



## Some fast facts about habitats

- ❖ An **ORGANISM** is any living thing or life form, for example, a Herring.



Figure 1. The Atlantic Herring (*Clupea harengus*).

(Image source: <https://featurefoods.ca/pages/nutrition-health-benefits-feature-foods>)

- ❖ A **HABITAT** is a place where an organism makes its home.
- ❖ Herrings live in the sea, so the sea is their habitat.
- ❖ Habitats can be as small as a rainwater puddle or as large as an ocean.
- ❖ Many habitats are temporary; many change over time.
- ❖ There are hundreds of thousands of different habitats worldwide.
- ❖ In Ireland, the standard system for classifying habitats is the **FOSSITT SCHEME** (see page 2).
- ❖ In the European Union, the 1992 **HABITATS DIRECTIVE** is the legislative act that sets out goals that EU countries must achieve to protect habitats. However, it is up to the individual countries to devise their own laws. **ANNEX 1** of the Habitats Directive lists 233 natural habitats that Member States are required to take measures to maintain or restore at a favourable conservation status (pages 3-4).
- ❖ Habitats on the South Wexford Coast are tabulated (pages 5-6), priority habitats are flagged (page 7), domestic wildlife legislation is listed (page 8), and the conservation status of habitats on the South Wexford Coast are assessed (pages 9-11).

# Classification of Habitats in Ireland

The scheme devised in 2000 in a book authored by Dr Julie Fossitt for classifying habitats in Ireland is a hierarchical one involving three levels. Using code letters, the scheme identifies 11 broad habitat groups at level one (L1), 30 habitat subgroups at level two (L2), and 117 habitats at level three (L3)

(<https://www.npws.ie/sites/default/files/publications/pdf/A%20Guide%20to%20Habitats%20in%20Ireland%20-%20Fossitt.pdf> and [https://heritagemaps.ie/documents/fossittclassification\\_heritagemaps.pdf](https://heritagemaps.ie/documents/fossittclassification_heritagemaps.pdf)).

