

Blue jack mackerel (*Trachurus picturatus*) in CECAF 34.1.2 (JAA/C3412-)

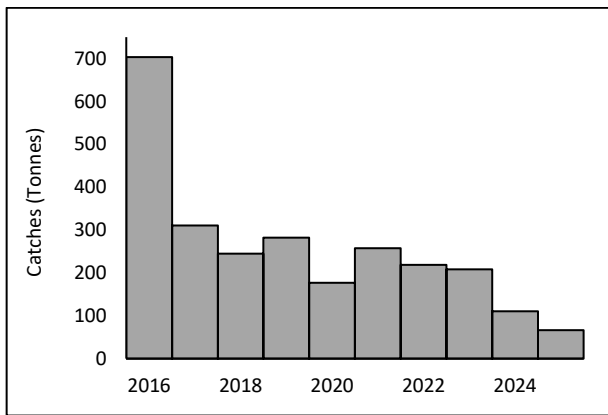
Portugal national stock management proposal

Portugal proposes that, under the MSY approach, catches in 2026 for CECAF area 34.1.2 should not exceed 514 tonnes. Although the RFB calculation indicates a potential catch level of approximately 590 tonnes, scientific advice and precautionary considerations justify maintaining the TAC at 514 tonnes. This approach is considered necessary to ensure fleet stability and to safeguard the stock, in line with the ICES precautionary principles applicable to category 3 stocks.

Stock development over time

Fishing pressure on the stock is bellow $F_{MSY proxy}$ and the stock size index is above $I_{trigger}$.

Catches



Biomass index

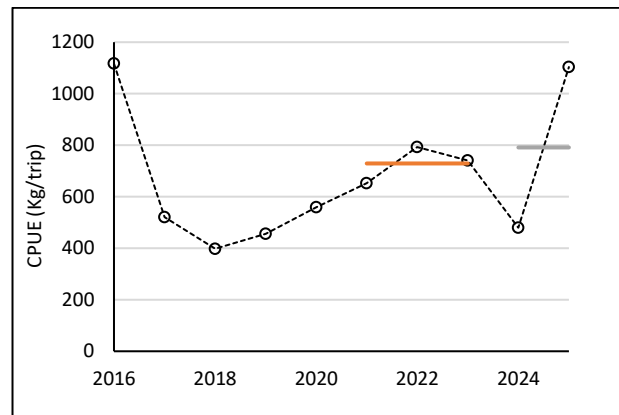


Figure 1. Blue jack mackerel in the CECAF area 34.1.2. **Top left:** National estimates of catches (in kg), including landings, catches for pole and line bait and discards. *The reduced catch value recorded for 2025 reflects the incomplete temporal coverage of the fishery, as fishing operations were conducted only during the last four months of the year and not over the entire year.* **Top right:** total biomass index (in Kg/trip). The horizontal lines indicate the average of the biomass index for 2021-2023 and for 2024-2025.

Catch scenarios

The ICES framework for Category 3 stocks was applied using the rfb-rule ("2-over-3" rule; Method 2.1, ICES 2022). The CPUE series from the Madeiran purse-seine fleet was used as the indicator of stock development. The advice is based on the previous advised catch (2025), adjusted by (i) the ratio between the mean of the last two index values and the mean of the three preceding values (biomass trend), (ii) the ratio of the observed mean length in the catch to the MSY reference length, and (iii) a biomass safeguard. Discards are estimated to represent approximately 5% of landings.

Table 1. Blue jack mackerel in the CECAF. The basis for the catch scenarios*.

Previous catch advice	514 tonnes
Stock biomass trend	
Index A (2024-2025)	791.36 kg per trip
Index B (2021, 2022, 2023)	729.21 kg per trip
r: stock biomass trend (Index ratio (A/B))	1.09
Fishing pressure proxy	
Mean catch length ($L_{mean} = L_{2025}$)	23.25 cm
MSY proxy length ($L_{F=M}$)	19.79 cm
f: fishing pressure proxy relative to MSY proxy ($L_{2025}/L_{F=M}$)	1.17

Table 1. Blue jack mackerel in the CECAF. The basis for the catch scenarios* (continuation).

