



Agenda Item B4

Success Criteria: 4,5 and 6

By: Chief IFC Officer

To: Kent and Essex Inshore Fisheries and Conservation  
Authority – 21 November 2014

Subject: **SEA BASS MANAGEMENT**

Classification: Unrestricted

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Summary: to update Members on the progress made on the management of bass stock

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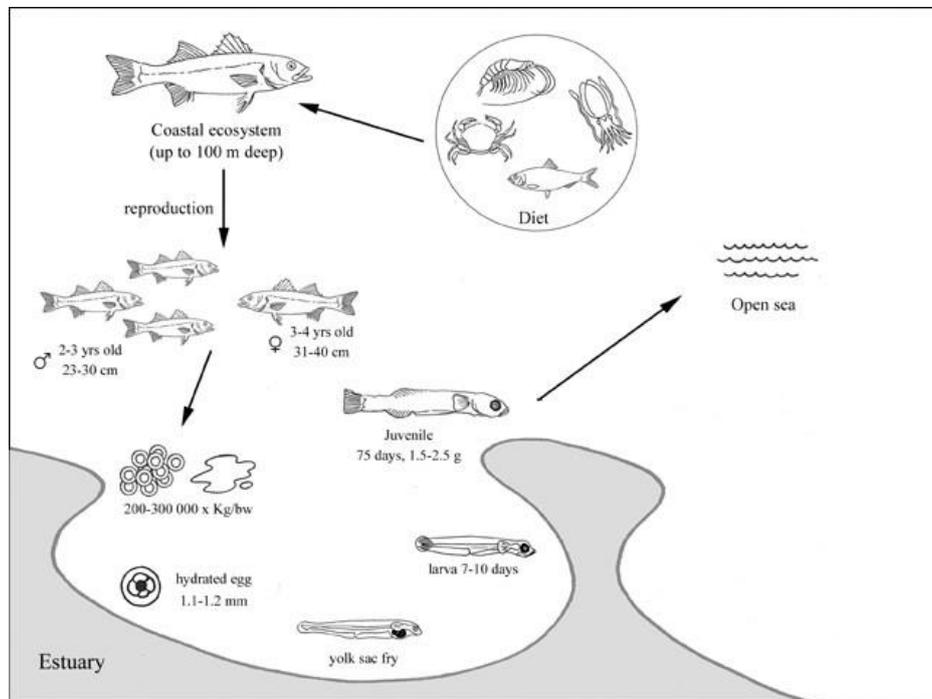
***Work since the last meeting***

Since the last meeting the development of bass stock conservation management measures has developed at pace. On 18<sup>th</sup> September there was a Joint Advisory Council Workshop to discuss bass management held in Dublin, and since then specific policies have been developed to be put to the EU December council meeting. The current proposal put in front of the Council includes a bag limit of one sea bass per person per day for recreational fisheries as well as commercial fishing effort limits for ICES area VIIe (Approaches to the Channel).

In light of this the more general 'initial survey' approach discussed at the last meeting seems to have been superseded. In discussions with Defra and other IFCAs, the review and possible extension or development of new bass nursery areas seems the most appropriate initial role for KEIFCA in helping conserve the North Sea and Channel bass stocks and contributing to the wider EU Bass management plan. Officers are working closely with other IFCAs in the South East to try and effectively coordinate any action, share information and develop best practice (the text overleaf is based on policy scoping work developed by Southern IFCA).

### **Why nursery areas?**

Sea bass grow slowly and generally do not mature until 4–7 years of age. Males mature at a length of 31-35 cm and Females 40 – 45 cm (source fishbase). Juvenile bass up to three years of age occupy nursery areas in estuaries whilst adults undertake seasonal migrations from inshore habitats to offshore spawning sites. Young fish form schools, but adults appear to be less gregarious (Frimodt, 1995). They enter coastal waters and river mouths in summer, but migrate offshore in colder weather and occur in deep water during winter in the northern range. After spawning, sea bass tend to return to the same coastal sites each year and tagging studies show site fidelity (Pawson et al, 2008). The combination of slow growth, late maturity, spawning aggregation, and strong site fidelity increases the vulnerability of sea bass to overexploitation and localized depletion.