L1	L2	L3	Description	
F	Freshwater			
	FL	Lakes and ponds		
		FL1	Dystrophic lakes	
		FL2	Acid oligotrophic lakes	
		FL3	Limestone/marl lakes	
		FL4	Mesotrophic lakes	
		FL5	Eutrophic lakes	
		FL6	Turloughs	
		FL7	Reservoirs	
	FL8	Other artificial lakes and ponds		
	FW	Watercourses		
		FW1	Eroding/upland rivers	
		FW2	Depositing/lowland rivers	
		FW3	Canals	
		FW4	Drainage ditches	
	FP	Springs		
		FP1	Calcareous springs	
		FP2	Non-calcareous springs	
	FS	Swamps		
		FS1	Reed and large sedge swamps	
	FS2	Tall-herb swamps		
	G	Grassland and marsh		
		GA	Improved grassland	
GA1			Improved agricultural grassland	
GA2			Amenity grassland (improved)	
GS		Semi-natural grassland		
		GS1	Dry calcareous and neutral grassland	
		GS2	Dry meadows and grassy verges	
		GS3	Dry-humid acid grassland	
		GS4	Wet grassland	
GM		Freshwater marsh		
		GM1	Marsh	
H		Heath and dense bracken		
		HH	Heath	
	HH1		Dry siliceous heath	
	HH2		Dry calcareous heath	
	HH3		Wet heath	
	HH4	Montane heath		
HD	Dense bracken			
HD1	Dense bracken			
P	Peatlands			
	PB	Bogs		
		PB1	Raised bog	
		PB2	Upland blanket bog	
		PB3	Lowland blanket bog	
		PB4	Cutover bog	
	PB5	Eroding blanket bog		
	PF	Fens and flushes		
		PF1	Rich fen and flush	
		PF2	Poor fen and flush	
PF3		Transition mire and quaking bog		
W	Woodland and scrub			
WN	Semi-natural woodland			
	WN1	Oak-birch-holly woodland		
	WN2	Oak-ash-hazel woodland		
	WN3	Yew woodland		
	WN4	Wet pedunculate oak-ash woodland		
	WN5	Riparian woodland		
	WN6	Wet willow-alder-ash woodland		
	WN7	Bog woodland		
	WD	Highly modified/non-native woodland		
		WD1	(Mixed) broadleaved woodland	
		WD2	Mixed broadleaved/conifer woodland	
		WD3	(Mixed) conifer woodland	
		WD4	Conifer plantation	
	WD5	Scattered trees and parkland		
	WS	Scrub/transitional woodland		
		WS1	Scrub	
		WS2	Immature woodland	
		WS3	Ornamental/non-native shrub	
		WS4	Short rotation coppice	
	WS5	Recently-felled woodland		
WL	Linear woodland/scrub			
	WL1	Hedgerows		
WL2	Treelines			
E	Exposed rock and disturbed ground			
	ER	Exposed rock		
		ER1	Exposed siliceous rock	
		ER2	Exposed calcareous rock	
		ER3	Siliceous scree and loose rock	
		ER4	Calcareous scree and loose rock	
	EU	Underground rock and caves		
		EU1	Non-marine caves	
	EU2	Artificial underground habitats		
	ED	Disturbed ground		
		ED1	Exposed sand, gravel or till	
		ED2	Spoil and bare ground	
ED3		Recolonising bare ground		
ED4		Active quarries and mines		
ED5	Refuse and other waste			
B	Cultivated and built land			
	BC	Cultivated land		
		BC1	Arable crops	
		BC2	Horticultural land	
		BC3	Tilled land	
	BC4	Flower beds and borders		
	BL	Built land		
		BL1	Stone walls and other stonework	
BL2		Earth banks		
BL3		Buildings and artificial surfaces		
C	Coastland			
	CS	Sea cliffs and islets		
		CS1	Rocky sea cliffs	
		CS2	Sea stacks and islets	
		CS3	Sedimentary sea cliffs	
CW	Brackish waters			
CM	CW1	Lagoons and saline lakes		
		Tidal rivers		
	CM2	Salt marshes		
		CM1	Lower salt marsh	
	CM2	Upper salt marsh		
	CB	Shingle and gravel banks		
		CB1	Shingle and gravel banks	
	CD	Sand dune systems		
		CD1	Embryonic dunes	
		CD2	Marram dunes	
CD3		Fixed dunes		
CD4		Dune scrub and woodland		
CD5		Dune slacks		
CD6	Machair			
CC	Coastal constructions			
	CC1	Sea walls, piers and jetties		
CC2	Fish cages and rafts			
L	Littoral (intertidal)			
	LR	Littoral rock		
		LR1	Exposed rocky shores	
		LR2	Moderately exposed rocky shores	
		LR3	Sheltered rocky shores	
		LR4	Mixed substrata shores	
	LR5	Sea caves		
	LS	Littoral sediment		
		LS1	Shingle and gravel shores	
		LS2	Sand shores	
		LS3	Muddy sand shores	
		LS4	Mud shores	
	LS5	Mixed sediment shores		
	S	Sublittoral (subtidal)		
		SR	Sublittoral rock	
SR1			Exposed infralittoral rock	
SR2			Moderately exposed infralittoral rock	
SR3			Sheltered infralittoral rock	
SR4			Exposed circalittoral rock	
SR5			Moderately exposed circalittoral rock	
SR6		Sheltered circalittoral rock		
SS		Sublittoral sediment		
		SS1	Infralittoral gravels and sands	
		SS2	Infralittoral muddy sands	
		SS3	Infralittoral muds	
	SS4	Infralittoral mixed sediments		
	SS5	Circalittoral gravels and sands		
SS6	Circalittoral muddy sands			
SS7	Circalittoral muds			
SS8	Circalittoral mixed sediments			
M	MW	Marine water body		
		MW1	Open marine water	
		MW2	Sea inlets and bays	
		MW3	Straits and sounds	
MW4	Estuaries			

Table 1. The Fossitt scheme for habitat classification in Ireland.

# EU Habitats Directive: Annex 1

The European Union (EU) Habitats Directive was adopted by the European Commission in 1992, came into force in 1994, and was transposed into Irish legislation in 1997. The main aim of both the Habitats Directive and the resulting Irish legislation is to contribute towards the conservation of biodiversity. The current amended and consolidated version of the Directive is dated 13 May 2013 (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:01992L0043-20130701>).

Annex 1 of the Directive lists 233 natural habitats that Member States are required to take measures to maintain or restore at a favourable conservation status; these habitats are tabulated below (Table 2). EU habitats are arranged in nine categories and 32 sub-categories. Some EU habitats are flagged as 'priority habitats' meaning that they are habitats that are considered to be in danger of disappearing within the EU territory and require more significant conservation measures.

In Table 2, the EU official habitat name is followed by the 'short name' used in Ireland by the National Parks and Wildlife Service (NPWS) in Article 17 reports. Codes used in the table below are as follows: EU = European Union, IE = Ireland, SWC = South Wexford Coast, Sub = Sub-category, Hab = Habitats, and Pri = Priority. There are many habitats on the South Wexford Coast (SWC); those featured in Table 2 are habitats chosen as qualifying interests of the seven SACs on that coastline.

