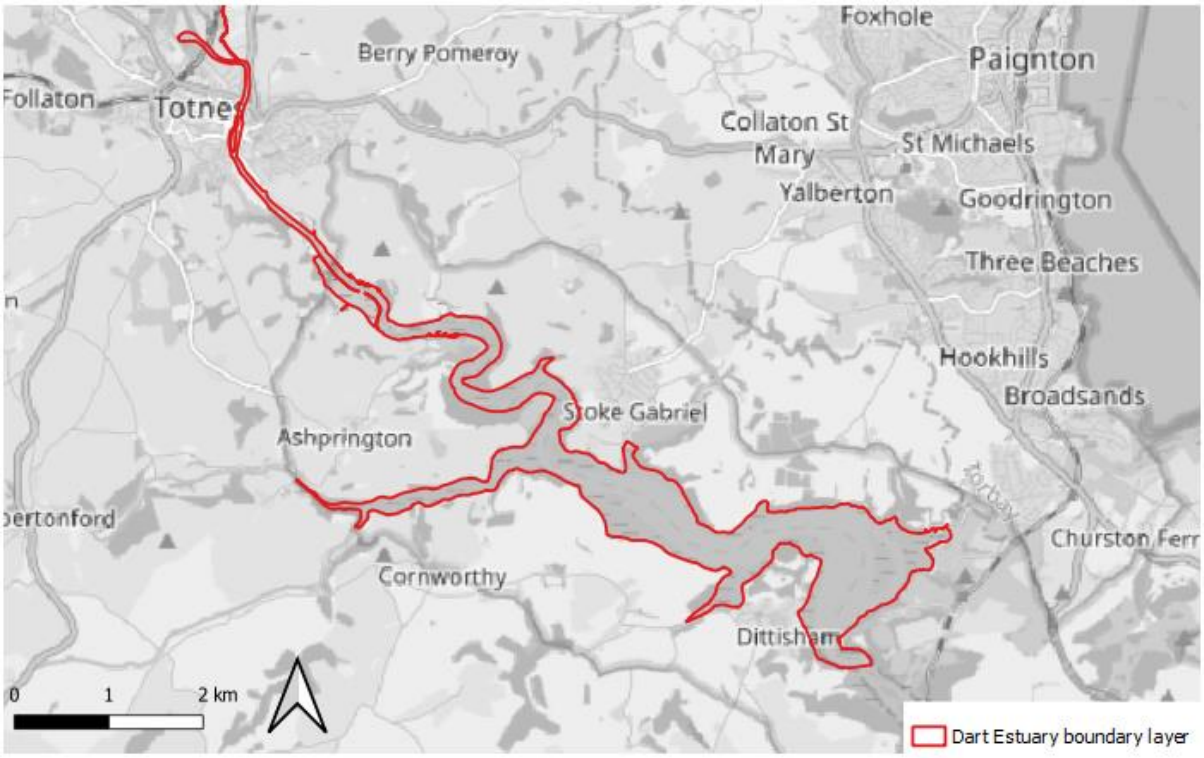
Fishing Activity Report- Dart Estuary MCZ



Lauren Henly
Environment Officer
Devon and Severn Inshore Fisheries and Conservation Authority
2022
V.1.0.

Devon & Severn IFCA
Inshore Fisheries and Conservation Authority

Contents

1. Introduction 3
2. Methodology 3
3. Fishing Activities 3
3.1. Intertidal Handwork 3
3.1.1 Hand working (access from vessel), Hand working (access from land) 3
3.2. Static- Pots/Traps 4
3.2.1 Pots/Creels, Cuttle Pots, Fish Traps 4
3.3. Static- Fixed Nets and Passive Nets 4
3.3.1 Gill Nets, Trammels, Entangling, and Drift Nets (Demersal) 4
3.4 Lines 5
3.4.1 Longlines (Demersal) 5
3.5 Seine Nets & Others 5
3.5.1 Beach Seine/Ring 5
3.5.2 Shrimp Push-nets, Fyke & Stake nets 5
3.6 Miscellaneous 5
3.6.2 Crab Tiling 5
3.7 Bait Collection- Digging with Forks 10
3.8 Aquaculture 10

Version control history			
Author	**Date**	**Comment**	**Version**
Lauren Henly	08/2021	First draft	0.1
Lauren Henly	28/01/2022	Additional content from responses of call for information	0.2
	24/03/2022	Reviewed by J. Stewart	0.3
	24/03/2022	Comments addressed by L.Henly	1.0

1. Introduction

Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA) have a responsibility to establish whether management measures are required to achieve the conservation objectives of Marine Conservation Zones (MCZs). The IFCA's responsibilities in relation to management of MCZs are laid out in Sections 124 to 126, & 154 to 157 of the Marine and Coastal Access Act 2009.

In order to aid the decision-making process, D&S IFCA have gathered information relating to the occurrence of the fishing activities within each of the Marine Conservation Zones (MCZs) within the District. This report pools official and anecdotal information in order to define fishing activities occurring, and at what levels, in the Dart Estuary MCZ.

This report should be thought of as a working document and will be updated if and when fishing activities within or close to the Dart Estuary MCZ 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.

