

Progress towards improved regional management of European sea bass

January 2018

Stock Trends and ICES Advice 2018

According to the ICES stock assessment, spawning stock biomass continues to decline and is now below the B_{lim} (see definition box below) (ICES 2017). ICES reported that recruitment was very poor between 2010 and 2012. The estimated recruitment for 2013 to 2014 showed a return to near average values (ICES 2017).

EU Management Measures 2015-2017

Since 2015 the EU has been implementing increasingly restrictive measures to reduce catches of bass. However, the measures set have failed to bring catches down to those advised by ICES (Table 1) in recent years. Additionally, ICES has repeatedly called for the need for a management plan for bass, which has not been implemented.

Table 1. A comparison of scientific advice for maximum landings, compared to actual recorded landings for the same year.

	ICES advice for catches for that year (tonnes)	ICES Commercial Landings (tonnes)	ICES Recreational Landings (tonnes)
2012	-	3987	1501
2013	<6000	4137	-
2014	<2707	2682	-
2015	<1155	2066	-
2016	541	1295	1627
2017	0	?	?

Stock Assessment ICES Definitions

B_{lim} : a deterministic biomass limit below which a stock is considered to have reduced reproductive capacity

Recruitment: The number of fish that grow to become vulnerable to the fishing gear in one year would be the recruitment to the fishable stock that year. This term mostly used in referring to the number of fish from a year class reaching a certain age. For example, all fish reaching their first year are age 1 recruits.

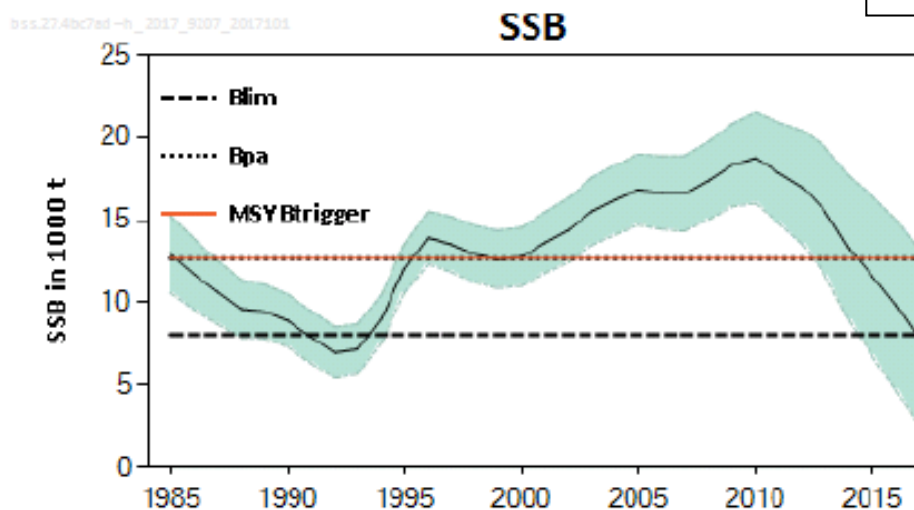


Figure 1. Spawning Stock Biomass (SSB) for seabass in central and southern North Sea, Irish Sea, English Channel, Bristol Channel and Celtic Sea (from ICES, 2017).

EU Management Measures 2018

Bass management measures may be reviewed later in 2018 when bass population evidence is updated by the International Council for the Exploration of the Seas (ICES). This evidence is expected by the end of March 2018.

Recreational sea anglers

For recreational fishers, any bass caught during 2018 must be returned immediately. This applies if anglers are fishing from a boat or from the shore.

Commercial fishermen

Closed areas

Throughout 2018 commercial fishermen are not permitted to retain, transship or land bass caught from a vessel or the shore from the South West Approaches, the Irish or Celtic Sea (outside the 12 nautical mile limit of UK waters in ICES VIIg and VIIa).

