

Site 16 - Derrybeg

Site description

Derrybeg is a large site located approximately 1 km west of the towns Derrybeg and Bunbeg, east of Gweedore Bay in north-west Donegal. It stretches from Emlin Rock in the north to the beach at Inishcoole in the south. It is part of the Gweedore Bay and Islands SAC (SAC 001141) (NPWS, 2013). All the sub-sites are within the SAC boundary. The core areas are the sub-sites where the field surveys took place (see general introduction to Volume 2).

Based on the currently available mapping, six coastal Annex I habitats occur within Gweedore Bay and Islands SAC, five of which are listed as Qualifying Interests (Table 1).

Table 1. Annex I habitats present at Gweedore Bay and Islands 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 habitat that were not the target of this survey are excluded.

Habitat Code	Area (ha)	Qualifying Interest?
1210 Drift line vegetation	0.047	No
2110 Embryonic shifting dunes	3.494	Yes
2120 Marram dunes (white dunes)	3.771	Yes
*2130 Fixed dunes (grey dunes)	30.268	Yes
2190 Humid dune slacks	2.776	Yes
*21A0 Machairs	115.302	Yes

The main land-use for the site is for amenity. There is a golf course located in the ***21A0 Machairs** habitat in the north of the site, and a hotel to the south. A local road pass through the site and provides access to the two piers in the north and relative car parks for visitors access.

Habitat losses were recorded due to housing that affected 1.05 ha (Table 2).

Table 2. Habitat loss recorded during the desk and field surveys in hectares and % of total habitat area in the site.

Habitat	Within SAC?	Loss (ha)	Impact code	New habitat
*21A0	Yes	1.050	PF01	Buildings and artificial surfaces (BL3)

Conservation assessments were carried out within one sub-site occupying a total area of 170 ha (Table 3). All the habitats were in Unfavourable condition, mainly due to overgrazing, vehicle tracks and pedestrian tracks, offroad driving, car parking and cutting of grassland for golf activities.

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

Subsite	Habitat	Area	Structure and Functions	Future Prospects	Overall assessment
16.01 Derrybeg dunes	1210	Unfavourable - Inadequate (Decreasing)	Favourable (NA)	Favourable	Unfavourable - Inadequate (NA)
16.01 Derrybeg dunes	2110	Favourable (Stable)	Favourable (Stable)	Unfavourable - Inadequate	Unfavourable - Inadequate (Deteriorating)
16.01	2120	Favourable (Stable)	Unfavourable -	Unfavourable -	Unfavourable -

Derrybeg dunes			Inadequate (Stable)	Inadequate	Inadequate (Stable)
16.01 Derrybeg dunes	*2130	Favourable (Stable)	Unfavourable - Bad (Decreasing)	Unfavourable - Bad	Unfavourable - Bad (Deteriorating)
16.01 Derrybeg dunes	2190	Favourable (Stable)	Unfavourable - Inadequate (Stable)	Unfavourable - Inadequate	Unfavourable - Inadequate (Stable)
16.01 Derrybeg dunes	*21A0	Unfavourable - Inadequate (Decreasing)	Favourable (Increasing)	Unfavourable - Inadequate	Unfavourable - Inadequate (Stable)

Sub-site 1. Derrybeg dunes

Summary Information

Survey Date: 13-14 July 2022

Water Framework Directive Waterbody: not applicable

Previous survey identifiers: CMP157

Current survey details:

Table 4: Current survey details for Annex I habitats at Derrybeg dunes

Habitat Code	Area	Monitoring stops
1210 Drift line vegetation	0.047	2
2110 Embryonic shifting dunes	3.494	8
2120 Marram dunes (white dunes)	3.771	8
*2130 Fixed dunes (grey dunes)	30.269	12
2190 Humid dune slacks	2.776	8
*21A0 Machairs	115.303	16

1210 Drift line vegetation

Area

The habitat has expanded over the most recent reporting cycle due to natural processes. The small area of habitat recorded during CMP has decreased during SDM, due to anthropogenic causes. Given that this loss is less than 1% per year, this is consistent with an Area assessment of Unfavourable - Inadequate and the trend is decreasing.

Structure and Functions

No criteria failed during the Structure and Functions assessment, so the Structure and Functions were Favourable and the trend is not applicable because **1210 Drift line vegetation** was not assessed before.

