Living River FOUNDATION

Fish of Medway 2024 Report

Report of the activity and progress undertaken in the third year of fish surveying for the locally supported project monitoring the impact of the No-Take Zone.

Table of Contents

Report has been prepared by Tanya Ferry, founder of the Living River Foundation. Published by Living River Foundation in 2025.

Progress in 2024

Engagement

During this year the foundation has moved its equipment to a container that is more accessible for volunteers, this has happened at the end of the sampling season but it will be an improvement for the foundation and the project to dry and store the equipment in this manner.

Promotion

The project has been one of the main themes of the foundation's social media updates and generated a lot of traction sharing with other organisations and groups.

We submitted the project to the Peel Ports Environmental Award and it has won this year's award. This was presented to Tanya, Richard and Ana in November 2024 by Lisa Reilly, Harbourmaster (Environment) from Peel Ports.

Partnerships

LRF assisted the ZSL team for a second year in a row for their Thamescape project focusing on sea grass habitats in the Medway. We continue to partner with Hadlow College (North Kent College) for the site at Hoo, providing the timings met the students college hours as well as tides that can be found on a Wednesday. With a new staff member now joining the survey, the students are being encouraged to use the data in their project work.

In addition, a Sea Bass group led by a citizen scientist group in the Southwest has been started this year, which we have been invited to join. Considering that one of the themes identified as the group's goals is the transparency of data, it would be something that we aspire to achieve with our GIS system in due course and therefore might be a promising partnership.

Support

We are grateful to ROFF for their continuing support, which helps immensely in the equipment maintenance.

Sampling

The foundation volunteers and the students have completed sampling all four sites twice this year. While surveying on some sites we had to amend net locations due to local disturbance or the high levels of sediment. All sites require spring tides height for the water to reach the sampling point, however the location of the site on the marsh related to land does vary from site to site.

Site photos have become part of the methodology to monitor changes of sedimentation or any amendments in the locations. If a location is moved, a site within the same creek system is chosen to prevent sampling impact on the results as much as possible. Therefore the change of the location is not expected to affect the data comparison across surveying seasons.

We have had the same volunteers return to survey regularly and so we are finding sampling is much more consistent and sites are easier to deploy on to. We continue to be supported by Steve Colclough and the IFM in our work on the Medway as part of their national work.

Data analysis & Results

2024 Length frequency

The following graphs show the distribution of the caught fish in both seasons at each site. Grey bars indicate bass.

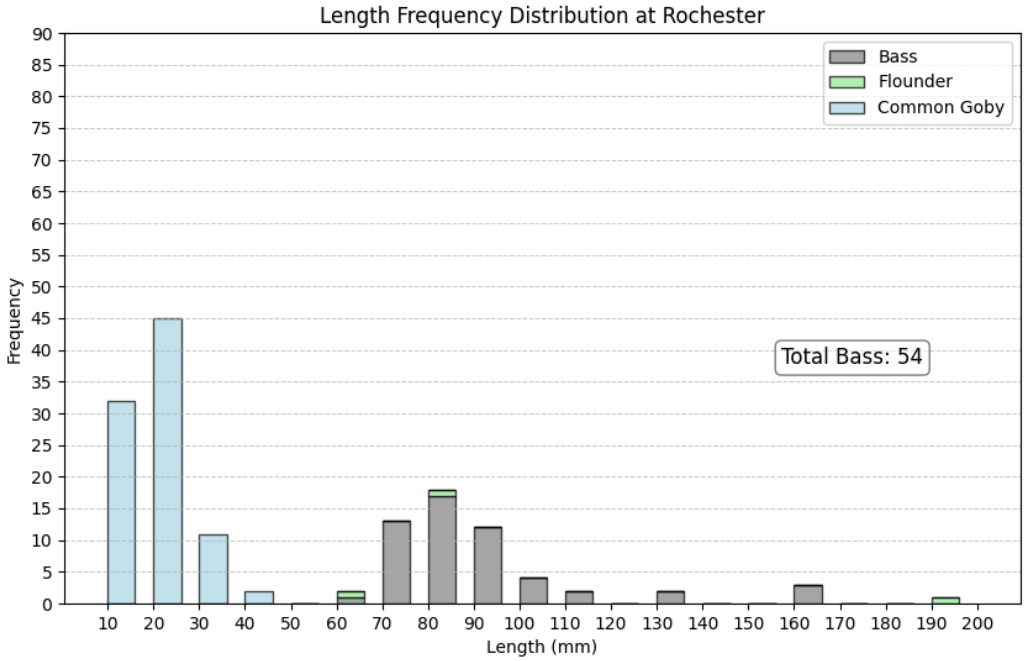


Figure 1 Rochester Fish both Spring and Autumn. Max fish length 160mm (Bass)