2. Methodology

In the first instance, a thorough literature review was carried out in order to identify the fishing methods used in the Dart Estuary MCZ (Dart MCZ). This included information from the harbour master, landowner and knowledge from IFCA officers and estuary forum members. This was used to inform the Dart MCZ site action plan, which then identified fishing activities where more information was required. In order to provide data regarding bait digging and seine netting in the MCZ, a request for information was sent to permit holders who were deemed local to the estuary (all base ports/towns/cities on the south coast of Devon between and including Plymouth and Exeter). This call for information included a map of the MCZ with an overlaying grid in order for respondents to indicate the location (grid cell) of any fishing activities. In addition, the request for information was also published on D&S IFCA's website.

3. Fishing Activities

3.1. Intertidal Handwork

3.1.1 Hand working (access from vessel), Hand working (access from land)

Other than crab tiling and digging for bait with forks (covered in later sections), there is limited evidence of other hand working or shore-based activities occurring within the Dart Estuary MCZ. There is some evidence of low levels of recreational rod and line fishing on the estuary, however this is likely to occur towards the mouth of the estuary, mainly outside of the MCZ and in the freshwater reaches of the Dart.

3.2. Static- Pots/Traps

3.2.1 Pots/Creels, Cuttle Pots, Fish Traps

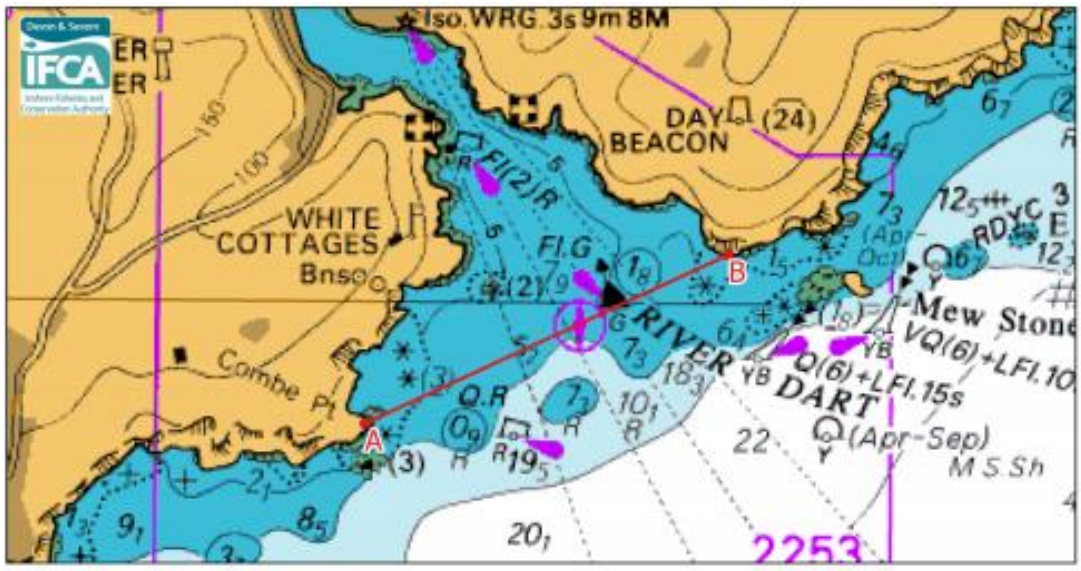
There are no records of this activity taking place within the Dart Estuary MCZ. One respondent from the request for information indicated that they have a couple of lobster pots which are usually out from March until October. However, these pots are at the mouth of the river (around the western Blackstone), which is outside of the MCZ boundary.

Despite no records of the activity within the MCZ, there is no evidence that it is not occurring at a low, undetected level and therefore cannot be completely ruled out.

3.3. Static- Fixed Nets and Passive Nets

3.3.1 Gill Nets, Trammels, Entangling, and Drift Nets (Demersal)

This activity is currently not permitted to take place within the Dart Estuary MCZ as this activity falls under the D&S IFCA Netting Permit Byelaw. In the estuary landward of the coordinates set out in Figure 1, a permit holder or named representative is not authorised to use any net other than a seine net as described in section 3.5.1.



Estuary closing line

River Dart closing line latitude and longitude positions:

Point	Latitude	Longitude
A (Combe Point)	50° 19.634'N	003° 34.266'W
B (Inner Froward Point)	50° 20.141'N	003° 32.583'W

Figure 1: River Dart closing line latitude and longitude. No access landward of the line to the use of nets other than a seine net in accordance with paragraph 3.2 of the Netting Permit Conditions, as described above.

3.4 Lines

3.4.1 Longlines (Demersal)

There are no records of this activity taking place within the Dart Estuary MCZ. However, there is no evidence that it is not occurring at a low, undetected level and therefore cannot be completely ruled out.

3.5 Seine Nets & Others

3.5.1 Beach Seine/Ring

Seine netting in the Dart Estuary requires a netting permit. A permit holder or named representative may only use a seine net landward of the closing line shown in Figure 1 and providing that; a) the net measures no longer than 20 metres in length; b) all species caught other than sand eel are returned immediately to the water; and c) the size of mesh does not exceed 20mm. Seine netting has previously occurred in the estuary for salmon, however this activity is not licenced by D&S IFCA.

There are currently no records of seine netting for sand eel in the Dart Estuary MCZ. There is no evidence that it is not occurring at a low, undetected level and therefore cannot be completely ruled out.

