Llywodraeth Cymru
Welsh Government

PUBLICATION, DOCUMENT

Wales Sea Bass Advisory Group meeting: 30 April 2024

Notes of the meeting held on 30 April 2024.

First published: 30 April 2024

Last updated: 30 April 2024

Contents

Attendees

Group

Kieran Hyder (KH)
Ian McCarthy (IM)
Peter Elliott (PE)
Richard Harrison (RH)
Hannah Rudd (HR)
Colin Charman (CC)
Mark Bolton (MB)
Sean Jukes (SJ)
John O'Connor (JOC)
Simon Frobisher (SF)

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Michelle Billing (MB)
Julian Bray (JB)
Barrie John (BJ)
Mattew Sayer (MS)
Alun Mortimer (AM)

Apologies

Sion Williams
Hollie Kaiser
Jim Evans
Richard Strudwick

Notes

Welcome and introductions, purpose of meeting

Julian Bray welcomed everyone noting that this will be the fourth meeting to consider the evidence requirements of implementing the sea bass FMP.

Review and sign-off the actions note

Michelle Billing noted that there is an outstanding action to circulate notes from the previous meeting and confirmed that these will be sent together with the notes from this meeting as there is an overlap.

It was also confirmed that KH from CEFAS will be joining the group and that the terms of reference will be updated accordingly.

Action 1: Circulate note of meeting 3 with note and actions of meeting 4.

Action 2: Update Terms of Reference.

Presentation: recreational sea angling data, including Q&A and discussion

The following points summarise Kieran Hyder's presentation and the discussion:

Sea angling is important for various reasons, including the £1.257bn contribution to the economy, the positive effect on wellbeing of anglers around the UK and the environmental impact. There is potential for conflict with commercial fisheries and conservation.

Data on sea angling is needed because the Fisheries Act 2020 embedded recreational fisheries in UK's management systems. Biological and socio-economic data can be useful for spatial planning, resource allocation and policy making.

In England, the Sea Angling Diary has been operating since 2016 and England and Wales since 2022. The aim of the diary is to report on the sea angling participation, activity, catches etc. for the UK.

433 of the over-2000 diarists are based Wales.

It should be noted that there is a potential for bias in data collection. For example, diarists tend to be more experienced and engaged than other anglers so attempts are made to correct this for statistical modelling. Recent assessments have shown this modelling to be better than that previously used.

There are however some limitations, for example the location where the fishing has taken place can be determined but where the fisher has travelled from cannot.

The data has been used to calculate catches retained and released.

In 2021, anglers in Wales retained 480,000 fish and released 2.3 million fish. Additionally, in 2021 anglers in the Irish Sea retained 50,000kg of sea bass and caught and released 120,000kg of sea bass.

It is easy to become a diarist by visiting the **Sea Angling Diary website** (https://www.seaangling.org/), where there is full information on registering and using the mobile app.

The take-up rate in Wales is 433 diarists out of approximately 60,000 anglers.

The economic value that specific sea angling tourist activity brings to a particular area could be looked at separately.

There was a slight blip in April 2020 due to the COVID-19 pandemic but later in the year there was an increase because it was one of the activities that was allowed.

Economic impact studies have been conducted with UK level data for 2016, 2017 and 2021. Total economic impact in terms of expenditure is estimated at £1.668bn, £1.946bn and £1.233bn for each of these years respectively.

The economic impact of fish caught recreationally versus fish caught commercially is difficult to compare. Recreational value should not be conflated with commercial first sale data.

The point was made that recreational value and commercial value would be a useful comparison to be able to make to inform policy. KH suggested this would be a question for an economist.

A question was asked about an MRAG study for Sussex comparing recreational sea bass angling with commercial sea bass fishing, but KH had doubts about the way that economic impact was generated for recreational sea bass fishing based on the CEFAS sea angling 2012 study.

KH provided further information in writing: A comparison between the economic impact of recreational and commercial sectors may not be fair because the commercial sector is productive, while the recreational sector is consumptive. KH highlighted that it wasn't clear what would happen in the absence of either of the sectors. As an example, if sea angling were to stop, the money would likely continue flowing into the economy, but it would be redirected to another sector. He suggested this was looked at by an economist to ensure it's accurate.

A member responded in writing: it is certainly possible and very useful for fisheries managers to compare the economic value of recreational sea fishing and commercial fishing and to consider what this means for maximising economic values for Wales from the bass fishery.

It is very difficult to ascribe an economic value to sea bass angling when there is substantial overlap with other recreational sea fishing. An angler may for example catch many different fish species on one trip but use the same gear for example.

To estimate the value of sea bass fishing to anglers, a choice experiment was designed. Survey respondents were provided with scenarios like a bag limit, closed season, prices and given various options to which the respondents were asked to attribute an economic value. Some of the findings showed that the first fish caught is more valuable than subsequent fish and that retained fish are more valuable than released fish. The value of the trip to the respondent did not change much as the number of fish caught increased. This might be because most people don't catch more than one legally retainable fish.

The data from before and after 2015 when management measures were introduced can be compared and it shows that the value of the sea bass fishery was much higher before 2015.

A survey of sea angling diarists about physical activity, wellbeing and nature connectedness identified that recreational sea angling accounted for 10% of recommended physical activity. Lots of anglers suffer from disabilities so particularly useful for them. The angling community regularly vocalise the fact that it is not just about the fish.

Since last year the UK Sea Angling Information Library (UKSAIL) has had a web app to access and visualise the available sea angling diary data up to 2021.

Feedback on the use of the website data analysis tool would be useful and if any interesting features in the data are noticed, it should be highlighted so that additional analysis can be done.