Restricted areas

Fishing for bass in any restricted area is prohibited during February and March 2018. During January 2018 and from 1 April 2018 until January 2019 the catching, retention, transshipment and landing of bass in the North Sea, Channel, Celtic Sea (inside UK 12nm limit only), Irish Sea (inside UK 12nm limit only) and South West Approaches is only permitted if fishermen have an authorisation from the MMO to do so. Fishing gears allowed to land bass are restricted in 2018 to: fixed gillnets, hooks and lines, demersal trawls.

Table 2. Summary of restrictions for bass fishing in the North Sea, Channel, Celtic Sea (inside UK 12nm limit only), Irish Sea (inside UK 12nm limit only) and South West Approaches in 2018. From <https://www.gov.uk/government/publications/bass-industry-guidance-2018/bass-fishing-guidance-2018>

	Demersal Trawls	Demersal Seines	Hooks and Lines	Fixed Gillnets Nets	All other gears (including drift nets)	Commercial shore fisheries
Fishery Restrictions	Closed February and March	Closed February and March	Closed February and March	Closed February and March	All bass catches prohibited.	All bass catches prohibited.
	Maximum 1% by weight of all marine organisms per day.	Maximum 1% by weight of all marine organisms per day.				
Maximum catch limit	Unavoidable by-catch of 100kg per month	Unavoidable by-catch of 180kg per month	5 tonnes per year	Unavoidable by-catch of 1.2 tonnes per year	All bass catches prohibited.	All bass catches prohibited.

Landings obligation

The MMO has clarified that bass is included in the landings obligation, because it is subject to catch limits. At the current time, the pelagic landings obligation is in place, but the demersal landings obligation is not. Because bass is classed as a prohibited species, unless caught with the gears listed in the above section, bass must be discarded.

Therefore, all bass caught with pelagic gears (other than those listed above) must be discarded. For demersal gear fisheries, the landings obligation will apply to bass in all fisheries no later than 2019. This means that currently fishermen must discard all bass unless they are fishing using fixed nets, demersal trawls seines or hooks and lines in accordance with their authorisation from the MMO and the catch limits as noted above.

IFCA bass work plan 2015 – progress to date

A summary of the bass work plan agreed by Devon and Severn IFCA in 2015 is provided below. The netting byelaw work is now complete and the Netting Permit Byelaw will come into force on the 1st of March 2018. The decline of bass populations and the need to better protect nursery/ feeding areas in estuaries was one of the reasons for bringing in the byelaw, as described in the Netting Permit Byelaw Impact Assessment.

Defra started a review of Bass Nursery Areas (BNAs) in 2015. D&S IFCA fed into this process, submitting the Inner Severn estuary, the Parrett estuary and the currently undesignated shared section of the Taw-Torridge estuary as areas for consideration for designation. Cefas completed a review of evidence to support changes to BNAs suggested by IFCAs and other organisations, which D&S IFCA provided comments on. Cefas deemed there to be good evidence to support the Inner Severn estuary and moderate evidence levels for the Parrett estuary. There appears to have been little progress since. D&S IFCA has contacted Defra and requested an update on the status of this project.

In 2015, in order to inform the bass work plan, D&S IFCA conducted a review of the ecology of bass during a number of life-history stages and during its occurrence in estuary, coastal and offshore areas and the current fisheries management in place. This review highlighted gaps in knowledge about the amount of protection offered to bass of different life-history stages by estuaries. Other research gaps existed around habitat use, and bycatch of salmonids in bass fisheries. D&S IFCA developed and co-funded a PhD with Plymouth University. A student was appointed and started in January 2016. In late 2016 Plymouth University were awarded EMFF funding of over £240,000 to undertake the Immature Bass Acoustic Stock Surveillance (IBASS) project. This project will place arrays of acoustic receivers in three Devon estuaries and tag bass with acoustic tags. This will allow Plymouth University to investigate bass movements within and in-and-out of estuaries and elucidate habitat associations for different age classes. The I-BASS project has been delayed due to complications surrounding the Home Office licensing of tagging fish, but it is hoped that these will be resolved soon. Bass and juvenile fish use of managed realignments compared to natural saltmarsh and salmonid bycatch in coastal nets are also being explored within the PhD.

