SPRFMO
South Pacific Regional Fisheries Management Organisation

14TH MEETING OF THE SCIENTIFIC COMMITTEE

7 to 12 September 2026, Tórshavn, Faroe Islands

SC14 – JM 01
Catch history of *Trachurus murphyi*

Secretariat

1. Summary

Information collected by the Secretariat under the *Trachurus murphyi* conservation and management measure (CMM 01) indicates that:

- **2025 catch performance:** Total *Trachurus murphyi* (Chilean jack mackerel) catch in 2025 was 1,419,640 tonnes, an increase of 9.5% compared to 2024 (1,296,740 t).
- **2026 catch to June:** As of the end of June 2026, cumulative catch was 434,203 t. This is around half of catches at the same point in recent years: 49.1% lower than the same period for 2025 (852,894 t), and 56.6% of the average Jan–Jun catch for the years 2021–2025 (766,877 t).
- **No 2026 projection:** No Secretariat projection of the 2026 total is offered due to data limitations. Members are invited to provide in-season estimates by Fleet.
- **Fleet contributions in 2025:** Fleets 1&2 (Chile) accounted for 85.9% of the total 1 419 640t (1,219,027 t) 2025 catch, Fleet 3 (Peru/Ecuador coastal) contributed 12.0% (170,944 t), and Fleet 4 (offshore trawl) contributed 2.1% (29,619 t).
- **Seasonal timing changes:** The month in which 70% of the final annual catch was reached has moved later. Across 2010 to 2024 it ranged from April to July; in 2025 it was reached in August, the latest in the series.

The SC is invited to review this paper and liaise with the Secretariat in cases where potential updates may be needed.

2. Background

This paper is submitted to the Scientific Committee pursuant to paragraph 24 of CMM 01-2026 (*Trachurus murphyi*), which requires that the information collected under paragraphs 14, 17 and 22, and any stock assessments and research in respect of *Trachurus murphyi* fisheries shall be submitted for review to the Scientific Committee.

Historical Chilean jack mackerel (CJM) catch data (monthly and annual) were compiled from Member and Cooperating non-Contracting Parties (CNCP) submissions to the Secretariat under the SPRFMO Data Standards (CMM 02-2026, paragraph 1/Annex 13). This paper summarises the updated catch series through December 2025 and presents 2026 year-to-date (YTD) indicators.

Monthly catch data received from Members are estimates. The series consists of estimates other than where an annual catch total has subsequently been received. Data for the years to 2025 have been fully received; 2026 remains partial and covers January to June only.

Two provisions bear on reading the series. Under paragraph 7, catches are attributed to the flag State whose vessels have undertaken the fishing activities. Under paragraph 10, a Member or CNCP may transfer to another Member or CNCP all or part of its entitlement to catch, subject to the approval of the receiving Member or CNCP.

Reported catch therefore reflects the entitlement a Member has fished, including entitlement received by transfer. The growth in Chilean catch and the decline for several other Members reflects transfers of entitlement to Chile as well as changes in fishing activity. Transfer notifications are held by the Secretariat and are not reproduced here.

3. Data and methods

Data source: Secretariat master dataset of monthly catches by Participant, Fleet (CJM Fleets 1&2, 3, 4), and Area (EEZs and High Seas).

Aggregation: Monthly and annual totals were derived directly from submitted monthly reports. Fleet splits reflect coding in the dataset: Fleets 1&2 represent northern and central-south Chile purse seine, Fleet 3 the Ecuador/Peru coastal purse seine; and Fleet 4 the offshore trawl fleet. The Secretariat is not able to split the Chilean catch between Fleets 1 and 2; in previous years Chile has provided that split at the SC meeting.

Reporting pathways: Monthly catch reports are submitted during the year, and annual catch totals are submitted under the provisions in CMM 02 (Data Standards) after the year has closed, raised to 'live' weight. The 2025 annual catch totals are due on 30 June 2026, and not later than 30 September with prior notification of the Secretariat, CMM 02 paragraph 1(a). Three Members (Chile, the European Union and the Republic of Korea) had submitted at the time of drafting; Peru and Ecuador, which together constitute Fleet 3, had not.

Seasonality: Cumulative monthly catches were calculated for the last five complete years to visualise timing of catch accrual overall and by Fleet.

Projection: In previous years a seasonal-catch projection was computed for the current year from an average monthly catch profile over the preceding five years. That method has not been applied for 2026. The reasons, and a retrospective test of the method against the last five complete years, are set out in Section 7.

4. Annual catch

Total Chilean jack mackerel catch in 2025 reached 1,419,640 t, a 9.5% increase relative to 2024 (Figure 1). Over the full series reported catch fell from 713,256 t in 2010 to 349,237 t in 2013 and increased each year since 2016.

