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Dear Finlay,

As you may recall from previous updates, during consideration of The Razor Clams (Prohibition on Fishing and Landing) (Scotland) Order 2017 (Scottish Statutory Instrument 2017/419) the then Rural Economy and Connectivity Committee requested updates on the Scottish Government's scientific trial of electrofishing for razor clams. Please find attached the latest report on progress made during the trial's seventh year of operation (2024/2025)¹.

Whilst the trial is managed by my officials in the Marine Directorate, it receives vital support from key public sector partners whose continued productive engagement has underpinned the progress documented. The trial participants continue to operate under bespoke terms and conditions.

The trial is an exemplar in inshore fisheries management in the way it brings together fishers, scientists, regulators, policy and academia in helping to achieve its objectives. My officials and public sector partners continue to work closely with fishers participating in the trial and the Scottish Razor Clam Association (SRCA). The good working relationship with the SRCA has proved invaluable in ensuring a flow of information between parties to improve standards and help ensure scientists are provided with quality information about fishing practices and grounds.

I will send further information to the Committee later this year, with an update on data analysis for the period 1 February 2025 - 31 January 2026. In the interim, if you have any questions about this report please do not hesitate to be in contact with my office or with the official responsible for policy on this matter (Malcolm MacLeod, Access to Sea Fisheries team leader – malcolm.macleod@gov.scot)

Yours sincerely,

¹ [Electrofishing for Razor Clams Scientific Trial: 1 February 2024-31 January 2025 - gov.scot](#)

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1. Razor Clam Trial: Annual Report 2024-2025

A progress update report on the electrofishing for razor clams scientific trial from 1 February 2024 to 31 January 2025.

2. Purpose

The seventh year of the Scottish scientific trial for electrofishing for razor clams ran from 1 February 2024 to 31 January 2025. The information provided in this annual update report is supplementary to the reports previously published:

- [Update: Electrofishing for Razor Clams Trial 1 February 2018- 31 January 2019](#)
- [Update: Electrofishing for Razor Clams Trial 1 February 2019 - 31 January 2020](#)
- [Update: Electrofishing for Razor Clams Trial 1 February 2020- 31 January 2021](#)
- [Update: Electrofishing for Razor Clams Trial 1 February 2021- 31 January 2022](#)
- [Electrofishing for razor clams: scientific trial update - 1 February 2022 to 31 January 2023 - gov.scot](#)
- [Razor clam trial: annual report 2023-2024 - gov.scot](#)

3. Introduction

The seventh year of the trial continued to promote inter-agency cooperation in the controlled and regulated fishing of razor clams. Participation remained voluntary and was authorised under a scientific derogation. The trial operated around the Scottish coast at the same ten pre-designated sites, with catch and effort limits unchanged at 450 kg per day and 110 days at sea per year. A minimum conservation reference size of 100 mm for landing razor clams was maintained, although in practice participants often targeted larger clams to meet market demand.

The trial continued to collect scientific data to provide robust evidence to support effective and sustainable management of this fishery, while gathering a wide range of biological and fisheries information. The overarching objectives of the trial remain grouped into four categories: biological and ecological goals, economic goals, social goals, and best practice and management goals (Annex A).

The Marine Directorate (MD) continued to work collaboratively with the Scottish Association for Marine Science (SAMS), Food Standards Scotland (FSS), the Scottish Razor Clam Association (SRCA) (an association involving many trial participants), other trial participants and the Health and Safety Executive (HSE). As stated in the previous annual report, this multi-agency collaboration resulted in the publication of the "[Scottish scientific electrofishery for razor clams trial - biological](#)

[and ecological goals: progress report - gov.scot](#)" on 12 September 2024. The report provided further details on the data collection and analyses undertaken. Histological assessment indicated spawning activity in April and May, suggesting a seasonal closure was sensible. Stock assessments for Firth of Forth and Clyde reported sustainable exploitation levels, and mapping of the spatial footprint of the fishery was completed for all fished areas.