Category			EU			IE		SWC	
No	Official name	Short name	Sub	Hab	Pri	Hab	Pri	Hab	Pri
1	Coastal and halophytic habitats	Coastal	6	28	7	14	1	12	1
2	Coastal sand dunes and inland dunes	Dunes	3	21	7	8	4	4	1
3	Freshwater habitats	Freshwater	2	20	3	8	1	0	0
4	Temperate heath and scrub	Heath	0	12	6	3	0	0	0
5	Sclerophyllous scrub (matorral)	Scrub	4	13	3	1	0	0	0
6	Natural and semi-natural grassland formations	Grassland	5	32	12	6	2	0	0
7	Raised bogs and mires, and fens	Bogs	3	12	6	8	4	0	0
8	Rocky habitats and caves	Rock	3	14	2	7	1	1	0
9	Forests	Forests	6	81	26	4	3	0	0
<b>Totals</b>			<b>32</b>	<b>233</b>	<b>72</b>	<b>59</b>	<b>16</b>	<b>17</b>	<b>2</b>

Table 2. Numbers of habitats.

**Interpretation.** Guidance on the interpretation of habitat types is given in the Interpretation Manual of European Union Habitats (<https://circabc.europa.eu/ui/group/3f466d71-92a7-49eb-9c63-6cb0fadf29dc/library/37d9e6d9-b7de-42ce-b789-622e9741b68f/details>).

**Reporting.** Under Article 17 of the Directive, each Member State is obliged to report to the European Commission every six years on the status of habitats in their administrative areas. In April 2019, Ireland submitted its third assessment of conservation status for 59 habitats ([https://www.npws.ie/sites/default/files/publications/pdf/NPWS\\_2019\\_Vol1\\_Summary\\_Article17.pdf](https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf)).

# List of 59 Annex 1 habitats recorded in Ireland.

Code	EU Habitats Directive Annex 1 habitat name	
1110	Sandbanks which are slightly covered by sea water all the time	An asterisk (*) in front of a habitat name denotes a priority habitat.
1130	Estuaries	
1140	Mudflats and sandflats not covered by seawater at low tide	
1150	*Coastal lagoons	
1160	Large shallow inlets and bays	
1170	Reefs	
1180	Submarine structures made by leaking gases	
1210	Annual vegetation of drift lines	
1220	Perennial vegetation of stony banks	
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	
1310	<i>Salicornia</i> and other annuals colonizing mud and sand	
1330	Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )	
1410	Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )	
1420	Mediterranean and thermo-Atlantic halophilous scrubs ( <i>Sarcocornetea fruticosi</i> )	
2110	Embryonic shifting dunes	
2120	Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")	
2130	*Fixed coastal dunes with herbaceous vegetation ("grey dunes")	
2140	*Decalcified fixed dunes with <i>Empetrum nigrum</i>	
2150	*Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> )	
2170	Dunes with <i>Salix repens</i> ssp <i>argentea</i> ( <i>Salicion arenariae</i> )	
2190	Humid dune slacks	
3110	Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )	
3130	Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i>	
3140	Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp	
3150	Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i> -type vegetation	
3160	Natural dystrophic lakes and ponds	
3180	*Turloughs	
3260	Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitricho-Batrachion</i> vegetation	
3270	Rivers with muddy banks with <i>Chenopodium rubri</i> pp and <i>Bidention</i> pp vegetation	
4010	Northern Atlantic wet heaths with <i>Erica tetralix</i>	
4030	European dry heaths	
4060	Alpine and Boreal heaths	
5130	<i>Juniperus communis</i> formations on heaths or calcareous grasslands	
6130	Calaminarian grasslands of the <i>Violetalia calaminariae</i>	
6210	*Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites)	
6230	*Species-rich <i>Nardus</i> grasslands, on silicious substrates in mountain areas	
6410	<i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> )	
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	
6510	Lowland hay meadows ( <i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i> )	
7110	*Active raised bogs	
7120	Degraded raised bogs still capable of natural regeneration	
7130	*Blanket bogs (if active bog)	
7140	Transition mires and quaking bogs	
7150	Depressions on peat substrates of the <i>Rhynchosporion</i>	
7210	*Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i>	
7220	*Petrifying springs with tufa formation ( <i>Cratoneurion</i> )	
7230	Alkaline fens	
8110	Siliceous scree of the montane to snow levels ( <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> )	
8120	Calcareous and calcshist screes of the montane to alpine levels ( <i>Thlaspietea rotundifolii</i> )	
8210	Calcareous rocky slopes with chasmophytic vegetation	
8220	Siliceous rocky slopes with chasmophytic vegetation	
8240	*Limestone pavements	
8310	Caves not open to the public	
8330	Submerged or partially submerged sea caves	
21A0	*Machairs	
91A0	Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	
91D0	*Bog woodland	
91E0	*Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i>	
91J0	* <i>Taxus baccata</i> woods of the British Isles	

Table 3. List of the 59 Annex 1 habitats recorded in Ireland.

