

Plymouth Sound and Estuaries SAC, Monitoring and Control Plan Review 2021-2022: Netting and Allis Shad



Immature Allis shad (©R.Hillman)

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Background of Monitoring and Control Plan

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.

Activity/feature interactions in EMS underwent Habitat Regulation Assessments (HRA) to determine whether management measures were required in order to ensure that fishing activities will have no adverse effect on the integrity of the site.

D&S IFCA carried out HRAs in 2016 for the interaction of Allis shad (as bycatch) with fixed nets, drift nets, purse seine and ring-nets potentially used in the Plymouth Sound and Estuaries Special Area of Conservation (SAC). The assessments all concluded that there is no likelihood of significant adverse effect on Allis shad. Whilst Natural England agreed with these conclusions, [advice](#) was given to D&S IFCA and recommendations were made for D&S IFCA to monitor the activity levels, due to uncertainties around effort levels, and undertake a shad awareness exercise.

In 2019, D&S IFCA developed a Monitoring and Control Plan (M&CP) for all netting activities in the Plymouth Sound and Estuaries SAC for Allis Shad.

This documents summaries the actions taken from the M&CP to monitor the interactions between netting and shad in the Plymouth Sound and Estuaries SAC Since 2019. It should be read in conjunction with the [M&C Plan](#).

M&C Plan Actions

1. Ring-netting

The actions from the M&C Plan for ring-netting in Plymouth Sound and Estuaries SAC included:

- (i) monitoring the number of vessels operating in Plymouth Sound via permits issued,
- (ii) catch observations of ring-netting activities in Plymouth Sound in 2019.

In late 2021, there was one permit holder based in Plymouth that identified ring netting as a gear type, whereas at the beginning of 2020 there were two. This is a drop from four permit holders in 2018. There are another three permit holders which ring-net however, these are based in Cornwall and are not thought to fish in Plymouth Sound. The number of permit holders that identify ring-netting as a gear type will continue to be monitored by D&S IFCA.

A total of three observer trips were carried out on a ring-netter based in Plymouth, one in December 2019 and two in January 2020. The trips were not based entirely in Plymouth Sound. Bigbury Bay and Whitsand Bay were also visited, as is common during ring-net operations. No fish were caught on any of the observer trips.

More information on the fishery was gathered during the trips. The skipper stated he had only seen one shad in the 15 years he had been ring-netting. Other crew had either not seen any shad or one shad in the time they had been fishing.

The fishery only happens over the winter months, usually starting in November and ending by March and is very much controlled by the weather. The fishery can only operate in calm conditions due to the nature of the catching process; 2019/2020 was a poor winter wind wise for the fishery which limited the number of days at sea.

Much of the fishing is done outside of the Sound if possible, this is due to the amount of marine traffic in the area and various debris on the seabed which rip the nets. Much of the fishing is carried out in Bigbury Bay and Whitsand Bay. If fishing is carried out in the Sound it is often done behind the breakwater, in the Jennycliff area or Cawsand.



Figure 1: Examples of VMS tracks that were considered as possible ring net fishing activity.

2. In January 2022, a DPA request for VMS data from inside Plymouth Sound for all vessels with ring nets listed as a gear type (regardless of base port; 6 in total) was submitted for the following dates: 1st October – 31st March each year (2018–19, 2019–20, 2020–21) and from 1st October – 12th January (2021–22). Evidence suggests that encircling nets such as purse-seine and ring nets are deployed at speeds below 6 knots, and likely between 0–2.5 knots (Srisukkhom *et al.*, 2021), so D&S IFCA requested VMS data at 6 knots and below for all vessels. VMS tracks were plotted in QGIS and the number of vessels and trips where possible ring netting activity was occurring were recorded. Ring netting activity is difficult to accurately distinguish from VMS tracks due to the length of time between pings, so a precautionary approach has been taken to the identification of ring netting activity in this r. Trips where vessels were clearly in transit into and out of Plymouth Sound were removed and trips with very few points due to speeds being higher than 6 knots were also excluded. The remaining tracks and number of active vessels remaining were counted and are reported here (Table 1). Only one vessel out of the six showed possible ring net fishing activity inside the area open to ring netting in Plymouth Sound. Examples of tracks that were considered to be possible ring net fishing activity are shown in Figure 1, but it is not possible show the location of these trips due to the limited number of active vessels and data protection regulations.

