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SC14 - SQ 05
January-July 2026 Fishing Season for Squid (*Dosidicus gigas*) in Chilean Waters

Chile

January – July 2026 fishing season for squid (*Dosidicus gigas*) in Chilean waters.

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Abstract

Preliminary fishery and biological information for the Chilean jumbo squid fishery for the period January–July 2026 is reported, including landing records from the artisanal and industrial fleets, as well as length-frequency structures of the catch sampled by IFOP scientific observers. Total landings amounted to 104,476 tonnes, a value higher than that recorded for the same period in 2024 (91,313 tonnes). A total of 104,174 tonnes were landed by the artisanal fleet as the target species, while 302 tonnes were landed by the industrial fleet as bycatch. Compared with the same period in 2025, a recovery was observed in the records from the central-southern area (36–37°S), an area that historically accounts for the largest proportion of landings; however, these values are still not comparable with historical records. Lengths ranged from 40 to 105 ML, with the largest values recorded in April and May in the artisanal fleet. CPUE showed a trend similar to that observed in the previous year. Artisanal CPUE reached minimum values during the first weeks, while both fleets showed a trend toward stable values after the analysis period.

Background

The jumbo squid (Dosidicus gigas) is a squid species endemic to the eastern Pacific Ocean, distributed vertically from the surface down to 1,200 meters, and geographically ranging between 40°N and 47°S (Payá and Cabello, 2024). This species is characterized by rapid growth and early maturity, with a life cycle lasting approximately 1 to 2 years. However, these traits are highly variable and strongly influenced by environmental conditions.

In the regional context (FAO Area 87), jumbo squid catches include those within the convention area of the South Pacific Regional Fisheries Management Organization (SPRFMO) and within the Exclusive Economic Zones (EEZs) of Chile, Peru, and Ecuador. In recent years, jumbo squid has become the most important species in terms of catch volume within the SPRFMO area. Currently, there is ongoing analysis and discussion regarding the existence of a single large stock with three phenotypes or morphs (small, medium, and large). In Chile, catches consist predominantly of the large morph.

During 2024, the Squid Working Group discussed stock assessment model results that estimated a healthy squid stock status for the year 2022. Meanwhile, squid catches in 2024 showed a significant decrease in both the Convention Area and Peruvian waters. Due to the two-year delay between current stock conditions and the stock assessment results, in-season monitoring of this squid fishery is necessary. Therefore, the present working paper reports on the January–May 2025 monitoring of the squid fishery in Chilean waters.

The Fishery Fleet

Composition and Available Data

Since 2020, and in accordance with current Chilean regulations, jumbo flying squid catches are carried out exclusively by the artisanal fleet, while the industrial fleet is limited to reporting incidental catches.

To update the fishery monitoring, data from January to July 2025 were analyzed, using the same period in 2024 as a reference. This includes official landing records reported by SERNAPESCA, which comprise records from boats and launches (artisanal fleet), as well as reports of incidental catches made by the industrial hake fishery. In addition, records collected by IFOP scientific observers were included, consisting of biological databases and fishing logbooks.

Figure 1 shows the location of IFOP monitoring stations during the described period in 2026. These samplings were conducted from the Coquimbo Region to the Biobío Region for the artisanal fleet (boats and launches), and only in the Biobío Region for the industrial fleet.

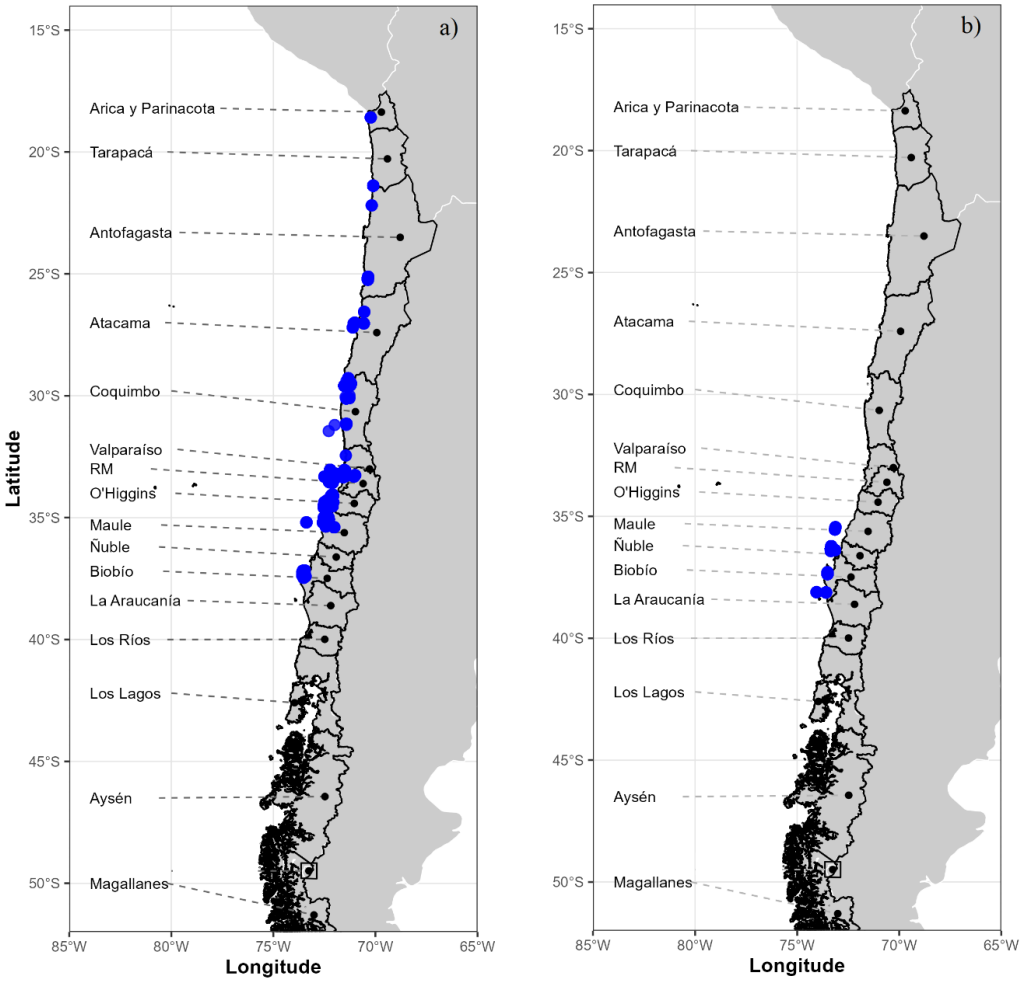


Figure 1. IFOP sampling points for the artisanal fleet (a) and the industrial fleet (b). Source: IFOP 2026. The labels correspond to the region names.

Artisanal Fishery

Landings reported between January and July 2026 totaled 104,176 tonnes, including landings from boats and launches, which together comprise the artisanal fleet. When disaggregated by vessel type, boat landings accounted for 94.6% of the artisanal fleet's total landings, substantially exceeding launch landings, with a proportion similar to that reported in 2025. The highest landings were recorded in May and June for boats, and in June for launches (Table 1).

Table 1. Landings of jumbo squid by the artisanal fleet reported between january and july 2026, in tons. Source: SERNAPESCA.

Month	Boat	Launch	Artesanal total
January	4311.9	737.9	5049.9
February	8503.4	372.9	8876.2
March	12047.3	282.4	12329.7
April	19292.0	382.3	19674.4
May	25944.3	1197.5	27141.9
June	21093.9	2234.2	23328.1
July	7329.9	443.9	7773.8
Total	**98522.8**	**5651.1**	**104174.0**

The weekly pattern of artisanal landings in 2026 differed from that observed in 2025 (Figure 2). Both boats and launches recorded low landings during the first weeks of the year, followed by a progressive increase over time, reaching maximum values between weeks 15 and 25, with some fluctuations. After week 25, landings began to decline, a pattern typically observed in the artisanal fleet (Figure 2).

