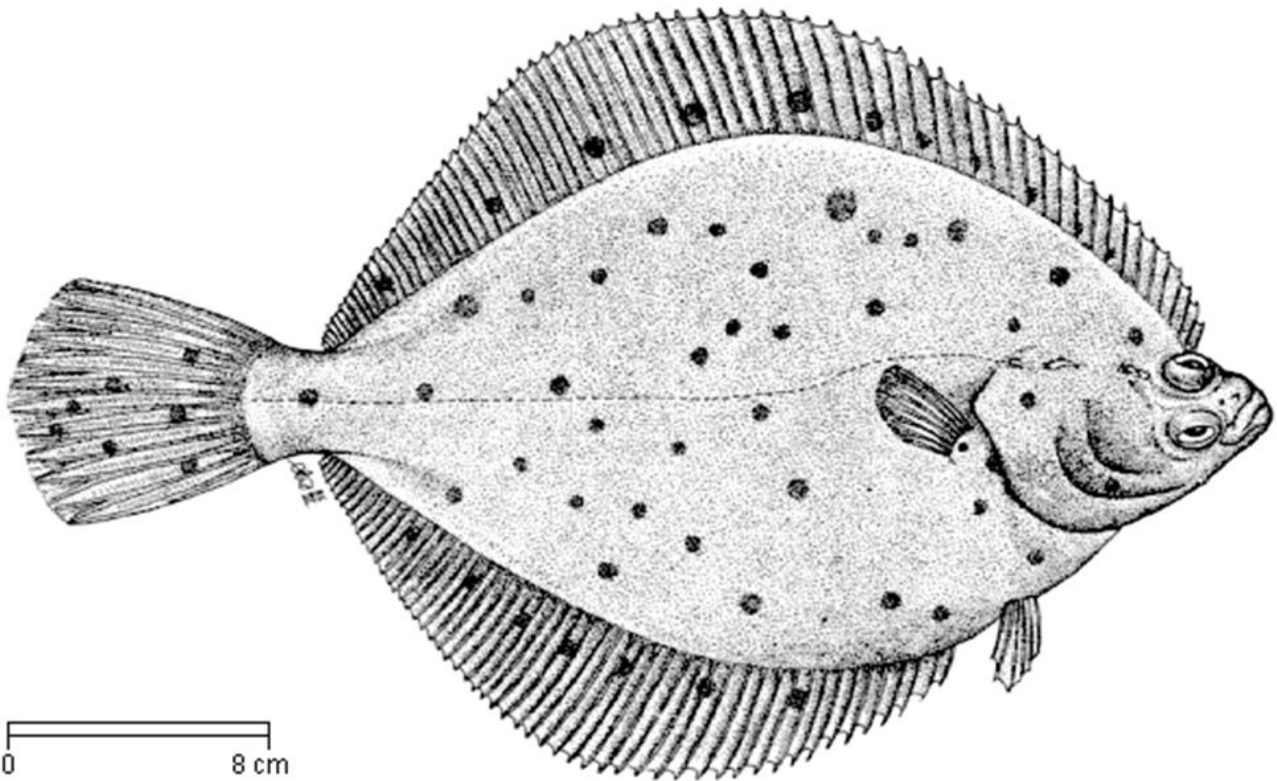


Plaice (*Pleuronectes platessa*)

