



INSTITUTO DE FOMENTO PESQUERO

HYDROACOUSTIC ASSESSMENT OF JACK
MAKEREL OFF NORTHERN AND CENTRAL
CHILE, YEAR 2026
Preliminary Results

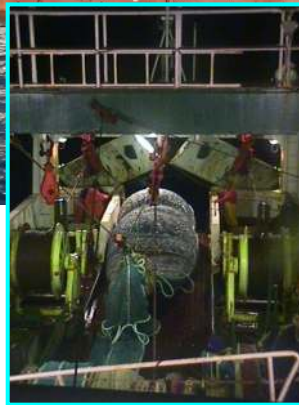
Víctor Catasti

May, 2026

Observation
Cetaceans



R/V Abate Molina

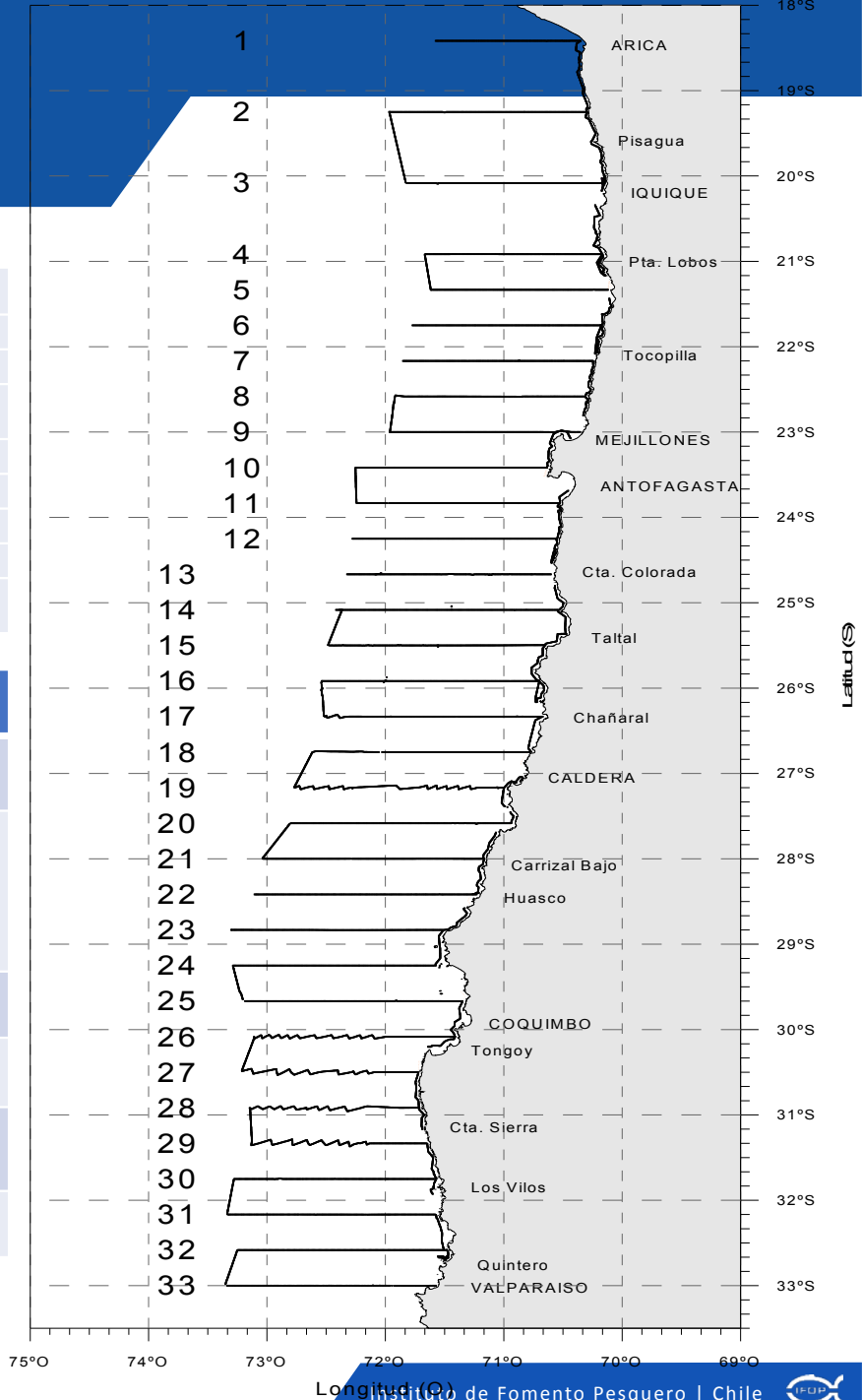




TRANSECTS DISTRIBUTION

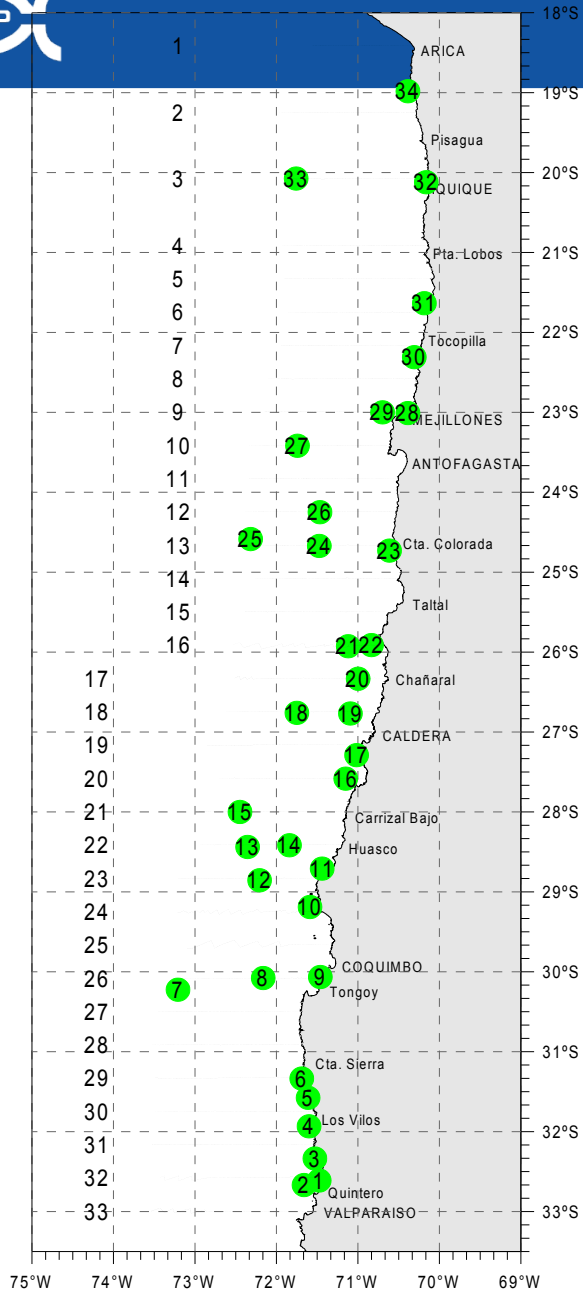
ACTIVITIES	DATES	DAYS
Calibration Echosounder (in port)	16/march/2026	
Personal Boarding	17/march/2026	
Sail Valparaíso – study zone	18/march/2026 – 01/april/2026	15
Catering Caldera	02/april/2026	1
Sail Caldera – study zone	03/april/2026 – 19/april/2026	17
Catering Iquique	20/april/2026	1
Sail Iquique – study zone	21/april/2026 – 26/april/2026	5
Navigation Valparaíso	29/april/2026	4