Regarding cumulative weekly landings, boat landings in 2026 reached a higher total than during the same period in 2025 (~85,000 tonnes); however, 2025 showed a higher proportion of landings during the first part of the year (Figure 3). For launch landings, although the cumulative total was lower than in the previous year, the proportion of landings across weeks was similar between the two periods.

Regarding landings by region, jumbo squid catches were landed mainly in the central-southern regions of the country (Figures 1 and 4). Boat landings in 2026 decreased in northern Chile, while in the central-southern area (Valparaíso and Maule), they were lower than those recorded in 2025. In the Biobío Region, an area with historically high landings, an increase relative to 2025 was observed, with landings increasing by 96.6%.

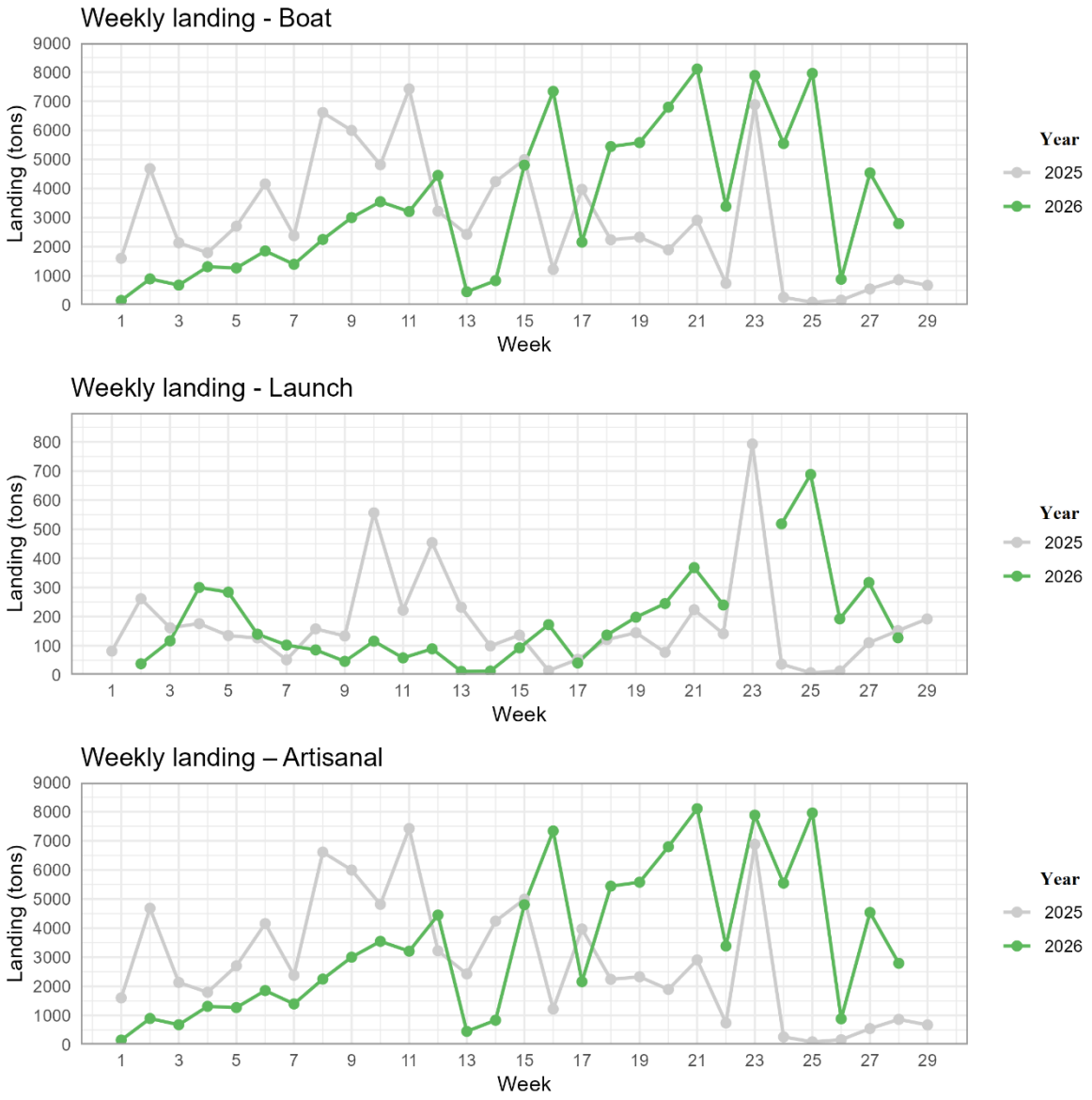


Figure 2. Weekly landing of jumbo squid reported for the artisanal fleet during the January–July 2025–2026 period. Source: SERNAPESCA.

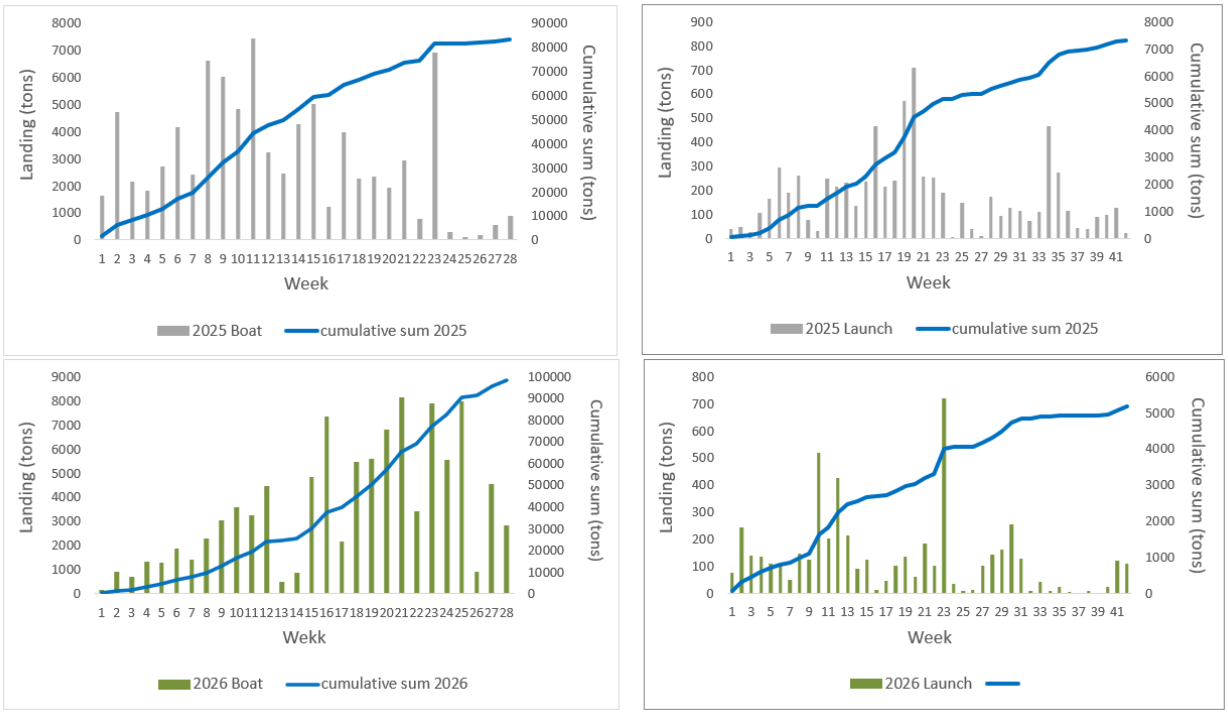


Figure 3. Artisanal weekly and cumulative landings (tons) for January–July in 2025 and 2026. Boats in left panel and launches in the right panel.

