

# Latest ICES scientific advice on key pelagic stocks

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Scottish Pelagic Fishermen's Association

# ICES Catch advice for 2024 (major pelagic stocks)

*Compared to  
2023 TAC*

*Compared to  
2023 ICES Advice*

*ICES  
Advice*

*Figures  
based on*



*North Sea herring*



**522,832 t  
(A-fleet)**

MSY approach  
( $F=0.31$ ,  $B>B_{trigger}$ )



*Western Scotland herring*

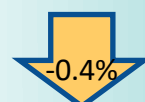


**1,454 t**

MSY approach Cat 3 stock,  
20%+ stability clause on  
previous TAC.



*Irish Sea herring*



**7,279 t**

MSY approach  
( $F=0.266$ )



*NE Atlantic mackerel*

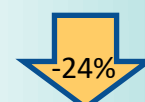


**739,386 t**

MSY approach ( $F_{msy}=0.26$ )



*Atlanto-Scandian herring*



**390,010 t**

EU, Norway, Iceland, Faroes,  
Russia Management Plan  
( $F=F_w=0.124$ )



*Blue whiting*



**1,529,754 t**

EU, Norway, Iceland,  
Faroes, Management Plan  
( $F_{mgt}=0.32$ )



*Western horse mackerel*



**0 t**

MSY approach &  
precautionary  
considerations ( $F=0$ )

# ICES Catch advice for 2024 (minor pelagic stocks)



*N. sea horse mackerel*

*Compared to  
2023 TAC*



*Compared to  
2023 ICES Advice*

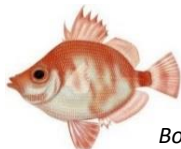


*ICES  
Advice*

**9,730 t**

*Figures  
based on*

MSY approach  
(category 3 stock)



*Boarfish*



**27,349 t**

MSY approach  
(category 3 stock)

# North Sea Herring

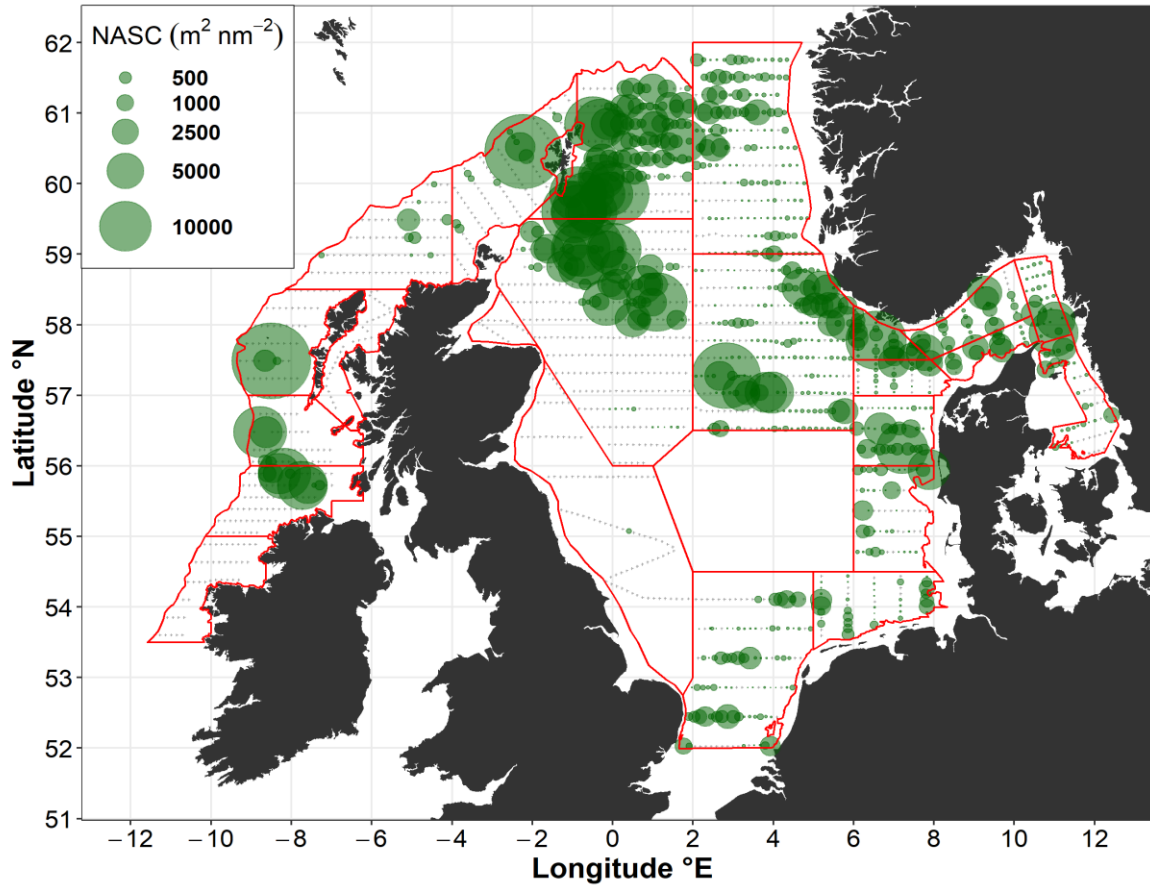


Latest advice: 31<sup>st</sup> May 2023

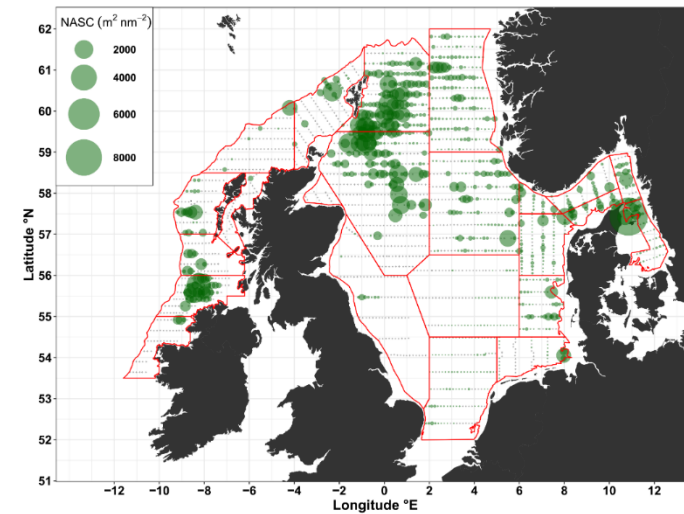
# HERAS survey: acoustic backscatter distribution



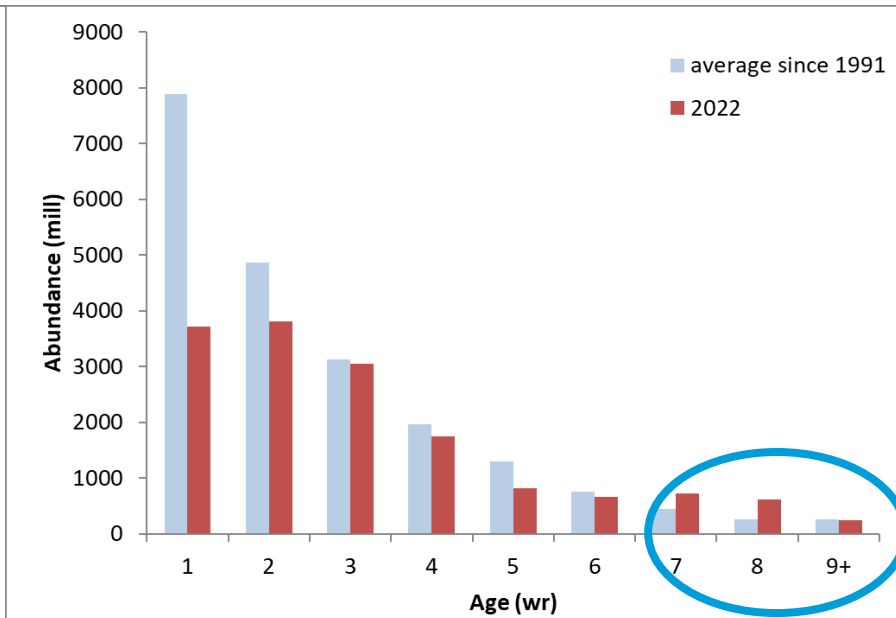
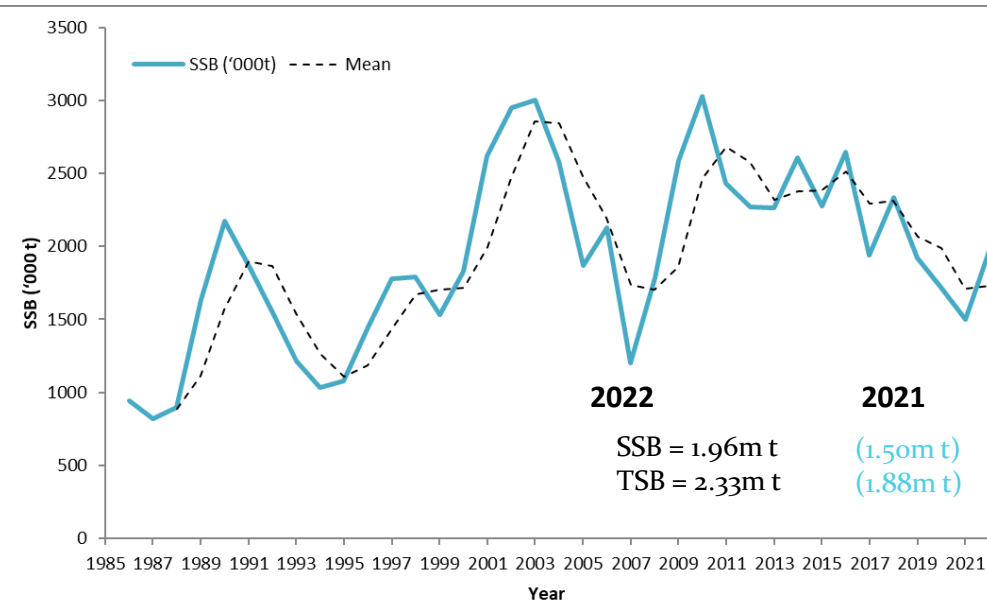
**2022**



**2021**



# HERAS survey - results



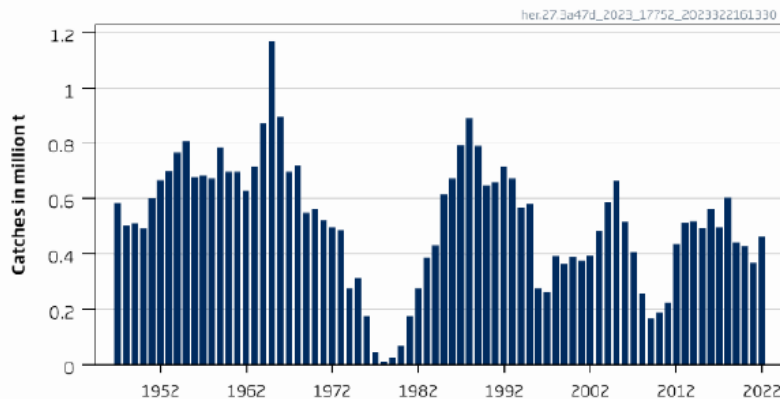


## North Sea Herring – ICES Advice

### ICES advice on fishing opportunities

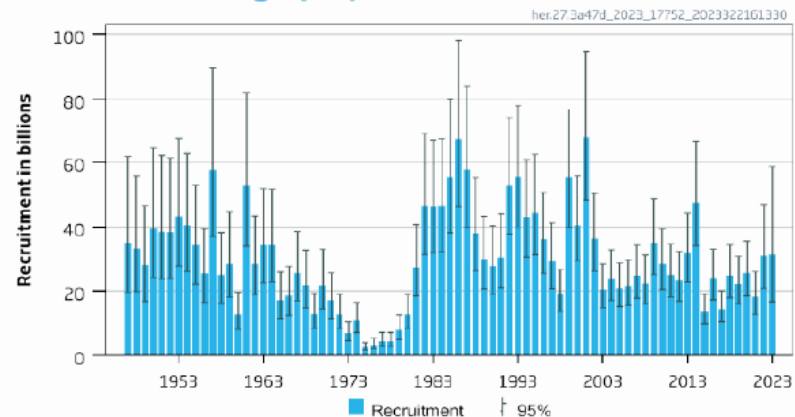
ICES advises that when the MSY approach is applied, catches in 2024 should be no more than 532 166 tonnes.

