

Site 10 – Sligo Bay

Site description

Sligo Bay is a large site extending around part of Sligo Bay, Co. Sligo. The swamp forms an important part of the system, particularly in the inner bay. Field surveys were conducted at three sub-sites: Strandhill, Cummeen Strand and Garavoge Estuary.

The site is part of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (SAC 000627) and Cummeen Strand SPA (SPA 004035).

Based on the currently available mapping, ten coastal Annex I habitats occur within this SAC, three of which (**2110 Embryonic shifting dunes**, **2120 Marram dunes (white dunes)**, ***2130 Fixed dunes (grey dunes)**) are listed as Qualifying Interests (Table 1).

Table 1. Annex I habitats present at Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, the area they occupy (based on the most recent mapped available) and status as a Qualifying Interest of the SAC. An asterisk denotes a priority Annex I habitat and habitats that were not the target of this survey are excluded.

Habitat Code	Area (ha)	Qualifying Interest?
1210 Drift line vegetation	0.458	No
1220 Perennial vegetation of stony banks	0.837	No
1310 <i>Salicornia</i> flats	0.599	No
1330 Atlantic salt meadows	36.075	No
1410 Mediterranean saltmarsh	19.800	No
2110 Embryonic shifting dunes	34.026	Yes
2120 Marram dunes (white dunes)	1.366	Yes
*2130 Fixed dunes (grey dunes)	115.124	Yes
2170 Dunes with creeping willow	10.937	No
2190 Humid dune slacks	0.425	No

The dunes at Strandhill are the focus of considerable activity. A waste water treatment plant and airport have been developed on the dunes. There are car parks and camping facilities, and the location is promoted as a surfing destination. As a result, the dunes are subject to considerable amenity use and there is a strong motivation to construct coastal protection measures to protect the infrastructure when erosion events take place (RPS, 2012). Parts of the dunes were planted with conifer forestry in the last century, and the drying effect of woodland is likely to have altered the character of the dunes in the vicinity of the plantations.

Habitat losses were recorded due mainly to a rock embankment (at Garavoge Estuary) and natural succession (at Cummeen Strand and Garavoge Estuary) (Table 2).

Table 2. Habitat loss recorded during the desk and field surveys in hectares.

Habitat	Within SAC?	Loss (ha)	Impact code	New habitat
*2130	Yes	0.917	PF15	Shingle and gravel shores (LS1) and Sand shores (LS2)
1330	Yes	0.433	PM07	Reed and large sedge swamps (FS1), Dry meadows and grassy verges (GS2), Wet grassland (GS4) and Scattered trees and parkland (WD5)
1410	Yes	0.029	PM07	Reed and large sedge swamps (FS1) and Wet grassland (GS4)
1330	Yes	0.075	PF15	Buildings and artificial surfaces (BL3)
1330	No	0.055	PM07	Wet grassland (GS4)
1410	Yes	0.032	PF15	Buildings and artificial surfaces (BL3)
1410	No	0.004	PM07	Wet grassland (GS4)

*2130	Yes	0.038	PF01	Buildings and artificial surfaces (BL3)
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Conservation assessments were carried out within three sub-sites occupying a total area of 98 ha (Table 3). Five habitats (**1220 Perennial vegetation of stony banks**, **1310 *Salicornia* flats**, **1410 Mediterranean saltmarsh**, **2110 Embryonic shifting dunes** and **2120 Marram dunes (white dunes)**) were in Favourable condition and the remainder were in Unfavourable condition, mainly due to intensive grazing, walking over the dunes and spreading of non-native vegetation coming from the neighboring conifer plantations.

Table 3. Summary of Conservation Status for all habitats assessed at Sligo Bay.

Subsite	Habitat	Area	Structure and Functions	Future Prospects	Overall assessment
10.01 Strandhill	1210	Unfavourable - Bad (decreasing)	Favourable (stable)	Favourable	Unfavourable - Bad (stable)
10.01 Strandhill	1220	Favourable (stable)	Favourable (stable)	Favourable	Favourable (improving)
10.01 Strandhill	2110	Favourable (stable)	Favourable (stable)	Favourable	Favourable (stable)
10.01 Strandhill	2120	Favourable (stable)	Favourable (increasing)	Favourable	Favourable (improving)
10.01 Strandhill	*2130	Unfavourable - Bad (decreasing)	Unfavourable - Inadequate (increasing)	Unfavourable - Bad	Unfavourable - Bad (stable)
10.01 Strandhill	2170	Favourable (stable)	Unfavourable - Bad (decreasing)	Unfavourable - Bad	Unfavourable - Bad (deteriorating)
10.01 Strandhill	2190	Favourable (stable)	Unfavourable - Bad (decreasing)	Unfavourable - Bad	Unfavourable - Bad (deteriorating)
10.02 Cummeen Strand	1310	Favourable (stable)	Favourable (stable)	Favourable	Favourable (stable)
10.02 Cummeen Strand	1330	Favourable (stable)	Favourable (stable)	Unfavourable - Inadequate	Unfavourable - Inadequate (deteriorating)
10.02 Cummeen Strand	1410	Favourable (stable)	Favourable (stable)	Favourable	Favourable (stable)
10.03 Garavoge Estuary	1310	Favourable (stable)	Favourable (stable)	Favourable	Favourable (stable)
10.03 Garavoge Estuary	1330	Unfavourable - Inadequate (decreasing)	Favourable (stable)	Unfavourable - Inadequate	Unfavourable - Inadequate (deteriorating)
10.03 Garavoge Estuary	1410	Unfavourable - Inadequate (decreasing)	Favourable (stable)	Unfavourable - Inadequate	Unfavourable - Inadequate (deteriorating)

Sub-site 1. Strandhill

Strandhill is located on a sandy shore around Sligo Airport in Co. Sligo.

