# Fishing activities currently occurring in the Plymouth Sound & Estuaries EMS (SAC & SPA)



Katherine Gray Environment Officer Devon and Severn Inshore Fisheries and Conservation Authority January 2015



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#### 1. Introduction

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 to inform Habitat Regulations Assessments carried out by individual IFCAs.

In order to aid the decision making process, Devon and Severn IFCA have gathered information relating to the occurrence of the fishing activities contained within the matrix within each of the European Marine Sites within the district. Whilst the various forms of commercial fisheries in the Plymouth Sound & Estuaries EMS, both historic and present-day are relatively well documented, knowledge of the occurrence (or not) of other fishing methods is largely anecdotal. This report therefore pools official and anecdotal information in order to define fishing activities occurring in the Plymouth Sound & Estuaries EMS. A previous report for the Plymouth Sound & Estuaries EMS was published last year, which covered the fishing activities that D&S IFCA believes are *not* occurring in this site (Gray, 2014). This report aims to cover the activities that are occurring, or may occasionally occur, in the Plymouth Sound & Estuaries EMS.

This report should be thought of as a working document and will be updated if and when fishing activities within or close to the Plymouth Sound & Estuaries change or develop. It is not a definitive list and only covers activities which are defined within the generic fishing matrix provided by Natural England.

2014

# 2. Methodology

A thorough literature review was carried out in order to identify the fishing methods used in Plymouth Sound and its estuaries. This was used to inform the Plymouth Sound & Estuaries EMS Site Action Plan, which then identified fishing activities where more data was required. As part of the national Sea Angling 2012 project and the IFCA's own sea angling and bait digging research, IFCA officers have been out interviewing sea anglers and bait diggers in the District for over 18 months. This has been a useful way to meet local people who are aware of the fishing activities in the area, both recreational and commercial. Anecdotal information was also collected during meetings with stakeholders, e.g. the Tamar Estuaries Consultative Forum, and through IFCA Officer's knowledge.

# 3. Fishing Activities occurring in the SAC

#### 3.1 Intertidal Handwork

# 3.1.1 Handwork (access from vessel):

This activity is thought to be occurring at a low level, as there are very few shellfish beds to gather from on this site. However, there is no sightings data for this activity.

# 3.1.2 Handwork (access from land):

This activity is thought to be occurring at a low level, as there are very few shellfish beds to gather from on this site. However, there is no sightings data for this activity.

#### 3.2 Static Fishing Gear

3.2.1 Static – Pots & traps, relating to: pots/creels, cuttle-pots and fish traps.

This activity is occurring at a medium level within Plymouth Sound. During D&S IFCA enforcement patrols pots are frequently hauled in this area to be checked for escape gaps. The level of activity increases slightly in the summer with recreational/visiting potters, especially towards the mouth of the Yealm, where many of the holiday makers launch from. Figure 1 shows the MMO sightings data for potting within this site, which demonstrates a low level of activity.

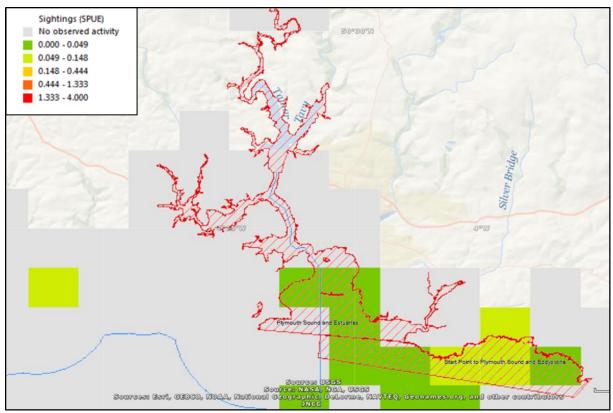


Figure 1 MMO sightings data for potting, 2007-2009 (for data confidence see Annex 1)

Cuttle-pots and fish traps are both thought to be occurring at a very low level in this area. There have been no sightings of either of these activities; however there is no evidence to confirm that they are definitely not occurring so they cannot be completely ruled out.

3.2.2 Static – fixed nets, relating to: gill nets, trammels, and entangling.

These activities are occurring at low levels in Plymouth Sound (netting is not permitted in the estuary sections of the EMS – D&S IFCA Byelaw 19). Netting in this area is only carried out by small, dory vessels. Figure 2 shows the MMO sightings data for netting within this site; it demonstrates a low level of activity.