Table 1: Number of trips with possible ring netting activity in the Plymouth Sound EMS. Between October – March each year.

	2018-2019	2019-2020	2020-2021	2021-2022
Vessel 1	3	10	5	0

The highest number of trips showing possible ring netting activity was 10 in the period between October 2019 and March 2020. The number of possible ring netting trips was much lower in the previous year and the years following, with no possible ring netting activity observed in the most recent year.

3. Fixed and Drift Netting

The actions from the M&C plan for other netting activity (gill, trammel, entangling and drift nets) included:-

- (i) monitoring the number of D&S IFCA netting permits issued to static net vessels in Plymouth Sound, and
- (ii) sending out questionnaires to vessels with netting permits fishing in the Plymouth area to gather more information on netting effort and location.

The number of vessels with permits to net based in the port of Plymouth was 27 when the baseline report was written in August 2020. This figure will now be used as a baseline, against which the number of vessels issued with permits to net based in the port of Plymouth will be compared by D&S IFCA, as part of ongoing monitoring. Currently (March 2022), the number of vessels with netting permits based in the port of Plymouth is 31. This is an increase of 4 permits based in the Plymouth area. It was noted in the HRA and baseline report that not all permit holders based in the port of Plymouth fish within the SAC, so the number of active fishers netting in Plymouth Sound is likely to be far less than 31.

In 2020, forty-nine questionnaires were sent to all vessels with a netting permit in the port of Plymouth and surrounding ports. The response rate was 28.5%. The survey targeted netters from a wide selection of ports, some of which were outside the Plymouth Sound and Estuaries SAC. The response rate from these netters was generally lower than those based in Plymouth. For Plymouth-based vessels the response rate was approximately 33%.

From the 14 responses, a total of eight vessels net within the SAC, all from the base port of Plymouth. Static nets including gill, trammel and tangle nets are set. Based on the reported netting effort of the eight vessels that net within the SAC, estimates were calculated of the number of times nets are set per year by those eight vessels. Gillnets are set approximately 476 times, and tangle nets set approximately 137 times in a year. There was seasonal variation in netting effort, with the majority of effort focused between May and October, peaking in August.

The areas fished within the SAC are shown in figure 2. The netting activity levels are highest in the centre of Plymouth Sound.

