Razor Clam Fishery South Devon

Officers' Recommendation:

That Members :

a) **Support a new fishery for razor clams in the South of the D&S IFCA's District limited to sandy habitats within the areas classified for the harvesting of razor clams by the Food Standards Agency**
b) **Support the introduction of REM on the harvesting vessel to ensure the fishing activity takes place on suitable sandy habitats and the fishery can be fully monitored**
c) **Consider undertaking a formal consultation on changes to the Category One Mobile Fishing Permit Byelaw Permit Conditions to include a definition of the razor clam dredge to support this new fishery.**

1. Background and Proposed Method of Fishing

A shellfishermen is proposing to target razor clams in the south of D&S IFCA's District. It is a fishery for razor clams (*Ensis siliqua*) that the fisherman targeted in the 1990s in Irish waters and in the Lyme Bay area prior to the advent of electro fishing for this species, which overtook the market. The fisherman has made a proposal to reopen the razor clam fishery using an adapted methodology compared to that used in 1990s and that was trialled in Scotland.

The area that the shellfisherman is proposing to fish (Figure 2) lies within Lyme Bay. The shellfishermen has stated that in Lyme Bay, beds of razor clams, gaper clams and otter shells stretch from Berry Head to Beer and then along the whole of Chesil beach. They are currently unfished and appear to have few predators, mainly starfish. Bed densities vary from 4 to 20 animals/metre.

The adapted method of fishing consists of the use of two vessels – the forward vessel tows the second vessel and puts pressure on the fishing gear via a warp and is essentially a very slow simple dredging operation. Figure 1 is a diagrammatic representation of this fishing operation. The second vessel, being towed by the first vessel, uses no powered propulsion during fishing. Both vessels used in the operation will need to have Certificates of Registry and Fishing Licences. The method uses a one metre wide water powered razor dredge that reaches a depth of approximately 35cm to 40cm. A maximum of two dredges may be deployed but initially the operation would be one dredge only. The dredge uses water jets to displace razor clams which are then air-lifted to the surface at the moment of capture and it takes under 10 seconds to lift the clams from the seabed to the boat. The air lift method dictates that the pipe must remain as vertical as possible and that necessitates a second vessel being used to pull the dredge/sieve forward as the sand is cleared by the jets. Any forcing of the dredge through the sand results in broken shellfish so the proposal is to use inshore small boats with low horse power. The shellfisherman has suggested that this system will retain razor clams in good condition with minimal damage, which in turn should maximises shelf life and value.

The footprint of the air lift system is much lower than the footprint of the scallop dredge fishery. Within D&S IFCA's District each scallop dredge vessel has a maximum of six dredges aside, each of which is 0.85m wide, therefore the total width of dredges on a single scallop dredge vessel operating in the District on the seabed equates to 10.2m. The footprint of a razor clam dredge will be significantly smaller that of a vessel using scallop dredges operating in the D&S IFCA's District.

