into force on the 3rd August 2016.

The plant and animal species to which the Birds and Habitats Regulations (2011) apply are presented in Schedule Three. Part 1 details the plants species, while Part 3 outlines those animal or plant vector materials and are presented below.

Third Schedule: Part 1 Plants**Non-native species subject to restrictions under Regulations 49 and 50.**

First column	Second column	Third column
Common name	Scientific name	Geographical application
American skunk-cabbage	<i>Lysichiton americanus</i>	Throughout the State
A red alga	<i>Grateloupia doryphora</i>	Throughout the State
Brazilian giant-rhubarb	<i>Gunnera manicata</i>	Throughout the State
Broad-leaved rush	<i>Juncus planifolius</i>	Throughout the State
Cape pondweed	<i>Aponogeton distachyos</i>	Throughout the State
Cord-grasses	<i>Spartina</i> (all species and hybrids)	Throughout the State
Curly waterweed	<i>Lagarosiphon major</i>	Throughout the State
Dwarf eel-grass	<i>Zostera japonica</i>	Throughout the State
Fanwort	<i>Cabomba caroliniana</i>	Throughout the State
Floating pennywort	<i>Hydrocotyle ranunculoides</i>	Throughout the State
Fringed water-lily	<i>Nymphoides peltata</i>	Throughout the State
Giant hogweed	<i>Heracleum mantegazzianum</i>	Throughout the State
Giant knotweed	<i>Fallopia sachalinensis</i>	Throughout the State
Giant-rhubarb	<i>Gunnera tinctoria</i>	Throughout the State
Giant salvinia	<i>Salvinia molesta</i>	Throughout the State
Himalayan balsam	<i>Impatiens glandulifera</i>	Throughout the State
Himalayan knotweed	<i>Persicaria wallichii</i>	Throughout the State
Hottentot-fig	<i>Carpobrotus edulis</i>	Throughout the State
Japanese knotweed	<i>Fallopia japonica</i>	Throughout the State
Large-flowered waterweed	<i>Egeria densa</i>	Throughout the State
Mile-a-minute weed	<i>Persicaria perfoliata</i>	Throughout the State
New Zealand pigmyweed	<i>Crassula helmsii</i>	Throughout the State
Parrot's feather	<i>Myriophyllum aquaticum</i>	Throughout the State
Rhododendron	<i>Rhododendron ponticum</i>	Throughout the State
Salmonberry	<i>Rubus spectabilis</i>	Throughout the State
Sea-buckthorn	<i>Hippophae rhamnoides</i>	Throughout the State
Spanish bluebell	<i>Hyacinthoides hispanica</i>	Throughout the State
Three-cornered leek	<i>Allium triquetrum</i>	Throughout the State
Wakame	<i>Undaria pinnatifida</i>	Throughout the State
Water chestnut	<i>Trapa natans</i>	Throughout the State
Water fern	<i>Azolla filiculoides</i>	Throughout the State
Water lettuce	<i>Pistia stratiotes</i>	Throughout the State
Water-primrose	<i>Ludwigia</i> (all species)	Throughout the State
Waterweeds	<i>Elodea</i> (all species)	Throughout the State
Wireweed	<i>Sargassum muticum</i>	Throughout the State

EU Regulation 1143/2014 on Invasive Alien Species

On 14 July 2016 the European Commission published Commission Implementing Regulation 2016/1141 which set out an initial list of 37 species to which the EU Invasive Alien Species Regulation 1143/2014 applies. The associated restrictions and obligations came into force on 3rd August 2016.

Plant species listed on the directive include:

- American skunk cabbage *Lysichiton americanus*
- Asiatic tearthumb *Persicaria perfoliata* (*Polygonum perfoliatum*)
- Curly waterweed *Lagarosiphon major*
- Eastern Baccharis *Baccharis halimifolia*
- Floating pennywort *Hydrocotyle ranunculoides*
- Floating primrose willow *Ludwigia peploides*
- Green cabomba *Cabomba caroliniana*

- Kudzu vine *Pueraria lobata*
- Parrot's feather *Myriophyllum aquaticum*
- Persian hogweed *Heracleum persicum*
- Sosnowski's hogweed *Heracleum sosnowskyi*
- Water hyacinth *Eichhornia crassipes*
- Water primrose *Ludwigia grandiflora*
- Whitetop weed *Parthenium hysterophorus*

Animal species listed on the directive include:

- Amur sleeper *Perccottus glenii*
- Asian hornet *Vespa velutina*
- Chinese mitten crab *Eriocheir sinensis*
- Coypu *Myocastor coypus*
- Fox squirrel *Sciurus niger*
- Grey squirrel *Sciurus carolinensis*
- Indian house crow *Corvus splendens*
- Marbled crayfish *Procambarus* spp.
- Muntjac deer *Muntiacus reevesii*
- North american bullfrog *Lithobates (Rana) catesbeianus*
- Pallas's squirrel *Callosciurus erythraeus*
- Raccoon *Procyon lotor*
- Red swamp crayfish *Procambarus clarkii*
- Red-eared terrapin/slider *Trachemys scripta elegans*
- Ruddy duck *Oxyura jamaicensis*
- Sacred ibis *Threskiornis aethiopicus*
- Siberian chipmunk *Tamias sibiricus*
- Signal crayfish *Pacifastacus leniusculus*
- Small Asian mongoose *Herpestes javanicus*
- South American coati *Nasua nasua*
- Spiny-cheek crayfish *Orconectes limosus*
- Topmouth gudgeon *Pseudorasbora parva*
- Virile crayfish *Orconectes virilis*

On 13 July 2017 the European Commission published Commission Implementing Regulation 2017/1263 which added a further 12 species to the current list of 37 species regulated under the EU Invasive Alien Species Regulation (1143/2014). These are:

Plant species

- Alligator weed (*Alternanthera philoxeroides*)
- Milkweed (*Asclepias syriaca*)
- Nuttall's waterweed (*Elodea nuttallii*)
- Chilean rhubarb (*Gunnera tinctoria*)
- Giant hogweed (*Heracleum mantegazzianum*)
- Himalayan balsam (*Impatiens glandulifera*)
- Japanese stiltgrass (*Microstegium vimineum*)
- Broadleaf watermilfoil (*Myriophyllum heterophyllum*)
- Crimson fountaingrass (*Pennisetum setaceum*)

Animal species

- Egyptian goose (*Alopochen aegyptiacus*)

- Raccoon dog (*Nyctereutes procyonoides*)
- Muskrat (*Ondatra zibethicus*)

Other Invasive Species

Other invasive species/noxious weeds listed in the TII '*Guidelines on The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads*' were also searched for.

3. RESULTS - DESKTOP RESEARCH

3.1 Underlying Geology & Soils

Kilmuckridge Village is underlain by grey-green greywackes & slates (known as the Newtown Formation) as can be seen on **Figure 3** below.

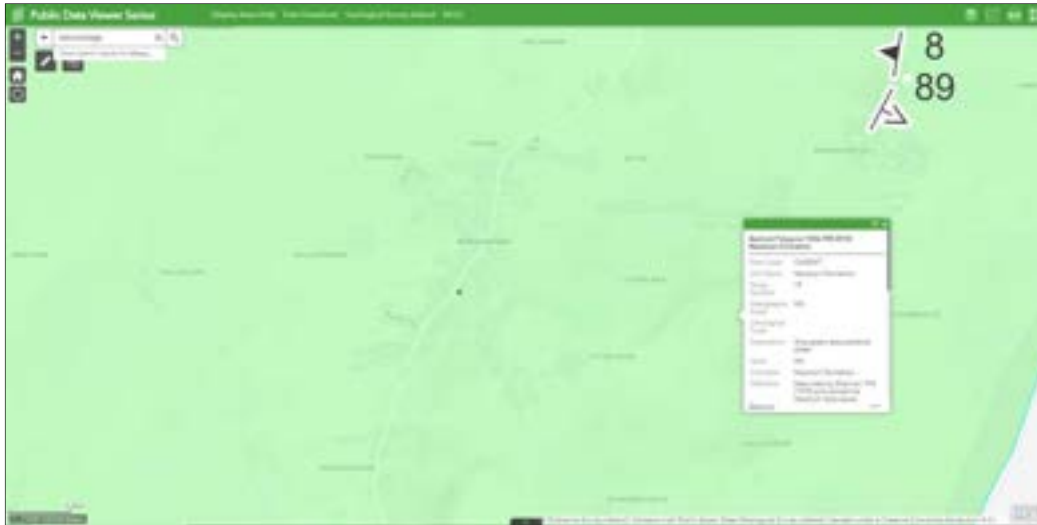


Figure 3. Geology of Kilmuckridge Village (Source: Geological Survey of Ireland/EPA).

There are three different soil types around the village. The soils to the north of the village are described as fine loamy over clayey calcareous Irish sea till, (described as the Macamore Formation) as shown on **Figure 4**. This soil type is also found to the south west and south east of the village.

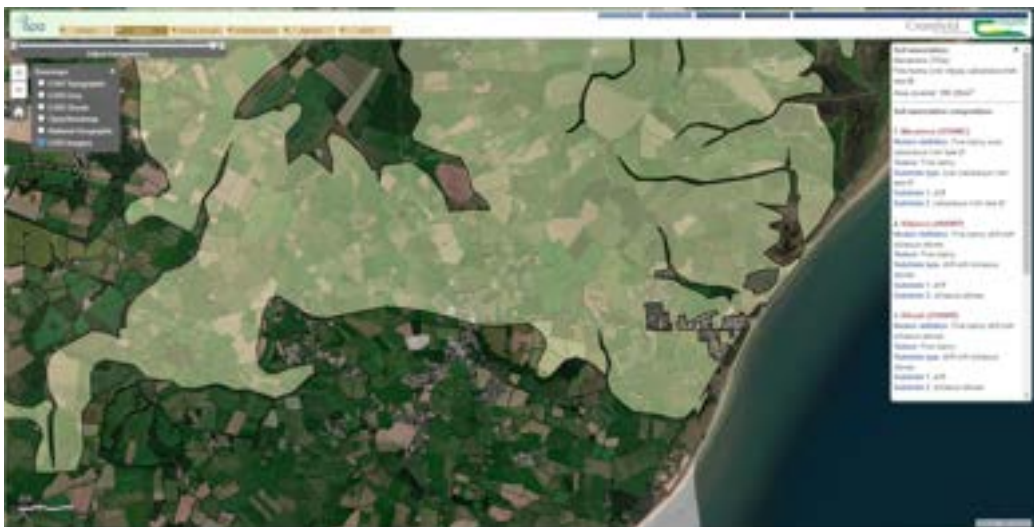


Figure 4. Soils north Kilmuckridge Village (Source: EPA / Teagasc).

Soils to the south of the village are a sandy stoneless drift (described as the Seafield Formation) - see **Figure 5**.

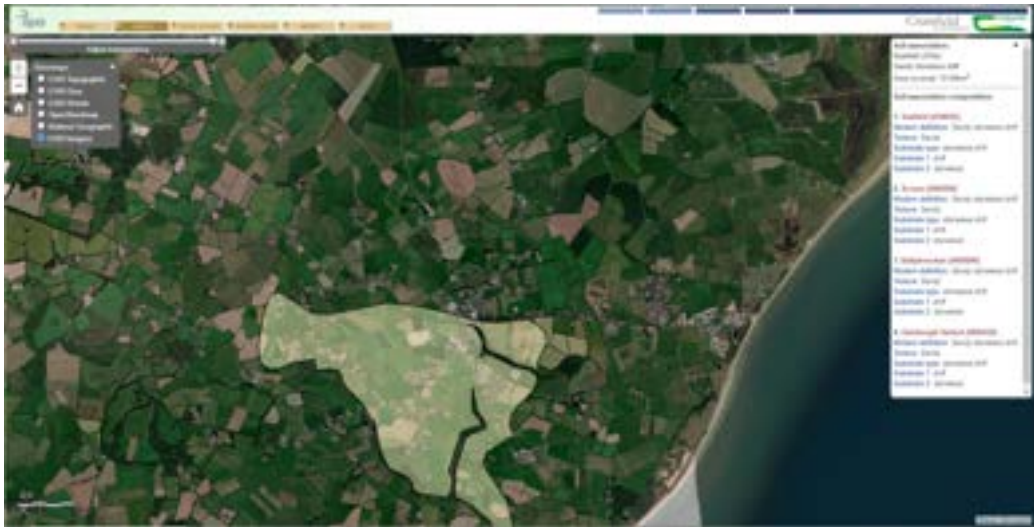


Figure 5. Soils south of Kilmuckridge Village (Source: EPA/ Teagasc).

Along the watercourse the soils are alluvial in nature forming a silty alluvium (see Figure 6).

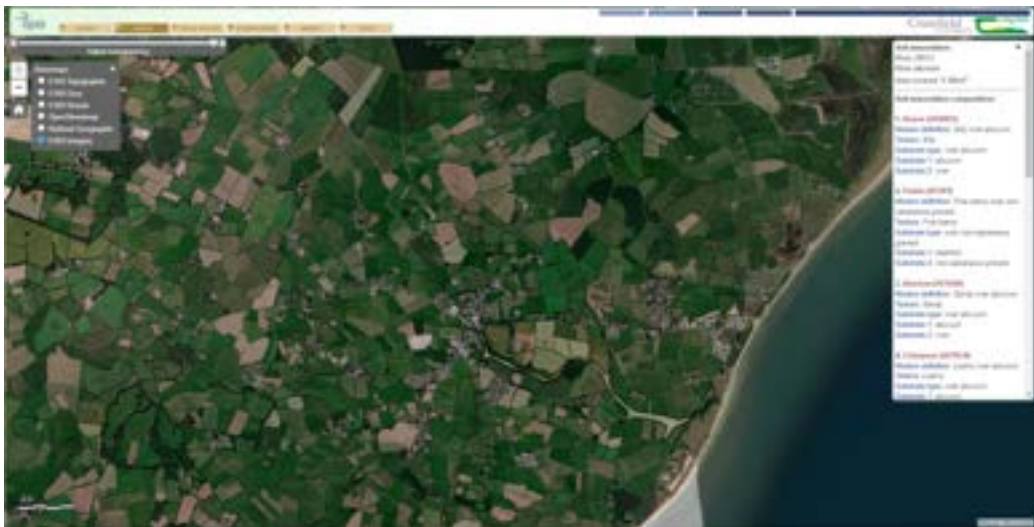


Figure 6. Soils along the watercourse within Kilmuckridge Village (Source: EPA/ Teagasc).

3.2 Nature Conservation Designations

The lands around Kilmuckridge Village are not designated for nature conservation purposes.

There are several designated sites nearby, all of which are at the coast. The closest of these are Kilmuckridge-Tinnaberna Sandhills SAC (Site Code: 001741) and Ballyteige Marsh pNHA (Site Code 001930). North of this is Cahore Polders and Dunes SAC (Site Code 000700), which is also designated as a proposed NHA (Cahore Polders and Dunes pNHA (Site Code 000700)).

Coastal habitats of conservation importance here are principally the sand dune system which can be divided up into the different stages of dune development. These are known as:

- Drift line vegetation
- Embryonic dunes
- Marram/white dunes
- Fixed /grey dunes)
- Dune slacks

Various water birds utilise the Cahore Marshes, hence their designation as an SPA (the Cahore Marshes SPA (Site Code 004143)), including:

- Wigeon (*Anas penelope*)
- Golden Plover (*Pluvialis apricaria*)
- Lapwing (*Vanellus vanellus*)
- Greenland White-fronted Goose (*Anser albifrons flavirostris*)
- Various other waterbirds

Offshore the Blackwater Bank is protected as the Blackwater Bank SAC (Site Code: Code 002953) for the various marine creatures that live in the sandbank.

The locations of these protected areas are shown on **Figure 7** below and the site synopsis for each are presented in **Appendix 2**.

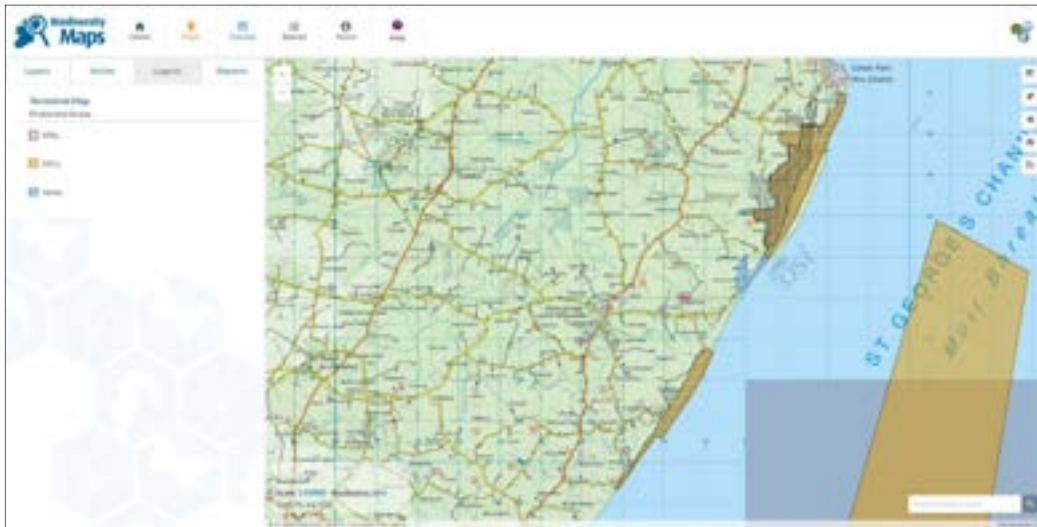


Figure 7. Areas legally designated for nature conservation within the environs of Kilmuckridge Village.

3.3 Kilmuckridge Village - Historic Maps

A review of historic mapping for Kilmuckridge Village was completed. The first edition Ordnance Survey Ireland (OSI) 6" series maps are shown on **Figures 8 and 9**. They show the extent of the village at that time (limited to clusters of buildings around the Ford Bridge and the Old Post office and the demesnes of Upton House and Litterbeg House). There was little in the way of woodland cover along the Kilmuckridge River and the main areas of trees within the landscape were near the two houses and along the two roads leaving the village towards Morriscastle and the R742 heading north east.