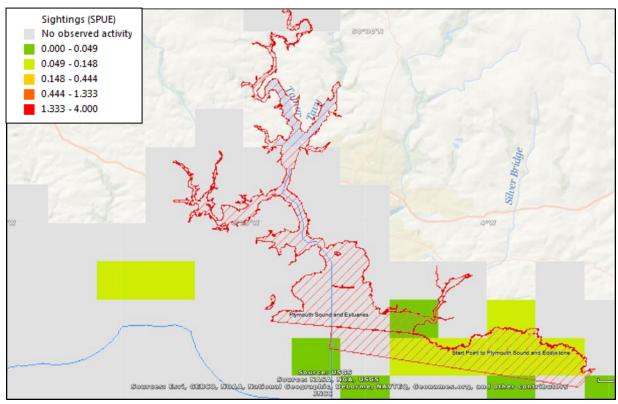


Figure 2 MMO sightings data for netting, 2007-2009 (for data confidence see Annex 1)

#### 3.3 Passive Fishing Gear

#### 3.3.1 Passive - nets: drift nets (demersal)

Drift netting occurs at a medium level in Plymouth Sound (netting is not permitted in the estuary sections of the EMS – D&S IFCA Byelaw 19). D&S IFCA observations have noted several boats drift netting for herring in the area. All vessels participating in this activity are small, dories. Figure 2 (above) shows few MMO sightings of netting in the EMS.

#### 3.4 Lines

Lines, relating to: Longlines (demersal), Longlines (pelagic), Handlines (rod/gurdy etc.), Jigging/trolling

Commercial line fishing occurs at a very low level in this site. There is only one known longliner operating in this area, who works around the mouth of the Tamar. Figure 3 shows low levels of lining and angling from MMO sightings, commercial long-lining would only make up a portion of this.

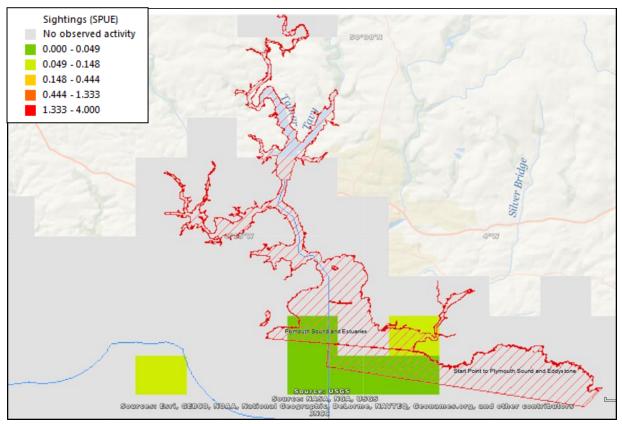


Figure 3 MMO sightings for lining and angling, 2007-2009 (for data confidence see Annex 1)

#### 3.5 Seine nets & other

#### **3.5.1 Beach seine/ring nets:**

This activity is occurring at a very low level in Plymouth Sound. There is only one known permanent ring-netter in Plymouth, however over the winter of 2014 a few visiting Cornish netters came up to work in the area.

#### 3.5.2 Shrimp push-nets:

There are no records of this activity taking place within this site. However, there is no evidence to confirm it is definitely not occurring at a low, undetected, level so it cannot be completely ruled out.

#### 3.5.3 Fyke & stake-nets:

There are no records of this activity taking place within this site. However, there is no evidence to confirm it is definitely not occurring at a low, undetected, level so it cannot be completely ruled out.

#### 3.6 Miscellaneous

#### 3.6.1 Commercial diving:

Commercial diving activity is thought to be low. Although recreational ("sightseeing") diving is popular in Plymouth Sound, D&S IFCA is not aware of any commercial fishing diving taking place in this area.

#### 3.6.2 Crab tiling:

Although crab tiling occurs at a high intensity within the Plymouth Sound & Estuaries EMS, the majority of activity is in the SPA areas of the EMS, on the estuaries. D&S IFCA's 2012 survey found 2,417 crab tiles in the SAC-only section, out of a total of 12,870 tiles in the EMS (Figures 4-6), making up 18% of the total (Noble, 2013). The Reg. 33 advice for this site lists crab tiling as a potential source of biological disturbance on the Estuaries feature of the SAC, due to the selective extraction of species from the intertidal area.