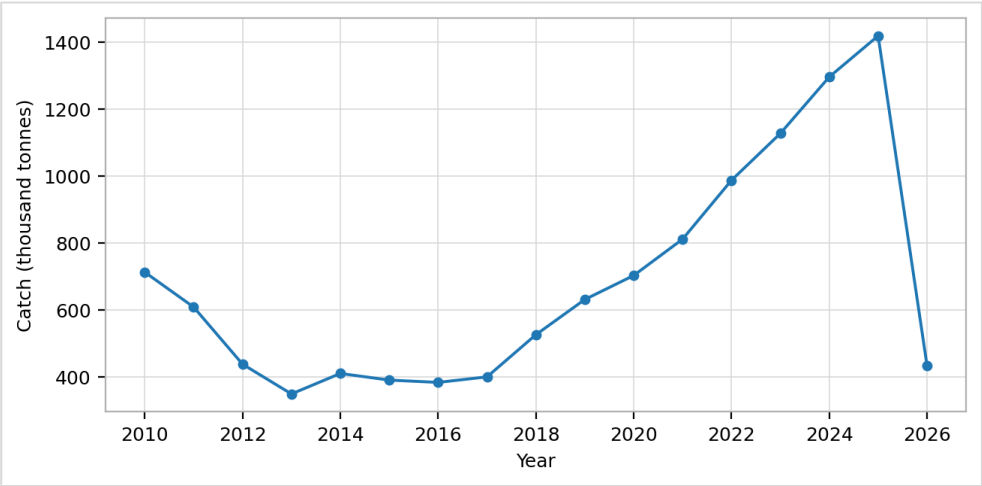

Figure 1. *Annual CJM catch, all fleets and all participants, 2010 to 2026. The series fell to its lowest point in 2013 and has increased every year since 2016. The final point covers January to June 2026 only.*

Catch by fleet is summarised in Figure 2. The composition of the catch has changed markedly over the series. Fleet 4, the offshore trawl fleet, accounted for 34.8% of reported catch in 2010 but 2.1% in 2025, and its absolute catch has fallen from 248,423 t to 29,619 t over the same period. Fleet 3, the far-north coastal fleets of Ecuador and Peru, peaked at 50.0% of the total in 2011 and contributed 12.0% in 2025.

Fleets 1&2, the Chilean purse seine fleets, have grown in both senses. In absolute terms their reported catch rose in each year from 2016 to 2025, from 227,304 t at the low point of the series in 2013 to 1,219,027 t in 2025, a factor of 5.4. In relative terms their proportion of the reported total rose from 64.5% in 2010 to 85.9% in 2025, so the fleets' catch grew faster than the fishery as a whole. Total reported catch increased by 1,035,876 t between 2016 and 2025, of which 87% is accounted for by Fleets 1&2. As noted at Section 2, this reflects transfers of entitlement to Chile as well as changes in fishing activity.

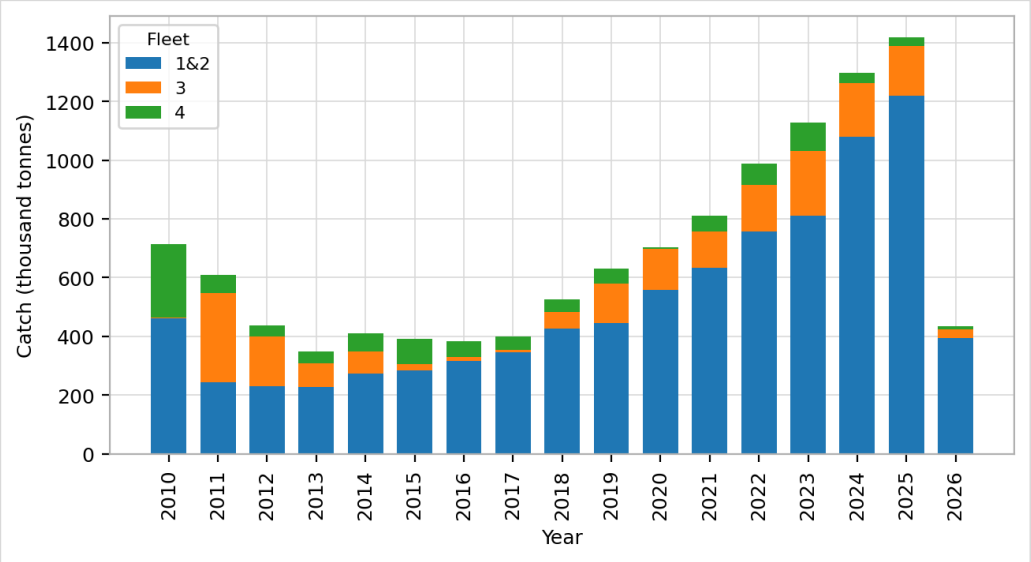

Figure 2. *Annual catch by fleet, 2010 to 2026. Bar height is the annual total and the segments its composition: the Chilean segment grows across the series while Fleet 4 contracts. The 2026 bar is partial and only covers the period January–June.*

5. Participants

In the past, up to 11 Members have reported Chilean jack mackerel catch. However, the number of members reporting on catch has decreased from nine in 2010 to five in 2025. Belize, Cuba and the Faroe Islands last reported in 2010 or 2011, Vanuatu in 2016, and China in 2019. The principal Members participating in 2025 are set out at Table 1, and their catch over the full series in Figure 3.