During the seventh year, the MD continued to engage closely with all trial participants, including those outside the SRCA. An open forum was maintained to ensure transparent communication and guarantee that every participant had direct access to the Scottish Government throughout the trial.

4. Food Standards Scotland (FSS)

Food Standards Scotland (FSS) is the Competent Authority responsible for undertaking Official Controls (OCs) to determine the safety of marine waters used for the harvesting of live bivalve molluscs (LBMs) in Scotland. Throughout the year, FSS has continued to support the trial, only classifying and monitoring razor clam harvesting areas that sit within the designated trial zones.

This year, the seasonal closure was again implemented within the trial, which FSS incorporated into the OC monitoring programme. FSS worked with service delivery partners to amend sampling schedules, to ensure that no sampling was undertaken during the four week period, between 22 April and 19 May 2024. Sampling events that sat within the closure period were rearranged, so that collections could be undertaken at another suitable date. This ensured that the required classification and biotoxin samples were collected and submitted to the testing lab and no sampling was missed.

Throughout the year, FSS monitored 20 razor areas in total. This consisted of 18 standard classification areas, 1 provisional classification area and 1 new area sampling towards classification. This is an increase of 1 area on the previous year.

Whilst monitoring these areas, 1 area was subject to a temporary closure notice (TCN). The sample was collected on 15/07/2024 and the closure was for the regulated biotoxin ASP - Amnesic Shellfish Poisoning.

During the year, we assisted in providing area details for 9 separate breaches of sampling out with the classification area boundaries. All breaches were highlighted in a timely manner, with MD and FSS working together to solve any issues.

FSS would like to thank the harvesters again for their continued support in the running of the Scottish OC Shellfish Monitoring Programme.

5. Health and Safety Executive (HSE)

During 2024 the HSE diving group have undertaken proactive inspections of both the razor clam and wider shellfish diving industry. Industry stakeholders have continued to collaborate with HSE and offer feedback on the guidance and safety matters.

HSE is the Regulating Authority for diving projects in both inshore and offshore waters. Commercial diving in Great Britain is Regulated through the Diving at Work Regulations 1997.

In 2021 HSE produced revised guidance to assist diving contractors to enable the conduct of safe shellfish diving projects, which can be found here:

<https://www.hse.gov.uk/regulating-major-hazards/assets/docs/scallop.pdf>

The updated guidance improved the requirements regarding diving equipment, diving methodologies and diver qualifications. The electrofishing diving contractors working within the trial have successfully adopted this guidance.

The standards of diving equipment, methods and planning observed during the inspections have demonstrated compliance with the provisions of the Diving at Work Regulations 1997 and guidance. The requirement for shellfish divers entering the industry to hold an HSE Approved Diving Qualification (as opposed to a Recreational SCUBA diving qualification) has improved the standard of diving observed by HSE Inspectors. Verbal advice was given to two of the boats on the trial relating to documentary failings, with no formal written enforcement actions being deemed necessary during the year. There have been no reported serious diving incidents or concerns during 2024. Additionally, no reports of electrofishing diving projects in the waters of Great Britain outside the Scottish trials have been made as in earlier years of the trial.

Several of the boats were not conducting diving projects this year due to ill health or vessel maintenance issues. It is expected these contractors will return to active diving in the 2025 season.

Generally, the diving projects continue to demonstrate compliance with the diving Regulations.

6. Vessel Activity, Landings and Employment

2024 represented the start of the Razor Clam trial's seventh year, which ran from 1 February 2024 to 31 January 2025. However, due to 2025 data being pre-statistical release which has yet to be fully quality assured, January 2025 data has been omitted from the analysis. Instead, analysis has been conducted on the 2024 calendar year (1/1/24 to 31/12/24), with January 2024 data being from the sixth year of the trial. This is in keeping with the approach taken to the trial updates published in February 2024 and April 2025, but is different from earlier trial update publications.

In 2024, 22 vessels had derogations allowing them to participate on the trial, up/down from 25 in 2023. However, during 2024, only 18¹ trial vessels were active, down from 22 in 2023. It is worth noting that not all vessels involved in the electrofishing for razor clam trial are Scottish-registered.