Summary Information

Survey Date: 30 June - 01 July 2023

Water Framework Directive Waterbody: not applicable

Previous survey identifiers: CMP133

Current survey details:

Table 4: Current survey details for Annex I habitats at Strandhill

Habitat Code	Area	Monitoring stops
1210 Drift line vegetation	0.437	2
1220 Perennial vegetation of stony banks	0.837	4
2110 Embryonic shifting dunes	0.279	2
2120 Marram dunes (white dunes)	0.269	2
*2130 Fixed dunes (grey dunes)	33.676	8
2170 Dunes with creeping willow	10.937	8
2190 Humid dune slacks	0.185	2

1210 Drift line vegetation

Area

The area of **1210 Drift line vegetation** increased from 0.12 ha to 0.44 ha since SDM. This increase was due to natural processes of deposition. Because of the construction of a large sea-wall with rock-armour close to the previous location of the habitat, there has been a habitat loss of 0.88 hectares. Given that this loss was more than 10% of the Favourable Reference Area, this is consistent with an Area assessment of Unfavourable - Bad and the trend of the area is decreasing.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since in the previous assessment Structure and Functions were Favourable, the trend is stable.

Future Prospects

No impacts were recorded within the area of **1210 Drift line vegetation**, except for low-intensity neutral impact due to walking. Future Prospects were therefore assessed as Favourable, and the trend was assessed as increasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Unfavourable - Bad (decreasing)
- Structure and Functions: Favourable (stable)
- Future Prospects: Favourable (increasing)

Since one of the three parameters was assessed as Unfavourable - Bad, the conservation status of **1210 Drift line vegetation** at 10.01 Strandhill was Unfavourable - Bad. Since the previous assessment was Unfavourable - Bad, the trend is therefore stable.

Overall Conservation Status: Unfavourable - Bad (stable)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

1220 Perennial vegetation of stony banks

Area

The area of **1220 Perennial vegetation of stony banks** increased from 0.76 ha to 0.84 ha since SDM. This increase was due to natural processes of deposition. This is consistent with an Area assessment of Favourable. Because of these fluctuations between increasing and decreasing, due to erosion events, the trend of the area is stable.

Structure and Functions

1220 Perennial vegetation of stony banks present at Strandhill was composed by pioneer *Honckenya peploides* dominated communities and, equally, by grassland communities dominated by *Festuca rubra*. No notable species were recorded. No criteria failed, so the Structure and Functions were Favourable. Since **1220 Perennial vegetation of stony banks** was assessed as Favourable during SDM, the trend is therefore stable.

Future Prospects

No impacts were recorded, except for low-intensity neutral impact due to walking. Future Prospects were therefore assessed as Favourable. The trend was assessed as increasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (stable)
- Future Prospects: Favourable (increasing)

Since all three parameters were assessed as Favourable, the overall conservation assessment for **1220 Perennial vegetation of stony banks** at 10.01 Strandhill was Favourable and the trend is improving.

Overall Conservation Status: Favourable (improving)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

2110 Embryonic shifting dunes

Area

The area of **2110 Embryonic shifting dunes** increased from 0.25 ha during SDM to 0.28 ha. This increase was due to natural processes of deposition. Area was assessed as Favourable and the trend is stable.

Structure and Functions

One criterion failed in the Structure and Functions assessment: flowering or fruiting of positive indicator species was not observed, while the threshold is 40%. Given that only two monitoring stops were surveyed, this criterion was passed by expert judgement. The Structure and Functions were therefore assessed as Favourable. Since in the previous assessment Structure and Functions were Favourable, the trend is therefore stable.

Future Prospects

No impacts were recorded from within the area of **2110 Embryonic shifting dunes**, except for low-intensity neutral impact due to walking. Future Prospects were therefore assessed as Favourable, and the trend was assessed as stable.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (stable)
- Future Prospects: Favourable (stable)

Since all three parameters were assessed as Favourable, the overall conservation assessment for **2110 Embryonic shifting dunes** at 10.01 Strandhill was Favourable and the trend is stable.

Overall Conservation Status: Favourable (stable)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

2120 Marram dunes (white dunes)

Area

The area of **2120 Marram dunes (white dunes)** increased from 0.00 ha during SDM to 0.27 ha. This increase was due to natural processes of deposition and to the reclassification of a formerly fixed dune area located in the vicinity of the seawall. Area was assessed as Favourable and the trend is stable.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since in the previous assessment Structure and Functions were Unfavourable - Inadequate, the trend is therefore increasing.

Future Prospects

No impacts were recorded from within the area of **2120 Marram dunes (white dunes)**, except for low-intensity neutral impact due to walking. Future Prospects were therefore assessed as Favourable, and the trend was assessed as increasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (increasing)
- Future Prospects: Favourable (increasing)

Since all three parameters were assessed as Favourable, the overall conservation assessment for **2120 Marram dunes (white dunes)** at 10.01 Strandhill was Favourable and the trend is improving.

Overall Conservation Status: Favourable (Improving)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

*2130 Fixed dunes (grey dunes)

Area

The area of ***2130 Fixed dunes (grey dunes)** increased from 32.50 ha to 33.68 ha between SDM and CHNW21, due to natural processes of deposition. On the other hand, the Area losses recorded since SDM led to an Area assessment of Unfavourable - Bad. The main reason for the loss is the sea-wall that started a huge process of erosion of the dune system. Since Area was assessed as Unfavourable – Inadequate in the previous report, the trend is therefore decreasing.

Structure and Functions

The ***2130 Fixed dunes (grey dunes)** failed two assessment criteria. First of all, no stops with a vegetation height between 2 cm and 10 cm were recorded (the threshold is 30-70% of stops). Furthermore, a sea-wall has been erected adjacent to the fixed dunes. The presence of a hard defence structure that terminates in a soft sand dune can be the cause of further erosion close to the end point of the sea-wall (RPS, 2012).

