

**European Community Directive
on the Conservation of Natural Habitats
and of Wild Fauna and Flora
(92/43/EEC)**

**Fourth Report by the United Kingdom
under Article 17**

on the implementation of the Directive
from January 2013 to December 2018

Supporting documentation for the
conservation status assessment for the habitat:

**H1310 - *Salicornia* and other annuals colonising mud
and sand**

ENGLAND

IMPORTANT NOTE - PLEASE READ

- The information in this document is a country-level contribution to the UK Report on the conservation status of this habitat, submitted to the European Commission as part of the 2019 UK Reporting under Article 17 of the EU Habitats Directive.
- The 2019 Article 17 UK Approach document provides details on how this supporting information was used to produce the UK Report.
- The UK Report on the conservation status of this habitat is provided in a separate document.
- The reporting fields and options used are aligned to those set out in the European Commission guidance.
- Explanatory notes (where provided) by the country are included at the end. These provide an audit trail of relevant supporting information.
- Some of the reporting fields have been left blank because either: (i) there was insufficient information to complete the field; (ii) completion of the field was not obligatory; and/or (iii) the field was only relevant at UK-level (sections 10 Future prospects and 11 Conclusions).
- For technical reasons, the country-level future trends for Range, Area covered by habitat and Structure and functions are only available in a separate spreadsheet that contains all the country-level supporting information.
- The country-level reporting information for all habitats and species is also available in spreadsheet format.

Visit the JNCC website, <https://jncc.gov.uk/article17>, for further information on UK Article 17 reporting.

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

NATIONAL LEVEL

1. General information

1.1 Member State	UK (England information only)
1.2 Habitat code	1310 - Salicornia and other annuals colonizing mud and sand

2. Maps

2.1 Year or period	2013-
2.3 Distribution map	Yes
2.3 Distribution map Method used	Based mainly on extrapolation from a limited amount of data
2.4 Additional maps	No

BIOGEOGRAPHICAL LEVEL

3. Biogeographical and marine regions

3.1 Biogeographical or marine region where the habitat occurs	Atlantic (ATL)
3.2 Sources of information	<p>Natural England. 2015. Coastal management theme plan (IPENSTP019) http://publications.naturalengland.org.uk/publication/6371629661683712?category=5605910663659520</p> <p>Janssen, J.A.M., Rodwell, J.S Garcia M Criado, S. Gubbay, S. Haynes, T, A. Nieto, A., Sanders, N Landucci, F. Loidi, J Ssymank, A. Tahvanainen, T. Valderrabano, M Acosta, A Aronsson, M. Arts, G Attorre, F. Bergmeier, E Bijlsma, R-J. Bioret, F. Bitá-Nicolae, C. Biurrun, I. Calix, M. Capelo, J. Carni, A Chytry, M. Dengler, J. Dimopoulos, P. Essl, F. Gardfjell, H. Gigante, D Giusso del Galdo, G. Hajek, M. Jansen, F. Jansen, J. Kapfer, J. Mickolajczak, A Molina, J A. Molnar, Z. Paternoster, D. Piernik, A. Poulin, B. Renaux, B Schaminee, JHJ. Sumberova, K Toivonen, H. Tonteri, T. Tsiripidis, I. Tzonev R and Valachovic, M. 2016 European Red List of Habitats: Part 2 Terrestrial & Freshwater Habitats. European Commission, DG Environment http://ec.europa.eu/environment/nature/knowledge/pdf/terrestrial_EU_red_list_report.pdf</p> <p>Natural England. 2015. Climate change theme plan: Developing a strategic approach to climate change adaptation (IPENSTP014) http://publications.naturalengland.org.uk/publication/4954594591375360?category=5605910663659520</p> <p>Natural England. 2015. Invasive species theme plan: Strategic principles for the management of invasive species on Natura 2000 sites (IPENSTP020) http://publications.naturalengland.org.uk/publication/6130001713823744?category=5605910663659520</p> <p>Natural England. 2015. Improvement Programme for England's Natura 2000 sites (IPENS): Planning for the future Programme Report - a summary of the programme findings. (NE601). Natural England. http://publications.naturalengland.org.uk/publication/5757712073752576?category=4878851540779008</p> <p>Jones L, Garbutt A and Angus S. 2013. Impacts of climate change on coastal habitats, MCCIP Science Review, 4 http://www.mccip.org.uk/media/13315/2013arc_backingpapers_18_chab.pdf</p> <p>JNCC. 2013. Third report by the United Kingdom under article 17 on the implementation of the directive from January 2007 to December 2012</p>

