

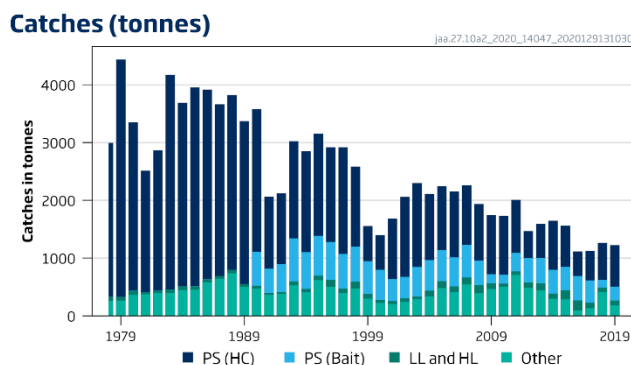
## Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2 (Azores grounds)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, catches should be no more than 878 tonnes in each of the years 2021 and 2022.

*Note: This advice sheet is abbreviated due to the COVID-19 disruption. The previous advice issued for 2019 and 2020 is attached as Annex 1.*

### Stock development over time



**Figure 1** Blue jack mackerel in Subdivision 10.a.2. Landings and other catches. Landings include purse-seine catches for human consumption – PS (HC) – purse-seine catches for bait – PS (Bait) – and include unsold purse-seine landings withdrawn at the port as well as longline and handline catches (LL and HL). Other catches include longline bait, tuna live bait, and recreational catches (incomplete in 2017–2019).

### Stock and exploitation status

**Table 1** Blue jack mackerel in Subdivision 10.a.2. State of the stock and fishery relative to reference points.

Blue jack mackerel in subdivision 10A12: state of the stock and fishery relative to reference points:										
		Fishing pressure				Stock size				
		2017	2018	2019		2017	2018	2019		
Maximum sustainable yield	$F_{MSY}$	?	?	?	Unknown	$MSY B_{trigger}$	?	?	?	Unknown
Precautionary approach	$F_{pa}, F_{lim}$	?	?	?	Unknown	$B_{pa}, B_{lim}$	?	?	?	Unknown
Management plan	$F_{MGT}$	—	—	—	Not applicable	$B_{MGT}$	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	?	?	?	Unknown

## Catch scenarios

ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. Because the precautionary buffer was applied in 2018, it has not been applied again. Discarding is considered negligible.

**Table 2** Blue jack mackerel in Subdivision 10.a.2. The basis for the catch scenarios.

Advised catch for 2019–2020 issued in 2018	878 tonnes	
Discard rate	Negligible	
Precautionary buffer	Not applied	-
Catch advice*	878 tonnes	

\* Advised catches for 2019–2020.

## Quality of the assessment

There are no indices available which would reflect the development of the stock.

Recreational catches do not include catches by anglers from the shore.

## History of advice, catch, and management

**Table 3** Blue jack mackerel in Subdivision 10.a.2. History of ICES advice, the agreed TAC, official landings and ICES estimates of total catches. Weights in tonnes.

Year	ICES advice	Catch corresponding to the advice	Agreed TAC in 10*	Official landings** 10.a.2	ICES catches
2000			5000	655	1399
2001		-	5000	1101	1681
2002		-	4000	1450	2063
2003		-	3200	1502	2301
2004		-	3200	1246	2112
2005		-	3200	1231	2247
2006		-	3200	1241	2157
2007		-	3200	1154	2259
2008		-	3200	1119	1937
2009		-	3200	1121	1742
2010		-	3072	1078	1732
2011		-	3072	982	2008
2012	No increase in catch	-	3072	561	1465
2013	No increase in catch (last three years' average)	< 1800	3072	715	1594
2014	No increase in catch (last year's average)	< 1800	3072	943	1648
2015	No increase in catch (last two years' average)	< 1098	3072	874	1562
2016	No new advice, same as for 2015	< 1098	3072	602	1164
2017	Precautionary approach (Same catch value as advised for 2016)	≤ 1098	3072	606	1124
2018	Precautionary approach (Same catch value as advised for 2016)	≤ 1098	3072	852	1268

Year	ICES advice	Catch corresponding to the advice	Agreed TAC in 10*	Official landings** 10.a.2	ICES catches
2019	Precautionary approach (precautionary buffer applied)	≤ 878	3072	1044	1231
2020	Precautionary approach (Same catch value as advised for 2019)	≤ 878	3072		
2021	Precautionary approach	≤ 878			
2022	Precautionary approach (Same catch value as advised for 2021)	≤ 878			

\* EU TAC for *Trachurus* spp. in Subarea 10: EU waters adjacent to the Azores

\*\* Starting in 2018, official landings include unsold purse-seine landings withdrawn at the port.