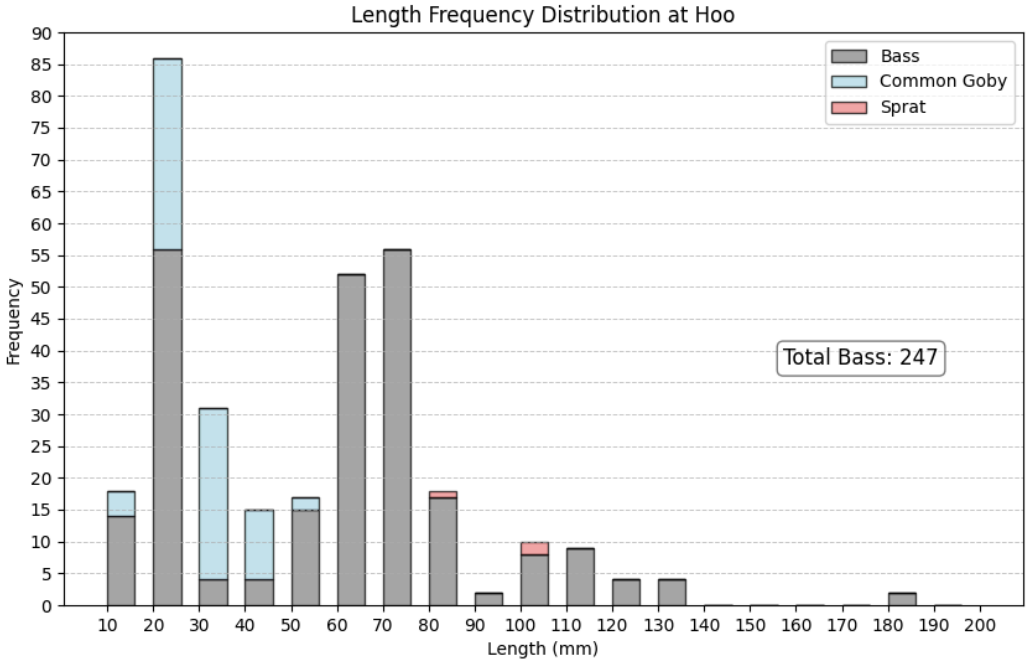


Figure 2 Hoo Fish both Spring and Autumn. Max fish length 182mm (Bass)