In 2024, active trial vessels landed 546 tonnes of razor clams, at a value of just

¹ 'Active vessels' refers to any vessel that was part of the trial and caught any amount of razor clams during 2024. This includes vessels that left or joined the trial at any point during the 2024 calendar year.

under £4.5 million. This represents a 16% and 18% decrease in tonnage and value, respectively, compared to 2023's annual figures of 647 tonnes and just under £5.5 million in landed value. The average tonnage caught per active vessel was 30t in 2024, slightly up from 29t per active vessel in 2023. The nominal average landed value per active vessel was around £250,000 in 2024 the same as in 2023. A fall in the number of active vessels as well as reduced landings, are primary causes of the reductions in tonnage and landed value seen in 2024 compared to previous years.

The previous three years of the trial indicate a pattern of higher landings in spring and summer, before falling in autumn; some years also saw higher landings in January and December. As evidenced in Figure 1, 2024's tonnage figures were below previous years in spring, before following a similar trend to 2023's, remaining below 2021 and 2022 tonnage figures in the summer months. October and November were the only months where 2024's tonnage figures were above the levels of the previous three years. December saw a marked decrease in tonnage landed. This was similar to 2023, and in contrast to previous years where tonnages increased in December.

Figure 2 shows the monthly landed value figures since 2021, with 2024's monthly landed value figures closely following the trend of monthly tonnages.

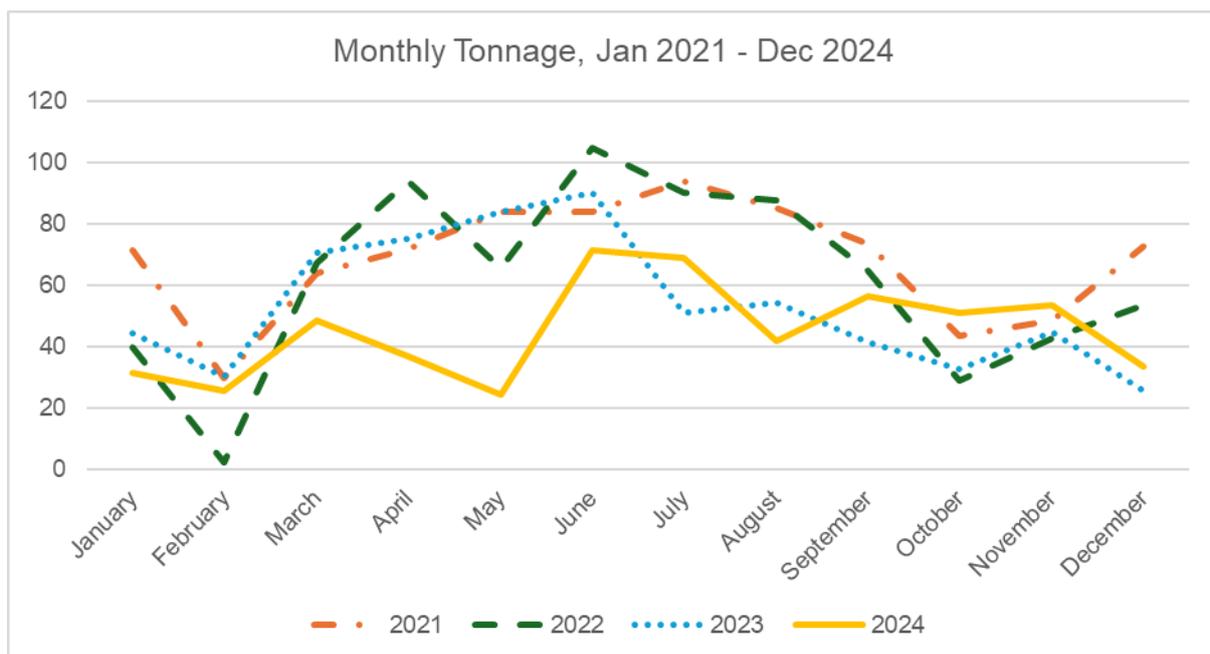


Figure 1. Monthly tonnage of razor clams landed by trial vessels, January 2021 – December 2024

