

Sussex IFCA Annual Conservation and Research Report 2022-2023

Dr Jen Lewis and Dr George Balchin
Conservation and Research Managers



There was a wide range of conservation and research work undertaken between April 2022 and March 2023. Workstreams are described in the Annual Conservation and Research Plan, drawn from the strategic Four-Year Conservation and Research Plan 2020-2024. Each workstream sits under one of three themes: Fisheries, Habitats or Species. Progress against each workstream is detailed below. The highest priorities for the year were:

- Development of management for Beachy Head East MCZ
- Review of management for Pagham MCZ and SPA
- Review of management for Utopia MCZ
- Continued support of the Fish Intel project, including receiver deployment, maintenance and support of any subsequent funding bids
- Continued monitoring of shellfish stocks through the Shellfish Permit Byelaw
- Submission of the Hand Gathering Byelaw, which aims to sustainably manage hand gathering and bait digging activities throughout the Sussex IFCA district
- Continued active involvement in Sussex Kelp Recovery Project, supporting various monitoring efforts and leading on annual towed video surveys

Fisheries

Intertidal resource gathering

- Following approval by Committee, the Hand Gathering Byelaw was submitted to the MMO and Defra for Quality Assurance and Secretary of State sign off. Once approved, SxIFCA will produce associated guidance documents.

Fishing vessel effort

- The fishing effort analysis 2017-2021 was conducted and used to inform various workstreams, predominately the MCZ assessment and associated Impact Assessment for Beachy Head East MCZ
- The 2017-2021 analysis was also used in the review of management for Utopia and Pagham MCZ, as well as ongoing monitoring of other MCZs within the District

Potting activity

- SxIFCA continue to input into the design of the Potting surveys, which are led by Blue Marine Foundation and will be expanded to include additional sites off Brighton and Eastbourne in 2023
- Supported data collection for this project by conducting several of the surveys, which were completed in association with local fishers
- SxIFCA are anticipating the production of the 2022-23 report by Blue Marine Foundation in the coming months
- See also "Shellfish permit monitoring" section

Fish telemetry (previously captured within Trawling activity workstream)

- Project includes 21 offshore receivers, including a fine-scale array in Kingmere MCZ

- 3 coastal receivers also deployed near Selsey, Pagham Harbour and Chichester Harbour.
- A further 2 receivers in Langstone and Pagham Harbour and maintained by the University of Plymouth.
- Maintenance and data downloads of all receivers in the district have been conducted and data is currently being analysed
- The University of Plymouth are producing reports associated with the end of the Fish Intel project
- The University of Plymouth has been awarded additional funding (FISP) and SxIFCA are communicating with the team to establish how we can bring value to the new project and create synergies with the maintenance of the existing receiver array

Ecosystem approach to fisheries

- A free online training course (recommended by Dr Mark Tupper – University of Portsmouth), all C&R members of staff are now in the process of completing this course to facilitate the incorporation of Ecosystem Based Management (EBM) principles into our management approach
- A zonal management approach has been taken to Beachy Head East MCZ, reflecting an EBM approach by protecting essential habitats and nursery areas

Stakeholder engagement

- Continued participation in a wide range of forums, groups, and partnerships. See: <https://www.sussex-ifca.gov.uk/partnerships>
- Training of students from Sparsholt College in the skills and knowledge required to conduct SFS. For further updates on SFS see the “Small fish surveys” section
- See ‘Beachy Head East MCZ management development’ for engagement regarding MCZ management development
- Presenting at several outreach events, including the 2022 Ocean Symposium
- Undertaking multiple Shoresearch surveys with Sussex Wildlife Trust (SWT) to collect monitoring data on intertidal wildlife around Sussex
- Assisting Brighton University with intertidal rockpool surveys in Ovingdean
- Frontrunner Fishery Management Plan (FMP) workshop attendance, including Crab and Lobster, Whelk, Channel Non-Quota Demersal stocks, Bass, and King Scallop
- Contributed to Living Coast Biosphere workshop, sharing information on research projects in preparation for the Living Coast Biosphere’s renewal application
- Presented at SWT webinar on Sharks, Skates and Rays