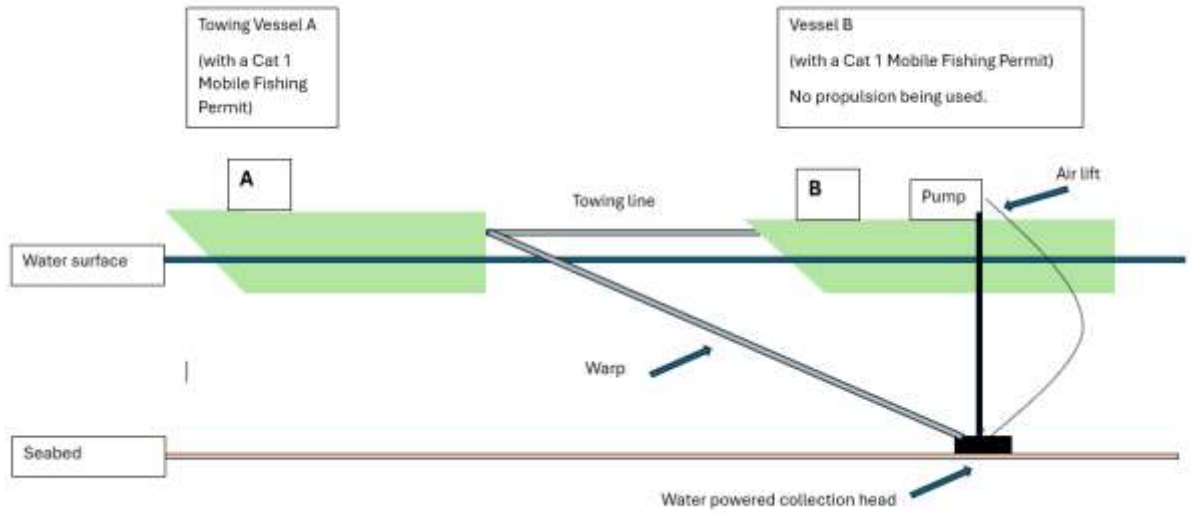

Figure 1 Diagram of the Razor Clam two boat dredging operation

Other commercial species may be retained such as gaper shells (*Mya spp*) and otter shells (*Lutraria lutraria)*. Bycatch species associated with the habitat fished and that are brought to the surface can be returned to the sea. The shellfisherman has explained that razors and Mya clams are highly valuable and are exported to Spain and China but only if they have a long enough shelf- life. Bivalves are very sensitive to disturbance and soon deteriorate if treated harshly so extreme care must be taken to fish and collect them as gently as possible.

2. Razor Clam Habitat Preferences

Ensis siliqua (pod razor clam) inhabits sandy, sheltered to moderately exposed intertidal and shallow subtidal shores throughout the UK. They prefer fine, clean sand and muddy sand where they live in vertical, deep burrows (although sometimes deeper) up to 30cm to escape predation. They generally live in the shallow sub-littoral, ranging from the low intertidal to depths of roughly 20m, although they may be found to 60m. Sandy habitats tend to have a lower range of species diversity and sparse fauna, with infaunal burrowing species including bivalve molluscs (e.g. otter shells, razor shells, tellins), and polychaete worms (e.g. lugworms, sand mason worms) (Nunny and Smith 2008)[1] Other species that are predominant in these habitats are heart sea urchin, some crustacean and opportunist predators such as starfish.

[1] Nunny, R. & Smith, P. (2008). Marine Benthic Biotope Mapping of Sedimentary Environments, Lundy Marine Protected Area. Ambios Environmental Consultants Ltd. and Aquatonics Ltd. for Natural England.

3. Live Bivalve Mollusc Harvesting Area Classification

The removal of razor clams from the sea will require classification under EU Regulation 627/2019. Classifying shellfish harvesting areas requires a formal application to the Food Standards Agency (FSA), a mandatory sanitary survey to identify pollution sources, and 10+ samples taken weekly for a provisional classification (or 3 years' data for seasonal). Areas are categorized by *E. coli* levels (Class A, B, or C) to determine necessary purification or relaying requirements.[2] The process often takes around 16 weeks or more depending on data availability. Harvesters must register with the local council Environmental Health Office. The area classified is then monitored on a monthly basis to ensure the shellfish meet the classification given which in turn ensures that shellfish are safe to eat. There are stricter classifications allowing for direct consumption and others requiring purification, re-laying, or cooking so the shellfish are safe for human consumption.

Sandy Bay, to the east of the mouth of the Exe Estuary, has previously been classified for the surf clam (*Spisula spp*.), which may aid the timeframe for classifying the areas suggested by the shellfisherman. The chart below (Figure 2) shows the approximate areas outlined in black where the shellfishermen has requested classification for the removal of razor clams. The areas appear large due to the ability for the operation to move to alternative grounds so as not to focus on one small area and removes the need to have other areas classified which will be time consuming and costly. The shellfisherman has not yet heard if the classification areas proposed have been approved for commencement of the process highlighted above.