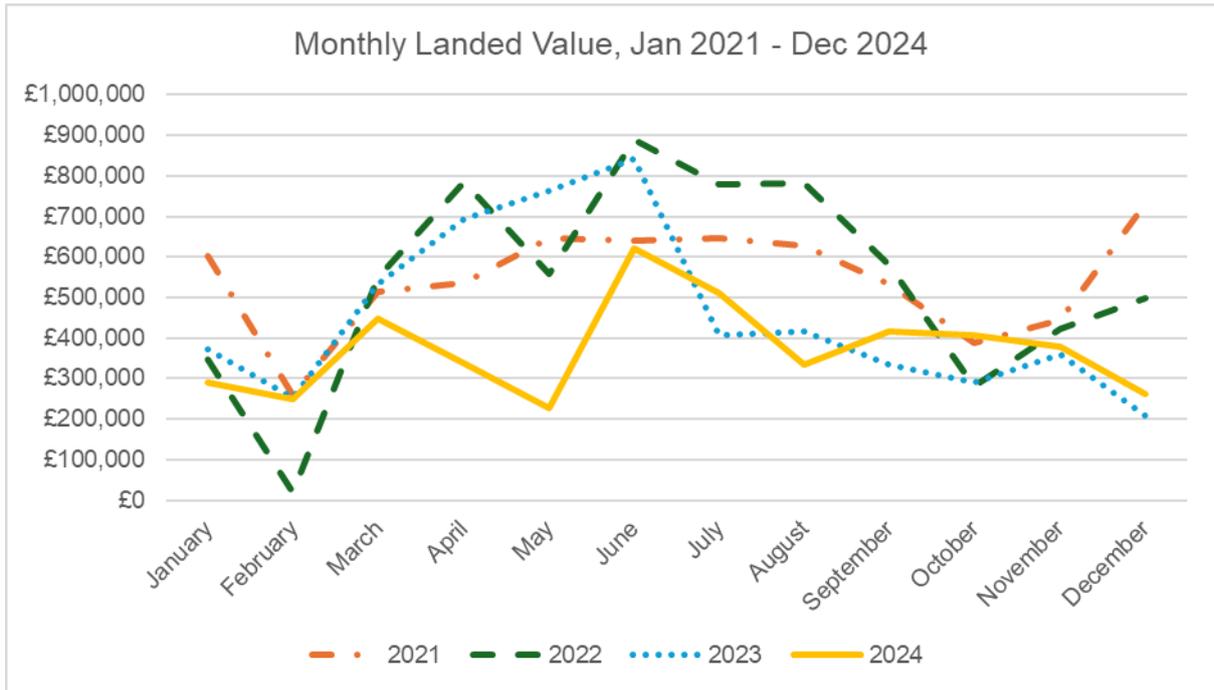


Figure 2. Monthly value (£) of razor clams landed by trial vessels, January 2021 - December 2024

The average price per kilogram (£/Kg) for 2024 was £8.21 (Figure 3), down 3% from 2023's £8.46. The price per kilogram remained fairly stable throughout the first half of the calendar year, at an average of £9.07, before falling to an average of £7.54 in the second half of the year. Similar to 2023, prices did not follow the trend of increasing towards the end of the year which was seen in previous years.