Feature	Observation
Sampling design	Systematic type
Number of transects	33 perpendicular to the general direction of the Chilean coast Direction E – W – E
Latitudinal Distance	25 nm
Longitudinal Distance	100 nm
Condition	Day and night acoustic sampling
Daily latitudinal advance	25 nm (approximately)





FISHING HAULS



R/V Abate Molina 2023

Total Hauls = 21
Fishing Hauls = 21
J. Mackerel Hauls = 16

R/V Abate Molina 2024

Total Hauls = 28
Fishing Hauls = 25
J. Mackerel Hauls = 24

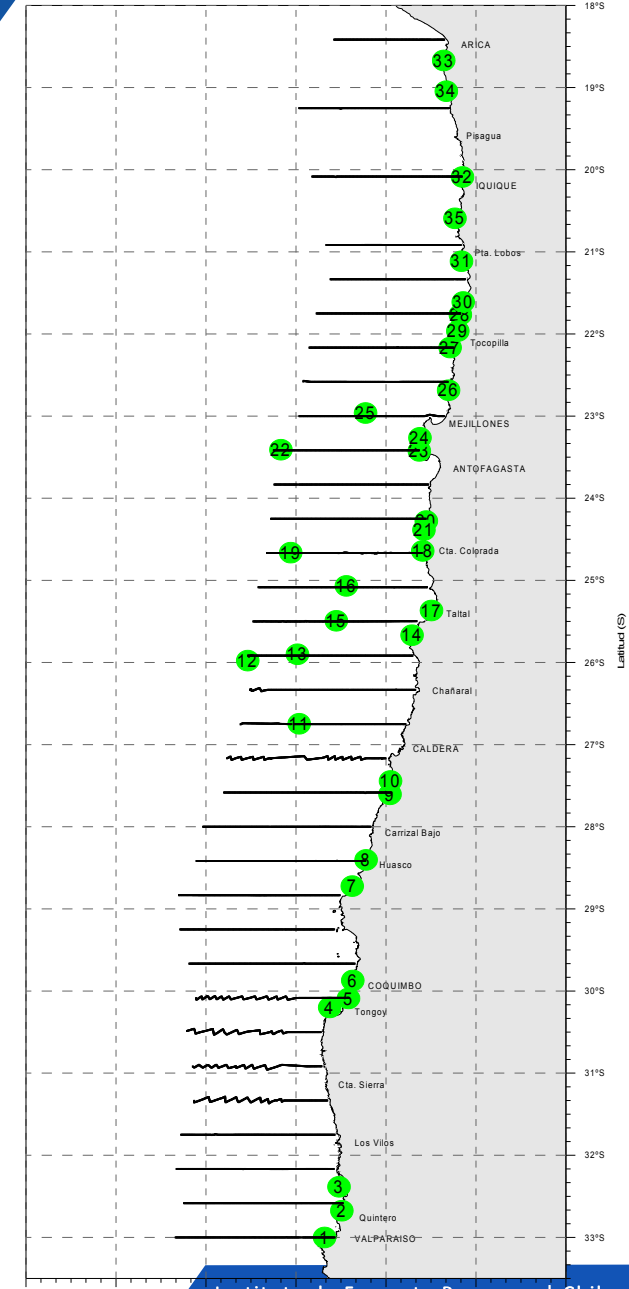
R/V Abate Molina 2025