Table 1. *Reported CJM catch by Participant in 2025, the latest complete year for data.*

Participant	Catch (t)	Catch of 2025 total (%)
Chile	1 219 027	86
Peru	170 942	12
European Union	29 525	2
Korea, Republic of	94	0.01
Ecuador	52	0.004

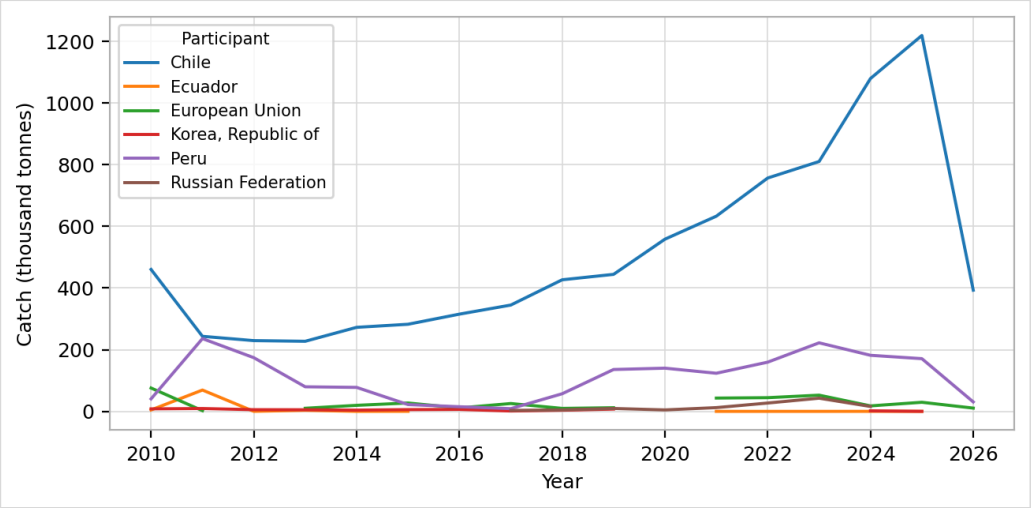

Figure 3. *Annual catch by participant for 2010–2026. On a common absolute scale, the lower catches are compressed toward the x-axis. These catches are easier to see as percentages in Figure 4.*

The same catch expressed as a percentage of the total reported for each year is shown in Figure 4. Chile accounted for 64.5% of reported catch in 2010 and 85.9% in 2025. Peru is the second highest contributor, at 38.8% in 2011 and 12.0% in 2025, having varied considerably in between. Percentages for 2026 are calculated on catch reported to the end of June only and are not comparable with the full years preceding them.

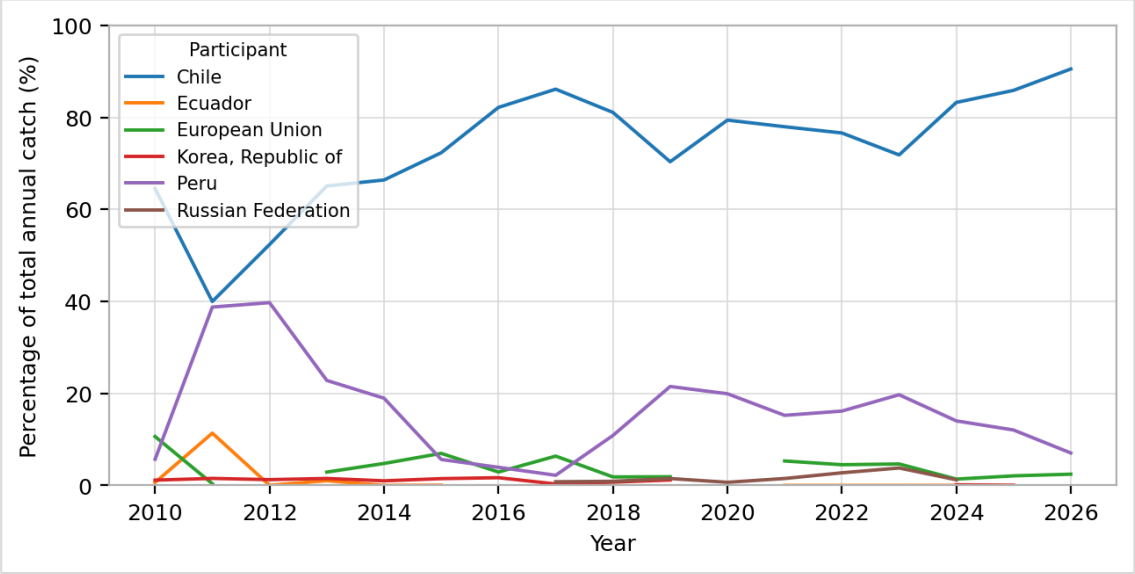

Figure 4. *Percentage of total annual catch by participant, 2010–2026. The 2026 values reflect catch reported to the end of June only.*