Future Prospects

High-intensity, neutral impacts included the presence of two piers that can influence the sediment dynamics. Future prospects were therefore assessed as Favourable, but the trend is not applicable because **1210 Drift line vegetation** was not assessed before.

Conservation assessment

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

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

Since at least one of the three parameters was assessed as Unfavourable - Inadequate, the overall conservation assessment for **1210 Drift line vegetation** at 16.01 Derrybeg dunes was Unfavourable - Inadequate. Since **1210 Drift line vegetation** was not assessed before, the trend is not applicable.

Overall Conservation Status: Unfavourable - Inadequate (NA)

Condition of the habitat by area

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

2110 Embryonic shifting dunes

Area

The habitat has expanded over the most recent reporting cycle due to natural processes. There was no indication that the Area of the habitat had been affected by human activities. This is consistent with an Area assessment of 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 (% frequency) was recorded in 37.5% of stops, while the threshold is 40%. This criterion was passed by expert judgement, since the difference was tiny. The Structure and Functions were therefore Favourable. Given that **2110 Embryonic shifting dunes** was assessed as Favourable during SDM, the trend is therefore stable.

Future Prospects

Pedestrian tracks, walking and offroad driving were recorded as negative impacts at Derrybeg, affecting 60% of the habitat's area. 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 at least one of the three parameters was assessed as Unfavourable - Inadequate, the overall conservation assessment for **2110 Embryonic shifting dunes** at 16.01 Derrybeg dunes was Unfavourable - Inadequate. Since **2110 Embryonic shifting dunes** was assessed as Favourable during SDM, the trend is therefore deteriorating.

Overall Conservation Status: Unfavourable - Inadequate (deteriorating)

Condition of the habitat by area

The failure of one criterion concerning Structure and Functions assessment was observed in 10% of the habitat's area, this area was considered to be in poor condition. The remaining 90% of the habitat was considered to be in good condition.

2120 Marram dunes (white dunes)

Area

The area of **2120 Marram dunes (white dunes)** decreased from 3.96 ha to 3.77 ha since the SDM survey. This increase is due to natural processes of erosion. This is consistent with an Area assessment of Favourable, and the trend is stable.

Structure and Functions

Only one criterion failed the Structure and Functions assessment: interference with the sediment dynamics was recorded, due to pier development and rock armour installation. The Structure and Functions were therefore Unfavourable - Inadequate and the trend is stable because **2120 Marram dunes (white dunes)** was assessed as Unfavourable - Inadequate during SDM.

Future Prospects

Pedestrian tracks were recorded as medium-intensity negative impacts in **2120 Marram dunes (white dunes)**. The presence of the pier and rock armour in the northern section of the site will

continue to affect the habitat into the future. Future Prospects were therefore assessed as Unfavourable - Inadequate, 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: Unfavourable - Inadequate (stable)
- Future Prospects: Unfavourable - Inadequate (stable)

Since two of the three parameters were assessed as Unfavourable - Inadequate, the overall conservation assessment for **2120 Marram dunes (white dunes)** at 16.01 Derrybeg dunes was Unfavourable - Inadequate. Since **2120 Marram dunes (white dunes)** was assessed as Unfavourable - Inadequate during SDM too, the trend is stable.

Overall Conservation Status: Unfavourable - Inadequate (stable)

Condition of the habitat by area

Negative impacts affected 15% of the habitat's area, so this area was considered to be in poor condition. The remaining 85% of the habitat was considered to be in good condition.

**2130 Fixed dunes (grey dunes)*

Area

The area of ***2130 Fixed dunes (grey dunes)** decreased from 30.80 ha to 30.27 ha between SDM and CHNW21. There was no indication of habitat loss due to human activities. This is consistent with an Area assessment of Favourable and the trend is stable.

Structure and Functions

Four criteria failed in the Structure and Functions assessment. The criterion related to the presence of positive indicator species failed because the stops did not reach the relevant threshold of at least 4 species. Furthermore, the highest cover of any negative species within any stop was 30%, while the threshold is 25%. Bare sand covered 20% of the habitat's area, while the threshold is less than 10%. Finally, no stops were recorded with an average height between 2 and 10 cm, while the threshold is 30-70%. As these four assessment criteria failed, the Structure and Functions were Unfavourable - Bad. Since the previous SDM assessment was Unfavourable - Inadequate, the trend is therefore decreasing.