#### Catches

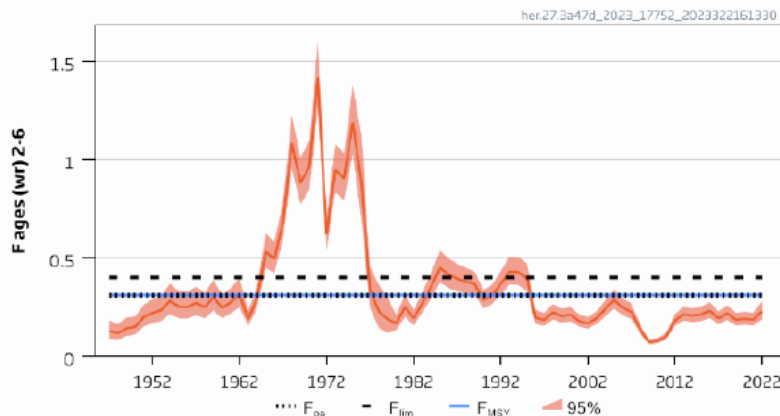


#### Recruitment at age (wr) 0

**A-Fleet = 522, 832 t**



#### F



#### SSB

**Signs of stronger incoming recruitment -2022 recruitment (2021 year-class) is substantially higher**



## *North Sea Herring*

- In 2022, ICES said **“Despite giving advice according to advice rule, stock will be below MSY Btrigger for a substantial period”,**

**But that no longer appears to be the case!**

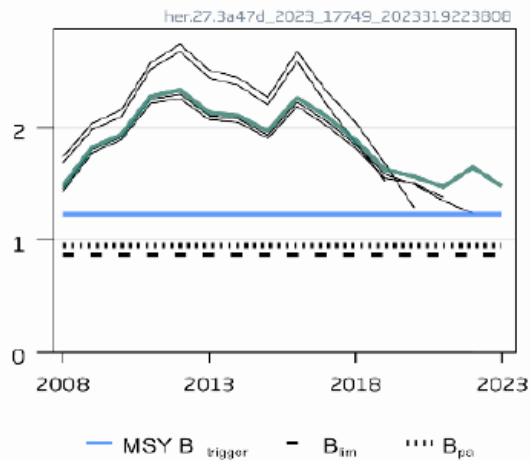
- The basis for the 28.3% increase of catch advice is threefold:
  - SSB in 2022 is estimated to be 32.5% larger than that predicted in the previous advice.
  - Recruitment in 2022 (2021 year-class) is now estimated to be 87.3% larger than that estimated in the previous advice. The contribution of this year class to the SSB in the advice year is 32.6%.
  - SSB in the advice year is forecast to be above MSY Btrigger, leading to a fishing advice in 2024 at Fmsy rather than below Fmsy (as was the situation in 2023).



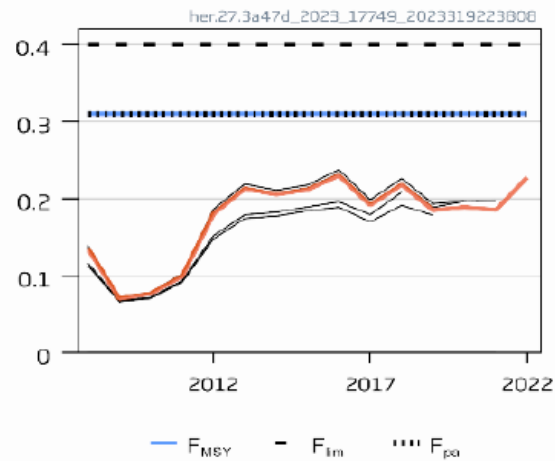
## Quality of the assessment



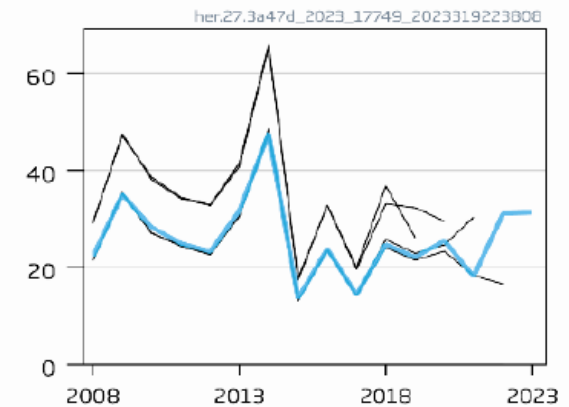
### SSB (million t)



### F (ages 2-6)



### Rec at age (wr) 0 (Billions)

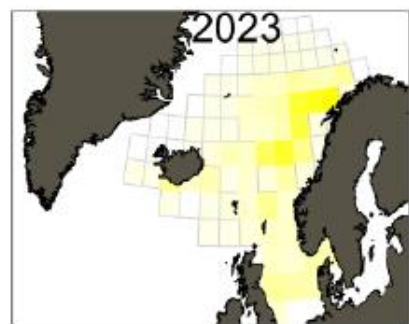
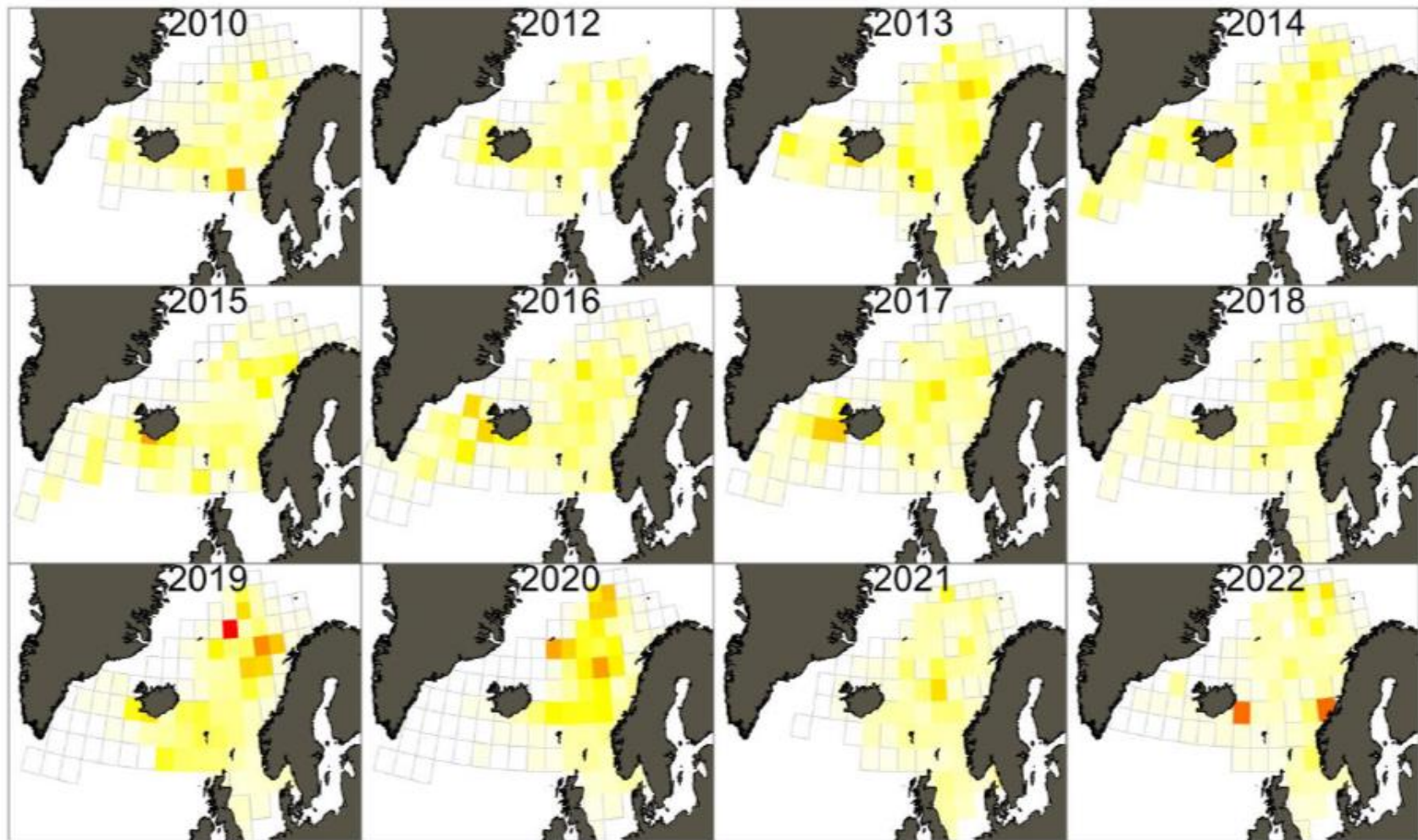




# North East Atlantic Mackerel



Latest advice: 29 Sep 2023

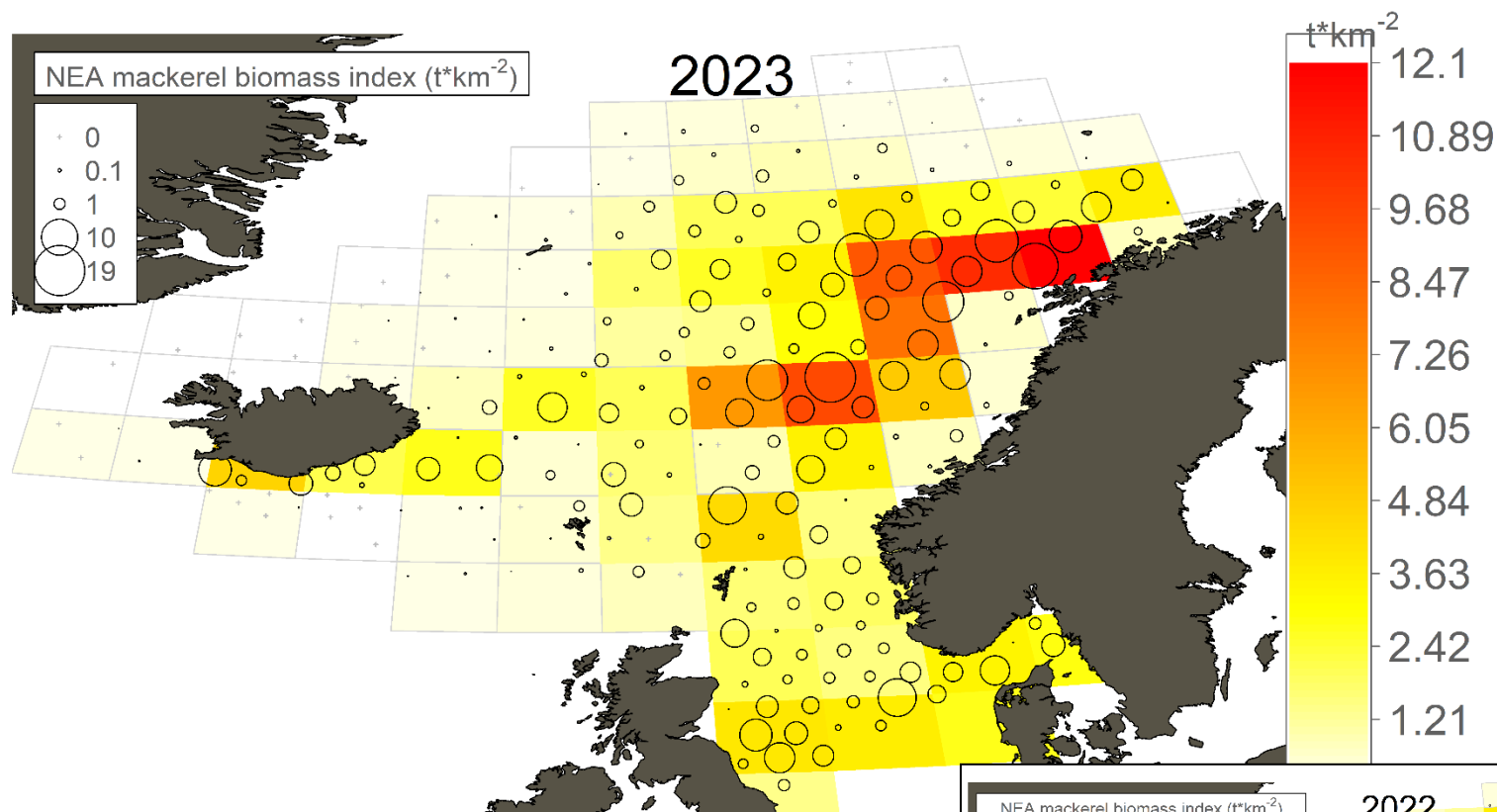


Shift east and north 2017-2020, then  
north and west. 2023 contraction of area

Summer Trawl survey (IESSNS).