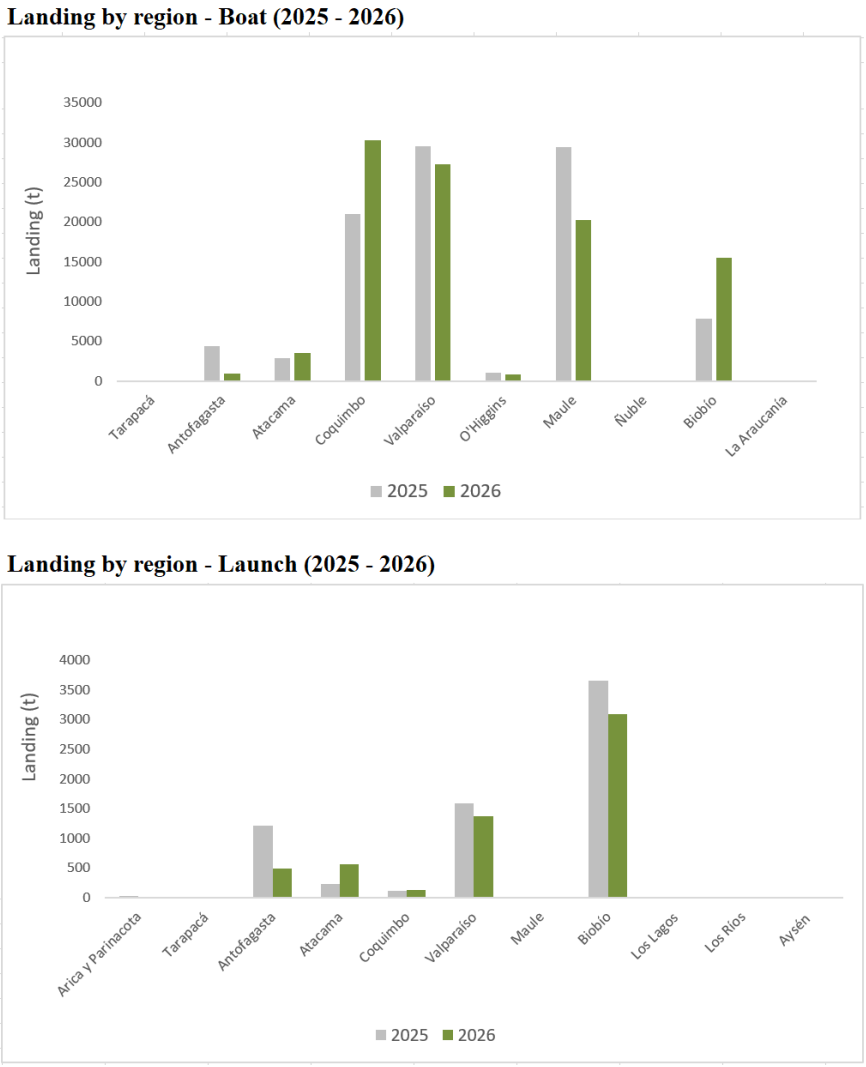


Figure 4. Regional landings of jumbo squid reported for the artisanal fleet during the January–July 2025–2026 period. Source: SERNAPESCA.

Industrial Fishery

Jumbo squid reported as bycatch from the hake fishery totaled 302.2 tonnes between January and July 2026, 50.5% lower than during the same period in 2025 (Table 2). The highest landings were recorded in June (103.3 tonnes), whereas during the same period in 2025, the maximum was recorded in March (Figure 5). Weekly landings were low during the first weeks, increasing in week 8 (~20 tonnes) and reaching a maximum of ~42 tonnes in week 23. This pattern is also observed in Figure 6, with cumulative landings reaching ~300 tonnes by week 28, compared with ~470 tonnes during the same period in 2025 (Figure 6).

Regarding regional records (Figure 7), during the January–July 2026 period, jumbo squid landings by the industrial fleet were recorded mainly in the central-southern area (Biobío Region, Figures 1 and 7), with volumes 46% lower than during the same period in 2025 and only limited records from other regions.

Table 2. Landings of jumbo squid by the industrial fleet reported between January and July 2026, in tons. Source: SERNAPESCA.

Month	Industrial
January	6.1
February	32.3
March	68.0
April	52.4
May	22.3
June	103.3
July	17.8
Total	**302.2**

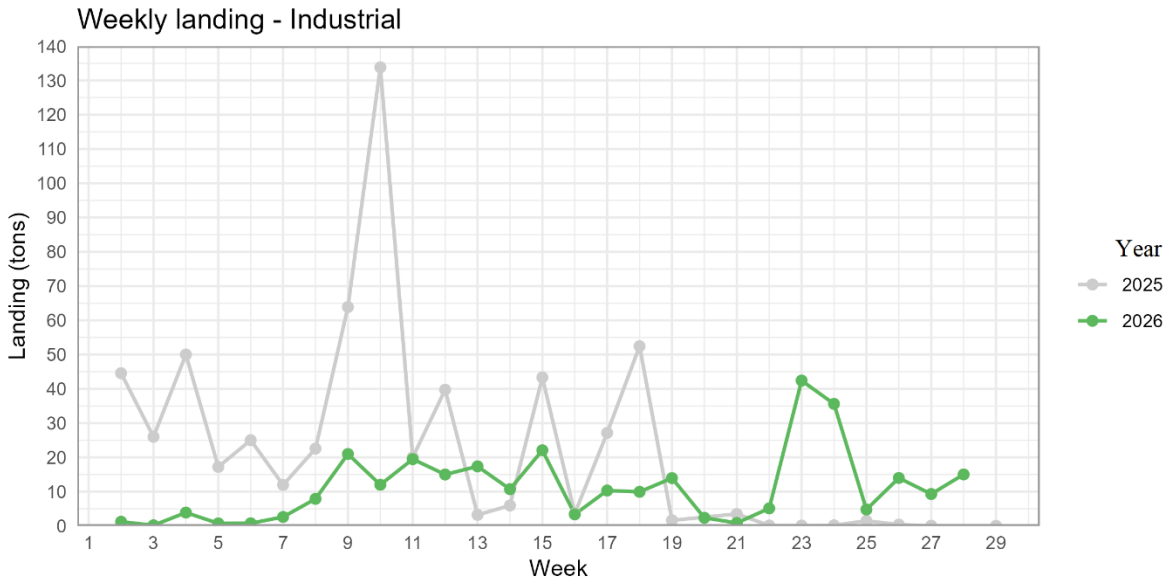


Figure 5. Weekly landing of jumbo squid reported for the industrial fleet during the January–July in year 2025 and year 2026. Source: SERNAPESCA.