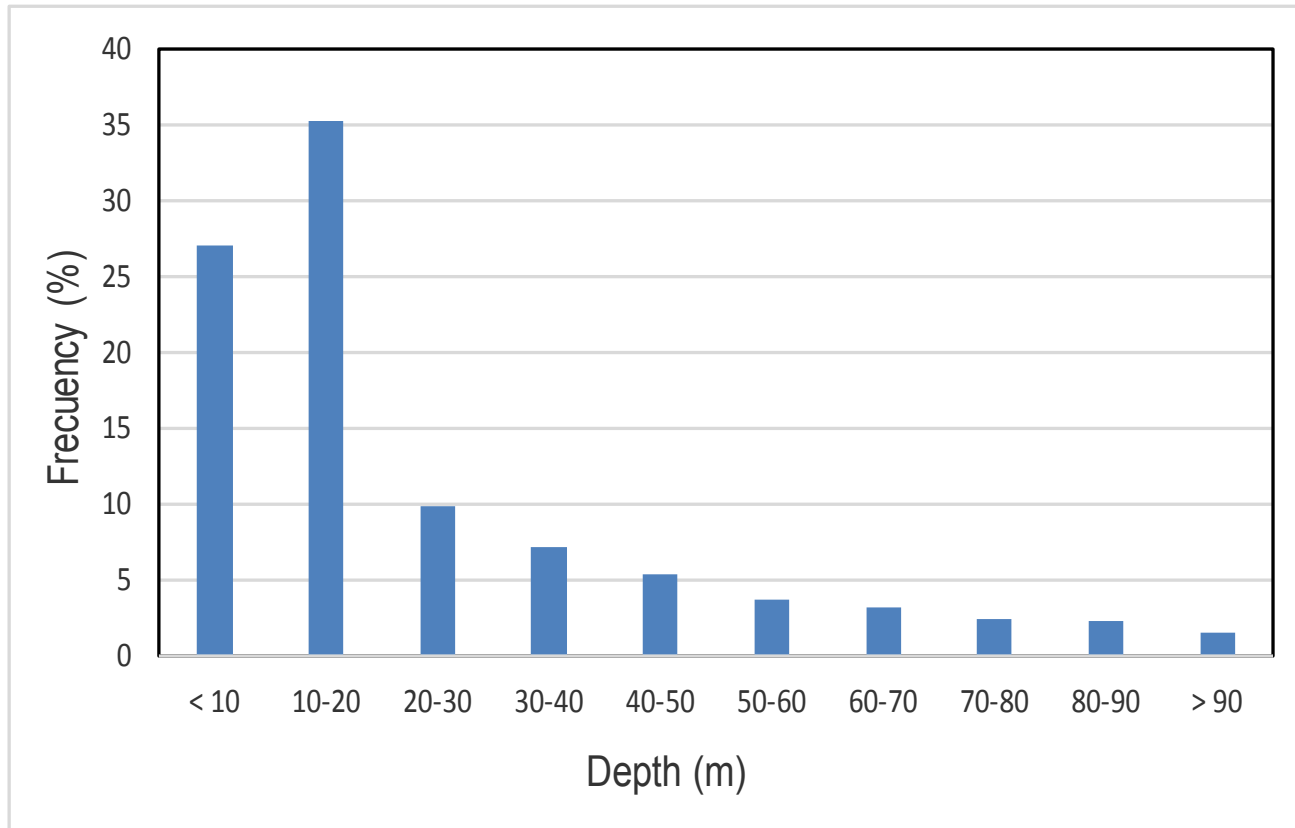
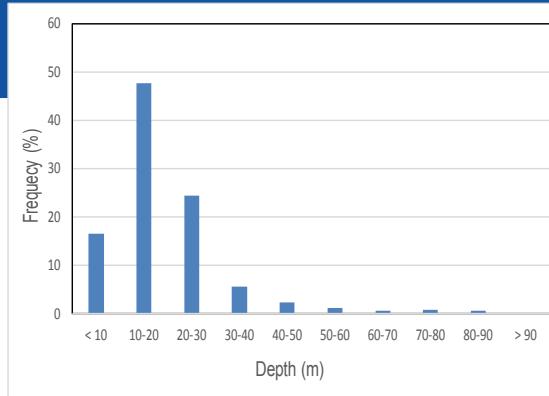
Total Hauls = 34
Fishing Hauls = 33
J. Mackerel Hauls = 29

R/V Abate Molina 2026

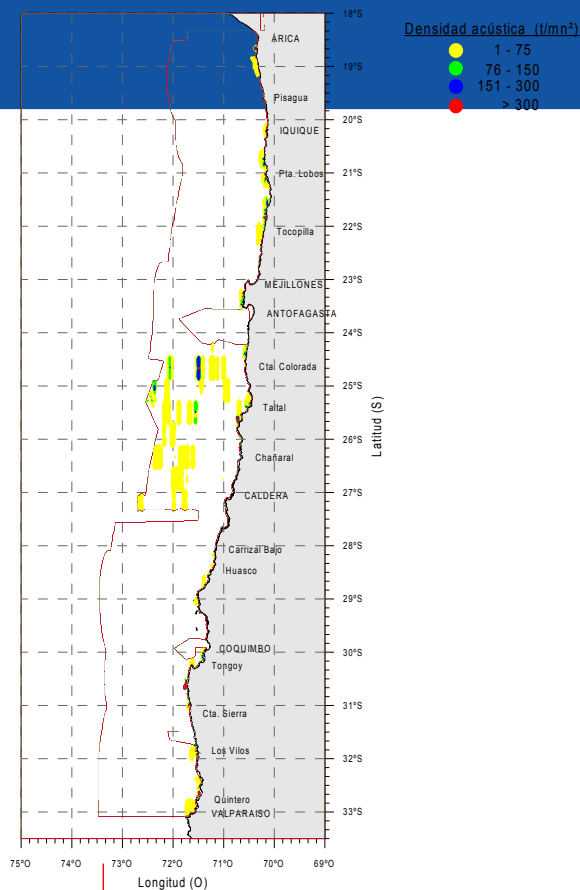
Total Hauls = 35
Fishing Hauls = 33
J. Mackerel Hauls = 25

Main idea is to increase the number of fishing hauls over the years and cover the entire área.



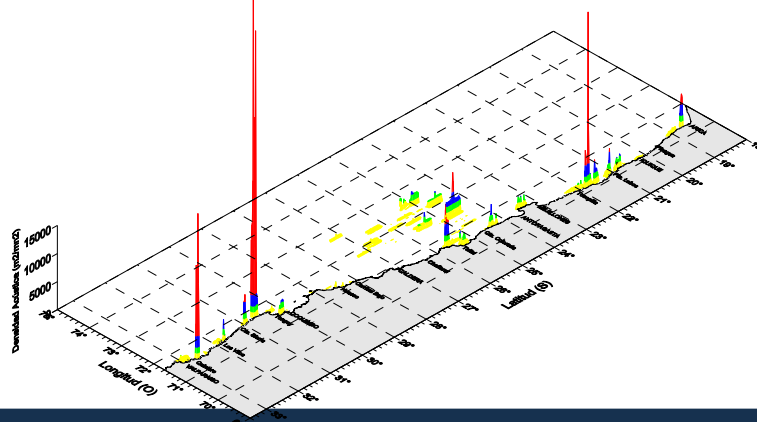


The bathymetric distribution of the specimens showed aggregations ranged between 4 and 110 m depth, with 70% of individuals found within the upper 30 meters of the water column.