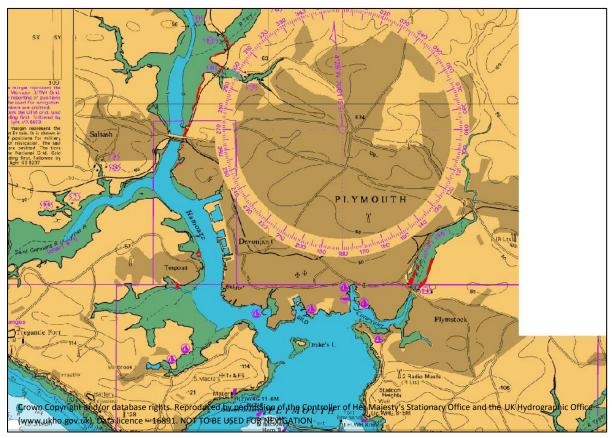


Figure 4 Crab tile locations, shown in red (Noble, 2013)

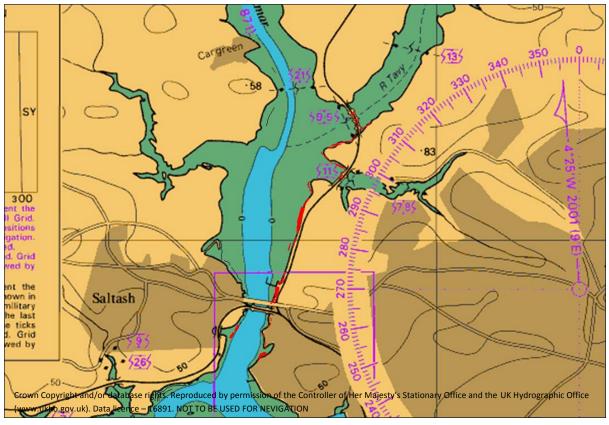


Figure 5 Crab tile locations on the Tamar, shown in red (Noble, 2013)

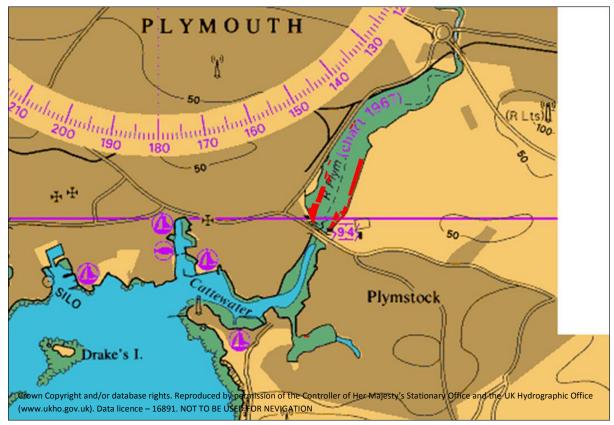


Figure 6 Crab tile locations on the Plym, outside the SAC, shown in red (Noble, 2013)

#### 3.7 Bait collection

#### **3.7.1** Digging with forks:

This activity occurs at a medium intensity throughout the Plymouth Sound & Estuaries EMS, however bait digging only takes place on the estuaries, not in Plymouth Sound, with Ernesettle on the Tamar being a key area within the EMS, as well as Blagdon Meadows on the Plym just outside the EMS. D&S IFCA are currently undertaking a twelve month study on the levels of bait digging within the EMS, and more information will be available once the study has been completed in Spring 2015. Bait diggers spoken to throughout the survey are usually targeting 12-30 worms per trip, i.e. enough bait for one, sometimes two, fishing trips. The Reg. 33 advice for this site lists bait digging as a potential source of biological disturbance on the Estuaries feature of the SAC, due to the selective extraction of species from the intertidal area.

# 4. Fishing Activities occurring in the SPA

#### 4.1 Intertidal Handwork

# 4.1.1 Handwork (access from vessel):

This activity is thought to be occurring at a low level, as there are very few shellfish beds to gather from on this site. However, there is no sightings data for this activity.

# 4.1.2 Handwork (access from land):

This activity is thought to be occurring at a low level, as there are very few shellfish beds to gather from on this site. However, there is no sightings data for this activity.

#### 4.2 Static Fishing Gear

4.2.1 Static – Pots & traps, relating to: pots/creels, cuttlepots and fish traps.

These activities are not thought to be occurring in the SPA. However there is no evidence to confirm that they are definitely not occurring at low levels, so they cannot be completely ruled out. MMO sightings data (Figure 1, page 5) shows no sightings of this activity in the SPA.