Biomass safeguard		
Last index value (I ₂₀₂₅)	479.00 kg per trip	
Index trigger value (I _{trigger} = I _{loss} × 1.4)	557.20 kg per trip	
b: index relative to trigger value, min{I ₂₀₁₆ /I _{trigger} , 1}	1.00	
Precautionary multiplier to maintain biomass above Blim with 95% probability		
m: multiplier (generic multiplier based on life history)	0.90	
RFB calculation **	590 tonnes	
Discard rate	Less than 5% of the landings	
Precautionary buffer	Not applied	-
Catch advice for 2026***	514 tonnes	
% advice change	0%	

* The figures in the table are rounded. Calculations were carried out with unrounded inputs, and computed values may not match precisely when calculated using the rounded figures in the table.

** Formula $[Ay+1 = Ay \times r \times f \times b \times m]$.

** Catch advice value for 2026 relative to the advice value for 2024 and 2025 (514 tonnes).

The proposal of rollover for the catch limits in force for 2026 (514 tonnes) is advised. The proposal to rollover the 514 tonne catch limit for 2026 reflects both the output of the rfb rule (ICES 2022, ICES 2023a) and the interpretation of recent reductions in fishing activity. While the rfb calculation produced 590 tonnes, maintaining the previous advice is consistent with ICES guidance, which allows precautionary adjustments when changes in catches arise primarily from effort variability rather than stock-driven processes.

Basis of the advice

Table 2. Blue jack mackerel in the CECAF. The basis of the advice.

Advice basis	MSY approach
Management plan	No agreed precautionary management plan for blue jack mackerel in this area

Quality of the assessment

The assessment was based on CPUE obtained from the Madeiran fishing fleet operating purse-seine nets, the mean length in the catch relative to the target mean length, and a biomass safeguard.

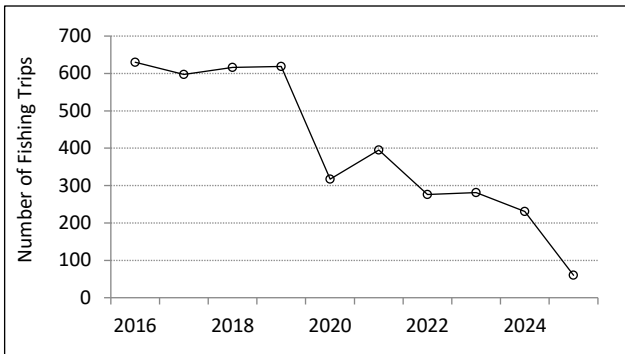
The CPUE series provides a consistent and continuous indicator of biomass trends from 2016 to 2025, with no major discontinuities. Length-composition data were available and adequate for deriving a reliable fishing-pressure proxy. Discards remain low ($\approx 5\%$ of landings) and are unlikely to bias stock perception. The main limitation is that the sharp decline in catches in 2025 reflects a substantial reduction in effort rather than changes in stock status. However, this does not compromise the interpretability of the CPUE index. Overall, the available indicators are coherent and appropriate for a Category 3 trends-based assessment.

Issues relevant for the advice

Blue jack mackerel catches decreased from 704 tonnes in 2016 to 301 tonnes in 2017. Between 2018 and 2023, annual catches remained relatively stable, generally ranging between 200 and 300 tonnes. In 2025, catches totalled 66 tonnes. This sharp decline is primarily associated with reduced fishing activity, only 60 trips were conducted in 2025 compared to 630 trips in 2016, rather than any decrease in stock biomass.

The CPUE index, which increased to 1104 kg/trip in 2025, supports the conclusion that the stock remains productive.

Fishing trips



Fishing vessels

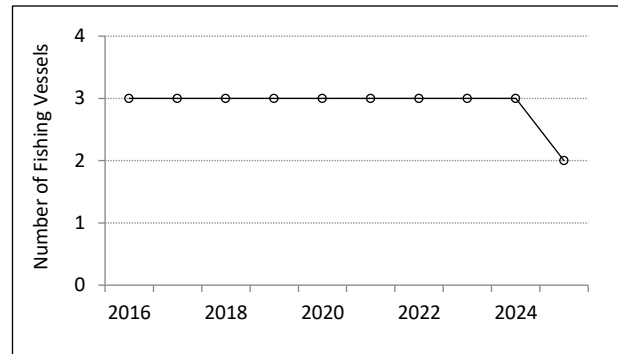


Figure 2. Blue jack mackerel fishery in the CECAF area 34.1.2. Top left: Fishing days by Madeiran fishing fleet operating purse-seine nets. Top right: Number of vessels of Madeiran fishing fleet operating purse-seine nets.