3.5.2 Shrimp Push-nets, Fyke & Stake nets

There are no records of this activity taking place within the Dart Estuary MCZ. However, there is no evidence that it is not occurring at a low, undetected level and therefore cannot be completely ruled out.

3.6 Miscellaneous

3.6.2 Crab Tiling

Every four years, surveys are undertaken to determine the number and location of crab tiles on the intertidal zone of estuaries in the D&S IFCA's District. These surveys enable D&S IFCA to assess any potential impacts of crab tiling on sensitive estuary environments, and to inform the development of appropriate management.

Crab tile surveys on the River Dart were carried out with an Unmanned Aerial Vehicle (UAV) in 2020. Two sites on the lower Dart could not be surveyed with the UAV due to air space restrictions near the Naval College. These two sites were not surveyed on foot due to Covid-19 restrictions at the time, but will be surveyed during the next round of surveys . When excluding these two sites from both the 2016 and 2020 results there has been a 14% increase in crab tiles since 2016. Table 1 shows changes in tile numbers since 2000/01.

Figure 2 to Figure 5 show the location of crab tiles on the River Dart. In the Galmpton area (Figure 4), there are large areas where crab tiles were abundant in 2003 and 2016, but are no longer present, but also other areas where the total area containing crab tiles seems to have remained consistent over the years.

Reports from local stakeholders suggest there are a number of crab tiles thar are not regularly visited in the Dart Estuary. One respondent from the request for information indicated that they have been working a set of shared crab tiles for over 40 years near the

Higher Ferry (approximate location highlighted in Figure 6). The tiles produce peeler crab and the respondent highlighted that there are approximately four times as many crab tiles around from October – March than there are through the summer months. This set of crab tiles is worked three or four times per month, the frequency depending on tides and work commitments.

Table 1: Comparison of crab tile counts from previous surveys on the River Dart. [1]Including all areas surveyed in 2016. [2]Excludes areas from 2016 not surveyed in 2020.

Survey	Number of crab tiles	Difference	Percentage difference
2020	4674	-810[1] +590[2]	-15%[1] +14%[2]
2016	5,484[1] 4,084[2]	-6,420	-54%
2003/04	11,904	+110	+1%
2000/01	11,794	-	-