Future Prospects

Negative impacts and activities on this habitat included paths and tracks, which had high intensity and affected 4% of the habitat, and under grazing causing scrub encroachment, that affected 80% of the habitat, but had a medium-intensity negative impact. Finally, natural erosion has been recorded in several spots around the entire site, affecting about 20% of the habitat. Due to these negative impacts, 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)

Since two of the three parameters were assessed as Unfavourable - Bad, the overall conservation assessment for ***2130 Fixed dunes (grey dunes)** at 16.01 Derrybeg dunes was Unfavourable - Bad.

Since ***2130 Fixed dunes (grey dunes)** was assessed as Unfavourable - Inadequate during SDM, the trend is deteriorating.

Overall Conservation Status: Unfavourable - Bad (deteriorating)

Condition of the habitat by area

Since more than 18 hectares of ***2130 Fixed dunes (grey dunes)** were affected by several impacts (mainly undergrazing, spreading of problematic native species and vehicle trampling), this area was considered to be in poor condition. The remaining 40% of the habitat was considered to be in good condition.

2190 Humid dune slacks

Area

The area of **2190 Humid dune slacks** increased from 0.19 ha to 2.78 ha between SDM and CHNW21. There was no indication of change due to human activities. This increase was the result of a different and more detailed mapping technique. This is consistent with an Area assessment of Favourable with a stable trend. Anyway, just to dispel any doubts, it would be advisable to provide for special investigations into the phenomena of raising and lowering of the surface water table that could be the cause of changes in habitat distribution.

Structure and Functions

The criterion assessing the presence of positive indicator species failed in the Structure and Functions assessment. Only few indicator species were frequent throughout the habitat and only one stop contained two indicator species. Several of the slacks appeared rank and were characterized by a tall, dense sward. All of the other criteria were assessed as Favourable. Structure and Functions were assessed as Unfavourable – Inadequate, as for SDM (the trend was assessed as decreasing). The trend is now stable.

Future Prospects

Off-road driving was noted as a high-intensity, negative impact affecting 1% of the habitat, while undergrazing affected 75%. Future Prospects were therefore assessed as Unfavourable - Inadequate, 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: Unfavourable - Inadequate (stable)
- Future Prospects: Unfavourable - Inadequate (stable)

Since two of the three parameters were assessed as Unfavourable - Inadequate, the overall conservation assessment for **2190 Humid dune slacks** at 16.01 Derrybeg dunes was Unfavourable - Inadequate. Since **2190 Humid dune slacks** was assessed as Unfavourable - Inadequate during SDM, the trend is therefore stable.

Overall Conservation Status: Unfavourable - Inadequate (stable)

Condition of the habitat by area

Since 25% of **2190 Humid dune slacks** was affected by several impacts (mainly under grazing that made one criterion of the Structure and Functions assessment fail), this area was considered to be in poor condition. The remaining 75% of the habitat was considered to be in good condition.

*21A0 Machairs

Area

The area of ***21A0 Machairs** has increased from 93.80 ha recorded during SDM to 115.30 ha. This was due to better and more detailed mapping techniques and natural dynamics.

Area was assessed as Unfavourable - Inadequate because the total loss by anthropogenic causes (an extension of the area managed as part of the golf course and the development of holiday homes and access roads into the ***21A0 Machairs**) was estimated to be less than 1% per year since CMP. The loss of 1.05 ha since SDM survey caused the trend to be assessed as decreasing.

Structure and Functions

No criteria failed in the Structure and Functions assessment, so the Structure and Functions were Favourable. Since ***21A0 Machairs** was assessed as Unfavourable - Inadequate during SDM, the trend is therefore increasing.

Future Prospects

High-intensity negative impacts on this habitat included vehicle tracks, offroad driving and drainage canal from the adjacent football pitch, that affected 25% of the habitat's area.

Overgrazing, that affected about 50% of the habitat, was recorded as low-intensity negative impact. Future Prospects were therefore assessed as Unfavourable - Inadequate, and the trend was assessed as stable because it was also assessed as Unfavourable - Inadequate during SDM.