Wider project

The need for information on bass movements and aggregations outside immediate coastal areas (e.g. pre-spawning or feeding aggregations of adults) was also identified as a work area in the work plan. The development of management measures such as spatial or temporal closures, or avoidance programmes to protect important aggregations of adult bass is reliant on a sound local knowledge base. The work plan identified that research of this kind requires a much larger partnership with

additional external funding because of the geographic scale necessary, and the types of technologies required. Originally it was thought that this might be part of the work of the PhD student, but with the successful funding of the I-BASS project, it became apparent that this now fell outside the scope of the PhD. At the same time Cefas began developing a project to look at regional management of bass fisheries. The project was submitted to the EMFF panel in 2017 and Cefas announced in early 2018 that the project would start in April 2018. The kick-off meeting is planned for April 2018 and will be attended by D&S IFCA officers. Cornwall, Southern, Eastern and North West IFCAs are also involved in the project. At the moment the only known details are that the project will involve regional stakeholder meetings which will identify issues and gaps in knowledge. These will then lead in to research to help inform management. It is hoped a substantial number of Data Storage Tags will be released on bass in the D&S IFCA district to help elucidate larger-scale patterns of movement. Other possible options which Devon and Severn IFCA are interested in exploring are an avoidance programme, juvenile surveys for improved stock assessment, an assessment of adult aggregation areas and research into discard survival from commercial and recreational fisheries.

IFCA bass work plan – next steps

D&S IFCA officers will attend the next C-BASS project steering group at the University of East Anglia in March and the kick-off meeting for the new Cefas bass project in April. A telecon for Authority members interested in the regional management of bass will be organised following these meetings and the best way for those members to engage with the new Cefas project will be identified. Work on the development of Ecosystem Based Fisheries Management and species research and management plans will also be aligned with the bass work plan.

Management considerations	Action required	Lead organisations & partners	Start Date	End Date	Progress Update January 2018
Consideration of greater restriction on netting in estuaries to reduce possible bycatch of bass	D&S IFCA netting byelaw review	D&S IFCA	Underway	2016	Complete. Netting byelaw passed by Authority and approved by Defra for implementation March 1 st 2018.
Consideration of implementation of a deeming clause in estuaries	D&S IFCA netting byelaw review	D&S IFCA	Underway	2016	Deeming clause incorporated into permit conditions of relevant Permit Byelaws.
Consideration of designating new bass nursery areas in locations thought to be important to bass that are currently un-designated	PhD	Plymouth University, D&S IFCA, Bridgwater College	Jan-16	Jan-19	Awaiting update from Defra. Initial stages of review considered sufficient evidence to take Parrett estuary and Inner Severn estuary areas forward but no progress since 2016.
Consideration of whether greater protection for sub-adult bass (for example through spatial/ temporal management) in inshore waters would further conservation objectives for bass	PhD	Plymouth University, D&S IFCA, Bridgwater College	Jan-16	Jan-19	Immature Bass Acoustic Stock Surveillance (I-BASS) project received >£245,000 EMFF funding. This project will use acoustic tags on bass to look at movement patterns of bass around estuaries. Bycatch and catch efficiency of coastal nets will also be investigated.
Co-ordination of research and management effort across IFCA and other management districts to ensure effective joined-up working and avoid duplication of effort.	Formation of South West Advisory Group for bass	Likely to be lead by D&S IFCA and Plymouth University PhD student with input from; IFM Bridgwater College, University of West of England, Cornwall IFCA, Southern IFCA, EA, MMO, Cefas, commercial and recreational sectors	Jan-16	?	Cefas Project funded – due to start in April 2018.