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

H1310 Salicornia and other annuals

4. Range

4.1 Surface area (in km ²)	
4.2 Short-term trend Period	
4.3 Short-term trend Direction	Stable (0)
4.4 Short-term trend Magnitude	a) Minimum b) Maximum
4.5 Short-term trend Method used	
4.6 Long-term trend Period	
4.7 Long-term trend Direction	
4.8 Long-term trend Magnitude	a) Minimum b) Maximum
4.9 Long-term trend Method used	
4.10 Favourable reference range	a) Area (km ²) b) Operator c) Unknown No d) Method
4.11 Change and reason for change in surface area of range	No change The change is mainly due to:
4.12 Additional information	

5. Area covered by habitat

5.1 Year or period	2013-2018
5.2 Surface area (in km ²)	a) Minimum 11.59 b) Maximum 18.5 c) Best single value 15.05
5.3 Type of estimate	Best estimate
5.4 Surface area Method used	Based mainly on extrapolation from a limited amount of data
5.5 Short-term trend Period	2007-2018
5.6 Short-term trend Direction	Uncertain (u)
5.7 Short-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
5.8 Short-term trend Method used	Insufficient or no data available
5.9 Long-term trend Period	
5.10 Long-term trend Direction	
5.11 Long-term trend Magnitude	a) Minimum b) Maximum c) Confidence interval
5.12 Long-term trend Method used	
5.13 Favourable reference area	a) Area (km ²) b) Operator c) Unknown No d) Method
5.14 Change and reason for change in surface area of range	No change The change is mainly due to:
5.15 Additional information	

6. Structure and functions

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

6.1 Condition of habitat	a) Area in good condition (km ²)	Minimum 7.79	Maximum 11.18
	b) Area in not-good condition (km ²)	Minimum 2.8	Maximum 6.2
	c) Area where condition is not known (km ²)	Minimum 1	Maximum 1.12
6.2 Condition of habitat Method used	Based mainly on extrapolation from a limited amount of data		
6.3 Short-term trend of habitat area in good condition Period	2007-2018		
6.4 Short-term trend of habitat area in good condition Direction	Uncertain (u)		
6.5 Short-term trend of habitat area in good condition Method used	Insufficient or no data available		
6.6 Typical species	Has the list of typical species changed in comparison to the previous reporting period?		
6.7 Typical species Method used	No		
6.8 Additional information			

7. Main pressures and threats

7.1 Characterisation of pressures/threats

Pressure	Ranking
Harvesting or collecting of other wild plants and animals (excluding hunting and leisure fishing) (G09)	M
Mixed source air pollution, air-borne pollutants (J03)	M
Other invasive alien species (other than species of Union concern) (I02)	M
Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging) (E03)	M
Sea-level and wave exposure changes due to climate change (N04)	M
Wind, wave and tidal power, including infrastructure (D01)	M
Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	M
Threat	Ranking
Harvesting or collecting of other wild plants and animals (excluding hunting and leisure fishing) (G09)	M
Mixed source air pollution, air-borne pollutants (J03)	M
Other invasive alien species (other than species of Union concern) (I02)	M
Shipping lanes, ferry lanes and anchorage infrastructure (e.g. canalisation, dredging) (E03)	M
Sea-level and wave exposure changes due to climate change (N04)	H

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

Wind, wave and tidal power, including infrastructure (D01)	H
Modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defences or coastal protection works and infrastructures) (F08)	M

7.2 Sources of information

7.3 Additional information

8. Conservation measures

8.1 Status of measures	a) Are measures needed?	Yes
	b) Indicate the status of measures	Measures identified and taken
8.2 Main purpose of the measures taken	Restore the habitat of the species (related to 'Habitat for the species')	
8.3 Location of the measures taken	Both inside and outside Natura 2000	
8.4 Response to the measures	Medium-term results (within the next two reporting periods, 2019-2030)	
8.5 List of main conservation measures		