© FAO 2005-2014. Adapted from Bagni, M. (2005) in: Cultured Aquatic Species Information Programme. Dicentrarchus labrax. Cultured Aquatic Species Information Programme. FAO Fisheries and Aquaculture Department [online]. Rome. Updated 18 February 2005. [Cited 20 October 2014]. ONLINE

[http://www.fao.org/fishery/culturedspecies/Dicentrarchus\\_labrax/en](http://www.fao.org/fishery/culturedspecies/Dicentrarchus_labrax/en)

Sea bass are now found further north into the North Sea due to ocean warming. Above-average sea temperatures are expected to be favourable for survival of young bass in estuarine nursery areas. The increase in sea temperature may also have been responsible for adult sea bass remaining for a longer period of the year in the near-shore areas.

Protection of sea bass less than the Minimum legal Size (<36 cm) is therefore most important in areas where juvenile sea bass predominate in catches. Such catches tend to be close inshore, where tagging had shown exploitation rates of sea bass to be as high as 50% (Pawson et al., 1987). With a MLS of 36 cm, the sea bass in need of protection (from exploitation below this size) are juvenile fish 3–5 years old, which are found in sheltered or enclosed inshore areas (i.e. estuaries, inlets and harbours) for most of the year, though in winter they may be found in the open sea.

A key part of the package of management measures to reduce the effects of growth overfishing in the 1990s was the introduction of management measures to curtail fishing activities that were likely to take small sea bass in areas where most fish in the local population were below the MLS and vulnerable to exploitation (Pawson et al., 2005). These came to be known as sea bass nursery areas.

Bass nursery areas protect not only fish below the minimum legal size, as per their intended role, but they also protect larger animals (both mature and immature). This is important because the availability of large bass in a given area around the coast, can be influenced by a combination of several factors:

- Localised fishing pressures in the inshore zone;
- Fishing pressure on offshore grounds;
- The occurrence of very strong or very weak year classes;
- spawning from earlier years

Thus the protection afforded to bass in Bass Nursery Areas reduces fishing pressure on inshore stocks, this may be significant because after spawning, sea bass tend to return to the same coastal sites each year. The combination of slow growth, late maturity, spawning aggregation, and strong site fidelity increases the vulnerability of sea bass to overexploitation and localized depletion. Therefore Bass Nursery Areas could provide some function as mitigation against the effect of the risk of localised depletions, however the significance of such protection is not quantified.

***Current Bass nursery areas in the KEIFCA district covered by The Bass (Specified Areas) (Prohibition of Fishing) (Variation) Order 1999.***

Bradwell Power Station (All year protection)

The area between the Baffle Wall and the Bradwell foreshore enclosed by lines drawn perpendicular (145° true) from the NE and SW corners of the Baffle Wall to the shore

Grain Power Station (All year protection)

The area enclosed by a line drawn 120° true through Grain Martello Tower and Grain Hard Buoy to Garrison Point, and a line drawn 114° true from the foreshore at Grain Power Station to the western extremity of the Ro Ro Terminal, and the Isle of Grain and Sheerness foreshores.

### Kingsnorth Power Station (All year protection)

The area enclosed by Bee Ness Jetty and a line drawn 204° true to the tip of Oakham Ness Jetty, thence 260° true to the SE tip of Kingsnorth Jetty, and along the seaward arm of Kingsnorth Jetty and then 298° true to the Kingsnorth power station foreshore.

### Dungeness Power Station (All year protection)

All tidal waters enclosed by a line drawn 180° true from the eastern end of the Dungeness 'A' building to a point 600 m below MLW Springs, thence 270° true for a distance of 1 km, thence 000° true to the shore marked by an isolated building "hangar B1" situated between the Dungeness 'B' complex and the Power Station

### **Next steps**

If the Authority is minded to focus initially on bass nursery areas, the next steps would be to develop the scientific rationale and evidence base for nursery areas in our district and to develop a detailed paper for the next Authority meeting in January 2015. Following this, a specific technical panel meeting could be held in February 2015 to discuss the detail and recommend next steps. Wherever possible we would work in conjunction with other IFCAs to develop a constant policy and approach. This time table would allow KEIFCA members to have clarity as to the conclusions of the EU December council meeting and the possible national and international bass management framework that KEIFCA policies could fit into and complement.

### **References**

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Pawson, M.G., Brown M., Leballeurc, J. Pickett, G.D. (2008) Will philopatry in sea bass, *Dicentrarchus labrax*, facilitate the use of catch-restricted areas for management of recreational fisheries? Short communication. Fisheries Research 93 (2008) 240–243