As two assessment criteria failed, the Structure and Functions were Unfavourable - Inadequate, while in the previous assessment they were assessed as Unfavourable – Bad: the trend is therefore increasing.

Future Prospects

High-intensity, negative impacts included spreading of native and non-native problematic species such as *Acer pseudoplatanus*, *Picea sitchensis*, *Pinus contorta*, *Arrenatherum elatius*, *Cirsium arvense*, *Rubus fruticosus*, *Senecio jacobaea*, *Urtica dioica*, *Vicia* spp. This kind of impact affected about 1% of the habitat's area. The presence of conifer plantations on-site represented a high-intensity, external negative influence as it was acting as a seed source over 5% of the habitat's area. Litter, walking and the presence of caravans adjacent to the site were also negative impacts that affected more than 5% of the habitat's area. Finally, undergrazing had a low-intensity, negative effect on 80% of the habitat. Due to the above mentioned negative pressures and threats, particularly the spreading of native and non-native problematic species, Future Prospects were therefore assessed as Unfavourable - Bad, and the trend was assessed as stable.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Unfavourable - Bad (decreasing)
- Structure and Functions: Unfavourable - Inadequate (increasing)
- Future Prospects: Unfavourable - Bad (stable)

Since two of the three parameters were assessed as Unfavourable - Bad, the overall conservation assessment for ***2130 Fixed dunes (grey dunes)** at 10.01 Strandhill was Unfavourable - Bad. Since the overall assessment was deemed Unfavourable - Bad (deteriorating) in the previous report, the trend is therefore stable.

Overall Conservation Status: Unfavourable - Bad (stable)

Condition of the habitat by area

Considering that about 25% of ***2130 Fixed dunes (grey dunes)** was affected by several impacts (mainly spreading of problematic native species and trampling) that were having a bad influence on the Structure and Functions, this area was therefore considered to be in poor condition. The remaining 75% of the habitat was considered to be in good condition.

2170 Dunes with creeping willow

Area

The area of **2170 Dunes with creeping willow** increased from 10.83 ha to 10.94 ha between SDM and CHNW21. This change was the result of a different and more detailed mapping technique. This is consistent with an Area assessment of Favourable (stable).

Structure and Functions

Three criteria failed in the Structure and Functions assessment. The first one was about *Salix repens*' height that should be 5 to 30 cm throughout all stops. At each monitoring stop, *Salix repens* was tall (15-60 cm) and bushy due to undergrazing. Furthermore, the highest % cover of any negative species within any stop was 35% (the threshold is 25%) and trees and scrub were present at 87.5% of stops, while the threshold is less than 40% of stops. As these three criteria failed, the Structure and Functions were Unfavourable - Bad. The Structure and Functions were assessed as Unfavourable - Inadequate during SDM. The trend is therefore decreasing.

Future Prospects

The presence of conifer plantations on-site represented a low-intensity, external negative influence as it was acting as a seed source over 2% of the habitat's area. Walking and the presence of caravans adjacent to the site were also negative impacts that affected about 15% of the habitat's area. Finally, undergrazing had a low-intensity, negative effect on 90% of the habitat. Due to the above mentioned negative pressures and threats, Future Prospects were therefore assessed as Unfavourable - Bad and the trend was assessed as decreasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Unfavourable - Bad (decreasing)
- Future Prospects: Unfavourable - Bad (decreasing)

Although Area was assessed as Favourable, Structure and Functions and Future Prospects were assessed as Unfavourable - Bad, so the overall conservation assessment for **2170 Dunes with creeping willow** at 10.01 Strandhill was Unfavourable - Bad. Since the overall assessment was Unfavourable - Inadequate during SDM, the trend is therefore deteriorating.

Overall Conservation Status: Unfavourable - Bad (deteriorating)

Condition of the habitat by area

Due to spreading of conifers and undergrazing, about 50% of the habitat's area was considered to be in poor condition. The remaining 50% of the habitat was considered to be in good condition.

2190 Humid dune slacks

Area

The area of **2190 Humid dune slacks** increased from 0.17 ha to 0.18 ha between SDM and CHNW21. This change was the result of a different and more detailed mapping technique. This is consistent with an Area assessment of Favourable (stable).

Structure and Functions

Three criteria failed in the Structure and Functions assessment. First of all, the frequency through all monitoring stops of one negative indicator species, that is *Arrenatherum elatius*, was 100% (the threshold is 60%) and the combined cover of all negative species across the habitat was more than 6.5% (the threshold is 5%). Furthermore, scrub was present in 50% of stops, while the threshold is no more than 40% of stops. Finally, damage coming from camping was recorded within more than 50% of the habitat's area (the threshold is 20%). As these three criteria failed, the Structure and Functions were Unfavourable - Bad. The Structure and Functions were assessed as Favourable during SDM, the trend is therefore decreasing.

Future Prospects

The presence of a camping was recorded as high-intensity negative impact that affected about 50% of the habitat's area. Undergrazing had a low-intensity, negative effect on 50% of the habitat. Due to the above mentioned negative pressures and threats, Future Prospects were therefore assessed as Unfavourable - Bad and the trend was assessed as decreasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Unfavourable - Bad (decreasing)
- Future Prospects: Unfavourable - Bad (decreasing)

Although Area was assessed as Favourable, Structure and Functions and Future Prospects were assessed as Unfavourable - Bad, so the overall conservation assessment for **2190 Humid dune slacks** at 10.01 Strandhill was Unfavourable - Bad. Since the overall assessment was Unfavourable - Inadequate during SDM, the trend is therefore deteriorating.

Overall Conservation Status: Unfavourable - Bad (deteriorating)

[Condition of the habitat by area](#)

Only 25% of the habitat was considered to be in good condition.

Site 10 Subsite 1 - Strandhill Appendices

Appendix 1. Area

Total habitat area recorded during reporting cycles to date.