## History of catch, and landings

**Table 4** Blue jack mackerel in Subdivision 10.a.2. History of catches (in tonnes).

Year	Official landings			Additional catches				Total
	Purse-seine (human consumption)	Purse-seine (withdrawn at the port and used for bait)*	Longline and handline	Recreational	Longline (discards and used for bait)	Tuna bait	Purse-seine (withdrawn at the port and used for bait)*	
1978	2657		78	129	15	115	0	2995
1979	4114		61	130	15	118	0	4439
1980	2920		70	132	22	210	0	3354
1981	2104		39	135	9	229	0	2516
1982	2429		43	142	10	239	0	2862
1983	3711		67	142	21	231	0	4172
1984	3180		62	135	17	295	0	3689
1985	3442		60	136	11	303	0	3952
1986	3282		58	135	9	433	0	3918
1987	2974		53	139	8	491	0	3666
1988	3032		55	143	8	586	0	3824
1989	2824		50	138	9	352	0	3373
1990	2472		48	117	11	345	584	3577
1991	1247		33	115	6	242	421	2064
1992	1226		35	121	6	249	486	2123
1993	1684		70	130	22	375	742	3023
1994	1745		59	125	18	264	636	2847
1995	1769		79	119	24	474	688	3153
1996	1642		123	110	38	351	656	2920
1997	1849		72	110	31	259	599	2920
1998	1387		120	111	52	308	606	2584
1999	609		84	119	37	141	565	1555
2000	602		53	117	23	83	521	1399
2001	1046		55	121	24	59	376	1681
2002	1387		63	132	28	82	371	2063
2003	1455		47	128	21	140	510	2301
2004	1148		98	111	19	208	528	2112
2005	1111		120	120	236	124	536	2247
2006	1145		96	111	40	264	501	2157

Year	Official landings			Additional catches				Total
	Purse-seine (human consumption)	Purse-seine (withdrawn at the port and used for bait)*	Longline and handline	Recreational	Longline (discards and used for bait)	Tuna bait	Purse-seine (withdrawn at the port and used for bait)*	
2007	1032		122	115	58	370	562	2259
2008	980		139	110	75	205	428	1937
2009	1023		98	119	115	230	157	1742
2010	1021		57	114	75	313	152	1732
2011	920		62	118	79	510	319	2008
2012	467		94	42	41	399	422	1465
2013	592		123	147	54	237	441	1594
2014	852		91	112	49	134	410	1648
2015	714		160	103	67	116	402	1562
2016	428		174	32	61	48	421	1164
2017	511		95	N/A	37	96	385	1124
2018	643	132	77	4**	31	381		1268
2019	720	241	83	5**	26	156		1231

\*Purse-seine catches in excess of daily sales limits are withdrawn from the human consumption market but are recorded as fish for bait. Starting in 2018, these catches are included in official landings.

\*\* Estimation of recreational fishing from boats only; shore anglers data are not included.

### Summary of the assessment

There is no assessment for blue jack mackerel in this area.

### Sources and references

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM 68. 42 pp. <https://doi.org/10.17895/ices.pub.5322>.

ICES. 2020. Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA). Draft report. ICES Scientific Reports. 2:41. 655 pp. <http://doi.org/10.17895/ices.pub.5977>.

*Recommended citation:* ICES. 2020. Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2 (Azores grounds). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, jaa.27.10a2. <https://doi.org/10.17895/ices.advice.7650>.

## Annex 1

ICES Advice on fishing opportunities, catch, and effort  
Bay of Biscay and the Iberian Coast Ecoregion  
jaa.27.10a2

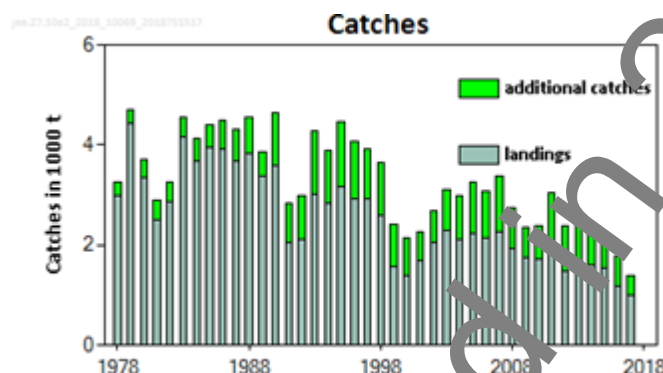
### Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2 (Azores grounds)

#### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, catches should be no more than 878 tonnes in each of the years 2019 and 2020.

#### Stock development over time

The available information is insufficient to evaluate the exploitation and the trends of blue jack mackerel in the Azores grounds ecoregion. Official commercial landings and ICES catches have been declining in recent years.