The blue jack mackerel purse-seine fishery carried out by vessels registered in Madeira is traditionally concentrated along the island's southern coast. The spatial patterns shown in Figure 3 illustrate interannual variability in the location of fishing events. In 2016, activity was widespread along the southern coastline, in 2019 and 2022 fishing became more spatially restricted and clustered in specific nearshore areas and in 2025, operations were limited to only a few localized sites.

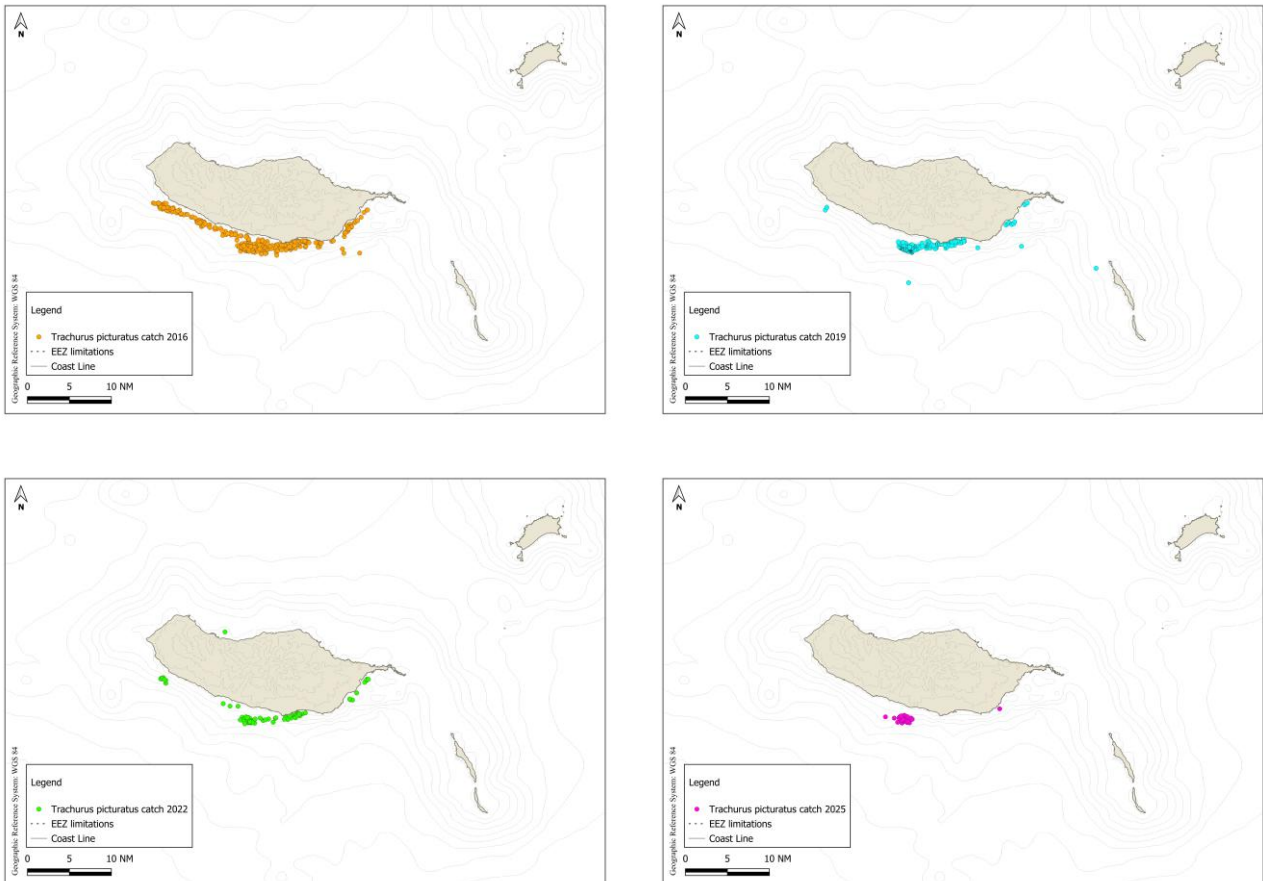


Figure 3. Spatial distribution of blue jack mackerel fishing events conducted by the Madeiran purse-seine fishery in 2016, 2019, 2022, and 2025.