Defining a vision for Sussex Seas

- Continued involvement in the Sussex Marine and Coastal Forum and membership of the Steering Group tasked with coordinating the forum’s mission/vision and the Members Group for broader stakeholder engagement
- Involved in the recruitment of a Chair for the SMaCF group, Nick Grey (EA) to help shape the direction and priorities of the group
- Application being developed for 3C’s funding to broaden the scope and impact of the SMaCF group by connecting stakeholder groups on common issues and priorities

Habitat

Beachy Head East MCZ management development

- Informal consultations were conducted in Eastbourne, Bexhill, and Hasting in February 2023, this consisted of 2 workshops in each location to introduce the rationale behind and process for development of management, as well as the proposed management

options. An opportunity to provide feedback was given to attendees at the end of the second workshop

- Worked extensively with the Marine Conservation Society (MCS) to replicate the Agents of Change approach; MCS will produce a report evaluating the consultations based on outcomes and stakeholder feedback
- Incorporated workshop feedback into the consideration of the management options and used data gathered from fishers to consider the impact of each option on key fisheries in the district
- An updated MCZ assessment was provided to Natural England based on their feedback, and SxIFCA is awaiting a response to this
- The management options were also provided to Natural England for comment

Kingmere MCZ management monitoring

- The management review process is ongoing
- SIFCA-SxIFCA close liaison around bream sites management continues
- Ongoing monitoring of black seabream on compliance patrols, particularly during the nesting season (1st of April to 30th of June). A report detailing this information is produced at the end of each nesting season
- 7 acoustic receivers deployed in Kingmere MCZ to study the fine-scale spatial ecology of black seabream within the site

Beachy Head West management monitoring

- Robust response to Brighton Marina dredge disposal, which continues within the site, submitted to the MMO. Comments focused on the proposed scaling back of the monitoring effort associated with impacts on the disposal site

Selsey Bill and the Hounds management development and monitoring

- MCZ Assessment compiled to assess management requirements for other fishing activities within the site. Concluded no further fisheries management required. Byelaw to be reviewed in 4 years.

Utopia MCZ management monitoring

- Review of management completed, and evidence report presented at the January 2023 Committee Meeting
- No changes to management or the byelaw required. Byelaw to be reviewed in 4 years.

Pagham Harbour MCZ and SPA management monitoring

- Review of management completed, and evidence report prepared for April 2023 Committee Meeting
- No changes to management or the byelaw required. Byelaw to be reviewed in 4 years

Solent EMS / Solent and Dorset Coast SPA

- Ongoing regular NE liaison on MPA workstreams continued
- Bait and hand collection management requirements for EMS within the district identified through site Habitats Regulations Assessments and addressed through development of a district-wide Hand Gathering Byelaw.
- Additional spatial restrictions included within Chichester Harbour to support bird and seal protection within the site
- Byelaw submitted to Defra for confirmation
- EHO sampling data utilised to inform decision that Oyster beds would again not open this year, with stock levels remaining low
- Participation in Solent Oyster Restoration project working group
- Ongoing participation in Solent Forum and SEMS management group

- Three Harbours steering and technical working groups input – focused on developing a natural capital baseline for the Harbours (Langstone, Chichester and Pagham) and their catchments
- Restoring Estuaries and Coastal Habitats (REACH) and Restoring Meadow, Marsh and Reef (ReMeMaRe) habitat restoration projects input. These aim to reverse centuries of decline of estuarine and coastal habitats by restoring saltmarsh, seagrass meadows, oysters, and kelp beds.
- Chichester Harbour Protection and Recovery of Nature (CHaPRoN) project input – aims to protect, enhance, and drive recovery of the natural environment within the Harbour and help it adapt to climate change. Officers sit on the steering group, seagrass working group and the developing Shellfish Populations Group.
- Officers supported partners with conducting SFS within the harbour, leading surveys and training in ID