6. Catch Trends and Temporal Patterns

Cumulative-catch curves are intended to show the historical scale and development of the fishery. Figures 5–8 show the cumulative percentage of annual catch by month and how the year's catch accumulates as the calendar year progresses. Each point on the curves represents the percentage of total annual catch that has been taken by the end of that month. Each curve ends at 100% by design because by the end of the year all that year's catch has been accounted for, so the figure shows when catch accrued rather than how much. Figure 5 shows this trend for all fleets, and Figures 6–8 show this information by fleet. The latter figures indicate that each fleet accrues their catch at markedly different points in the season. Figures 6–8 are also scaled to the annual total of each fleet, so they are comparable in timing but not in volume.

Figure 5 shows the cumulative percentage of annual catch by month for all fleets, for the years 2021–2025. The figure indicates that the catch accumulated relatively early in the year in 2021, with most taken by June/July and suggesting that catch was concentrated in the first half of the year. This trend was similar in the years 2022 and 2023, whereas 2024 saw a slightly slower accumulation early in the year. The year 2025 had the lowest accumulation of all years shown during the first half of the year, and a larger proportion of annual catch occurring November–December. Several reasons can explain the interannual variability in the temporal distribution of catch, including but not limited to changes in fleet activity, fish availability, etc.

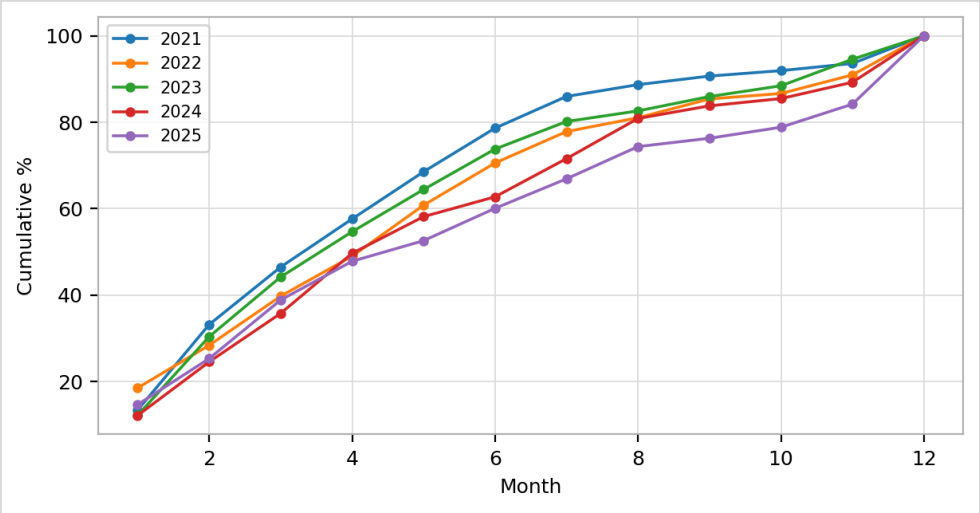

Figure 5. *Cumulative percentage of annual catch by month for years 2021–2025, all fleets.*

Figure 6 shows the cumulative percentage of annual catch by month for Fleets 1&2 (northern and central-south Chile purse seine), for the years 2021–2025. The figure suggests that the years 2021 and 2023 follow similar patterns in terms of when catch accumulated in July of those years, whereas the year 2025 had a later catch accumulation in November. The years 2022 and 2024 saw more gradual catch accumulations. These trends also suggest that catch was relatively concentrated in the first half of the year for 2021–2024.

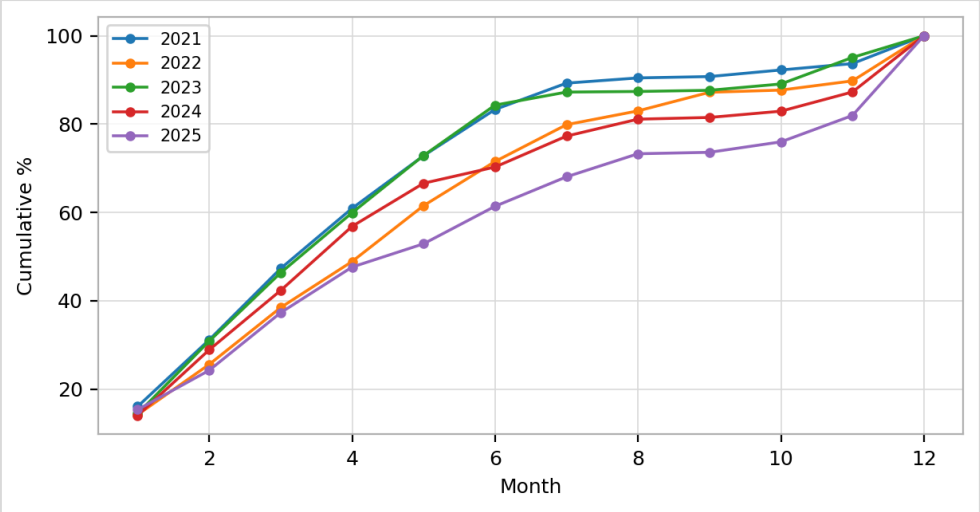

Figure 6. *Cumulative percentage of annual catch by month for years 2021–2025, Fleets 1&2 (northern and central south Chile purse seine)*