(Source: NPWS Article 17 reporting)



# Habitats on the South Wexford Coast.

The South Wexford Coast supports a great diversity of habitats. The table below (Table 4) features the subset of 17 habitats picked from those listed in Annex 1 of the Habitats Directive (see page 3 above) and chosen as qualifying interests of the seven Special Areas of Conservation (SACs) that the South Wexford Coast supports.

Category	Code	17 habitat short names (EU Annex 1 names are given in Table 3 above). Two priority habitats (*) are highlighted.	Hook Head	Bannow Bay	Ballyteige Burrow	Saltee Islands	Tacumshin Lake	Lady's Island Lake	Carnsore Point
Coastal	1130	Estuaries		✓	✓				
	1140	Tidal mudflats and sandflats		✓	✓	✓			✓
	*1150	Lagoons			✓		✓	✓	
	1160	Large shallow inlets and bays	✓			✓			
	1170	Reefs	✓			✓		✓	✓
Beaches and cliffs	1210	Drift lines		✓	✓		✓		
	1220	Vegetated shingle		✓	✓		✓	✓	
	1230	Vegetated sea cliffs	✓			✓			
Saltmarshes	1310	<i>Salicornia</i> mud		✓	✓				
	1330	Atlantic salt meadows		✓	✓				
	1410	Mediterranean salt meadows		✓	✓				
	1420	Halophilous scrub		✓	✓				
Sand dunes	2110	Embryonic shifting dunes		✓	✓		✓		
	2120	Marram dunes (white dunes)		✓	✓		✓		
	*2130	Fixed dunes (grey dunes)		✓	✓				
	2190	Humid dune slacks			✓				
Caves	8330	Sea caves				✓			

Table 4. Habitats that are qualifying interests of the seven SACs on the South Wexford Coast.

(Source: <https://www.npws.ie/protected-sites/sac> )

See page 6 for links to both the habitats and the SACs. Note that 'Lagoons' and 'Fixed dunes (grey dunes)' are priority habitats (see page 7).

**Habitats.** For a description of any of the 59 Annex 1 habitats recorded in Ireland click either the habitat code number or the habitat name on page 4 at the following link:-

[https://www.npws.ie/sites/default/files/publications/pdf/NPWS\\_2019\\_Vol1\\_Summary\\_Article17.pdf](https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf).

**SACs.** The Site Codes in Table 5 are links to the seven SACs on the South Wexford Coast.

No	SAC Site Name	SAC Site Code
1	Hook Head	<a href="#">IE0000764</a>
2	Bannow Bay	<a href="#">IE0000697</a>
3	Ballyteige Burrow	<a href="#">IE0000696</a>
4	Saltee Islands	<a href="#">IE0000707</a>
5	Tacumshin Lake	<a href="#">IE0000709</a>
6	Lady's Island Lake	<a href="#">IE0000704</a>
7	Carnsore Point	<a href="#">IE0002269</a>

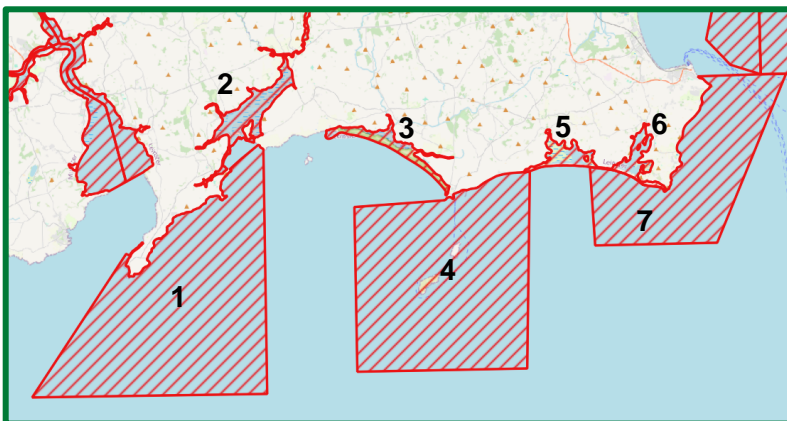


Table 5. Links to Special Areas of Conservation on the South Wexford Coast.