Habitat	2007	2013	2019	2025
1210	0.983	0.117	NS	0.437
1220	1.069	0.762	NS	0.837
2110	0.181	0.249	NS	0.279
2120	0.531	0.000	NS	0.269
2130	50.417	32.503	NS	33.676
2170	11.112	10.827	NS	10.937
2190	0.167	0.168	NS	0.185

Favourable Reference Area and cumulative changes in area due to human activities (restoration and loss) recorded during reporting cycles to date. Natural fluctuations are not taken into account.

Habitat	Favourable Reference area (ha)	2007 change (ha)	2013 change (ha)	2019 change (ha)	2025 change (ha)
1210	0.984	0	0.883	NS	0.883
1220	1.073	0	0	NS	0
2110	0.181	0	0	NS	0
2120	0.532	<1% per year	NR	NS	0
*2130	41.142	<1% per year	0.186	NS	0.917
2170	0.359	<1% per year	0	NS	0
2190	0.168	0	0	NS	0

Appendix 2. Structure and Functions

Negative indicator species and non-native invasive species

Habitat	Species name	Cover (%)
*2130	<i>Cirsium arvense</i>	1.0
*2130	<i>Senecio jacobaea</i>	1.0
*2130	<i>Urtica dioica</i>	2.0
2170	<i>Cirsium arvense</i>	35.0
2190	<i>Arrhenatherum elatius</i>	10.0
2190	<i>Cirsium arvense</i>	20.0
1220	<i>Cirsium vulgare</i>	0.1

Positive indicator species and notable species

Habitat	Species name	Cover (%) (if recorded)
1210	<i>Atriplex species</i>	
1210	<i>Honckenya peploides</i>	
1220	<i>Cochlearia officinalis</i>	1.0
1220	<i>Honckenya peploides</i>	30.7
1220	<i>Silene uniflora</i>	11.8
1220	<i>Sonchus arvensis</i>	5.0
2110	<i>Elytrigia juncea</i>	
2120	<i>Ammophila arenaria</i>	
2120	<i>Elytrigia juncea</i>	
*2130	<i>Agrostis capillaris</i>	
*2130	<i>Aira praecox</i>	
*2130	<i>Anthyllis vulneraria</i>	
*2130	<i>Carex arenaria</i>	
*2130	<i>Carex flacca</i>	
*2130	<i>Euphrasia officinalis ag.</i>	
*2130	<i>Festuca rubra</i>	
*2130	<i>Galium verum</i>	
*2130	<i>Hylocomium splendens</i>	
*2130	<i>Hypnum cupressiforme s.s.</i>	
*2130	<i>Hypochaeris radicata</i>	
*2130	<i>Lotus corniculatus</i>	
*2130	<i>Luzula campestris</i>	
*2130	<i>Pilosella officinarum</i>	
*2130	<i>Plantago lanceolata</i>	
*2130	<i>Poa pratensis</i>	
*2130	<i>Rhinanthus minor</i>	
*2130	<i>Rhytidadelphus squarrosus</i>	
*2130	<i>Rhytidadelphus triquetrus</i>	
*2130	<i>Scleropodium purum</i>	
*2130	<i>Thymus polytrichus</i>	
*2130	<i>Trifolium repens</i>	
*2130	<i>Viola riviniana</i>	
2170	<i>Carex arenaria</i>	
2170	<i>Carex flacca</i>	
2170	<i>Euphrasia officinalis ag.</i>	
2170	<i>Festuca rubra</i>	

2170	<i>Holcus lanatus</i>	
2170	<i>Lotus corniculatus</i>	
2170	<i>Pilosella officinarum</i>	
2170	<i>Rhynchospora squarrosa</i>	
2170	<i>Salix repens</i> v. <i>argentea</i>	
2170	<i>Scleropodium purum</i>	
2190	<i>Agrostis stolonifera</i>	
2190	<i>Carex flacca</i>	
2190	<i>Dactylorhiza species</i>	
2190	<i>Equisetum species</i>	
2190	<i>Festuca rubra</i>	
2190	<i>Lotus corniculatus</i>	
2190	<i>Potentilla anserina</i>	
2190	<i>Salix repens</i> v. <i>argentea</i>	

Structure and Functions Assessment Criteria

Habitat	Indicator	Pass/Fail
1210	Positive indicator species	Pass
1210	Negative indicator species	Pass
1210	Non-native species	Pass
1210	Notable/rare species	Pass
1210	Interference with the sediment dynamics	Pass
1210	Damage due to disturbance	Pass
1220	Shingle habitat	Pass
1220	Native species	Pass
1220	Notable/rare species	Pass
1220	Negative indicator species	Pass
1220	Non-native species	Pass
1220	Interference with the sediment dynamics	Pass
1220	Damage due to disturbance	Pass
2110	Positive indicator species	Pass
2110	Negative indicator species	Pass
2110	Non-native species	Pass
2110	Flowering or fruiting of positive indicator species	Pass
2110	Notable/rare species	Pass
2110	Interference with the sediment dynamics	Pass
2110	Damage due to disturbance	Pass
2120	Positive indicator species	Pass
2120	Negative indicator species	Pass
2120	Non-native species	Pass
2120	Flowering or fruiting of positive indicator species	Pass
2120	Notable/rare species	Pass
2120	Interference with the sediment dynamics	Pass
2120	Damage due to disturbance	Pass
*2130	Positive indicator species	Pass
*2130	Negative indicator species	Pass
*2130	Non-native species	Pass
*2130	Cover of trees and scrub other than <i>Juniperus communis</i>	Pass
*2130	Trees or saplings from adjacent plantations	Pass
*2130	Height of vegetation	Fail
*2130	Flowering or fruiting of positive indicator species	Pass

