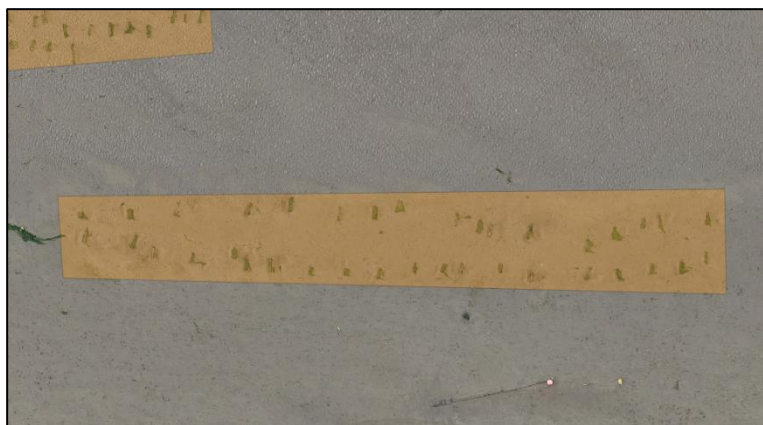


Devon and Severn IFCA News

Crab Tiles Surveyed by Drone

The continuing use of drone technology helps to assess the numbers of crab tiles within estuaries.



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). This includes intertidal shore-based shellfish harvesting, one method of intertidal harvesting is crab tiling.

What is crab tiling?

Crab tiling is a method of collecting shore crabs (*Carcinus maenas*) for use as a prized fishing bait by sea anglers. Like other crustaceans, shore crabs moult their shells at intervals during their life cycle, during which they seek refuge from predators. Crab tillers exploit this behaviour, providing artificial shelters such as roof tiles, guttering, drainpipes, chimney pots and tyres.

Whilst sheltering under the tiles, the crabs are preparing to peel, and they release a hormone. The scent of the hormone is a powerful attractor to fish, hence the use of 'peelers' as one of the top baits, and the need for crabs to hide during the peeling process. It is in this state that the crabs are collected for bait when the tiles are exposed during low water. Crabs are gathered early in the peeling process and stored in low temperature conditions that will halt/slow the process. Once the crabs have peeled and in a soft-shell state the hormones are no longer present and therefore, they are not so attractive to fish.

Survey Work

Every four years, surveys are carried out to determine the number and location of crab tiles in 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 using a drone to carry out the survey in 2016, on two of the estuaries in the District, it was decided that the same approach would be taken on all estuaries where crab tiling takes place in 2020.

Drone 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 drone 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. These images are currently being reviewed by D&S IFCA Environment officers, and the numbers of tiles are being counted and the areas mapped. Once completed this work will be compared with previous years surveys to understand any change in numbers and locations of the tiles. A final report will be compiled and shared on the website.

The report from the drone trial in 2015 can be read [here](#), and the full report for all crab tiles in 2016 can be read [here](#).

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