## Map of the South Wexford Coast

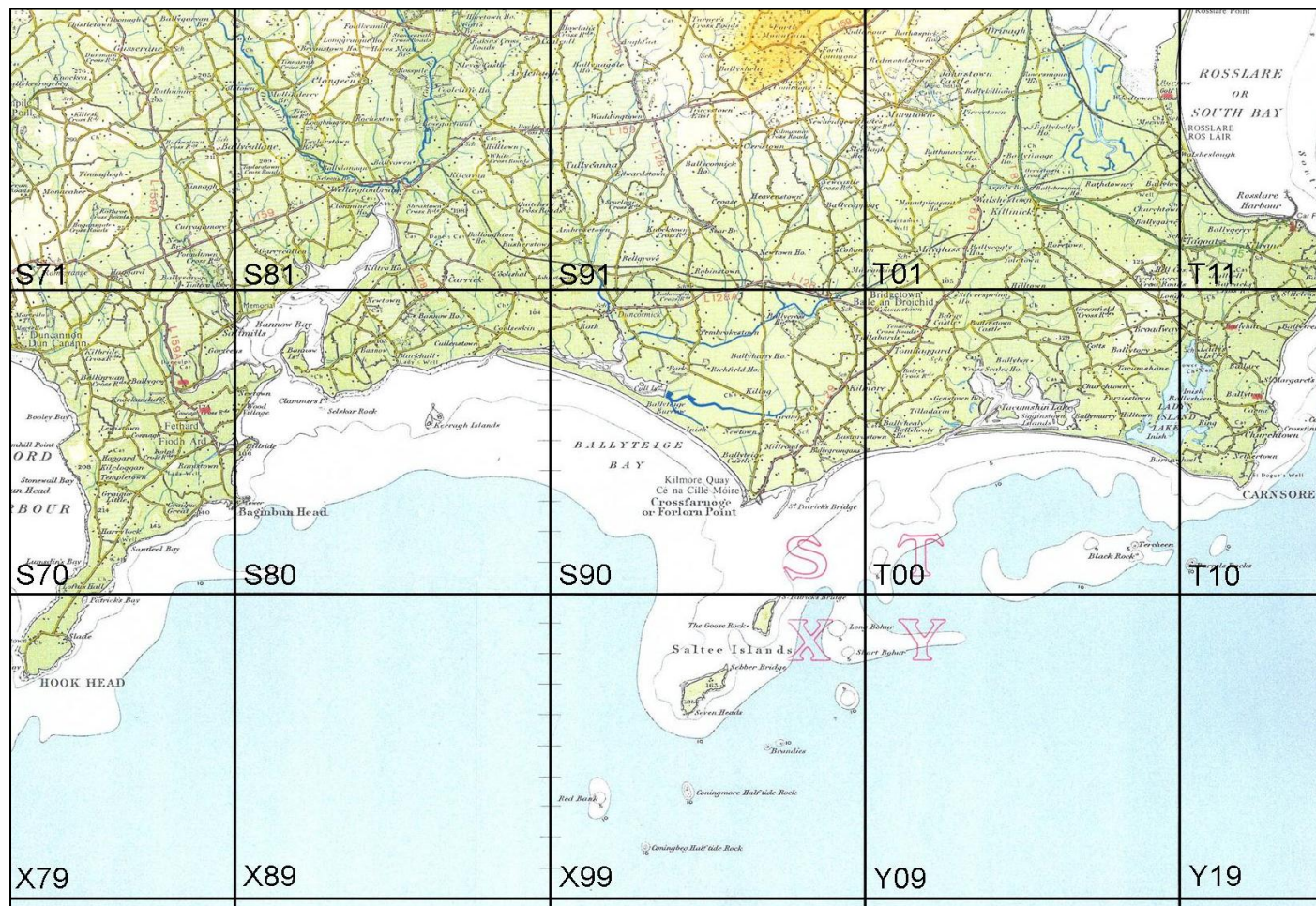


Figure 2. 10km squares on the South Wexford Coast.

(Base map source: Ordnance Survey Ireland, Discovery Series)



# Priority habitats

Priority habitats are natural habitat types in danger of disappearance, and for which the Member States have particular responsibility in view of the proportion of the habitat which falls within the territory of the European Union (Habitats Directive, Article 1).

Priority natural habitat types are indicated by an asterisk (\*). Sixteen priority habitats occur in Ireland (Table 3) two of them on the South Wexford Coast: coastal lagoons (Code 1150) and grey dunes (Code 2130).

**Coastal lagoons** are located at three sites: Ballyteige Channels, Tacumshin Lake and Lady's Island Lake (Figure 3). Together, by area, these three waterbodies comprise about 29% of Ireland's coastal lagoon habitat resource and are consequently of high conservation importance. They also support an exceptionally high number of lagoonal specialists. Lady's Island Lake is the best-documented lagoon in Ireland and is regarded by far the largest and best example of a back-barrier sedimentary lagoon in the country.