*2130	Bare sand	Pass
*2130	Notable/rare species	Pass
*2130	Interference with the sediment dynamics	Fail
*2130	Damage due to disturbance	Pass
2170	Positive indicator species	Pass
2170	Negative indicator species	Fail
2170	Non-native species	Pass
2170	Rank grasses	Pass
2170	Cover of trees and scrub other than <i>S. repens</i>	Fail
2170	Height of <i>Salix repens</i>	Fail
2170	Bare sand	Pass
2170	Notable/rare species	Pass
2170	Interference with the sediment dynamics	Pass
2170	Damage due to disturbance	Pass
2190	Positive indicator species	Pass
2190	Bryophytes	Pass
2190	Cover of <i>Salix repens</i>	Pass
2190	Negative indicator species	Fail
2190	Non-native species	Pass
2190	Cover of scrub	Fail
2190	Forb:grass ratio (mean)	Pass
2190	Bare ground	Pass
2190	Notable/rare species	Pass
2190	Interference with the sediment dynamics	Pass
2190	Damage due to disturbance	Fail

Appendix 3. Impacts and Activities

Impacts recorded

Habitat code	Impact code	Impact description	Relative importance	Influence	Source	Timing	Trend	Area
1210	PF05	Walking	Low	Neutral	Inside	Ongoing	Decreasing	100.0
1220	PF05	Walking	Low	Neutral	Inside	Ongoing	Decreasing	50.0
2110	PF05	Walking	Low	Neutral	Inside	Ongoing	Decreasing	60.0
2120	PF05	Walking and footpaths	Low	Neutral	Inside	Ongoing	Increasing	20.0
*2130	PA05	No grazing	Low	Negative	Inside	Ongoing	Stable	80.0
*2130	PB01	Conifer plantation	High	Negative	Inside	Ongoing	Decreasing	5.0
*2130	PF03	Camping	Medium	Negative	Inside	Ongoing	Stable	1.0
*2130	PF05	Walking, trampling and dogs	Medium	Negative	Inside	Ongoing	Decreasing	5.0
*2130	PF15	Sea defences	High	Negative	Inside	Ongoing	Stable	Unknown
*2130	PI02	Acer pseudoplatanus	High	Negative	Inside	Ongoing	Decreasing	1.0
*2130	PM05	Crack	High	Neutral	Inside	Ongoing	Decreasing	0.1
*2130	PM07	Encroachment (Crataegus monogyna and Salix cinerea)	High	Neutral	Inside	Ongoing	Decreasing	0.5
2170	PA05	No grazing	Low	Negative	Inside	Ongoing	Stable	90.0
2170	PB01	Conifer plantation	High	Negative	Inside	Ongoing	Decreasing	2.0
2170	PF03	Camping	High	Negative	Inside	Ongoing	Stable	5.0
2170	PF05	Walking	Medium	Negative	Inside	Ongoing	Decreasing	10.0
2170	PM07	Encroachment (Crataegus monogyna, Salix cinerea and Ulex europaeus)	High	Neutral	Inside	Ongoing	Decreasing	1.0
2190	PA05	Undergrazing	Low	Negative	Inside	Ongoing	Decreasing	50.0
2190	PF03	Camping	High	Negative	Inside	Ongoing	Decreasing	50.0

Conservation Measures required

Habitat code	Measure code	Measure description	Area (ha)	Status (in place/partial/Absent/unidentified)	Response timeframe	Purpose	Location (inside and or Outside SAC)
*2130	CA04	Measure required to reintroduce grazing	26.9405	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
*2130	CB01	Measure required to control conifer spreading from adjacent plantation	1.6838	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
*2130	CF03	Measure required to regulate recreational activities	2.5275	Partial	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
*2130	CF10	Coastal defences to protect water treatment structure	1.1740	In place	Medium-term results	Restore the structure & functions, including the status of typical species	Inside

						cies	
*2130	CL01	Coastal defences to prevent dune erosion	1.1740	In place	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
2170	CA04	Measure required to reintroduce grazing	9.8435	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
2170	CB01	Measure required to control conifer spreading from adjacent plantation	0.2187	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
2170	CF03	Measure required to regulate recreational activities	1.6406	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
2190	CA04	Measure required to reintroduce grazing	0.0927	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
2190	CF03	Measure required to regulate recreational activities	0.0927	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
1220	CE01	Measure required to manage impact of unpaved road	0.4186	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
1220	CF03	Measure required to regulate recreational activities	0.2826	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside

Appendix 4. Condition of the habitat by area

Summary of habitat condition

Habitat code	% remaining habitat in poor condition	% remaining habitat in good condition
1210	0	100
1220	0	100
2110	0	100
2120	0	100
*2130	25	75
2170	50	50
2190	75	25

Sub-site 2. Cummeen Strand

Cummeen Strand is a medium-sized saltmarsh sub-site covering 16 ha located within Sligo Harbour, which forms part of Sligo Bay and extends along a stretch of the southern shore.

Summary Information

Survey Date: 29-30 June 2023

Water Framework Directive Waterbody: Garavoge Estuary

Previous survey identifiers: SMP0119

Current survey details:

Table 5. Current survey details for Annex I habitats at Cummeen Strand

Habitat Code	Area	Monitoring stops
1310 <i>Salicornia</i> flats	0.323	1
1330 Atlantic salt meadows	7.526	6
1410 Mediterranean saltmarsh	2.271	4

1310 *Salicornia* flats

Area

The habitat has increased from 0.03 ha during SMPII to 0.32 ha, due to natural processes. This is consistent with an Area assessment of Favourable and the trend is stable.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since during SMP Structure and Functions were Favourable, the trend is therefore stable.

Future Prospects

No pressures were recorded for this habitat. Future Prospects were therefore assessed as Favourable, and the trend was assessed as stable.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (stable)
- Future Prospects: Favourable (stable)

Since all three parameters were assessed as Favourable, the overall conservation assessment for **1310 *Salicornia* flats** at 10.02 Cummeen Strand was Favourable. Since during SMP the overall assessment was Favourable, the trend is stable.