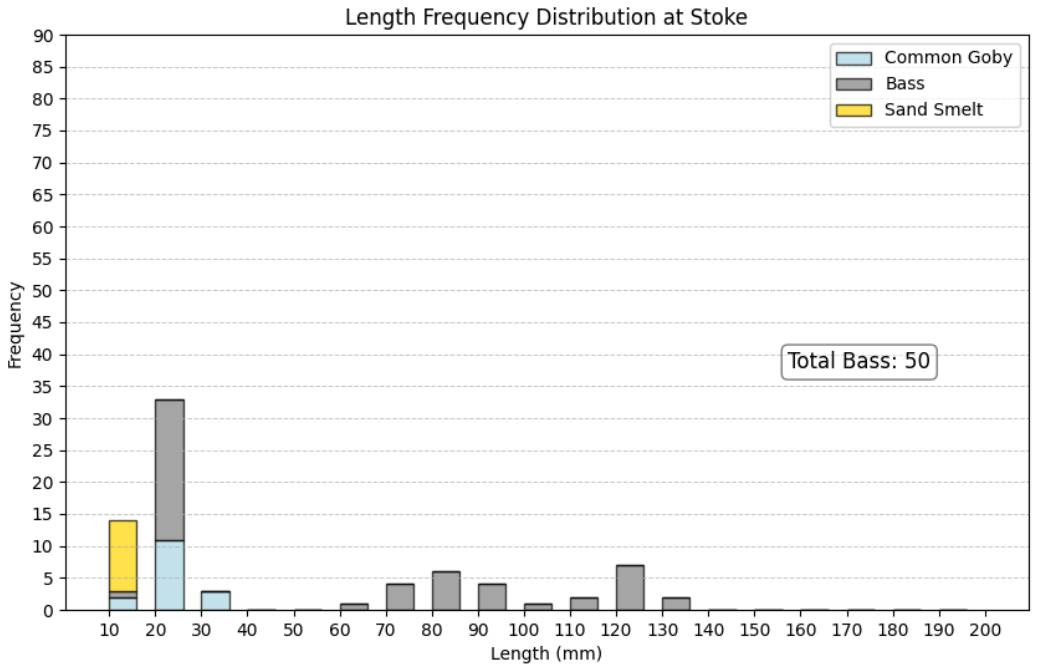


Figure 3 Stoke fish caught Spring and Autumn. Max Fish length 137mm (Bass).

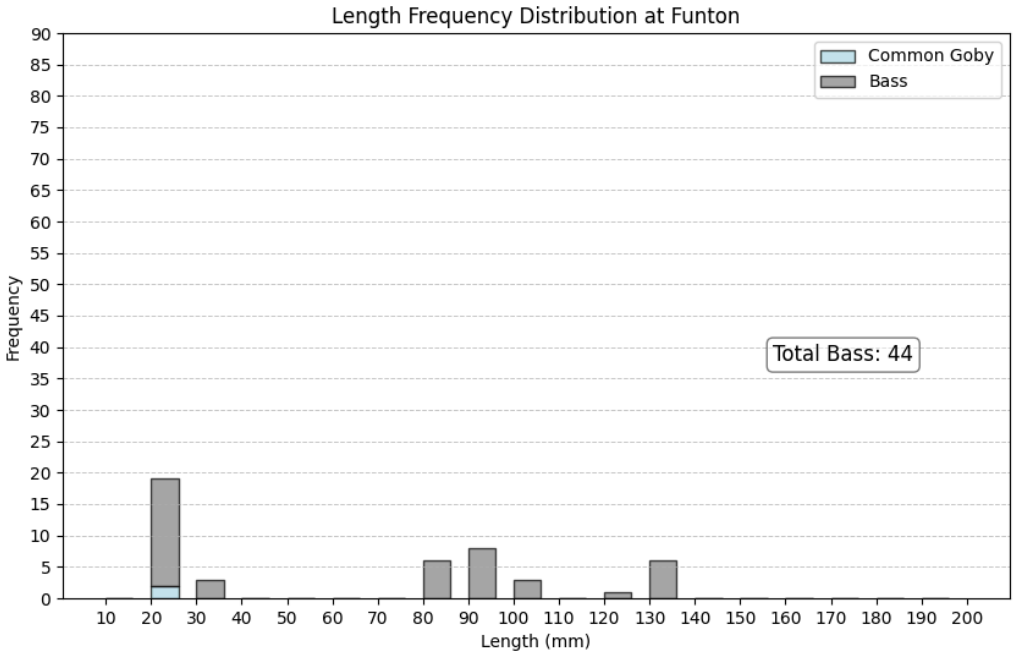
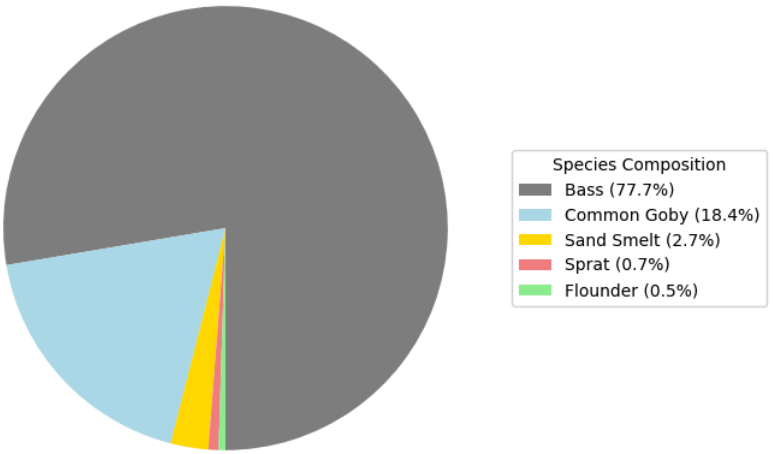
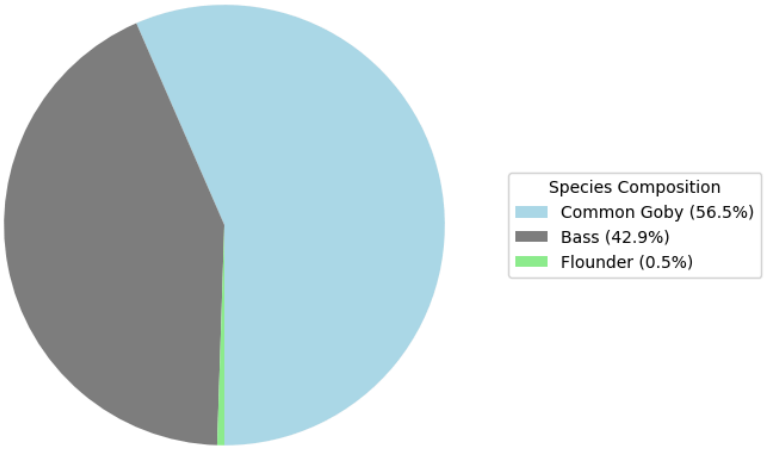