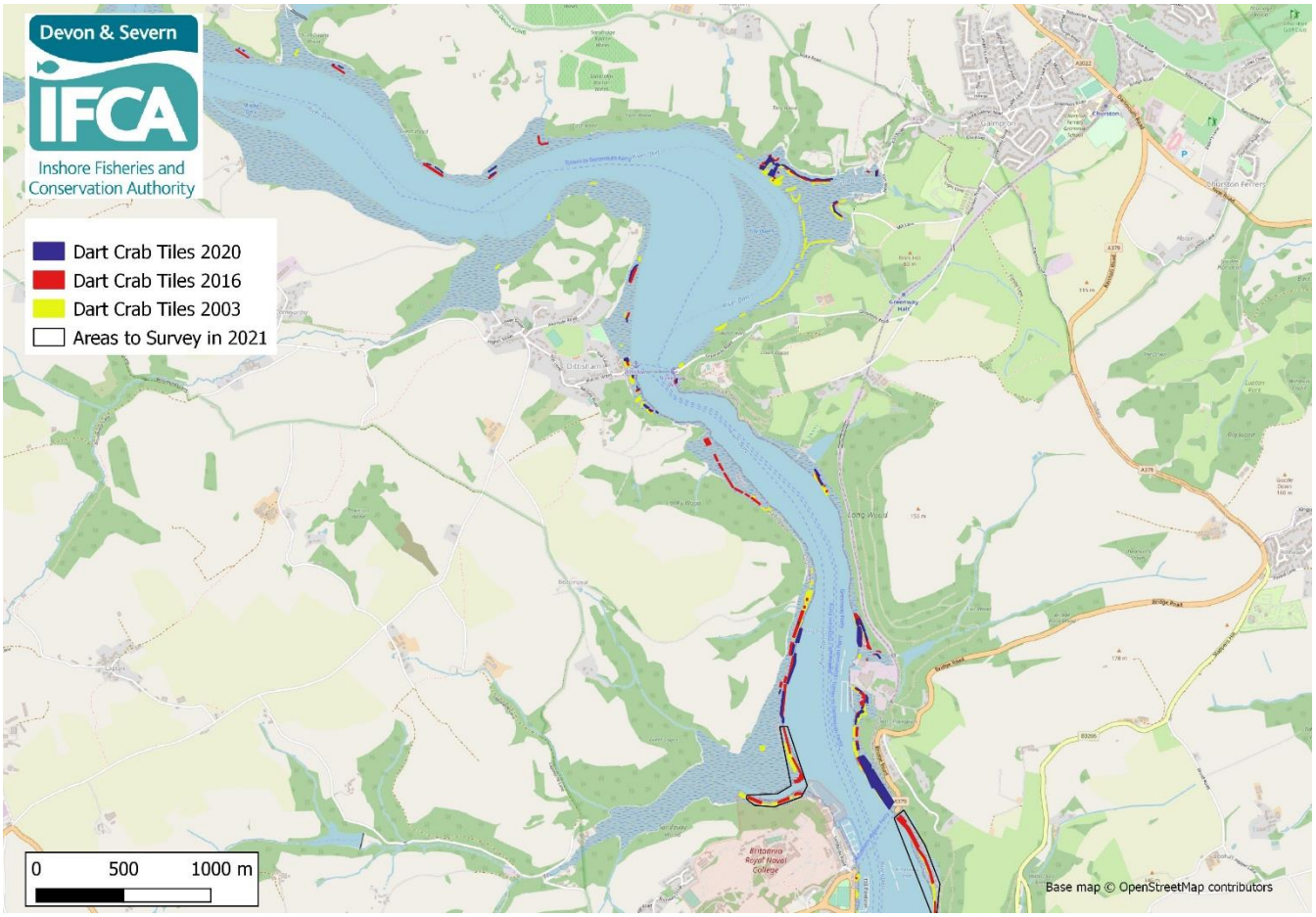


Figure 2: Overview of crab tiles on the River Dart comparing 2003, 2016 and 2020 surveys. Additional detail is provided in Figures 3 to 6. Base map © OpenStreetMap contributors

Figure 3: Crab tiles on the upper Dart Estuary comparing 2003, 2016 and 2020 surveys. Base map © OpenStreetMap contributors

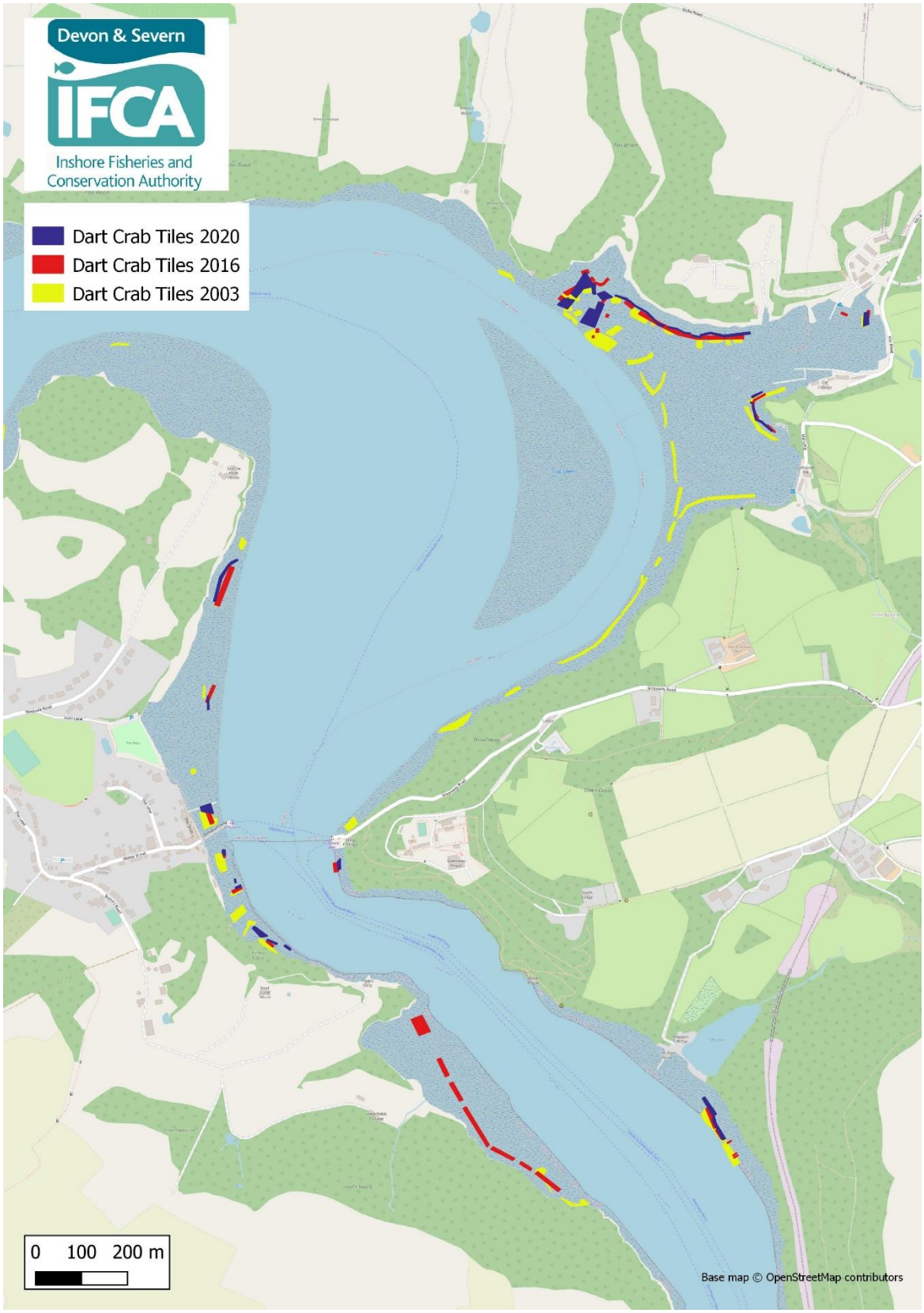


Figure 4: Crab tiles near Galmpton and Dittisham, Dart Estuary comparing 2003, 2016 and 2020 surveys. Base map © OpenStreetMap contributors