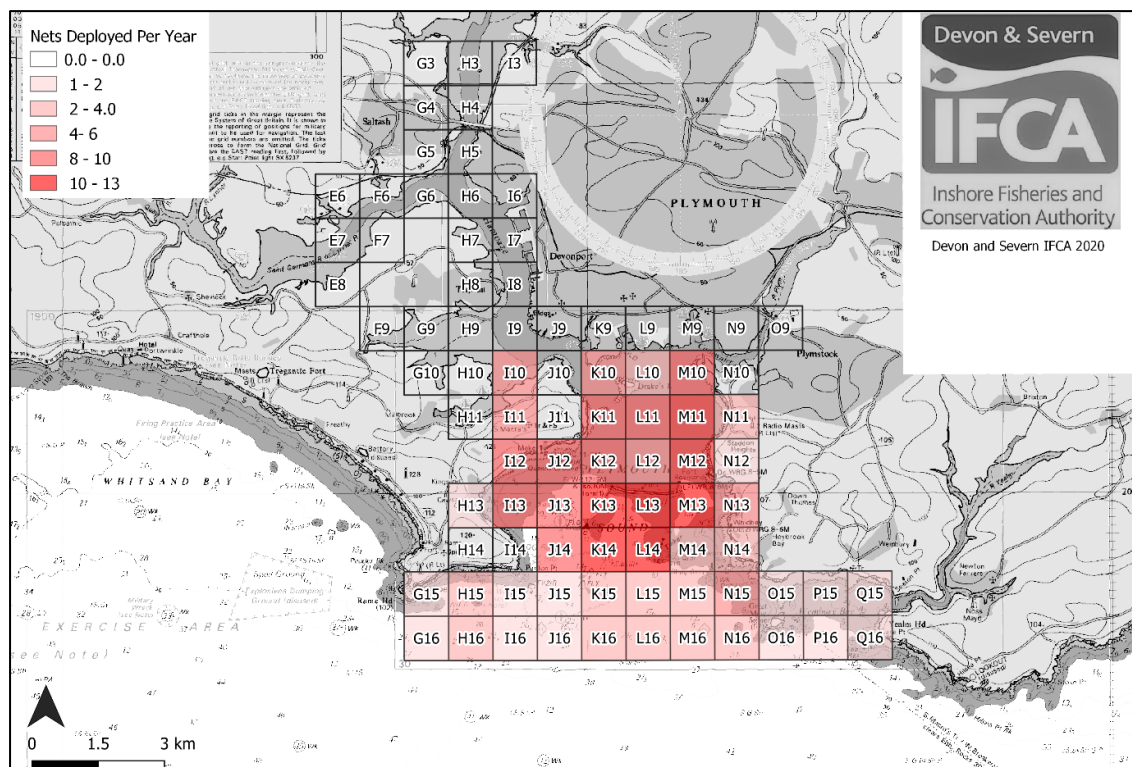


Figure 2. Location and density of fixed and drift netting within Plymouth Sound and Estuaries SAC.

4. Bycatch Reporting Scheme

In its advice Natural England requested a bycatch reporting scheme to be set up, where fishermen will self-report bycatches of shad. In April 2020, D&S IFCA wrote to all permitted netters in the District to provide information on the Shad Awareness and Bycatch Reporting Scheme that D&S IFCA was implementing in the District, particularly focused on the Plymouth Sound and Estuaries SAC. The letter included an information leaflet (Annex 1) specifying that any shad bycatch should be returned to the sea unharmed, and requesting that any fisher observing bycatch in their gear report this to D&S IFCA. A shad bycatch reporting form (Annex 2) was also enclosed, to collect the required information on levels of bycatch associated with different fishing locations, gear types and effort levels.

As of 25th August 2020, three Netting Permit holders in the south of the District had returned shad bycatch reporting forms. One individual reported a single bycatch event of shad in a sandeel seine net off the mouth of the River Yealm in the early 1970s. This was the only report of shad bycatch of any local relevance to Plymouth Sound and Estuaries SAC. Two additional reports of shad bycatch were submitted for the south of the District, but these related to single bycatch events of shad caught by rod and line near Budleigh Salterton (August 2019, caught while targeting bass) and Salcombe Estuary (three shad over thirty years of fishing). No further shad bycatch events have been reported since the baseline report was written.

Self-reporting of shad bycatch will continue to be encouraged by D&S IFCA, primarily by circulating information on bycatch reporting (including the leaflet shown in Annex 1 and the reporting form shown in Annex 2) when sending permits and permit information to new permit holders and fishers who are renewing their permits.

Summary

The available evidence suggests that, at this time, no review of the HRAs for the interaction of shad with fixed nets, drift nets, purse seine or ring-nets is required. The number of vessels with permits to ring net that are based in the port of Plymouth is consistently low, and has declined over recent years, and VMS data suggest that only one vessel is actively fishing with ring nets in Plymouth Sound. The number of fishing trips by permitted vessels where possible ring netting activity was observed has been minimal, especially in recent years.


