

# **Monitoring of the Commercial Scallop Dive Fishery 2022**



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**Devon and Severn Inshore Fisheries and Conservation Authority**

**February 2023**

**V1.0**



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Version Control History			
Author (s)	Date	Comments	Version
Lauren Parkhouse	10 <sup>th</sup> February 2023	Draft report prepared & Internal review	0.1
	11 <sup>th</sup> February 2023	Comments by N. Townsend	0.2
	13 <sup>th</sup> February 2023	Comments by S. Clark	0.3
Lauren Parkhouse James Stewart	14 <sup>th</sup> February 2023	Review following comments. Added landings assessment.	0.4
	15 <sup>th</sup> February 2023	Finalised for presentation to D&S IFCA's Byelaw & Permitting Sub-Committee	1.0

## 1. Introduction

Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA) manages the fishing activity of diving for specified species, including scallops, using a permit-based model which is both flexible and adaptive. Permit conditions are set out under the Diving Permit Byelaw to manage both the commercial (Category One Permits) and recreational (Category Two Permits) diving sector.

Prior to 1<sup>st</sup> July 2022, a closed season within the D&S IFCA's District prohibited the removal of scallops in July, August and September by commercial divers and the mobile gear fishing sector. However, a review was carried out by D&S IFCA to explore possible management measure changes for the commercial dive sector to reflect the needs of this arguably sustainable form of fishing.

On 9<sup>th</sup> June 2022, D&S IFCA's Byelaw and Permitting Sub-Committee (B&PSC) agreed a series of changes to the commercial (Category One) Diving Permit Conditions to reflect the differences in the sector compared to demersal towed gear and allow greater access to removal of scallops during July, August, and September. A full report on the decision-making process can be read [here](#). The process included consultation with stakeholders, documenting responses, preparation of Officers' papers and reports, and the decision making of D&S IFCA Byelaw and Permitting Sub-Committee.

From 1<sup>st</sup> July 2022 Commercial Diving Permit Holders had access in the months of July, August, and September for the removal of scallops from specified sites ([Annexes](#)), which are based on Marine Protected Areas, subject to additional restrictions:

- A Minimum Conservation Reference Size (MCRS) of 110mm for scallop within the District in the months of July, August and September.
- A catch limit of 2400 scallops per vessel, per calendar day within the District during the months of July, August and September.
- A requirement for a fully functioning Remotely Accessed Electronic Monitoring Device (iVMS/VMS) to be fitted to vessels and with additional requirements if the device fails to transmit the required information.
- A catch restriction that means when diving for scallops in the District in the months of July, August and September, no fishing outside of the District can take place on that fishing trip.

## 2. Monitoring

Monitoring was carried out by analysing iVMS data, landings and catch app data. A 'have your say' survey was also sent to all commercial diving permit holders to give them opportunity to feedback on how the change of the permit conditions had impacted their business.

The iVMS data were requested from the Marine Management Organisation (MMO) for July, August, and September as these were the months that iVMS was required on the dive vessels if they wished to remove scallops from the access areas defined in Annexes that accompany the Category One Diving Permit Conditions.

Landings, sales notes and catch app data were also requested from the MMO. Data were requested for the period 1<sup>st</sup> January 2022 to 7<sup>th</sup> December 2022. The landings data were also compared to landings from the scallop dredge fleet.

The 'have your say' survey was sent out in January 2023 with two weeks given to respond. Topics covered in the survey included the access areas and season, bag limits, MCRS, research, and any other information they may wish to share. The full document can be read [here](#).

## 2.1 Current Fishery

At the time of writing there were 18 vessels which had a Category One Diving Permit. Of these vessels, 11 have iVMS units fitted which would allow them to fish for scallop in July, August, September. From iVMS and landings/catch app data, it was determined that six vessels actively fished for scallops during July, August, and September.

In 2021 D&S IFCA reviewed the number of Category One Diving Permits numbers and the landings from active diving vessels. At that time there were 25 Category One Permits issued and analysis of the landings data identified a maximum of seven vessels operating in any one year. The current fishery has not increased since the introduction of the open season during July, August and September for commercial divers.

## 2.2 iVMS Data

From the iVMS data it is clear that three of the Access Areas were utilised by the divers. These were the Lyme Bay section of the Lyme Bay and Torbay SAC, the Torbay area of the Lyme Bay and Torbay SAC, which co-locates in part with the Torbay MCZ, and parts of the Skerries Bank and Surrounds MCZ in the Start Bay area. Three vessels operated within the Lyme Bay area and three in the Start Bay area, one of which also dived for scallops within the Torbay area.