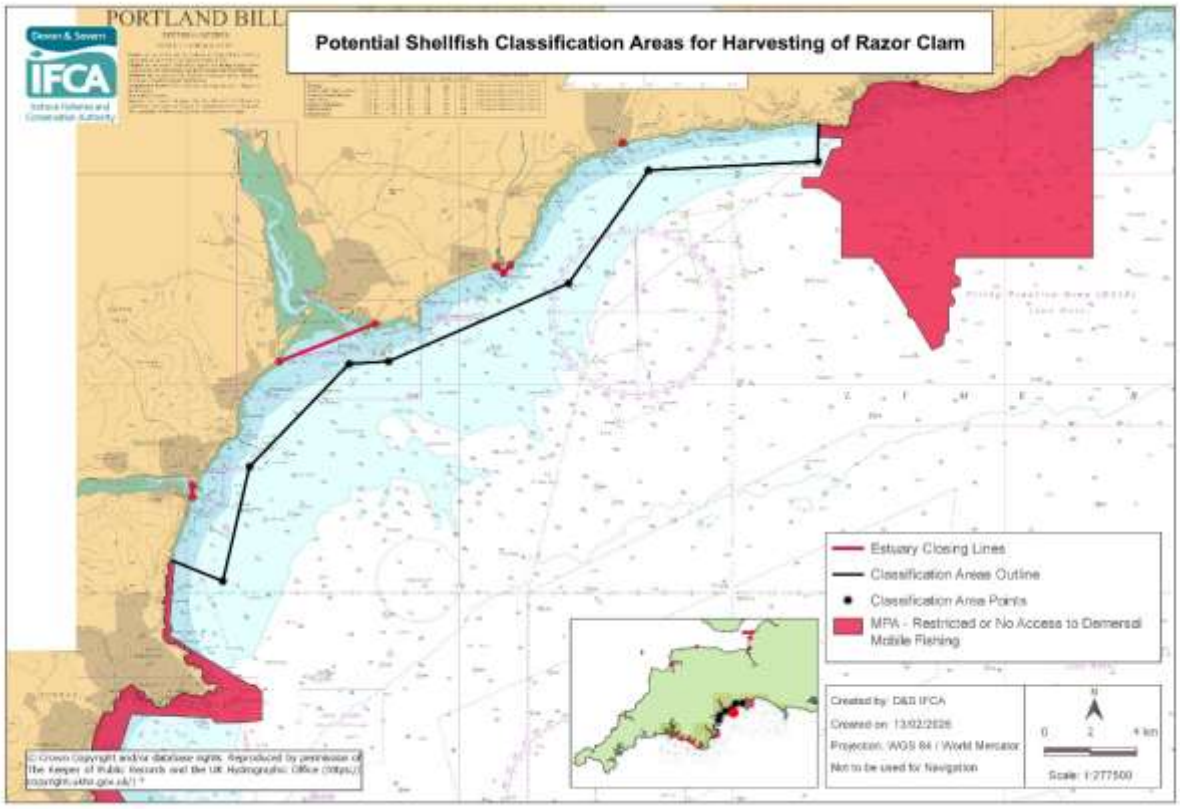

Figure 2: Proposed shellfish classification areas for the harvesting of razor clams.

[2] https://www.food.gov.uk/business-guidance/shellfish-classification

The fishery, if permitted, would not take place in any area closed to demersal mobile fishing vessels or Marine Protected Area. Therefore, there will not be direct impacts to protected designated features. For several of the MPAs (e.g. Lundy SAC) in the District scallop dredging is still able to take place due to the sandy habitat and the low level of activity.

4. Research Undertaken

The shellfisherman has worked with D&S IFCA Officers to undertake on board surveys both in South Devon waters and in Cornwall IFCA's waters.

Within D&S IFCA's District

The on-board surveys undertaken under an exemption for scientific purposes in South Devon along the coastal waters of Sandy Bay near Exmouth took place in June and July 2025. These surveys were undertaken to identify the species (both target and bycatch) caught in the harvesting method whether damage to these species was seen. It also allowed the methodology and proof of concept with the adaptations that the fisherman had undertaken to the fishing gear to date to be tested and to make further adaptations where necessary. Alterations to the equipment were made in situ during the surveys to try and optimise the fishing and reduce any damage to the razor clams and damage to bycatch species. The adaptations did reduce the damage and bycatch, although the fisherman did feel that further adaptations of the gear were required to reduce impacts further. The main bycatch species were the heart sea urchin, also known as the sea potato (*Echinocardium cordatum*) and the common otter clam (*Lutraria lutraria)* as well as other clam species and small crustacea.

