

# Fisheries in EMS Habitats Regulations Assessment for **Amber** and **Green** risk categories

## European Marine Site: Braunton Burrows

**Fishing activities assessed:** Miscellaneous

**Gear/feature interactions assessed:**

D&S IFCA Interaction ID	Fishing Activity	Sub-feature(s)
HRA_UK0012570_L39	Crab tiling	Intertidal mudflats and sandflats

**IFCA reference:**  
BBSAC\_005

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# 1. Introduction

## 1.1 Need for an HRA assessment

In 2012, the Department for Environment, Food and Rural Affairs (Defra) announced a revised approach to the management of commercial fisheries in European Marine Sites (EMS). The objective of this revised approach is to ensure that all existing and potential commercial fishing activities are managed in accordance with Article 6 of the Habitats Directive.

This approach is being implemented using an evidence based, risk-prioritised, and phased basis. Risk prioritisation is informed by using a matrix of the generic sensitivity of the sub-features of EMS to a suite of fishing activities as a decision making tool. These sub-feature-activity combinations have been categorised according to specific definitions, as red, amber, green or blue.

Activity/feature interactions identified within the matrix as red risk have the highest priority for implementation of management measures by the end of 2013 in order to avoid the deterioration of Annex I features in line with obligations under Article 6(2) of the Habitats Directive.

Activity/feature interactions identified within the matrix as amber risk require a site-level assessment to determine whether management of an activity is required to conserve site features. Activity/feature interactions identified within the matrix as green also require a site level assessment if there are “in combination effects” with other plans or projects.

Site level assessments are being carried out in a manner that is consistent with the provisions of Article 6(3) of the Habitats Directive. The aim of this assessment is to determine whether management measures are required in order to ensure that fishing activity or activities will have no adverse effect on the integrity of the site. If measures are required, the revised approach requires these to be implemented by 2016.

The purpose of this site specific assessment document is to assess whether or not in the view of Devon & Severn Inshore Fisheries and Conservation Authority (D&S IFCA) the fishing activities crab tiling have a likely significant effect on the ‘intertidal mudflats and sandflats’ of the Braunton Burrows SAC, and on the basis of this assessment whether or not it can be concluded that crab tiling will not have an adverse effect on the integrity of this EMS.

## 1.2 Documents reviewed to inform this assessment

- Natural England’s risk assessment Matrix of fishing activities and European habitat features and protected species<sup>1</sup>
- Reference list (Annex 1)
- Natural England’s consultation advice (Annex 2)
- Site map(s) – sub-feature/feature location and extent (Annex 3)
- Fishing activity data (map(s), etc.) (Annex 4)

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<sup>1</sup> See Fisheries in EMS matrix:

[http://www.marinemanagement.org.uk/protecting/conservation/documents/ems\\_fisheries/populated\\_matrix3.xls](http://www.marinemanagement.org.uk/protecting/conservation/documents/ems_fisheries/populated_matrix3.xls)

## 2. Information about the EMS

Braunton Burrows is one of the largest dune systems in Britain, about 5km long and 1.5km wide, with lime-rich dunes up to 30m high and extensive system of variably-flooded slacks, grassland and scrub, inland of a wide sandy foreshore. The foreshore consists mainly of sandy flats, rich in lime from broken shells, with some intertidal shingle grading to silt in the adjacent estuary. Devon and Severn IFCA will only be assessing fishing activities occurring within the intertidal.

### 2.1 Overview and qualifying features (Figure 2, Annex 3)

Braunton Burrows qualifies as a SAC for the following Annex I habitats as listed in the EU Habitats Directive (Natural England, 2014):

- Mudflats & sandflats not covered by seawater at low tide; Intertidal mudflats and sandflats
- Shifting dunes along the shoreline with *Ammophila arenaria* ("white dunes"); Shifting dunes with marram
- Fixed dunes with herbaceous vegetation ("grey dunes"); Dune grassland
- Dunes with *Salix repens* ssp. *argentea* (*Salicion arenariae*); Dunes with creeping willow
- Humid dune slacks
- *Petalophyllum ralfsii*; Petalwort

**Intertidal mudflats and sandflats:** Most of the exposed sediment in the intertidal is classified as A2.231 'polychetes in littoral fine sand' and the mussel bed located on Sprat Ridge A2.72 'littoral mussel beds on sediment'.