Conservation assessment

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

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

Since at least one of the three parameters was assessed as Unfavourable - Inadequate, the overall conservation assessment for ***21A0 Machairs** at 16.01 Derrybeg dunes was Unfavourable - Inadequate. Since ***21A0 Machairs** was assessed as Unfavourable - Inadequate during SDM, the trend is therefore stable.

Overall Conservation Status: Unfavourable - Inadequate (stable)

Condition of the habitat by area

Considering that 10% of ***21A0 Machairs** was affected by several impacts (mainly over grazing), this area was considered to be in poor condition. The remaining 90% of the habitat was considered to be in good condition.

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Appendix 1 Area

Total habitat area recorded during reporting cycles to date.

Habitat	2007	2013	2019	2025
1210	0.050	0.020	NS	0.047
2110	1.450	0.690	NS	3.494
2120	5.030	3.960	NS	3.771
2130	30.050	30.800	NS	30.268
2190	0.190	0.190	NS	2.776
21A0	96.640	93.800	NS	115.302

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	0.050	<1% per year	0.03 and 2007 loss	NS	0.03 and 2007 loss
2110	1.450	0	0	NS	0
2120	5.030	0	0	NS	0
*2130	30.050	<1% per year	0	NS	0
2190	0.190	0	0	NS	0
*21A0	96.640	<1% per year	2.830 and 2007 loss	NS	3.420 and 2007 loss

Appendix 2. Structure and functions

Negative indicator species and non-native invasive species

Habitat	Species name	Cover (%)
2120	<i>Cirsium arvense</i>	8.0
*2130	<i>Heracleum sphondylium</i>	1.5
*2130	<i>Pteridium aquilinum</i>	15.0
*2130	<i>Rosa species</i>	12.3
*2130	<i>Senecio jacobaea</i>	2.0
*21A0	<i>Rosa species</i>	0.4
*21A0	<i>Senecio jacobaea</i>	0.3

Positive indicator species and notable species

Habitat	Species name	Cover (%) (if recorded)
1210	<i>Atriplex species</i>	
1210	<i>Honckenya peploides</i>	
2110	<i>Elytrigia juncea</i>	
2110	<i>Leymus arenarius</i>	
2120	<i>Ammophila arenaria</i>	
2120	<i>Leymus arenarius</i>	
*2130	<i>Anthyllis vulneraria</i>	
*2130	<i>Carex arenaria</i>	
*2130	<i>Carex flacca</i>	
*2130	<i>Deschampsia flexuosa</i>	
*2130	<i>Euphrasia officinalis ag.</i>	
*2130	<i>Festuca rubra</i>	
*2130	<i>Galium verum</i>	
*2130	<i>Homalothecium lutescens</i>	
*2130	<i>Hypochaeris radicata</i>	
*2130	<i>Linum catharticum</i>	
*2130	<i>Lotus corniculatus</i>	
*2130	<i>Luzula campestris</i>	
*2130	<i>Plantago lanceolata</i>	
*2130	<i>Poa pratensis</i>	
*2130	<i>Polygala serpyllifolia</i>	
*2130	<i>Rhytidiadelphus squarrosus</i>	
*2130	<i>Rhytidiadelphus triquetrus</i>	
*2130	<i>Scleropodium purum</i>	
*2130	<i>Thymus polytrichus</i>	
*2130	<i>Trifolium repens</i>	
2190	<i>Agrostis stolonifera</i>	
2190	<i>Anagallis tenella</i>	
2190	<i>Calliergon cuspidatum</i>	
2190	<i>Campylium stellatum</i>	
2190	<i>Carex arenaria</i>	
2190	<i>Carex flacca</i>	
2190	<i>Epipactis palustris</i>	
2190	<i>Equisetum species</i>	
2190	<i>Festuca rubra</i>	