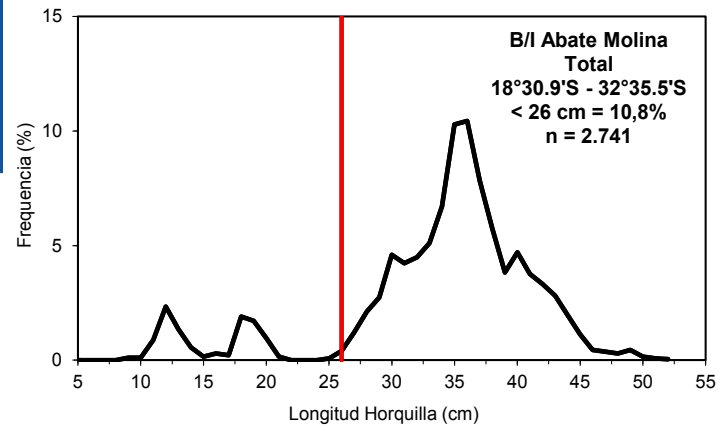
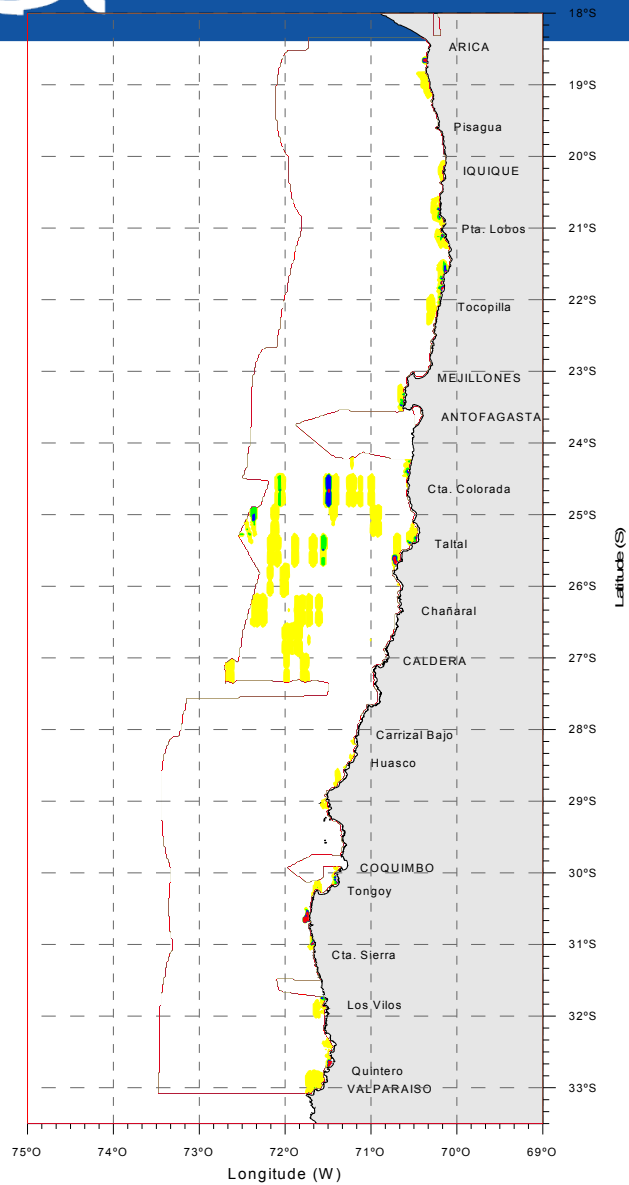


T. murphyi was distributed along the entire coast, with concentrations in two main areas. The first aggregation was located SW of Iquique between 1 and 5 nm off the coast.

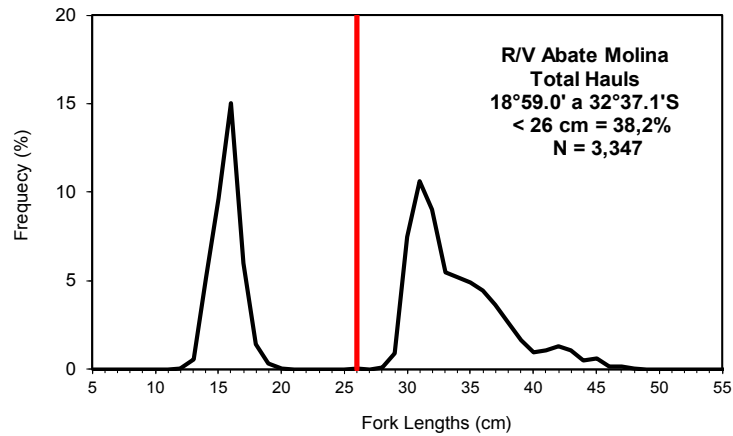
The second concentration was located between Coquimbo and Valparaíso, within a very coastal area, in the first 4 nm from shore.



