

# Devon and Severn IFCA News

## Exe Estuary Mussel Report 2022

**Following the annual surveys conducted in April, the mussel stock assessment report for the Exe Estuary 2022 has now been finalised**



On 18<sup>th</sup> and 19<sup>th</sup> April 2022 D&S IFCA officers undertook surveys of the mussel beds found in the Exe estuary, in line with D&S IFCA's Annual Plan. Data collected from the surveys are used to build up a long-term picture of the stock status of each bed, which is used to inform management of the resource.

The main commercial fishing activity occurring within the Exe Estuary SPA is the mussel fishery, worked by Exmouth Mussels Ltd. The land used is privately owned and leased to Exmouth Mussels Ltd. Commercial mussel harvesting can only take place on classified beds. D&S IFCA's stock assessments focus on the public fishery beds of Bull Hill. The beds at Starcross, which fall within the private fishery boundary, have to date been surveyed as a repetition of previous surveys. The initial surveys related to the relaying of mussels into the Starcross area when permission was granted in 2014 to remove seed mussel that settled on part of Bull Hill Bank. As mussels have not been harvested or re-laid to this area for several years, the surveying of this bed will not be continued after 2022.

### What are the results from the surveys?

- [The 2022 Exe Estuary Mussel Stock Assessment Report can be read here.](#)

A total of 39 samples were collected from Bull Hill and the surveyed area covered approximately 4.4 hectares, with 63% mussel cover. This section of Bull Hill contained a calculated 395 tonnes of mussel compared to just 43 tonnes in 2020; however, the area surveyed in 2022 does not fully overlap the area surveyed in 2020. It is therefore likely that the increase in tonnage has occurred over a longer time frame than the two-year interval between surveys.

Of the total 395 tonnes of stock observed, 63% of this was of marketable size (>41mm) and 4% was spat (<30mm).

Due to the general absence of live mussel at Starcross no transect samples were taken. Some sparse mussel was observed within a dense Pacific oyster bed.

### **What are the conclusions?**

In 2014 large storms scoured away previously stable mussel beds, followed by several harmful algae bloom incidents which reduced mussel populations further. Prior to these ecological disturbances population estimates for Bull Hill were over 1,200 tonnes. The small mussel population which has established on Bull Hill has potential to grow in both density and spatial distribution; this prospect is supported by the temporary closure of the public mussel bed introduced by D&S IFCA. Allowing this stock to grow will also increase food availability for the over wintering bird species, for which the estuary is designated as a SPA.

All size classes of mussel have shown an increase in tonnage on Bull Hill over the last two years. However, the hydrology and fast flowing nature of the Exe estuary make it difficult for mussel spat to settle. In addition, changes in sediment load (suggested by some to be at least partly due to flood defence work at Dawlish Warren in 2016/7) have caused some sedimentation and denudation of mussel at Bull Bill Bank. These factors may have influenced the extent and density of the mussel beds in these survey sites.

It is recommended that the stock assessment continue to be carried out on a biennial basis to monitor any future changes and to detect any signs of recovery, especially whilst D&S IFCA's closure of mussel harvesting from the public shellfish beds remains in place. Details of the closure can be found [here](#).

### **More information**

If you would like to find out more about D&S IFCA's environment and research work, please visit the [Environment & Research webpages](#).