(scaled to maximum value for the highest year)

# Summer Trawl survey (IESSNS)



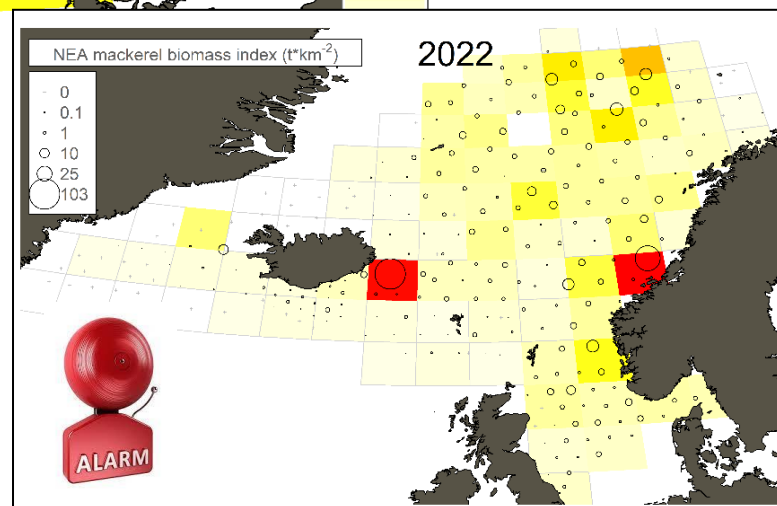
5 vessels

21% decrease in survey area covered

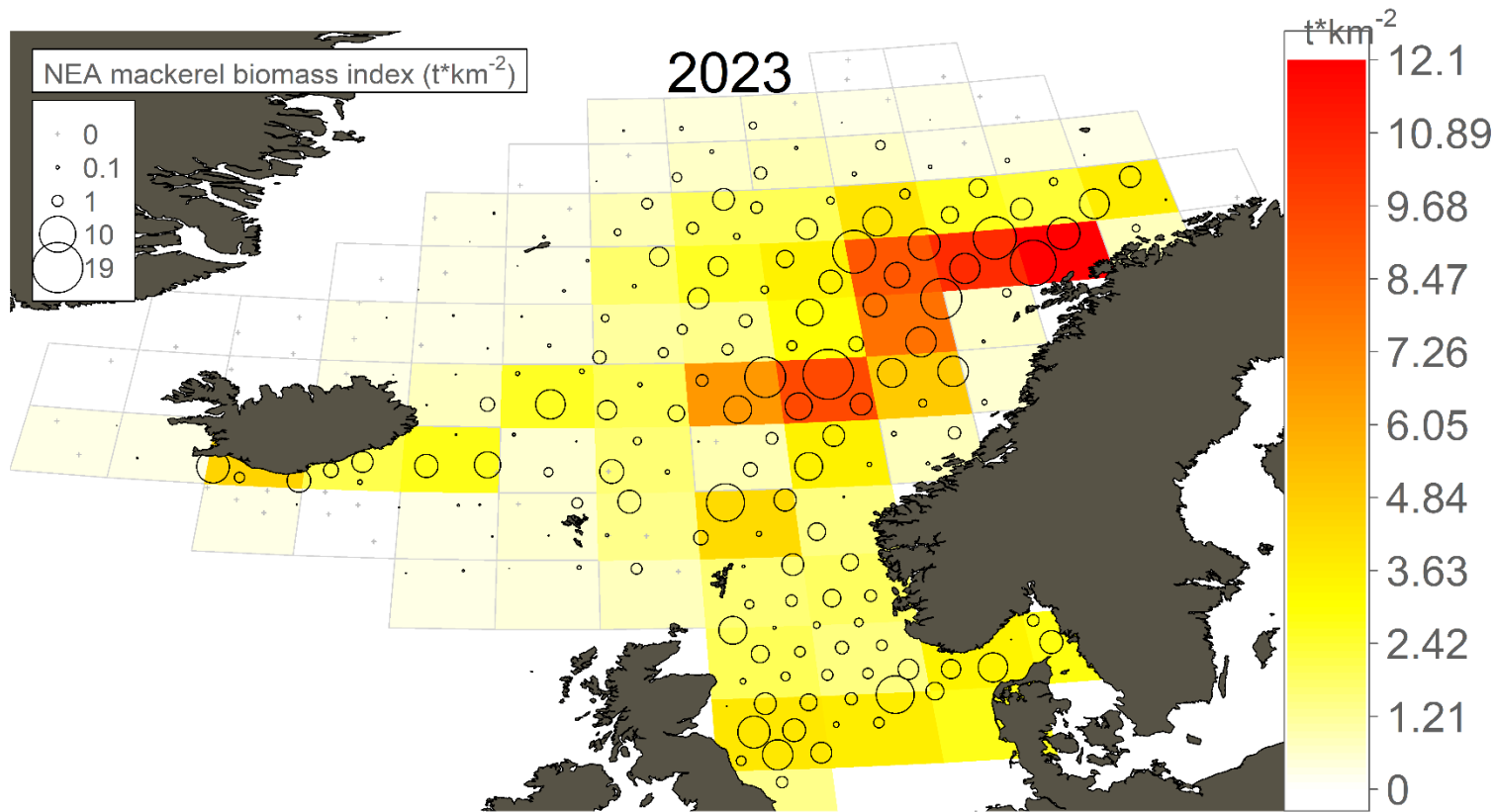
2023- 42% decrease in biomass

2022 - 43% increase

2021 - 58% decrease



# Summer Trawl survey (IESSNS)



5 vessels

21% decrease in survey area covered

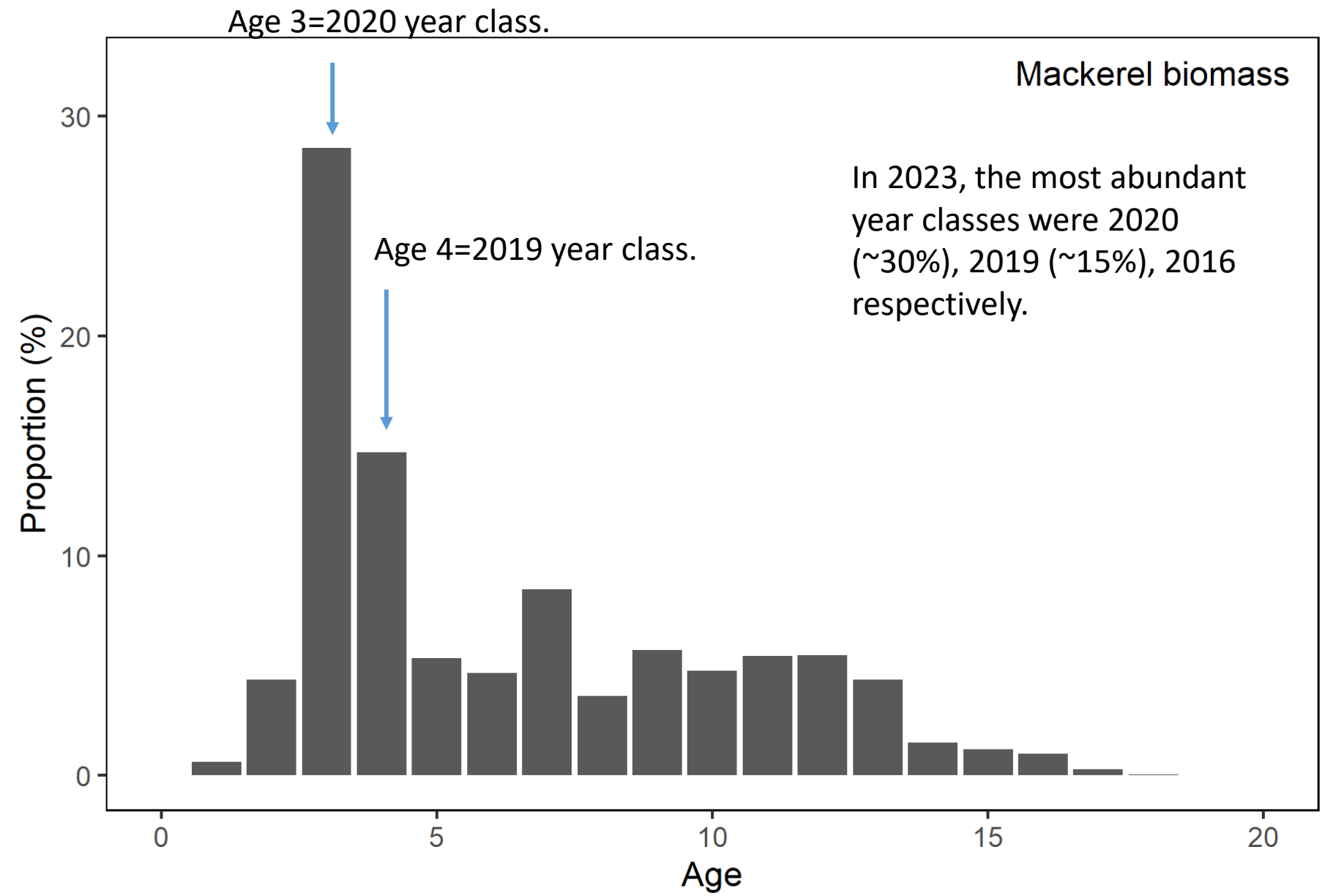
2023- 42% decrease in biomass

2022 – 43% increase

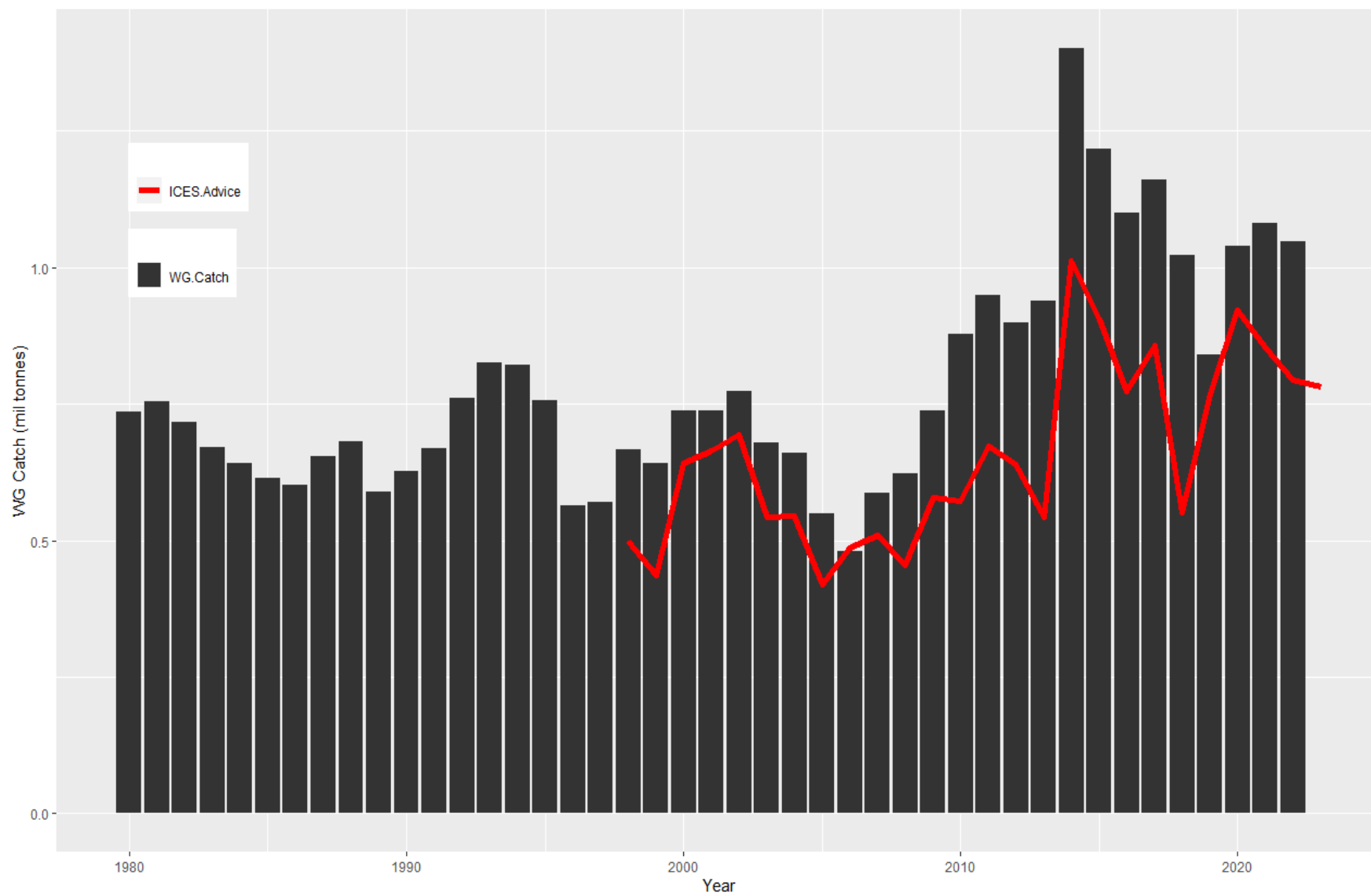
2021 – 58% decrease

**October 2022.** ICES Working Group on Improving use of Survey Data for Assessment and Advice (WGISDAA) **did not provide an alternative method for index calculation.**