To have confidence in the data provided through Sea Angling Diary, an assessment for bias, sampling error and other potential issues is

required. **Catchwise** (https://www.catchwise.org/) project validates data through surveys of charter boats and on-site survey of sea anglers over a 12-month period. It is hoped that regional effects and outcomes will be identified.

To date almost 800 anglers have been interviewed and 2500 surveys completed. 160 charter boat surveys completed as of January 2024. The survey is due to closed in July 2024. Catchwise is being done along-side the sea angling diary so that the diary data can be validated.

The data has various uses, such as stock assessment, use in Fisheries Management Plans and designating Marine Protected Areas. It is important to understand appropriate caveats when using the data.

CEFAS science on sea angling is run by a team of 5 who also work with a network of specialists and experts from across the globe (Angela Muench is an economist and Paula Scheifer is a social scientist). The Cefas team can be found on slide 18 of the 'Sea angling data collection' presentation.

Comparisons with the approach taken by the Republic of Ireland (RoI) and the Isle of Man (IoM) were raised. Unclear why those authorities moved away from a commercial sea bass fishery. Methodology for recreational fishing policy is less transparent than commercial fishing. The RoI decision was some years ago but IoM decision was more recent and the data used may be easier to find. If anyone has information about how the decisions in Ireland and IoM happened, please send on to KH.

Presentation: stable isotope ecology (Bangor University), including Q&A and discussion

The following points summarise Ian McCarthy's presentation and the discussion:

This presentation follows on from previous meeting. Subject matter is still being

worked on so is analysis in development. Data from 3 major projects will be considered - EFF 2012-15, Interreg Ireland Wales, EMFF.

Aim is to understand sea bass movement patterns around Wales. Fish tagging will be required to do this. “Spaghetti” tags have been used previously but now moving towards the use of electronic or satellite tags. Although more expensive, these capture more data about where the fish is. Covid pandemic affected most recent project. Data from only one fish was received which was tagged in the Menai Strait and caught off the Llŷn peninsula.

IM explained that different chemical elements have naturally occurring variations in the number of neutrons. The variations are called isotopes. Some isotopes are rarer than others and their abundance in the sea can be mapped. Analysing the isotopes found in tissue of fish can indicate their movement patterns and spatial separation between populations.

Statistical modelling of isotope analysis of past survey results suggests that there are two distinct populations of sea bass with feeding grounds in the North and South of the Welsh zone, albeit with movement between populations.

The fish in this survey were caught at end of summer so it is thought that the analysis shows where the fish was feeding before then.

Built on this with subsequent work such as the Bluefish project. More bass from North, Mid and South Wales but also Fleetwood and Ireland.

Evidence suggests bass are spawning March-April but also possibly into June.

Random forest tests were used to consider whether the scale chemistry readings were specific enough to give an assessment of the bass’s location. On a two-dimensional graph it shows some clustering in the South and the North of the Welsh zone. While there is spatial separation between groups of sea bass, some specimen with one isotopic signature were found in locations

corresponding with the other. These samples were taken in winter.

The data gathered was not clear enough to have certainty that the populations were completely separate stocks.

It's still being considered why the results show different levels of certainty (56% for most recent study compared to 75% for the previous study). May be the time of year samples were taken.

More samples are required to develop the models further and it is hoped that some of these samples will come from colleagues in Ireland. Isotope doesn't confirm where a fish has been just where it has been feeding so more satellite tagging is needed for data on movement.

CEFAS have requested further work on scale chemistry for bass tagged in locations around England.

Anna Sturrock, Essex University, is doing similar work on the east side of the country. Comparison between the East and West side of Britain is difficult because isotopic values mirror along latitudinal lines. This is another reason tagging is needed although it might be possible to assume that the fish in the West aren't moving to the other side of Britain too much.

How big a fish needs to be to tag depends on what kind of tag is used. Needs to be over 45cm in length for satellite tags as they are bigger. They can also cost £400 each and must be used under animal experiment licence so they are expensive projects. The return rate is 20% so need to deploy a sizable number of samples to get a decent number of returns.

Acoustic tags are much smaller so can go in much smaller fish but data is only received when they are within range of a receiver so a large number of receivers spread about UK waters would be required.

KH noted that isotope analysis is also being conducted for the Channel and

North Sea.

Next steps, AOB and close

Julian Bray agreed that the next meeting would include a summary of evidence relating to the bass fishery, including filling gaps in evidence, before proceeding with developing an implementation plan. The group will have a role to play. To facilitate discussion a document will be circulated before the next meeting.

IM – Plug: “All about the bass” by Essex University’s Anna Sturrock. Monday 8 July. **https://www.essex.ac.uk/events/2024/07/08/all-about-the-bass** (https://www.essex.ac.uk/events/2024/07/08/all-about-the-bass)

Action 3: Circulate evidence discussion paper ahead of next meeting.

Action 4: Follow-up the outstanding action from meeting 22 required KD to engage with a shore-based net fisher and request that they contact the group secretariat if they were interested in submitting an Expression of Interest (EOI) for consideration by officials.

Actions

1. Circulate note of meeting 3 with note and actions of meeting 4. MB - ongoing.
2. Update Terms of Reference. MB - completed 17/10/2024.
3. Circulate evidence discussion paper ahead of next meeting. MB - completed 21/08/2024.
4. Follow-up the outstanding action from meeting 22 required KD to engage with a shore-based net fisher and request that they contact the group secretariat if they were interested in submitting an EOI for consideration by

officials. MB/KD - completed September 2024.