### 2.2 Conservation Objectives

The site's conservation objectives which apply to the **Special Area of Conservation** and the natural habitat and/or species for which the site has been designated are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring:

- the extent and distribution of qualifying natural habitats and habitats of the qualifying species
- the structure and function (including typical species) of qualifying natural habitats
- the structure and function of the habitats of qualifying species
- the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely
- the populations of qualifying species
- the distribution of qualifying species within the site

## 3. Interest feature(s) of the EMS categorised as 'red' risk and overview of management measure(s) (if applicable)

- No 'red' risk features within Braunton Burrows SAC.

#### **4. Information about the fishing activities within the site**

Crab tiling is occurring at very low levels within the SAC (Annex 4). Out of approximately 3704 tiles, which are located within the Taw Torridge estuary, there are roughly 40 tiles within the boundary of the SAC. It is not known if these tiles are used commercially or recreationally.

## 5. Test for Likely Significant Effect (LSE)

### 5.1 Table 1: Assessment of LSE

1. Is the activity/activities directly connected with or necessary to the management of the site for nature conservation?	No	
2. What pressures (such as abrasion, disturbance) are potentially exerted by the gear type(s)	<ul style="list-style-type: none"> <li>• Abrasion/disturbance of the substrate on the surface of the seabed</li> <li>• Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion</li> <li>• Removal of non-target</li> <li>• Removal of target species</li> </ul> <b>See Annex 5 for pressures audit trail</b>	
3. Is the feature potentially exposed to the pressure(s)?	<b>Yes</b> , there are currently no D&S IFCA management measures prohibiting the use of crab tiling in Braunton Burrows SAC.	
4. What are the potential effects/impacts of the pressure(s) on the feature, taking into account the exposure level?	<p>There are currently very low levels of crab tiling within a small area of the SAC (Annex 4). Approximately 40 tiles are within the boundary of the SAC out of a total of 3704 in the Taw Torridge estuary.</p> <p>Crab tiles have the potential to change habitat complexity, benthic infaunal diversity and abundance, and bird behaviour over large areas (Sheehan et al., 2010).</p>	
5. Is the potential scale or magnitude of any effect likely to be significant?	<b>Alone</b>	<p><b>No</b>, there are very low levels of this activity occurring on a small area of the site.</p> <p><b>Taking into consideration the levels of activity, D&amp;S IFCA conclude that there would be little to no effect/ impact on the feature.</b></p> <p>However, D&amp;S IFCA will be creating a hand working byelaw in the near future, and this will potentially include some level of management for crab tiling in the estuary.</p> <p>D&amp;S IFCA carry out a crab tile survey on the estuary every four years to determine the number and locations of crab tiles. These surveys will feed into any future management that may be appropriate if numbers increase.</p>
	<b>In-combination</b>	<b>No, see section 8 for more information</b>
6. Have NE been consulted on this LSE test? If yes, what was NE's advice?	<b>No</b> , not at this stage.	

## 6. Appropriate Assessment

An Appropriate Assessment is not required as the TLSE concluded that this activity would not have a significant effect, either alone or in combination.

### 6.1 Potential risks to features

**Table 2: Summary of Impacts**

<b>Feature/Sub feature(s)</b>	<b>Conservation Objective</b>	<b>Potential pressure (such as abrasion, disturbance) exerted by gear type(s)</b>	<b>Potential ecological impacts of pressure exerted by the activity/activities on the feature <i>(reference to conservation objectives)</i></b>	<b>Level of exposure of feature to pressure</b>	<b>Mitigation measures</b>

## 7. Conclusion

N/A

## 8. In-combination assessment

### 8.1 Other fishing activities

The following fishing activities are either occurring or have not been ruled out as occurring at a low level in the Braunton Burrows SAC.

**Longlines** – Activity is occurring at a low level on Sprat Ridge. Officers have recorded 18 full longlines and 3 single posts. Metal stakes are fixed into the sediment. Fishing occurs over the winter period by one individual. Due to commercial longlining and crab tiling both occurring on a low level, and in different areas of the SAC, no in-combination effect thought to be possible.