Figure 8. Kilmuckridge Village in the mid-1800s (Source: OSI First Edition 6" Map Series).



Figure 9. Kilmuckridge Village in the mid-1800s (Source: OSI First Edition 6" Map Colour Series).

By the time the 25" OSI maps were produced (**Figure 10**) and on the last 6" OSI edition mapping in the early 1900s, very few changes can be seen in the village

(Figure 11); apart from the increasing extent of woodland along the Kilmuckridge River.



Figure 10. The OSI 25" Map Series (Source: Ordnance Survey Ireland).



Figure 11. The OSI Last Edition 6" Map Series (Source: Ordnance Survey Ireland).

Housing in particular has really increased since that time and the new housing developments at Tinteskin, Silverdale, Chestnut Walk, Seaview Court, Beechbrook, Greenwood Avenue, Chapel Wood and Ford Haven can be seen along with commercial premises such as Upton Court Hotel, Tirlan, Hammels, etc. and the village waste water treatment plant as shown on Figures 12 and 13.

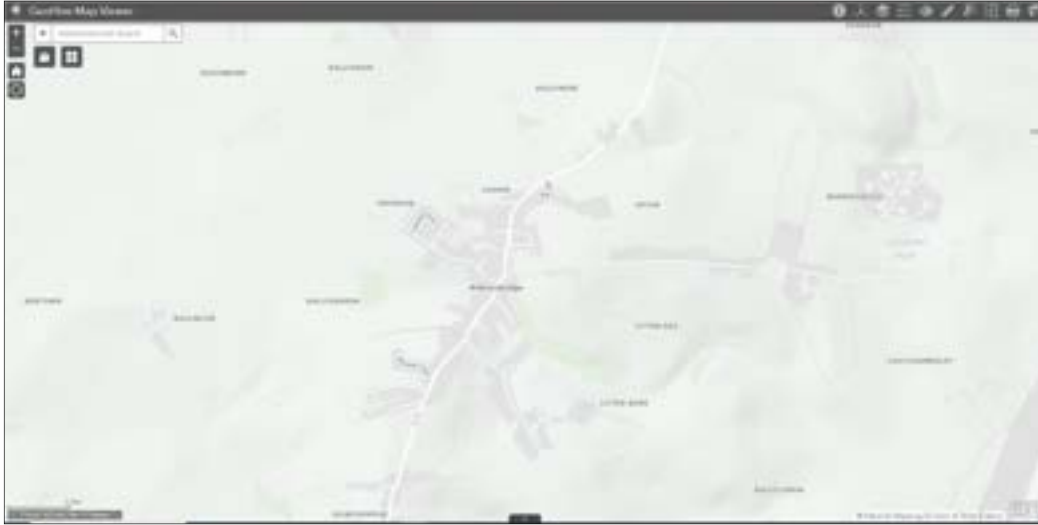


Figure 12. Current mapping of the village showing the extent of housing (Source: Ordnance Survey Ireland).



Figure 13. Kilmuckridge Village today (Source: Google Maps).

3.4 Biodiversity Records

A review of biodiversity records held by the National Biodiversity Data Centre from within the study area was completed. For the purposes of biological recording the country is divided up into 10km squares. Kilmuckridge Village lies within 10km square T14 as shown on **Figure 14** below.



Figure 14. 10km grid squares including square T14 in which Kilmuckridge Village is located.

Approximately 1042 species are recorded from within this square (T14) including records of:

- Amphibians
- Fish
- Worms
- Birds
- Crustaceans
- Insects - beetles
- Insects - butterflies
- Insects - bees and wasps
- Insects - caddis fly, may fly, stone fly and true flies
- Insects - moths
- Insects - springtails
- Molluscs
- Mammals (including cetaceans offshore)
- Fungi
- Flowering plants
- Conifers
- Ferns
- Mosses, liverworts and lichens

At a finer scale (within a 2km square, which is known as a tetrad) there are fewer records held by the National Biodiversity Data Centre. Kilmuckridge Village is mostly located within the tetrad T14Q as shown on **Figure 15** below. This tetrad currently has approximately 133 species recorded. Species recorded from within tetrad T14Q are presented in **Appendix 5**.



Figure 15. Kilmuckridge Village is located within the tetrad T14Q.

A search within the study area of the village as shown on Figure 16 below, found records of only five species held by the National Biodiversity Data Centre. These are:

- Great Spotted Woodpecker (*Dendrocopos major*)
- Mexican Fleabane (*Erigeron karvinskianus*)
- Brimstone (*Gonepteryx rhamni*)
- Small Tortoiseshell (*Aglais urticae*)
- Common Carder Bee (*Bombus (Thoracombus) pascuorum*)

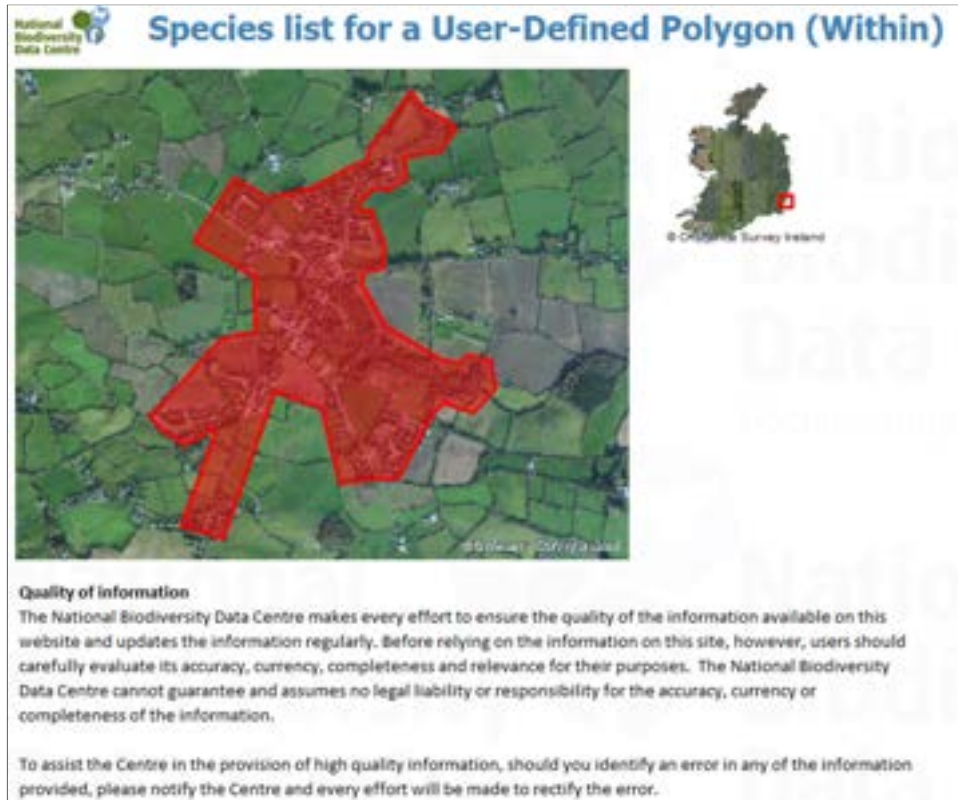


Figure 16. The study area in Kilmuckridge Village.

3.5 Ancient and Long Established Woodland Survey

Litter Beg Wood has been mapped by National Parks and Wildlife Service as part of the Ancient and Long Established Woodland dataset as shown on **Figure 17** below.

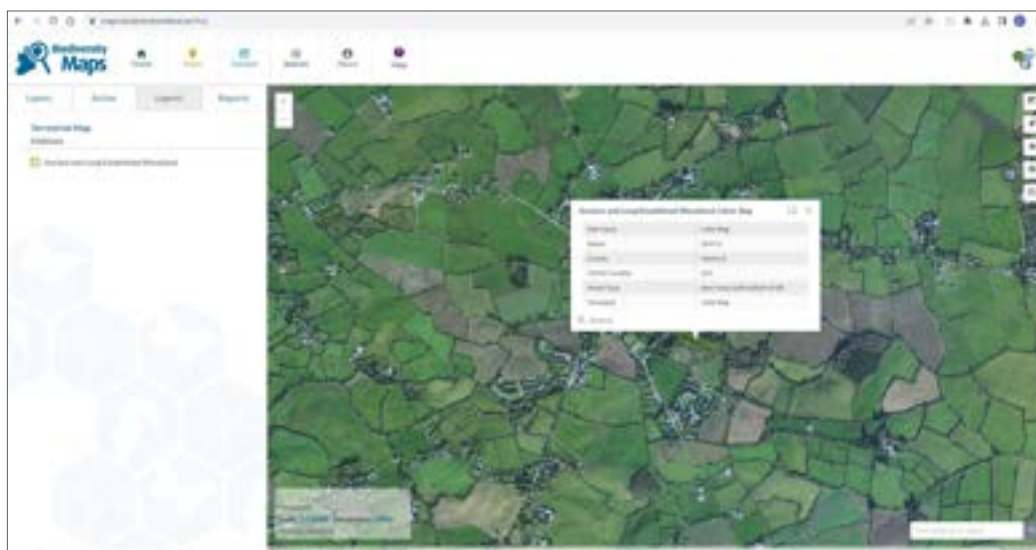


Figure 17. Litter Beg Wood has been mapped by National Parks and Wildlife Service as ancient and long-established woodland (Source: NBDC).

3.6 National Native Woodland Survey

Litter Beg Wood was surveyed as part of the National Native Woodland Survey⁹ in 2003 (See **Figure 18**), where it is listed as Site Number 0192 (see **Figure 19**).

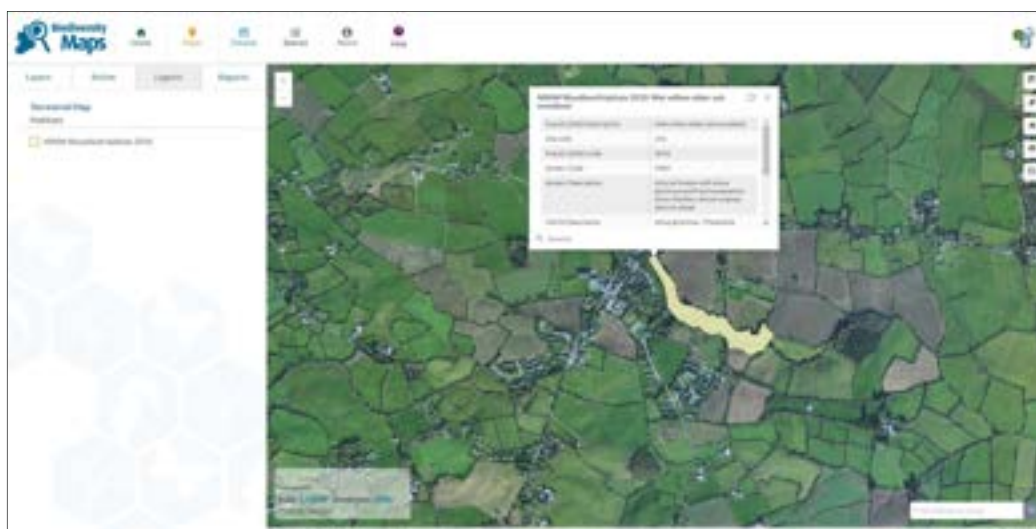


Figure 18. National native woodland survey (Site Number 0192), conducted in 2010 (source: NBDC).

⁹ Perrin, P., Martin, J., Barron, S., O'Neill, F., McNutt, K. and A. Delaney (2008). *National Survey of Native Woodlands 2003-2008*. Botanical, Environmental & Conservation Consultants Ltd. 2008. A report submitted to the National Parks & Wildlife Service.

Site no.	0192		FIPS no.	66116, 53598	
Date surveyed	22/09/2003				
Woodland name	Litterbeg		Townland name	Litterbeg	
Conservation rating and score	Moderate	42	Threat rating and score	Low	17
Disco. map	69	Grid ref.	T168413	6 inch sheet	WX 22
County	Wexford				
NPWS region	South Eastern	NHA code	-	SAC code	-
SPA Code	-				
National Park	<input type="checkbox"/>	Nature Reserve	<input type="checkbox"/>	Woodland present in the 1840s	Yes
Ownership	Private - Single	Area (ha)	5.2	Max. alt. (m)	45
Min. alt. (m)	40				
Sub-soil	lrSTLs/A		Soil	BminPD/AlluvMIN	

Geography	Woodland habitats	Grazing	Hydrological features
Esker <input type="checkbox"/>	WN1 <input type="checkbox"/> 0%	Deer <input type="checkbox"/>	Seasonal flooding <input checked="" type="checkbox"/>
Drumlin <input type="checkbox"/>	WN2 <input type="checkbox"/> 0%	Cattle <input type="checkbox"/>	Springs <input type="checkbox"/>
Valley <input checked="" type="checkbox"/>	WN3 <input type="checkbox"/> 0%	Sheep <input type="checkbox"/>	Lakes <input type="checkbox"/>
Lakeside <input type="checkbox"/>	WN4 <input type="checkbox"/> 0%	Rabbits <input type="checkbox"/>	Rivers/streams <input checked="" type="checkbox"/>
Bogland <input type="checkbox"/>	WN5 <input type="checkbox"/> 100%	Hares <input type="checkbox"/>	Damp dets/travines <input type="checkbox"/>
Hill <input type="checkbox"/>	WN6 <input type="checkbox"/> 0%	Goats <input type="checkbox"/>	Other <input type="text"/>
Plain/Lowlands <input type="checkbox"/>	WN7 <input type="checkbox"/> 0%	Horses <input type="checkbox"/>	
Island <input type="checkbox"/>	WS1 <input type="checkbox"/> 0%	Other <input type="text"/>	
Riverside/Floodplain <input type="checkbox"/>	WD1 <input type="checkbox"/> 0%	Grazing level	0
Coastal/Estuary <input type="checkbox"/>	WD2 <input type="checkbox"/> 0%		
	Other habitats <input type="text"/>		

Field notes External data source: not all data recorded

This is a small wood located along a river, east of Kilmuckridge, Co. Wexford. It is a remarkably uniform alder (*Alnus glutinosa*) and ash (*Fraxinus excelsior*) dominated riparian wood. White willow (*Salix alba*) also occurs in the canopy. Ash (*Fraxinus excelsior*) occurs in the shrub layer. *Angelica sylvestris*, *Chrysosplenium oppositifolium*, *Filipendula ulmaria* and *Carex remota* occur in the field layer. This site is on poorly drained gley soil. There is some beech (*Fagus sylvatica*) on the drier slopes to the north.

Figure 19. Litter Beg Wood (Site Code: 0192).

3.7 Flora of Co. Wexford

Ballinoulart Beach and Morriscastle Beach are both listed as sites of interest in the Flora of County Wexford, which was published by local botanist Paul Green in 2022. He has botanised at both these sites and his records are detailed in the atlas and have been submitted to the National Biodiversity Data Centre – see **Appendix 3**.

3.8 Litter More River/Kilmuckridge River

The Kilmuckridge River flows through Kilmuckridge Village as shown on **Figure 20** below. This watercourse is named by the EPA as the Litter More River (IE_SE_11L010400). The Litter More River is located within the Owenavorrhagh Catchment (011) and within the Cahore Sub catchment (Cahore_SC_010). The Litter More River rises west of the village in the townland of Ballygarran, and passes down through the village before continuing east to the coast to enter the sea at Morriscastle Beach.

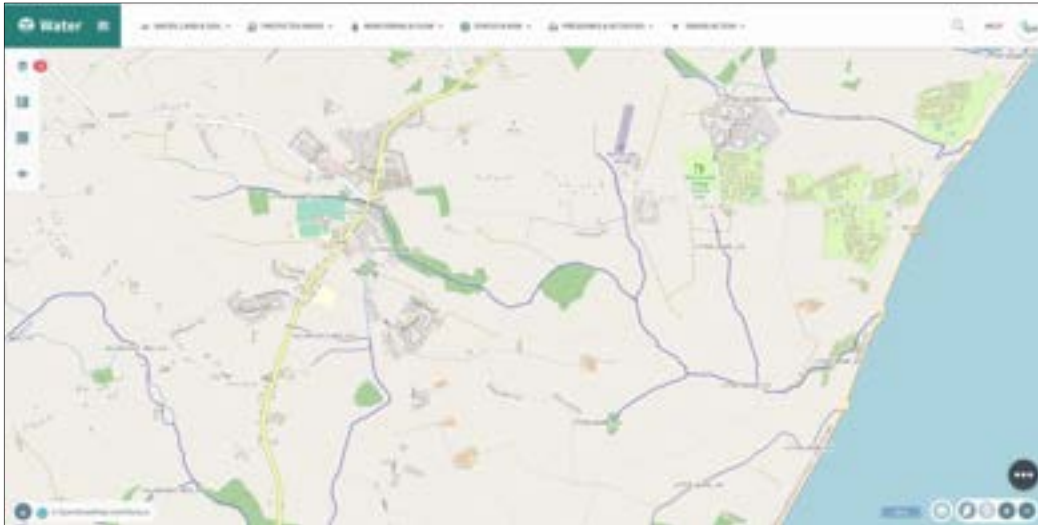


Figure 20. The Litter More River in Kilmuckridge (Source: www.catchments.ie).

3.9 Water Quality in the Litter More River/Kilmuckridge River

The Litter More River is approximately 16km long. Water quality in the Litter More River is monitored as part of Ireland's reporting obligations under the Water Framework Directive. Samples are taken at a number of standard sampling locations within the environs of the village. These include a station within the village (RS11L010220) and two sites downstream of the waste water treatment plant (RS11L010310 and RS11L010400) as shown on **Figure 21** below.

Water quality in the Litter More River was not during the 2010 - 2015 or the 2013 - monitoring period, and was 'Moderate' during the latest 2016 - 2021 monitoring period as shown on **Figures 22** and **23** below.

The Litter More River is currently classified as a waterbody 'Under Review' "in terms of its risk of failing to meet the Water Framework Directive (WFD) objective of at least "good" ecological status by 2027 (see **Figure 24** below).