**Figure 1** Blue jack mackerel in Subdivision 10.a.2. Official landings (artisanal purse-seine fishery and hooks and lines) and ICES estimates of additional catches (longline bait, tuna live bait, bait and unsold purse-seine landings withdrawn at port, and recreational; incomplete in 2017).

#### Stock and exploitation status

ICES cannot assess the stock and exploitation status relative to MSY and precautionary approach (PA) reference points because the reference points are undefined.

**Table 1** Blue jack mackerel in Subdivision 10.a.2. State of the stock and fishery relative to reference points.

		Fishing pressure			Stock size		
		2015	2016	2017	2015	2016	2017
Maximum sustainable yield	$F_{MSY}$	?	?	? Undefined	$MSY B_{trigger}$	? ?	? Undefined
Precautionary approach	$F_{pa}, F_{lim}$	?	?	? Undefined	$B_{pa}, B_{lim}$	? ?	? Undefined
Management plan	$F_M$	—	—	— Not applicable	$B_{MGT}$	—	— Not applicable
Qualitative evaluation	—	? ?	? ?	? Undefined	—	? ?	? Undefined

#### Catch scenarios

The ICES framework for category 5 stocks is applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer was never applied for this stock. Because there is no information on stock size or fishing pressure, the precautionary buffer was applied. Discarding is considered to be negligible.

**Table 2** Blue jack mackerel in Subdivision 10.a.2. The basis for the catch scenarios.

Recent advised catch for 2018 issued in 2016	1098 t	
Discard rate	Negligible	
Precautionary buffer	Applied	0.8
Catch advice*	878 t	
Advice change	-20%	

\* [(advice for 2018 × precautionary buffer)].

The advice has changed because the biomass indices used previously are either no longer available or not considered appropriate and the precautionary buffer was applied.

### Basis of the advice

**Table 3** Blue jack mackerel in Subdivision 10.a.2. The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for blue jack mackerel in this area

### Quality of the assessment

There are no indices available which would reflect the development of the stock. Biomass indices used in previous assessments were derived from fleets targeting juveniles, and as these were based on purse-seine catch per unit of effort (cpue) data, it is unclear whether they reflect the stock development reliably. In addition, one of the indices is no longer available as the tuna bait fishery has been displaced to Madeira in the last two years.

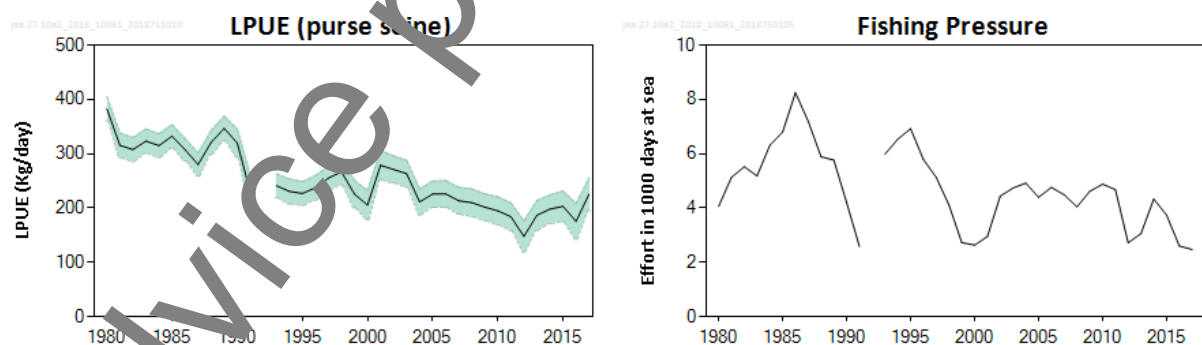
Official landings do not take into account live and dead bait catches, unsold purse-seine landings withdrawn at port for bait and crew consumption, or recreational catches.

### Issues relevant for the advice

The bulk of the catch consists of juvenile fish.

Recreational fisheries have recently taken about 10% of the total catches. The ICES advice relates to the total stock catch.

There is information available from one purse-seine fishery which mainly targets juvenile fish. This fishery lands most of the catches from this stock. There is an overall increasing trend in length per unit of effort (lpue) until 2012 with a slight increase afterwards, while effort is fluctuating largely and is currently considered to be at the lower range of observed effort. ICES no longer consider this information representative of stock development.



**Figure 2** Blue jack mackerel in Subdivision 10.a.2. Lpue (left) and effort (right) from the purse-seine fleet.

### Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 4** Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2. The basis of the assessment.

ICES stock data	5 (ICES, 2016)
Assessment type	No assessment
Input data	Catch statistics
Discards and bycatch	Negligible
Indicators	None
Other information	Effort and cpue/lpue
Working group	Working Group on Southern Horse Mackerel, Anchovy, and Sardine (WGHANSA)

## Information from stakeholders

There is no additional information available.