Overall Conservation Status: Favourable (stable)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

1330 Atlantic salt meadows

Area

The habitat has decreased from 9.13 ha during SMP II to 7.53 ha, mainly due to natural processes towards reed beds. This is consistent with an Area assessment of Favourable and the trend is stable.

Structure and Functions

Five saltmarsh community types were recorded during the surveys: SM2a *Puccinellia maritima*–*Glaux maritima* saltmarsh; SM3a *Plantago maritima*–*Armeria maritima* saltmarsh; SM4b *Festuca rubra*–*Juncus gerardii* saltmarsh; SM6b *Agrostis stolonifera*–*Triglochin maritimum* saltmarsh; SM7a *Elytrigia repens* coarse grassland.

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since during the SMP Structure and Functions were assessed as Favourable, the trend is therefore stable.

Future Prospects

High-intensity, negative impacts included intensive cattle and sheep grazing, caused the degradation of the habitat with signs of bare ground and erosion due to trampling. Other negative impacts recorded were vehicle tracks, deposition of waste and removal of turf. Future Prospects were therefore assessed as Unfavourable - Inadequate and the trend was assessed as decreasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (stable)
- Future Prospects: Unfavourable - Inadequate (decreasing)

Since one of the three parameters was assessed as Unfavourable - Inadequate, the overall conservation assessment for **1330 Atlantic salt meadows** at 10.02 Cummeen Strand was Unfavourable - Inadequate. Since the previous assessment was Favourable, the trend is deteriorating.

Overall Conservation Status: Unfavourable - Inadequate (deteriorating)

Condition of the habitat by area

High negative impacts were affecting about 10% of **1330 Atlantic salt meadows**, so this area was considered to be in poor condition. The remaining 90% of the habitat was considered to be in good condition.

1410 Mediterranean saltmarsh

Area

The habitat has increased from 2.14 ha to 2.27 ha, due to natural processes. This is consistent with an Area assessment of Favourable and the trend is stable.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since during the SMP Structure and Functions were assessed as Favourable, the trend is therefore stable.

Future Prospects

Impacts that were having a high impact, but over a small area (0.5% of the habitat), just included vehicle tracks for farming. Future Prospects were therefore assessed as Favourable, and the trend was assessed as stable.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (stable)
- Future Prospects: Favourable (stable)

Since all three parameters were assessed as Favourable, the overall conservation assessment for **1410 Mediterranean saltmarsh** at 10.02 Cummeen Strand was Favourable. Since the previous assessment was Favourable, the trend is stable.

Overall Conservation Status: Favourable (stable)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

Site 10 Subsite 2 - Cummeen Strand Appendices

Appendix 1. Area

Total habitat area recorded during reporting cycles to date.

Habitat	2007	2013	2019	2025
1310	NS	0.050	0.034	0.323
1330	NS	10.561	9.131	7.526
1410	NS	2.309	2.136	2.271

Favourable Reference Area and cumulative changes in area due to human activities (restoration and loss) recorded during reporting cycles to date. Natural fluctuations are not taken into account.

Habitat	Favourable Reference area (ha)	2007 change (ha)	2013 change (ha)	2019 change (ha)	2025 change (ha)
1310	0.050	NS	0	0	0
1330	10.560	NS	0	0	0
1410	2.310	NS	0	0	0

Appendix 2. Structure and Functions

Positive indicator species and notable species

Habitat	Species name	Cover (%) (if recorded)
1310	<i>Salicornia species</i>	
1310	<i>Suaeda maritima</i>	
1330	<i>Agrostis stolonifera</i>	
1330	<i>Armeria maritima</i>	
1330	<i>Aster tripolium</i>	
1330	<i>Carex extensa</i>	
1330	<i>Cochlearia species</i>	
1330	<i>Festuca rubra</i>	
1330	<i>Glaux maritima</i>	
1330	<i>Juncus gerardii</i>	
1330	<i>Limonium humile</i>	
1330	<i>Plantago maritima</i>	
1330	<i>Puccinellia maritima</i>	
1330	<i>Salicornia species</i>	
1330	<i>Spergularia marina</i>	
1330	<i>Triglochin maritimum</i>	
1410	<i>Aster tripolium</i>	
1410	<i>Cochlearia species</i>	
1410	<i>Glaux maritima</i>	
1410	<i>Juncus gerardii</i>	
1410	<i>Juncus maritimus</i>	
1410	<i>Plantago maritima</i>	
1410	<i>Triglochin maritimum</i>	

Structure and Functions Assessment Criteria

Habitat	Indicator	Pass/Fail
1310	Positive indicator species	Pass
1310	Negative indicator species	Pass
1310	Signs of negative activities, e.g. infilling, reclamation, turf-cutting, pollution	Pass
1310	Occurrence of human disturbance to hydrology	Pass
1310	Presence of site-specific target species	Pass
1310	Presence of <i>Spartina</i> spp. within vicinity of habitat	Pass
1330	Positive indicator species	Pass
1330	Vegetation height – Standard deviation	Pass
1330	Vegetation height – Average height	Fail
1330	Negative indicator species	Pass
1330	Disturbed ground	Pass
1330	Signs of negative activities, e.g. infilling, reclamation, turf-cutting, pollution	Pass
1330	Human disturbance to hydrology	Pass
1330	Natural transitions to semi-natural terrestrial habitats on landward margin	Pass
1330	Presence of <i>Spartina</i> spp. within vicinity of habitat	Pass
1330	Presence of site-specific target species	Pass
1330	Number of zones (SM2, SM3, SM4, SM6BCD, SM7/driftline) covering 1% or more of 1330 area	Pass
1410	Positive indicator species	Pass
1410	Negative indicator species	Pass
1410	Disturbed ground	Pass