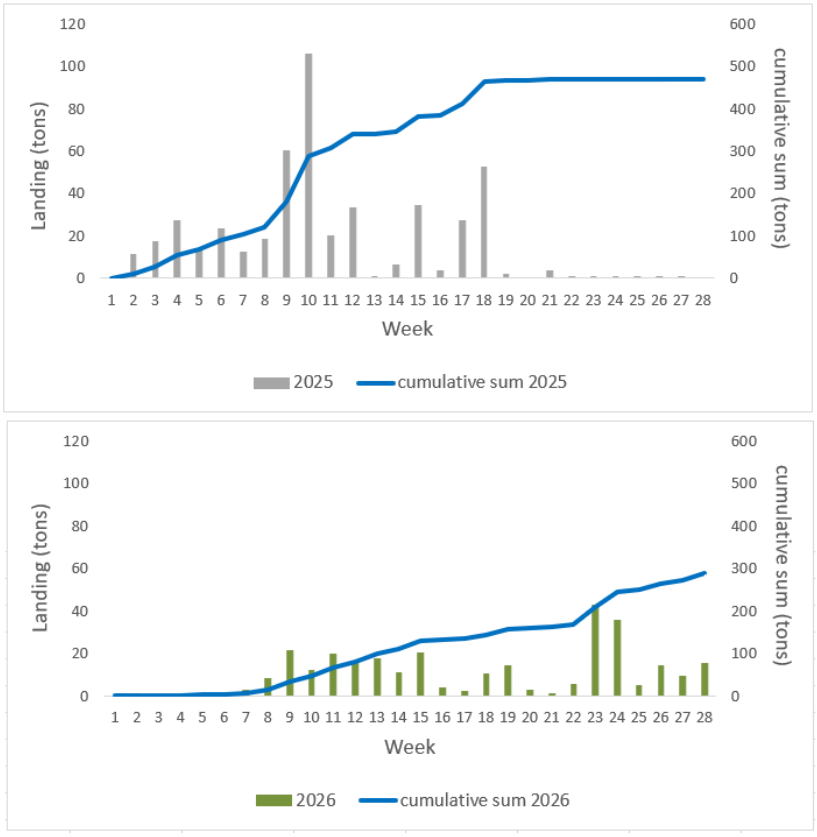


Figure 6. Total landings (tons) and cumulative sum during the January–July 2025 and 2026 period for the industrial fleet.

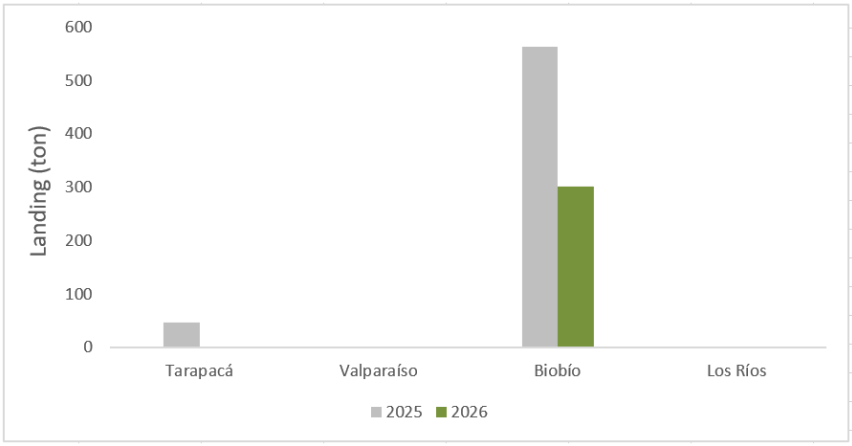


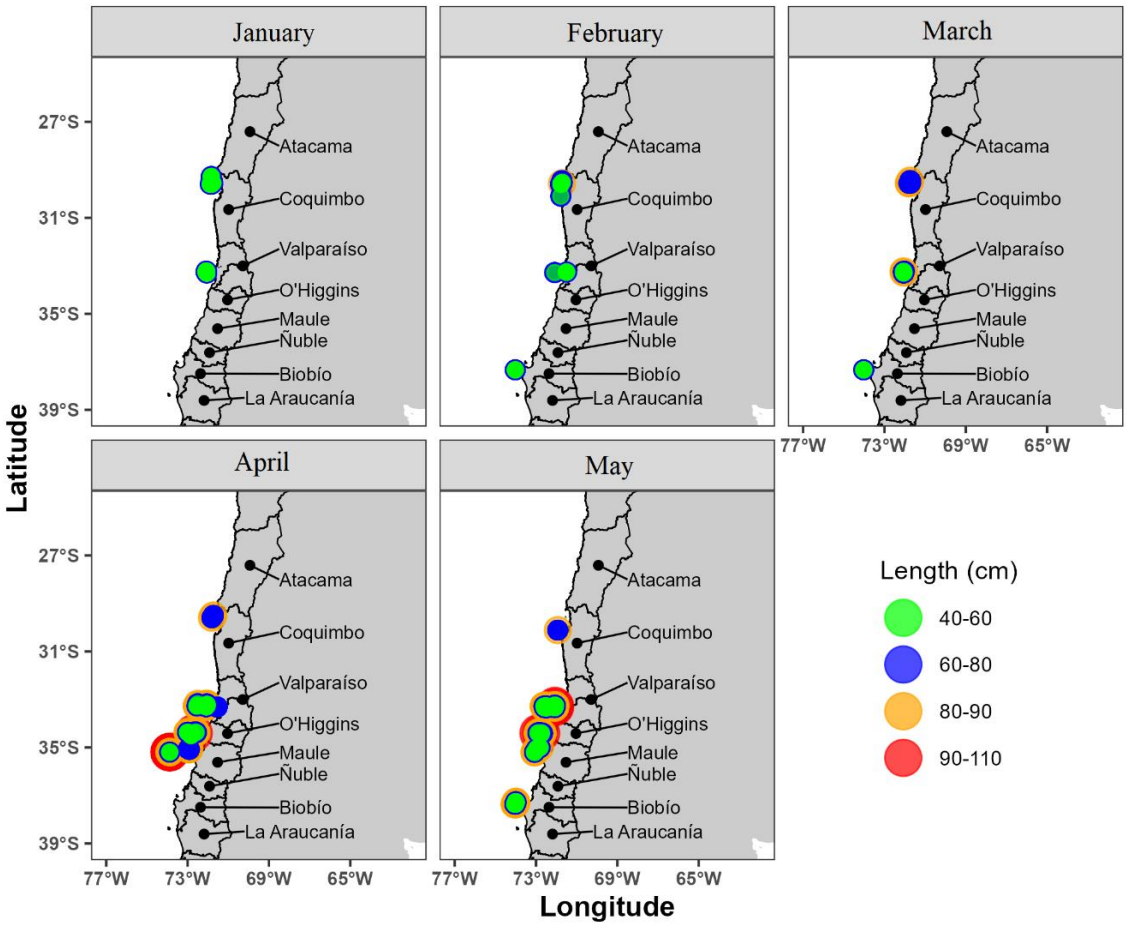
Figure 7. Regional landings of jumbo squid reported for the industrial fleet during January–July in years 2025 and 2026. Region. Source: SERNAPESCA.

Catch length composition

The length classes of jumbo squid recorded by IFOP during the January–May 2026 period ranged from 40–60 to 90–110 cm in mantle length (ML) for both fleets, with samples distributed throughout the central-southern area (Figures 1 and 8). Table 3 shows that, over time, the artisanal fleet records increasingly represented larger size classes. Individuals measuring >90 cm were recorded in the Valparaíso and Maule regions in April and May of the current year (Figure 8, Table 3).

When comparing the 2026 length-frequency structures with those from 2025 (Figure 9), no significant differences were found in the northern and central areas (Coquimbo and Valparaíso regions). However, in the Biobío Region, a broader distribution of lengths was observed, whereas in 2025 the distribution was more restricted, with a peak at 70 cm.

In the case of the industrial fleet (Figure 10), which preliminarily consists only of records from the Biobío Region, a clear difference was observed between 2026 and previous years. In the current year, lengths covered a broad range of values, unlike in 2025, when the largest proportion of individuals measured between 65 and 75 cm, showing greater similarity to the length distribution observed in 2024.