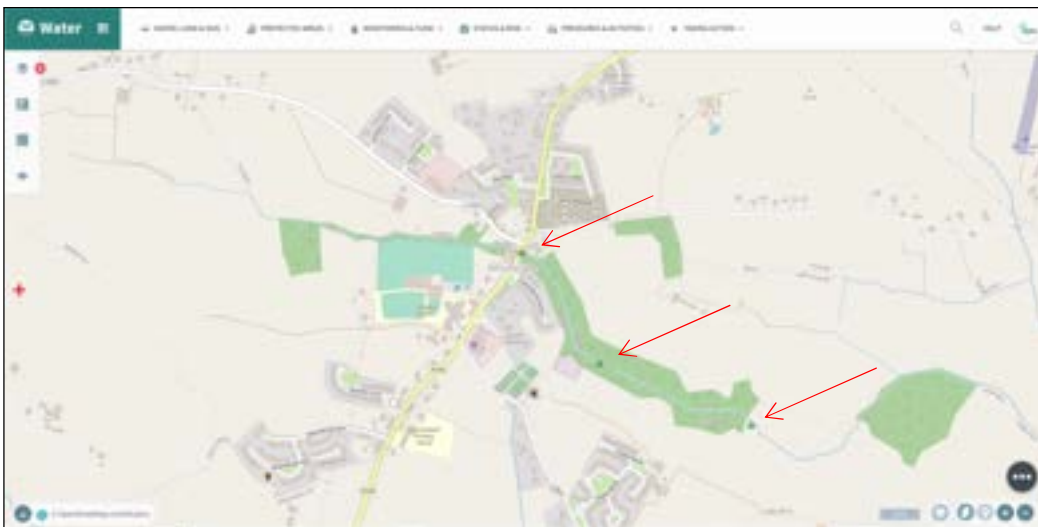


Figure 21. Water sampling locations on the Litter More River in the environs of the village.

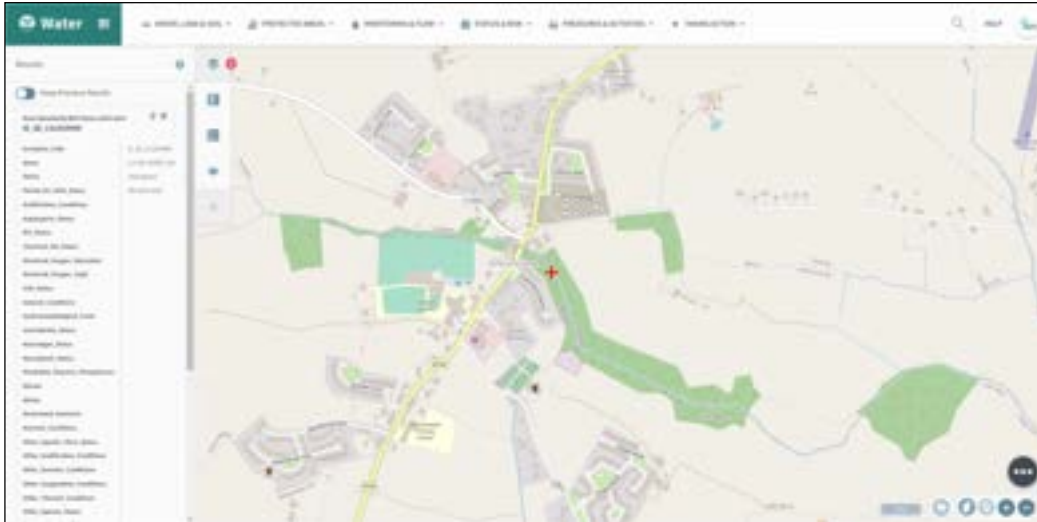


Figure 22. The Litter More River was not assessed during either the 2010 - 2015 or 2013 - 2018 monitoring period (Source: www.catchments.ie).

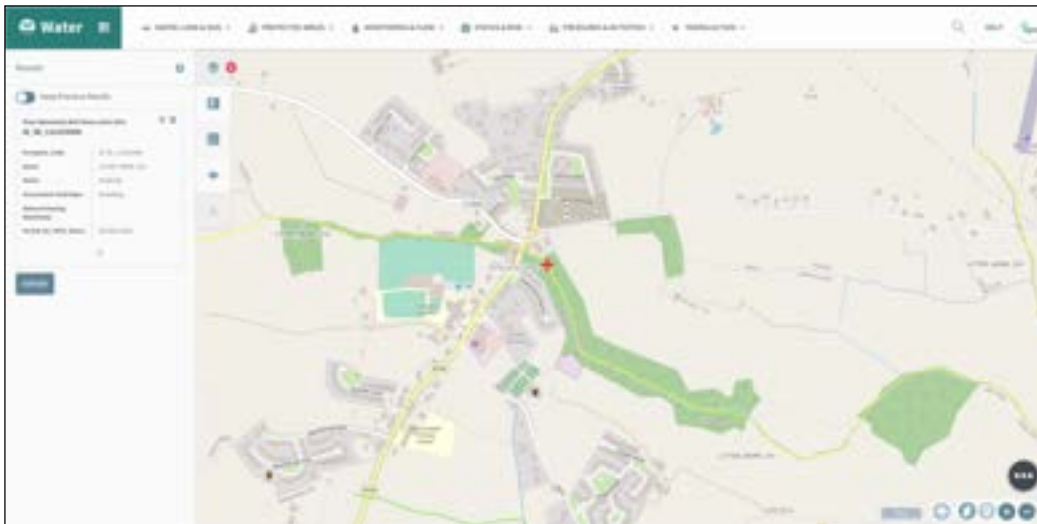


Figure 23. The Litter More River was assessed as 'Moderate' status during the 2016 - 2021 monitoring period (Source: www.catchments.ie).

Coastal waters at Morriscastle Beach are a designated bathing area and the coastal waters here are monitored under the Water Framework Directive and are currently in 'Good' status as shown on **Figure 25**.

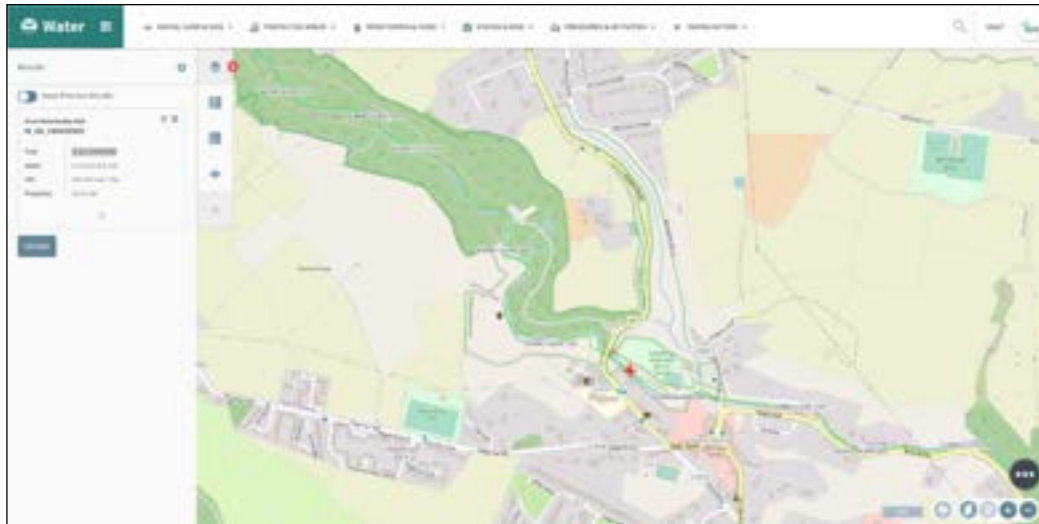


Figure 24. The status of the Litter More River remains as a waterbody 'Under Review' during the 3rd cycle of the Water Framework Directive (Source: www.catchments.ie).

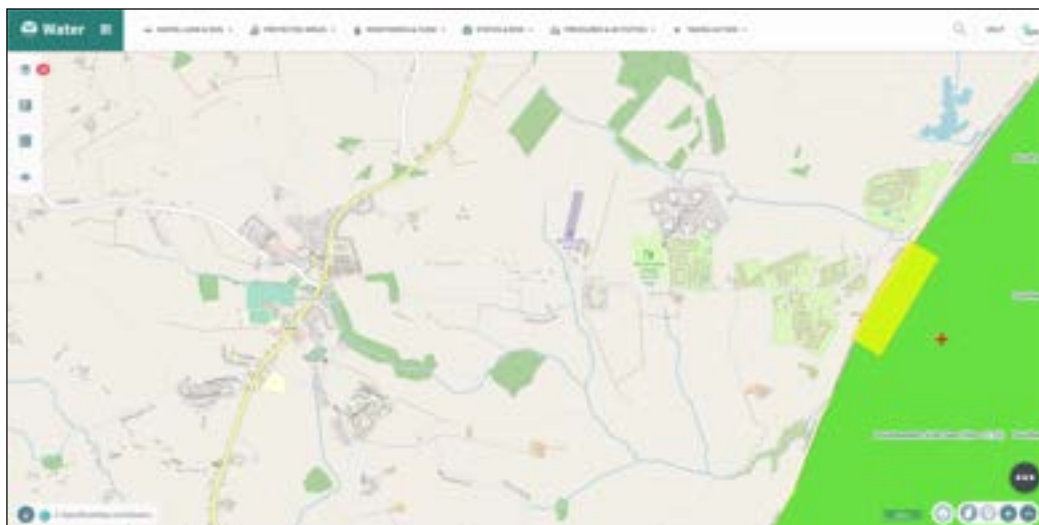


Figure 25. Waters at Morriscastle Beach are a designated bathing area and the coastal waters here are monitored under the Water Framework Directive and are currently in 'Good' status (Source: www.catchments.ie).

3.10 Litter More River/Kilmuckridge River - Fisheries

There does not seem to be any formal surveys of the fisheries habitat in the Litter More River. Recent studies completed by Professor Ken Whelan of small coastal streams and rivers on the coastline of County Wexford have shown how important these small watercourses are for salmonid fish particularly small local populations of sea trout. Morriscastle Beach, is a famous shore angling destination and hosted 'The World Angling Championships'.

"At one time Morriscastle Beach was Co. Wexford's premier shore venue. Up to the early nineties large Bass, Smooth Hound, Ray, Tope, Spur Dog, and various flat fish, were commonly caught. Today Bass are still present, along with Dab, Flounder, Dog Fish, and the odd Smooth Hound".

4. SURVEY RESULTS

Kilmuckridge Village and environs was visited on several occasions during 2023. Faith met with members of the Kilmuckridge Tidy Towns group and chatted to local residents and families from the wider community during the surveys.

A series of biodiversity observations and records were made during the survey as outlined below. The opportunities for biodiversity action in the village are mostly limited to community spaces and public areas as the majority of lands are in private ownership.

However if everyone took one or two biodiversity actions in their back garden or communal space where they live, work, are educated or play those actions would really add up.

Some of these ideas for biodiversity actions are explored below and in **Section 5**.

4.1 Community Thoughts on Biodiversity Areas

As part of the biodiversity action plan for the village a questionnaire was circulated and respondents were invited to answer two key questions. These were:

1. In and nearby Kilmuckridge where do you think are the most special unspoilt places for nature and wildlife?
2. In and nearby Kilmuckridge do you think there are places which could be improved for nature and wildlife? If so please list below.

The responses from the community are presented below.

1. In and nearby Kilmuckridge where do you think are the most special unspoilt places for nature and wildlife? (22 responses)

- The beach dunes
- Native woods
- My garden
- Beach dunes. Mary Boggan's woods
- Ballinlow lane
- Greenwood Avenue
- The dunes at Morriscastle
- Grove before the hotel and grove along the river
- Morriscastle swamp area ; Wells wood
- All hedgerows
- Boglands in Newtown
- Near Hattens bridge
- Swamp lands
- The Bog
- Down by the river behind Maisie's and the trees adjacent to this (opposite Hammel's pub) An area at the roadside which runs along side the car park at the Upton court hotel. Paddy's Lay By (long hedge and pollinator planting.)
- The Rose Garden area near Centra. Peg's Garden
- Cahore Marshes
- Mary Boggan's Land, Wells House/Wells Woods

- The area behind Greenwood Avenue down to the river
- Meadows, wildflower sections of grass. Private owned planted forestry
- Down by the river from the village
- The sand dunes
- The dunes

2. In and nearby Kilmuckridge do you think there are places which could be improved for nature and wildlife? If so please list below. (18 responses)

- Waste ground behind Greenwood Ave
- Yes, churchyards
- Memorial garden, grotto, grass banks on LHS leading to Chapel Wood, grass area where butterfly is, edge of new housing development, bank next to St Mary's church, grass areas throughout village
- The River
- Greenwood Avenue
- Planting native shrubs and trees wherever possible
- Area by the River in the village
- Rose garden
- Beach
- Slob in Newtown Ballinoulart
- Opposite Hammel's pub
- Farm lands
- The area I outlined above needs to be looked at with a view to being improved.
- People need to know what biodiversity is as a lot have no idea what it is
- Education is the key.
- The river area in the centre of the village
- We can always improve
- The ugly tree lined area along footpath centre village beside the bridge
- The village

4.2 Habitats

A variety of habitats were recorded within Kilmuckridge Village. These include:

- FW2 Lowland depositing watercourse
- WD1 Mixed broadleaved woodland
- WN6 Wet willow alder ash woodland
- BL3 Buildings and other artificial surfaces
- BL1 Stone walls and other stonework
- GA2 Amenity grassland
- GS2 Dry meadows and grassy verges
- WS1 Scrub
- BL2 Earthen banks
- ED2 Spoil and bare ground
- WL1 Hedgerows
- WL2 Treelines



Plate 2. If you are planting a hedge if you use native species you will support more biodiversity than non-native ornamental species. Blackthorn in flower in the spring.



Plate 3. Old stone walls such as this provide habitats for many invertebrates and nesting birds as well as wall flora such as these Rustyback and Black spleenwort ferns.



Plate 4. Could you create a mini woodland in the village with native species such as our beautiful violets below the trees?



Plate 5. Gravelled areas can be a great place to establish native species such as Ox eye daisy or other wildflowers that need low nutrient levels. Please do not sow

'wildflower' mixes in the countryside. They may contain invasive species or plants that are not native to or appropriate to Ireland. Why not collect seed yourself from local populations?



Plate 6. Hedge mustard (*Alliaria petiolata*) - the food plant of the Green veined white and Orange tip butterflies. Did you think it was a weed?



Plate 7. Bramble and dog rose give bird's safe places to roost and forage in.



Plate 8. Oak - one of our most important native species.



Plate 9. Could you consider planting native primroses instead of non-native daffodils for spring planting?



Plate 10. Ivy - a really important food plant for wildlife - used by Holly blue butterflies as their food plant and many birds and small mammals eat the berries.



Plate 11. Elder – rich in flowers and berries in our hedgerows.

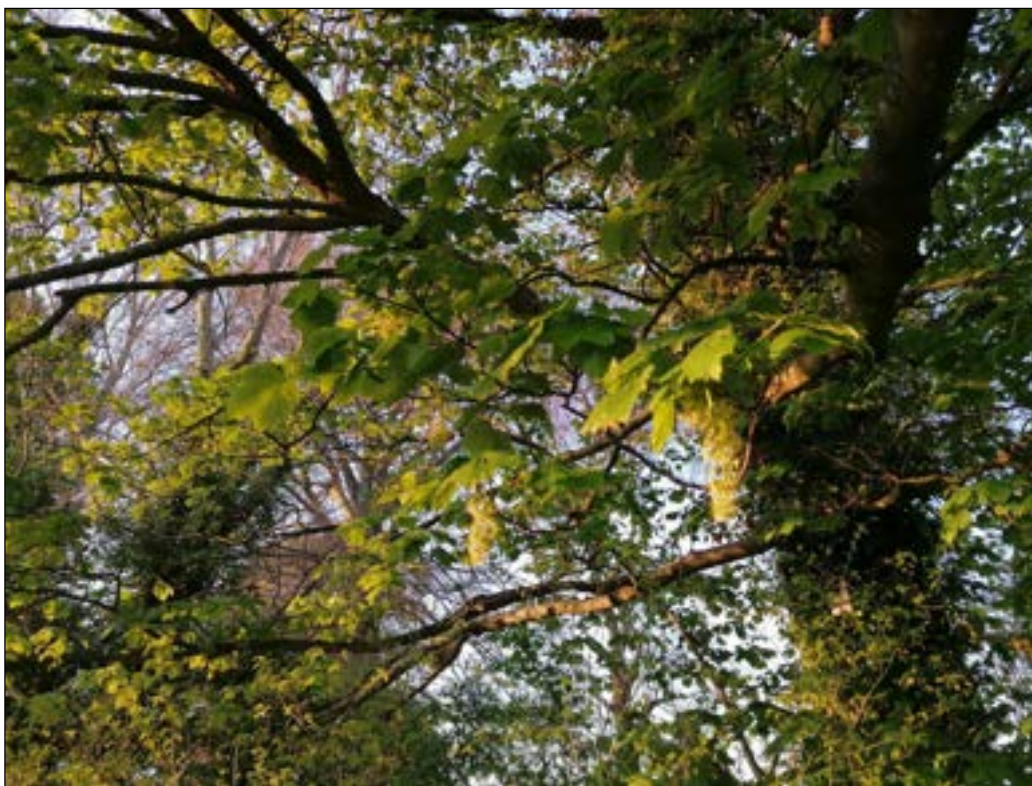


Plate 12. Although Sycamore is not native to Ireland it supports many insects.



Plate 13. Peacock caterpillars on Nettle. Could you leave a few clumps for them in a sunny spot?



Plate 14. Resist the temptation to mow the dandelions and leave them for the emerging bumblebees in spring. Who knows what else might flower...



Plate 15. The lichens on old stonework, walls and trees are a symbiotic relationship between a fungus and an algae. Some are indicators of good air quality. Please don't go cleaning them off.



Plate 16. Bugle (*Ajuga reptans*), an understorey woodland flower.



Plate 17. Fallen wood provides habitat for fungi.



Plate 18. Treelines such as the one on the left hand side of the road act as biodiversity corridors in the landscape. Could a hedgerow or treeline be established behind the wall on the right hand side of the road with the landowner's permission or as part of a farm plan?



Plate 19. Wet willow alder ash woodland – a rare habitat in Wexford.



Plate 20. Species rich roadside verges (Dry meadow and grassy verge vegetation (GS2)). Please do not cut until late autumn unless required for roadside safety.