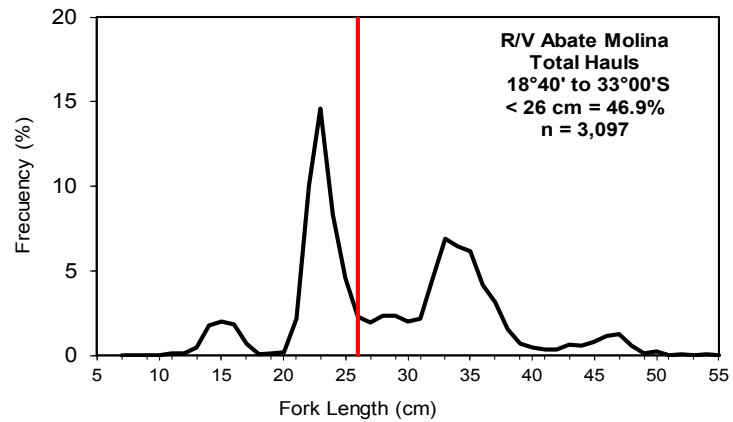
SIZE STRUCTURE



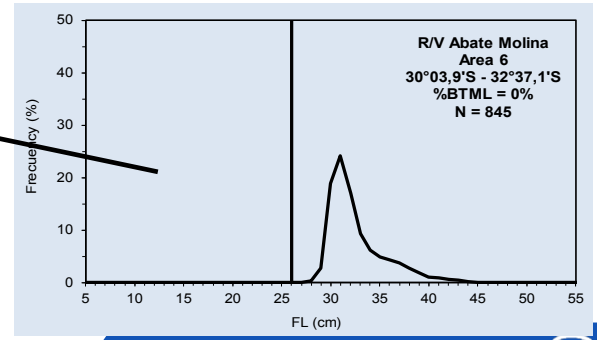
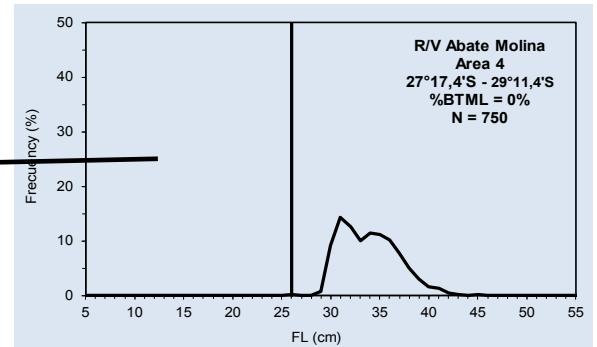
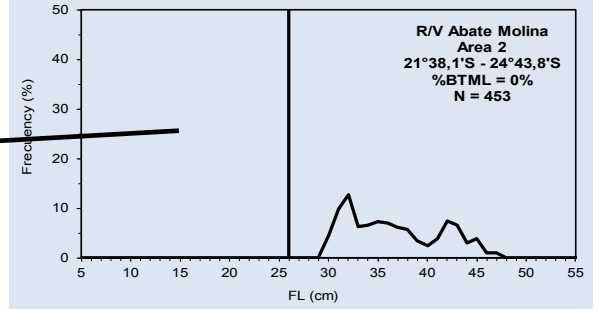
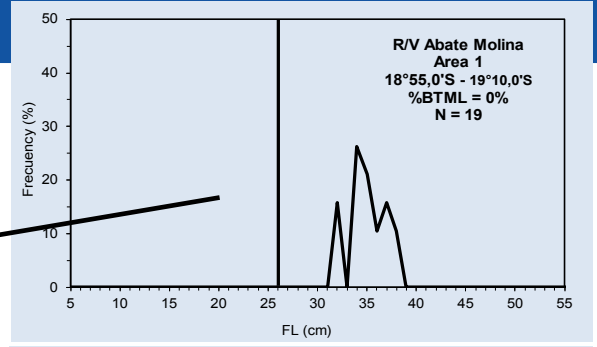
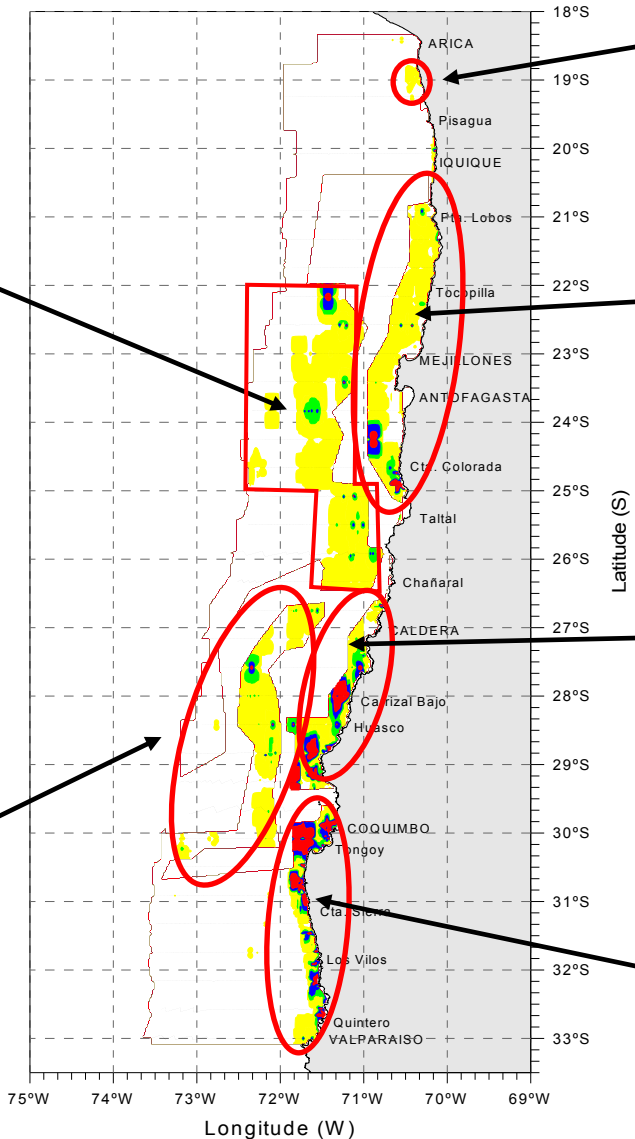
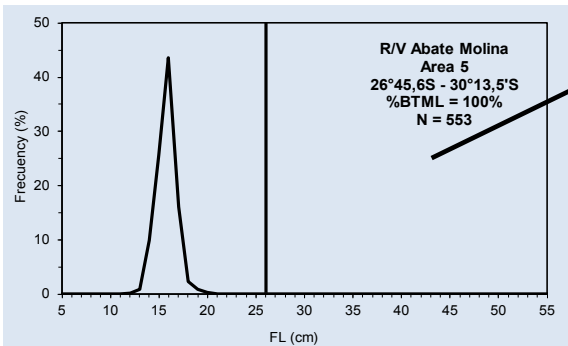
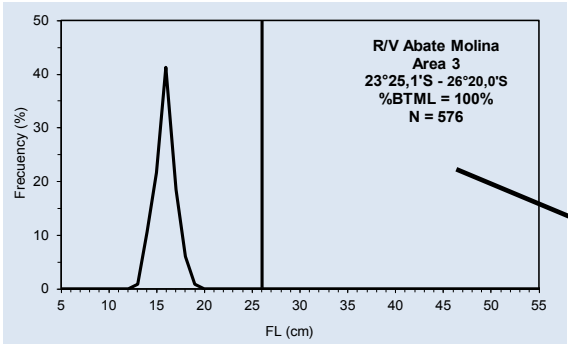
2024
MODE 35-36 cm
MODE 30 cm
MODE 12 cm



