

# Devon and Severn IFCA News

## Crab Tile Surveys and Report Completed

Quadrennial surveys undertaken in Devon estuaries using UAV technology.



Devon and Severn Inshore Fisheries and Conservation Authority (D&S IFCA) has a duty to manage the exploitation of sea fisheries resources under the Marine and Coastal Access Act 2009 (MaCCA). In order to inform potential management measures, D&S IFCA undertakes research and evidence gathering on the exploitation of these resources. This includes intertidal shore-based shellfish harvesting, such as the intertidal collection of shore crab, known as crab tiling.

### What is crab tiling?

Crab tiling is a method of collecting shore crabs (*Carcinus maenas*) for use as fishing bait by sea anglers. Like other crustaceans, shore crabs moult their shells at intervals during their life cycle. During this time, they release a hormone which is a powerful attractor to fish, hence why they are a prized bait to anglers. This also means they are vulnerable during this process and seek refuge from predators. Crab tilers exploit this behaviour by providing artificial shelters such as roof tiles, guttering, drainpipes, chimney pots and tyres. It is in this state that the crabs are collected from under the tiles when they are exposed during low water.

### Survey work

Every four years, surveys are carried out to determine the number and location of crab tiles in the estuaries in the D&S IFCA's District. These surveys enable D&S IFCA to assess the

potential impacts of crab tiling on sensitive estuary environments, and to inform the development of appropriate management. After a successful trial of using an unmanned aerial vehicle (UAV) to carry out the survey in 2016, it was decided that the same approach would be taken on all estuaries where crab tiling take place in 2020.

UAV operators from Vertical Horizons Media, were commissioned to undertake the surveys on behalf of D&S IFCA. They were provided with maps of areas to survey and then the UAV flew a pre-determined flight path taking images at set intervals. The images were then stitched together to create geo-tiles which are overlaid in mapping software QGIS to give exact locations of the images. D&S IFCA officers could then zoom in on the images to count the tiles and mark out the areas to compare numbers and locations to previous surveys.

## **Results**

There was a 5% increase in tiles across the District since 2016, with a total of 54,513 tiles in 2020 compared to 51,845 in 2016. Although there has been an increase since 2016, this is still a decrease since surveys began in the early 2000s when there were 71,357 tiles.

There was an increase in all estuaries surveyed apart from the Exe Estuary, which had a 11% decrease and the Taw Torridge, which remained consistent.

The full report and results can be found on the D&S IFCA website [here](#).

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