The six vessels entered the sites for a total of 213 days over the three month period, 139 days were spent by the three vessels working in Lyme Bay, 40 days in Torbay and 34 days in the Start Bay area.

The iVMS data indicated that there are preferred areas to dive within each location as shown in Figures 1-3. In these heatmaps, (generated using iVMS data), areas of the highest levels of activity are shown in the darkest colours, and graduate lighter to areas of activity to a lesser extent. These are combined data for all vessels working in each area.

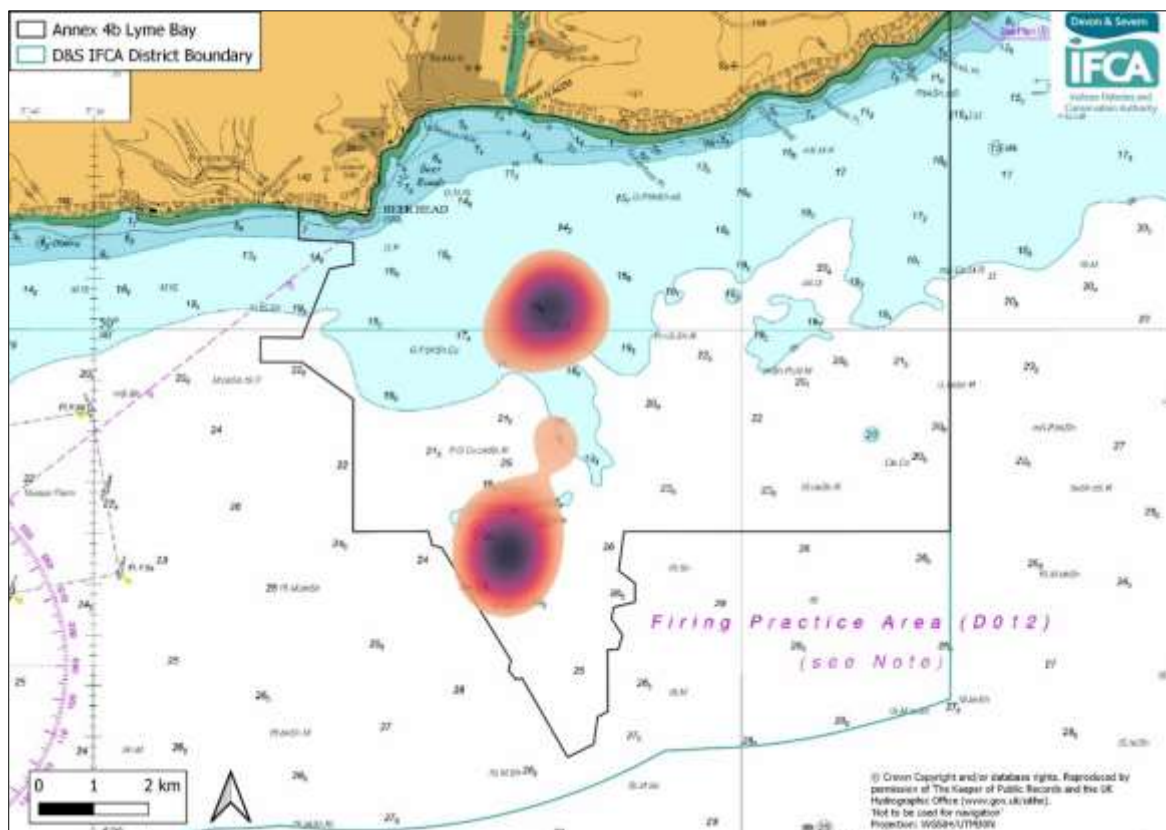


Figure 1 Lyme Bay diving trip activity for July, August, and September. Heat map indicating areas of highest iVMS points.