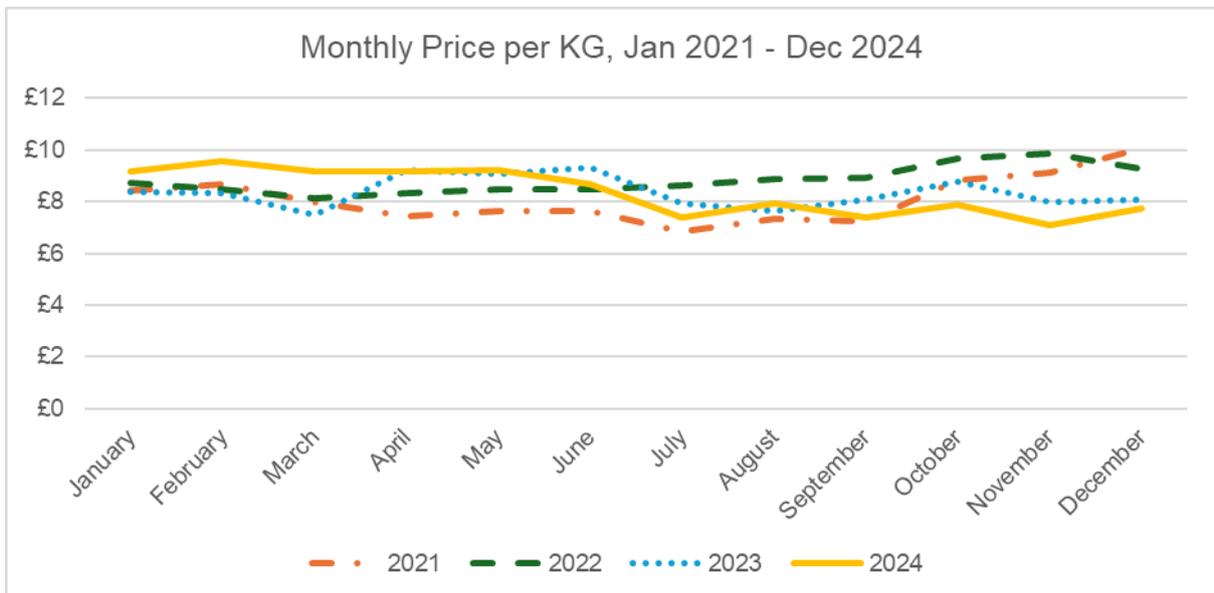


Figure 3. Monthly average nominal price (£) per kilogram (Kg) received for razor clams landed by trial vessels, January 2021 - December 2024

Throughout 2024, around 81 people were employed by vessels enrolled and active, at any point in the trial. Of which, the majority were regularly employed (regularly employed being those whose fishing was their primary occupation). This is down

from 90 in 2023. Employment levels will differ at various times during the year due to vessels leaving the trial or being replaced by other vessels. The trial also supports further economic activity and employment for people in the wider supply chain supporting these vessels in Scotland, and in the transportation of the product to market.

7. MD Coastal Operations

MD Coastal Operations continued to employ a risk-based approach to the inspection of vessels participating in the trial and deployed land and sea-based resources to monitor these vessels.

As per the trial terms and conditions, the owner of each vessel participating in the trial is entirely responsible for the purchase, installation and maintenance costs of all fishing apparatus, generating gear, and monitoring equipment specified by MD as necessary to participate in the trial. This includes a bespoke Remote Electronic Monitoring (REM) device which is proving a highly valuable tool for both scientific data collection purposes and compliance management. All MD coastal offices and the Marine Protection Vessel fleet have access to live positional data of the vessels to aid inspections (subject to the 3G coverage in a vessel's area of operation).

In trial year 2024-2025 Officers undertook 74 inspections both by inspectors on land and where compliance was found to be very good at 96.3%. In relation to daily landed catch limits, a total of 61 landings were weighed at the landing port, with 3 infringements found. 9 vessels were boarded at sea, not all boardings were upon completion of a fishing day, with some vessels being boarded at the time of the first dive.

The REM data is received at the Fully Documented Fishery Unit (FDF), from where it is analysed remotely and verified for compliance. Going forward the REM data will be received by Anchorlab and stored there, to be analysed remotely and verified for compliance. This change is due to FDF system becoming redundant.

During the 2024-25 year, 1680 trips were analysed. Compliance with the requirements of the trial's Terms and Conditions was found to be high. Post landings checks by the FDF unit identified a total of 13 minor breached of terms and conditions and these were dealt with by the way of verbal rebrief, email and advisory letter. Eight minor breaches were relating to fishing out with classified waters (>100m). Reasons for these breaches, include fishing between a site boundary and shoreline but this site has since been expanded to cover a much larger area of ground, including the area the vessel fished. Fishing in a declassified site after an extended break from fishing, where the site had previously been classified and other vessel errors with oversight on site boundaries. One minor breach was noted for REM not fully functioning and this was dealt with by way of verbal and written rebriefs and a warning.