Figure 4 Funton Length Frequency Max length fish 138mm

Spring



Autumn



Comparison between years

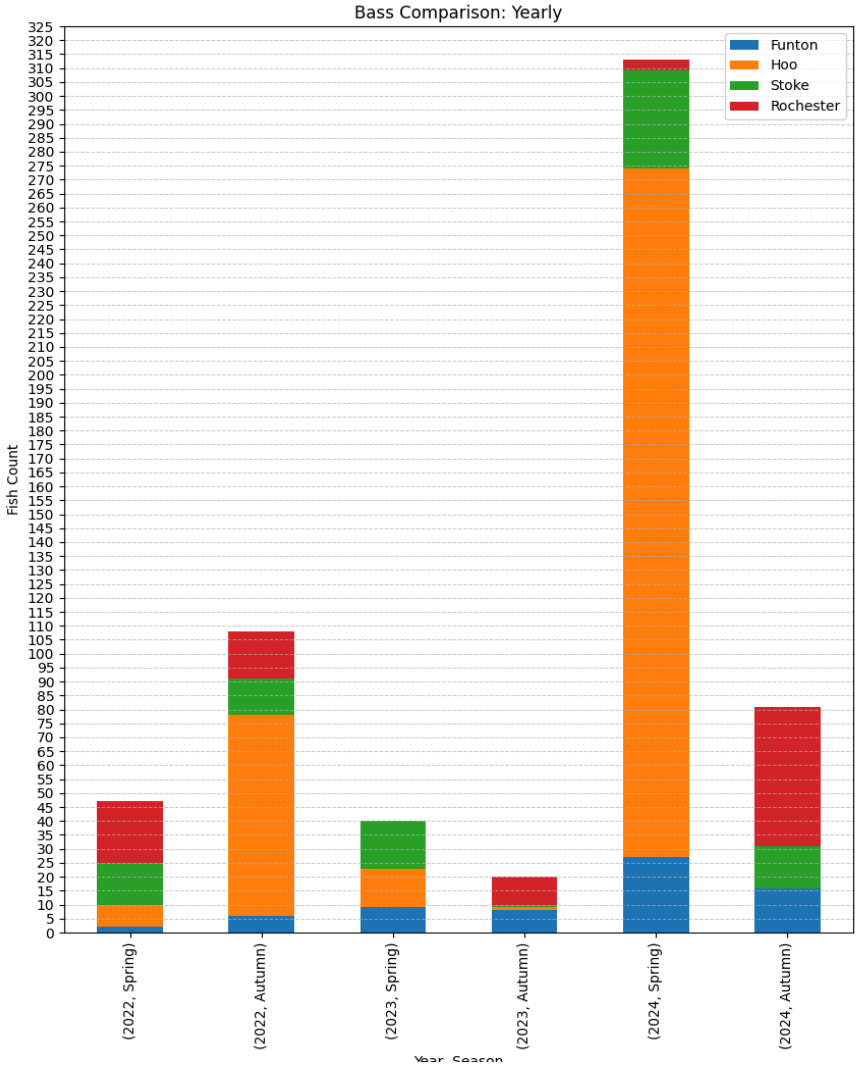


Figure 7 Bass numbers by site and year

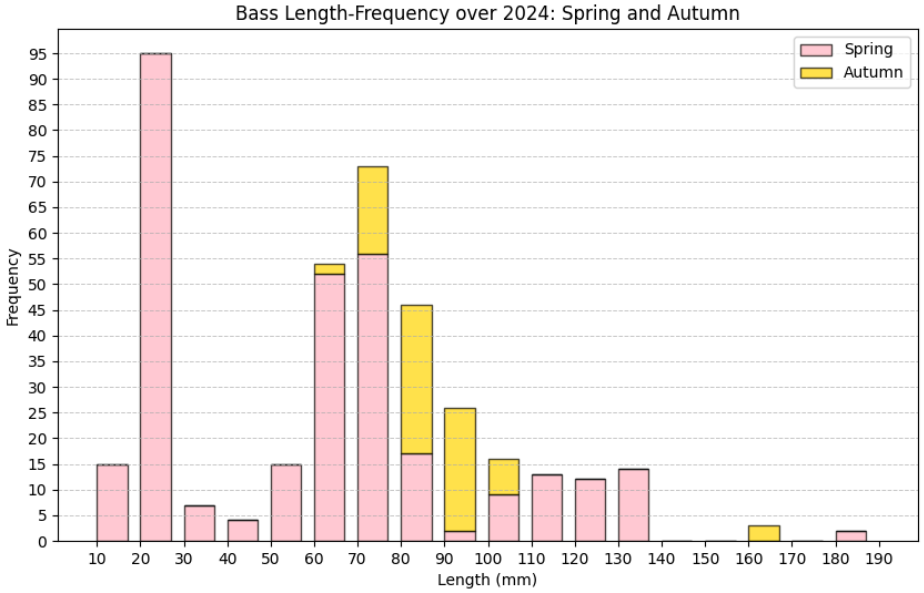


Figure 8 Bass length distribution related to year

Results

The numbers of gobies and bass have increased since the first year of surveying. While still only capturing low numbers at Funton, we continuously see higher numbers of juvenile bass overall this year than in previous year. Similarly, the diversity of the species was as expected across the surveys, and like previous years Hoo had the highest diversity.

To avoid double counting spring and autumn are not added together as total number, as some bass may be the same individuals, but overall numbers using the habitat are growing. It is evident from the length frequency that there appears to be two spawning events elsewhere contributing to the 0+ year class of fish found in the sites. We still see 1+ fish appearing in small numbers throughout the year.

Next Steps

Approach

We would like to continue to expand the number of volunteers trained to undertake the surveys. This aligns with the Foundation's overall goal of increasing the number of active volunteers.

We have also already made provision for a new project officer to lead the surveys going into 2025, allowing founders to focus on their wider role within Living River (although it is unlikely they will stop being part of the field team).

We will continue to develop the digitisation of the surveys so data is analysed closer to collection and can be made publicly available as part of a Foundation-wide initiative using GIS.

Analysis

There is a number of other factors that could be impacting the changes we have observed in the past three years:

- Commercial catches are changing,
- Climatic changes are increasing the number of bass in the estuary,
- Water quality may have changed (we don't have the data and must be mindful of the increased interest).

There is also a distinct difference in results of sites where we survey in the low marsh area against those where we survey in mature marsh areas. Other changes like those planned with adjacent seagrass bed planting by the ZSL-led Thames Scape project mean that we could see further changes in the future. Alignment and sharing between the two not-for-profits is already established, and therefore it should be possible to cross-analyse in future.

Other changes in 2025

We are looking forward to continuation of the project in the 2025, contributing to the local habitat and community, and working with another local not-for-profit to add a fifth surveying site to expand the geography of the project and the accuracy of data as a result.

It is also hoped the renewed effort from the EA to complete some baseline TraC surveys in 2024 will extend into 2025, which would be an additional point of cross-analysis for the Fish of the Medway data gathered so far.

Acknowledgements

Our surveys would not have been possible without the help and support of individuals and communities. We would like to extend special thanks to our volunteers and supporters. We are also extremely grateful to our sponsors for their continuing trust and help:

Rochester Rotary Club

We are also very grateful to Natural England, Environmental Agency, Kent & Essex IFCA, Medway Council, Peel Ports and Kent WildFowlers for their support and permissions to operate for this project.

We are looking forward to more years of Fish of the Medway surveying!