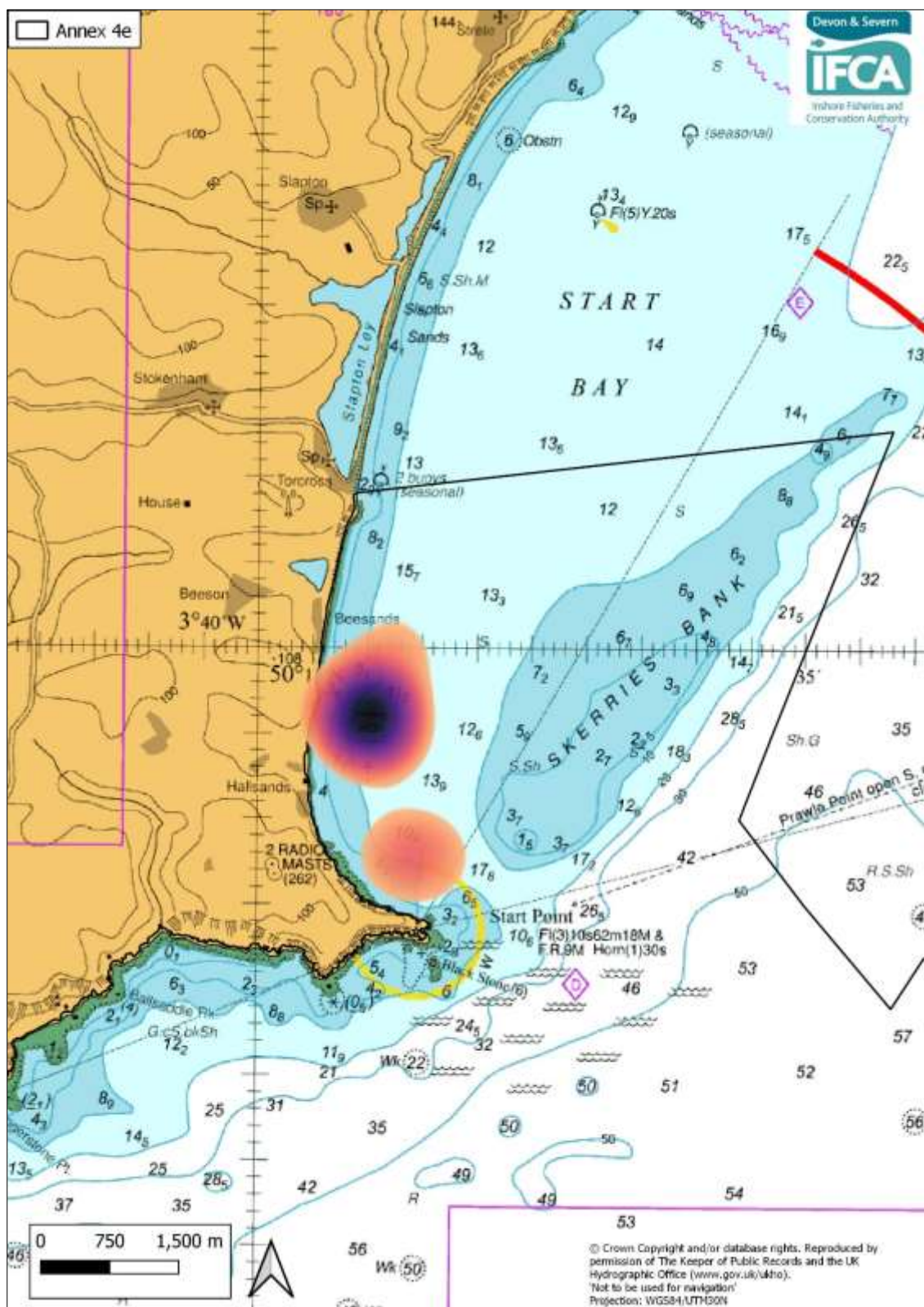


Figure 2 Start Bay diving trip activity for July, August, and September. Heat map indicating areas of highest IVMS points.