Reduce/eliminate point pollution to surface or ground waters from agricultural activities (CA10)

Manage changes in hydrological and coastal systems and regimes for construction and development (CF10)

Other measures related to extraction and energy exploitation activities (CC14)

Implement climate change adaptation measures (CN02)

8.6 Additional information

9. Future prospects

9.1 Future prospects of parameters	a) Range
	b) Area
	c) Structure and functions

9.2 Additional information

10. Conclusions

10.1. Range

10.2. Area

10.3. Specific structure and functions (incl. typical species)

10.4. Future prospects

10.5 Overall assessment of Conservation Status

10.6 Overall trend in Conservation Status

10.7 Change and reasons for change in conservation status and conservation status trend

a) Overall assessment of conservation status

No change

The change is mainly due to:

Report on the main results of the surveillance under Article 17 for Annex I habitat types (Annex D)

b) Overall trend in conservation status

No change

The change is mainly due to:

10.8 Additional information

11. Natura 2000 (pSCIs, SCIs, SACs) coverage for Annex I habitat types

11.1 Surface area of the habitat type inside the pSCIs, SCIs and SACs network (in km² in biogeographical/marine region)

- a) Minimum
- b) Maximum
- c) Best single value 11.59

11.2 Type of estimate

Best estimate

11.3 Surface area of the habitat type inside the network Method used

Based mainly on extrapolation from a limited amount of data

11.4 Short-term trend of habitat area in good condition within the network Direction

Stable (0)

11.5 Short-term trend of habitat area in good condition within network Method used

Based mainly on extrapolation from a limited amount of data

11.6 Additional information

Area used is taken from JNCC SAC data, derived from Standard Data Forms.