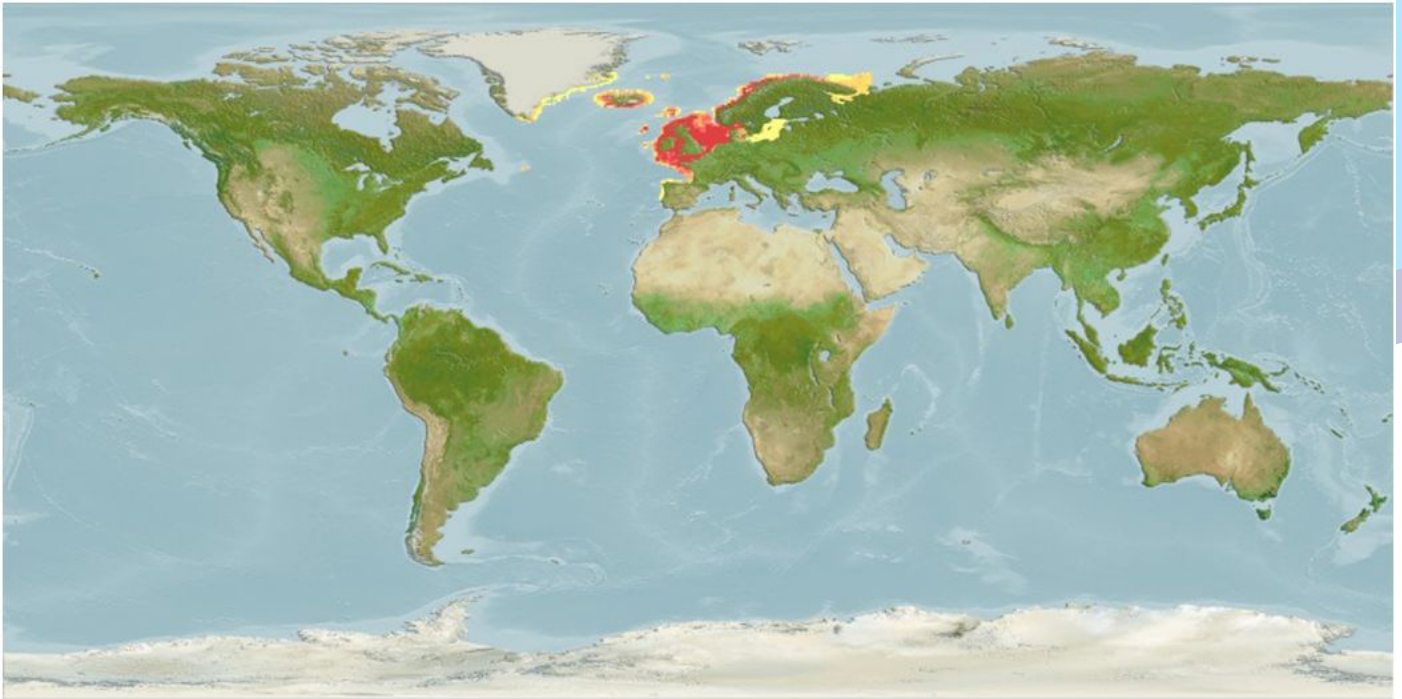


(Bauchot 1987)

Introduction

Plaice (*Pleuronectes platessa* L.) are an important commercial flatfish species occurring throughout the North-East Atlantic in waters down to 120 m (Wheeler 1978). There are several recognised populations along the western seaboard of Great Britain, with the Irish Sea stock deemed one of the more important stocks in terms of biomass and landings (Fox et al. 2009). Adults live on mixed bottoms, mud and sand, the older the deeper the occurrence; small individuals are usually seen on sandy beaches (Frimodt 1995).

The spawning and nursery areas of plaice in the Irish Sea have been clearly defined (Fox et al. 2000; Bunn and Fox 2004; Ellis et al. 2012). In the eastern Irish Sea most plaice eggs are found off the North Wales coast but they occur as far north as the mouth of the Solway Estuary. In the western Irish Sea, the bulk of spawning occurs close to the Irish coast, with additional small amounts off Port Erin Bay, Isle of Man (Nash and Geffen 1999).



Reviewed distribution maps for *Pleuronectes platessa* (European plaice), with modelled year 2100 native range map based on IPCC A2 emissions scenario. www.aquamaps.org, version of Aug. 2013. Web. Accessed 4 Feb. 2016.

Life history

In the Irish Sea plaice spawning begins in December and peaks between mid-February and mid-March. Egg production has usually ceased by the end of April (Fox et al. 2007). At typical ambient temperatures, the duration of the egg stage is between 13 and 18 days (Fox et al. 2003). The eggs of plaice may be predated heavily upon by sprat and herring (Ellis and Nash 1997; Plirú et al. 2012). Following hatching, plaice larvae in the Irish Sea drift in the plankton for up to 55 days before metamorphosing (Fox et al. 2007). The juvenile plaice settle on inshore nursery grounds and spend the next few months in very shallow waters (Gibson 1997). Although considered separate stocks, the stocks of plaice in the Irish Sea and the Celtic Sea do mix during spawning. Tagging studies have indicated a southerly movement of mature fish (or fish maturing for the first time) from the southeast Irish Sea, off North Wales, into the Bristol Channel and Celtic Sea during the spawning season (Fox et al. 2009).

Summary of life history and habitat parameters

Species: <i>Pleuronectes platessa</i> (Plaice)				
Life Stage	Size and Growth	Habitat	Substrate	Temperature
Eggs	Ave diameter of egg 2.5mm (range 1.38-3.2mm)	Pelagic Most eggs found in temperatures below 8°C ¹	N/A	Eggs observed to develop between 4- 14°C ¹ .
Larvae	Hatch at 7mm and begin settlement at 11mm ³	pelagic	N/A	
Juveniles		Demersal Shallow inshore bays. Juveniles gradually disperse to deeper waters	sand	