Dungeness, Romney Marsh and Rye Bay EMS

- Ongoing regular NE liaison on MPA workstreams continued
- Hand Gathering Byelaw submitted to Defra for confirmation that details restrictions throughout the intertidal area of site
- Officers continued liaison with site manager to support small fish surveys

Kelp restoration

- Annual towed video surveys were carried out from Watchful to monitor seabed recovery following the Nearshore Trawling byelaw for the fourth consecutive year
- SxIFCA continue to play a central role in Sussex Kelp Recovery Project (SKRP), attending both the Steering Group and Research Group meetings
- The SKRP biennial report has now been produced, detailing the current projects and progress associated with the partnership and can be viewed here: <https://sussexkelp.org.uk/news/reports-publications>
- A report on the Blue Marine Foundation and Plymouth University project looking at the socioeconomic impacts of the byelaw was produced, with support from SxIFCA
- With ZSL, developed communications with local Navy diving team, who have incorporated kelp surveys into their training
- SxIFCA continue to support various projects associated with SKRP, such as the eDNA and BRUV surveys conducted by the University of Sussex

Natural capital and ecosystem services

- Supporting site selection for management and restoration under the ReMeMaRe project, which aims to restore saltmarsh, seagrass, and oysters reef habitats around the UK in order to increase the ecosystem services provided. This included sense testing and input of local data/knowledge into proposed sites in the SxIFCA district, and the production of maps of current extents and historic fishing activity

Wild Coast Sussex

- Continued to support the ghost fishing, net recycling scheme and Wild Beach elements of this project
- Supported the development and roll out of a net recycling survey, which aims to generate a better understanding of the amount of fishing gear disposed of in Sussex. The information gathered will help ascertain what is needed to set up a self-sustaining, long term net recycling scheme in Sussex which could benefit the fishing community and the environment
- Conducted pilot research project with WCS intern, which included work to complete a preliminary assessment of changes in sediment sensitive species recorded on the towed video surveys which are conducted in association with SKRP

- Two officers were presented and lead workshops at a Hackathon organised by WCS, which aims to engage young people in specific topics such as kelp restoration and tackling marine conservation issues in the face of climate change

Highly protected marine areas (HPMAs)

- HPMAs sites are located outside of the jurisdiction of the Sussex IFCA district, there is not the intention to engage directly in management formulation for these areas.

Marine Sites of Nature Conservation Importance (SNCI)

- Two Marine Sites of Nature Conservation Importance (Horse of Willingdon Reef and Royal Sovereign Shoals) are currently proposed to be incorporated into the towed gear management of Beachy Head East MCZ.

Species

Shellfish permit monitoring

- Ongoing collation of monthly catch data. 2022 Annual Catch Return Analysis report written and available on website.
- IFCA Permit Database launched in September 2022, with permit holders now able to log in and access a portal featuring their personal information and catch return data.
- This automated catch returns process streamlines administration of informal and formal warnings, as well as renewals and it is anticipated this will allow significant resources to be invested elsewhere; into new and existing workstreams
- In combination with the 2017-2021 fishing effort analysis, Shellfish Permit Byelaw catch returns were used to estimate potting pressure within Beachy Head East MCZ

Lobster / Edible crab

- Ongoing collaboration with Blue Marine Foundation to build on the Selsey potting survey developed in 2021 and conducted potting surveys in Brighton, Eastbourne and Selsey with local fishers. Report to follow
- Contact with local fishers to take measurements to feed into Cefas stock assessments
- Continued to support the Crustaceans, Habitat And Sediment Movement (CHASM) project, including inputting future research ideas and planning the Sussex sediment monitoring and adaptive response workshop
- Attended the Crab and Lobster Symposium held by BLUE
- Commented on the draft Crab and Lobster FMP by Seafish
- See "Potting activity" workstream
- See "Shellfish permit monitoring" workstream

Whelk

- Ongoing attendance and engagement with Whelk Working Group meetings
- Presented at the Whelk Symposium held by BLUE, detailing trends and lessons learnt from the SPB
- Contact with local fishers to monitor any unusual whelk mortality events
- Participated in planning for mark-recapture survey in Kent and Essex IFCA district
- Engaged with Harriot Watt University on their FISP project 2.4 Combined whelk data improvement, assessing stocks in Sussex
- Commented on the draft Whelk FMP by Seafish
- See "Shellfish permit monitoring" workstream