January
February
March
April
May
Atacama
Coquimbo
Valparaíso
O'Higgins
Maule
Ñuble
Biobío
La Araucanía
27°S
31°S
35°S
39°S
77°W
73°W
69°W
65°W
Latitude
Longitude
Length (cm)
40-60
60-80
80-90
90-110

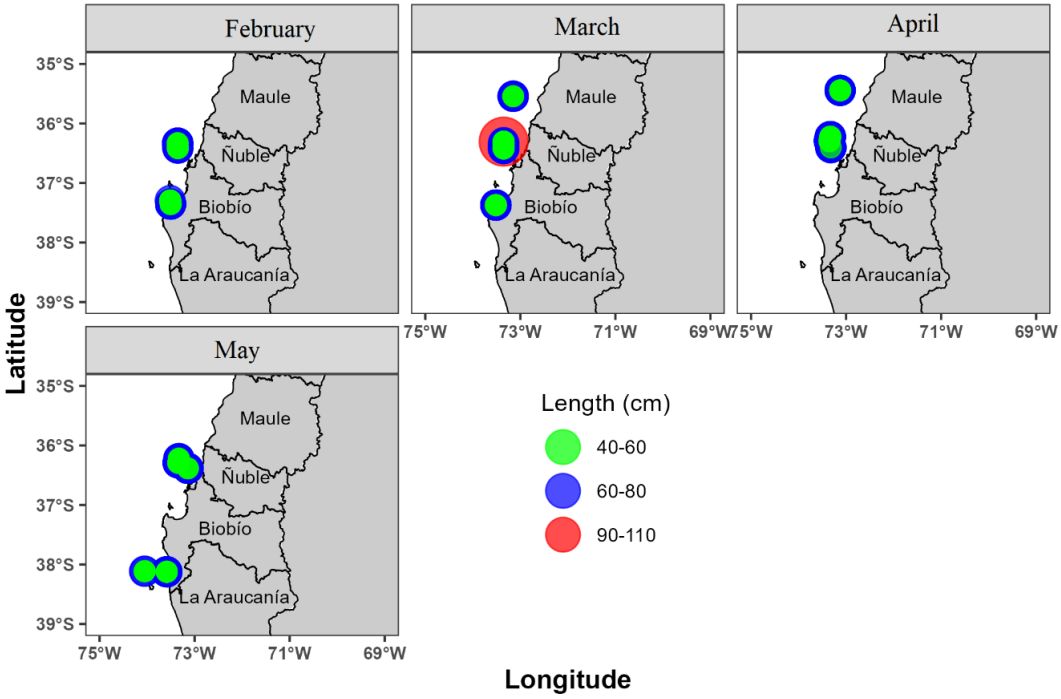


Figure 8. Locations of length classes of jumbo squid by month during 2025 for artisanal fleet (top) and industrial fleet (bottom). Source: IFOP. The proportions of the different length classes are shown in table 3.

Table 3. Percentage (%) representation of each jumbo squid length class, according to Figure 8.

Artisanal length	Month				
	January	**February**	**March**	**April**	**May**
40-60	49.3	10.5	4.9	9.3	18.7
60-80	50.7	89.1	92.9	76.1	62.5
80-90	-	0.43	2.3	13.5	18.3
90-110	-	-	-	1.2	0.5
Industrial length	**Month**				
	January	**February**	**March**	**April**	**May**
40-60	-	58.3	51.2	28.8	44.7
60-80	-	41.6	46.5	69.5	42.35
80-90	-	-	-	-	-
90-110	-	-	1.2	-	-

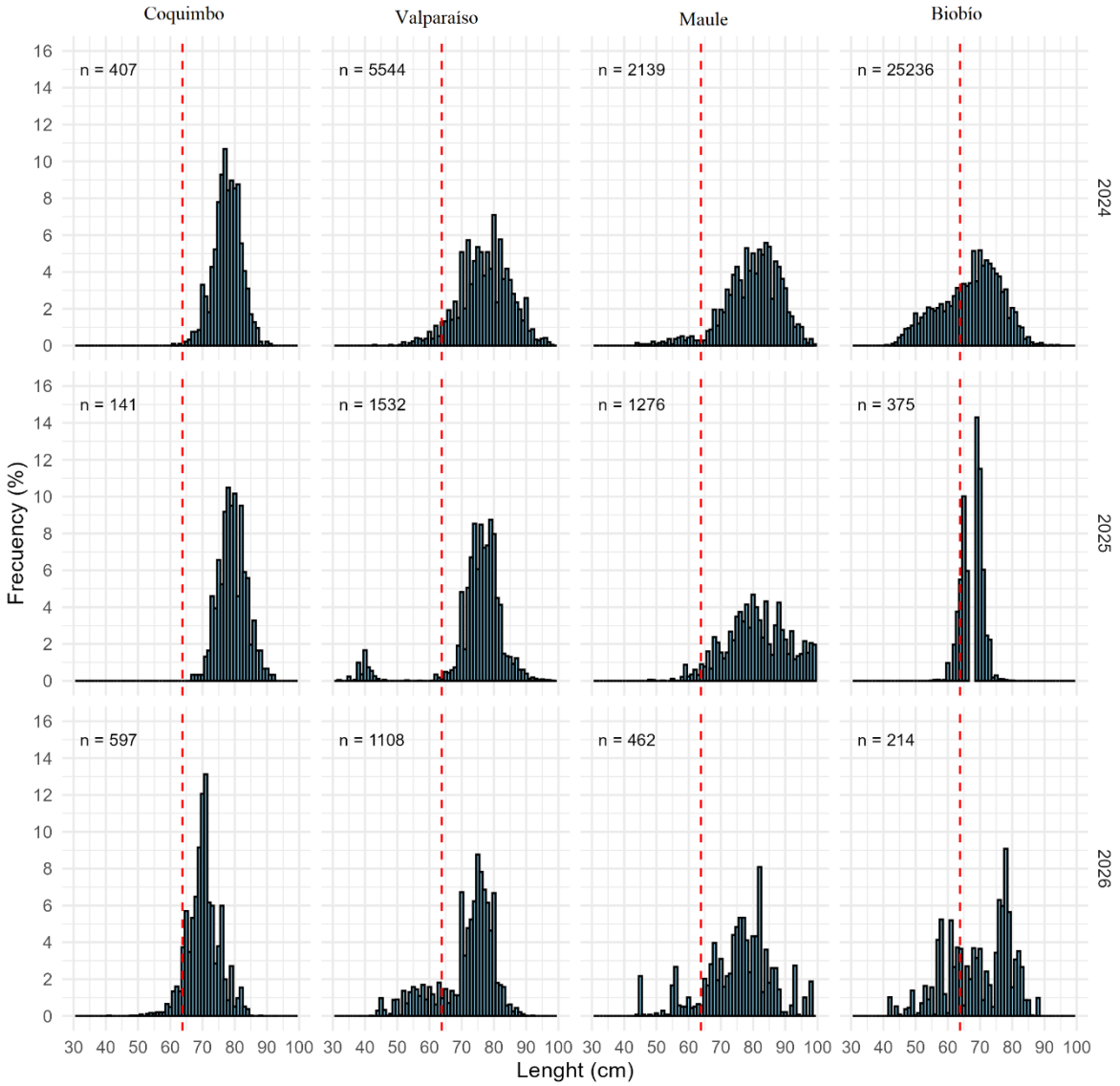


Figure 9. Artisanal catch length composition by region during January–July in year 2024 (top) and year 2025 (bottom). Vertical red line indicates the age at first maturity (Liu *et al*., 2010). Source: IFOP.

