

Devon and Severn IFCA News

Annual Mussel Surveys Commence

D&S IFCA have commenced the annual mussel surveys, starting with the Exe Estuary which was surveyed on 18th and 19th April.



D&S IFCA officers undertook surveys of the mussel beds found in the Exe estuary. These surveys are carried out annually, in line with [D&S IFCA's Annual Plan](#) to build up a long-term picture of the stock status of each bed, which is used to inform management of the resource. The survey on the Exe Estuary is the first of several surveys that will be conducted in various estuaries throughout the District over the coming months.

Shellfish beds form important habitats for many species in estuaries, particularly as a significant source of food for over-wintering and migratory wading bird populations. These birds are often priority features of an estuary designated as a [Marine Protected Area](#) (MPA), such as the Exe Estuary Special Protection area (SPA). Mussel beds play an important role in the healthy functioning of marine ecosystems, not just by acting as a food source to wading birds, but they also provide an enhanced area of biodiversity in an otherwise sediment-dominated environment. Mussel beds support their own diverse communities as the mussel matrix, composed of interconnected mussels and accumulated sediments and debris, provides numerous microhabitats and an organically enriched environment.

How are the surveys conducted?

The surveys work best with two or three teams working together. This allows more of the sites to be covered on the low tides when the beds are exposed. Teams comprise of D&S IFCA's Environment Officers and quite often the Enforcement Officers are needed to add to the numbers. Partner organisations sometimes assist, and Standard Operating Procedures ensure the survey work remains consistent each year.

To determine coverage and patch density, transects are walked, and recorded using a GPS, in a zig-zag pattern across the bed. The officers carry a cane with an 11cm ring attached to the end. Every three steps the ring is placed on the ground and the presence or absence of mussels is recorded as a "hit" or "miss". On every fifth "hit" a standard-sized sample is taken.

Once all transects are completed the mussel samples are sieved and cleaned. Mussels are individually measured and divided into size groups, with each group being weighed separately and the total weight for each group on each transect recorded. The data are used to calculate the coverage, density, and area of the mussel bed, which are then used to estimate the mussel tonnage on each bed.

Temporary Closure of Beds

The public mussel beds in the Exe Estuary have been closed to the removal of mussel since 1st May 2019, after data from the D&S IFCA stock assessment concluded stock levels were too low and needed extra protection to ensure the resource remained as a food source for overwintering birds. Details of the closed area can be viewed [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.

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