In total 13 tows were undertaken for a maximum of 10 minutes, and all tows were within 4-8m depth. The catch of razor clams increased over the few days the trial was undertaken as the fishermen adjusted the heads and water jets on the system. The system did have some problems, but this was largely due to this being the first time the system had been operated since construction by the shellfisherman. Problems included the pressure of the jets of water being too high, issues with the air lift, adjustments needed to the height of the airlift heads and too much pressure going through the pipes. . The shellfishermen made adjustments, where possible, in situ and once the equipment was returned to the quayside. Some damage was noted on the razor clams and bycatch, but this reduced as modifications were made

Trial undertaken by CIFCA in Lantic Bay Cornwall

D&S IFCA has worked with CIFCA and the shellfishermen to undertake research on the impact of this novel fishing gear on the sandy habitat within a small area of Lantic Bay that had been previously classified for the harvesting of razor clams. CIFCA's survey vessel Tiger Lily deployed an underwater camera and go-pros to observe the visual impact of the airlift dredge on a comparable habitat on which the fishery would take place in Devon. Three tows were undertaken in two locations within the Bay to a maximum depth of 10m. All catches from the tows were recorded and examined for damage.

Once again adjustments to the gear were necessary throughout the trial The majority, 66%, of the razor clams caught were over 100mm which is the minimum conservation reference size. 69% of the razor clams were over 150mm in length and the mean size was 153mm with size range of 72mm to 212mm. 34% of those caught were under the minimum landing size. Some damage was noted on a small proportion of the catch but the shellfisherman explained

that with further modification of the gear the damage rate should be reduced to a minimal. The shellfisherman has stressed the need for the fishery to have a catch that has a long shelf life making the catch very saleable, the business profitable and return bycatch and juvenile razor clams to the sea undamaged.

The cameras deployed from the survey vessel recorded the visual impact of the fishing method on the seabed. Figure 3 shows the sandy habitat in which razor clams live. The trials took place on the similar habitats to the areas the activity is proposed to take place in South Devon. This type of habitat, being in shallow water ,will be highly influenced by tides, wave action and storms. The trenches left by the gear (Figures 4 and 5) are likely to be infilled within hours of the activity with the tides, currents and water movements in the shallow depths. The actual fishing methods causes sand to be in suspension, and it will resettle in the trenches made. The activity using a single dredge head, as previously mentioned, creates a single trench of 1m width which is much less than the footprint of a single scallop dredger, of which there are many that fish in the area proposed for razor clam fishing

Figure 3- Sandy Sub-tidal Habitat Lantic Bay Cornwall

Figure 4 – Camera footage showing the trench in the sand following deployment of the razor calm dredge