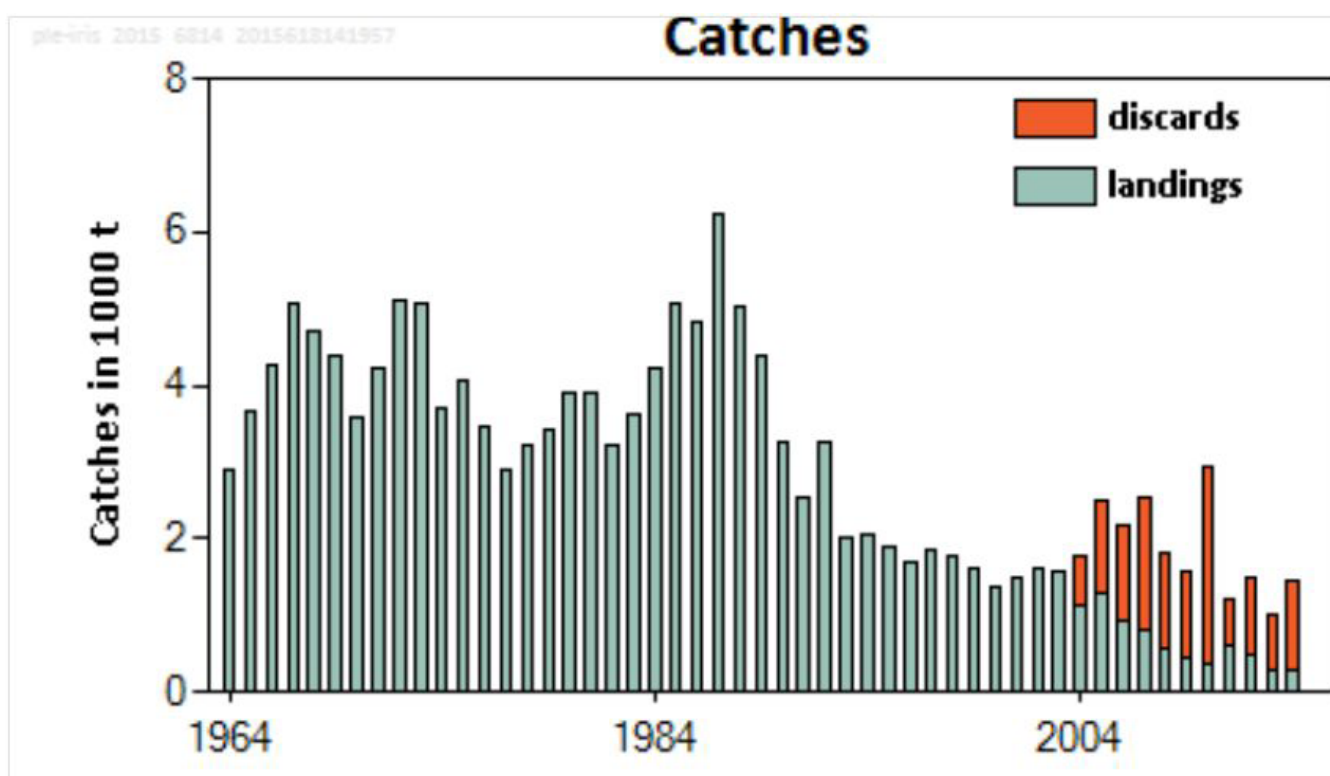
Species: *Pleuronectes platessa* (Plaice)

Adults (feeding)		Demersal	Occurs on mud and sand bottom from a few meters down to about 100 m, at sea, estuaries and rarely entering freshwaters ²	Temperate; 2°C - 15°C ²
Adults (Spawning)	Maturity: Lm 30.8, range 24 - 42 cm ²	Demersal. Spawn in distinct areas offshore in waters >20m in early months of the year		Adult spawn when the temperature is around 6 °C ²

(Fox et al. 2003)¹; Fishbase²;(Fox et al. 2009)³;

Fishery

Following a decline in effort (hours fished) by otter trawlers targeting demersal fish in the early 1990s, the majority of fisheries effort in the Irish Sea is now exerted by otter trawlers fishing for Nephrops in the western Irish Sea followed by beam trawlers targeting sole in the eastern Irish Sea. High levels of discarding are known to occur in all fisheries that catch plaice in the Irish Sea (ICES 2014).



Catches of Plaice in ICES subdivision VIIa. Estimated discards and landings in 1000t. (ICES 2015) Stock status

ICES advises (ICES 2015) that when the precautionary approach is applied, catches in 2016 should be no more than 1244 tonnes. If this stock is not under the EU landing obligation in 2016 and discard rates do not change from the average of the last three years (2012–2014), this implies landings of no more than 343 tonnes.

The spawning stock biomass (SSB) has been stable since 2003. The recent fishing mortality (F) is likely to be low because the harvest rate is estimated to be low in recent years.

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