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Devon and Severn IFCA News

D&S IFCA Undertake Bass Netting Research

D&S IFCA investigate impacts of small-scale netting activities on bass in the District

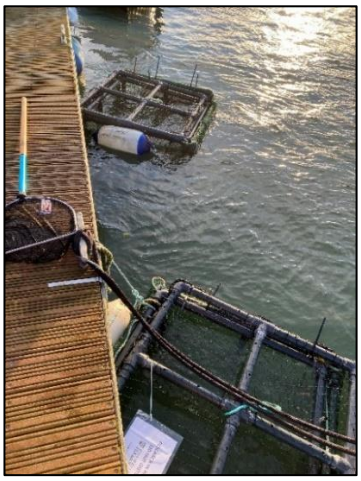
The European Seabass (*Dicentrarchus labrax*) is a high value species for both commercial and recreational fishers. However, the spawning stock biomass of seabass has declined in recent years and there are strict European-level management measures in place to reduce seabass mortality from fishing. Current management restricts catches but leads to high levels of discarding in some fisheries, and the survival of discarded seabass is poorly understood. In particular, while recent research on seabass discard survival has focused on survival in at-sea fisheries that use a range of gears with relatively long soak times, discard survival from smaller-scale, estuary-based activities with short soak times remains unmeasured.

D&S IFCA Officers have therefore been undertaking site-specific research to understand the netting techniques used for the capture of mullet and gilthead bream, and to investigate the survival of bass in the field. Understanding the survival of discarded bass in small-scale netting activities is important for understanding the effectiveness of broader UK and European-level management. Greater evidence gathering can also help inform future decision making on the management of netting activities within D&S IFCA's District.

In early January 2022, D&S IFCA Officers were in Salcombe Estuary to survey and monitor netting activities with a local fisher, operating under dispensation from the Marine Management Organisation (MMO) and exemption from D&S IFCA Byelaws. As part of the research the fisher worked short nets with a mesh size of 4" (100mm) to target appropriately sized fish. Nets were set for short soak times up to a maximum of one hour.

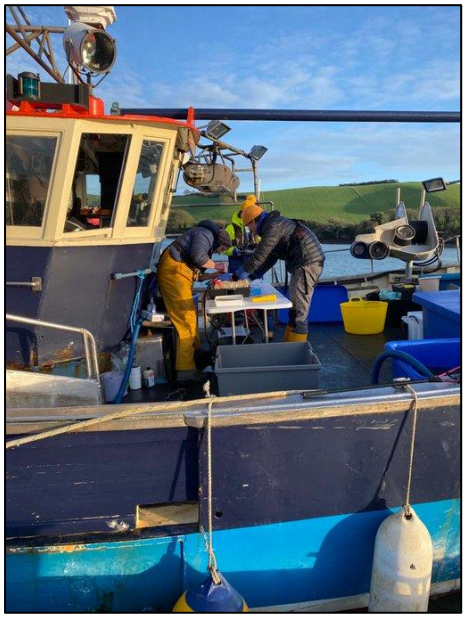
D&S IFCA Officers retained any bass bycatch in containers full of seawater in order to make assessments of the impacts of netting on bass condition and survival. Immediately after the net was hauled, each bass was subjected to a short visual 'vitality assessment' before being transferred to a sea cage for recovery. The vitality assessments documented any injuries as well as the key reflexes exhibited by each individual fish. The assessment methodology is based on recent work by Cefas on bass in the wild and in laboratory tanks. D&S IFCA Officers then repeated the vitality

assessments after a short period of retention in sea cages, to try to detect any delayed effects on bass vitality/survival or recovery.

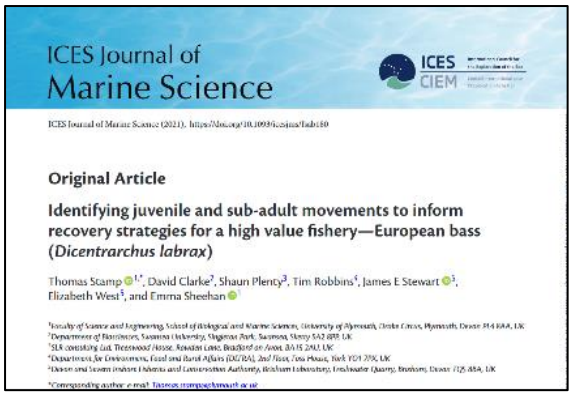

(The photos above show bass retained in water on board the fishing vessel, sea cages for retaining bass for monitoring & bass being transferred from a sea cage for surgery).

The bass were then implanted with acoustic tags (under anaesthesia) by the **FISH INTEL** team from University of Plymouth. Acoustic tags within the fish emit 'pings' that are detected by 'receivers' placed in the water at strategic locations; this allows the team to understand the geographic movement patterns of each individual fish.




(The photos above show bass being tagged & bass being transferred to recovery tank for post-surgery).

This tagging work will allow a long-term assessment of bass survival, and a comparison of the behaviour of these bass with a previously-tagged cohort. A cohort of bass, caught by rod and line, were previously tagged in Salcombe (as well as in the Dart and Taw-Torridge) in 2018. Research on the previously-tagged bass has now been published and is available to view **here**.



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Original Article

Identifying juvenile and sub-adult movements to inform recovery strategies for a high value fishery—European bass (*Dicentrarchus labrax*)

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D&S IFCA will be writing up the results of the current study in due course, including data from the acoustic telemetry array which will be downloaded over the coming months.

This work will provide evidence on the discard survivability of bass caught using the specific activity (short gill nets with limited soak times). Therefore, this work is an important step towards addressing a key knowledge gap for a highly-managed species in inshore waters.

All work outlined in this news item has been conducted in accordance with the appropriate MMO dispensation, D&S IFCA exemption and a Home Office Licence held by the FISH INTEL team.

For more on D&S IFCA's bass research, please visit our **bass research webpage**. You can subscribe to our free E-newsletter by **contacting** D&S IFCA.