Elasmobranch evidence / Endangered, threatened, protected species

- Voluntary code of conduct completed, including development of bespoke elasmobranch ID guide featuring ID-friendly illustrations by Marc Dando

- CoC includes recommended minimum sizes derived from average L50 scores and included an extensive review of available primary and grey literature
- CoC also includes recommended best practice including details on animal handling and angling equipment
- The Shark Trust have now agreed to collaborate on this project and some further minor improvements to the CoC are anticipated
- Plan to distribute the CoC when Minimum Size Byelaw is approved by Defra, as it is considered an apt complementary resource
- Engagement may form the basis upon which a wider Elasmobranch Network can be developed

Oysters

- The decision was made not to conduct a preseason oyster stock assessment in 2022
- In March 2022 the EHO ceased their monthly sampling trips in Thorney and Emsworth Channels in Chichester Harbour due to an increasing lack of native oyster on the ground
- Analysis of EHO figures since 2014 illustrate no increase in CPUE between the spring and autumn months, providing further confidence in the decision not to conduct a pre-season stock assessment
- Arrangements will be made to carry out a stock assessment in the Autumn of 2023, pending the availability of the EHO and a commercial fisherman locally who is willing to help with the dredge sampling

Minimum/ maximum size limits

- Awaiting confirmation of the byelaw, submitted to Defra in the previous financial year
- See "Elasmobranch evidence" workstream for work conducted in the first half of the 2022-2023 financial year, and more recent updates, on a supporting voluntary Code of Conduct for elasmobranchs and accompanying ID guide

Small fish surveys

- Supported Sparsholt College with a SFS at East Head, Chichester Harbour, training students in ID and sampling techniques
- Conducted SFS at Copperas in November 2022. Species found included juvenile mullet, bass and goby.
- New surveys have since been arranged with the Solent Seascape Project, a group that is looking at saltmarsh restoration in Chichester Harbour. They have a control site and historical SFS data has been shared with the group to help provide them with a baseline for species found near the proposed restoration site. These surveys will be conducted in the summer of 2023 and into the autumn, including at a site Sussex IFCA has not surveyed since 2016. This partnership with the Solent Seascape Project has allowed us to reignite our SFS programme and continue to collect valuable data in an important bass nursery area
- The RSPB at Pagham is looking to start up SFS at Medmerry, talks are ongoing with the team there to commence surveys in the summer/autumn.

Marine mammals

- Officers continued to collect and share sightings data with the Brighton Dolphin Project. 4 sightings have been submitted in the last quarter, focused solely in the west of the district.
- As part of the Fish Intel project 3 F-POD receivers were deployed offshore in the District, with maintenance and data download also completed.

Cuttlefish

- Officers developed a best practice leaflet for cuttlefish trapping which will be circulated to local potters throughout the district. The document promotes the appropriate handling of cuttle traps and associated attached eggs, which in turn assists recruitment. The leaflet will also be used to promote the new shellfish permit database and link to relevant collaborative research.
- University of Portsmouth and University of Brighton liaison regarding cuttlefish egg receptor research, building upon collaborative work conducted previously
- JL co-authored a scientific paper highlighting SxIFCA research: 'Cuttlefish conservation: a global review of methods to ameliorate unwanted fishing mortality and other anthropogenic threats to sustainability'
- Engaged with Channel Demersal Non-Quota Species FMP process as IFCA representative

The continued hard work of all staff is evident in the breadth and quality of the conservation and research work produced in this financial year. Collaborative working with partner organisations is a great strength, providing mutual benefits in the sharing of resources, experience, skills and data. In addition, volunteers and work experience students have also made a valuable contribution, and Sussex IFCA has been able to provide valuable experience to students and early career scientists. Research has been directly applied in providing evidence for the development of new byelaws, which aim to protect the marine environment, balanced against the social and economic benefits of fishing.