2025
MODE 16 cm
MODE 31 cm

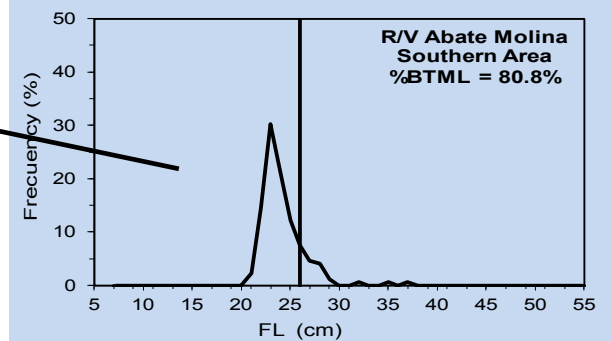
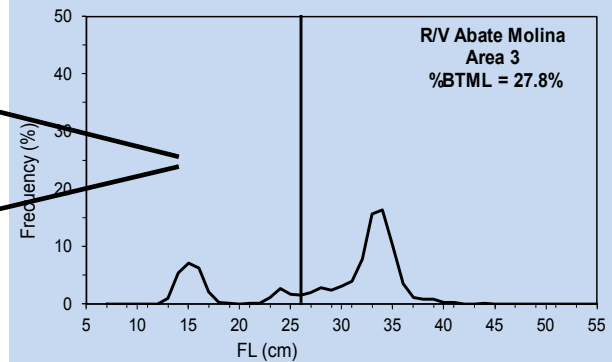
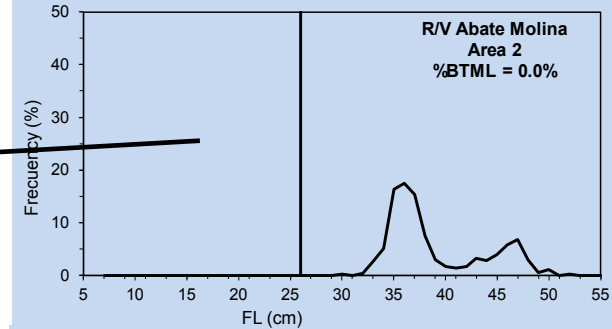
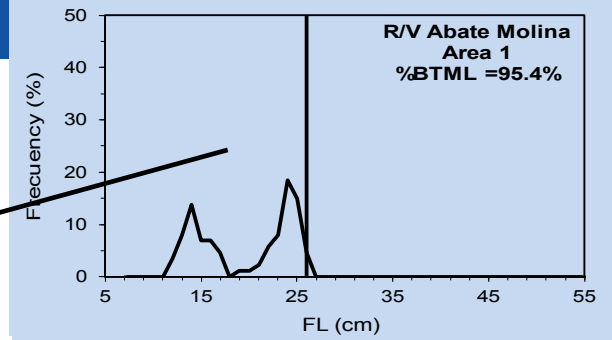
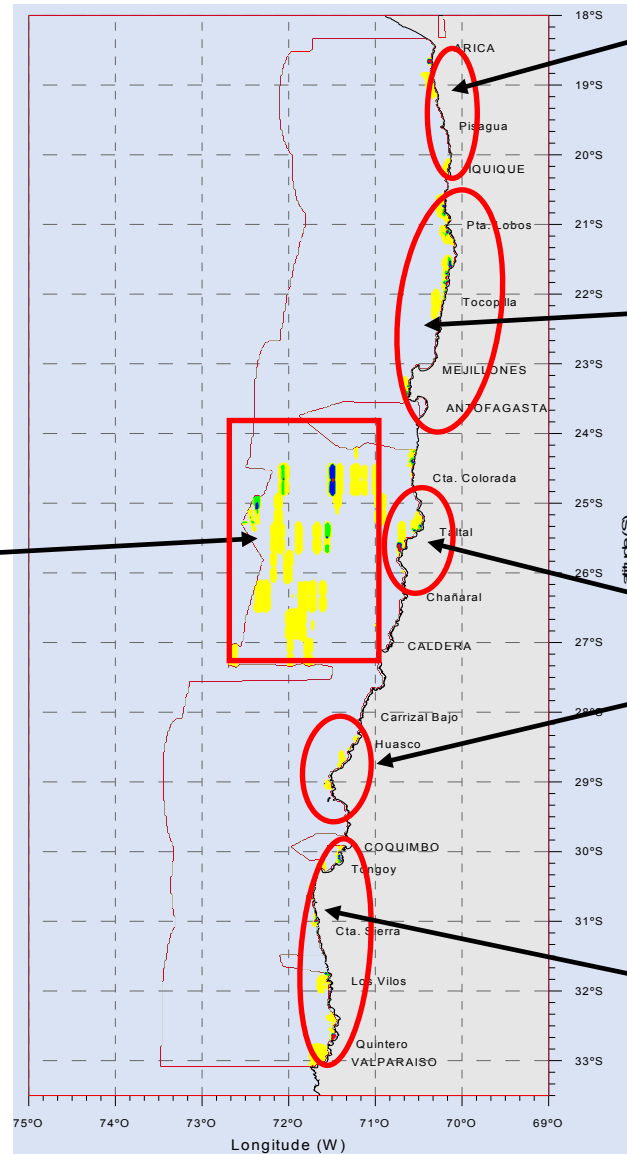
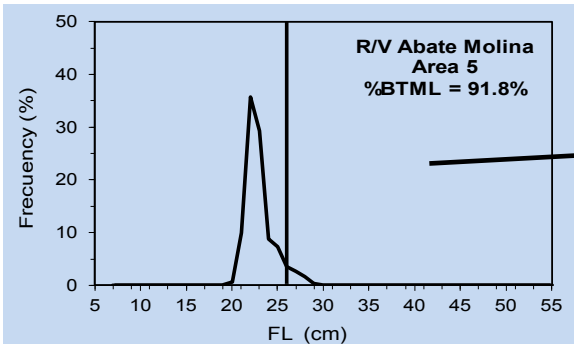