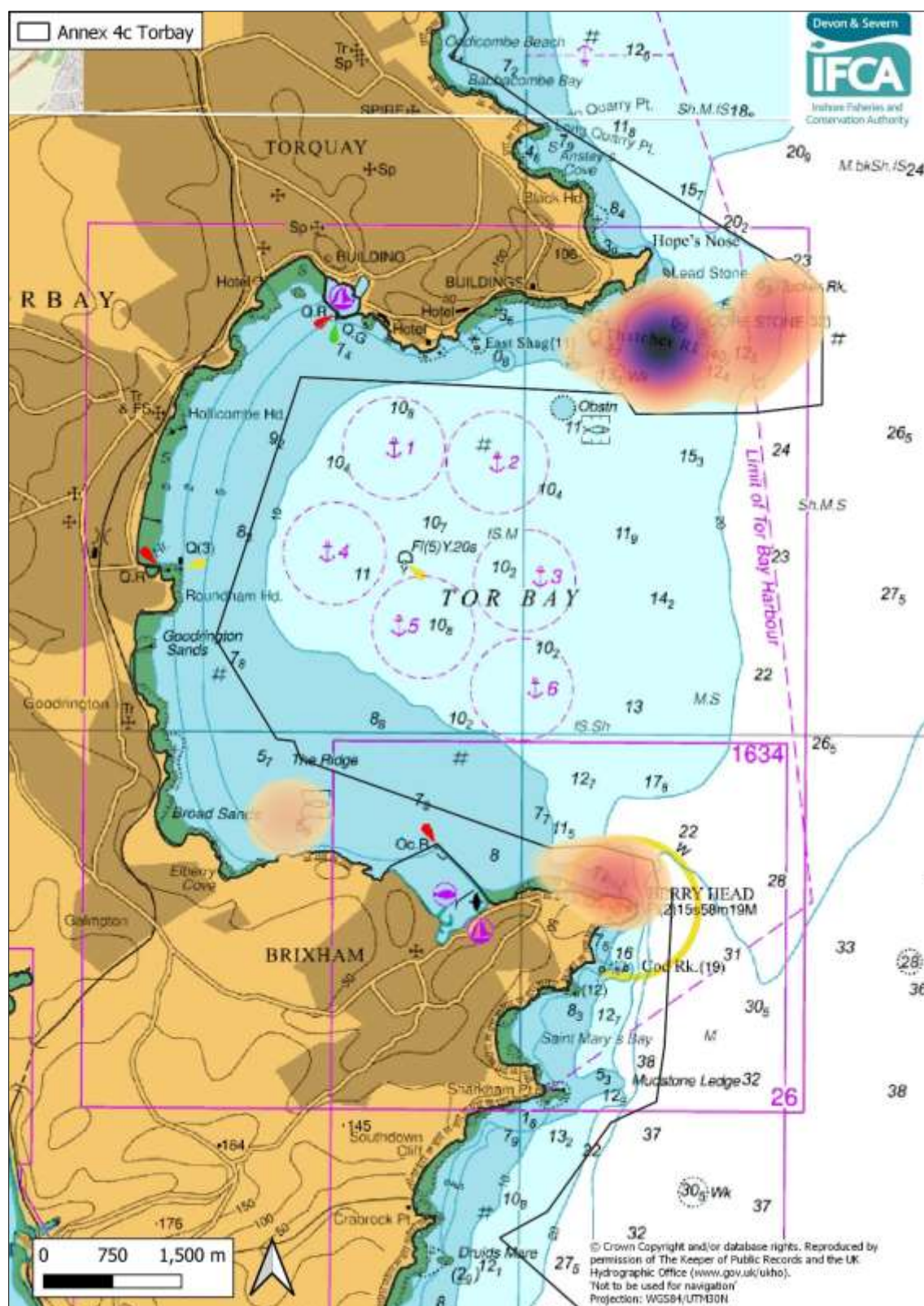


Figure 3 Torbay diving trip activity for July, August, and September. Heat map indicating areas of highest iVMS points.

## 2.3 Landings and Catch App Data

Landings data (based on sales notes) and catch app data were obtained for the vessels with Category One Diving Permits in 2022, for the period 1<sup>st</sup> January – 7<sup>th</sup> December (when the request was made). Landings data were available for seven vessels, of which two landed solely to Weymouth and Portland and were therefore excluded from analysis. Some landings data were included when the landings were to the ports of West Bay and Lulworth Cove, as the vessel is known to have operated in D&S IFCA's District to obtain at least some of the landed scallops.

Landings data were therefore available for five out of the six vessels included in the iVMS analysis. These data were supplemented using catch app data for the remaining one vessel. Catch app data were not used for the other five vessels due to discrepancies between these and the landings data. For the period when iVMS data were available (1<sup>st</sup> July – 30<sup>th</sup> September), the landings data were trimmed to only include landings from days on which the specified vessels were active in D&S IFCA's District, in order to avoid including landings made from fishing trips in waters outside of D&S IFCA's District (e.g. inshore fishing in Dorset). Landings data from before July 2022 or after September 2022 may therefore include some landings to ports in the east of the District that are from catches outside of the District.

The six vessels landed a total of 95.491 tonnes of scallops (*Pecten maximus*) during 1<sup>st</sup> January – 7<sup>th</sup> December 2022, averaging 15.9 tonnes per vessel (ranging between 1.8 and 44.3 tonnes per vessel for the year). On average, landings were higher between April – October, and highest between May – August (Figure 4). The autumn and winter months appear to be less favourable than spring and summer (Figure 4 – Figure 8). Of the 95.491 tonnes landed during 2022, 34.2 tonnes were landed during the July – September 2022. During this summer access period, vessels landed an average of 6.8 tonnes each, ranging between 0.27 and 18.3 tonnes per vessel for the three-month period (Figure 5). Vessel 1 did not fish for scallops in D&S IFCA's District during March – September 2022.

