

## Severn Estuary SAC, Monitoring and Control Plan Review Document 2020-2021: Netting and Twaite Shad



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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 twaite shad (*Alosa fallax*) with various netting gears (drift, fyke, stake, gill, trammel and entangling nets, beach seine, purse seine and ring nets) in the Severn Estuary Special Area of Conservation (SAC; UK0013030). Many of these activities were not occurring or occurring at a low/ very low (and declining) level, and the Test of Likely Significant Effect (TLSE) concluded there was no likelihood of significant adverse effect on twaite shad. However, the Appropriate Assessments, for the low levels of fixed netting (fyke, stake, gill, trammel and entangling nets), concluded that there was potential for some small bycatch events. There were also residual uncertainties regarding the overall level of fixed netting in the Severn Estuary SAC. The HRAs also reported low levels of interaction between the current levels of net fisheries and twaite shad and highlighted that commercial fishermen were aware of legislation which requires them to return all species of shad to the sea immediately.

Natural England agreed with the conclusions of the HRAs but informally made recommendations to monitor the fixed netting activity levels and introduce a bycatch reporting scheme. Drift netting was also concluded to have no likely effect at the TLSE level and NE agreed with this conclusion. Despite this, D&S IFCA included this activity within the Monitoring and Control Plan as there was relatively little information available about bycatch of shad in these fisheries.

In 2018, D&S IFCA's [Netting Permit Byelaw](#) came into force, and in 2019 D&S IFCA implemented a Monitoring and Control Plan for all netting activities occurring in the Severn Estuary SAC that may interact with twaite shad.

This documents summarises the actions taken from the Monitoring and Control Plan (M&C Plan) for the interactions of netting and shad in the Severn Estuary SAC during 2021/2022. It should be read in conjunction with the [M&C Plan](#).

## **M&C Plan Actions**

The actions from the M&C Plan included:

- (i) monitoring the number of D&S IFCA netting permits issued for these activities in or near to the Severn Estuary SAC,
- (ii) to gather more information on netting effort and location, and
- (iii) to implement a shad awareness and bycatch reporting scheme.

## **Fishing Effort Monitoring**

Regarding commercial fishing activity, the main port considered to be relevant for consideration in relation to the Severn Estuary SAC is Minehead, though this report also includes information on permit holders/ vessels with base ports in or near to the north of

D&S IFCA's District. The following ports with permit holders are considered within this wider commercial grouping: Minehead, Appledore, Cardiff and Clovelly. Ilfracombe and Watchet are also included in this commercial grouping, but were not reported on in the last Monitoring and Control Plan report as no permit holders listed these as the base port. The baseline number of commercial vessels with permits to net based in the relevant ports, recorded in June 2020, was 18, with only three registered to Minehead. In February 2022, the number of commercial netting permit holders within the wider port grouping (including Ilfracombe and Watchet) was 11, with four registered to Minehead. There is currently no evidence that commercial vessels from ports further west than Minehead regularly fish in the Severn Estuary SAC nor approach the waters nearby.

This report also considers activities of recreational permit holders with addresses in or near the north of the D&S IFCA's District. Those areas considered most relevant for consideration in relation to the Severn Estuary SAC (in which permit holders also reside) are Minehead, Watchet, Weston-super-Mare and Gloucestershire, though this report also includes information on nearby areas including Bideford and the areas outlined above in relation to commercial permit holders. The baseline number of recreational netting permit holders recorded in June 2020 was 21 within this wider area grouping, of which 18 were registered to the more relevant areas including Minehead, Watchet, Weston-super-Mare and Gloucestershire. In February 2022, the number of recreational netting permit holders in these areas was 19, with 14 registered to the more relevant areas outlined above.

As recommended in the M&C Plan, reviews of netting effort in the Severn Estuary SAC should take place on a timescale that allows the results to inform the triennial review of the Netting Permit Byelaw permit conditions, unless information from elsewhere (e.g. officer observations, information from fishers or the public) suggests trigger points have been reached before the review is due. The numbers of permit holders recorded in February 2022 suggest that the netting effort in the Severn estuary has decreased since the baseline report in 2020. Although the total number of commercial netting permits registered to Minehead has increased by one, the total number of both commercial and recreational netting permits for the wider ports/ areas have declined. In addition, netting effort by fishers in Minehead is known to have been low since early 2020.