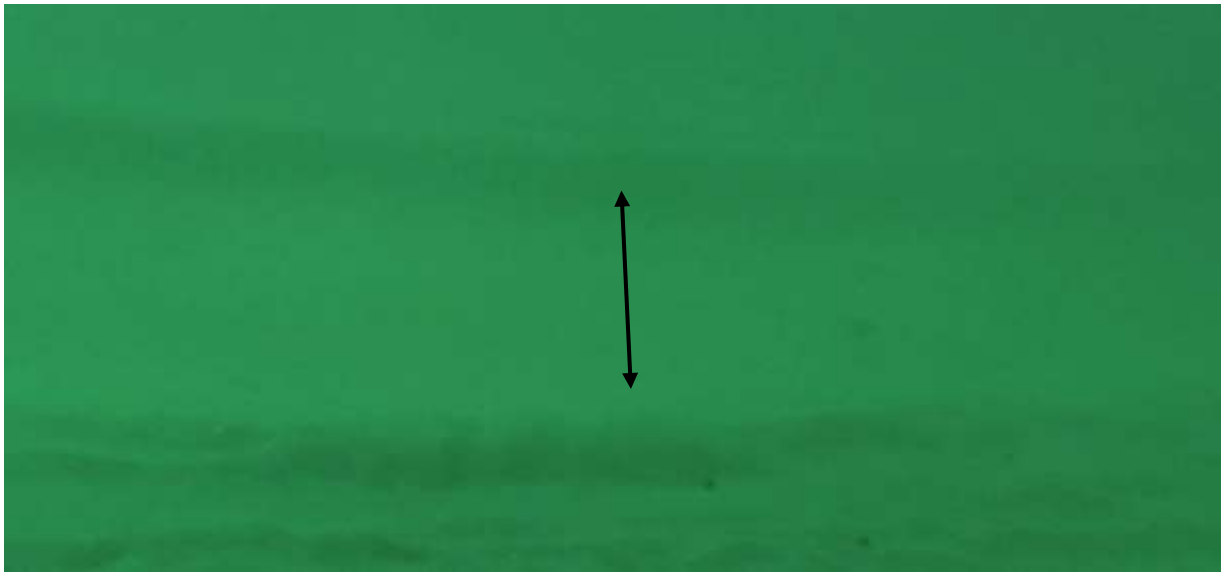

Figure 5 - Camera footage showing the track of the razor clam dredge.

5. Monitoring of the Proposed Fishery

The proposal for the fishery is based on information provided by the shellfisherman and the evidence that D&S IFCA has gathered from the research trials undertaken to date. The fishery can only take place on sandy habitats where razor clams are found, and the evidence suggests that these habitats will be resilient to this gear type due to the influence of waves, currents and storms and their less stable nature. The areas proposed by the shellfishermen are currently open to demersal mobile gear.

D&S IFCA Officers believe that installing a remote electronic monitoring (REM) system onboard the fishing vessel, which deploys the airlift system and to which the catch is brought on board, would be a mandatory requirement to demonstrate D&S IFCAs' ability to monitor the fishing activity. The REM system, its installation and running costs would be funded by D&S IFCA as it has been for several of the Mobile Fishing Permit holders involved in a REM trial. The REM system would allow D&S IFCA to confirm that the dredging is taking place on sandy ground within the areas classified for the harvesting by the FSA and will be included in an Annex to the Mobile Fishing Permit before commercial fishing begins.

The video footage from the REM could potentially be used by the fishermen to aid the marketing of the razor clams by demonstrating their provenance and effectiveness of the dredge design. This monitoring would provide evidence of the sustainability of the fishery and support the development of this new fishery.

6. Mobile Fishing Permit Conditions

D&S IFCA's duty, under S153 (2) (c) MaCAA 2009, is to take any other steps which in the authority's opinion are necessary or expedient for the purpose of making a contribution to the achievement of sustainable development. As this a developing fishery in D&S IFCA's District it warrants consideration by the Members of the B&PSC.

The proposed fishery method does not meet the definition of a scallop dredge or an alternative dredge as defined under the Mobile Fishing Permit Byelaw (MFPB) 2022 permit conditions.

The razor clam dredging is outside of these interpretations and therefore a new interpretation would need to be added to the Permit conditions.

The definition of a razor clam dredge would be:

A 'razor clam dredge' means a dredge where

i. *any part of the dredge does not exceed one metre in width; and*
ii. *any blade fitted to the bar of the dredge does not exceed 400mm in depth, and*
iii. *that the dredge uses a continuous air lift retrieval system to bring the catch immediately to the surface, and*
iv. *that a maximum of two dredges can be used at any one time within the District*

Other conditions would include that a razor clam dredge cannot be used in Marine Protected Area within the D&S IFCA's District and the MCRS of razor clams of 100mm. Annexes will be produced showing spatial restrictions, in addition to the permit conditions and interpretation.

7. Officer Recommendation

Based on the information provided by the shellfishermen proposing the new fishery and the evidence collected so far on the catch, bycatch and visual sediment impacts, Officers recommend that the B&PSC agrees to Officers commencing a formal public consultation on changes to the Mobile Fishing Permit Conditions. The changes to the Permit Conditions would include a definition of the razor clam dredge and define the areas where the fishery could take place in the south of the District which are currently open to demersal towed gear. The areas under consideration would take into account the FSA's classification of a harvesting are for razor clams and would be monitored to ensure the activity take place on sandy habitats suitable. for razor clam harvesting.

LOCAL GOVERNMENT (ACCESS TO INFORMATION) ACT 1985

No background papers.