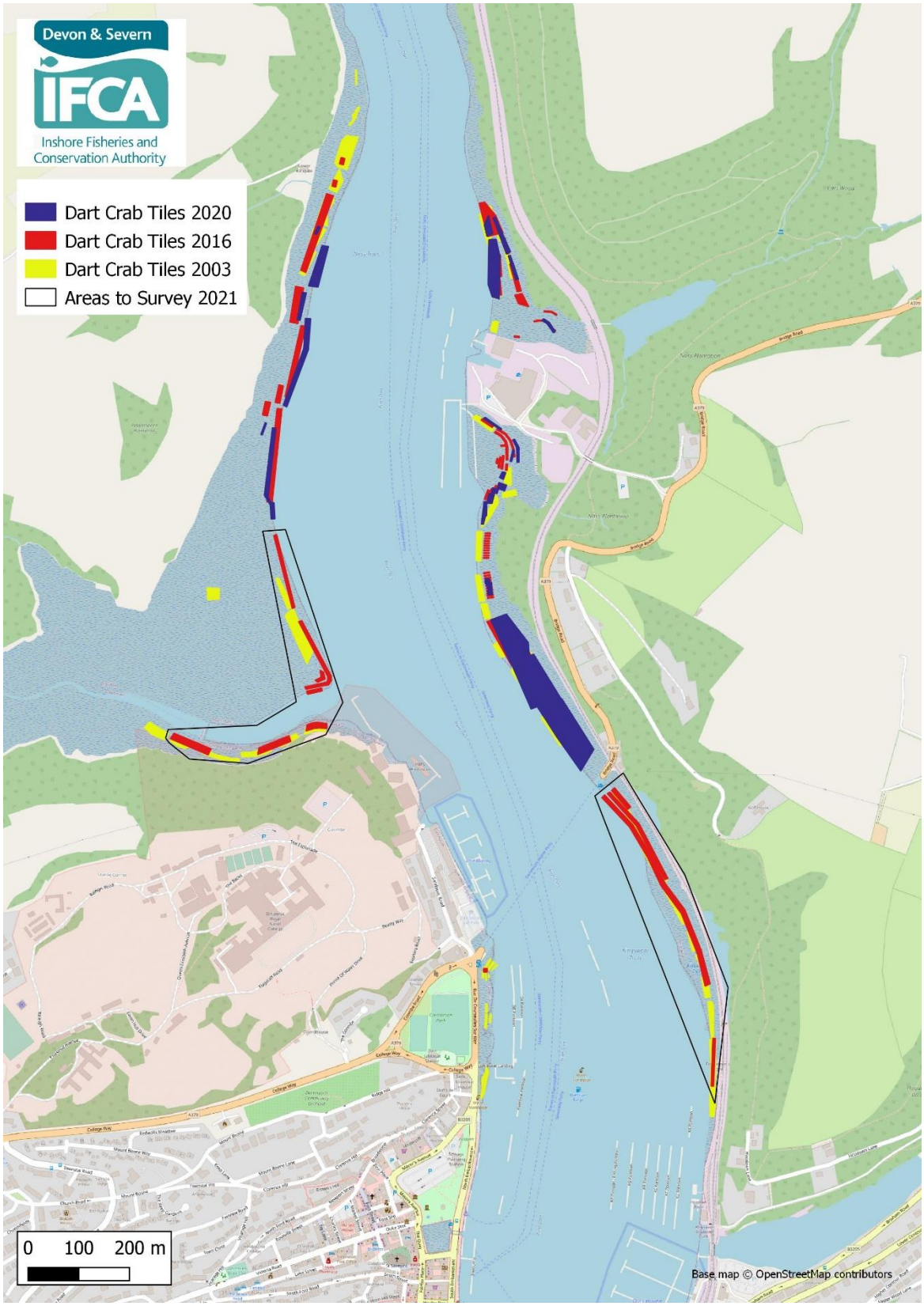


Figure 5: Crab tiles on the lower Dart Estuary comparing 2003, 2016 and 2020 surveys. Areas not surveyed in 2020 outlined by black polygons. Base map © OpenStreetMap contributors