2190	<i>Galium palustre</i>	
2190	<i>Hydrocotyle vulgaris</i>	
2190	<i>Juncus articulatus</i>	
2190	<i>Lotus corniculatus</i>	
2190	<i>Mentha aquatica</i>	
2190	<i>Potentilla anserina</i>	
2190	<i>Prunella vulgaris</i>	
2190	<i>Ranunculus flammula</i>	
2190	<i>Salix repens</i> v. <i>argentea</i>	
*21A0	<i>Agrostis stolonifera</i>	
*21A0	<i>Bellis perennis</i>	
*21A0	<i>Carex arenaria</i>	
*21A0	<i>Carex flacca</i>	
*21A0	<i>Carex nigra</i>	
*21A0	<i>Cerastium fontanum</i>	
*21A0	<i>Crepis capillaris</i>	
*21A0	<i>Euphrasia officinalis</i> ag.	
*21A0	<i>Festuca rubra</i>	
*21A0	<i>Galium verum</i>	
*21A0	<i>Hydrocotyle vulgaris</i>	
*21A0	<i>Linum catharticum</i>	
*21A0	<i>Lotus corniculatus</i>	
*21A0	<i>Orchis species</i>	
*21A0	<i>Plantago lanceolata</i>	
*21A0	<i>Prunella vulgaris</i>	
*21A0	<i>Sedum acre</i>	
*21A0	<i>Thymus polytrichus</i>	
*21A0	<i>Trifolium repens</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
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	Fail
2120	Damage due to disturbance	Pass
*2130	Positive indicator species	Fail
*2130	Negative indicator species	Fail
*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	Fail
*2130	Notable/rare species	Pass
*2130	Interference with the sediment dynamics	Pass
*2130	Damage due to disturbance	Pass
2190	Positive indicator species	Fail
2190	Bryophytes	Pass
2190	Cover of <i>Salix repens</i>	Pass
2190	Negative indicator species	Pass
2190	Non-native species	Pass
2190	Cover of scrub	Pass
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	Pass
*21A0	Positive indicator species	Pass
*21A0	Bryophytes	Pass
*21A0	Negative indicator species	Pass
*21A0	Non-native species	Pass
*21A0	Flowering or fruiting of positive indicator species	Pass
*21A0	Sward height	Pass
*21A0	Bare ground	Pass
*21A0	Notable/rare species	Pass
*21A0	Interference with the sediment dynamics	Pass
*21A0	Damage due to disturbance	Pass

Appendix 3. Impacts and Activities

Impacts recorded

Habitat code	Impact code	Impact description	Relative importance	Influence	Source	Timing	Trend	Area
1210	PF15	Pier	High	Neutral	Outside	Ongoing	Stable	Unknown
2110	PF05	Pedestrian tracks, walking and offroad driving	Low	Negative	Inside	Ongoing	Decreasing	60.0
2110	PF15	Pier	Low	Neutral	Outside	Ongoing	Stable	Unknown
2120	PF05	Walking	Medium	Negative	Inside	Ongoing	Stable	1.0
2120	PF15	Pier	Medium	Negative	Outside	Ongoing	Stable	5.0
*2130	PA05	Undergrazing	Medium	Negative	Inside	Ongoing	Decreasing	80.0
*2130	PF05	Old vehicle tracks, offroad driving, pedestrian tracks	High	Negative	Inside	Ongoing	Decreasing	4.0
*2130	PM07	Sand blowouts and natural erosion	Medium	Neutral	Inside	Ongoing	Decreasing	20.0
2190	PA05	Undergrazing	Low	Negative	Inside	Ongoing	Stable	75.0
2190	PF05	Vehicle tracks and offroad driving	High	Negative	Inside	Ongoing	Stable	1.0
*21A0	PA07	Overgrazing and trampling	Low	Negative	Inside	Ongoing	Decreasing	50.0
*21A0	PF05	Vehicle tracks, offroad driving and drainage canal	High	Negative	Inside	Ongoing	Stable	25.0
*21A0	PI	Ornamental species	High	Negative	Inside	Ongoing	Decreasing	0.1
*21A0	PM07	Natural erosion	Medium	Neutral	Inside	Ongoing	Stable	1.0

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)
2120	CF03	Measure required to regulate recreational activities	0.0377	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
*2130	CA05	Measure required to regulate grazing	24.2148	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
*2130	CF03	Measure required to regulate	1.5134	Absent	Medium-term	Restore the structure & functions,	Inside

		late recreational activities			results	including the status of typical species	
2190	CA05	Measure required to regulate grazing	2.0818	Absent	Medium-term results	Restore the structure & functions, including the status of typical species	Inside
2190	CF03	Measure required to regulate recreational activities	0.0278	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
2110	10	90
2120	15	85
*2130	60	40
2190	25	75
*21A0	10	90