Figure 7 shows the cumulative percentage of annual catch by month for Fleet 3 (Ecuador/Peru coastal purse seine), for the years 2021–2025. Steep early rises and relatively flat mid-year stretches indicate a concentrated harvest for the fishery by February for 2021, 2023, and 2025. The year 2024 had a relatively delayed catch pattern, with most of the annual catch occurring in the second half of the year. Peru reported to SC13 that catches early in 2024 decreased as jack mackerel schools dispersed under the persistence of warm conditions associated with the 2023–2024 El Niño, and that from the second quarter cooling conditions concentrated the resource again to the south of the Peruvian coast. Increasing landings, the industrial fishing season, and fishing areas were concentrated between July and September 2024. Peru also reported that in the first quarter the same fleet was directed to chub mackerel, which was more abundant (SC13-Doc29).

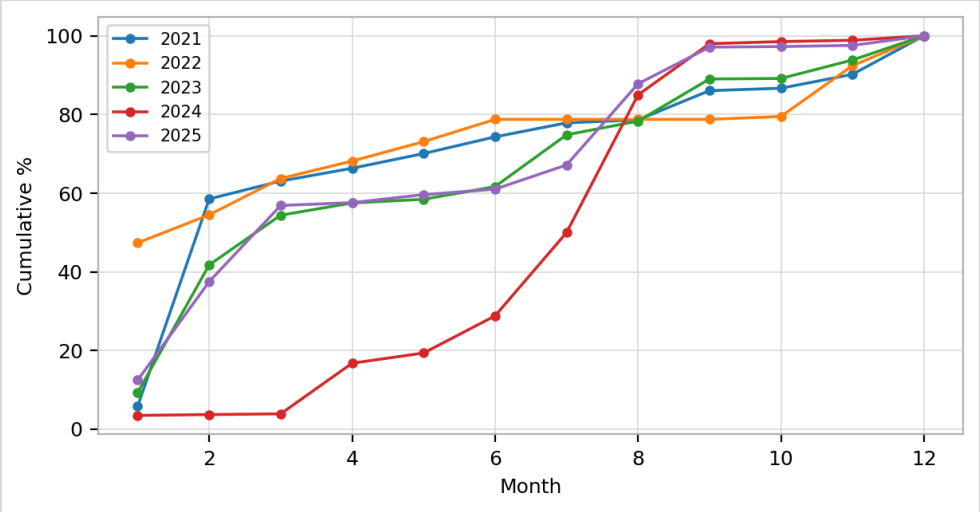

Figure 7. *Cumulative percentage of annual catch by month for years 2021–2025, Fleet 3 (Ecuador/Peru coastal purse seine)*

Figure 8 shows the cumulative percentage of annual catch by month for Fleet 4 (offshore trawl fleet), for the years 2021–2025. The curves remain at or near zero until about April for all years, followed by steep rises. This indicates that the fishery harvest was concentrated to the second half of the year for all years. It should also be noted that the point at which the accumulated catch passes 50% occurs later in 2025 as compared to 2021.

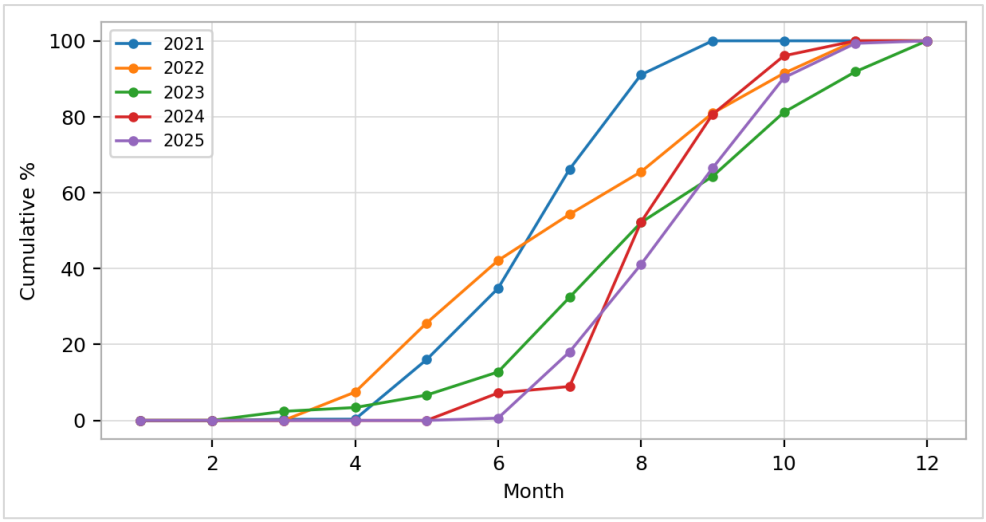

Figure 8. *Cumulative percentage of annual catch by month for years 2021–2025, Fleet 4 (offshore trawl fleet)*

Catch patterns from Figures 5–8 show interannual variability in the timing and concentration of catch, with the accumulation of catch occurring later in some years than others.