1410	Signs of negative activities, e.g. infilling, reclamation, turf-cutting, pollution	Pass
1410	Human disturbance to hydrology	Pass
1410	Natural transitions to semi-natural terrestrial habitats on landward margin	Pass
1410	Presence of site-specific target species (indicators of local distinctiveness)	Pass
1410	Presence of <i>Spartina</i> spp. within vicinity of habitat	Pass

Appendix 3. Impacts and Activities

Impacts recorded

Habitat code	Impact code	Impact description	Relative importance	Influence	Source	Timing	Trend	Area
1310	PX04							
1330	PA07	Intensive grazing (sheep)	High	Negative	Inside	Ongoing	Stable	11.0
1330	PA22	Drainage	Low	Neutral	Inside	Ongoing	Stable	0.2
1330	PA25	Vehicle track and turf removal	High	Negative	Inside	Ongoing	Stable	1.0
1330	PE01	Road	High	Negative	Inside	Ongoing	Stable	0.6
1330	PK05	Waste	High	Negative	Inside	Ongoing	Decreasing	0.5
1330	PM07	Natural succession to HCH FS1	Medium	Neutral	Inside	Ongoing	Decreasing	2.0
1410	PA25	Vehicle track	High	Negative	Inside	Ongoing	Stable	0.5
1410	PM07	Natural succession to HCH FS1	Medium	Neutral	Inside	Ongoing	Decreasing	1.0

Appendix 4. Condition of the habitat by area

Summary of habitat condition

Habitat code	% remaining habitat in poor condition	% remaining habitat in good condition
1310	0	100
1330	10	90
1410	0	100

Sub-site 3. Garavoge Estuary

Garavoge Estuary is also a medium-sized saltmarsh sub-site covering 16 ha. The sub-site extends around Sligo Harbour.

Summary Information

Survey Date: 27-30 June 2023

Water Framework Directive Waterbody: Garavoge Estuary

Previous survey identifiers: SMP0140

Current survey details:

Table 6. Current survey details for Annex I habitats at Garavoge Estuary

Habitat Code	Area	Monitoring stops
1310 <i>Salicornia</i> flats	0.239	1
1330 Atlantic salt meadows	10.766	6
1410 Mediterranean saltmarsh	1.779	4

1310 *Salicornia* flats

Area

The habitat has increased from 0.02 ha during SMP11 to 0.24 ha, due to natural processes. This is consistent with an Area assessment of Favourable and the trend is stable.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since during SMP11 Structure and Functions were also Favourable, the trend is therefore stable.

Future Prospects

No pressures were recorded for this habitat. Future Prospects were therefore assessed as Favourable, and the trend was assessed as stable.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable (stable)
- Structure and Functions: Favourable (stable)
- Future Prospects: Favourable (stable)

Since all three parameters were assessed as Favourable, the overall conservation assessment for **1310 *Salicornia* flats** at 10.03 Garavoge Estuary was Favourable. Since the SMP11 assessment was Favourable, the trend is stable.

Overall Conservation Status: Favourable (stable)

Condition of the habitat by area

100% of the habitat was considered to be in good condition.

1330 Atlantic salt meadows

Area

The habitat has increased from 10.028 ha during SMP II to 10.77 ha mainly due to natural processes. Only a small patch of the habitat (0.075 ha) has been lost because of a rock embankment. This is consistent with an Area assessment of Unfavourable - Inadequate and the trend is decreasing.

Structure and Functions

Five saltmarsh community types were recorded during the surveys: SM2a *Puccinellia maritima*–*Glaux maritima* saltmarsh; SM3a *Plantago maritima*–*Armeria maritima* saltmarsh; SM4b *Festuca rubra*–*Juncus gerardii* saltmarsh; SM6b *Agrostis stolonifera*–*Triglochin maritimum* saltmarsh; SM7a *Elytrigia repens* coarse grassland.

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since during SMP II Structure and Functions were also Favourable, the trend is therefore stable.

Future Prospects

High-intensity, negative impacts recorded were intensive cattle and sheep grazing over 5% of the habitat's area. Medium-intensity, negative impacts included scattered presence of waste and spreading of negative species such as *Arrhenaterium elatius* and *Urtica dioica*. Future Prospects were therefore assessed as Unfavourable - Inadequate and the trend was assessed as decreasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Favourable Unfavourable - Inadequate (decreasing)
- Structure and Functions: Favourable (stable)
- Future Prospects: Unfavourable - Inadequate (decreasing)

Since two of the three parameters were assessed as Unfavourable - Inadequate, the overall conservation assessment for **1330 Atlantic salt meadows** at 10.03 Garavoge estuary was Unfavourable - Inadequate. Since the SMP II assessment was Favourable, the trend is deteriorating.

Overall Conservation Status: Unfavourable - Inadequate (deteriorating)

Condition of the habitat by area

High negative impacts were affecting about 5% of **1330 Atlantic salt meadows**, so this area was considered to be in poor condition. The remaining 95% of the habitat was considered to be in good condition.

1410 Mediterranean saltmarsh

Area

The habitat has decreased from 1.80 ha to 1.78 ha due to natural processes. Only a small patch of the habitat (0.032 ha) has been lost because of a rock embankment. This is consistent with an Area assessment of Unfavourable - Inadequate and the trend is decreasing.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since during SMP II Structure and Functions were also Favourable, the trend is therefore stable.

Future Prospects

Impacts that were having a high negative impact, but over a small area (10% of the habitat), just included intensive cattle and sheep grazing. Future Prospects were therefore assessed as Unfavourable - Inadequate, and the trend was assessed as decreasing.