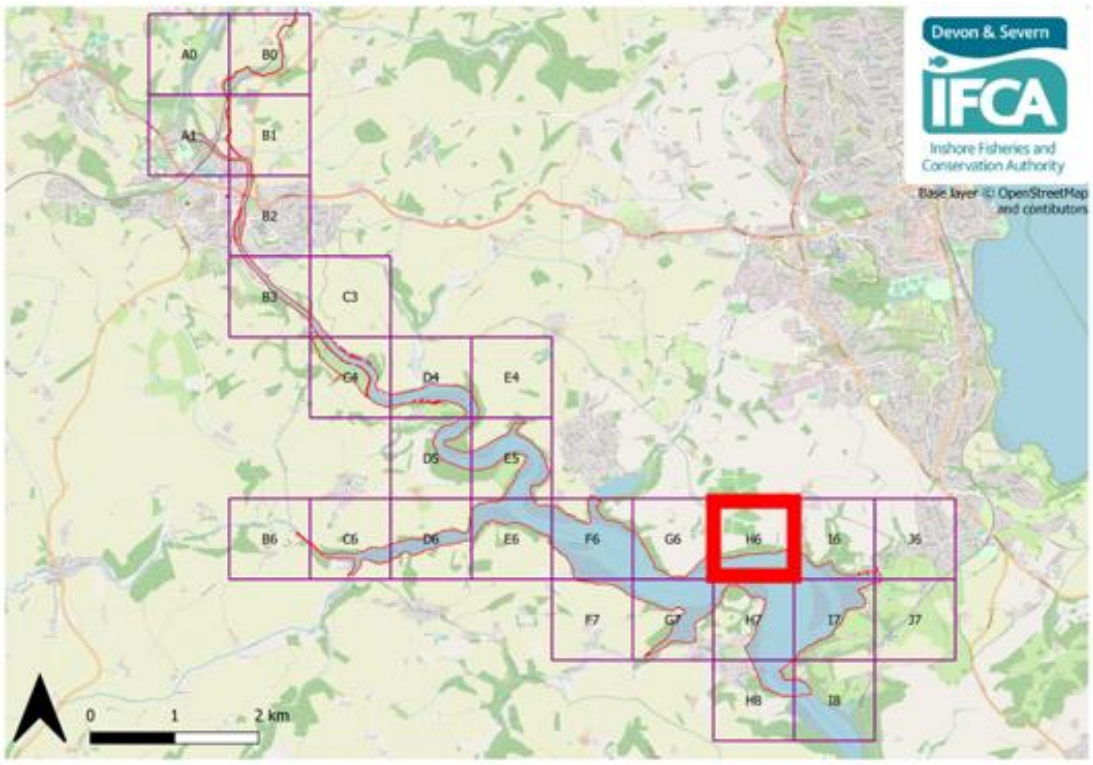


Figure 6: Location of crab tiles owned by respondent to the request for information sent to local permit holders. These crab tiles are worked three to four times per month depending on tides and work commitments.

3.7 Bait Collection- Digging with Forks

Bait digging is likely to occur at low levels within the Dart Estuary. D&S IFCA conducted bait digging surveys in Summer and Autumn of 2020 (9 hours over low tide during July, August and September). During these surveys no evidence was found of bait digging on the Dart Estuary, however in a supplementary report to the D&S Byelaw and Permitting Sub Committee in 2019, which summarised baseline information relating to bait digging, one of the stakeholders that engaged with D&S IFCA via an online survey about bait digging highlighted that they occasionally dig for bait in the Dart Estuary (D&S IFCA, 2019).

D&S IFCA circulated a request for information on bait digging to the local community and groups of the Dart Estuary Forum members to gather evidence and better understand fishing activity within the site. A report was received of occasional bait digging on Flat Owers (an area of mud within the Waddeton Order area near Dittisham). D&S IFCA also spoke to a number of stakeholders including local angling clubs and bait shops and no evidence of bait digging in the MCZ was reported.

3.8 Aquaculture

3.8.1. Shellfish aquaculture: bottom culture, Shellfish aquaculture: suspended rope/net culture, Shellfish aquaculture: trestle culture

In 2001, D&SIFCA established the Waddeton Order in the upper reaches of the Dart Estuary near Galmpton. The Waddeton Order is a Hybrid Regulating Fishery Order created to help

promote the sustainable growth of Mariculture within the District. Through the Order the D&S IFCA manages 117 hectares of the estuary (Figure 7) for the sole purposes of Mariculture, through a lease from the Duchy of Cornwall. D&S IFCA then sub-lets small highly affordable plots out to prospective mariculturists (Figure 8). Mariculture production from within the Waddeton Order is primarily Pacific oysters (*Magallana gigas*, previously *Crassostrea gigas*), however there are licenses to farm several other species on the plots, including mussels. Figure 9 shows the current classified shellfish waters and production areas of the Dart Estuary (Cefas, 2020). The oysters in the Dart Estuary are farmed both using trestles and the PARC system. The PARC system works by placing oysters directly on the sediment with only small barriers separating different size grades of oyster. It is a relatively low impact and cheap way of farming oysters but comes with the drawback of greater stock losses, both to predators and extenuating environmental conditions, i.e. strong tides. There is also cultivation of Pacific oysters on trestles in the Dart Estuary outside and downstream of the Waddeton Order area. All oyster beds in the estuary are currently classed as either Bs or long term Bs.

