CELTIC SEA AND WESTERN CHANNEL COD

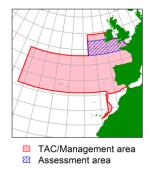
Divisions 7.e-k & 7.b,c



ADVICE FOR 2023

ICES advises that when the MSY approach and precautionary considerations are applied, there should be zero catch in 2023. ICES notes the existence of a precautionary management plan, developed and adopted by one of the relevant management authorities for this stock.

ICES does not provide advice for cod in 7.bc. Average reported landings in the last 3 years was 20 t.



EU 583 t TAC 644 t

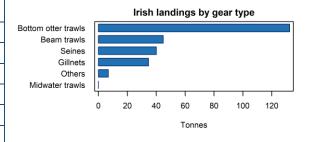
BEL 14 t

FRA 231 t

GBR 61 t

KEY POINTS

ICES Assessment Category	I (Quantitative Assessment)	
Management Plan	WWMAP (target)	
Advice Basis	Management Plan	Catch=0 t
Ranges	F _{MSY} Range Lower	Catch=262 t
	F _{MSY}	Catch=424 t
	F _{MSY} Range Upper	Not applicable
Landing Obligation	From 2019	No derogations or exemptions



MANAGEMENT IN 2022

- The assessment area covers 7.e-k, with inclusion of catch from the south Irish Sea (7.a; ICES rectangles 33E2 and 33E3). This does not correspond to the TAC management area of 7.b-c, 7.e-k, 8, 9 and 10; Union waters of CECAF 34.1.1. Cod in 7b,c are not assessed by ICES but are within this TAC area.
- The 2021 reallocation of 52 t accounted for 28% of Irish Sea (Division 7.a) landings and 8% of Celtic Sea (Divisions 7.b-k) landings.
- Since 2005, ICES rectangles 30E4, 31E4, and 32E3 have been closed during the first quarter as part of the Celtic Sea Conservation area (Appendix VII).
- Since June 2020, a number of additional technical measures were introduced in parts of the Celtic Sea, including raised footropes and changes to mesh sizes, with the aim of reducing bycatch of cod in fisheries targeting other species.
- The TAC is exclusively for bycatches of cod in fisheries for other species. No directed fisheries for cod are permitted under this quota.

KEY STOCK CONSIDERATIONS

- Because of the very low stock size and continued high mortality the short-term stock development is very sensitive to incoming recruitment. The assumed recruitment in 2022 and 2023 used in the forecast constitutes a significant part (70%) of the projected SSB in 2024.
- There was an observed change in fishing behaviour in 2021 with increased levels of discarding of fish above MCRS which may be due to restrictive TACs and delay in total TAC attribution. The discard rate in 2021 was 54% compared to an average of 20% for the previous 3 years.
- The estimate of fishing mortality is highly sensitive to the additional annual data; this is due to the low stock size.
- Most Irish catch is taken as a minor bycatch throughout the Celtic Sea. This makes it difficult to control the fishing mortality on the stock in mixed fisheries.

• In recent years ICES has provided a technical service on "unavoidable bycatches" of cod in the Celtic Sea based on a mixed fisheries analysis. It is likely that cod will continue to be the primary "choke" species for most Celtic Sea fleets in 2023.



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Cod (Gadus morhua) in divisions 7.e-k (western English Channel and southern Celtic Seas)

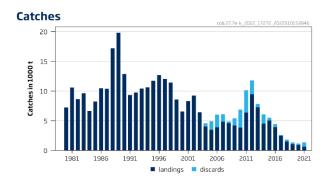
ICES advice on fishing opportunities

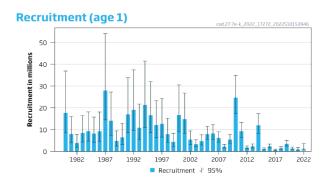
ICES advises that when the MSY approach and precautionary considerations are applied, there should be zero catch in 2023.

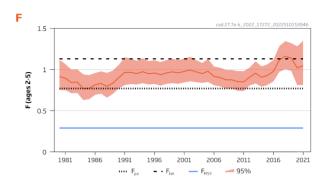
ICES notes the existence of a precautionary management plan, developed and adopted by one of the relevant management authorities for this stock.

Stock development over time

Fishing pressure on the stock is above F_{MSY} and between F_{pa} , and F_{lim} , and spawning-stock size is below MSY $B_{trigger}$, B_{pa} , and B_{lim} .







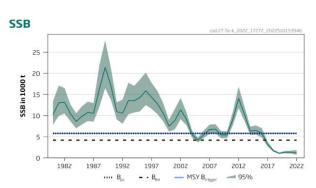


Figure 1 Cod in divisions 7.e–k. Summary of the stock assessment. Discard estimates are available from 2004. The assumed recruitment value for 2022 is shaded in a lighter colour.