

FISH STOCK ASSESSMENT IN THE NORTH EAST ATLANTIC

By

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Fish Stock Assessment

- Data Sources
- Historical Stock Reconstruction
- Forecasts
- Management

- **Official Statistics**
 - total landings by species
 - fishing effort by gear

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 - ages and lengths of landings
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- **Research Vessel Surveys**
 - young fish abundance
 - mis-reporting index

Roundfish Market Sampling

| Species | Samples | Measured | Aged |
|---------|---------|----------|--------|
| Cod | 580 | 66,851 | 15,068 |
| Haddock | 546 | 186,514 | 17,782 |
| Whiting | 508 | 123,275 | 10,876 |
| Saithe | 381 | 25,434 | 12,424 |

Roundfish Discard Sampling

| Species | Samples | Measured | Aged |
|---------|---------|----------|-------|
| Cod | 80 | 7,361 | 1,685 |
| Haddock | 80 | 120,036 | 6,362 |
| Whiting | 80 | 52,160 | 5,104 |
| Saithe | 80 | 2,737 | 527 |

Demersal Research Vessel Surveys

| Vessel | Area | Month |
|--------|------------------|-----------|
| Scotia | North Sea | February |
| Scotia | West of Scotland | March |
| Scotia | North Sea | May |
| Scotia | North Sea | August |
| Scotia | Rockall | September |

- **Stock size**
 - number at age
 - **Fishing mortality**
 - proportion removed at age
 - **Recruitment**
 - young fish joining the stock
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 - number at age
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 - **Recruitment**
 - young fish joining the stock
 - **Stock forecast**
 - catch at age
 - survivors
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- **Possible management objectives**
 - prevention of stock collapse
 - maximising yield
 - maximising profit
 - maximise employment (conserve fishermen)
 - conservation of seals
 - **The choice of objective leads to your definition of overfishing**
 - **Not all compatible**

- **National laboratories, eg MLA**
 - collect data
 - provide scientific expertise
- **ICES Working Groups**
 - assemble international data
 - perform assessments
 - report to ACFM
- **ACFM**
 - quality control
 - provides official ICES advice

- **Customers**
 - national Governments
 - European Union
 - NEAFC
 - industry