**Handworking** – The collection of mussels occurs at a low level on Sprat Ridge. Management measures are in place to monitor the mussel bed and close it to the removal of mussels if needed. Crab tiling occurs in a different area of the SAC therefore no in-combination effect thought to be possible.

**Digging with forks** – Activity is occurring at a low level for sand eels. Due to digging with forks and crab tiling both occurring on a low level, and in different areas of the SAC, no in-combination effect thought to be possible.

The following activities have been ruled out as not occurring: static pots/ traps, static fixed nets, passive nets, beach seine/ ringnets, shrimp push nets, fyke and stakenets and bait dragging.

**D&S IFCA conclude there is no likelihood of significant adverse effect on the interest features from in-combination effects with other fishing activities addressed within section 8.1.**

### 8.2 Other activities

Currently there are no known proposed plans or projects in Braunton Burrows which could theoretically interact with the intertidal sub-features addressed.

**Other:** The impact of future plans or projects will require assessment in their own right, including accounting for any in-combination effects, alongside existing activities.

**D&S IFCA conclude there is no likelihood of significant adverse effect on the interest features from in-combination effects with other plans or projects addressed within section 8.2.**

## 9. Summary of consultation with Natural England

Natural England were consulted in January 2016 regarding the inclusion of plans/projects for in-combination assessments.

Natural England were consulted in February 2016 for advice on assessing activities within Braunton Burrows SAC without a conservation advice package.

Crab tiling was originally recorded as not occurring (see assessment BBSAC\_004). However, it has been found that crab tiles are within the SAC and therefore an assessment needed to be carried out.



## 10. Integrity test

*Conclusion of adverse effect/non-adverse effect either alone or in-combination. This will be reliant on the consideration of mitigation measure(s) documented in the AA and summarised here in conclusion.*

## Annex 1: Reference list

MAGIC (2016) Multi-Agency Geographic Information for the Countryside interactive map  
<http://magic.defra.gov.uk/MagicMap.aspx?chosenLayers=sacPIndex,sacIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex&box=239892:132120:249587:137589&useDefaultbackgroundMapping=false>

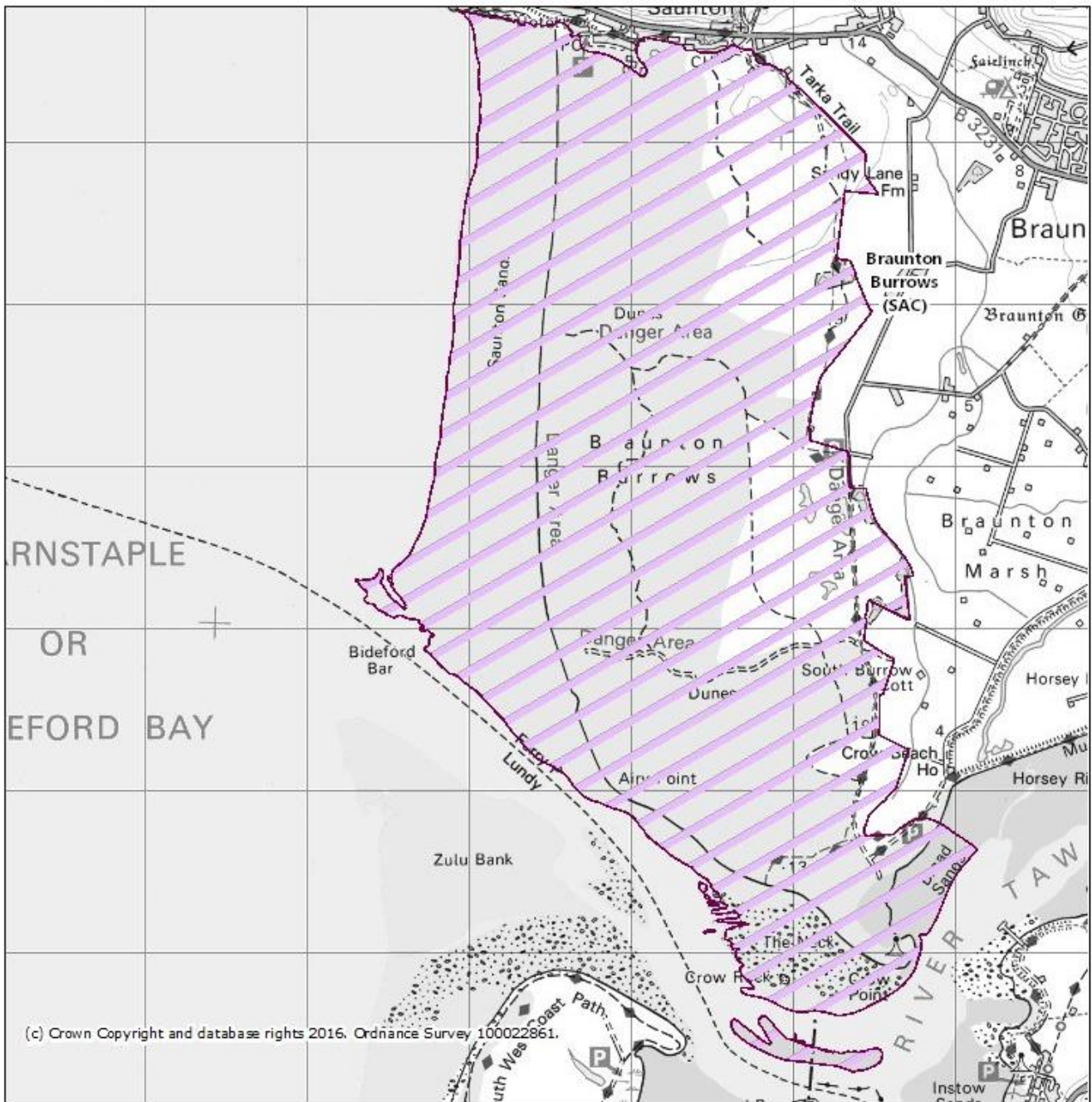
Natural England (2014) Marine conservation objectives for Special Area of Conservation: Braunton Burrows (UK0012570)