8. MD Science Evidence Data and Digital

The Science, Evidence, Data and Digital (SEDD) Portfolio of the Marine Directorate ASPecological goals of the razor clam trial (Annex A).

During the seventh year of the trial, 1 February 2024 to 31 January 2025, work focussed on maintaining data collection (fishers self-sampling and Remote Electronic Monitoring). The fishers and processors continue to play a crucial role in this trial by adhering to the Terms and Conditions, collecting and sending data, and responding to requests to input their knowledge on the fishery and grounds.

All vessels participating in the trial carry REM systems which record details of vessel position, speed, and the current (amperes) output of the generator used to power the electrofishing gear at 10 second intervals. Official Scottish landings and effort data are collated by Marine Directorate Coastal Operations from fishers' logbooks and sales notes. The data is utilised for a number of purposes including: in combination with information on vessel activity (as detected by on-board REM systems) to monitor fishing activity, in the calculation of landings per unit effort (LPUE) and in stock assessments. Further details are available in the published report and dashboard listed below, and the collected data are used in analyses to inform fishery managers of the status of the fishery.

Nineteen vessels were active in the razor clam electrofishery trial in trial year seven, as determined by REM. Total reported landings were relatively stable in trial years six and seven. Reported landings had previously been highest from the Firth of Clyde trial area, followed by Firth of Forth and Colonsay. In trial year six and seven, there was a decrease in landings from the Firth of Clyde, but an increase from Gigha.(Figure 1).

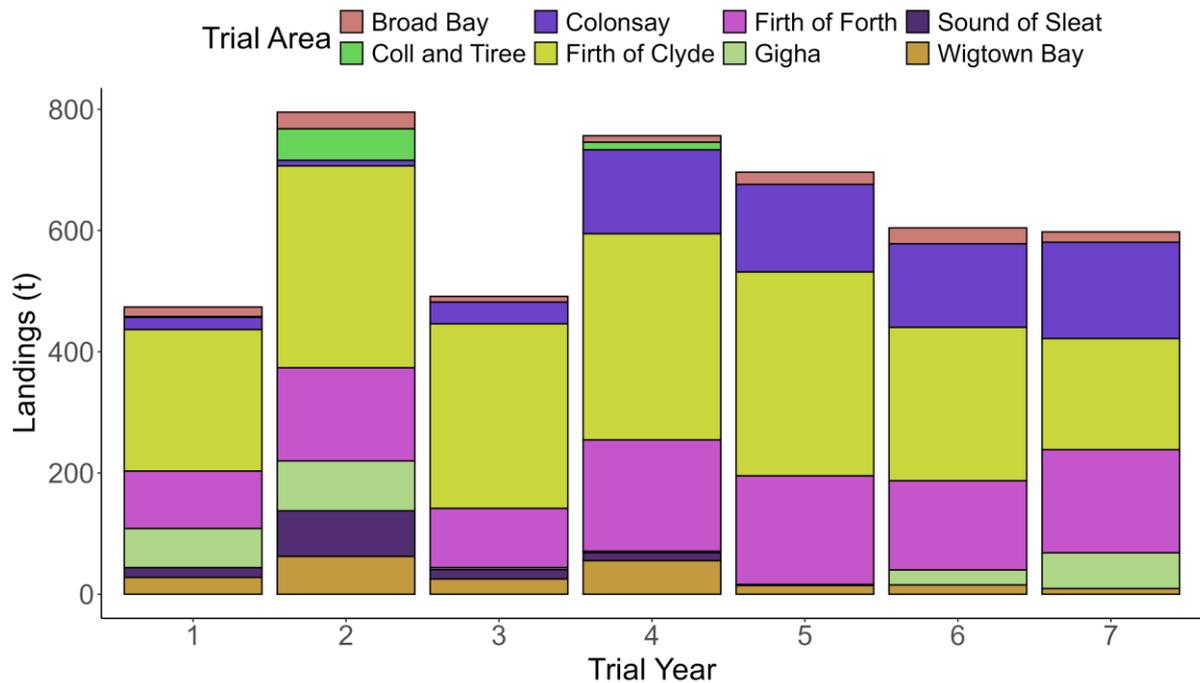


Figure 1. Total reported razor clam landings (tonnes) by trial area and trial year for trial years 1 - 7.