In 2020, questionnaires were sent to all holders of a Netting Permit in the relevant ports and areas outlined above, seeking information on netting activities (gear type, fishing location and timing of activities, as well as any notable bycatch). The response rate was 17.9%. The seven responses were all from ports/areas of most relevance to the SAC. From these responses, a total of 2 permit holders (both recreational) net within the SAC in all months except March using trammel, gill and/or tangle nets (Figure 1). However, one of these individuals has not fished in D&S IFCA's District since approximately 2018, due to a combination of personal reasons and the COVID-19 pandemic. Areas outside of the SAC are also fished in all months with trammel, gill, tangle and/or herring nets. Due to the low level of fishing activity in or near to the Severn Estuary SAC, and in order to preserve anonymity for the individuals involved, these activities have not been plotted on charts.

The questionnaires sent to all Netting Permit holders included an opportunity to report shad bycatch. One permit holder, fishing herring nets outside of the SAC, reported infrequent shad bycatch of one or two shad every month or two during netting activities occurring in October to December. However, it was noted that any shad are returned alive to the sea.

#### Gear-Feature Interaction Monitoring: Shad Awareness and Bycatch Reporting Scheme

D&S IFCA implemented a shad awareness and bycatch reporting scheme in April 2020. The first stage of this scheme consisted of writing 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. Enclosed with the letter was 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 25<sup>th</sup> August 2020, three Netting Permit holders operating in or near to the Severn Estuary SAC had returned shad bycatch reporting forms, with no shad bycatch noted beyond that highlighted in the netting survey questionnaire. Another fisher is in regular contact with D&S IFCA's regarding catches and has not reported shad bycatch.

Self-reporting of shad bycatch has continued to be encouraged by D&S IFCA, primarily by circulating information on bycatch reporting (including the leaflet, shown in Annex 1, and the bycatch reporting form in Annex 2) when sending permits and permit information to new permit holders and fishers who are renewing their permits. No shad bycatch events have been reported since the inception of the scheme.

#### Involvement in External Herring Research Project

D&S IFCA, the Blue Marine Foundation and Swansea University are currently involved in a collaborative research project, investigating the genetics and morphology of herring caught in fishers' fixed nets. Communications through this research project have provided regular opportunities for fishers and university researchers to report on any bycatch events. It is understood that bycatch events in these nets are very rare, based on sampling between Autumn 2018 and Autumn 2019, and more limited sampling in the winter of 2021


#### Summary

The available evidence suggests that, at this time, no review of the HRAs for the interaction of shad with fixed nets is required. The number of netting permit holders in the area is consistently low, many of whom fish on a part-time and/or recreational basis, and has declined over recent years. A trigger point for the review of HRAs relating to the netting in the Severn estuary 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, and the number of permits is both very low and prone to small fluctuations year on year, D&S IFCA propose that an appropriate trigger point for a review of the HRA is set at a doubling in active commercial netting permits in Minehead relative to the baseline identified in 2020 (i.e. a doubling from 3 to 6 commercial permit holders) and/or a one third increase in active netting permits issued to those based in the wider grouping of ports (Appledore, Cardiff, Clovelly, Ilfracombe, Minehead and Watchet) from the baseline number of permits reported in 2020 (i.e. a total of 24 permits, increasing from 18 permits in 2020). If one or both of these trigger points is reached, D&S IFCA officers will contact all permit holders based in the relevant ports 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 to engage with netters to monitor bycatch via external research projects.

These workstreams will remain with a view to reducing the residual uncertainty regarding the level of fishing effort in the Severn Estuary 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 bycatch in your gear.***



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

<b>Shad bycatch reporting form</b>			
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&amp;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&amp;S IFCA's District. Further information on D&amp;S IFCA's Privacy Policy can be found on the website home page.</p>			