Figures 9–11 are boxplots that show historical monthly variability by Fleet for 2017–2024, with 2025 and 2026 monthly performance overlaid. Each box spans the interquartile range of the eight annual values for that month over 2017–2024, that is the middle half of those values from the 25th to the 75th percentile, with the median marked. The reference period ends at 2024 so that the 2025 and 2026 lines are compared against years that do not include them. Whiskers extend from each end of the box to the most extreme value lying within 1.5 times the interquartile range, so they show the historical range excluding outliers rather than the full range. Dots indicate values lying beyond the whiskers, plotted individually; they represent unusually high or low historical catch records, so the full historical range is the whiskers together with those dots. The catch trend for 2026 only includes the months reported to date (January–June).

Figure 9 for Fleets 1&2 (northern and central south Chile purse seine) shows that 2025 catches were relatively strong during the first half of the year, followed by a decline and then a sharp spike from November–December. While the data for 2026 is incomplete and only shows catches for January–June, the trend does show lower catches than in 2025 for the same period, particularly from March onward. This could be attributed to only three Members reporting catches in 2026 as of June.

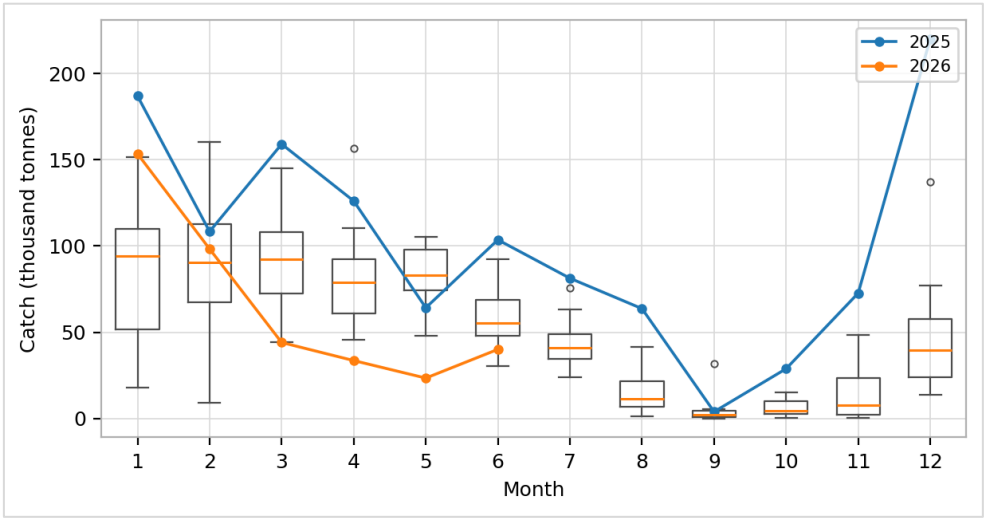

Figure 9. *Monthly catch distribution for Fleets 1&2 (northern and central south Chile purse seine) for the years 2017–2024, with 2025 and 2026 catch levels overlaid*

Figure 10 for Fleet 3 (Ecuador/Peru coastal purse seine) shows that there appears to be concentrations of high catch in February–March and then again in August–September, with catch levels in March and August exceeding the historical catch levels of the fleet. While the data for 2026 is incomplete and only shows catches for January–June, the trend does show lower catches than in 2025 for January–March before matching 2025 levels for April–June.