12. Complementary information

12.1 Justification of % thresholds for trends

12.2 Other relevant information

Distribution Map

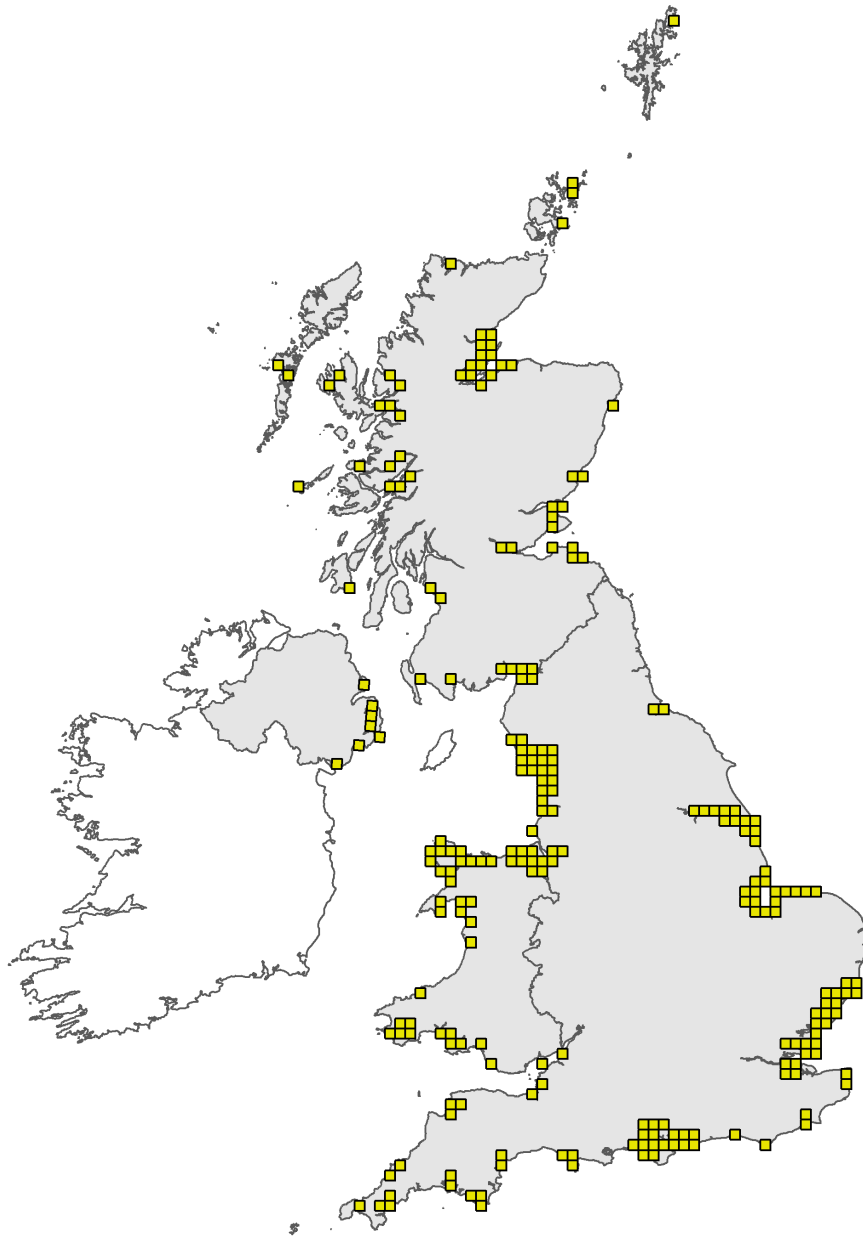


Figure 1: UK distribution map for H1310 - *Salicornia* and other annuals colonising mud and sand. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The 10km grid square distribution map is based on available habitat records which are considered to be representative of the distribution within the current reporting period. For further details see the 2019 Article17 UK Approach document.