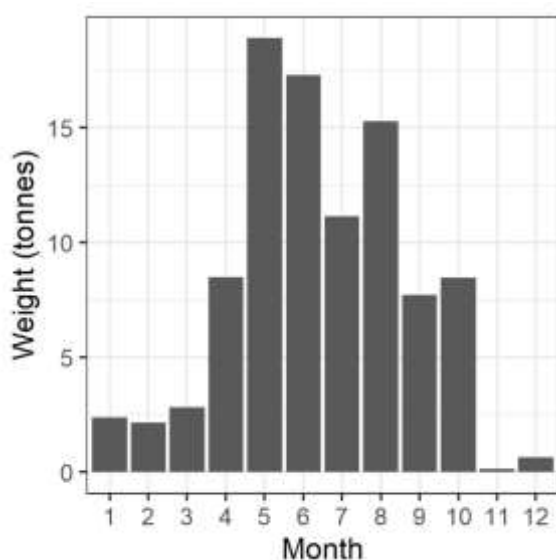


Figure 4. Total weight (tonnes) of scallops (*Pecten maximus*) landed by six vessels with D&S IFCA Category One Diving Permits during 2022.



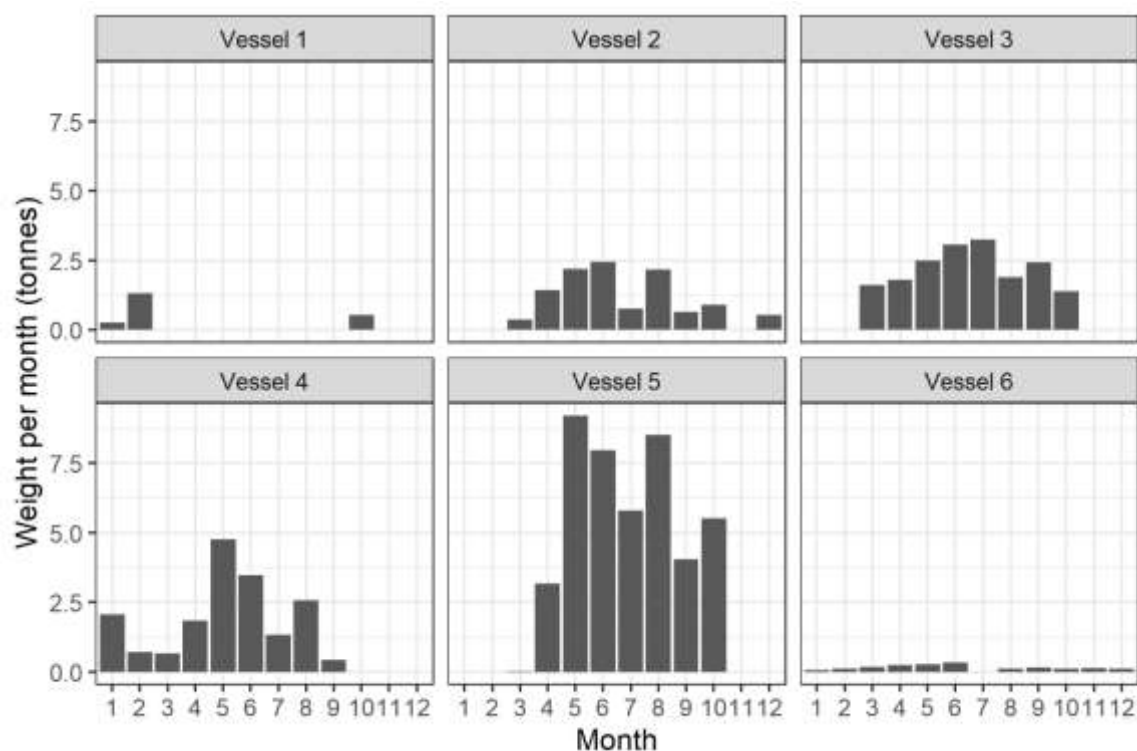


Figure 5. Weight per month (tonnes) of scallops landed by each vessel. Vessel 1 did not fish for scallops in D&S IFCA's District during March – September 2022. Vessel 6 did not fish for scallops in D&S IFCA's District during July 2022. Several divers reported difficulty in being able to dive for scallops due to weather conditions during October – December 2022.

The weight of scallops landed per trip is variable across the year and between vessels (Figure 6), and landings per trip were often higher in spring than the period of increased access (July-September); this likely reflects the bag limit that was imposed on Category One Diving Permit holders fishing during July – September.