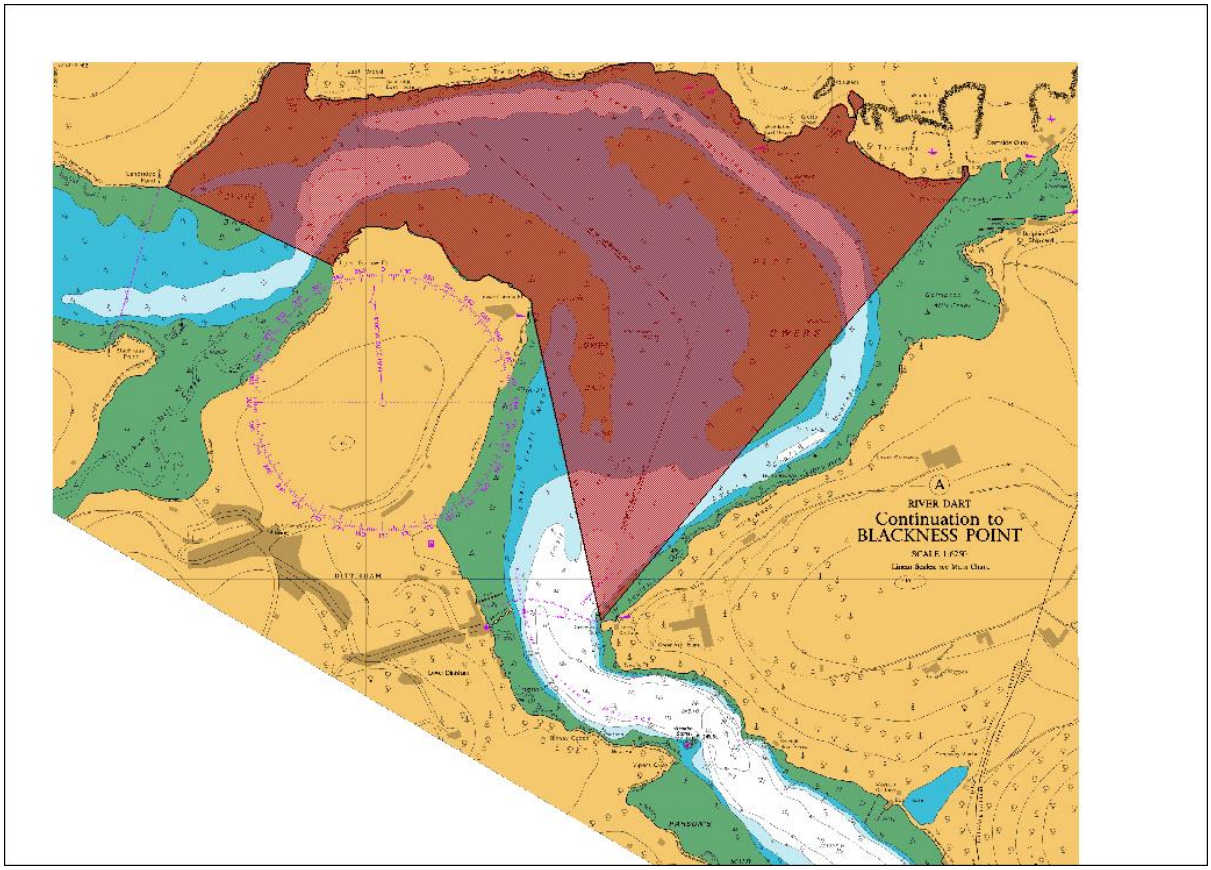


Figure 7: Waddeton Order area in the Dart Estuary

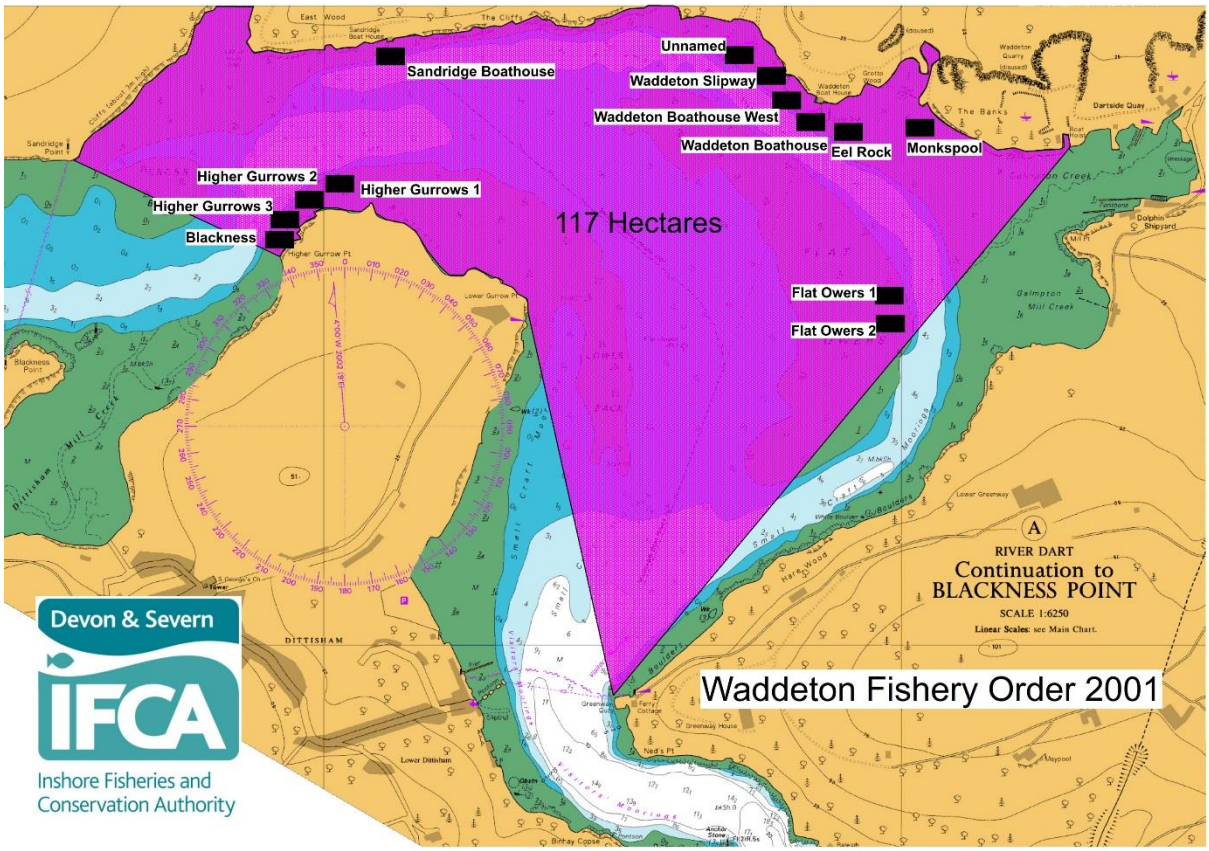
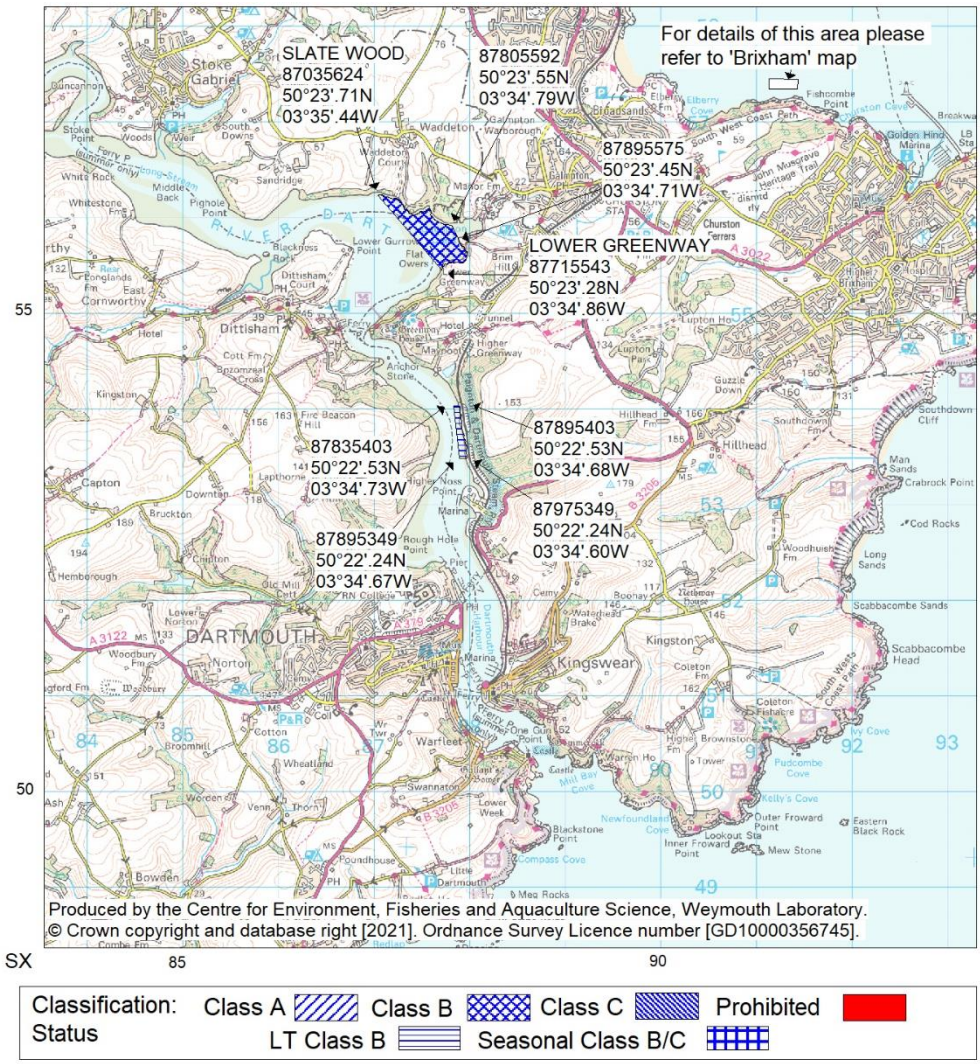


Figure 8: Plots within the Waddeton Order area that D&S IFCA sublets to prospective mariculturists



Classification: Status — Class A | Class B | Class C | Prohibited | LT Class B | Seasonal Class B/C

Classification of Bivalve Mollusc Production Areas: Effective from 28 May 2021

The areas delineated above are those classified as bivalve mollusc production areas under Regulation (EU) 2019/627.

Further details on the classified species and the areas may be obtained from the responsible Food Authority. Enquiries regarding the maps should be directed to: Shellfish Microbiology, CEFAS Weymouth Laboratory, Barrack Road, The Nothe, Weymouth, Dorset DT4 8UB.
(Tel: 01305 206600 Fax: 01305 206601)

N.B. Lat/Longs quoted are WGS84
Unless otherwise stated, non-straight line boundaries between co-ordinates follow the OS 1:25,000 mean high water line.

Food Authority: South Hams District Council

Figure 9: Classified Pacific Oyster Harvesting Areas on the Dart Estuary (Cefas, 2020).

References

Cefas. 2020. Classification zone maps - Cefas (Centre for Environment, Fisheries and Aquaculture Science). https://www.cefas.co.uk/data-and-publications/shellfish-classification-and-microbiological-monitoring/england-and-wales/classification-zone-maps/ (Accessed 10 March 2021).

D&S IFCA. 2019. Managing Hand Working Fishing Activity: A Focus on Bait Digging. Supplementary Report for the B&PSC – Information & Evidence, V2.0. Devon & Severn Inshore Fisheries and Conservation Authourity, Brixham, Devon.