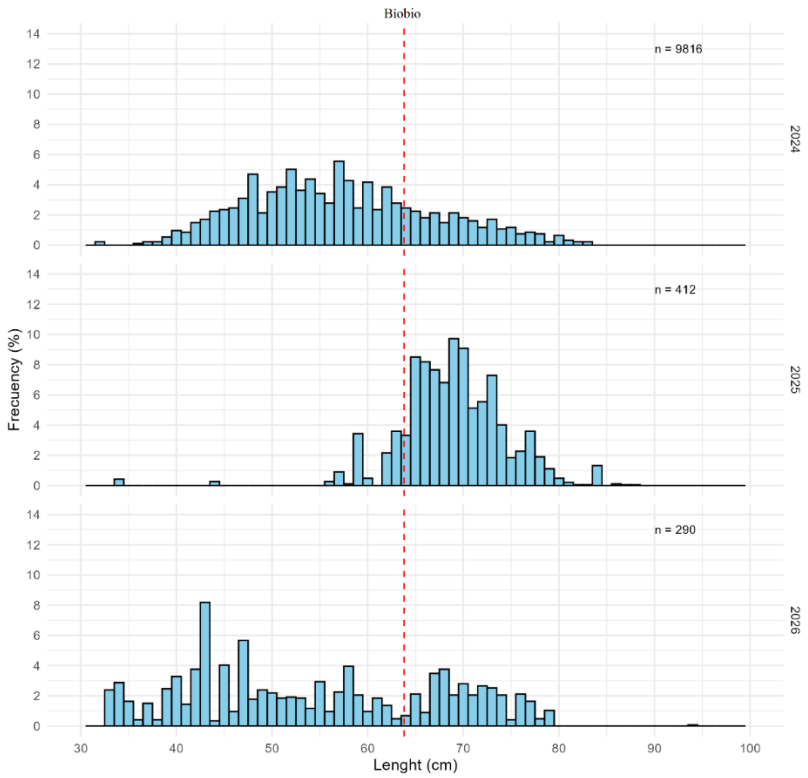


Figure 10. Squid length compositions in bycatch of hake industrial fishery in the Biobío Region during January–July in years 2024, 2025 (top) and in year 2026 (bottom). Vertical red line indicates the age at first maturity (Liu *et al*., 2010). Source: IFOP.

CPUE

The preliminary CPUE of the artisanal jumbo squid fleet for the January–July 2026 period showed differences compared with the same period of the previous year (Figure 11). In the boat fishery, performance showed a trend opposite to that observed in 2025, with low CPUE values during the first weeks that increased over time, reaching a maximum of approximately 5 tonnes/vcp in week 18, followed by a tendency to maintain similar values during the subsequent weeks.

In the launch fishery, although the trend between weeks 2 and 13 was opposite to that observed in the previous year, from week 23 onward, effort values were similar. As with boat CPUE, the trend may continue at similar levels during the following weeks.

Regarding preliminary industrial CPUE, high variability was observed in both years, with lower effort values in 2026, reaching a maximum of 5.1 tonnes/vcp in week 24. However, as observed for the artisanal fleet, effort levels during the most recent weeks may indicate that effort will remain at similar levels during the following weeks (Figure 12).

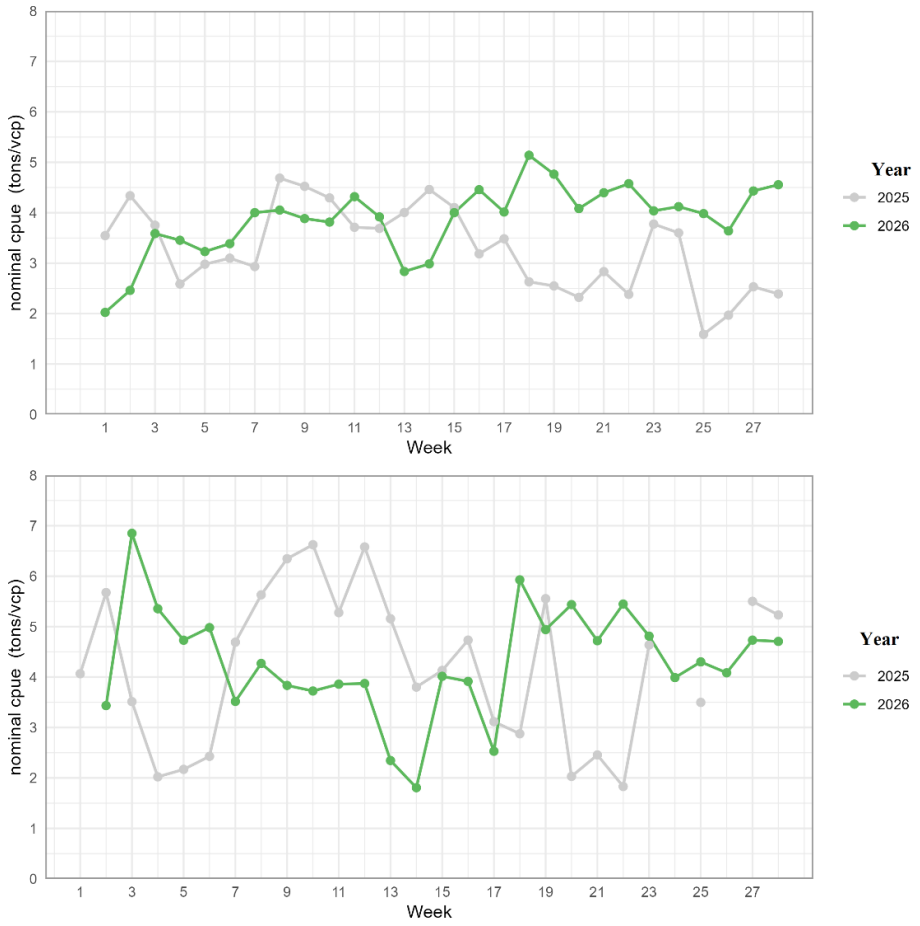


Figure 11. Nominal CPUE of artisanal jumbo squid for the period January–July 2025 and 2026 (tons / fishing trip). Boats in top panel and launches in the bottom panel.

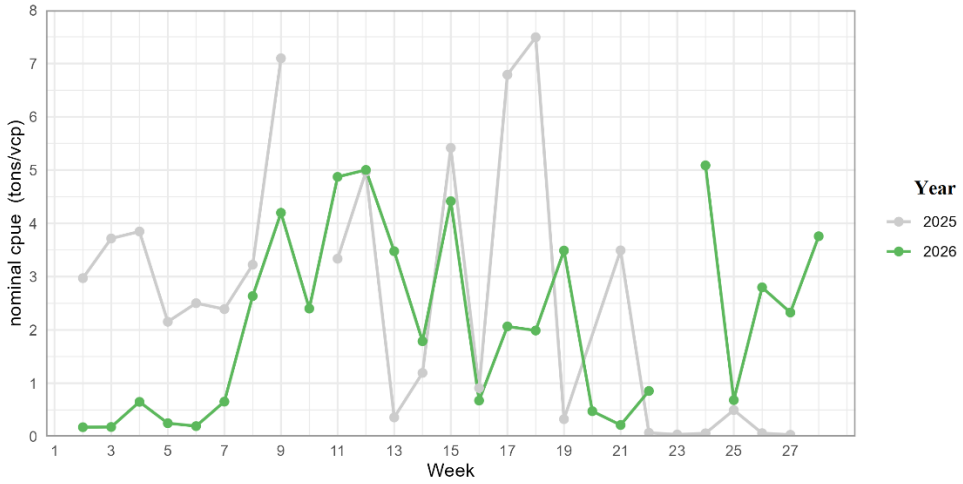


Figure 12. Nominal CPUE of industrial jumbo squid for the period January–July 2025 and 2026 (tons /fishing trip).

Discusión

The preliminary information corresponding to the January–July 2026 period shows a temporal landing pattern that differs from that recorded during the same period in 2025. During the first weeks of the year, low landing levels were observed, followed by a progressive increase in records toward the subsequent months. At the end of the analyzed period, both the artisanal and industrial fleets showed a tendency to maintain similar values, with the artisanal fleet recording approximately 3,000 tonnes in the most recent weeks. This pattern differs slightly from the seasonal pattern historically described for the fishery, characterized by an increase in landings toward May–June, followed by a subsequent decrease during the following months, reaching nearly zero from July onward (Payá and Cabello, 2025).