Although the number of permits for other netting gear has increased since the baseline report was written (by 4 permits or 14%), a questionnaire sent to permit holders in 2020 showed that the actual number of permit holders that fish within the SAC is likely to be far fewer than the total number of permits held. The bycatch reporting scheme is ongoing and there have been no reports of bycatch from netters since the baseline report was written. A trigger point for the review of HRAs relating to the netting (other than ring netting) in Plymouth Sound has not yet been set, as it was agreed that more evidence needed to be gathered on the current level of effort in the SAC and the current risk to shad. As the bycatch of shad is likely to be consistently low (evidenced by no bycatch reports despite continued encouragement to report bycatch events), and the number of permits is prone to small fluctuations year on year, D&S IFCA propose that appropriate trigger points for a review of the HRA is set at a one third increase in active netting permits with a base port of Plymouth from the baseline number of permits reported in 2020 (i.e. a total of 36 permits, increasing from the 27 permits reported in 2020). If this trigger point is reached, D&S IFCA officers will contact all permit holders based in the port of Plymouth to gauge a more detailed knowledge of the location of the fishing effort, and/or assess netting effort using VMS data following the roll-out of VMS monitoring to all inshore vessels.

In addition, D&S IFCA is able to:

- (i) continue monitoring of netting effort through the permitting system,
- (ii) encourage ongoing shad bycatch reporting, as described above and,
- (iii) continue monitoring of bycatch by ring-netting vessels.

These workstreams will remain with a view to reducing the residual uncertainty regarding the level of fishing effort in Plymouth Sound and Estuaries SAC, and the extent of the gear-feature interaction. The outcomes of these workstreams will be assessed against trigger points outlined in the Monitoring and Control Plan and will be used to inform whether future reviews of the relevant HRAs are required. However, although the actions above will continue, D&S IFCA proposes that formal annual reporting can now cease until trigger points are reached.


Annex 1. Shad bycatch reporting information leaflet, circulated to all permitted netters in A4 format during April 2020.



Devon & Severn
IFCA
Inshore Fisheries and
Conservation Authority

Bycatch of Shad

Returning and reporting



Devon & Severn
IFCA
Inshore Fisheries and
Conservation Authority





***Please remember: any shad must be returned to the sea
as soon as possible after the catch occurs***

Under the Wildlife and Countryside Act (1981, as amended), from
0nm to 12 nm, it is illegal to:

- Kill or injure,
- Take,
- Damage or destroy the place of resting, shelter or breeding of,

any allis shad (*Alosa alosa*) or twaite shad (*Alosa fallax*).

***Devon and Severn IFCA is collecting data on Shad bycatch in order to
monitor their populations. Please get in contact if you see shad by-
catch in your gear.***



Devon & Severn IFCA: ☎01803 854648 ☎: 07740 175479 (out of hours)

✉ office@devonandsevernifca.gov.uk 🐦 @DevonSevernIFCA

Annex 2. Shad bycatch reporting form, circulated to all permitted netters in A4 format during April 2020.

Shad bycatch reporting form			
Please use this form to provide details of new or recent shad bycatch. If you are able to report previous bycatch events, please do so in the box at the end of this form.			
Skipper Name :		Vessel PLN:	
Vessel Name:		Vessel length:	
Date of shad bycatch:		Time of shad bycatch:	
Location (latitude):		Location (longitude):	
Number of shad caught:		Approximate average length of shad caught (inches/mm):	
Gear type and description of fishing activity:			
Mesh size (inches/mm):		Trawl duration (if applicable):	
Total length of nets worked (yards/metres):		Length of individual tiers or fleets (yards/metres):	
Total number of fleets shot (on a normal working tide):		Type of nets used (e.g. trammel, gill or tangle):	
Soak time:		Species targeted:	
Please provide details of previous shad bycatch events below. For example: how many times have you had shad as bycatch? What is the largest number of shad you have seen as bycatch in your gear? Please also include detail of the gear used.			
<p>D&S IFCA will only hold information about you that is required in order to conduct its functions imposed by legislation. Our lawful basis for this is Article 6 (1) e) of the General Data Protection Regulation 2016. We protect any personal data that you may provide. Any personal data submitted will not be shared with others in its original format. The content will be summarised and anonymised for documenting in reports and assessment work that will inform the management of fisheries within the D&S IFCA's District. Further information on D&S IFCA's Privacy Policy can be found on the website home page.</p>			