## History of advice, catch, and management

**Table 5** Blue jack mackerel in Subdivision 10.a.2. History of ICES advice, the agreed TAC, official landings and ICES estimates of total catches. Weights in tonnes.

Year	ICES advice	Catch corresponding to the advice	Agreed TAC in 10*	Official landings 10.a.2	ICES catches
2000			5000	655	1399
2001		-	5000	1101	1681
2002		-	4000	1450	2063
2003		-	3200	1502	2301
2004		-	3200	1246	2112
2005		-	3200	1231	2247
2006		-	3200	1241	2157
2007		-	3200	1154	2259
2008		-	3200	1119	1937
2009		-	3200	1121	1742
2010		-	3072	1078	1732
2011		-	3072	982	2008
2012	No increase in catch	-	3072	561	1465
2013	No increase in catch (last 3 years average)	1800	3072	715	1594
2014	No increase in catch (last year's average)	< 1800	3072	942	1610
2015	No increase in catch (last 2 years average)	< 1098	3072	874	1538
2016	No new advice, same as for 2015	< 1098	3072	602	1127
2017	Precautionary approach (Same catch value as advised for 2016)	≤ 1098	3072	606	991
2018	Precautionary approach (Same catch value as advised for 2016)	≤ 1098	3072		
2019	Precautionary approach (precautionary buffer applied)	≤ 878			

Year	ICES advice	Catch corresponding to the advice	Agreed TAC in 10*	Official landings 10.a.2	ICES catches
2020	Precautionary approach (Same catch value as advised for 2019)	≤ 878			

\*EU TAC for *Trachurus spp.* in Subarea 10: EU waters adjacent to the Azores

### History of catch and landings

**Table 6** Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2. Catch distribution by fleet in 2017 as estimated by ICES.

Total catch* (2017)	Landings			Other catch	Other catch	Discards
991 t	10% hooks and lines	90% purse-seiners	Recreational	Tuna bait	Longliners bait	Considered to be negligible
	95 t	896 t*	Not available	Not available	Not available	

\* In addition to the official landings of 511 t, this includes unsold catches of 395 t from small purse seiners for bait and crew consumption as estimated by ICES.



**Table 7** Blue jack mackerel (*Trachurus picturatus*) in Subdivision 10.a.2. History of catches (in tonnes).

Year	Tuna bait	Recreational	Discards/bait (longline)	Withdrawn/bait (purse seine)	Official landings		Total
					Purse seine	Longline + handline	
1978	115	129	15	0	2657	78	2995
1979	118	130	15	0	4114	61	4439
1980	210	132	22	0	2920	7	3354
1981	229	135	9	0	2104	3	2516
1982	239	142	10	0	2429	43	2862
1983	231	142	21	0	3711	67	4172
1984	295	135	17	0	3180	62	3689
1985	303	136	11	0	344	60	3952
1986	433	135	9	0	3282	58	3918
1987	491	139	8	0	297	53	3666
1988	586	143	8	0	3032	55	3824
1989	352	138	9	0	2824	50	3373
1990	345	117	11	584	2472	48	3577
1991	242	115	6	421	1247	33	2064
1992	249	121	6	486	1226	35	2123
1993	375	130	22	742	1684	70	3023
1994	264	125	18	636	1745	59	2847
1995	474	119	24	688	1769	79	3153
1996	351	110	38	656	1642	123	2920
1997	259	110	31	500	1849	72	2920
1998	308	111	52	606	1387	120	2584
1999	141	119	37	565	609	84	1555
2000	83	117	23	521	602	53	1399
2001	59	121	24	376	1046	55	1681
2002	82	132	28	371	1387	63	2063
2003	140	128	21	510	1455	47	2301
2004	208	111	19	528	1148	98	2112
2005	124	120	236	536	1111	120	2247
2006	264	111	40	501	1145	96	2157
2007	370	115	58	562	1032	122	2259
2008	205	110	72	428	980	139	1937
2009	230	119	115	157	1023	98	1742
2010	313	114	75	152	1021	57	1732
2011	510	118	79	319	920	62	2008
2012	399	42	41	422	467	94	1465
2013	237	147	54	441	592	123	1594
2014	96	112	49	410	852	91	1610
2015	92	103	67	402	714	160	1538
2016	34*	32	104	421	428	174	1193
2017	N/A	N/A	N/A	385	511	95	991

N/A- Not available

\*preliminary.

## Summary of the assessment

There is no assessment for blue jack mackerel in this area.

## Sources and references

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM 68. 42 pp.

ICES. 2016. Advice basis. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2. ICES. 2018. Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA), 26–30 June 2018, Lisbon, Portugal. ICES CM 2018/ACOM:17. 588 pp.

Advice provided in 2018