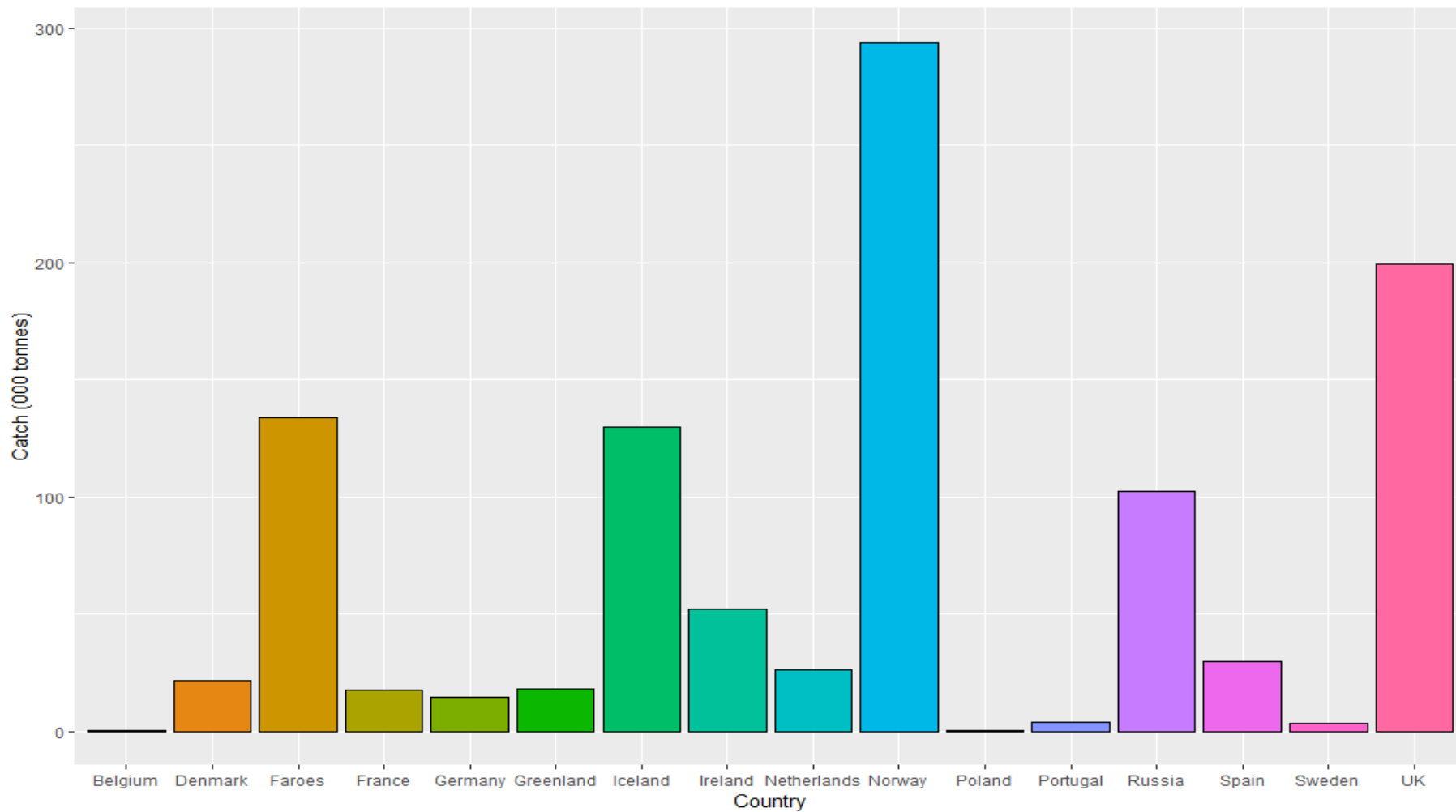
Age 3 when enter the fishery.



## Mackerel catch and advice



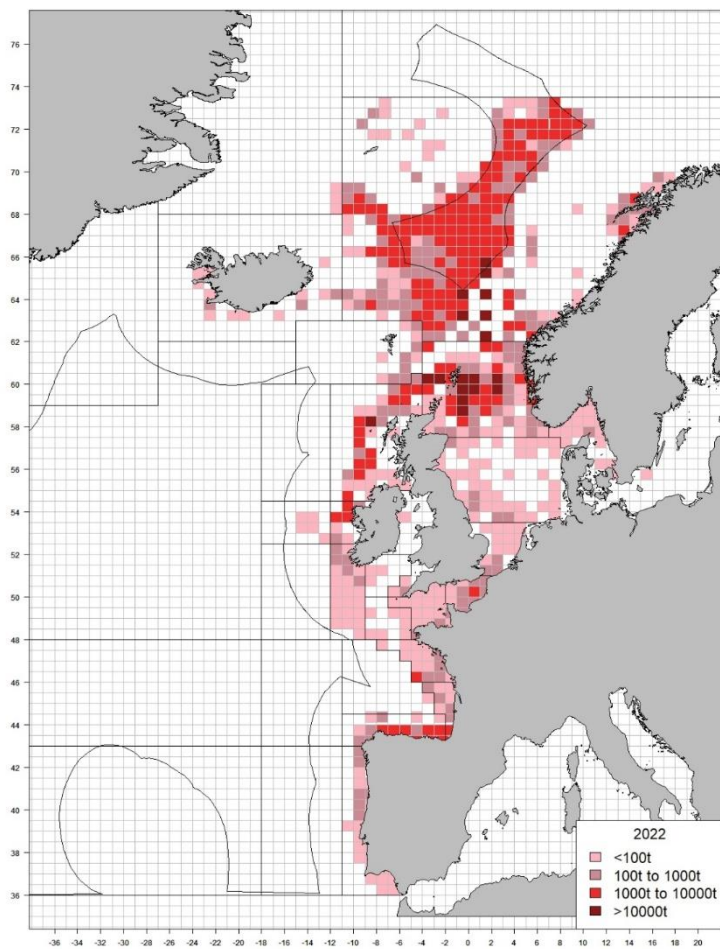
## Mackerel catch by country 2022



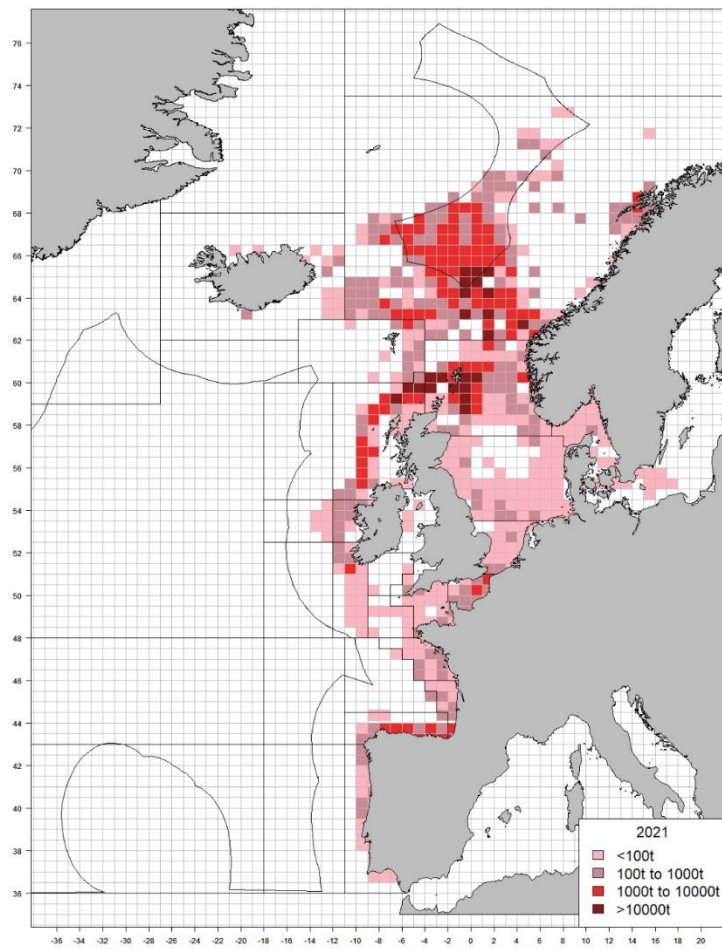


# Catch distribution

## 2022



## 2021





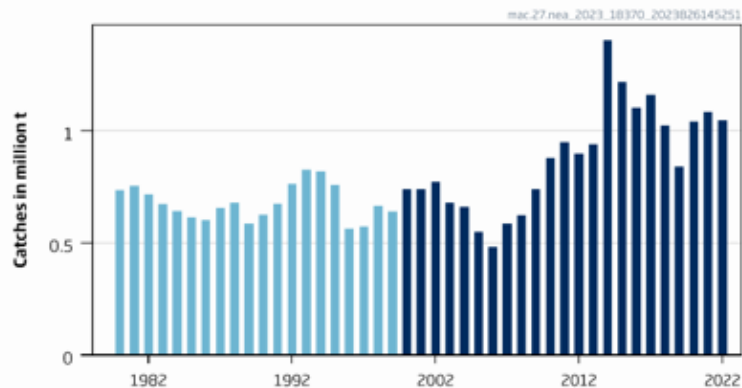
# Mackerel – ICES Advice



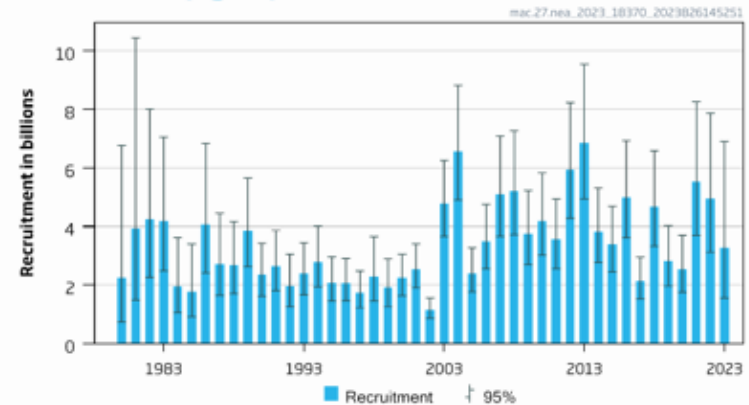
## ICES advice on fishing opportunities

ICES advises that when the MSY approach is applied, catches in 2024 should be no more than 739 386 tonnes.