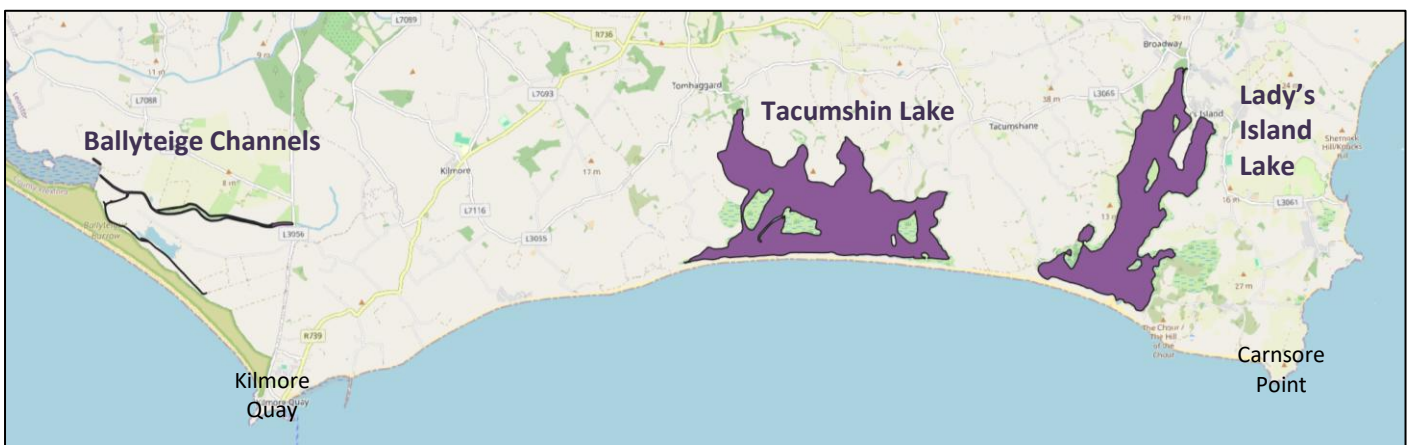


Figure 3. Coastal lagoons on the South Wexford Coast.

**Grey dunes** occur at four locations on the South Wexford Coast. Small areas of grey dunes are located at two sites at Bannow Bay (Grange and Bannow Island). Ballyteige Burrow is one of the largest and most impressive dune systems in south-east Ireland with extensive grey dunes, while the barriers separating the coastal lagoons at Tacumshin Lake and Lady's Island Lake from the Celtic Sea support smaller, more fragmented, and more hummocky grey dune habitat (Figure 4).



Figure 4. Grey dunes on the South Wexford Coast.

# Legislation

The most important pieces of legislation, arranged by date, underpinning the protection of habitats in Ireland may be accessed via the following links:-

- [Wildlife Act, 1976](#) (Number 39 of 1976)
- [Wildlife \(Amendment\) Act, 2000](#) (Number 38 of 2000)
- [Wildlife \(Amendment\) Act 2010](#) (Number 19 of 2010)
- [European Communities \(Birds and Natural Habitats\) Regulations 2011](#) (Number 477 of 2011)
- [Wildlife \(Amendment\) Act 2012](#) (Number 29 of 2012)
- [European Communities \(Birds and Natural Habitats\) \(Amendment\) Regulations 2013](#). (Number 499 of 2013)
- [European Communities \(Birds and Natural Habitats\) \(Amendment\) Regulations 2015](#). (Number 355 of 2015)
- Part 3 of the [Heritage Act 2018](#) (Number 15 of 2018)
- Part 2, Chapters 3 and 4 of the [Planning, Heritage and Broadcasting \(Amendment\) Act 2021](#) (Number 11 of 2021)
- [European Union \(Birds and Natural Habitats\) \(Amendment\) Regulations 2021](#) (Number 293 of 2021)<http://www.irishstatutebook.ie/eli/2021/act/11/enacted/en/html>
- [Wildlife \(Amendment\) Act 2023](#) (Number 25 of 2023)

For a list of currently available unofficial consolidations of the above legislation see [Consolidated Legislation](#). Click on the following links to see the full list of Statutory Instruments made under two Acts, listed by section of each Act: [Statutory Instruments made under the Wildlife Act 1976](#) and [Statutory Instruments made under the Wildlife \(Amendment\) Act 2000](#).

## Activities Requiring Consent (ARCs)

ARCs are 38 activities with a potential to damage habitats that may require the consent of the Minister for Housing, Local Government and Heritage before they are conducted. It is an offence to carry out an ARC without prior consent. ARCs relevant to each individual Special Area of Conservation (SAC) are listed in the statutory instrument enabling the particular SAC (Table 5).

(Source: <https://www.npws.ie/farmers-and-landowners/activities-requiring-consent>)



# Conservation Status

The conservation status of a habitat is defined in Article 1 of the Habitats Directive as the sum of the influences acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species.