Plate 21. Thistles an important food plant for many butterflies. Can we find a space for some?



Plate 22. Areas of developing Scrub (WS1) and Dry meadow and grassy verge vegetation (GS2) adjoining wet woodland (WN6) at Greenwood Avenue.



Plate 23. Dry meadow and grassy verge vegetation (GS2) rich in Knapweed (*Centaurea nigra*) at Greenwood Avenue.



Plate 24. A great example of a short cut meadow at the graveyard – rich in clover and selfheal. Removing the cuttings is key to promoting wildflowers.



Plate 25. Dandelions are one of the most important early nectar resources for bumblebees emerging from hibernation – could we leave some for them?



Plate 26. Could a native hedgerow be established inside this wall around the graveyard?



Plate 27. An important area of long grass offering butterflies such as the meadow brown and species such as grasshoppers breeding habitat.



Plate 28. Invasive species such as Winter heliotrope are difficult to control - please make sure you don't spread them.



Plate 29. Unfortunately this hedgerow has been planted with Cherry Laurel which is an invasive species and is toxic to most invertebrates as the leaves contain cyanide. It has no biodiversity value.



Plate 30. A valuable mosaic of scrub and grassland habitats has developed on the lands at the back of Chapel Wood.



Plate 31. Even a small area can be managed for biodiversity.



Plate 32. Bird's foot trefoil – the food plant of Common blue butterfly.



Plate 33. The long meadow on the bank at Dashers Hill. A really important area for biodiversity to be managed as a long flowering meadow.



Plate 34. Japanese knotweed - near Dashers Hill. Great care must be taken to ensure this invasive species is not spread - starting with signage!



Plate 35. Canadian fleabane (*Conyza canadensis*) - an invasive species on the verge near Dashers Hill.



Plate 36. Japanese knotweed - in the heart of the village. Great care must be taken to ensure this species is not spread - starting with signage!



Plate 37. Ants nest on the bank at Dashers Hill. These are no longer present in most agricultural fields now on account of intensive agriculture.



Plate 38. Rocks and gravel in sunny locations can provide butterflies with basking areas.

4.2 Birds

One of the more interesting bird species to be recorded from the village was the Great spotted woodpecker (*Dendrocopos major*). This recent arrival to Ireland has been expanding rapidly from the east coast where it was first recorded in approximately 2005. Keeping standing dead wood is very important for this species which breed and forage in snags.



Plate 39. Woodpecker nesting hole in a standing dead tree trunk.



Plate 40. Flocks of starlings foraging on short mown amenity grassland (GA2).



Plate 41. A traditional thatched roof - often used by nesting Starlings or House Sparrows.



Plate 42. What a pleasure it was to find a wonderful house martin colony under the eaves at Upton Court Hotel. They have come from Africa to breed in Kilmuckridge.



Plate 43. Could you leave this important bramble tangle for nesting birds, small mammals and invertebrates?



Plate 44. Creative bug hotels at the Men's Shed.

4.3 Bats

The Bat Conservation Ireland Database has very few records of bats from the 10km square in which is located. These are:

- Brown Long-eared Bat (*Plecotus auritus*)
- Daubenton's Bat (*Myotis daubentonii*)

There are no records of bats from the environs of Kilmuckridge Village.

Most villages and even some towns have recorded:

- Common pipistrelle bat (*Pipistrellus pipistrellus*)
- Soprano pipistrelle (*Pipistrellus pygmaeus*), and
- Leisler's bat (*Nyctalus leisleri*).

A bat survey of the village – run as a public walk and talk during the active bat season would be a god way to see what species are present. This coupled with a report your bats action could help to protect bats in Kilmuckridge.

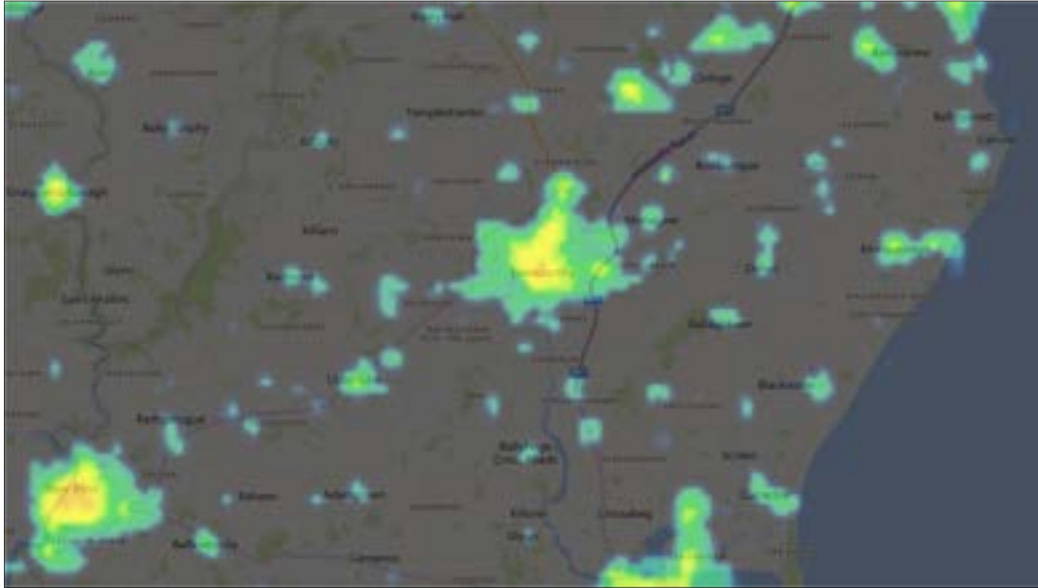


Plate 45. Lighting should be kept to a minimum so we can all enjoy the night sky and not disturb nature.



Plate 46. Timber cladding such as that found on the 'Men's Shed' can provide ideal roosting spaces for bats.

4.4

Other mammals

Woodlands such as those along the Litter More River and other pockets of scrub offer places for badgers to build their setts and raid their young. They leave tell-tale signs of their activity such as badger diggings, snuffle holes and latrines.



Plate 47. Badgers mark their territories with a latrine.



Plate 48. Cattle grids often become watery graves for hedgehogs and other small mammals. Putting a plank in allows animals to have some hope of climbing back out.

5. BIODIVERSITY ACTIONS

Forty actions and ideas for how to respond to the biodiversity crisis in Kilmuckridge Village are set out below. Which can you do?

5.1 Meadow management

This action can be undertaken by anyone with a small area of grass, a local housing estate or a larger piece of land and will provide habitat for a wide variety of invertebrates including many pollinators.

Guidance is available from the All Ireland Pollinator Plan on how to manage both long flowering and short flowering meadows. Short flowering meadows shouldn't be cut until after the 15th April allowing dandelions to flower (an important resource for pollinators to forage on in spring) and then cut every six weeks – see **Figure 26** below.



Figure 26. Managing a short flowering meadow.

Long flowering meadows can be left till the autumn, the seeds allowed to fall and all the cuttings then removed to reduce fertility over time. A suitable location for this is the roadside bank on Dashers Hill.

The transfer of 'green hay' from a donor site such as the roadside bank on Dashers Hill is a very appropriate way of developing a meadow and ensures that suitable native plant species develop. This technique could be done to establish a meadow at Father Frank's bank. Please don't use 'meadow' mixes – they generally don't contain native species.

5.2 Create a Wildlife Pond

A garden wildlife pond could also be something that people might be interested in doing in their back garden or elsewhere in the village such as in the school grounds. A pond is a great way to attract wildlife. Something as small as 1-2m² could provide frogs with somewhere to breed.

The pond should be designed to provide habitat for breeding frogs in that they need to have a minimum depth of 60cm of water present all year round following the advice provided by the amphibian conservation charity Froglife as set out below:

When thinking about a wildlife pond, the primary concern should be the source of clean water. This can be achieved by locating the pond in woodland, rough grassland with low nutrient input or, if this is not possible, by surrounding the pond with a grassy buffer zone at least six metres wide. For amphibians, it seems that a pond's proximity (approx. 100m) to a copse or woodland is especially beneficial for hibernation purposes. Alternatively, large (at least 1.5m high) hibernacula made of wood or bricks, covered with some rainproof material and soil, can be provided. The pond should be located at the lowest point of the chosen area, where any surface water collects. Usually, if a site is occasionally flooded, it is a good indication that a pond will hold water there without an artificial liner.

Suitable species for planting in a pond include:

- Marginals - Yellow flag iris (*Iris pseudacorus*), Marsh marigold (*Caltha palustris*), Water plantain (*Alisma plantago-aquatica*), Water forget-me-not (*Myosotis scorpioides*), Brooklime (*Veronica beccabunga*), and Ragged robin (*Lychnis flos-cuculi*).
- Emergents - Greater spearwort (*Ranunculus lingua*), Branched bur-reed (*Sparganium erectum*), Purple loosestrife (*Lythrum salicaria*), Water mint (*Mentha aquatica*).

Care should be taken when purchasing aquatic plants from nurseries as many species have the potential to become invasive. Attention is drawn to the invasive species listed under the Birds and Natural Habitats Regulations 2011.

Pond features important for amphibians:

Ponds of all sizes are valuable but for amphibians the best are those larger than 100m². If possible, several ponds should be created no more than 250m from each other.

The pond should be up to 1.5m deep, with a few depressions of different depths. In the summer, shallower areas may dry out with only the deepest point holding water. This can be beneficial, creating a variety of conditions to suit different plants, invertebrates and larger animals.

Shallow slopes, which become exposed or flooded depending on the weather, allow a dynamic process which seems to be beneficial for many invertebrate species.

A variable shoreline helps to create different niches and maximises the number of species that will benefit from the pond.

Ponds should not be planted up as they will quickly be colonised by native plants from surrounding areas.

Preferably rainfall or ground water should be the only source of water.

No more than 30% of the pond should be shaded by surrounding shrubs or trees, and preferably there should be no shade on the southern edge of the pond. While shading provides a beneficial variation of microclimate on larger ponds, it should not be encouraged on small ponds below 100m².

No more than 60% of the pond should be covered by emergent vegetation such as reeds and bulrushes (reedmace). Whilst vegetation is very important as cover for amphibians such as great crested newts, ponds that exceed this threshold are more vulnerable to succession and a decline in water quality.

Fish ponds and wildlife ponds have different roles and should be kept separate.

Only larger ponds should be used for watering cattle, and access should be restricted (either in terms of time or by limiting the area which can be accessed). While cattle definitely help to keep vegetation both in and around the pond in check, too much pressure can result in complete destruction of the vegetation and a decline in water quality.

4

5.3 Hibernaculum for Frogs

In addition to the design recommendations for the pond/water feature above it is also recommended that a hibernaculum for frogs is created within the village. This is done by creating a pile of stones or logs with gaps between them in a mound in an undisturbed part of the property – preferably near a pond/water feature that could be used for breeding.



5.4 Native Tree and Shrub Species Suitable for Planting in Gardens or in the Village

Any native species used for planting in the environs of Kilmuckridge should be suitable for neutral/calcareous soils. There is little point in planting acid loving plants as they will not thrive.

Suitable shrub/small tree species include: Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Guelder rose (*Viburnum opulus*), Spindle (*Euonymus europaeus*), Elder (*Sambucus nigra*), Hazel (*Corylus avellana*), Wych elm (*Ulmus glabra*), Crab apple (*Malus sylvestris*), Dog rose (*Rosa canina*).

Suitable tree species include; Oak (*Quercus robur*), Whitebeam (*Sorbus aria*), Silver birch (*Betula pendula*), Willows (*Salix cinerea*, *Salix caprea*, *Salix aurita*).

All species should be of certified Irish genetic provenance as they are best adapted to Irish growing conditions – nurseries that supply the Forest Service native woodland scheme grow stock from Irish collected seed.

Try to create a mini forest with structure as opposed to just ‘lollipop trees’.

5.5 Measures for Butterflies in Kilmuckridge

Butterflies present in Kilmuckridge Village include;

- Comma (*Polygonia c-album*)
- Common Blue (*Polyommatus icarus*)
- Green-veined White (*Pieris napi*)
- Holly Blue (*Celastrina argiolus*)
- Large White (*Pieris brassicae*)
- Orange-tip (*Anthocharis cardamines*)
- Painted Lady (*Vanessa cardui*)
- Peacock (*Inachis io*)

- Red Admiral (*Vanessa atalanta*)
- Ringlet (*Aphantopus hyperantus*)
- Small Tortoiseshell (*Aglais urticae*)
- Small White (*Pieris rapae*)
- Speckled Wood (*Pararge aegeria*)

We need to consider the life cycle of butterflies and some other principles to conserve them in our communities. This is shown on **Figure 27** below.

Therefore we need to think about:

- Providing food plants for caterpillars
- Nectar supply for adult butterflies
- Keeping ivy (both immature and mature) on trees and walls
- Providing shelter for butterflies – roosting habitat
- Providing overwintering habitats for butterflies
- Do not buy a “butterfly kit” with caterpillars or release adult butterflies

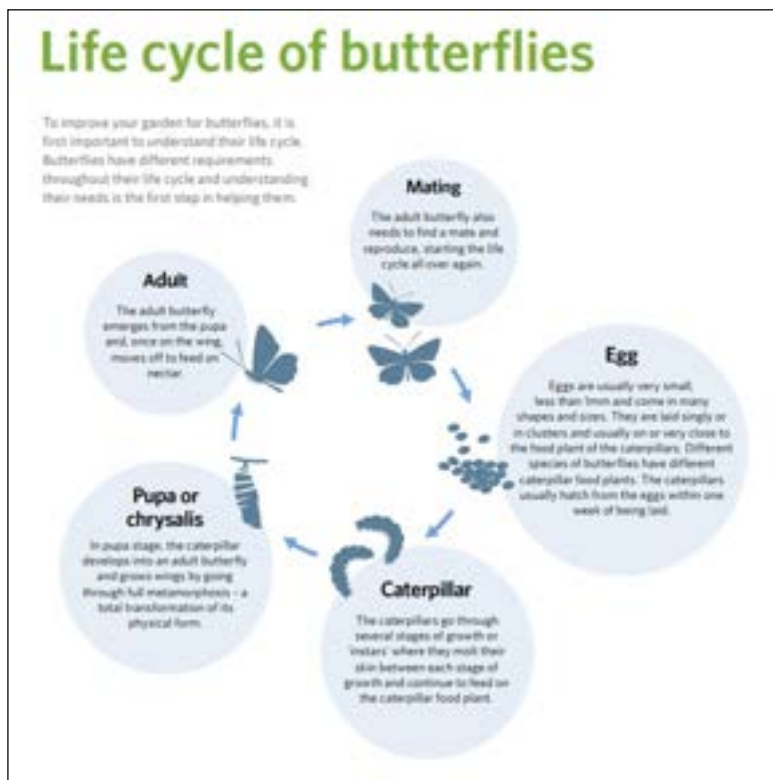


Figure 27. The life cycle of butterflies.

5.6 Food Plants and Habitat for Butterflies and Invertebrates

Several plant species used by butterflies, moths and other insects for their food plant already exist within Kilmuckridge Village and could be confused for ‘weeds’.

On the island of Ireland, 18% of butterflies and 8% of macro-moths are threatened with extinction. By planting suitable food plants and native species that support them we can help reverse this decline.

A list of the food plants used by the various species of butterfly is outlined below on **Figure 28**.

Have you any of these in your back garden – could you help butterflies to breed?

Butterfly	Caterpillar foodplant
Brimstone	Buckthorn (<i>Rhamnus cathartica</i>) and Alder Buckthorn (<i>Frangula alnus</i>)
Clouded Yellow*	Clovers (<i>Trifolium</i> spp.)
Comma	Nettle (<i>Urtica dioica</i>)
Common Blue	Bird's-foot-trefoil (<i>Lotus corniculatus</i>)
Green-veined White	Garlic Mustard (<i>Alliaria petiolate</i>), Cuckooflower (<i>Cardamine pratensis</i>), Water-cress (<i>Rorippa nasturtium aquatica</i>) and other members of the Brassicaceae family
Holly Blue	Holly (<i>Ilex aquifolium</i>) and Ivy (<i>Hedera helix</i>)
Large White	Brassicaceae family
Meadow Brown	Grasses: Fescues (<i>Festuca</i> spp.), Meadow-grasses (<i>Poa</i> spp.) and Bents (<i>Agrostis</i>)
Orange-tip	Cuckooflower (<i>Cardamine pratensis</i>) and Garlic Mustard (<i>Alliaria petiolate</i>)
Painted Lady*	Thistles (<i>Cirsium</i> spp. and <i>Carduus</i> spp.)
Peacock	Nettle (<i>Urtica dioica</i>)
Red Admiral*	Nettle (<i>Urtica dioica</i>)
Ringlet	Grasses: Cock's-foot (<i>Dactylis glomerata</i>), False Brome (<i>Brachypodium sylvaticum</i>), Tufted Hair-grass (<i>Deschampsia cespitosa</i>) and Common Couch (<i>Elymus repens</i>)
Silver-washed Fritillary	Common Dog-violet (<i>Viola riviniana</i>)
Small Copper	Common Sorrel (<i>Rumex acetosa</i>) and Sheep's Sorrel (<i>R. acetosella</i>)
Small Heath	Fine grasses, especially fescues (<i>Festuca</i> spp.), Meadow-grasses (<i>Poa</i> spp.)
Small Tortoiseshell	Nettle (<i>Urtica dioica</i>)
Small White	Brassicaceae family and nasturtiums (<i>Tropaeolum</i>)
Speckled Wood	Feed a on a variety of grasses but most commonly on: False Brome (<i>Brachypodium sylvaticum</i>), Cock's-foot (<i>Dactylis glomerata</i>) and Yorkshire Fog (<i>Holcus lanatus</i>)
Wood White	Meadow Vetchling (<i>Lathyrus pratensis</i>), Bitter-vetch (<i>Lathyrus linifolius</i>), Tufted Vetch (<i>Vicia cracca</i>) and Common Bird's-foot-trefoil (<i>Lotus corniculatus</i>)

Figure 28. The food plants butterflies need for their caterpillars to complete their lifecycles on.