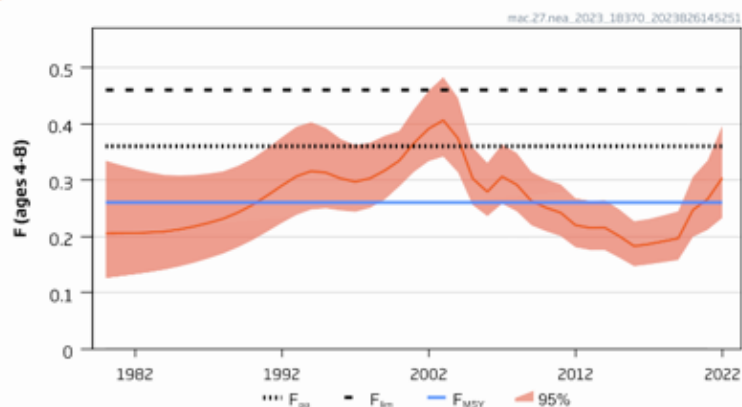
### Catches



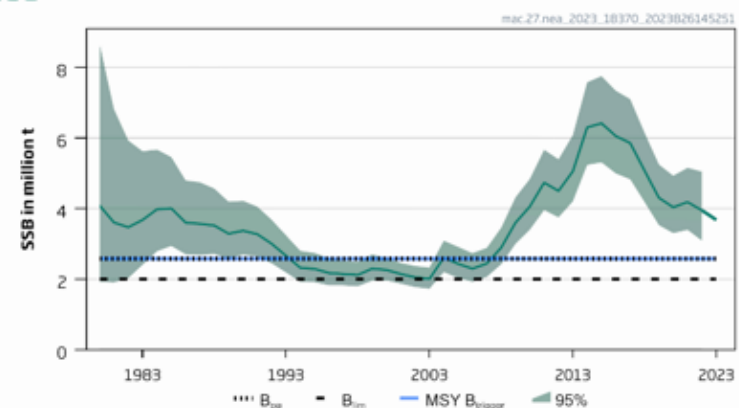
### Recruitment (age 2)



### F



### SSB

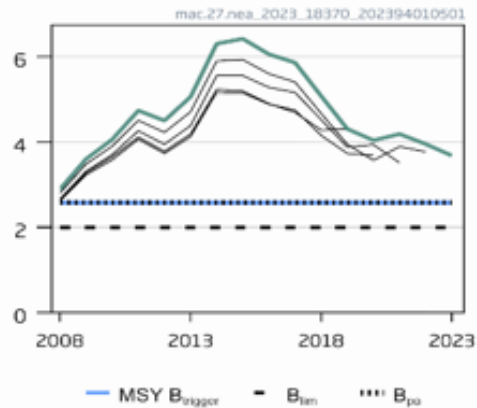




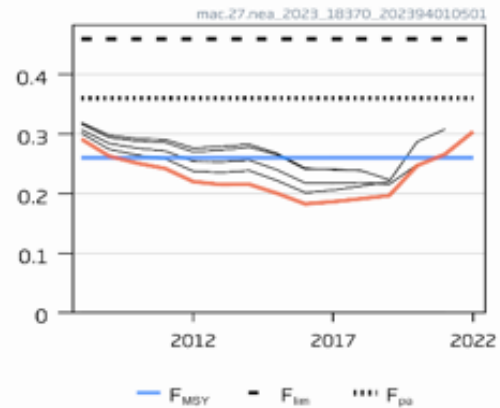
# Quality of the assessment



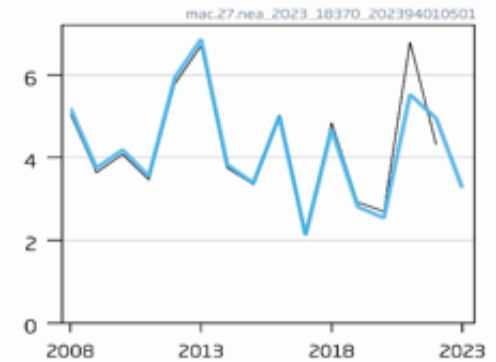
SSB (million t)



F (ages 4-8)



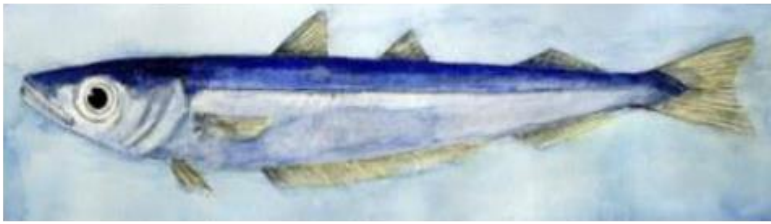
Rec (age 2; Billions)



# Blue whiting

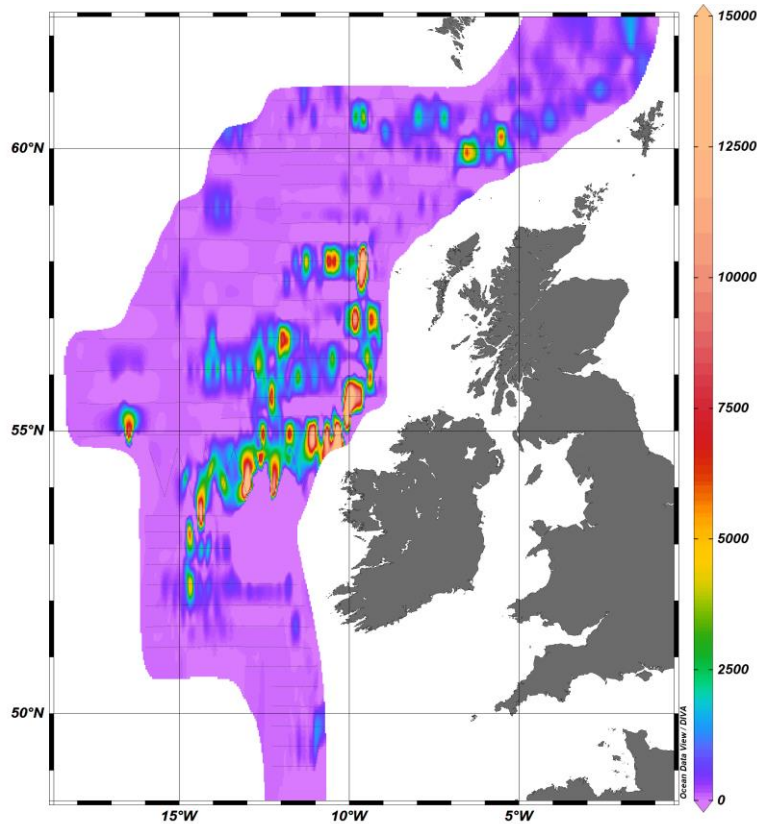


Latest advice: 29 Sep 2023

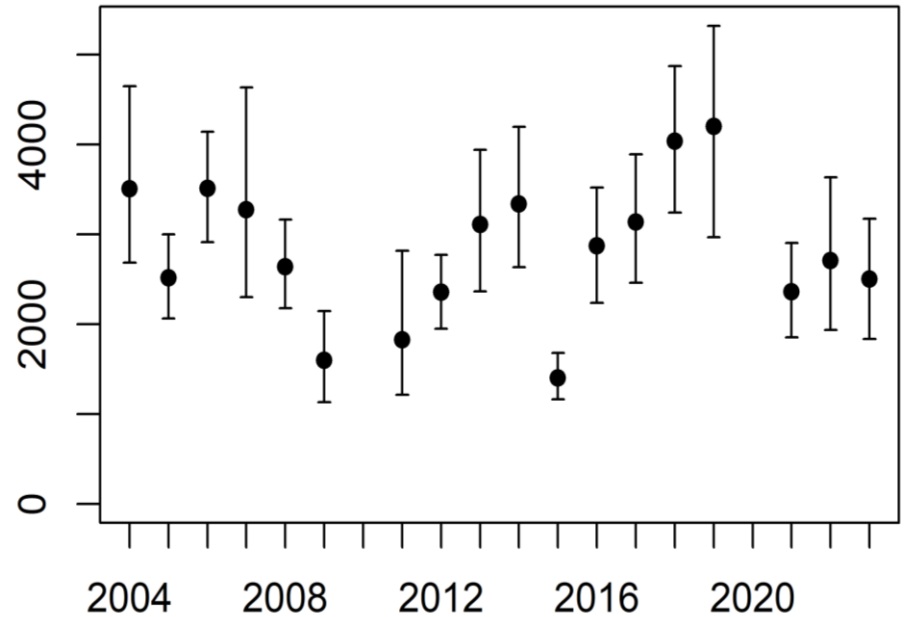


## International Blue whiting spring stock survey

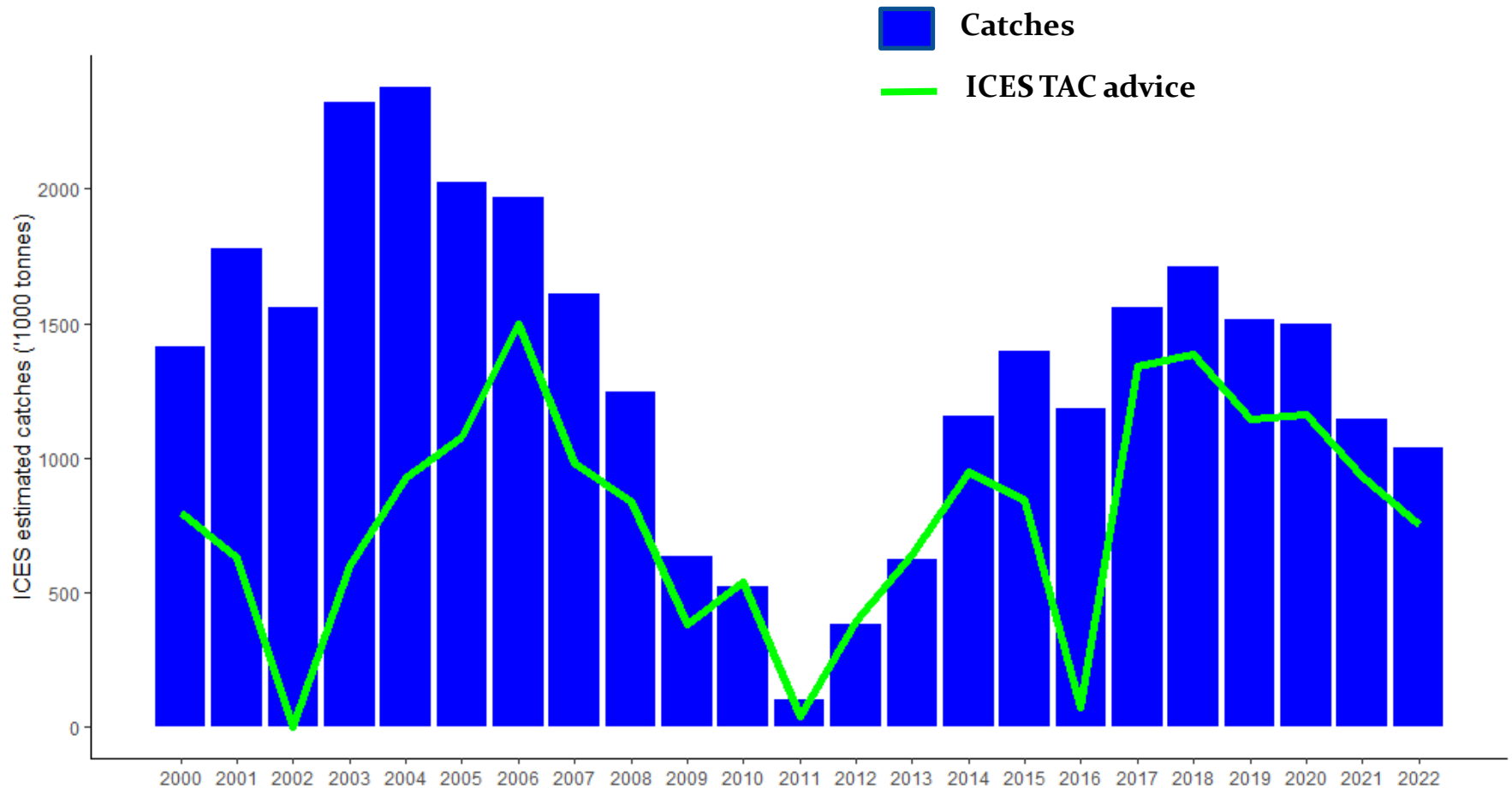
- Spawning biomass 2.2 mt. (8% decrease biomass from 2022)
- 2020 year-class largest since 2014, now fully recruited to the spawning stock



## Biomass



## Blue whiting catch and advice



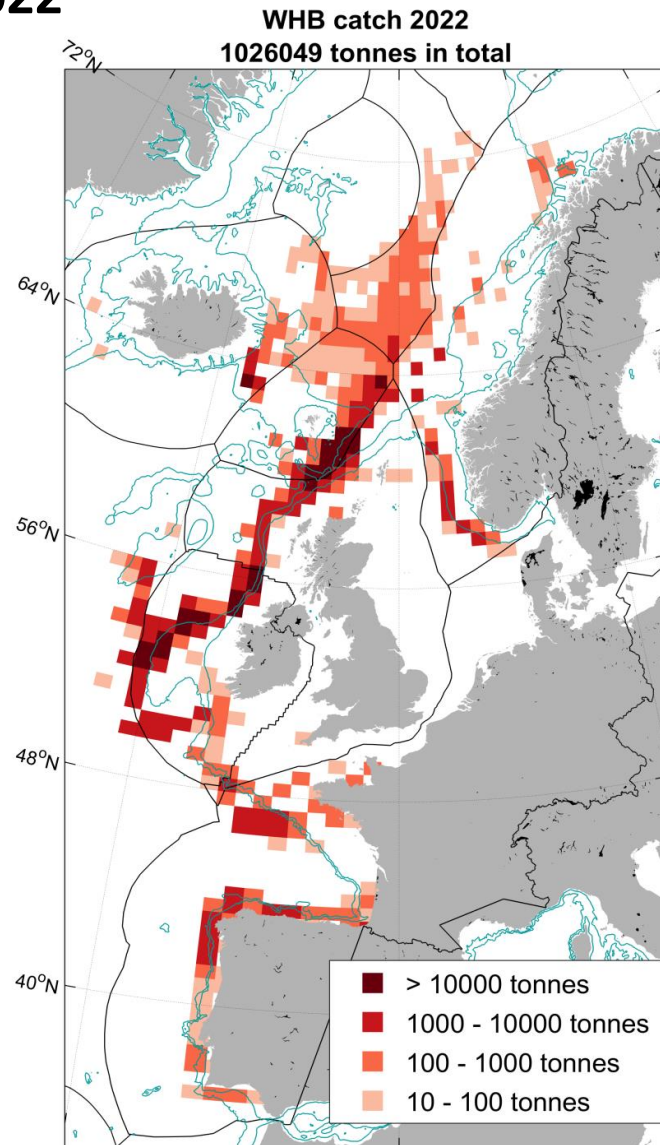
**2022 ICES estimated total catches:** 1038736 tonnes

