



## Saithe Stocks

**2004 position** : UK share 18,742 tonnes  
**Last Year** : 16,276 tonnes  
**Stock Health** : Within safe biological limits  
**Importance** : Secondary demersal species  
**Location** : Northern North Sea, shelf edge to the west and north west of Scotland



### Introduction

With an annual value of about £3 million saithe is, by weight, the fifth most abundant demersal species landed by the Scottish fleet. Like most fish, they vary in abundance throughout the year but can be caught all year round as part of a mixed fishery.

The main fishery takes place in the northern North Sea and on the shelf edge to the west and north-west of Scotland. Traditionally this fishery has mainly been operated by the larger deep sea French trawlers but the number of these vessels has declined in recent years. Currently, less than one tenth of the total landings of saithe come from the west-coast area.

Each year, the quantity of saithe in the sea depends on the numbers of juvenile fish which survive from spawning to enter the adult fishery as recruits. The numbers of

saithe capable of spawning remain at or close to the lowest recorded levels at present. The stock is depleted to such a low level that recruitment has been affected. This situation and the large year to year variation in the survival rates of young fish means that management controls are necessary for the survival of this stock.

### Biology

Adult saithe can be caught in almost any sea area but occur mainly around the 200 m depth contour. In late summer and autumn young saithe are found in large numbers within Scottish and Norwegian coastal waters, usually on grounds which are unsuitable for commercial fishing. The adult stock can occur in dense shoals which move around the water column and are often caught hundreds of metres above the seabed.

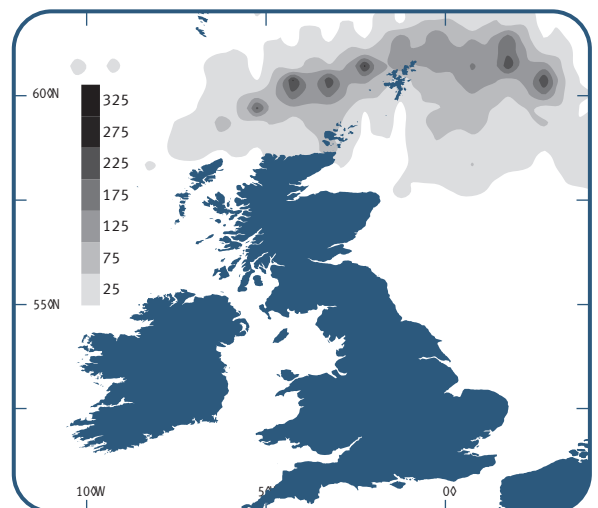
Saithe reach maturity between the ages of four and six years. A medium sized adult female can produce about 2.5 million eggs during a spawning season. Spawning takes place between January and April near to the edge of the continental shelf to the north and west of the Outer Hebrides. Initially the young fish live near to the surface but by mid-summer they can be found close inshore, in bays and harbours. In their second year they live along the shoreline before eventually moving to deeper water. This offshore migration usually occurs in springtime. Saithe grow quickly, averaging around 15 cm per year for the first three years and 10 cm for the next three, reaching 100 cm by the time they are eleven years old.

Saithe are active predators, feeding on the bottom and in mid-water. By weight, fish prey dominate their diet at all times of the year. Herring, Norway pout and sandeels are the main fish species eaten.

### Spawning grounds



### 2002 Distribution of catches by Scottish vessels (tonnes)





## ICES Advice on Management

### Summary

- Spawning stock levels are above the proposed precautionary stock biomass level
- Fishing mortality is below the proposed precautionary level
- The 1998 and 1999 year classes are above average

*Information Source: Report of the Working Group on the Assessment of Demersal Stocks in the North Sea and Skaggeiak, 9 - 18 Sept 2003 (ICES CM 2004/ACFM:07). Quoted text in italics.*

### Precautionary Approach and Safe Biological Limits

Applying the Precautionary Approach to fish stock management, the International Council for the Exploration of the Sea (ICES) currently defines safe biological limits in terms of stock biomass (the total weight of mature fish in the sea capable of spawning) and fishing mortality (a measure of the amount of fish removed each year by fishing). Additional information can be found in the information leaflet 'Assessing the State of Fish Stocks'. For this stock, ICES has proposed that the precautionary level for stock biomass (Bpa) be set at 200,000 tonnes and the precautionary level for fishing mortality (Fpa) be set at 0.40.

### State of Stock

Based on the most recent estimates of spawning stock biomass and fishing mortality, ICES classifies the stock as being within safe biological limits. Fishing mortality has declined over the period 1986 to 2002 and is now estimated to be below the proposed precautionary level. The spawning stock biomass has remained near or below the precautionary level since 1984, but

it increased in the late 1990s and is estimated to have been above the precautionary level since 1999.

### Management Advice

For 2004, ICES has taken an approach which embraces mixed fishery considerations and advice is cast in this context. ICES first establishes exploitation limits on the basis of the stock status consistent with the precautionary approach. On the basis of the status of saithe alone, ICES would recommend that the *fishing mortality in 2004 should be less than Fpa corresponding to landings of less than 232,000 tonnes*. However, demersal fisheries are mixed fisheries, and management advice must consider both the state of the individual stock and their simultaneous exploitation.

Therefore, demersal fisheries in the combined division should be managed according to the following rules, which should be applied simultaneously. They should be fished:

- without catch and discards of cod;
  - in accordance with any stock recovery plan;
  - within the biological exploitation limits for all other stocks.
- Furthermore, unless ways can be found to harvest species caught in mixed fisheries within the precautionary limits for all those species individually, then fishing should not be permitted.

### Management Action

At the December 2003 meeting in Brussels the Council of Ministers decided that the international Total Allowable Catch for west of Scotland and North Sea saithe should be 209,713 tonnes. The UK quota has initially been set at 18,742 tonnes.