5.7 Roosting Habitats for Butterflies

Butterflies roost on the underside of leaves, in long grass, rock crevices or similar sheltered places. Butterflies roost with their wings closed, often their wings camouflage with their background to protect them from predators while they sleep. If we mow and tidy away everywhere around our homes and in our landscape there is nowhere for them to roost.

5.8 Overwintering Habitats for Butterflies

Butterflies can enter diapause (overwinter) in all four stages, but the majority will overwinter in their caterpillar stage. Before diapause, butterflies produce a form of internal antifreeze to protect them from the cold weather. Because diapause is triggered by shorter day lengths and lower temperatures, they generally overwinter outside. The habitats that butterflies need for overwintering, as shown on **Figure 29** below, in one of their immature stages are:

- Leaf litter
- Thick/uncut vegetation
- Log piles



Figure 29. Roosting and overwintering habitat for butterflies.

5.9 Ornamental Pollinator Planting

There are a wide variety of species currently planted by people in their gardens and in Kilmuckridge Village by Tidy Towns for ornamental purposes. Some of these could be improved by using pollinator friendly species that will offer insect's nectar and pollen.



Plate 49. Pollinator friendly planting could replace annual and bedding plants in the graveyard and help our wildlife.

Species that could be considered in plantings around the village include perennial species which are more sustainable than annuals and bedding plants:

Shady areas - *Anemone*, *Aquilegia*, *Dicentra*, *Digitalis*, *Erythronium*, *Geranium*, *Hellebore*, *Pulmonaria*, *Trillium*.

Dry areas - *Bergenia*, *Echinops*, *Echinacea*, *Kniphofia*, *Sedum*, *Stachys*, *Verbena*.

Damp areas - *Helenium*, *Astrantia*, *Astilbe*, *Euphorbia*, *Heuchera*, *Hosta*, *Achillea*, *Ligularia*, *Rudbeckia*.

5.10 Management of Stone Walls

The old walls in and around the village (those built with stone and lime mortar) as opposed to those that are pointed in concrete or made out of blocks and rendered provide a rich habitat for a variety of species including nesting birds and invertebrates. They should not be cleaned of their vegetation (unless tackling an invasive species).

Concrete/block walls which are ugly to look at and offer no biodiversity value could be planted up with native climbers such as:

- Dog Rose (*Rosa canina*)
- Ivy (*Hedera helix*)
- Honeysuckle (*Lonicera perichlymenum*)

5.11 Pesticides

Pesticides (herbicides, insecticides and fungicides) and chemicals such as fertilisers are used by many gardeners and landowners. They can cause huge damage to butterflies, other insects, and the plants they feed on. Please set out to make Kilmuckridge Village a pesticide free zone.

5.12 Composting

Compost heaps can not only sustainably reduce green waste from the garden but can also provide homes for many insects including:

- Springtails
- Woodlice
- Earthworms
- Millipedes
- Centipedes
- Beetles

Maybe you could develop a compost heap in your garden?

4.13 Woodland Planting

Trees are often planted by community groups but are then managed with mown grassland (or even worse circles of dead vegetation sprayed with herbicide). Why not consider instead developing natural looking mini-woodland by establishing native species under the trees such as:

- Foxglove - introduced by seed collected at the end of the summer from nearby woodland tracks
- Primrose
- Common Dog Violet
- Red Campion
- Wood Anemone
- Lesser celandine
- Native bluebells (from seed - please do not dig them up from the wild)
- Ferns

5.14 Citizen Science

Members of the community could help monitor and identify species within the village and in their gardens and record their findings with the National Biodiversity Data Centre. There are a number of schemes that could be implemented in the village. These include:

- The Garden Butterfly Monitoring Scheme
- Complete a Flower Insect Timed Count
- Map your actions for pollinators
- The Irish Garden Bird Survey

The Garden Butterfly Monitoring Scheme

The Garden Butterfly Monitoring Scheme helps to keep track of which butterflies regularly use gardens, and how numbers vary across the country year on year. Participants make regular 15-minute counts of the 20 most common butterflies found in Ireland. No expert knowledge is required, and it's perfect for beginners.

This recording scheme is a great way of finding out which butterflies are visiting your garden, and how you can support them.

The National Biodiversity Data Centre has developed a free online course for the Garden Butterfly Monitoring Scheme. By going through this eCourse you will learn:

1. How to identify the 20 most common garden butterfly species
2. How to take part in the Garden Butterfly Monitoring Scheme
3. How to register your garden on the National Sampling Framework
4. How to submit your data

If you would like to get involved, please email the NBDC at butterflies@biodiversityireland.ie

Complete a Flower Insect Timed Count

- Flower Insect Timed (FIT) Counts are an initiative of the All Ireland Pollinator Plan.
- FIT Counts are open to everyone
- You can do a 10-minute FIT Count at any time between the 1st April and the 30th September
- Your location can be anywhere e.g., garden, farm, park, school, business site
- You don't need to identify the insects to species level, but only to tally within broad groups e.g., bumblebee, butterflies & moths, wasp, beetle
- Watch the short video for more details and see the step-by-step guide and resources sections at <https://biodiversityireland.ie/surveys/fit-counts/>
- From 2022, a new FIT Count App allows you to take a FIT Count and upload the results in one go.

Map your actions for Pollinators

It is great to see that Kilmuckridge Village has mapped areas being managed for pollinators as shown on **Figure 30** below. Could you add your garden, could the local sports clubs do a bit? What about the church grounds? See the maps and add new areas on <https://pollinators.biodiversityireland.ie/>



Figure 30. Mapped locations of actions for pollinators in Kilmuckridge.

The Irish Garden Bird Survey

Why not take part in the BirdWatch Ireland annual Irish Garden Bird Survey, which takes place over the winter months. The Irish Garden Bird Survey is BirdWatch Ireland's most popular citizen science survey, with around two thousand gardens taking part each year. Between December and February each year, members of the public keep note of the highest number of each bird species visiting their garden every week. Information on the size of the garden being surveyed, the kinds of food, if any, being offered to the birds, and so on is also collated. Taking part is fun, easy and an ideal way to get to know your garden birds better. As the Irish countryside changes, gardens are becoming increasingly important havens for many species. The Irish Garden Bird Survey can give us a good idea of how the garden birds themselves are doing, but also an indication of how the biodiversity actions at Kilmuckridge are delivering for wildlife.

5.15 Measures for Roosting Bats

A number of bat boxes could be erected within the general environs of the village. These can be either wooden boxes or woodcrete 'Schwegler' bat boxes (which are composed of a mixture of concrete and wood shavings) and are available online from <http://www.jacobijayne.co.uk/nest-boxes-by-species/bats/>.

Maybe these could be built by a local men's shed or school woodworking class and erected within the village or in peoples back gardens.

5.16 Conservation of Water

The water running off the roof of your house, school, office, garage, garden shed, etc. could be collected in rainwater butts or diverted to feed a pond or to create a rainwater garden or bog garden.

5.17 Measures for Nesting Birds

The breeding success of many of our suburban birds can be improved by the provision of artificial breeding boxes made from timber. These could be built by a local men's shed or school woodworking class and erected within gardens or around

the village. Leave areas where brambles have become established to develop further into a natural area of bramble scrub with a sign to show that this area is being left for nesting birds. The insects will appreciate it too.

5.18 Invasive Species

This study has highlighted the threat that invasive species pose to our native habitats and biodiversity in general.

Try to make sure that you aren't part of the problem – don't dump your garden waste into the countryside and try and control or stop the spread of invasive species where you live.



Plate 50. Dumping garden waste and cuttings introduces non-native species and nutrients into wild areas. Could they be composted instead?

A dedicated plan to tackle the spread of Sea buckthorn (*Hippophae rhamnoides*), which is a species listed under the Birds and Natural Habitats Regulations 2011, and is present within the SAC needs to be actioned by the relative parties – Wexford County Council and National Parks and Wildlife Service. Maybe some of the community could help?

5.19 Bat Survey

Have you bats in your attic? Could a bat walk become an annual event in the village?

5.20 Development Pressures

Development pressures have really increased in Kilmuckridge Village in the last number of years. Once land is zoned it is very difficult to conserve biodiversity in

these lands. Submissions to the local authority at planning stage for developments requesting that native species are used in the landscaping planting proposals and that lighting is wildlife friendly can help to ameliorate some of these impacts.

5.21 Measures for Hedgehogs

The retention of the area of old cuttings, leaves and branches provides cover and shelter for hedgehogs and other species in the garden. Could you make a small area for them to hibernate safely in? Maybe they are under your shed?

Can hedgehogs move through your garden or the gardens in your housing estate?

Could you make a small opening in your fence for them, which would them to move safely through back gardens in your community?

5.22 Signage

Many of these actions are already taking place in the village, and those that are proposed, could benefit from signage so people understand why they are being done and what species will benefit.

5.23 Ash Dieback Disease

Ash dieback is a serious disease of Ash trees caused by the invasive fungal pathogen *Hymenoscyphus fraxineus* (previously known as *Chalara fraxinea*), which originated in Asia and was brought to Europe in the 1990's. The pathogen has now spread across most of the natural range of Ash in Europe causing high mortality rates of Ash trees. Ash dieback was first detected in 2012 in Ireland on plants imported from continental Europe. The disease is now prevalent across Ireland and will likely cause the death of over 90% of Ash trees here in the next decade. The disease can affect Ash trees of any age and in any setting. The disease can be fatal, particularly among younger trees.

A number of Ash trees in the environs of the village show signs of ash die back. Where safe to do so a proportion of this Ash could be allowed to transition naturally to standing deadwood which has a high biodiversity value. It is recommended that summer survey of healthy Ash trees not displaying Ash dieback symptoms is carried out in the environs of the village. These trees should be recorded and mapped and protected from any knee jerk tree felling as they could have a natural resilience to the disease.

5.24 Educational Resources

The National Biodiversity Data Centre have produced a series of very useful and attractive swatches which help in identifying various species groups such as ladybirds, shield bugs, dragonflies, butterflies, moths, etc. Having these resources to hand help in identifying species and understanding more about the world we share with them.

5.25 Keeping the Wild 'Wild'

Please refrain from introducing non-native and ornamental species into the countryside and along roadside verges and edges particularly in a rural village such as Kilmuckridge.

5.26 Engaging children with nature

Recently there has been a trend for the development of 'Fairy Walks and trails' in many woodlands and natural areas. These invariably involve painted doors, plastic items, glitter and other unnatural materials. Please do not promote or encourage fairy doors or trails in your local wild area. Why not teach children to engage directly with the natural world around them by observing and learning about where they are and how to protect it instead.

5.27 Leave No Trace

Our visits and actions when we visit wild places can have a variety of impacts. These include:

1. Wildlife Impacts

Disturbance, altered behaviour

2. Vegetation Impacts

Vegetation loss, the introduction of invasive species.

3. Water Resource Impacts

Siltation, sedimentation, pollution.

4. Cultural Resource Impacts

Congestion, theft or damage to cultural feature.

5. Soil Impacts

Soil compaction

6. Social Impacts

Crowding, conflicts between groups.

Visitors to the coast at Morriscastle Beach and elsewhere along the coast should be encouraged to follow the 7 Leave no trace Principles. The 7 Principles are:

1. Plan Ahead and Prepare
2. Be Considerate of Others
3. Respect Farm Animals and Wildlife
4. Travel and Camp on Durable Ground
5. Leave What You Find
6. Dispose of Waste Properly
7. Minimise the Effects of Fire

Practising a Leave No trace ethic is very simple: Make it hard for others to see or hear you and LEAVE NO TRACE of your visit.

5.28 Lighting

Consider the impacts of lighting on wildlife in your community. We should be conserving energy and only illuminating what is really necessary for health and safety purposes.

5.29 Educational Walks and Talks

It is recommended that a series of educational biodiversity based walks and talks continue in Kilmuckridge Village. Education is key to improving our understanding of the natural world. These could be seasonally themed or have a particular focus such as fungi, bats, moths, breeding birds, spring flowers, autumn leaves, winter bark, etc.

5.30 Community Events

The Kilmuckridge Tidy Towns Group is very active and it would be great to see some of that energy focused on helping to do our bit for the biodiversity and climate change crisis. Get involved – don't just leave it all up to the great team who got the funding and commissioned this report.

5.31 Develop a Sense of Wonder

The more you spend time in the natural world the more engaged you become with it. Spending time in nature be it walking, sitting and sketching, gardening, watching the activity at a bird feeder from your sofa or looking at the night sky will improve your mental health and offer you a perspective on our time on the planet – use it wisely.

5.32 Commission a study of the Litter More River/Kilmuckridge River

We have very little information on the Litter More River in the village. The Department of Housing, Local Government, and Heritage funds LAWPRO to provide the Community Water Development Fund. This fund supports community groups to enhance the quality of local streams, rivers, lakes, and coastal areas. The fund has been in place since 2017, with growing interest year on year.

The fund delivers a broad range of water projects that benefit the amenity of local areas. Types of projects approved for funding include:

- Awareness raising initiatives such as river clean ups, biodiversity information boards, citizen science workshops, outdoor classrooms, rainwater harvesting, and enhancement of wetlands.
- Preparation of local plans such as feasibility studies, habitat management plans, ecological surveys, and biodiversity action plans.
- River and habitat enhancement works such as planting of native species and hedgerow, pollinator friendly planting, river-bank stabilisation, fencing and riparian buffer zones.

Maybe the village could get funding to commission a study on the river and see what measures could be undertaken to ensure it remains healthy.

5.33 Action for Swifts

There are no records of breeding swifts within Kilmuckridge Village as shown on **Figure 31** below.

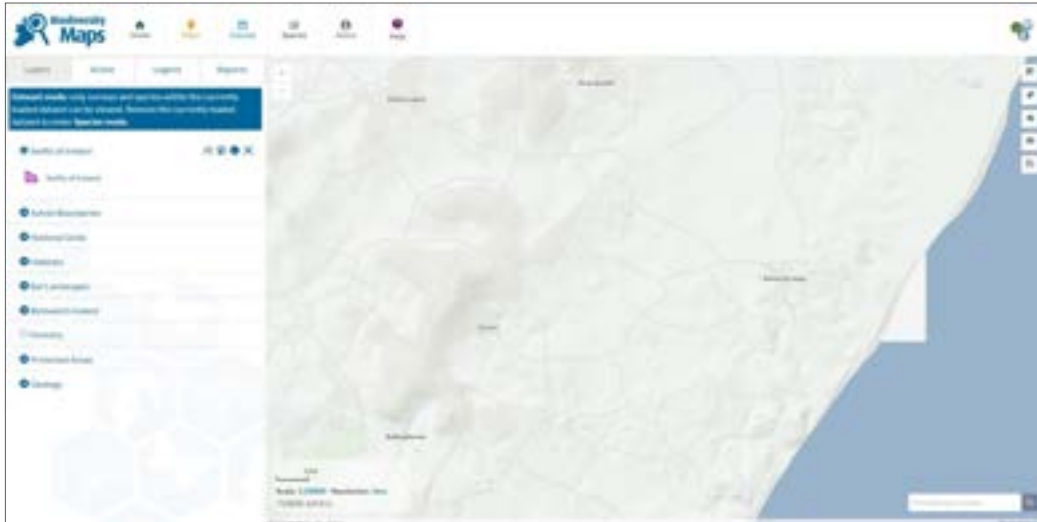


Figure 31. Records of swifts submitted to the National Biodiversity Data Centre - are there really no nesting swifts in Kilmuckridge?

There are a number of locations around the village where swift boxes could be erected.



Plate 51. Swift boxes could be erected here at the Upton Court Hotel.

Swifts will nest even on a two storey house if given a suitable location and some encouragement. Could you provide a home for them?

Swift Conservation Ireland provides really great advice on how to offer swifts a home as follows:

‘Artificial nest boxes can be used very successfully for Swifts if they are placed in the correct location.

LOCATION OF BOXES

They should be at least 4 metres above ground level and placed such that they do not receive full sun in summer. There must be a clear flyway in front.

BUILT-IN OR EXTERNAL?

While it is preferable to incorporate nesting places into a building structure, external nest boxes placed near to nest sites that have been lost can be particularly effective to mitigate the loss.

HOW MANY BOXES? Swifts are colonial nesters so you need more than one nest box at your chosen location, however, that being said they need to have their own nest space. Nest boxes come as either single boxes or with multiple cavities (that have a dividing wall between each nest area).

SIZE OF ENTRANCE HOLE

The entrance hole size is critical and should ideally be 28mm x 60mm but no bigger than 30mm x 65mm. If the hole is bigger than this then starlings can enter the box and they out compete the swift and will take over a nest box. Other birds, such as sparrows, will be able to get in to the 30mm x 65mm hole but this is not a problem because the swift is able to evict them’.

You could make a swift box at home using the design template below on **Figure 32**.

To increase the chance of swifts finding your box you can play a call to attract them as outlined by Swift Conservation Ireland:

‘PLAYING ATTRACTION CALLS

Speed of occupancy of a nest box can be considerably accelerated by playing swift attraction calls. The attraction calls make the swift think that other swifts are nesting in this location and so indicate that this is an attractive place to breed. So any swift looking for a nest site will explore this area for a vacant place.

Whichever sound system you are using should be placed as near as possible to the nest boxes e.g. on a window sill or attached to the box. The calls should be played for as long as possible during the day from mid-April to end August. Playing the calls 24 hours a day is best but if not then as long as possible from 8.00 am to 11am and 8.00 pm to 11pm.

Patience is essential; it could take a year or three for swifts to find the boxes even when playing the calls. You will need to play calls from mid-April until end August each year until the swifts have started to breed in one or more of the boxes’.