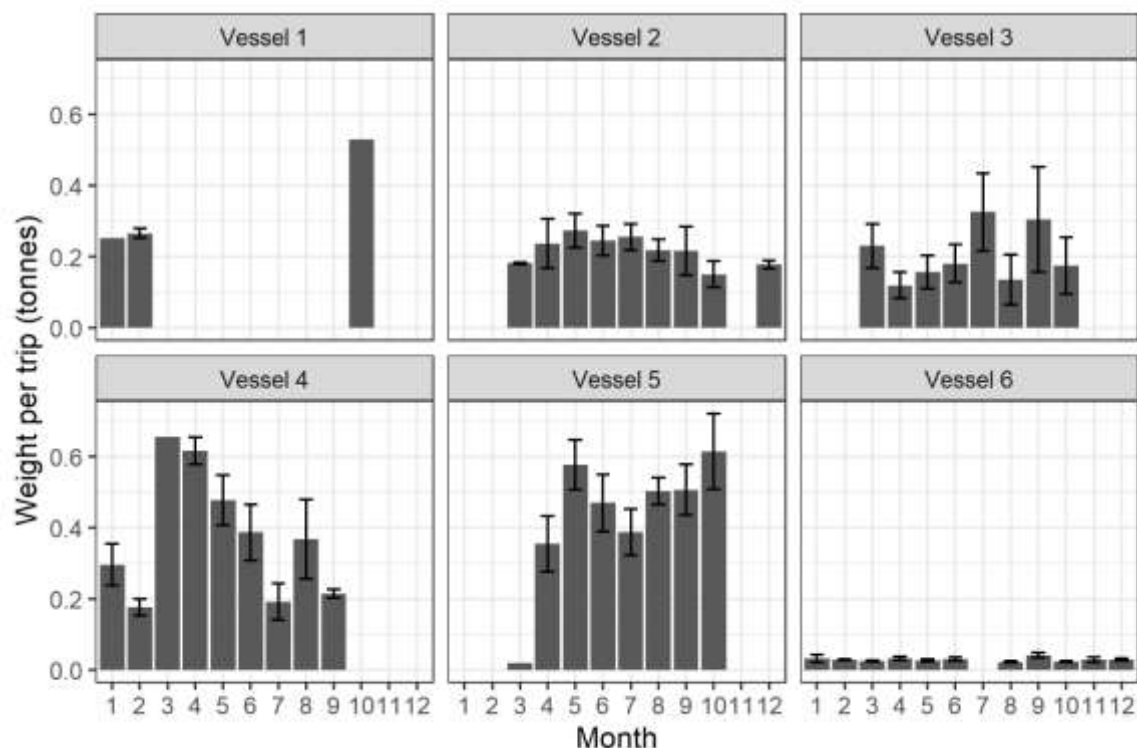


Figure 6. Mean ( $\pm$  standard error) weight per trip (tonnes) of scallops landed in 2022.



D&S IFCA officers weighed 200 scallops landed to Brixham in February 2022. These scallops were larger than 100 mm in width but did not include the largest landed scallops which were graded separately. These 200 scallops had an average weight of 307.6g. This average weight was used to convert the landings weights to an approximate number of scallops per trip. This approximate assessment suggests that all reported landings by divers in D&S IFCA's District during July – September 2022 were in compliance with the catch restrictions (bag limit) of 2400 scallops per vessel per day (Figure 7). However, this approximate assessment underestimates the number of scallops caught by some vessels known to have caught 2400 scallops per trip on specific days.