One of the main changes observed during 2025 was the marked reduction in jumbo squid landings in the Biobío Region (Figures 1 and 4), reaching approximately 80% lower levels than in 2024. This decrease is particularly relevant because this region has historically accounted for a substantial proportion of national landings. During 2026, a recovery in boat landings was observed; however, the levels recorded remain below the approximately 37,000 tonnes observed in 2024. In contrast, landings associated with the launch fleet and bycatch from the industrial fleet decreased relative to 2025. Likewise, during the analyzed period, no relevant landings were identified outside the main areas described above.

The comparison between the two years reveals two distinct scenarios. Whereas 2025 was characterized by an exceptional reduction in landings in one of the main fishing areas, 2026 shows a partial recovery, particularly in the boat fleet. However, this recovery has not been homogeneous among the different fleet components. Therefore, the pattern observed during 2026 may represent a recovery from the exceptional situation recorded in 2025, rather than a complete return to the historical pattern of the fishery. This is also reflected in the length structures, where the pattern observed during the 2026 period is similar to that observed in 2024 (Figures 9, 10, and 13).

In this context, variations in the fishery could be interpreted in light of the ecological characteristics of jumbo squid and its dependence on oceanographic conditions. *Dosidicus gigas* has a high capacity for dispersal and movement, associated with the different stages of its life cycle and its ability to perform vertical migrations. During the early stages of development, oxygen requirements and productivity conditions are particularly important. Eggs develop under relatively warm temperatures and high oxygen availability, while during the paralarval stage, high growth rates are observed, implying a high metabolic demand that limits their persistence in low-oxygen environments (Staaf et al., 2008; Ruvalcaba-Aroche et al., 2022; Ruvalcaba and Sánchez, 2024).

As individuals progress toward the juvenile and adult stages, their capacity for movement and use of environments with different oceanographic characteristics increases. This plasticity allows the species to occupy a broad range of environmental conditions and

perform vertical movements, including access to areas associated with low oxygen concentrations, which may constitute favorable feeding and refuge areas. Consequently, changes in temperature, productivity, and water-mass structure may affect both the distribution and availability of the resource to fisheries.

Among the environmental factors that could influence jumbo squid dynamics are variations associated with ENSO events. Several studies have shown that changes in thermal and productivity conditions can affect the size structure, growth, and maturation of *D. gigas*. In general terms, warmer and less productive conditions during the juvenile stages may favor earlier growth and maturation strategies, resulting in smaller individuals with shorter lifespans. Conversely, more favorable growth conditions may allow greater energy investment in somatic growth and favor the occurrence of larger individuals (Arkhipkin et al., 2015; Frawley et al., 2019; Ruvalcaba and Sánchez, 2024).

Evidence from other systems also shows that sustained changes in productivity can generate changes in population structure. In the Gulf of California, for example, a decrease in winds and primary productivity following ENSO events has been associated with changes in prey availability and composition, together with changes in the population structure of jumbo squid, favoring the presence of smaller individuals (Markaida, 2006a, 2006b; Robinson et al., 2016; Ruvalcaba and Sánchez, 2024).

For waters off Chile, Payá (2019) documented important changes in jumbo squid availability and size structure associated with the 2015–2016 El Niño event. Among the main effects described was a decrease in individual size, from values close to 70 cm to approximately 40 cm in mantle length, accompanied by changes in spatial distribution. These changes were interpreted in the context of a possible activation of an early maturation strategy, consistent with the pattern described above. Likewise, it was proposed that the response observed off Chile may have occurred with a time lag relative to Peru, possibly associated with the influence of the Humboldt Current and the persistence of favorable productive conditions during part of the warm period (Payá, 2019).

In this regard, although the information analyzed in this report corresponds to a limited period and its main objective is to update fishery-related information, comparisons among recent years should be interpreted with caution due to the changes experienced by the system over the last three to four years, both in environmental conditions and in fishery dynamics. During 2025, for example, important changes were observed in the spatial distribution of landings, with records from areas where landings are not commonly reported and a lower presence of the resource in some traditionally important fishing areas. In this context, differences observed among years do not necessarily reflect the same underlying dynamics, which makes direct comparisons difficult.

In this regard, and with the aim of identifying environmental changes that could potentially explain variations in the distribution and size structure of jumbo squid, different sources of information were used, as described below.

One of the main references for assessing the state of the Pacific Ocean is the reports produced by the NOAA Climate Prediction Center (CPC). Figures 14 and 16 show that, since the 2023 El Niño warm event, sea surface temperature anomalies have been unstable, varying from warm to cold anomalies of varying magnitude throughout the Niño 1+2 region. Positive anomalies during the first part of 2026 are particularly noteworthy, with values reaching +2.5°C. The latest ENSO update bulletin, published in July, indicates the continuation of the warm event currently present in the Equatorial Pacific, which has reached the northern coast of Chile, with anomalies of +3°C off Antofagasta and +2°C off the Coquimbo Region (https://giscc.ifop.cl/siom-enoscc/).

On the other hand, sea surface temperature anomaly images obtained from Mercator Ocean International (MOi, Figure 16) allow the spatial evolution of thermal conditions in the Pacific to be visualized between December 2025 and July 2026. During the first months of the period, a heterogeneous distribution of warm and cold anomalies was observed. However, from March–April onward, a progressive strengthening of positive anomalies in the Equatorial Pacific was observed, which expanded considerably during May and June. The observed evolution is consistent with the strengthening of El Niño conditions reported by the CPC/NOAA, whose July report indicates that the event will continue to intensify during 2026 and has a high probability of persisting into early 2027.

Therefore, the period analyzed for the jumbo squid fishery developed under an oceanographic scenario that has undergone important changes since 2024, with a strengthening of warm conditions during 2026. Although the extent and effects of these conditions along the Chilean coast are still evolving, this scenario provides relevant background for interpreting the observed variations in jumbo squid distribution and availability. Consequently, it is essential to maintain integrated monitoring of fishery, biological, and environmental indicators in order to assess the evolution of the resource under changing oceanographic conditions.

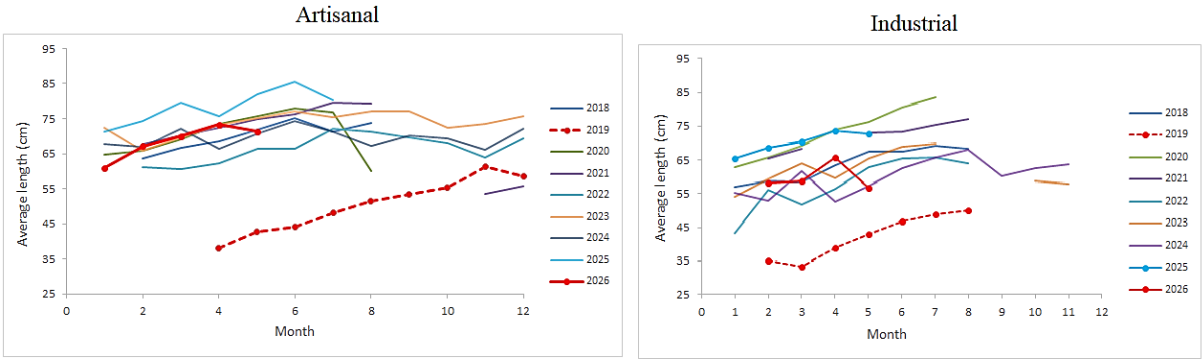


Figure 13. Historical jumbo squid mantle lengths (ML). The years 2019 (dashed line) and 2026 (solid line) are highlighted in red.