**ICES TAC Advice (2022):** 752736 tonnes

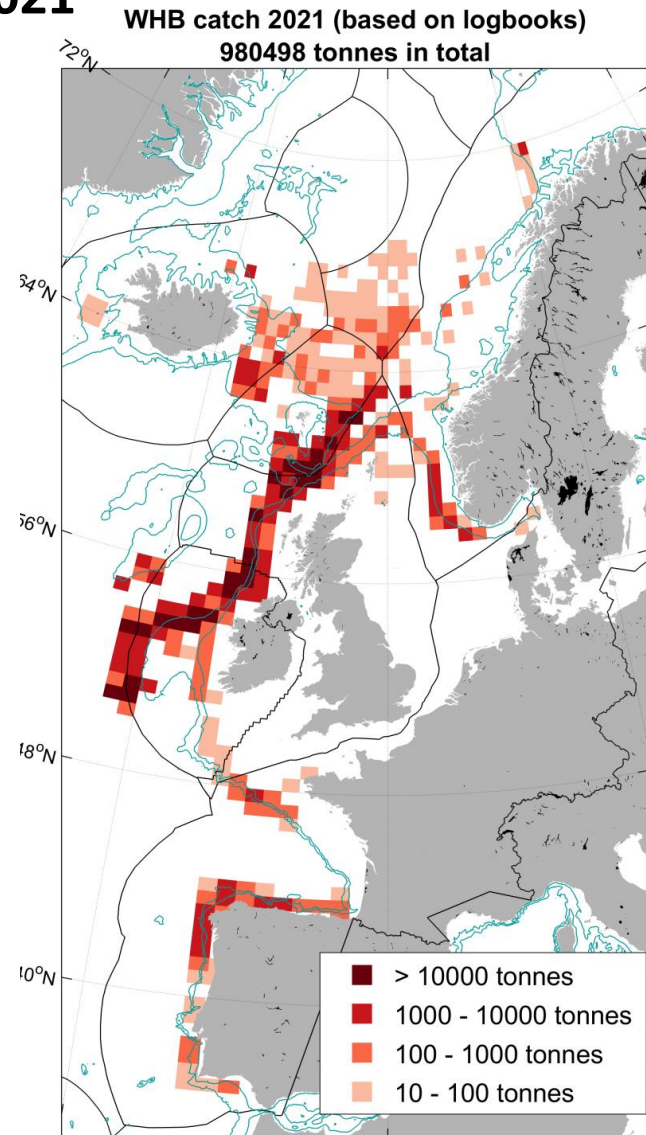


# Blue whiting catch distribution

## 2022



## 2021



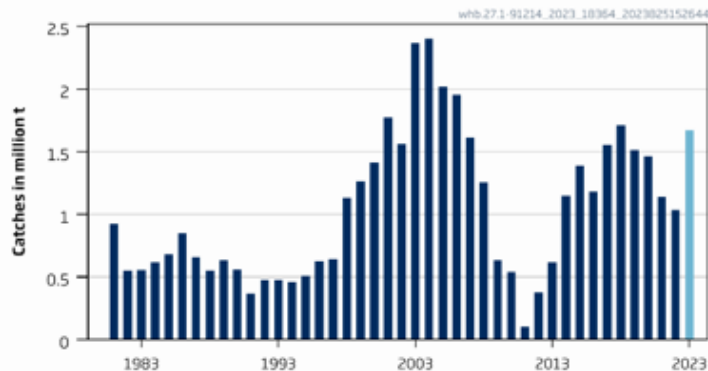


# Blue Whiting – ICES advice

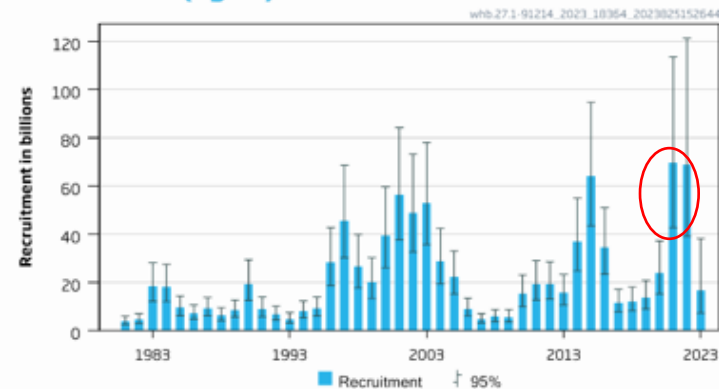
## ICES advice on fishing opportunities

ICES advises that when the long-term management strategy agreed by the European Union, the Faroe Islands, Iceland, and Norway is applied, catches in 2024 should be no more than 1 529 754 tonnes.

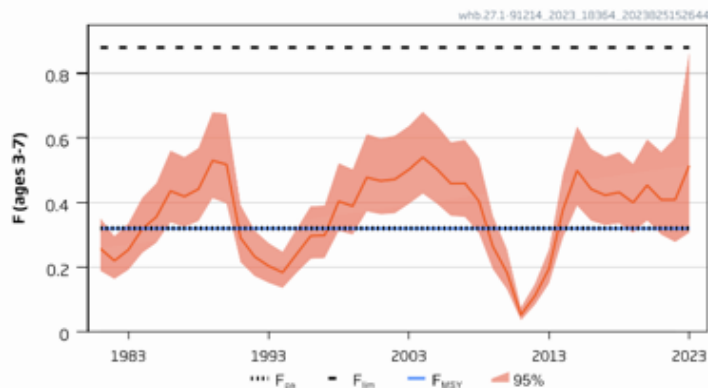
### Catches



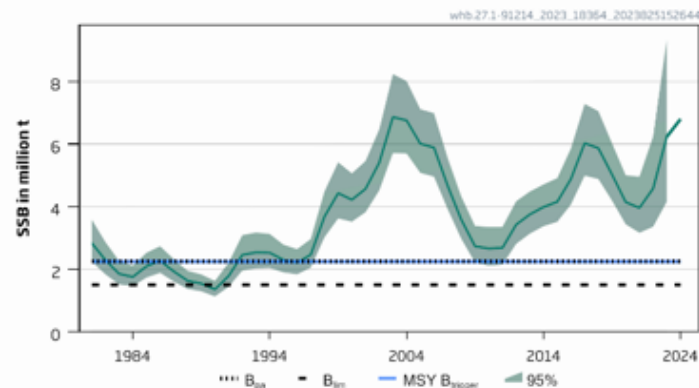
### Recruitment (age 1)



### F



### SSB

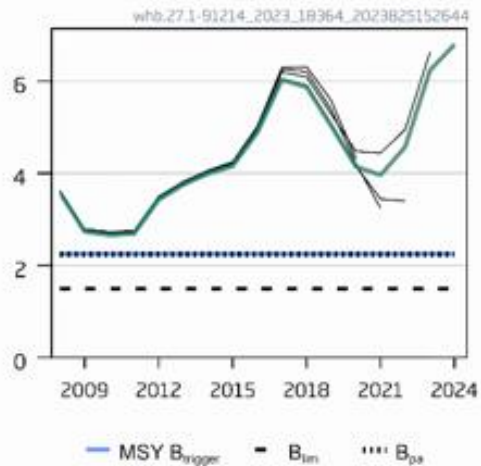




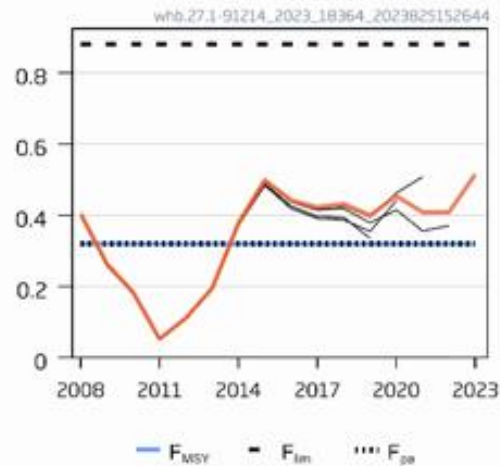
# Quality of the assessment



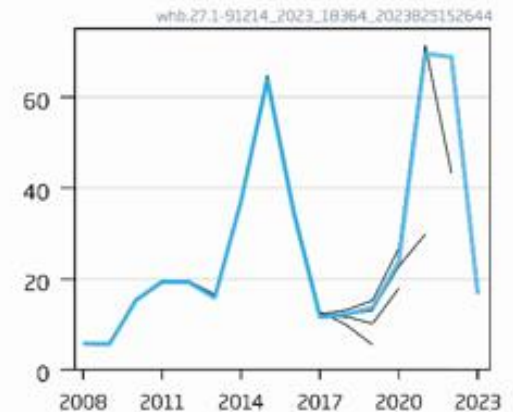
**SSB (million t)**



**F (ages 3-7)**



**Rec (age 1; Billions)**



# Western Herring



Latest advice: due 30 June 2023

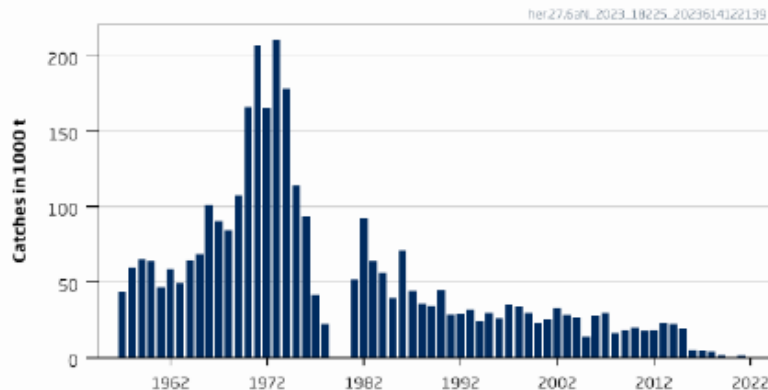


## West of Scotland 6.a (North), autumn spawners

### ICES advice on fishing opportunities

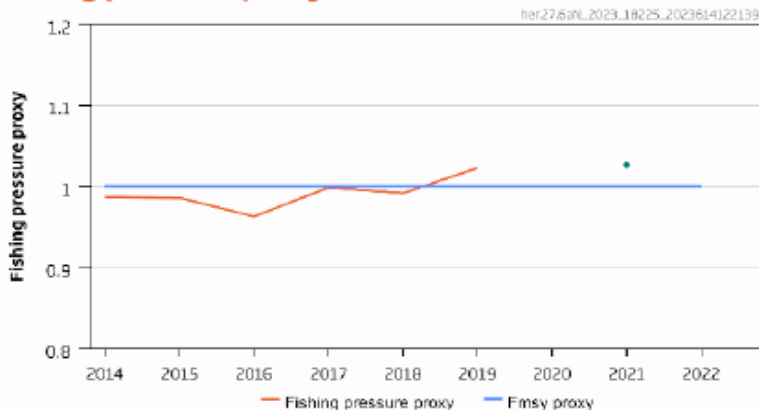
ICES advises that when the MSY approach is applied, catches in 2024 should be no more than 1454 tonnes.