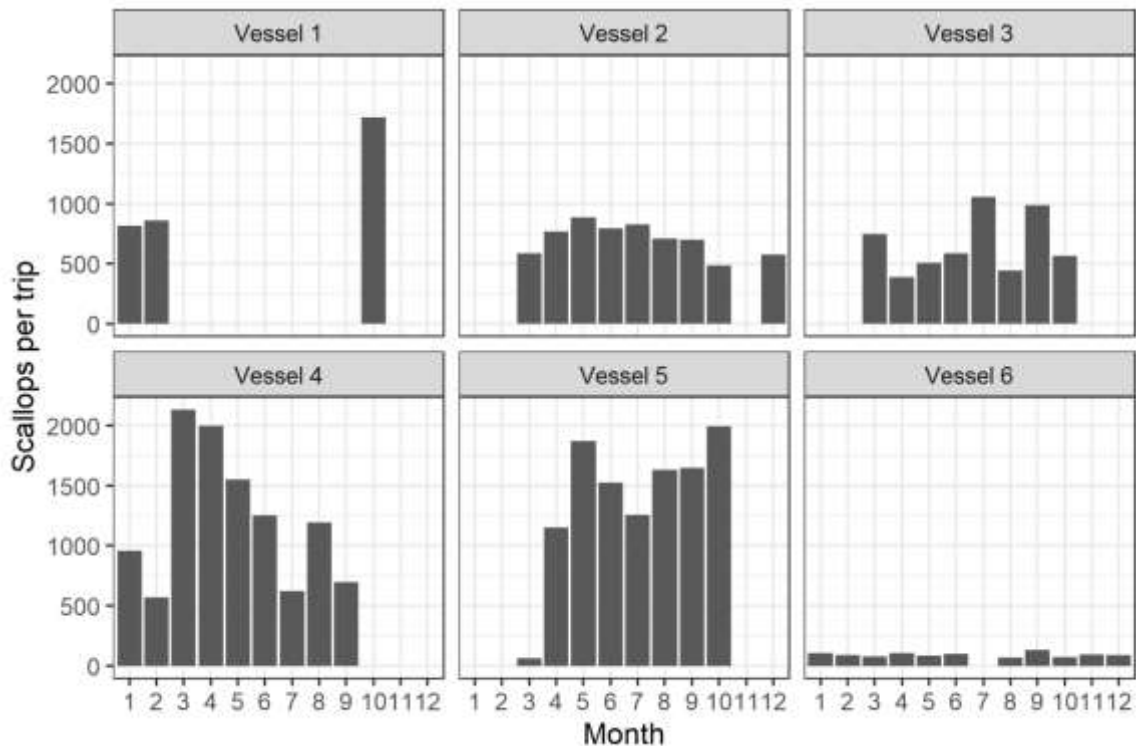


Figure 7. Mean number of scallops landed per trip in each month by six vessels. Number of scallop calculated by dividing the mean per-trip landing weight (tonnes) by 0.0003076 (307.6g: an average weight of scallops measured in Brixham in February 2023). Note that this approximate method underestimates the number of scallops caught by some vessels known to have caught 2400 scallops per trip on specific days, as was common during July – September 2022.

The value of the additional access during July – September is clear for the vessels assessed: Figure 8 demonstrates high additional income for these vessels during the access period. Value (£) data were not available for Vessel 6.

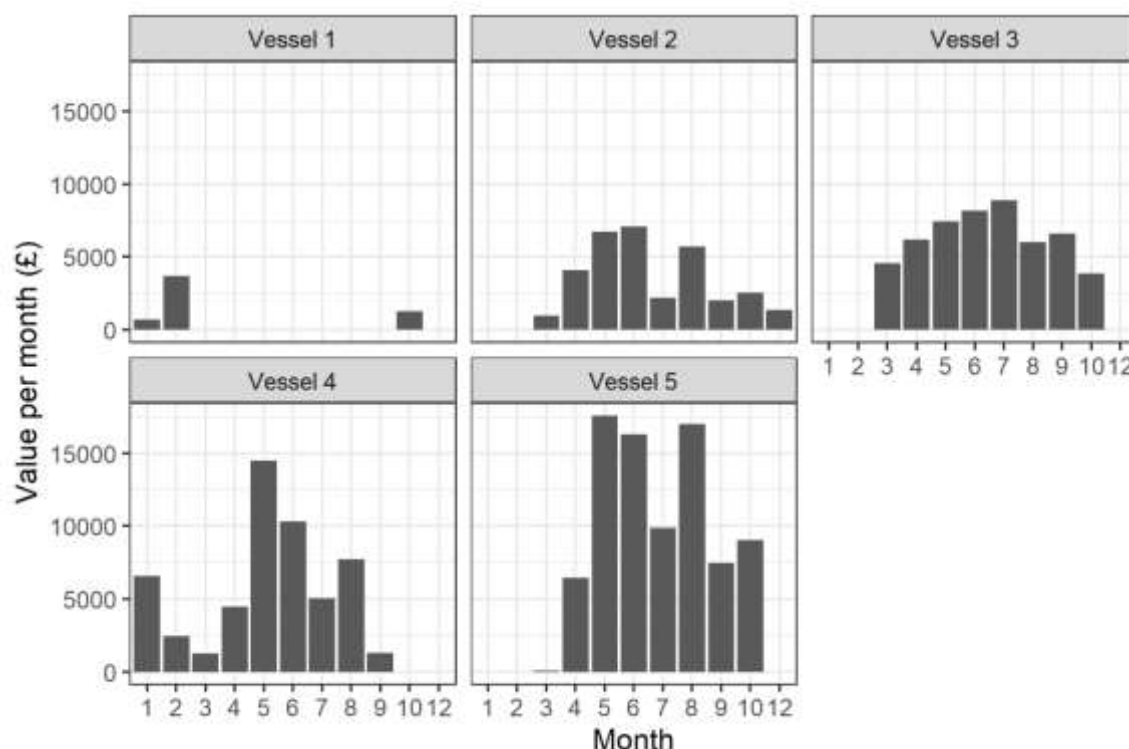


Figure 8. Value (£) of scallop landings per month for each vessel. Landings values were not available for Vessel 6.