Conservation assessment

The conservation status assessments of the three parameters are as follows:

- Area: Unfavourable - Inadequate (decreasing)

- Structure and Functions: Favourable (stable)
- Future Prospects: Unfavourable - Inadequate (decreasing)

Since two of the three parameters were assessed as Unfavourable - Inadequate, the overall conservation assessment for **1410 Mediterranean saltmarsh** at 10.03 Garavoge estuary was Unfavourable - Inadequate. Since the SMPII assessment was Favourable, the trend is deteriorating.

Overall Conservation Status: Unfavourable - Inadequate (deteriorating)

[Condition of the habitat by area](#)

High negative impacts were affecting about 10% of **1410 Mediterranean saltmarsh**, so this area was considered to be in poor condition. The remaining 90% of the habitat was considered to be in good condition.

Site 10 Subsite 3 - Garavoge Estuary Appendices

Appendix 1. Area

Total habitat area recorded during reporting cycles to date.

Habitat	2007	2013	2019	2025
1310	NS	NS	0.023	0.239
1330	NS	NS	10.0279	10.766
1410	NS	NS	1.797	1.779

Favourable Reference Area and cumulative changes in area due to human activities (restoration and loss) recorded during reporting cycles to date. Natural fluctuations are not taken into account.

Habitat	Favourable Reference area (ha)	2007 change (ha)	2013 change (ha)	2019 change (ha)	2025 change (ha)
1310	0.023	NS	NS	0	0
1330	10.0305	NS	NS	0	0.07
1410	1.643	NS	NS	0	0.03

Appendix 2. Structure and Functions

Negative indicator species and non-native invasive species

Habitat	Species name	Cover (%)
*2130	<i>Cirsium vulgare</i>	0.1
*2130	<i>Senecio jacobaea</i>	0.1

Positive indicator species and notable species

Habitat	Species name	Cover (%) (if recorded)
1310	<i>Suaeda maritima</i>	
1330	<i>Agrostis stolonifera</i>	
1330	<i>Armeria maritima</i>	
1330	<i>Aster tripolium</i>	
1330	<i>Atriplex prostrata</i>	
1330	<i>Carex extensa</i>	
1330	<i>Cochlearia species</i>	
1330	<i>Festuca rubra</i>	
1330	<i>Glaux maritima</i>	
1330	<i>Juncus gerardii</i>	
1330	<i>Limonium humile</i>	
1330	<i>Plantago maritima</i>	
1330	<i>Spergularia marina</i>	
1330	<i>Triglochin maritimum</i>	
1410	<i>Aster tripolium</i>	
1410	<i>Cochlearia species</i>	
1410	<i>Glaux maritima</i>	
1410	<i>Juncus gerardii</i>	
1410	<i>Juncus maritimus</i>	
1410	<i>Plantago maritima</i>	
1410	<i>Triglochin maritimum</i>	

Structure and Functions Assessment Criteria

Habitat	Indicator	Pass/Fail
1310	Positive indicator species	Pass
1310	Negative indicator species	Pass
1310	Signs of negative activities, e.g. infilling, reclamation, turf-cutting, pollution	Pass
1310	Occurrence of human disturbance to hydrology	Pass
1310	Presence of site-specific target species	Pass
1310	Presence of <i>Spartina</i> spp. within vicinity of habitat	Pass
1330	Positive indicator species	Pass
1330	Vegetation height – Standard deviation	Pass
1330	Vegetation height – Average height	Fail
1330	Negative indicator species	Pass
1330	Disturbed ground	Pass
1330	Signs of negative activities, e.g. infilling, reclamation, turf-cutting, pollution	Pass
1330	Human disturbance to hydrology	Pass
1330	Natural transitions to semi-natural terrestrial habitats on landward margin	Pass
1330	Presence of <i>Spartina</i> spp. within vicinity of habitat	Pass
1330	Presence of site-specific target species	Pass

1330	Number of zones (SM2, SM3, SM4, SM6BCD, SM7/driftline) covering 1% or more of 1330 area	Pass
1410	Positive indicator species	Pass
1410	Negative indicator species	Pass
1410	Disturbed ground	Pass
1410	Signs of negative activities, e.g. infilling, reclamation, turf-cutting, pollution	Pass
1410	Human disturbance to hydrology	Pass
1410	Natural transitions to semi-natural terrestrial habitats on landward margin	Pass
1410	Presence of site-specific target species (indicators of local distinctiveness)	Pass
1410	Presence of <i>Spartina</i> spp. within vicinity of habitat	Pass

Appendix 3. Impacts and Activities

Impacts recorded

Habitat code	Impact code	Impact description	Relative importance	Influence	Source	Timing	Trend	Area
1310	PX04							
1330	PA07	Overgrazing and trampling (cattle, sheep)	High	Negative	Inside	Ongoing	Stable	5.0
1330	PF05	Walking, rest of bonfires and offroad driving	Medium	Neutral	Inside	Ongoing	Decreasing	1.0
1330	PF15	Stone wall	Medium	Neutral	Inside	Ongoing	Stable	1.0
1330	PI02	Acer pseudoplatanus and Lycium spp	High	Negative	Inside	Ongoing	Decreasing	0.5
1330	PI03	Arrhenatherum elatius and Urtica dioica	Medium	Negative	Inside	Ongoing	Decreasing	0.5
1330	PK05	Waste	Medium	Negative	Inside	Ongoing	Stable	1.0
1410	PA07	Intensive grazing and trampling (sheep, cattle)	High	Negative	Inside	Ongoing	Stable	10.0

Conservation Measures required

Habitat code	Measure code	Measure description	Area (ha)	Status (in place/partial/ Absent/unidentified)	Response timeframe	Purpose	Location (inside and or Outside SAC)
*2130	CA05	Measure required to regulate grazing	11.5709	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
*2130	CI05	Measure required to control or eradicate Pteridium aquilinum	0.4628	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside

Appendix 4. Condition of the habitat by area

Summary of habitat condition

Habitat code	% remaining habitat in poor condition	% remaining habitat in good condition
1310	0	100
1330	5	95
1410	10	90