1. Total reported razor clam landings (tonnes) by trial area and trial year for trial years 1-7.

Communicating work on the trial was also a key task during 2024 and knowledge was shared through publishing the progress report [Scottish scientific electrofishing for razor clams trial - biological and ecological goals: progress report - gov.scot](https://www.gov.scot/publications/scottish-scientific-electrofishing-for-razor-clams-trial-biological-and-ecological-goals-progress-report/pages/1-to-100.aspx), launching the dashboard [RazorClamTrial](https://www.gov.scot/publications/razor-clam-trial-dashboard/pages/1-to-100.aspx) and presenting work at the International Council for Exploration of the Seas (ICES) Annual Science Conference [ASC 2024](https://www.ices.int/conferences/annual-science-conference-2024).

SEDD staff continued to support the PhD (in collaboration with SAMS) to assess the ecological sustainability of a well-controlled electro fishery for razor clams in Scottish coastal seas. One of the chapters focussed on utilising the data collected by trial participants for Length Based Indicators. The PhD was submitted in November 2025.

An update was also made to the previous survey report in March 2025 (to include further stations completed in the Solway) with further details available: [Razor clam surveys - Firth of Clyde 2023 and Solway 2024-2025: report - gov.scot](https://www.gov.scot/publications/razor-clam-surveys-firth-of-clyde-2023-and-solway-2024-2025-report/pages/1-to-100.aspx)

9. Conclusion

The seventh year of the trial continued to gather scientific evidence on the impact of electrofishing for razor clams. The publication of the progress report in 2025 was a landmark event of the collaborative work between science colleagues and trial participants. The progress report indicates that fishing activity in the trial can be managed sustainably and it confirmed spawning periods. Additional data collection and analysis of biological and fisheries information have been undertaken to advance progress toward achieving the trial’s aims and objectives.

The derogations authorising the same specific vessels to participate until January 2027 were issued on the 1 February 2025. Fishers authorised to be part of the trial are required to continue to gather scientific data and to provide help and assistance towards future monitoring, research and stock assessments when required.

10. Annex A

Main objectives of the trial

The main goals of the trial can be divided into four broad categories:

Biological and Ecological Goals:

- i. to gather local level information on razor clam populations and stocks, including accurate data gathered by trial participants to supplement stock survey work;
- ii. to ensure sustainable harvesting levels; and,
- iii. to gather further information about the impacts of the electrofishing method on target and non-target species.

Economic Goals:

- i. to develop understanding of the economic benefits that can be achieved for Scotland and its local coastal communities through an electro fishery for razor clams;
- ii. to support the Scottish inshore fishing sector, in particular diversification opportunities for the sector; and,
- iii. to support Scottish based businesses associated with the inshore fishing sector.

Social Goals:

- i. to support economic activity in Scottish coastal communities with benefits of the trial delivered locally.

Best Practice and Management Goals:

- i. to develop the operational measures required for a sustainable fishery;
- ii. to ensure that trial participants are always compliant with its terms and conditions at all times;
- iii. to ensure that shellfish harvesting is safe and compliant with all relevant regulations; and,
- iv. to encourage good stewardship amongst trial participants.

1 'Active vessels' refers to any vessel that was part of the trial and caught any amount of razor clams during 2024-25. This includes vessels that left or joined the trial at any point during the 2024-25 calendar year.

11. Footnotes

1. 'Active vessels' refers to any vessel that was part of the trial and caught any amount of razor clams during 2024-25. This includes vessels that left or joined the trial at any point during the 2024-25 calendar year.

12. Contact

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