Sheehan, E.V., Coleman, R.A., Thompson, R.C. and Attrill, M.J. (2010) Crab-tiling reduces the diversity of estuarine infauna. Marine Ecology Progress Series, 411, 137-148.

## **Annex 2: Natural England's consultation advice**

N/A Natural England has not been consulted at this stage.

## Annex 3: Site Map



**Figure 1 - Area of Braunton Burrows SAC (MAGIC, 2016)**





**Figure 2 - Area of Braunton Burrows SAC**

## Annex 4: Fishing activity maps

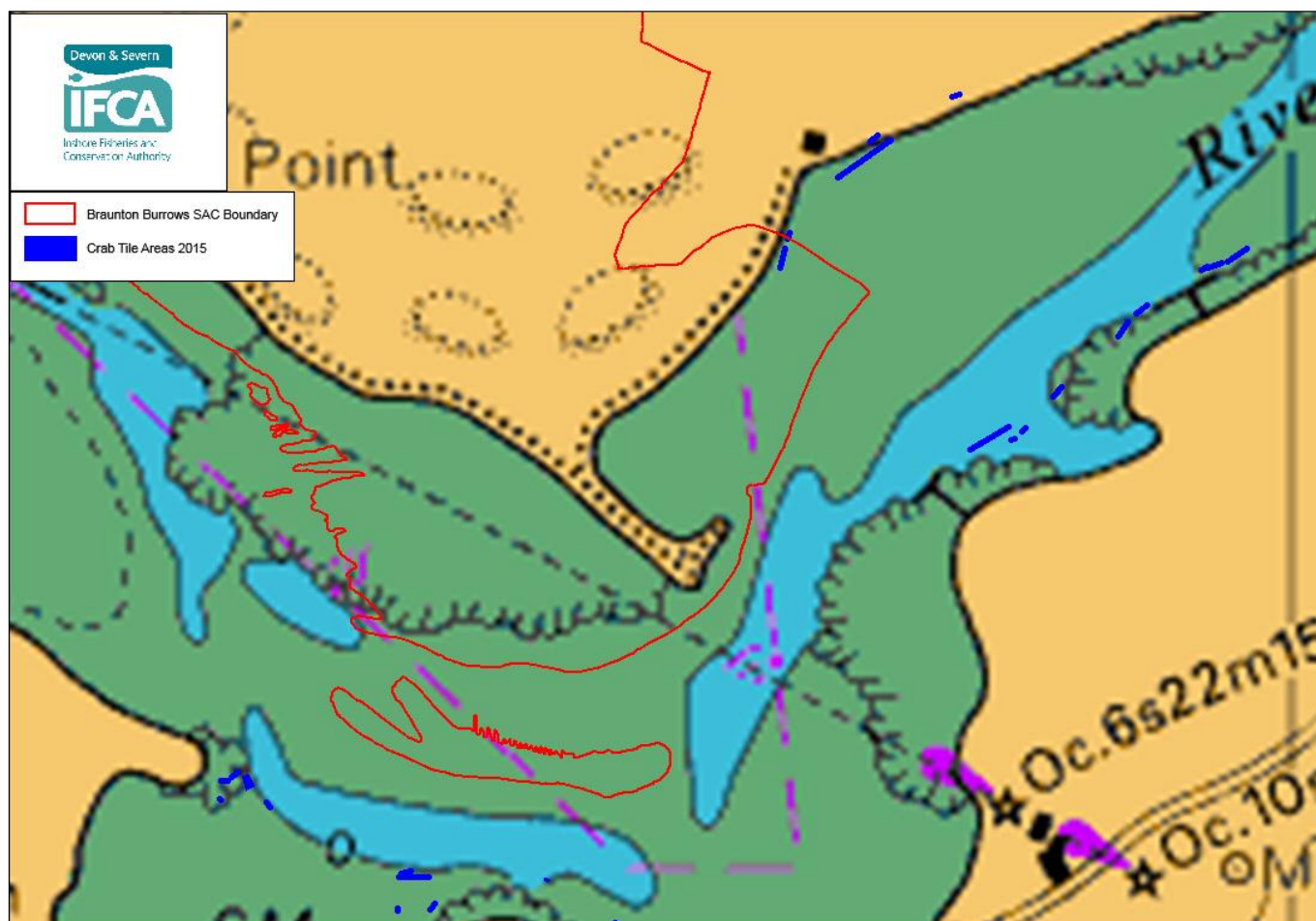


Figure 3- Crab tiling within the Braunton Burrows SAC

## Annex 5: Pressures Audit Trail

Shore-based activities Pressure(s)	Feature: Intertidal sand and muddy sand	Screening Justification
Abrasion/disturbance of the substrate on the surface of the seabed	<b>Sensitivity: S</b>	<b>IN</b> – Need to consider spatial scale/intensity of activity to determine likely magnitude of pressure
Genetic modification & translocation of indigenous species	<b>Sensitivity: IE</b>	<b>OUT</b> - the activity operates in local area only so risk considered extremely low
Hydrocarbon & PAH contamination. Includes those priority substances listed in Annex II of Directive 2008/105/EC.	<b>Sensitivity: NS</b>	<b>OUT</b> - Insufficient activity levels to pose risk of large scale pollution event
Introduction of other substances (solid, liquid or gas)	<b>Sensitivity: IE</b>	<b>OUT</b> - Insufficient activity levels to pose risk of large scale pollution event
Introduction or spread of non-indigenous species	<b>Sensitivity: S</b>	<b>OUT</b> – The activity operates in local area only so risk considered extremely low
Litter	<b>Sensitivity: IE</b>	<b>OUT</b> - Insufficient activity levels to pose risk at level of concern
Penetration and/or disturbance of the substrate below the surface of the seabed, including abrasion	<b>Sensitivity: S</b>	<b>IN</b> – Penetration/ disturbance of the substrate would occur from digging
Physical change (to another seabed type)	<b>Sensitivity: S</b>	<b>OUT</b> - Insufficient activity levels of bait digging and no removal of mussels to pose risk at level of concern to the mussel bed & intertidal sediment.
Removal of non-target species	<b>Sensitivity: S</b>	<b>IN</b> – Mortality from low incidental by-catch and trampling
Removal of target species	<b>Sensitivity: S</b>	<b>IN</b> – Removal of target species associated with activity e.g. sand eels