2026
MODE 23 cm
MODE 33 cm





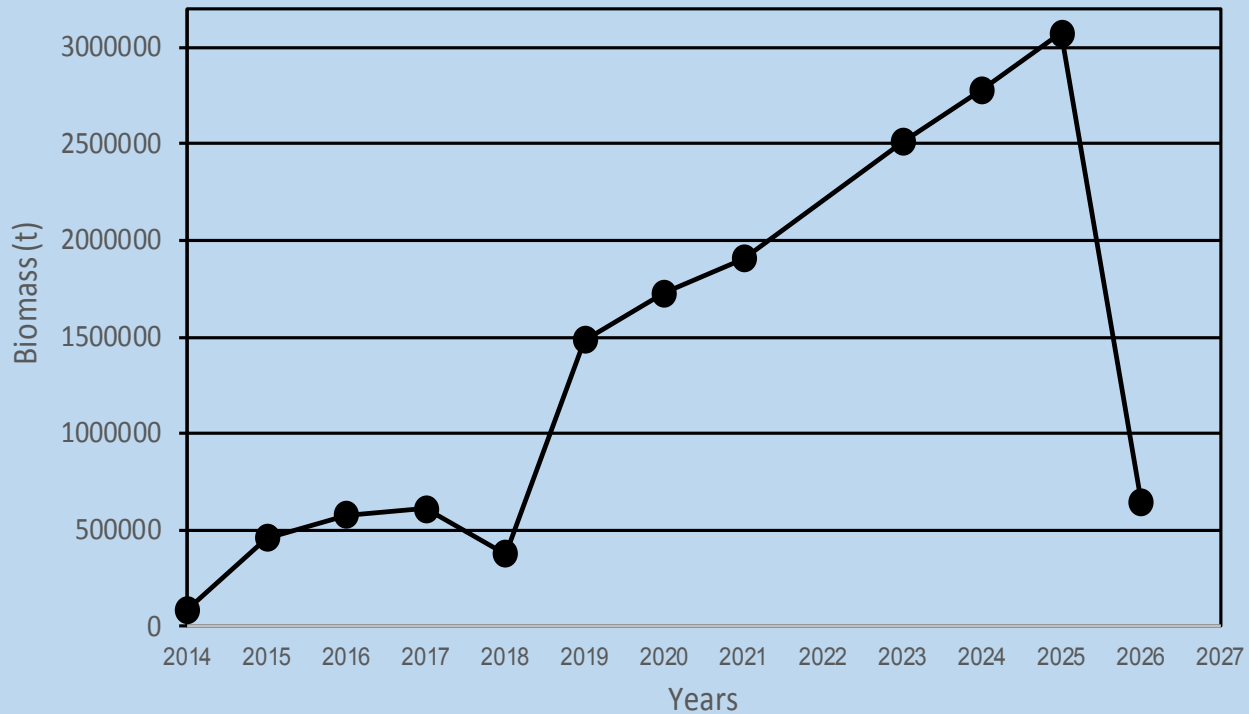
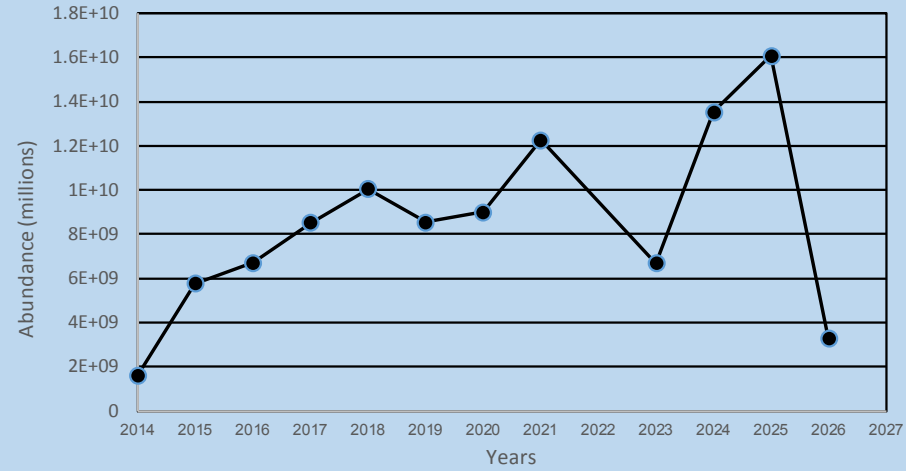
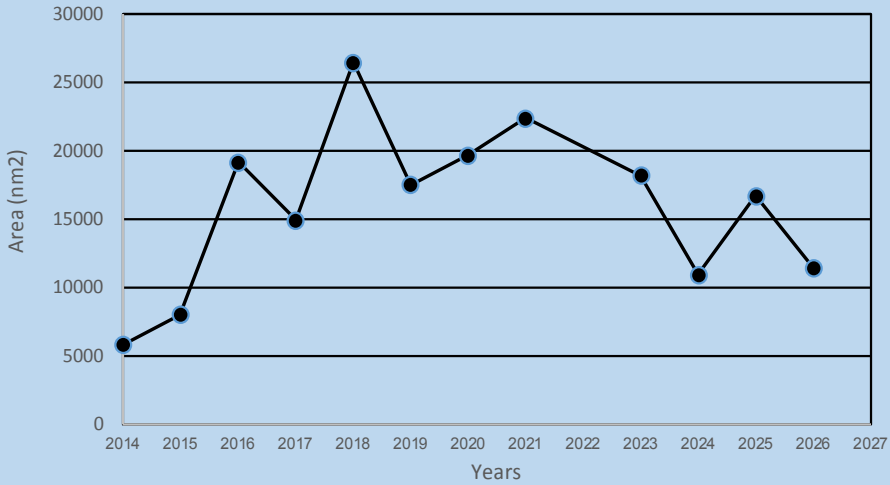
EVALUATION ZONES 2026



YEAR	PERIOD	ABUNDAN (núm)	BIOMASS (t)	AREA	DENSITY (t/mn2)	Biomass zona1
2014	March-April	1585867319	87229	5794	15.06	57881
2015	March-April	5764293123	459485	8020	57.29	261054
2016	March-April	6716953946	577235	19173	30.11	121822
2017	March-April	8526700737	610097	14912	40.91	49677
2018	March-April	10053739366	375661	26492	14.18	84511
2019	March-April	8541267647	1486649	17517	84.87	140158
2020	March-April	9013744554	1728532	19693	87.77	474530
2021	March-April	12261453231	1904359	22382	85.09	142034
2022	March-April					
2023	March-April	6693050651	2508883	18189	137.94	1656469
2024	March-April	13531355332	2781691	10944	254.18	1368230
2025	March-April	16093054541	3074857	16703	184.09	875033
2026	March-April	3263283960	642382	11434	56.18	357802

(*) 2026 Preliminary Results

INDICES



Between 2019 and 2025, abundances and biomasses shows a tendency to increase. In 2026, these indices shows a strong decreased.

A change in the distribution of the jack mackerel is observed, with a movement of small individuals to the coast.

In 2026, JM shows a deeper bathymetric distribution.