Range Map

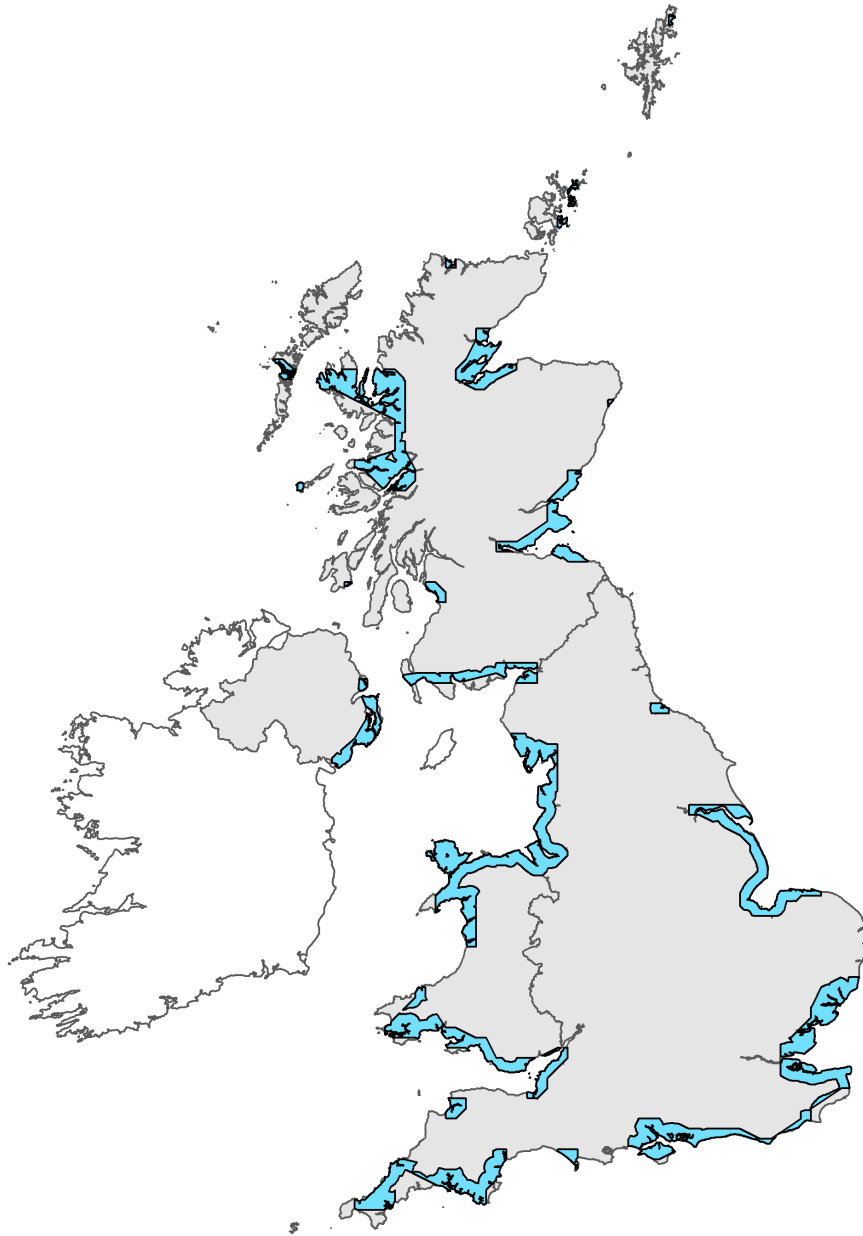


Figure 2: UK range map for H1310 - *Salicornia* and other annuals colonising mud and sand. Coastline boundary derived from the Oil and Gas Authority's OGA and Lloyd's Register SNS Regional Geological Maps (Open Source). Open Government Licence v3 (OGL). Contains data © 2017 Oil and Gas Authority.

The range map has been produced by applying a bespoke range mapping tool for Article 17 reporting (produced by JNCC) to the 10km grid square distribution map presented in Figure 1. The alpha value for this habitat was 25km. For further details see the 2019 Article 17 UK Approach document.

Explanatory Notes

Habitat code: 1310

Field label	Note
2.3 Distribution map; Method used	Map derived from data provided by JNCC Terrestrial Habitat 10-km Square Distribution Map Data and Sources. No new locations have been recorded since 2013.

Habitat code: 1310 Region code: ATL

Field label	Note
3.2 Sources of information	Key sources of information on Annex I habitats in relation to site issues, pressures and threats and approaches to management measures include the material collated for the IPENS programme. Key published SIPS, evidence projects and Theme Plans are referenced which provide a range of information relevant to this Annex I habitat and other habitats and species within Natura 2000 sites. Only new sources are included - for previous reports see the 2nd and 3rd Article 17 reports and audit trails.
5.2 Surface area	no single figure is available for the period 2013-2018 due to a lack of a national survey. Date used for minimum is derived from EA WFD zonation data for 39 water bodies where saltmarsh data has been collated. Data used for maximum is figure given for habitat within SACS in England. Area reported in 2007 and 2013 used the 1989 England figure of 16.2 km ² , derived from the saltmarsh survey of GB.
5.6 Short term trend; Direction	Pioneer saltmarsh is not readily measurable using remote sensing methods
5.14 Change and reason for change in surface area	Data for this habitat cannot be distinguished from overall information on saltmarsh and mapping may not be detailed enough to identify changes in extent within the saltmarsh. A range of 11.59-18.5 km ² is given for the area which encompasses the 2013 area of 16.2km ² , but without more detailed information it is not possible to give an accurate figure of extent. it is possible that extent will vary annually due to the nature of the habitat.
7.2 Sources of information	Pressures and threats information is largely derived from a range of information produced by the IPENS programme, including SIPS, Theme Plans and the overall programme report which are available at http://publications.naturalengland.org.uk/category/4878851540779008 or other sources listed in the 'habitat sources' tab, orexpert knowledge
10.3 Specific structure and functions	site-based condition assessments by area have been extrapolated from SSSI condition assessment data. Not all of these assessments do not cover the reporting period but it wasn't possible to separate these, so all have been treated as if from the period given, which may be inaccurate
11.3 Surface area of the habitat type inside the network; Method used	The area of this habitat within SACs may have changed since the JNCC spreadsheet was compiled. Some sites will have increased in extent, others will have decreased, with respective changes in other habitats such as Atlantic saltmeadow or mudflats. Some of these changes may be natural. others could be response to pressures.
11.4 Short term trend of habitat area in good condition within the network; Direction	A higher area of habitat in the network has been assessed as 'recovering' compared to the area assessed as 'not assessed', if recovery continues there is an expectation of improvement in the habitat. in the absence of further information this has been determined to be at least 'stable'