#### Catches

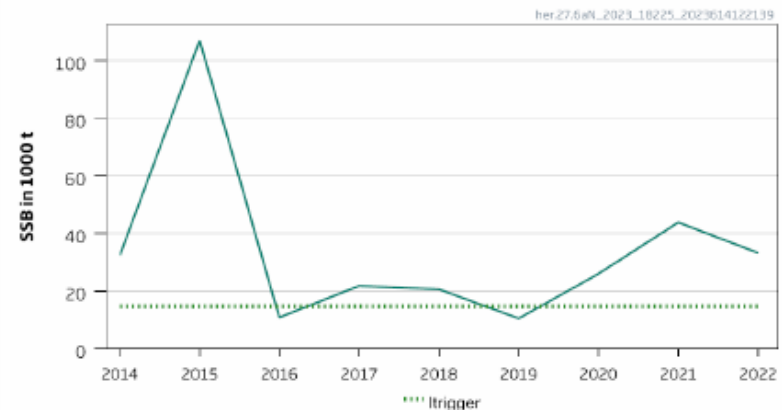


- Genetic splitting data constrains to shorter assessment (starts 2014, instead of 1957) reflecting recent fishery on autumn spawners in North Minch and largely removing issues related misreporting.
- Simpler assessment: based on herring biology and relative trends from surveys and catches. Same in 6aS7bc.

#### Fishing pressure proxy



#### SSB



## *Western herring*

- Evidence from acoustic surveys by Marine Scotland, Irish Marine Institute and industry surveys still points to 6aN being in a poor shape.
- Simpler assessment: based on herring biology and relative trends from surveys and catches. Same in 6aS7bc.
- The advice uses trends in the July acoustic surveys, biological samples from the industry survey work and last year's advice provide an estimated catch in 2024 = 5,583t BUT.....
- **Stability clause (+20%) is applied to last year's advice to get the advice of  $1,212 \times 1.20 = 1,454$  t in 2024.**
- Despite the new method, data for a full analytical assessment is being maintained with a view to this being implemented again.
- Industry surveys are important in maintaining this data set and making a full assessment possible in the future.
- Following the outcomes of the benchmark, the case has been made to Marine Scotland to maintain the industry survey to at least 2025 before reviewing.

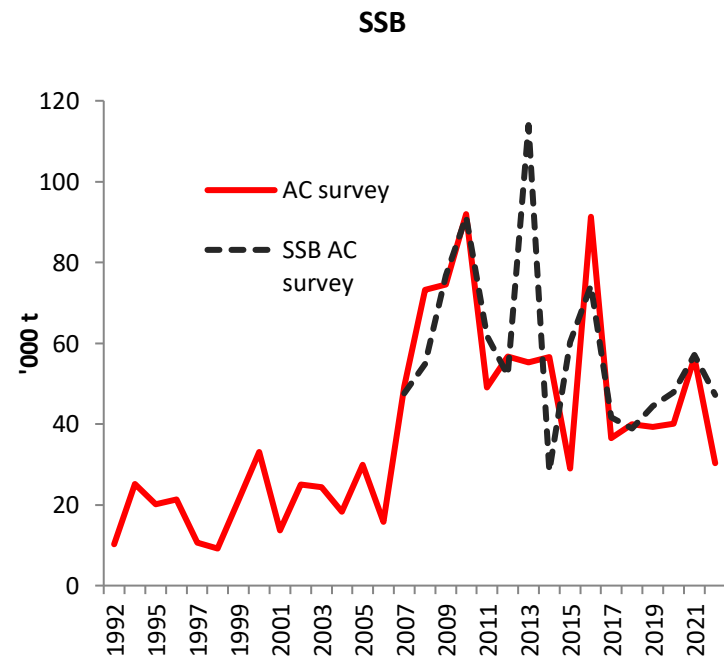
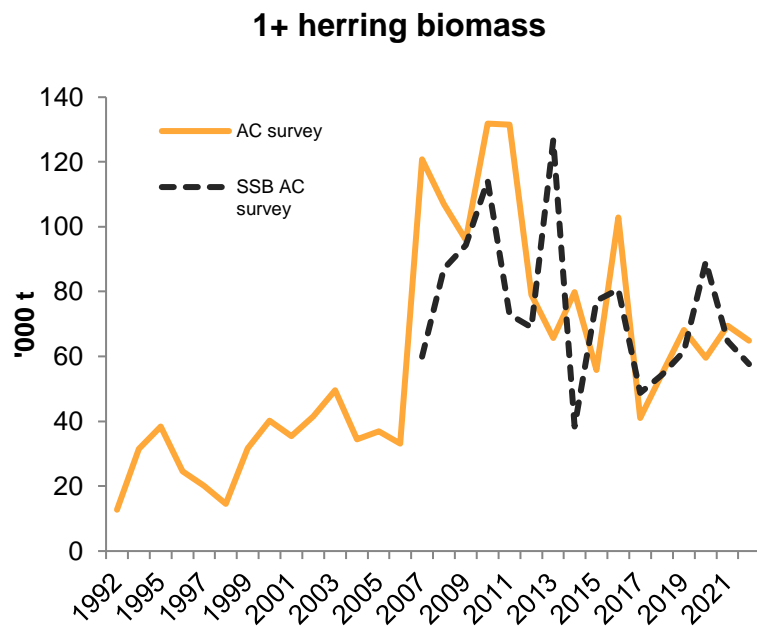


# Irish Sea Herring



Latest advice: due 30 June 2023

# Main survey vs Commercial survey



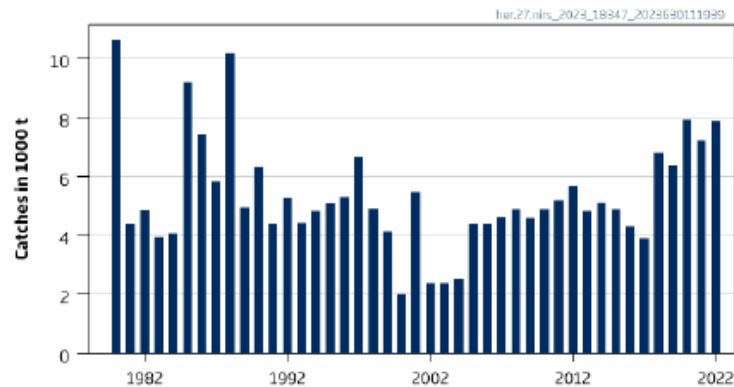
# Irish Sea herring – ICES Advice



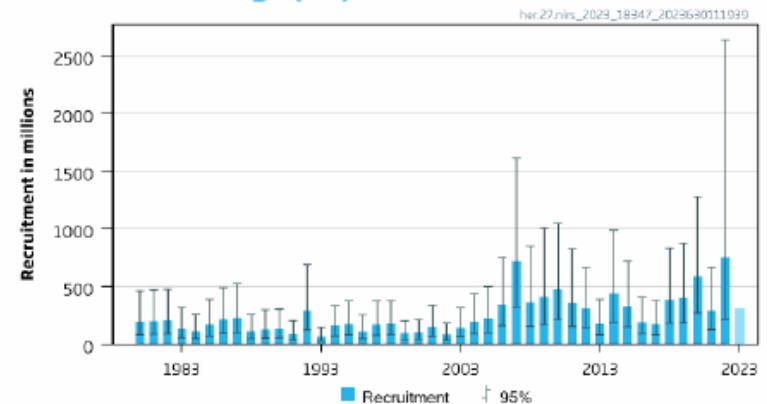
## ICES advice on fishing opportunities

ICES advises that when the MSY approach is applied, catches in 2024 should be no more than 7279 tonnes.

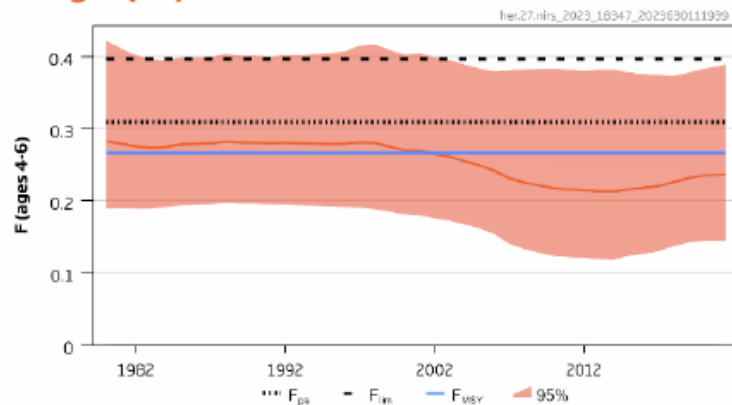
### Catches



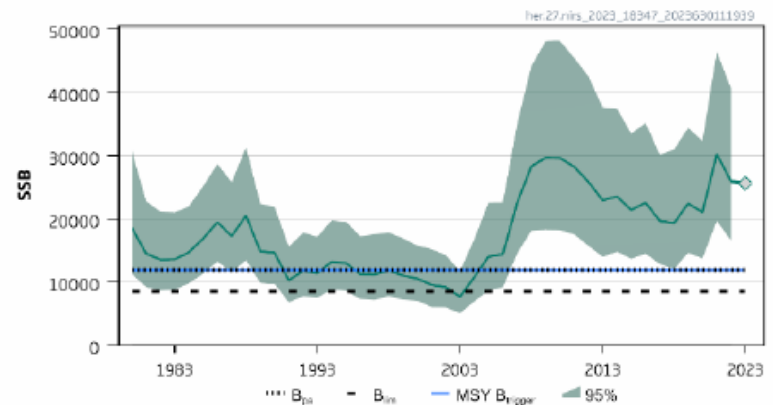
### Recruitment at age (wr) 1



### Fat ages (wr) 4-6



### SSB





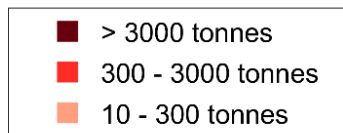
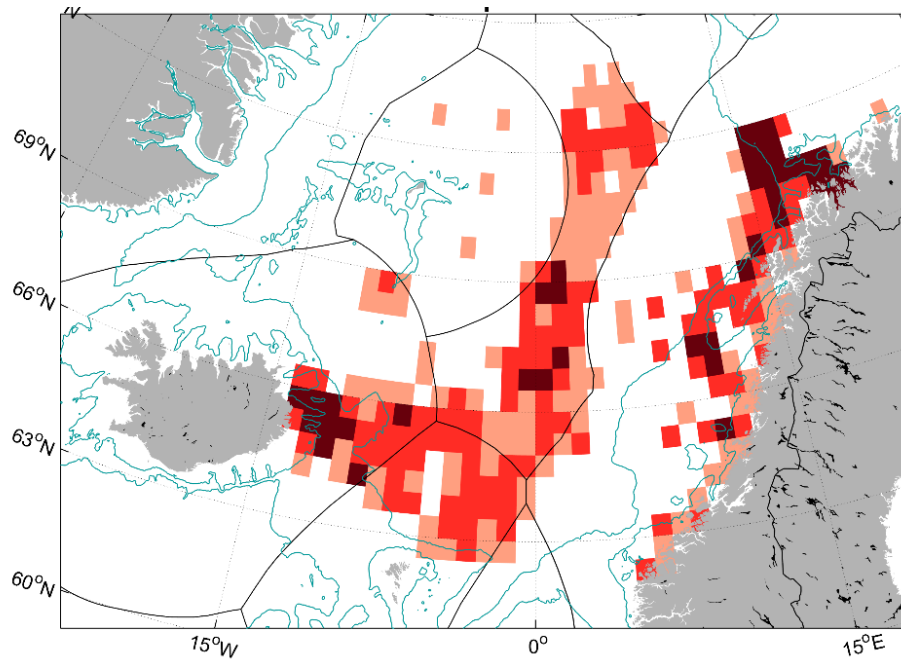
# Atlanto Scandian Herring



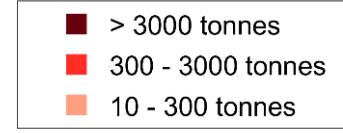
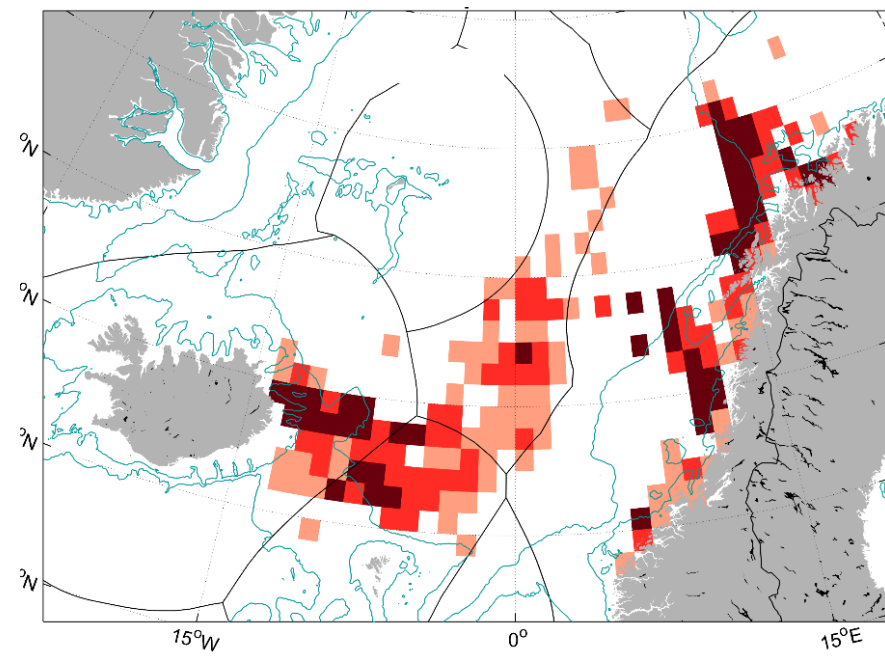
Latest advice: 29 Sept 23