The National Parks and Wildlife Service (NPWS) assesses and reports to the European Commission (EC) every six years regarding the conservation status of the 59 Annex 1 habitats that occur in Ireland. Conservation status is summarised below (Table 6) by three traffic light colours: Green (favourable), Amber/Orange (inadequate), and Red (bad). Sources are listed on page 10 and references on page 11.

Code	Short name (EU names are given in Table 3 above)	Ireland	Hook Head	Bannow Bay	Ballyteige Burrow	Saltee Islands	Tacumshin Lake	Lady's Island Lake	Carnsore Point
1130	Estuaries	2019		2020	?				
1140	Tidal mudflats and sandflats	2019		2020	?	?			?
*1150	Lagoons	2019			2007b		2007b	2007b	
1160	Large shallow inlets and bays	2019	2020			?			
1170	Reefs	2019	2020			?		?	?
1210	Drift lines	2019		?	2013		?		
1220	Vegetated shingle	2019		?	2009		2018	2017	
1230	Vegetated sea cliffs	2019	?			?			
1310	<i>Salicornia</i> mud	2019		2012	2007a				
1330	Atlantic salt meadows	2019		2012	2007a				
1410	Mediterranean salt meadows	2019		2012	2007a				
1420	Halophilous scrub	2019		2012	2007a				
2110	Embryonic shifting dunes	2019		2012	2013		2018		
2120	Marram dunes (white dunes)	2019		2012	2013		2018		
*2130	Fixed dunes (grey dunes)	2019		2012	2013				
2190	Humid dune slacks	2019			2013				
8330	Sea caves	2019				?			

Table 6. The conservation status of Annex 1 habitats in Ireland and on the South Wexford Coast.

## Sources

Assessments for sites are the most recently published and are accessed from the sources listed below. Note that the dates given are the dates of publication, not the dates of assessment.

Code	Ireland	Hook Head	Bannow Bay	Ballyteige Burrow	Saltee Islands	Tacumshin Lake	Ladys Island Lake	Carnsore Point
1130	NPWS, 2019		Scally <i>et al.</i> , 2020 (page 25)	?				
1140	NPWS, 2019		Scally <i>et al.</i> , 2020 (page 27)	?	?		Oliver, 2007	?
*1150	NPWS, 2019			Oliver, 2007		Oliver, 2007		
1160	NPWS, 2019	Scally <i>et al.</i> , 2020 (page 30)			?			
1170	NPWS, 2019	Scally <i>et al.</i> , 2020 (page 33)			?			?
1210	NPWS, 2019		?	Delaney <i>et al.</i> , 2013		?	?	
1220	NPWS, 2019		?	Ryle, <i>et al.</i>		NPWS, 2018	?	
1230	NPWS, 2019	?			?			
1310	NPWS, 2019		NPWS, 2012 Table 8 below	McCorry, 2007				
1330	NPWS, 2019		NPWS, 2012 Table 8 below	McCorry, 2007				
1410	NPWS, 2019		NPWS, 2012 Table 8 below	McCorry, 2007				
1420	NPWS, 2019		NPWS, 2012 Table 8 below	McCorry, 2007				
2110	NPWS, 2019		NPWS, 2012 Table 8 below	Delaney <i>et al.</i> , 2013		NPWS, 2018	?	
2120	NPWS, 2019		NPWS, 2012 Table 8 below and Ryle <i>et al.</i> , 2009 (page 176)	Delaney <i>et al.</i> , 2013		NPWS, 2018	NPWS, 2019	
*2130	NPWS, 2019		NPWS, 2012 Table 8 below and Ryle <i>et al.</i> , 2009 (page 185)	Delaney <i>et al.</i> , 2013				
2190	NPWS, 2019			Delaney <i>et al.</i> , 2013				
8330	NPWS, 2019				?			

Table 7. Sources for conservation assessments for sites listed in Table 6.

NPWS. 2012. *Bannow Bay SAC (site code 697) Conservation objectives supporting document - coastal habitats*. Version 1. Dublin: National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht. Available online at

[https://www.npws.ie/sites/default/files/publications/pdf/697\\_Bannow%20Bay%20SAC%20Coastal%20Supporting%20Doc\\_V1.pdf](https://www.npws.ie/sites/default/files/publications/pdf/697_Bannow%20Bay%20SAC%20Coastal%20Supporting%20Doc_V1.pdf).

Scally, L., Pfeiffer, N., and Hewitt, E. 2020. The monitoring and assessment of six EU Habitats Directive Annex I Marine Habitats. *Irish Wildlife Manuals*, No 118. Dublin: National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht. Available online at

<https://www.npws.ie/sites/default/files/publications/pdf/IWM118.pdf>.