# 4.3 Lines

Lines, relating to: Longlines (demersal), Longlines (pelagic), Handlines (rod/gurdy etc.), Jigging/trolling

Commercial line fishing occurs at a very low level in this site. There is only one known longliner operating in this area, who works around the mouth of the Tamar, but not as far up as the SPA. However there is no evidence to confirm this activity is not occurring in the SPA, so it cannot be completely ruled out. MMO sightings data (Figure 3, page 7) shows no sightings of this activity in the SPA.

#### 4.4 Miscellaneous

#### 4.4.1 Commercial diving:

This activity is not thought to be occurring in the SPA. However there is no evidence to confirm that it is definitely not occurring at a low level, so it cannot be completely ruled out.

# 4.4.2 Crab tiling:

Crab tiling occurs at a high intensity within the Plymouth Sound & Estuaries EMS, with the majority of activity occurring in the SPA area of the EMS, on the estuaries. D&S IFCA's 2012 survey found 10,453 crab tiles in the SPA, out of a total of 12,870 in the EMS (Figures 4-6, Section 3.5.2), making up 82% of the total (including those within Cornwall IFCA's District)

(Noble, 2013). The Reg. 33 advice for this site lists crab tiling as a potential source of biological disturbance on the SPA, due to the selective extraction of species from the intertidal area, which may result in loss of food availability for the birds.

#### 4.5 Bait collection

#### 4.5.1 Digging with forks:

This activity occurs at a medium intensity throughout the Plymouth Sound & Estuaries EMS, however bait digging only takes place on the estuaries, not in Plymouth Sound, with Ernesettle on the Tamar being a key area within the EMS, as well as by Blagdon Meadows on the Plym just outside the EMS. D&S IFCA are currently undertaking a twelve month study on the levels of bait digging within the EMS, and more information will be available once the study has been completed in Spring 2015. Bait diggers spoken to throughout the survey are usually targeting 12-30 worms per trip, i.e. enough bait for one, sometimes two, fishing trips. The Reg. 33 advice for this site lists bait digging as a potential source of biological disturbance on the SPA, due to the selective extraction of species from the intertidal area which may reduce food availability for the birds.

# 5. Summary

Gear Type	Specific gear type	Activity Level
Intertidal handwork	Hand working (access from vessel)	Low
	Hand working (access from land)	Low
Static – pots/traps	Pots/creels	Medium
	Cuttlepots	Low
	Fish traps	Very low
Static – fixed nets	Gill nets	Low (SAC only)
	Trammels	Low (SAC only)
	Entangling	Low (SAC only)
Passive - nets	Drift nets (demersal)	Medium (SAC only)
Lines	Longlines (demersal)	Low
	Longlines (pelagic)	Low
	Handlines (rod/gurdy etc.)	Low
	Jigging/trolling	Low
Seine nets & other	Beach seine/ring nets	Low (SAC only)
	Shrimp push-nets	Very low (SAC only)
	Fyke & stakenets	Very low (SAC only)
Miscellaneous	Commercial diving	Low
	Crab tiling	High
Bait collection	Digging with forks	Medium

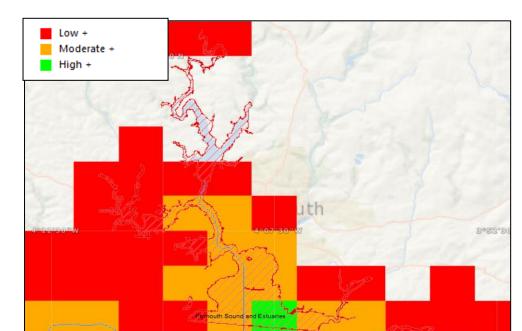
# 6. References

Devon & Severn IFCA Byelaws 2015

Gray (2014) Devon & Severn IFCA report: Fishing activities *not* currently occurring in the Plymouth Sound & Estuaries EMS (SAC & SPA)

MMO (2013) Marine Management Organisation Fishing Activity Sightings Data 2007-2009

Noble (2013) Devon & Severn IFCA report: Tamar Estuaries Complex Crab Tile Survey 2012



Source: USGS Source: NASA, NGA, USG5 GEBGO, NOAA, National Geographic, DeLorme, NAVTEQ, Geonames.org, and other contributors

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Annex 1. MMO Sightings Data confidence 2007-2009

Figure 7 MMO Sightings Data confidence

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