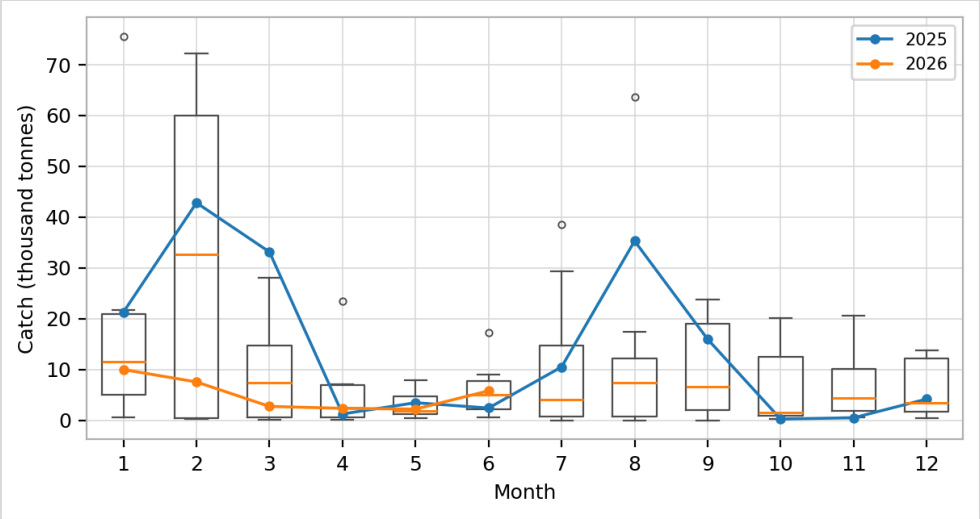

Figure 10. *Monthly catch distribution for Fleet 3 (Ecuador/Peru coastal purse seine), for the years 2017–2024, with 2025 and 2026 catch levels overlaid*

Figure 11 for Fleet 4 (offshore trawl fleet) shows that data for 2025 was only available for June–December, even though historical catches occurred in all months except January from 2017–2024. Data for 2026 was also only provided for May and June. The 2025 catch pattern shows an increase from very low catches in June to a peak in September, with a marked decline from October–December.

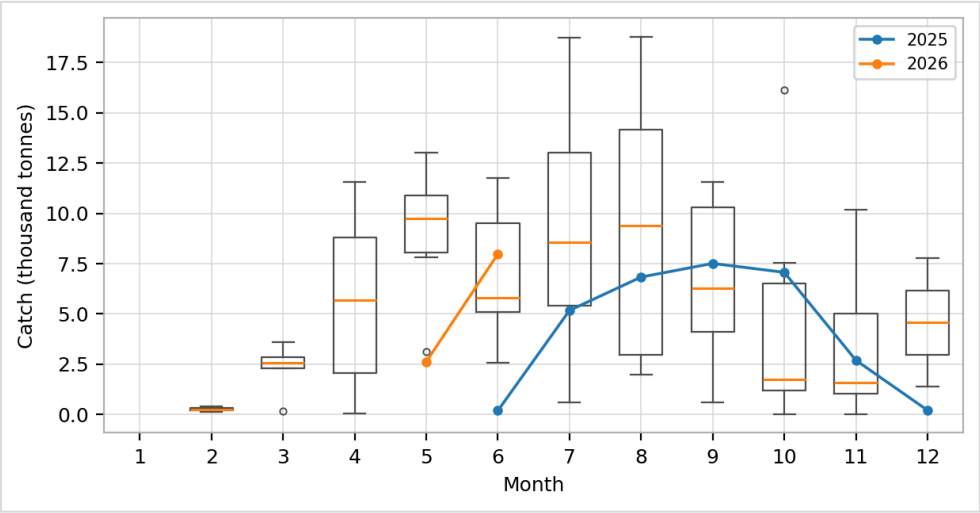

Figure 11. *Monthly catch distribution for Fleet 4 (offshore trawl fleet), for the years 2017–2024, with 2025 and 2026 catch levels overlaid*

Fleets 1&2 (northern and central south Chile purse seine) account for the largest catches with seasonal variability, with catch generally increasing during the middle of the year and reaching relatively higher levels towards the end of the year. Fleet 3 (Ecuador/Peru coastal purse seine) shows more relative stability in overall catch trends, with February being the highest month for catches both historically and more recently in 2025. Fleet 4 (offshore trawl fleet) generally has lower catches than the other fleets and shows a seasonal concentration of catches in the May–October period.

7. 2026 year-to-date catch

As of the end of June 2026, the year-to-date (YTD) cumulative catch (for January–June) totalled 434,203 t, a 49.1% decline compared to catch from the same period in 2025. This YTD cumulative catch comprised 56.6% of the 2021–2025 average for those months. Three Members (Chile, the European Union and Peru) have reported catch for 2026 to date and their reported catch is set out in Table 2.

Table 2. *Reported Chilean jack mackerel catch by Member, January–June 2026*

Participant	YTD 2026 (tonnes)
Chile	393 014
European Union	10 585
Peru	30 604

No projection is offered for 2026 because the pattern of receipt in the current year does not support one. The Secretariat has been receiving data later in the year and from fewer Members than in previous years: three Members had reported by the end of June 2026, compared to four to eight in each earlier year of the series (Table 3).