Barron, S. J., Delaney, A., Perrin, P. M., Martin, J. R. and O'Neill, F. H. 2011. National survey and assessment of the conservation status of Irish sea cliffs. *Irish Wildlife Manuals*, No 53. Dublin: National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government. Available online at

<http://www.botanicalevironmental.com/wp-content/uploads/2014/02/IWM53-Sea-Cliffs.pdf>.

Ryle, T., Murray, A., Connolly, K., and Swann, M, 2009, *Coastal Monitoring Project 2004-2006*. Dublin: National Parks and Wildlife Service. Available online at

[https://www.npws.ie/sites/default/files/publications/pdf/Ryle\\_et\\_al\\_2009\\_Coastal\\_Monitoring\\_Project.pdf](https://www.npws.ie/sites/default/files/publications/pdf/Ryle_et_al_2009_Coastal_Monitoring_Project.pdf).

Code	Bannow Island (pages 39 and 114)	Clonmines (page 54)	Taulaght (page 68)	Saltmills (page 82)	Gorteens (page 96)	Fethard (page 111)	Grange (pages 124 and 142)	Overall
1310								
1330								
1410								
1420								
2110								
2120								
2130								

Table 8. Conservation status of habitats at Bannow Bay.

Source: NPWS, (2012)

## References

2007	McCorry, 2007a. In NPWS, 2014b: Related Publications. Available online at <a href="https://www.npws.ie/protected-sites/sac/000696">https://www.npws.ie/protected-sites/sac/000696</a> .
	Oliver, G. 2007b. Irish Lagoons: Conservation Status Assessment. Available online at <a href="http://www.irishlagoons.com/">http://www.irishlagoons.com/</a> .
2009	Ryle, T.; Murray, A.; Connolly, C.; and Swann, M. 2009. Coastal Monitoring Project 2004-2006. In NPWS, 2014a: Related Publications. Available online at <a href="https://www.npws.ie/protected-sites/sac/000696">https://www.npws.ie/protected-sites/sac/000696</a> .
2012	NPWS. 2012. <i>Bannow Bay SAC (site code: 697) Conservation objectives supporting document - coastal habitats</i> . Version 1, February 2012. Unpublished report. Dublin: National Parks and Wildlife Service of the Department of Arts, Heritage and the Gaeltacht. Available online at <a href="https://www.npws.ie/protected-sites/sac/000697">https://www.npws.ie/protected-sites/sac/000697</a> and <a href="http://www.npws.ie/publications/archive/697_Bannow%20Bay%20SAC%20Coastal%20Supporting%20Doc_V1.pdf">http://www.npws.ie/publications/archive/697_Bannow%20Bay%20SAC%20Coastal%20Supporting%20Doc_V1.pdf</a> .
2013	Delaney <i>et al.</i> , 2013. In NPWS, 2014b: Related Publications. Available online at <a href="https://www.npws.ie/protected-sites/sac/000696">https://www.npws.ie/protected-sites/sac/000696</a> .
2014	NPWS. 2014a. Ballyteige Burrow SAC (site code 696). Available online at <a href="https://www.npws.ie/protected-sites/sac/000696">https://www.npws.ie/protected-sites/sac/000696</a> .
	NPWS. 2014b. Ballyteige Burrow SAC (site code 696) Conservation objectives supporting document - coastal habitats. In NPWS, 2014a: Related Publications. Available online at <a href="https://www.npws.ie/protected-sites/sac/000696">https://www.npws.ie/protected-sites/sac/000696</a> .
2018	NPWS. 2018. Tacumshin Lake SAC (site code 709) Conservation objectives supporting document - coastal habitats. In NPWS, 2018: Related Publications. Available online at <a href="https://www.npws.ie/protected-sites/sac/000696">https://www.npws.ie/protected-sites/sac/000696</a> .
2019	NPWS. 2019a. <i>The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview</i> . Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill. Dublin: National Parks and Wildlife Service. Available online at <a href="https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf">https://www.npws.ie/sites/default/files/publications/pdf/NPWS_2019_Vol1_Summary_Article17.pdf</a> .
	NPWS. 2019b. Lady's Island Lake SAC (site code 704) Conservation objectives supporting document - coastal habitats. Related Publications. Available online at <a href="https://www.npws.ie/protected-sites/sac/000704">https://www.npws.ie/protected-sites/sac/000704</a> .
2020	Scally, L., Pfeiffer, N., and Hewitt, E. 2020. The monitoring and assessment of six EU Habitats Directive Annex I Marine Habitats. <i>Irish Wildlife Manuals</i> , No 118. Dublin: National Parks and Wildlife Service, Department of Culture, Heritage, and the Gaeltacht. Available online at <a href="https://www.npws.ie/publications/irish-wildlife-manuals">https://www.npws.ie/publications/irish-wildlife-manuals</a> .