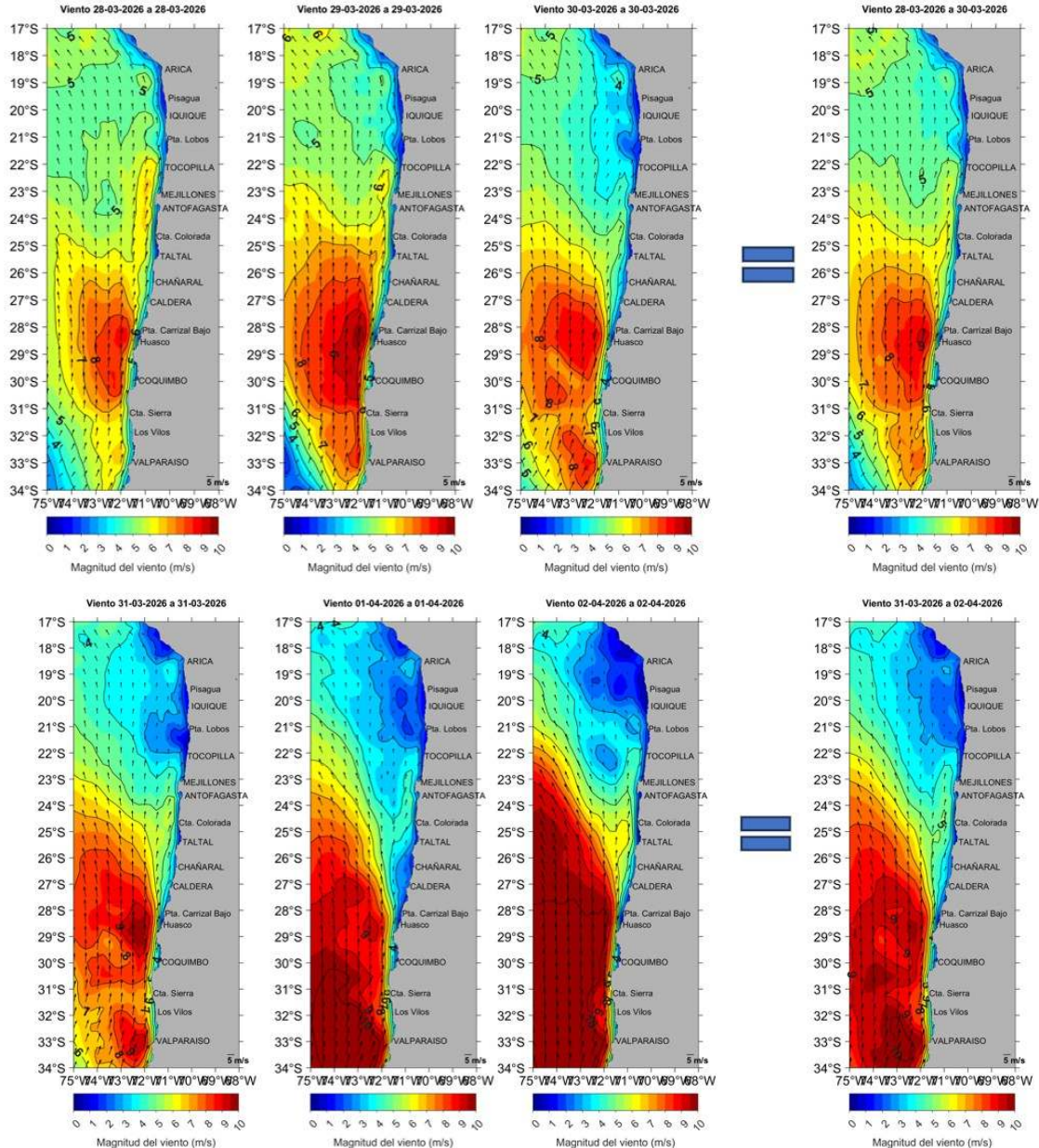
GRACIAS

YEAR	PERIOD	ABUNDAN (núm)	BIOMASS (t)	AREA	DENSITY (t/mn2)	Biomass zona1
2010	April-May	2359547127	440358	17239	25.54	440358
2011	April-May	2831803877	432935	7560	57.27	352409
2012	March-April	1284085643	231583	8115	28.54	167192
2013	March-April	780666176	144139	4115	35.03	9106
2014	March-April	1585867319	87229	5794	15.06	57881
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Imágenes diarias

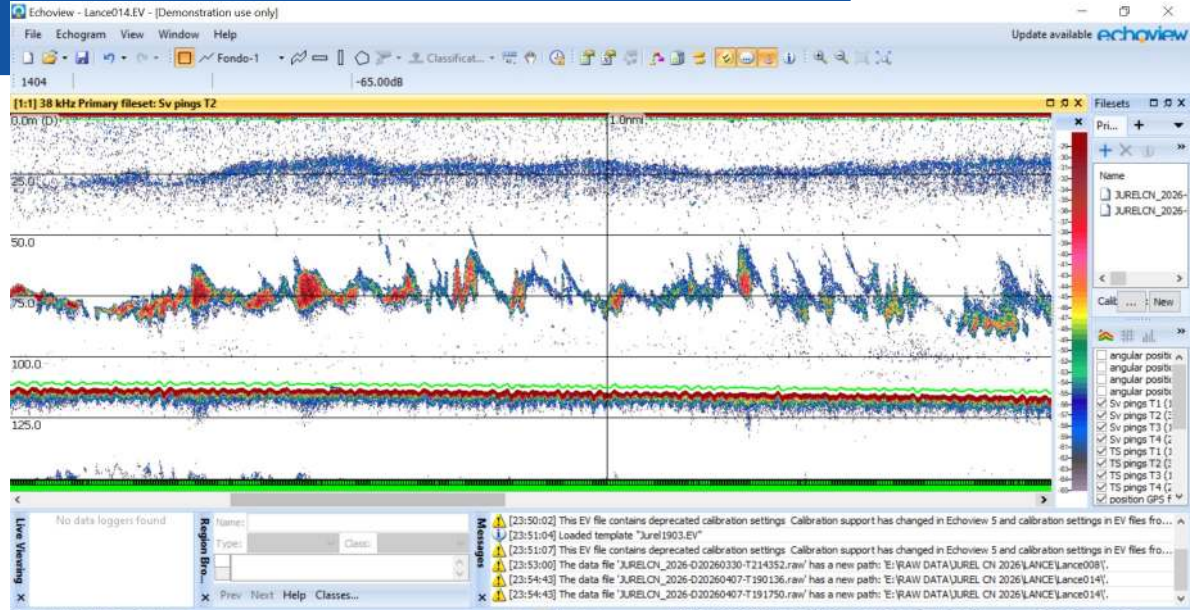
Promedios c/3 días



FISHING HAULS 2026



LANCE 014



LANCE 021