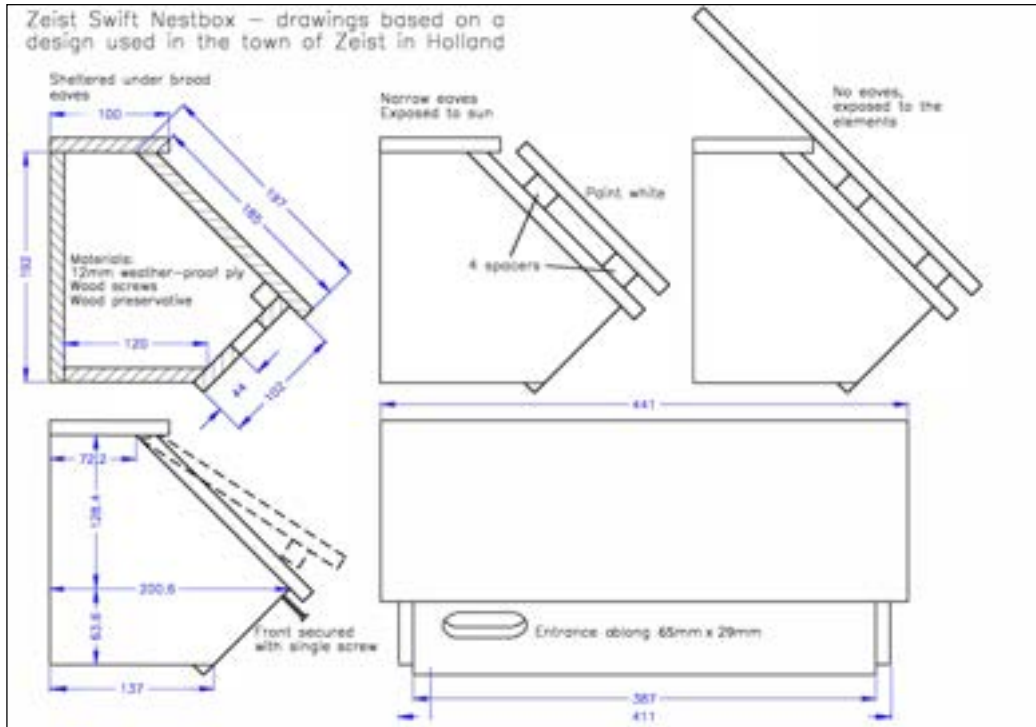


Figure 32. Swift box design.

Further advice on using a swift caller can be obtained from Swift Conservation Ireland: swiftconservationireland@gmail.com

If you know of a nesting site for swifts in the village please log it here <https://records.biodiversityireland.ie/record/common-swift#7/53.455/-8.016>

5.34 Action for Barn Owls

Erecting a barn owl box could help improve the breeding success of this iconic species in the environs of Kilmuckridge. The Wexford Barn Owl Project can assist with supplying a suitable box that can be erected in either an outdoor or indoor (in an open hay barn shed) site.

5.35 Native Hedgerow Establishment

If you are considering planting a hedge on your property could you use native species such as Hawthorn, Blackthorn, Holly, Spindle and Guelder rose? Typical hedging species such as Laurel, Beech, Hornbeam, or even worse Leylandii offer little for our native species.

5.36 Coastwatch Ireland - Micro-Litter Survey

Micro-litter is small pieces of litter, the upper size limits are 5mm diameter, and 2cm long if it's a thin filament. Marine micro-litter may start up as a raw plastic pellet or nurdle discharged from industrial process or lost as cargo at sea; or it can be a micro ingredient like the micro bead in face scrubs, which then enter the sea via sewage outfalls, or it started as a larger material which is then breaking down like the plastic sheet and the plastic twine. Plastic never biodegrades, but with sunlight it splits into ever and ever smaller pieces ("photo-degradation"). These bits are still plastic. The pieces get so small, that in the end they are ingested by over 180 known marine

species, being mistaken for food and thus entering the food chain and ending up on your plate!

Be a citizen scientist and take part in the Coastwatch Ireland Micro-Litter Survey.

5.37 Coastwatch Ireland - All Ireland Survey

The All Ireland Survey takes place each year from September 15th to October 15th. Coastwatch would be delighted if you could join them in this annual citizen science shore survey, whether experienced surveyor or total new comer.

It's interesting, fun, energising and sometimes challenging and contributes enormously to our knowledge of the coastal rim. With climate change, new policies and laws this is a crucial time to have up to date information and thousands of eyes on the shore.



Figure 33. Coastwatch Survey locations - there are plenty of sections of coastline available to survey near Kilmuckridge.

5.38 Household Check - Are You Part of the Problem?

Everyone in the community can make a difference by checking their own home to see if it too could be contributing to poor water quality in the Litter More River. This is known as a misconnection survey.

A property is typically serviced by two types of drains namely **foul** and **surface water**.

The **foul** drain conveys wastewater from foul appliances such as washing machines, dishwashers and toilets to the wastewater treatment plant.

The **surface water** drain conveys “clean” rainwater from your roof and hard standing to local rivers and streams.

When correctly plumbed the foul water does not enter a local drain or watercourse and goes to the waste water treatment plant, which once it has capacity and is

properly operated ensures that the waste is treated before discharge as shown on **Figure 34**.

A misconnection occurs when a foul drain is incorrectly plumbed to the surface water network, causing pollution of nearby surface waters.

During construction or following renovations or repairs a misconnection can occur where a foul drain is incorrectly plumbed into a surface water drain as shown on **Figure 35** below. It can also commonly occur if an existing foul appliance is moved to a new location i.e. moving a washing machine from a kitchen to an outbuilding.

Similarly if surface waters are plumbed to the foul network it can result in the wastewater treatment system being overloaded and discharging in storm events.

A good place to start is to inspect your rainwater downpipes. If there is any additional pipework connected to the downpipe, this could indicate a misconnection.

Shampoos, soaps, chemicals & detergents can have a detrimental effect on the flora & fauna in our rivers.

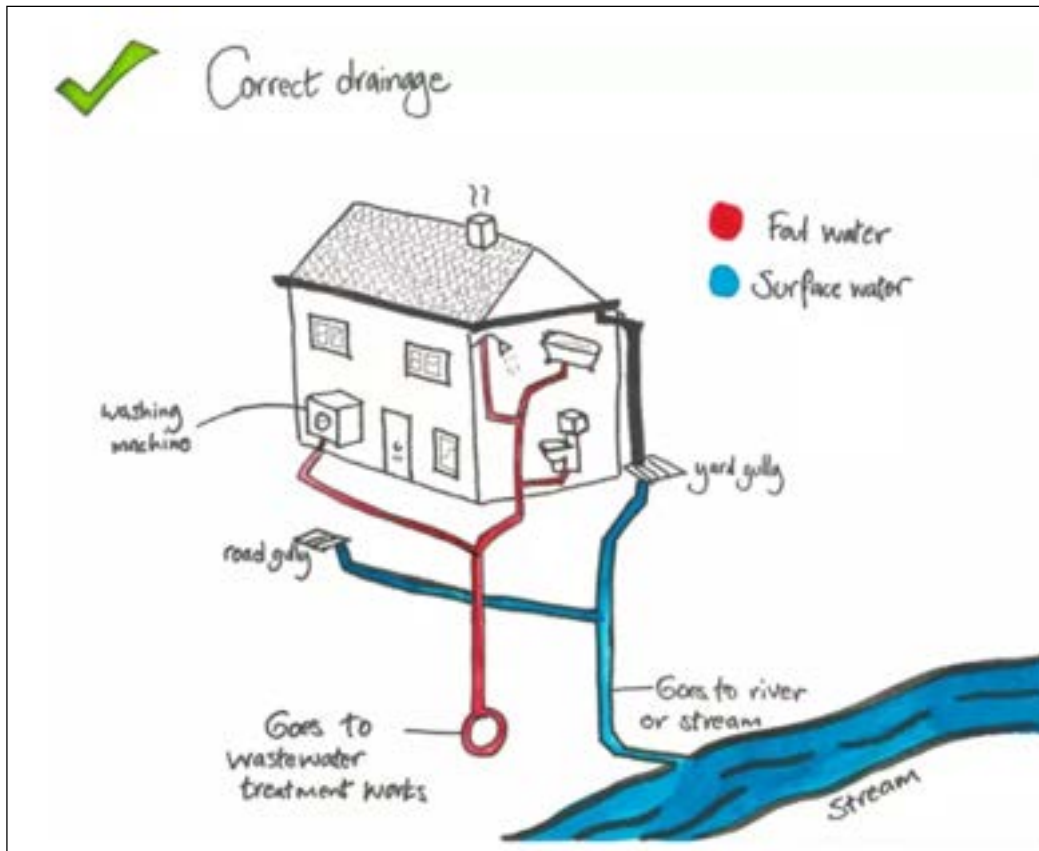


Figure 34. Correctly plumbed house where only clean surface water enters the river.

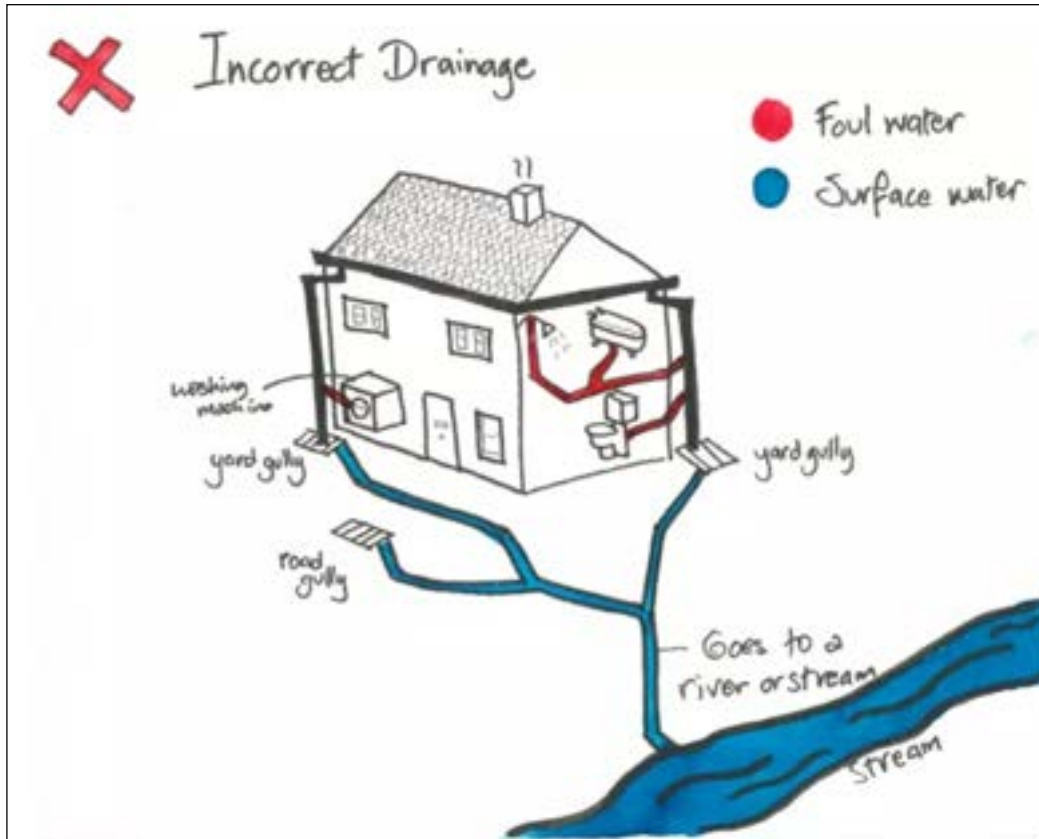


Figure 35. Incorrect drainage showing possible misconnections from washing machines, baths and toilets which can enter surface water systems.

Take a look at the pipework at your home or business and see if anything is going where it shouldn't and get it fixed!



Figure 36. Correctly plumbed premises.

5.38 People Pressures

The numbers of people accessing and using the Wexford coastline and wild places in general has increased significantly in recent years, both as a result of increasing human populations in the county, social media promotion and the global Covid pandemic when people explored and discovered wild places on their doorsteps.

Too many people trampling on the beach prevents the all-important drift line habitat from forming and the development of embryonic sand dunes.

These recreational pressures highlight the failures of the relevant authorities to manage existing activities that are causing the deterioration of habitats and disturbance to wildlife. The shingle/sand dune habitats, in particular, have undergone a great amount of damage due to a lack of management of people. They are our first defence in coastal erosion and rising sea levels.

5.39 Support Nature Conservation Charities

Join and support the nature conservation charities that do tremendous work in our society for nature conservation and sustainability. You can also take part in many recording events, monitoring studies, fund raising actions or other activities with them. Be a voice for nature in your community.

5.40 Be an Active Citizen at Planning Stage

Wexford County Council should be commencing the pre-draft public consultation for the next Gorey Local Area Plan soon. Make your voice for nature be heard at planning stage and to your local elected councillors and TDs.

6. APPENDICES

6.1 Appendix 1 - Biodiversity Resources & Linkages

The following is a list of useful links to guides on a range of common biodiversity subjects.

Subject	Link(s)
Bats	www.batconservationireland.org/ www.facebook.com/dublinbatgroup/
Birdwatching	www.birdwatchireland.ie/irelands-birds-birdwatch-ireland/ www.irishbirding.com
Children's Biodiversity Activities	www.birdwatchireland.ie/our-work/fun-learning/for-kids/ www.woodlandtrust.org.uk/blog/2020/03/kids-nature-activities-self-isolation/ www.rspb.org.uk/fun-and-learning/
Garden Biodiversity	https://laois.ie/wp-content/uploads/Garden-Wildlife-Booklet-WEB-17MB.pdf
General Biodiversity Issues	www.biodiversityireland.ie www.npws.ie
Habitat and Nest Boxes	www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-1-ALT_FINAL.pdf www.birdwatchireland.ie/app/uploads/2019/09/Nestboxes-factsheet.pdf www.batconservationireland.org/wp-content/uploads/2015/05/BCIrelandGuidelines_BatBoxes.pdf
Hedgerows	www.biodiversityireland.ie/wordpress/wp-content/uploads/Pollinator-How-to-Guide-3-FINAL-1.pdf https://www.heritagecouncil.ie/content/files/conserving_hedgerows_2mb.pdf https://63273-649646-raikfcquaxqncofqfm.stackpathdns.com/wp-content/uploads/2019/04/Hedgerow-CasestudyASPaul21-Send-for-New-Website.pdf https://mosart.ie/wp-content/uploads/2016/02/Irish-Hedgerows-Networks-for-Nature.pdf www.hedgelaying.ie
Interpretative Signage	https://www.nature.scot/sites/default/files/2019-11/Guidance%20-%20Natural%20heritage%20interpretation_1.pdf https://www.heritagecouncil.ie/content/files/bored_of_boards_1mb.pdf https://pollinators.ie/resources/signage-templates/
Invasive Alien Species	https://invasivespeciesireland.com/ https://www.fisheriesireland.ie/Invasive-Species/invasive-species.html

Subject	Link(s)
Orchards	http://www.irishseedsavers.ie/blog/wp-content/uploads/2014/10/CreatingAnOrchard.pdf https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/11466/1973262.pdf http://www.wetlandsystems.ie/goephow.html https://www.theorchardproject.org.uk/
Pollinator Friendly Planting Schemes	https://pollinators.ie/resources/ https://pollinators.ie/wordpress/wp-content/uploads/2018/04/Planting-Code-2018-WEB.pdf www.rhs.org.uk
Pollinators	https://pollinators.ie/
Recording Biodiversity	https://www.biodiversityireland.ie/record-biodiversity/
Reducing Herbicide Use	https://greensideup.ie/16-natural-alternatives-to-herbicide-why-you-should-use-them/
Schools & Biodiversity	https://greenschoolsireland.org/biodiveristy/ https://pollinators.ie/schools/ http://www.heritageinschools.ie/teachers-resources/strand/living-things-science/p3?q=&c=
Swifts	https://birdwatchireland.ie/our-work/surveys-research/research-surveys/swift-surveys/ www.swiftconservation.ie/
Tree Identification & Selection	www.treecouncil.ie/nativerishtrees www.clarecoco.ie/services/planning/publications/tree-design-guide-for-towns-and-villages-in-co-clare-2017-28115.pdf
Urban Watercourses	https://www.fisheriesireland.ie/extranet/fisheries-management-1/1756-ifi-urban-watercourses-planning-guide-2020-update.html
Water Quality	EPA Maps – maps with details about soils, water quality, habitat http://gis.epa.ie/EPAMaps/EnvironmentAndWellbeing https://gis.epa.ie/EPAMaps/Water
Wildflower Meadows	https://pollinators.ie/wordpress/wp-content/uploads/2018/04/How-to-guide-Wildflower-Meadows-2018-WEB.pdf
Wildflowers	www.wildflowersofireland.net/index.php www.bsbi.org
Wildlife Ponds	https://www.wildlifetrusts.org/actions/how-build-pond https://invasivespeciesireland.com/wp-content/uploads/2017/10/AQUATICS_BOOK5.pdf
Woodland	http://www.woodlandsofireland.com/sites/default/files/Management%20Guidelines%20for%20Ireland%27s%20Native%20Woodlands%202017.pdf https://www.forestryfocus.ie/social-environmental-aspects/biodiversity-and-nature-conservation/biodiversity-in-forests/conservation-and-restoration/ http://www.woodlandsofireland.com/sites/default/files/Silvicultural%20Guidelines%20for%20Native%20Trees.pdf

6.2 Appendix 2 – Site Synopses for designated sites near Kilmuckridge Village

SITE SYNOPSIS

Site Name: Kilmuckridge-Tinnaberna Sandhills SAC

Site Code: 001741

Kilmuckridge-Tinnaberna Sandhills SAC is a narrow coastal site which extends for almost 4 km along the Wexford coastline, from 3 km east of Kilmuckridge in the north to Ballynamona in the south.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [2110] Embryonic shifting dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)

The site is comprised of a fine-grained sandy beach up to 50 m wide, backed by steep clay cliffs at the southern end and sand dunes at the northern end. The cliffs are up to 15 m high, and are eroding in places. They support a patchy vegetation that includes Wild Carrot (*Daucus carota*), Common Bird's-foot-trefoil (*Lotus corniculatus*) and Yarrow (*Achillea millefolium*). Embryonic dunes are well developed along the length of this stretch of coast, particularly in the area around the townland of Ballyduboy. This represents one of the few actively accreting shorelines along the east coast.

North of Tinnaberna, the cliffs are replaced by gently undulating sand dunes. These are up to 150 m wide and have a species-rich flora typical of fixed dunes. Marram (*Ammophila arenaria*) is abundant, particularly on the fore dunes. Other species found on the dunes include Sheep's-bit (*Jasione montana*), Wild Pansy (*Viola tricolor*), Sand Sedge (*Carex arenaria*), Pyramidal Orchid (*Anacamptis pyramidalis*), Common Bird's-foot-trefoil, Common Restharrow (*Ononis repens*) and Yellow-wort (*Blackstonia perfoliata*).