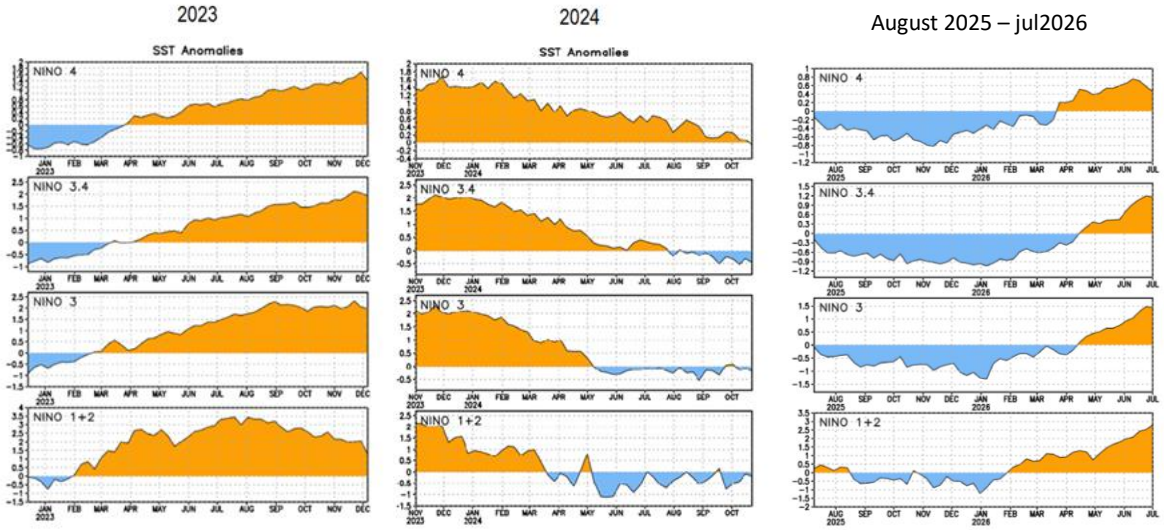


Figure 14. Time series of sea surface temperature anomalies (°C) averaged over an area within each Niño region, from the 2023 El Niño event through July 2026. Source: **https://www.cpc.ncep.noaa.gov.**

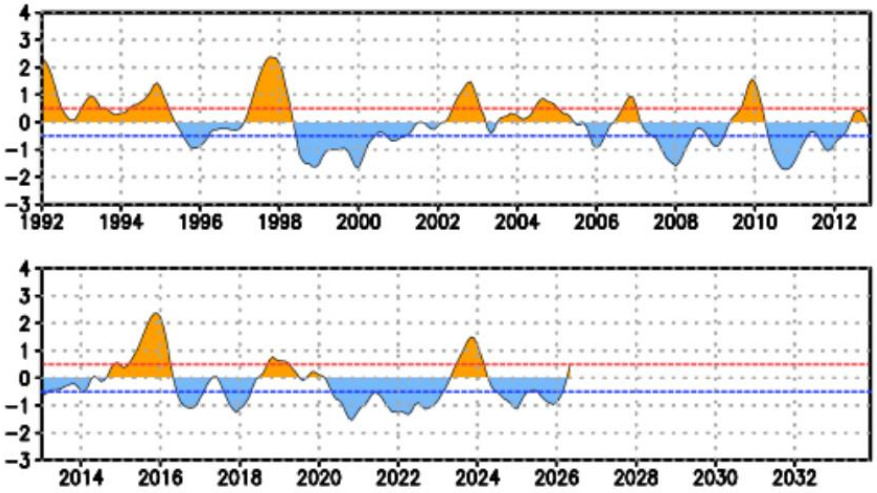


Figure 15. Oceanic Niño Index (ONI) in the Niño 3.4 region. Sea surface temperature (SST) anomalies for the period 1992–2026. Source: https://www.cpc.ncep.noaa.gov/

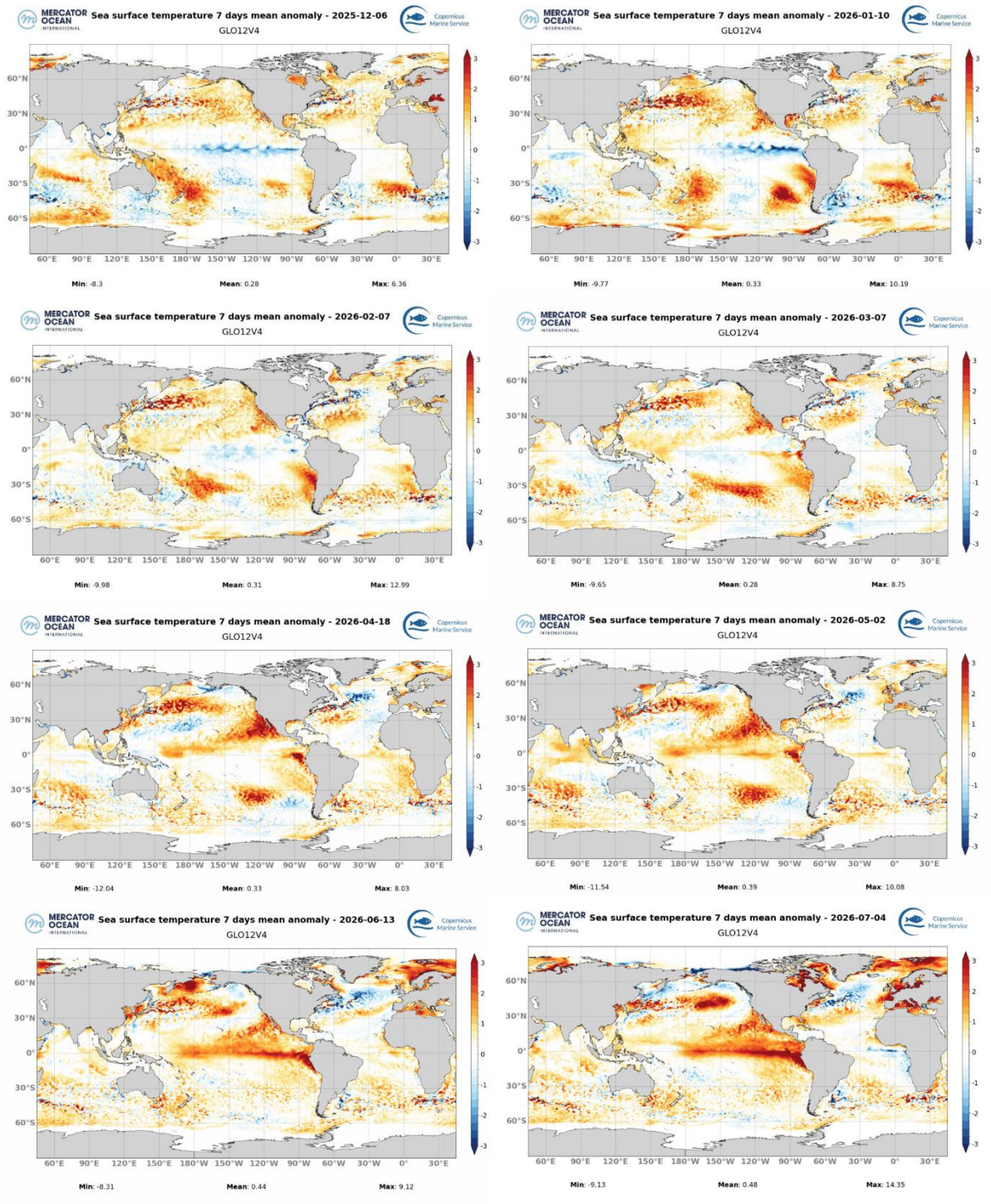


Figure 16. Sea surface temperature (SST) anomalies between December 2025 and July 2026. Source: Marine Heatwave Bulletin (https://www.mercator-ocean.eu).

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