# Atlanto Scandia herring catch distribution

2022



2021



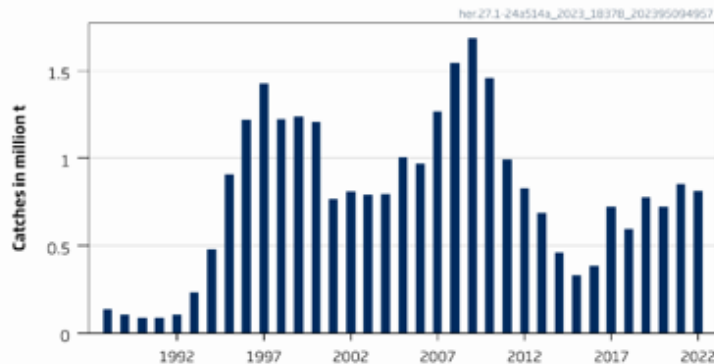


# Atlanto Scandian Herring – ICES Advice

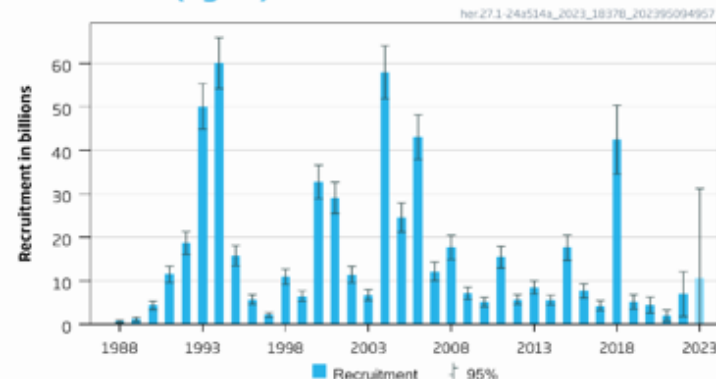
## ICES advice on fishing opportunities

ICES advises that when the long-term management strategy agreed by the European Union, the Faroe Islands, Iceland, Norway, and the Russian Federation is applied, catches in 2024 should be no more than 390 010 tonnes.

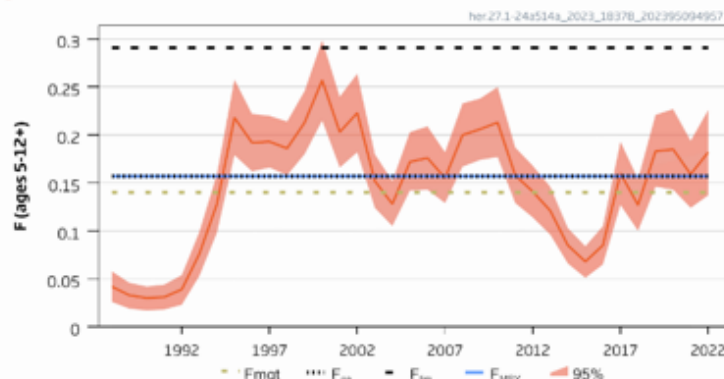
### Catches



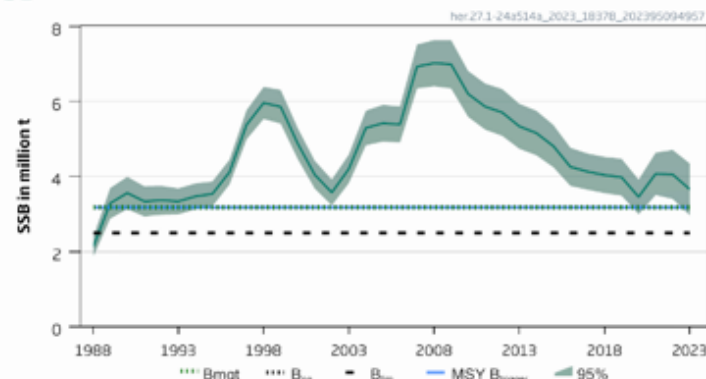
### Recruitment (age 2)



### F



### SSB



# Western Horse mackerel



Latest advice: 29 Sep 2023

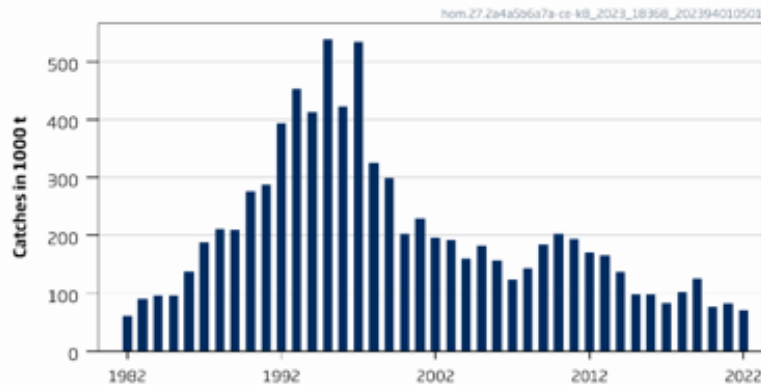


# Western Horse mackerel – ICES Advice

## ICES advice on fishing opportunities

ICES advises that when the MSY approach and precautionary considerations are applied, there should be zero catch in 2024.

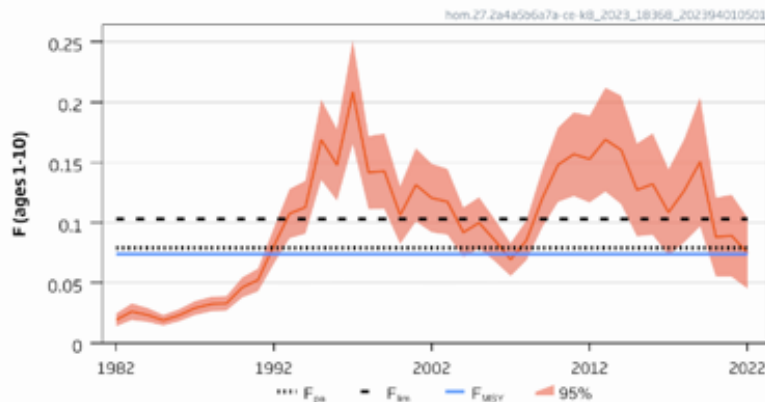
### Catches



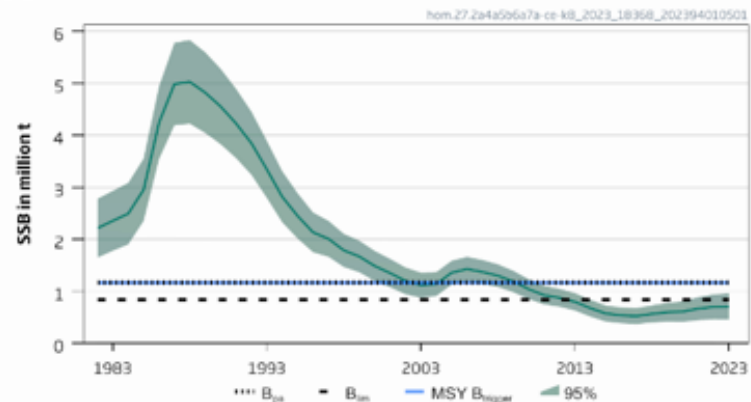
### Recruitment (age 0)



### F



### SSB



Full benchmark proposed 2024 due to issues with rescaling, reference points and rebuilding

# North Sea Horse mackerel



Latest advice: 29 Sep 2023

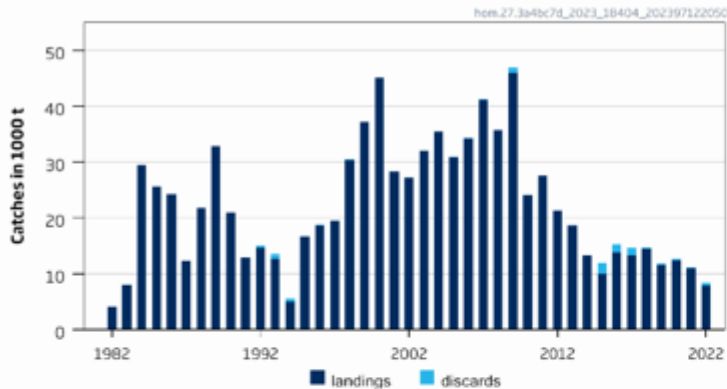


# North Sea Horse mackerel – ICES Advice

## ICES advice on fishing opportunities

ICES advises that when the MSY approach is applied, catches should be no more than 9730 tonnes in each of the years 2024 and 2025.

### Catches

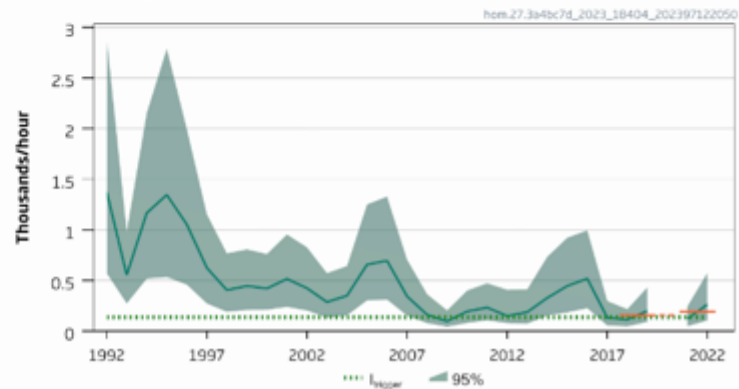


8% increase since last advice

### Length-based Fishing Pressure Proxy



### Abundance index



# Boarfish



Latest advice: 29 Sep 2023



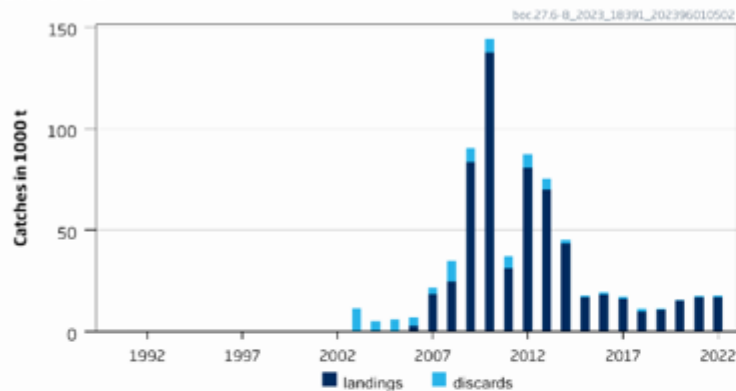
# Boarfish – ICES Advice

## ICES advice on fishing opportunities

ICES advises that when the MSY approach is applied, catches should be no more than 27 349 tonnes in each of the years 2024 and 2025.

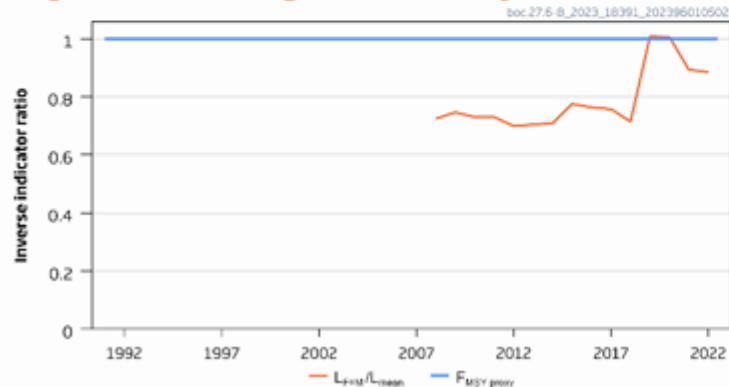


### Catches



20% increase since last advice

### Length-based Fishing Pressure Proxy



### Relative biomass