Further inland the low sand ridges have a luxuriant growth of mosses and lichens, most notably Dog Lichen (*Peltigera canina*) and the fern *Polypodium vulgare*. A dense scrub of Sea Buckthorn (*Hippophae rhamnoides*) has encroached onto the fixed dune area - the spread of this invasive, introduced species needs to be monitored and controlled. Northwards, the sand dunes are relatively undisturbed and free of Sea Buckthorn, but lack the diversity of higher plant species and abundance of lower plants found on the dunes in the south.

Two streams meander across the site at the northern end and flow into the sea. They are fringed by small areas of wet woodland, with Alder (*Alnus glutinosa*) and Rusty Willow (*Salix cinerea* subsp. *oleifolia*) being the main tree species. The ground flora includes Wild Angelica (*Angelica sylvestris*), Greater Tussock-sedge (*Carex paniculata*), Hemlock Water-dropwort (*Oenanthe crocata*), Common Nettle (*Urtica dioica*) and Yellow Iris (*Iris pseudacorus*).

The scarce Night-flowering Catchfly (*Silene noctiflora*), which is mainly found in the south-east of Ireland, occurs on cliffs in the site. Moore's Horsetail (*Equisetum x moorei*), a rare hybrid which is confined to the coasts of Wicklow and Wexford, is also found here. This species is legally protected under the Flora (Protection) Order, 1999. There is an old record from the site for the Red Data Book species, Sea Stock (*Matthiola sinuata*); this species has not, however, been seen recently at this or any other site in Ireland and is thought to be extinct.

The site contains a good diversity of coastal habitats and plant species and, apart from the presence of Sea Buckthorn, it is presently relatively undisturbed. It is of particular conservation significance for its Embryonic dunes, Marram dunes and Fixed dunes, all habitats listed on Annex I of the E.U. Habitats Directive. The presence of several scarce plants adds to the importance of the site.

09.02.2016

SITE SYNOPSIS

Site Name: Blackwater Bank SAC

Site Code: 002953

Blackwater Bank SAC consists of a series of sandbanks running roughly parallel to the coastline of Co. Wexford. The total area of this site is approximately 12,407 ha. This designation includes the Lucifer Bank, Blackwater Bank and Moneyweights Bank. These features are at the southern end of a series of offshore sandbanks that run along the eastern seaboard of Ireland as far north as Co. Dublin.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1110] Sandbanks

The sandbanks in this site form a series of banks from Cahore Point, in the north, extending almost as far southwards as Rosslare, Co. Wexford. These features range from 2-4 km from the shoreline. Offshore sandbanks are generally formed from varying sediment fractions that range from cobbles to fine sand. The sediment surface is often rippled, through the action of currents and storms, and builds up into sand waves that may measure more than 1 m in height and several metres in width.

Some of the banks shoal during low tide but are generally between 4-8 m below the sea surface at low tide. These banks are characterised predominantly by fine sand to medium sand with smaller percentages of very fine sand. Previous surveys indicated an area of high hydrodynamic activity with strong, tidally induced current speeds operating. Such currents do not allow for the settling out of finer particles of organic and inorganic matter. This type of current regime also tends to make the sediments quite mobile, with material being transported over some distance during strong phases of the tidal cycle. Such areas are characterised by low species densities. Low species numbers and densities in such habitat are probably due to the inhospitable nature of the environment, i.e. mobile sands, which demand specialised lifestyles for animals to either cope with, or escape from, sand abrasion.

The species recorded from the area are typical of sandy coastal habitats. A total of 35 species, from four phyla were collected. The most abundant species were crustaceans (*Bathyporeia elegans*, *Pontocrates altamarinus*, *Portunus latipes* and *Urothoe elegans*), segmented worms (*Spio armata*, *Scolelepis squamata*, *Nephtys longosetosa*, *Nephtys cirrosa*, *Magelona mirabilis*, *Spiophanes bombyx*, *Magelona johnstoni*, *Gastrosaccus spinifer* and *Levinsenia gracilis*) and the mollusc *Parvicardium minimum*. Analysis of the species has split the various faunal communities into two distinct assemblages: 'infralittoral mobile clean sand with sparse fauna' and '*Bathyporeia* spp. in infralittoral sand'.

The site is of conservation importance for its submerged sandbanks, a habitat that is listed on Annex I of the E.U. Habitats Directive.

10.02.2014.

SITE SYNOPSIS

Site Name: Cahore Polders and Dunes SAC

Site Code: 000700

This site is located just south of Cahore Point, 10 km south of Courtown, Co. Wexford. The site comprises a sand dune system that extends along the coast for over 4 km, backed by areas of polder grassland, wetland and drainage channels. It is underlain by rocks of Cambrian age.

A sand dune ridge and sandy beach forms the eastern boundary of the site. These dunes are highest in the north (up to 18 m high) and gradually become lower towards the south. The dunes display a well-developed zonation of fixed dunes grading eastwards to Marram (*Ammophila arenaria*) - dominated dunes, embryo dunes and, at the top of the beach, drift line vegetation.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

- [1210] Annual Vegetation of Drift Lines
- [2110] Embryonic Shifting Dunes
- [2120] Marram Dunes (White Dunes)
- [2130] Fixed Dunes (Grey Dunes)*
- [2190] Humid Dune Slacks

At the northern end of the site the sand dunes support mature fixed dune vegetation, including such species as False Oat-grass (*Arrhenatherum elatius*), Lesser Meadow rue (*Thalictrum minus*), Red Fescue (*Festuca rubra*), Burnet Rose (*Rosa pimpinellifolia*), Marram, Barren Strawberry (*Fragaria vesca*), Carline Thistle (*Carlina vulgaris*), Wild Asparagus (*Asparagus officinalis* subsp. *prostratus*), Pyramidal Orchid (*Anacamptis pyramidalis*), Lady's Bedstraw (*Galium verum*), Cowslip (*Primula vulgaris*), Cat's-ear (*Hypochoeris radicata*), Devil's-bit Scabious (*Succisa pratensis*), Wood Sage (*Teucrium scorodonia*), Sheep's-bit (*Jasione montana*) and Germander Speedwell (*Veronica chamaedrys*). Several of these species are indicative of the fact that these dunes are old and somewhat decalcified through leaching. Under-grazing in this area has allowed the spread of Bracken (*Pteridium aquilinum*), Bramble (*Rubus fruticosus* agg.), Gorse (*Ulex europaeus*) and Sea-buckthorn (*Hippophae rhamnoides*), which occur in dense patches. Over the years there has been loss of dune habitat in this area to houses, caravan parks and erosion by the sea.

Fixed dune vegetation at the southern end of the site is younger and undisturbed, and supports a rich variety of species, including Marram, Burnet Rose, Wild Carrot (*Daucus carota*), Portland Spurge (*Euphorbia portlandica*), Sea Spurge (*Euphorbia paralias*), Moore's Horsetail (*Equisetum x moorei*), Common Centaury (*Centaureum erythraea*), Sea-holly (*Eryngium maritimum*), Kidney Vetch (*Anthyllis vulneraria*), Common Restharrow (*Ononis repens*), Dewberry (*Rubus caesius*), Pignut (*Conopodium majus*), Fairy Flax (*Linum catharticum*), Thyme-leaved Sandwort (*Arenaria serpyllifolia*), Biting Stonecrop (*Sedum acre*), Sand Pansy (*Viola tricolor* subsp. *curtisii*), Heath Dog violet (*Viola canina*), Sand Cat's-tail (*Phleum arenarium*), Common Milkwort (*Polygala vulgaris*), Creeping Willow (*Salix repens*), Red Fescue, Lady's Bedstraw, Yellow-wort

(*Blackstonia perfoliata*), Common Bird's-foot-trefoil (*Lotus corniculatus*), Sand Sedge (*Carex arenaria*), Rayless Ragwort (*Senecio jacobaea* var. var. *flosculosus*) and Umbellate Hawkweed (*Hieracium umbellatum*), amongst others. These dunes also support a good range of bryophyte and lichen species. Most of these species are also to be found in the less overgrown areas of fixed dunes at the northern end of the site.

Several areas of dune slack vegetation have been recorded. Among the typical slack species are Common Sedge (*Carex nigra*), Common Bird's-foot trefoil, Water Mint (*Mentha aquatica*), Lesser Spearwort (*Ranunculus flammula*) and Creeping Willow. Sharp rush (*Juncus acutus*) also occurs. In the wetter parts of the slacks, Marsh pennywort (*Hydrocotyle vulgaris*) and Spear moss (*Calliergonella cuspidata*) are found. Sea rush (*Juncus maritimus*), an indicator of saline conditions, is present in some of the slacks.

Marram dunes are found as a band approximately 30 m wide on the seaward side of the fixed dunes, particularly in the southern half of the site, and are dominated almost exclusively by Marram. A narrow band of embryonic shifting dunes (5-8 m wide) with Sand Couch (*Elymus farctus*), Marram, Sea Holly and Curled Dock (*Rumex crispus*) is found on the seaward edge of these dunes. Below the embryo dunes at the top of the beach is a narrow band (4-5 m wide) of drift line vegetation, with species such as Sea Rocket (*Cakile maritima*), Frosted Orache (*Atriplex laciniata*) and Prickly Saltwort (*Salsola kali*).

The dunes grade westwards to polder grassland. This area was formerly a wetland, which has been drained and reclaimed to provide improved grassland for grazing animals. These grasslands are relatively species-poor but are important feeding areas for large numbers of wintering waterfowl. Numerous drainage channels traverse the polders; these are lagoonal in character and have been colonised by brackish water species. The presence of brackish water in these channels is the result of inefficiencies in flap valves which have allowed seawater to enter. However, with recent improvements to these valves it remains to be seen if the brackish water plant and animal communities present in the channels are maintained. A variety of aquatic and emergent plant species occur in the channels, including Soft Hornwort, (*Ceratophyllum submersum*), Water-milfoil (*Myriophyllum* sp.), Water-crowfoot (*Ranunculus* sp.), Common Reed (*Phragmites australis*), Grey Club-rush (*Scirpus lacustris* subsp. *tabernaemontani*) and, recorded in 2002, Water Fern (*Azolla filiculoides*).

Several artificial ponds with more or less fresh water occur near the southern end of the site and support a variety of aquatic and emergent plant species, including Water-plantain (*Alisma plantago-aquatica*), Branched Bur-reed (*Sparganium erectum*), Common Duckweed (*Lemna minor*), Ivy-leaved Duckweed (*Lemna trisulca*), Water Horsetail (*Equisetum fluviatile*), Amphibious Bistort (*Polygonum amphibium*), Watercress (*Nasturtium officinale*), Soft Hornwort, Bulrush (*Typha latifolia*), Common Spike rush (*Eleocharis palustris*), Water mint and Broad-leaved Pondweed (*Potamogeton natans*), amongst others.

The site is notable for the presence of a number of rare and scarce plants. Wild Asparagus has been recorded from the north end of the dune ridge. This taxon is listed on the Flora (Protection) Order, 2015, as is Moore's Horsetail, the hybrid between Rough Horsetail (*E. hyemale*) and Branched Horsetail (*E. ramosissimum*). This latter species occurs commonly on the sand dunes. This hybrid is particularly notable

for the fact that it does not grow with either parent, one of which, *E. ramosissimum*, has not been recorded from Ireland. The hybrid is confined to the coastline of Wexford and Wicklow and is listed on the Flora (Protection) Order, 2015. Drainage ditches in the polders support Soft Hornwort. This is a very rare and only relatively recently recorded species in Ireland, and in the Republic is otherwise known only from similar situations in south Co. Wexford. Water Fern, an introduced species that floats on water was recently recorded from drainage ditches in the site. Umbellate Hawkweed has its only known Co. Wexford site on the Cahore dunes. The relatively scarce Sharp Rush (*Juncus acutus*), Hound's-tongue (*Cynoglossum vulgare*) and Marsh Helleborine (*Epipactis palustris*) have also been recorded from the site.

Cahore Dunes and Polders is a site of major ornithological importance for wintering waterfowl. The improved grassland provides a feeding site for a sub-flock of the Wexford Harbour Greenland White-fronted Goose population. Numbers are of national importance, with a mean of 286 for the five winters 1996/97 to 2000/01. Both Whooper and Bewick's Swans also occur, though in relatively low numbers with means of 28 and 9 respectively. The site supports nationally important populations of a further four species - Wigeon (1,568), Golden Plover (3,787), Shoveler (54) and Lapwing (2,054) (all quoted figures are means for the five winters 1996/97 to 2000/01). Other species which occur in significant numbers are Teal (470), Mallard (179) and Curlew (536).

The Gatekeeper butterfly has been recorded from dunes in the site.

Cahore Polders and Dunes is a site of considerable conservation value, containing good examples of fixed dune, Marram dune, embryonic shifting dune, dune slack and drift line habitat; all of these habitats are listed on Annex I of the E.U. Habitats Directive, and fixed dunes with priority status. The presence of a number of species that are listed on the Flora (Protection) Order, 2015 and of other rare species is notable. It is also of high conservation value as a site for wintering waterfowl, in particular Greenland White-fronted Goose, Golden Plover, Lapwing and Wigeon.

23.05.2018

SITE NAME: SLANEY RIVER VALLEY

SITE CODE: 000781

This site comprises the freshwater stretches of the Slaney as far as the Wicklow Mountains; a number of tributaries the larger of which include the Bann, Boro, Glasha, Clody, Derry, Derreen, Douglas and Carrigower Rivers; the estuary at Ferrycarrig and Wexford Harbour. The site flows through the counties of Wicklow, Wexford and Carlow. Towns along the site but not in it are Baltinglass, Hacketstown, Tinahely, Tullow, Bunclody, Camolin, Enniscorthy and Wexford. The river is up to 100 m wide in places and is tidal at the southern end from Edermine Bridge below Enniscorthy. In the upper and central regions almost as far as the confluence with the Derry River the geology consists of granite. Above Kilcarry Bridge, the Slaney has cut a gorge into the granite plain. The Derry and Bann Rivers are bounded by a narrow line of uplands which corresponds to schist outcrops. Where these tributaries cut through this belt of hard rocks they have carved deep gorges, more than two miles long at Tinahely and Shillelagh. South of Kildavin the Slaney flows through an area of Ordovician slates and grits.

The site is a candidate SAC selected for alluvial wet woodlands, a priority habitat on Annex I of the E.U. Habitats Directive. The site is also selected as a candidate SAC for floating river vegetation, estuaries, tidal mudflats and old oak woodlands, all habitats listed on Annex I of the E.U. Habitats Directive. The site is further selected for the following species listed on Annex II of the same directive - Sea Lamprey, River Lamprey, Brook Lamprey, Freshwater Pearl Mussel, Twaite Shad, Atlantic Salmon and Otter.

Floating river vegetation is found along much of the freshwater stretches within the site. Species present here include Pond Water-crowfoot (*Ranunculus peltatus*), Water-crowfoot (*Ranunculus* spp.), Canadian Pondweed (*Elodea canadensis*), Broadleaved Pondweed (*Potamogeton natans*), Water Milfoil (*Myriophyllum* spp.), Common Club-rush (*Scirpus lacustris*), Water-starwort (*Callitriche* spp.), Hemlock Water-dropwort, (*Oenanthe crocata*) Fine-leaved Water-dropwort (*Oenanthe aquatica*), Common Duckweed (*Lemna minor*), Yellow Water-lily (*Nuphar lutea*), Unbranched Bur-reed (*Sparganium emersum*) and the moss *Fontinalis antipyretica*. Two rare aquatic plant species have been recorded in this site: Short-leaved Water-starwort (*Callitriche truncata*), a very rare, small aquatic herb found nowhere else in Ireland; and Opposite-leaved Pondweed (*Groenlandia densa*), a species that is legally protected under the Flora Protection Order, 1999.

Good examples of wet woodland are found associated with Macmine marshes, along banks of the Slaney and its tributaries and within reed swamps. Grey Willow (*Salix cinerea*) scrub and pockets of wet woodland dominated by Alder (*Alnus glutinosa*) have become established in places. Ash (*Fraxinus excelsior*) and Birch (*Betula pubescens*) are common in the latter and the ground flora is typical of wet woodland with Meadowsweet (*Filipendula ulmaria*), Angelica (*Angelica sylvestris*), Yellow Iris (*Iris pseudacorus*), Horsetail (*Equisetum* spp.) and occasional tussocks of Greater Tussock-sedge (*Carex paniculata*). These woodlands have been described as two types: one is quite eutrophic, is dominated by Willow and is subject to a tidal

influence. The other is flushed or spring-fed subject to waterlogging but not to flooding and is dominated by Alder and Ash.

Old oak woodlands are best represented at Tomnafinnoge though patches are present throughout the site. At Tomnafinnoge the wood is dominated by mature, widely spaced Sessile Oak (*Quercus petraea*), which were planted around 1700, with some further planting in 1810. There is now a varied age structure with overmature, mature and young trees; the open canopy permits light to reach the forest floor and encourages natural regeneration of Oak. As well as Oak, the wood includes the occasional Beech (*Fagus sylvatica*), Birch (*Betula* sp.), Rowan (*Sorbus aucuparia*) and Scots Pine (*Pinus sylvestris*).

The shrub layer is well-developed with Hazel (*Corylus avellana*) and Holly (*Ilex aquifolium*) occurring. The ground layer consists of Great Wood-rush (*Luzula sylvatica*) and Bilberry (*Vaccinium myrtillus*), with some Bracken (*Pteridium aquilinum*) and Brambles (*Rubus fruticosus* agg.). Herbaceous species in the ground layer include Primrose (*Primula vulgaris*), Wood-sorrel (*Oxalis acetosella*), Common Cow-wheat (*Melampyrum pratense*) and Bluebell (*Hyacinthoides non-scripta*). Many of the trees carry an epiphytic flora of mosses, Polypody Fern (*Polypodium vulgare*), and lichens such as *Usnea comosa*, *Evernia prunastri*, *Ramalina* spp. and *Parmelia* spp.