The landings of the six vessels assessed here were compared to landings from the scallop dredger fleet. Scallop dredger landings data from 2019 were used as these were the most recent available (excluding 2020 due to Covid-19 disruption). Landings data were restricted to landings from ICES area 27.VIIe to the ports of Brixham, Exmouth, Teignmouth, Plymouth and West Bay. West Bay was included due to its inclusion in the dive vessel landings. As outlined above, the six diving vessels assessed landed a total of 95.491 tonnes of scallops (*Pecten maximus*) during 1<sup>st</sup> January – 7<sup>th</sup> December 2022. This is approximately 5% of the landings weight of the dredge fleet, which landed a total of 1797.473 tonnes in 2019, from 57 vessels. Of these 57 vessels, 50 held D&S IFCA Mobile Fishing Permits. Total dredge landings from area 27.VIIe were 2109.727 tonnes.

## 2.4 Industry Response

There were two written responses to the ‘have your say’ survey, and one telephone conversation which an Officer. One of fishers dives for scallops in Lyme Bay, while the other two dive in the Skerries area.

There was one other response by email from a fisher in Lyme Bay. However, they did not answer the survey topics and just stated that they did dive for scallops in the summer and were happy with the management. This fisher is not included in the following summary of responses due to lack of detail given.

Topic one of the survey focused on the additional access to remove scallops in July, August and September. All three fishers dived for scallops during this time and were in favour of increased access for the dive industry. They all plan to dive during this period in 2023.

All three fishers commented that the additional access has had a positive impact on their businesses. One stated that without the increased opportunity they wouldn’t have been able to dive most of the year due to weather conditions and tides that can be dived. Another stated that they haven’t been able to dive much since October due to weather and therefore the summer season was key to their business; this is supported by the landings data above.

Topic two covered the 2400 scallop per vessel per day bag limit. Two fishers agreed that the 2400 limit was enough; however, one feels that this should be changed to a limit per diver instead of per vessel and suggested 1200 scallops per diver. They stated this was due to a Health and Safety Executive requirement to have three divers on board when SCUBA diving commercially for shellfish (HSE, 2021). A concern was then raised that, under the current Permit Conditions, vessels operating with only two divers would find it easier to make a profit by operating contrary to HSE regulations, by splitting the profit from 2400 scallops between two divers rather than three.

Two of the fishers were happy with the restriction whereby if they dived in D&S IFCA's District, they are not able to dive and retain scallops from elsewhere on that fishing trip during the summer open season. One has stated that it would help their business if they could dive in Dorset on a separate trip on the same day or undertake potting/netting on the same day.

Topic three focused on the Minimum Conservation Reference Size which has been increased for the divers during July-September from 100mm to 110mm. All three agreed with this change, with one now sticking to 110mm all year, and another self-imposing a minimum of 120mm. The third would encourage 110mm year-round but did comment that it would be good to apply this to the dredging fleet as well.

The final topic was regarding research, due to limited data available within D&S IFCA's District on scallop stocks. They were asked if they had noticed any changes in the scallop stock over the year and between years. Respondents hadn't noticed changes, but mostly due to the amount of time they have spent in the industry.

They were asked if markets/buyers had a preference for scallops with roe in a certain condition and two stated that this was the case. Both stated that buyers prefer a large roe, and that having roe in good condition provides extra weight and looks better when presented in half shells at restaurants. They stated that a buyer can get double the price when selling on, if the roe is good. Asked if they change fishing activity to target scallops with good roe, one stated that they do, either targeting deep or shallow waters depending on roe size to meet market demands.

Along with the 'have your say' responses, there was a positive article in the 18<sup>th</sup> August 2022 issue of the Fishing News titled "Divers welcome summer scallop opening". The article states that the news was welcomed by commercial divers with two divers being quoted. One stating that "It is great that the IFCA listened about this, and recognised the really good recovery of scallops inshore over recent years" and that "A summer closure was making marketing for us very hard; it was during the times of best diving visibility, and was also pushing more effort into sole netting". Another diver was quoted as saying that the move meant he was much better able to supply his regular customers, whom he had struggled to supply during previous years, saying: "We've seen our catch rates increase steadily over the last six or seven years, and stocks seem in great shape". It was also stated that "This amendment to the rules not only supports me and my crew to make a sustainable living over the summer months, it also is very much welcomed by the local customers we have" (Fishing News, 2022).

## References

Fishing News (2022). 'Divers welcome summer scallop opening'. *Fishing News*. 18<sup>th</sup> August 2022 (5630) p13.

HSE (2021). HSE Guidance Document: Commercial shellfish diving in inshore water. Health and Safety Executive. Available online at <https://www.hse.gov.uk/regulating-major-hazards/osd/scallop.pdf>. Last accessed 14/02/2023.