Table 3. *First month of the calendar year for which each Member has reported catch from 2010–2026, with the number of Participants having reported by the end of June in each year*

Participant	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Belize	Mar	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Chile	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan
China	Mar	Feb	Mar	Apr	Apr	Feb	Mar	Apr	Mar	Feb	–	–	–	–	–	–	–
Cuba	–	Jul	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ecuador	Dec	Jan	Aug	Jan	Jan	Apr	–	–	–	–	–	Feb	Feb	Feb	Apr	Apr	–
European Union	Mar	Apr	–	May	May	Apr	Apr	Mar	Feb	Mar	–	Apr	Apr	May	Jun	Jun	May
Faroe Islands	Feb	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Korea, Republic of	Mar	Feb	Mar	Jun	May	Jun	Jun	Jun	Jun	May	–	–	–	–	Jun	Sep	–
Peru	Mar	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan	Jan
Russian Federation	–	Mar	–	–	–	Aug	–	Apr	Apr	Mar	Aug	Mar	Apr	Mar	Jun	–	–
Vanuatu	Mar	Apr	Mar	May	Apr	Apr	Mar	–	–	–	–	–	–	–	–	–	–
Members reporting by 30 June	**8**	**8**	**5**	**7**	**7**	**7**	**6**	**6**	**6**	**6**	**2**	**5**	**5**	**5**	**6**	**4**	**3**

A projection derived from catch reported to date assumes that the reported catch is a stable proportion of the catch that will eventually be reported for those months. Where reporting has begun late and Members that ordinarily report by mid-year have yet to do so, that assumption does not hold, and reported catch for the first half of the year may increase substantially as further reports are received.

The method used in previous years was tested retrospectively against each of the five most recent complete years, projecting each year from its own January to June catch alone. It underestimated the catch subsequently reported in every one of those years, by between 5.6 and 19.4 per cent, with a mean of 12.8%. Each of those was a year in which reported catch rose. The retrospective test is set out in the Excel workbook accompanying this paper.

8. Progress milestones

The month in which 70% of the final annual catch was reached (ex post) is a useful indicator of timing pressure on reporting and management triggers. For 2025, the 70% level was reached in August. Across the series it has ranged from April to August and has moved progressively later since 2020 (Figure 12).

This indicator should not be read as the 70% threshold referred to in paragraph 15 of CMM 01-2026, which is calculated against the amount indicated in paragraph 12 rather than against the catch subsequently reported for the year. The two are different measures and are not reached at the same point in the season.

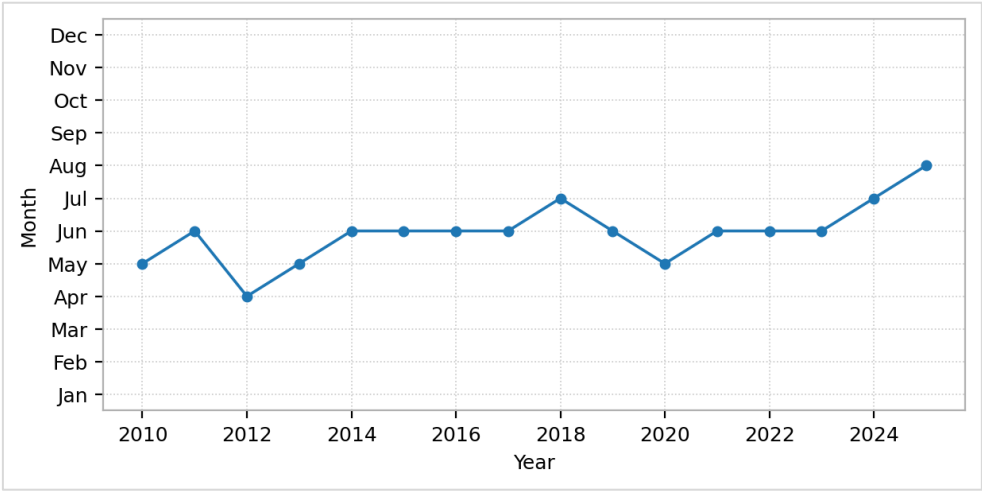

Figure 12. *Month in which 70% of the annual catch was reached from 2010–2025. The value can only be computed once a year has closed, so 2026 is not shown. A rising line means catch is accruing later in the season.*

9. Caveats and next steps

Monthly catch data received from Members are estimates, and figures for any year may be revised as further reports and annual catch totals are received. The 2026 figures are partial and cover January to June only.

No projection of the 2026 total is offered in this paper. Member-provided in-season estimates are the appropriate basis for the current year and should identify the relevant Fleet explicitly, including any information needed to distinguish Fleets 1 and 2 where applicable.

Changes in fleet behaviour, area access, or market conditions can alter seasonal patterns, and the data shown in Figures 5 to 11 should be interpreted with that in mind.

Annex 1. SPRFMO *Trachurus murphyi* catch tables

A separate Excel workbook contains full tables: annual totals overall, by Member and by Fleet; monthly cumulative series; the 2025 annual catch totals received to date; and the retrospective test of the projection method referred to in Section 7. Its contents are listed at Table 4.

Table 4. Contents of the accompanying Excel workbook.

Tab	Content	Period
Catch history	Catch by Member and CNCP, structured by Fleet	2010–2026
2025 annual totals	Annual catch totals received, with monthly-report comparison	2025
Retrospective test	Test of the projection method used in previous years	2021–2025
Chart data	Values underlying the charts, editable	2010–2026
Charts	Native Excel charts reading from the Chart data tab	2010–2026