Tomnafinnoge Wood is a remnant of the ancient Shillelagh Oak woods, and it appears that woodland has always been present on the site. In the past, the wood was managed as a Hazel coppice with Oak standards, a common form of woodland management in England but not widely practised in Ireland. The importance of the woodland lies in the size of the trees, their capacity to regenerate, their genetic continuity with ancient woodland and their historic interest. The nearest comparable stands are at Abbeyleix, Co. Laois and Portlaw, Co. Waterford.

Below Enniscorthy there are several areas of woodland with a mixed canopy of Oak, Beech, Sycamore (*Acer pseudoplatanus*), Ash and generally a good diverse ground flora. Near the mouth of the river at Ferrycarrig is a steep south facing slope covered with Oak woodland. Holly and Hazel are the main species in the shrub layer and a species-rich ground flora typical of this type of Oak woodland has abundant ferns - *Dryopteris filix-mas*, *Polystichum setiferum*, *Phyllitis scolopendrium* - and mosses - *Thuidium tamariscinum*, *Mnium hornum*, *Eurynchium praelongum*.

North of Bunclody, the river valley still has a number of dry woodlands though these have mostly been managed by the estates with the introduction of Beech and occasional conifers. The steeper sides are covered in a thick scrub from which taller trees protrude. At the southern end of the site, the Red Data Book species Yellow Archangel (*Lamiastrum galeobdolon*) occurs. Three more Red Data Book species have also been recorded from the site: Basil Thyme (*Acinos arvensis*), Blue Fleabane (*Erigeron acer*) and Small Cudweed (*Filago minima*). A nationally rare species Summer Snowflake (*Leucojum aestivum*) is also found within the site.

Mixed woodlands occur at Carrickduff and Coolaphuca in Bunclody. Oak trees, which make up the greater part of the canopy, were originally planted and at the present time are not regenerating actively. In time, if permitted, the woodland will probably go to Beech. A fair number of Yew (*Taxus baccata*) trees have also reached a

large size and these, together with Holly give to the site the aspect of a southwestern Oak wood.

The site is considered to contain a very good example of the extreme upper reaches of an estuary. Tidal reedbeds with wet woodland are present in places. The fringing reed communities support Sea Club-rush (*Scirpus maritimus*), Grey Club-rush (*S. tabernaemontani*) and abundant Common Reed (*Phragmites australis*). Other species occurring are Bulrush (*Typha latifolia*), Reed Canary-grass (*Phalaris arundinacea*) and Branched Bur-reed (*Sparganium erectum*). The reed-swamp is extensive around Macmine, where the river widens and there are islands with swamp and marsh vegetation.

Further south of Macmine are expanses of intertidal mudflats and sandflats and shingly shore often fringed with a narrow band of salt marsh and brackish vegetation. Narrow shingle beaches up to 10 m wide occur in places along the river banks and are exposed at low tide. Upslope the shingle is sometimes colonised by Saltmarsh Rush (*Juncus gerardii*), Townsend's Cord-grass (*Spartina townsendii*), Common Saltmarsh grass (*Puccinellia maritima*), Sea Aster (*Aster tripolium*), Hemlock Water-dropwort and Himalayan Balsam (*Impatiens glandulifera*).

Wexford Harbour is an extensive, shallow estuary which dries out considerably at low tide exposing large expanses of mudflats and sandflats. The harbour is largely sheltered by the Raven Point to the north and Rosslare Point in the south. Other habitats present within the site include species-rich marsh in which sedges such as *Carex disticha*, *Carex riparia* and *Carex vesicaria* are common. Among the other species found in this habitat are Yellow Iris, Water Mint (*Mentha aquatica*), Purple Loosestrife (*Lythrum salicaria*) and Soft Rush (*Juncus effusus*). Extensive marshes occur to the west of Castlebridge associated with the tidal areas of the River Sow.

The site supports populations of several species listed on Annex II of the EU Habitats Directive including the three Lampreys - Sea Lamprey (*Petromyzon marinus*), River Lamprey (*Lampetra fluviatilis*) and Brook Lamprey (*Lampetra planeri*), Otter (*Lutra lutra*), Salmon (*Salmo salar*), small numbers of Freshwater Pearl Mussel (*Margaritifera margaritifera*) and in the tidal stretches, Twaite Shad (*Alosa fallax fallax*). A survey of the Derreen River in 1995 estimated the population of Freshwater Pearl Mussel at about 3,000 individuals. This is a significant population, especially in the context of eastern Ireland. The Slaney is primarily a spring salmon fishery and is regarded as one of the top rivers in Ireland for early spring fishing. The upper Slaney and tributary headwaters are very important for spawning.

The site supports important numbers of birds in winter. Little Egret are found annually along the river. This bird is only now beginning to gain a foothold in Ireland and the south-east appears to be its stronghold. Nationally important numbers of Black-tailed Godwit, Teal, Tufted Duck, Mute Swan, Little Grebe and Black-headed Gull are found along the estuarine stretch of the river. The mean of the maximum counts over four winters (1994/98) along the stretch between Enniscorthy and Ferrycarrig is: Little Egret (6), Golden Plover (6), Wigeon (139), Teal (429), Mallard (265), Tufted Duck (171), Lapwing (603), Shelduck (16), Black-tailed Godwit (93), Curlew (81), Red-breasted Merganser (11), Black-headed Gull (3030), Goldeneye (45), Oystercatcher (19), Redshank (65), Lesser Black-backed Gull (727), Herring Gull (179), Common Gull (67), Grey Heron (39), Mute Swan (259) and Little Grebe (17).

Wexford Harbour provides extensive feeding grounds for wading birds and Little Terns, which are listed on Annex I of the E.U. Birds Directive have bred here in the past. The Reed Warbler, which is a scarce breeding species in Ireland, is regularly found in Macmine Marshes but it is not known whether or not it breeds in the site. The Dipper also occurs on the river.

The site supports many of the mammal species occurring in Ireland. Those which are listed in the Irish Red Data Book include Pine Marten, Badger, Irish Hare and Daubenton's Bat. Common Frog (*Rana temporaria*), another Red Data Book species, also occurs within the site.

Agriculture is the main landuse. Arable crops are important. Improved grassland and silage account for much of the remainder. The spreading of slurry and fertiliser poses a threat to the water quality of this salmonid river and to the populations of Annex II animal species within it. Run-off is undoubtedly occurring, as some of the fields slope steeply directly to the river bank. In addition, cattle have access to the site in places. Fishing is a main tourist attraction along stretches of the Slaney and its tributaries and there are a number of Angler Associations, some with a number of beats. Fishing stands and styles have been erected in places. Both commercial and leisure fishing takes place. There are some gravel pits along the river below Bunclody and many of these are active. There is a large landfill site adjacent to the river close to Hacketstown and at Killurin. Boating, bait-digging and fishing occur in parts of Wexford Harbour.

Waste water outflows, runoff from intensive agricultural enterprises, a meat factory at Clohamon and a landfill site adjacent to the river and further industrial development upstream in Enniscorthy and in other towns could all have potential adverse impacts on the water quality unless they are carefully managed. The spread of exotic species is reducing the quality of the woodlands.

The site supports populations of several species listed on Annex II of the EU Habitats Directive, and habitats listed on Annex I of this directive, as well as important numbers of wintering wildfowl including some species listed on Annex I of the EU Birds Directive. The presence of wet and broad-leaved woodlands increases the overall habitat diversity and the occurrence of a number of Red Data Book plant and animal species adds further importance to the Slaney River site.

24.10.2006

6.3 Appendix 3 - Records held by the National Biodiversity Data Centre for Tetrads T14Q (National Biodiversity Data Centre).

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
amphibian	Common Frog (<i>Rana temporaria</i>)	1	14/02/2019	Amphibians and reptiles of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex V Protected Species: Wildlife Acts
bird	Barn Swallow (<i>Hirundo rustica</i>)	1	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
bird	Black-billed Magpie (<i>Pica pica</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Blackcap (<i>Sylvia atricapilla</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Black-headed Gull (<i>Larus ridibundus</i>)	1	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
bird	Blue Tit (<i>Cyanistes caeruleus</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Carrion/Hooded Crow (<i>Corvus corone</i> agg.)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Chaffinch (<i>Fringilla coelebs</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Coal Tit (<i>Parus ater</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Common Blackbird (<i>Turdus merula</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Common Bullfinch (<i>Pyrrhula pyrrhula</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Common Buzzard (<i>Buteo buteo</i>)	2	16/01/2021	Birds of Ireland	
bird	Common Chiffchaff (<i>Phylloscopus collybita</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Common Cuckoo (<i>Cuculus canorus</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Common Kestrel (<i>Falco tinnunculus</i>)	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
bird	Common Linnet (<i>Carduelis cannabina</i>)	2	08/07/2016	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
bird	Common Moorhen (<i>Gallinula chloropus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Common Pheasant (<i>Phasianus colchicus</i>)	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 I Bird Species
bird	Common Raven (<i>Corvus corax</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
bird	Common Snipe (<i>Gallinago gallinago</i>)	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 III Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Amber List
bird	Common Starling (<i>Sturnus vulgaris</i>)	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 - Amber List
bird	Common Swift (<i>Apus apus</i>)	1	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
bird	Common Wood Pigeon (<i>Columba palumbus</i>)	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 I Bird Species
bird	Eurasian Collared Dove (<i>Streptopelia decaocto</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Eurasian Jackdaw (<i>Corvus monedula</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Eurasian Sparrowhawk (<i>Accipiter nisus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Eurasian Spoonbill (<i>Platalea leucorodia</i>)	1	04/06/1977	Rare birds of Ireland	
bird	Eurasian Tree Sparrow (<i>Passer montanus</i>)	1	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
bird	Eurasian Treecreeper (<i>Certhia familiaris</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	European Golden Plover (<i>Pluvialis apricaria</i>)	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 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
bird	European Goldfinch (<i>Carduelis carduelis</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	European Greenfinch (<i>Carduelis chloris</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	European Robin (<i>Erithacus rubecula</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
bird	Fieldfare (<i>Turdus pilaris</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Goldcrest (<i>Regulus regulus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Great Spotted Woodpecker (<i>Dendrocopos major</i>)	1	30/04/2020	Birds of Ireland	
bird	Great Tit (<i>Parus major</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Grey Heron (<i>Ardea cinerea</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Grey Wagtail (<i>Motacilla cinerea</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Hedge Accentor (<i>Prunella modularis</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Hooded Crow (<i>Corvus cornix</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	House Martin (<i>Delichon urbicum</i>)	1	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
bird	House Sparrow (<i>Passer domesticus</i>)	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 - Amber List
bird	Lesser Black-backed Gull (<i>Larus fuscus</i>)	1	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
bird	Lesser Redpoll (<i>Carduelis cabaret</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Long-tailed Tit (<i>Aegithalos caudatus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Mallard (<i>Anas platyrhynchos</i>)	1	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 I Bird Species
bird	Mew Gull (<i>Larus canus</i>)	1	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
bird	Mistle Thrush (<i>Turdus viscivorus</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Northern Lapwing (<i>Vanellus vanellus</i>)	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 II Bird Species Threatened Species: Birds of Conservation Concern Threatened Species: Birds of Conservation Concern >> Birds of Conservation Concern - Red List
bird	Redwing (<i>Turdus iliacus</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
bird	Reed Bunting (<i>Emberiza schoeniclus</i>)	1	31/12/2011	Bird Atlas 2007 - 2011	
bird	Rock Pigeon (<i>Columba livia</i>)	1	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
bird	Rook (<i>Corvus frugilegus</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Sand Martin (<i>Riparia riparia</i>)	1	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
bird	Sky Lark (<i>Alauda arvensis</i>)	1	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
bird	Song Thrush (<i>Turdus philomelos</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Spotted Flycatcher (<i>Muscicapa striata</i>)	1	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
bird	Stock Pigeon (<i>Columba oenas</i>)	1	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
bird	White Wagtail (<i>Motacilla alba</i>)	3	31/12/2011	Bird Atlas 2007 - 2011	
bird	Willow Warbler (<i>Phylloscopus trochilus</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Winter Wren (<i>Troglodytes troglodytes</i>)	2	31/12/2011	Bird Atlas 2007 - 2011	
bird	Yellowhammer (<i>Emberiza citrinella</i>)	1	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
fern	Broad Buckler-fern (<i>Dryopteris dilatata</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
fern	Hard-fern (<i>Blechnum spicant</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
fern	Hart's-tongue (<i>Phyllitis scolopendrium</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
fern	Lady-fern (<i>Athyrium filix-femina</i>)	3	22/09/2003	Species Data from the National Vegetation Database	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
fern	Male-fern (<i>Dryopteris filix-mas</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
fern	Scaly Male-fern (<i>Dryopteris affinis</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
fern	Soft Shield-fern (<i>Polystichum setiferum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Alder (<i>Alnus glutinosa</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Ash (<i>Fraxinus excelsior</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Beech (<i>Fagus sylvatica</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Blackthorn (<i>Prunus spinosa</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Bramble (<i>Rubus fruticosus</i> agg.)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Bush Vetch (<i>Vicia sepium</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Cherry Laurel (<i>Prunus laurocerasus</i>)	1	22/09/2003	Species Data from the National Vegetation Database	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species
flowering plant	Common Nettle (<i>Urtica dioica</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Creeping Bent (<i>Agrostis stolonifera</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Creeping Buttercup (<i>Ranunculus repens</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Elder (<i>Sambucus nigra</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	False Oat-grass (<i>Arrhenatherum elatius</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	False-brome (<i>Brachypodium sylvaticum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Floating Sweet-grass (<i>Glyceria fluitans</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Fool's-water-cress (<i>Apium nodiflorum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Gorse (<i>Ulex europaeus</i>)	1	22/09/2003	Species Data from the National Vegetation Database	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
flowering plant	Great Willowherb (<i>Epilobium hirsutum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Greater Stitchwort (<i>Stellaria holostea</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Greater Tussock-sedge (<i>Carex paniculata</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Ground-ivy (<i>Glechoma hederacea</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Hawthorn (<i>Crataegus monogyna</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Hedge Bindweed (<i>Calystegia sepium</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Herb-Robert (<i>Geranium robertianum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Holly (<i>Ilex aquifolium</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Honeysuckle (<i>Lonicera periclymenum</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Horse-chestnut (<i>Aesculus hippocastanum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Ivy (<i>Hedera helix</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Japanese Knotweed (<i>Fallopia japonica</i>)	1	22/09/2003	Species Data from the National Vegetation Database	Invasive Species: Invasive Species Invasive Species: Invasive Species >> High Impact Invasive Species Invasive Species: Invasive Species >> Regulation S.I. 477 (Ireland)
flowering plant	Marsh-bedstraw (<i>Galium palustre</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Meadow Buttercup (<i>Ranunculus acris</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Meadowsweet (<i>Filipendula ulmaria</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Mexican Fleabane (<i>Erigeron karvinskianus</i>)	2	03/09/2017	Vascular plants: Online Atlas of Vascular Plants 2012 Onwards	
flowering plant	Opposite-leaved Golden-saxifrage (<i>Chrysosplenium oppositifolium</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Pedunculate Oak (<i>Quercus robur</i>)	1	22/09/2003	Species Data from the National Vegetation Database	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
flowering plant	Primrose (<i>Primula vulgaris</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Remote Sedge (<i>Carex remota</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	<i>Rumex sanguineus</i>	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	<i>Salix cinerea</i>	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Soft-rush (<i>Juncus effusus</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Sycamore (<i>Acer pseudoplatanus</i>)	3	22/09/2003	Species Data from the National Vegetation Database	Invasive Species: Invasive Species Invasive Species: Invasive Species >> Medium Impact Invasive Species
flowering plant	Tufted Hair-grass (<i>Deschampsia cespitosa</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Water Mint (<i>Mentha aquatica</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Wavy Bitter-cress (<i>Cardamine flexuosa</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	White Willow (<i>Salix alba</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Wild Angelica (<i>Angelica sylvestris</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Wild-oat (<i>Avena fatua</i>)	1	30/07/2014	The Flora of County Wexford	
flowering plant	Wood Avens (<i>Geum urbanum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Wood-sorrel (<i>Oxalis acetosella</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Wych Elm (<i>Ulmus glabra</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Yellow Iris (<i>Iris pseudacorus</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
flowering plant	Yellow Pimpernel (<i>Lysimachia nemorum</i>)	1	22/09/2003	Species Data from the National Vegetation Database	
horsetail	Great Horsetail (<i>Equisetum telmateia</i>)	3	22/09/2003	Species Data from the National Vegetation Database	
insect - beetle (Coleoptera)	22-spot Ladybird (<i>Psyllobora vigintiduopunctata</i>)	1	03/09/2017	Ladybirds of Ireland	

Species group	Species name	Record count	Date of last record	Title of dataset	Designation
insect - beetle (Coleoptera)	7-spot Ladybird (<i>Coccinella septempunctata</i>)	5	08/05/2023	Ladybirds of Ireland	
insect - butterfly	Brimstone (<i>Gonepteryx rhamni</i>)	1	07/06/2021	Atlas of Butterflies in Ireland 2021	
insect - butterfly	Red Admiral (<i>Vanessa atalanta</i>)	3	20/09/2019	Atlas of Butterflies in Ireland 2021	
insect - butterfly	Small Tortoiseshell (<i>Aglais urticae</i>)	2	30/03/2019	Atlas of Butterflies in Ireland 2021	
insect - butterfly	Speckled Wood (<i>Pararge aegeria</i>)	2	19/09/2016	Atlas of Butterflies in Ireland 2021	
insect - hymenopteran	Common Carder Bee (<i>Bombus (Thoracombus) pascuorum</i>)	3	01/06/2020	Bees of Ireland	
terrestrial mammal	Eurasian Badger (<i>Meles meles</i>)	4	31/12/2004	Badger Setts of Ireland Database	Protected Species: Wildlife Acts
terrestrial mammal	Pipistrelle (<i>Pipistrellus pipistrellus sensu lato</i>)	1	03/06/2009	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
terrestrial mammal	Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	1	03/06/2009	National Bat Database of Ireland	Protected Species: EU Habitats Directive Protected Species: EU Habitats Directive >> Annex IV Protected Species: Wildlife Acts
terrestrial mammal	West European Hedgehog (<i>Erinaceus europaeus</i>)	1	03/04/2021	Hedgehogs of Ireland	Protected Species: Wildlife Acts