Reference points

Table 3. Blue jack mackerel in the CECAF. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	I_{trigger}	557.20	$I_{\text{loss}} \times 1.4$. I_{loss} is defined as the lowest observed CPUE from the time series.	ICES (2023)
	$F_{\text{MSY proxy}}$	$L_{\text{mean}}/L_{F=M}$ = 1.09	Relative value from LBI analysis, assuming $M/k = 1.5$. $L_{F=M}$ is based on L_c (length at 50% of modal abundance).	ICES (2023)

Basis of the assessment

Table 4. Blue jack mackerel in the CECAF. The basis of the assessment.

ICES stock data category	3 (ICES, 2022)
Assessment type	Trends-based assessment (ICES, 2023)
Input data	CPUE index from Madeiran purse-seine nets
Discards and bycatch	Estimated at roughly 5% of the landings
Indicators	None
Other information	Number of fishing trips and vessels Spatial distribution of the catches
Working group	Despite Madeira being located within the CECAF area, the team expresses its interest in participating in the Working Group on Widely Distributed Stocks (WGWIDE), as the group's scientific activities and stock assessments are highly relevant to the pelagic resources exploited in Madeiran waters.

History of the advice, catch, and management

Landings in recent years largely reflect changes in fishing activity rather than variations in stock condition. Between 2018 and 2023, catches were relatively stable (200–300 t), but the 2025 catch (66 t) was markedly lower due to a significant reduction in fishing effort. CPUE values ranged between 398 and 793 kg/trip from 2018 to 2023 and increased sharply to 1104 kg/trip in 2025, comparable to the high values recorded in 2016 (1117 kg/trip). This pattern indicates that the stock remains productive and that the reduced landings in 2025 stem from operational constraints rather than biological factors (Table 5).

Table 5. Blue jack mackerel TACs and total catches in CECAF area 34, between 2016 and 2025, for *Trachurus picturatus*. Weights are in tonnes.

Year	EU TAC CECAF 34.1.2 area	Catches CECAF 34.1.2 area
2016	1106	704
2017	995	311
2018	995	245
2019	896	282
2020	896	177
2021	896	258
2022	896	219
2023	896	208
2024	842	111
2025	514	66*

* In contrast with previous years, during which the fishery operated throughout the full 12-month cycle, fishing activity in 2025 occurred only during the final four months of the year due to several constraining factors, including vessel breakdowns, adverse weather conditions, and a shortage of available crew.

History of catch and landings

Table 6. Blue jack mackerel in CECAF area 34.1.2. Catch distribution by fleet in 2025.

Total catch (2025)	Landings	Discards
66 t*	100% purse-seine nets	Less than 5% of the landings
	36 t	

* In contrast with previous years, during which the fishery operated throughout the full 12-month cycle, fishing activity in 2025 occurred only during the final four months of the year due to several constraining factors, including vessel breakdowns, adverse weather conditions, and a shortage of available crew.

Summary of the assessment

The CPUE index for 2025 shows a substantial increase relative to 2024 and is within the upper range of the historical series. Length-based indicators suggest exploitation close to the MSY proxy reference. No evidence suggests a decline in the underlying stock, and observed reductions in catches are attributable to effort-related factors.

Table 7. Blue jack mackerel in CECAF area 34.1.2. Assessment summary. Biomass index from purse-seine nets fishery (CPUE – kg/trip).

Year	Biomass index (kg per trip)
2016	1117
2017	520
2018	398
2019	456
2020	559
2021	653
2022	793
2023	741
2024	479
2025	1104

Sources and references

Vasconcelos, J. 2016. Estrutura Populacional do Chicharro, *Trachurus picturatus* do Atlântico Nordeste. PhD Thesis. Funchal, University of Madeira 277 pp.

ICES. 2022. ICES technical guidance for harvest control rules and stock assessments for stocks in categories 2 and 3. In Report of ICES Advisory Committee, 2022. ICES Advice 2022, Section 16.4.11. <https://doi.org/10.17895/ices.advice.19801564>

ICES. 2022a. Advice on fishing opportunities. In Report of ICES Advisory Committee, 2021. ICES Advice 2021, section 1.1.1. <http://doi.org/10.17895/ices.advice.7720>.

ICES. 2022b. Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA). ICES Scientific Reports. 4:51. 518 pp. <http://doi.org/10.17895/ices.pub.19982720>.

ICES. 2025. Working Group on Widely Distributed Stocks (WGWIDE). ICES Scientific Reports. 07:96. 921 pp. <https://doi.org/10.17895/ices.pub.30233824>

Elaborado por: Ricardo Sousa, Nuno Gouveia