



FISHMEAL AND
FISHOIL – PERU
鱼粉和鱼油——
秘鲁





WEATHER CONDITIONS 天气情况



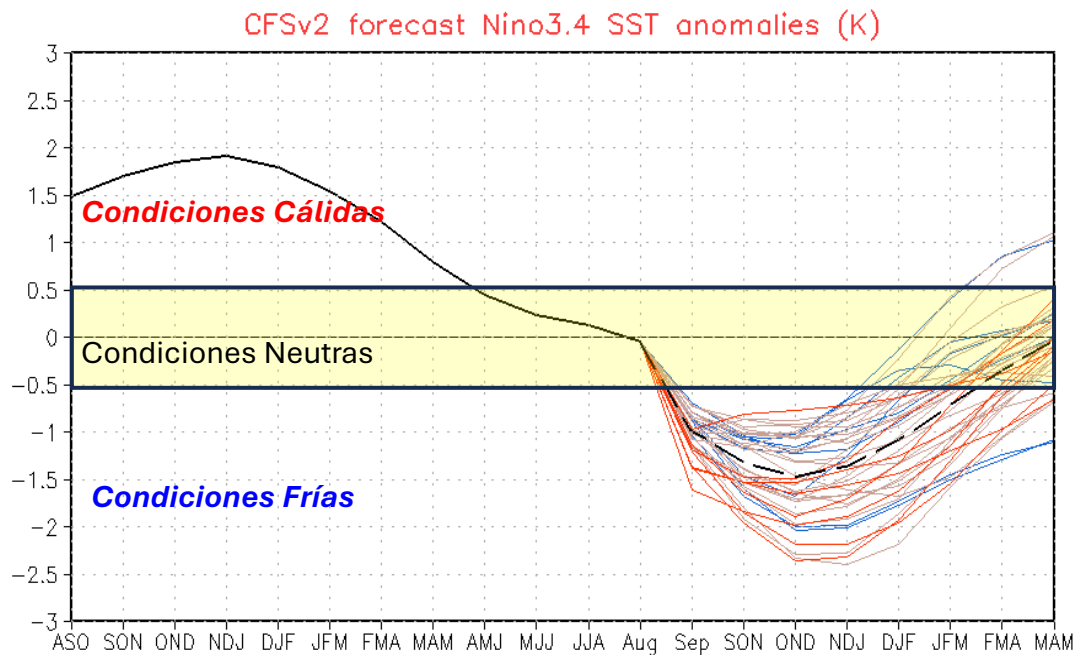
EL NIÑO REGIONS - NOAA

厄尔尼诺区域——美国国家海洋和大气管理局



NWS/NCEP/CPC

Last update: Mon Aug 19 2024
Initial conditions: 9Aug2024–18Aug2024



— Latest 8 forecast members
— Earliest 8 forecast members
— Other forecast members
— Forecast ensemble mean
— NCEI Olv2.1 daily analysis
 (Climatology base period: 1991–2020)

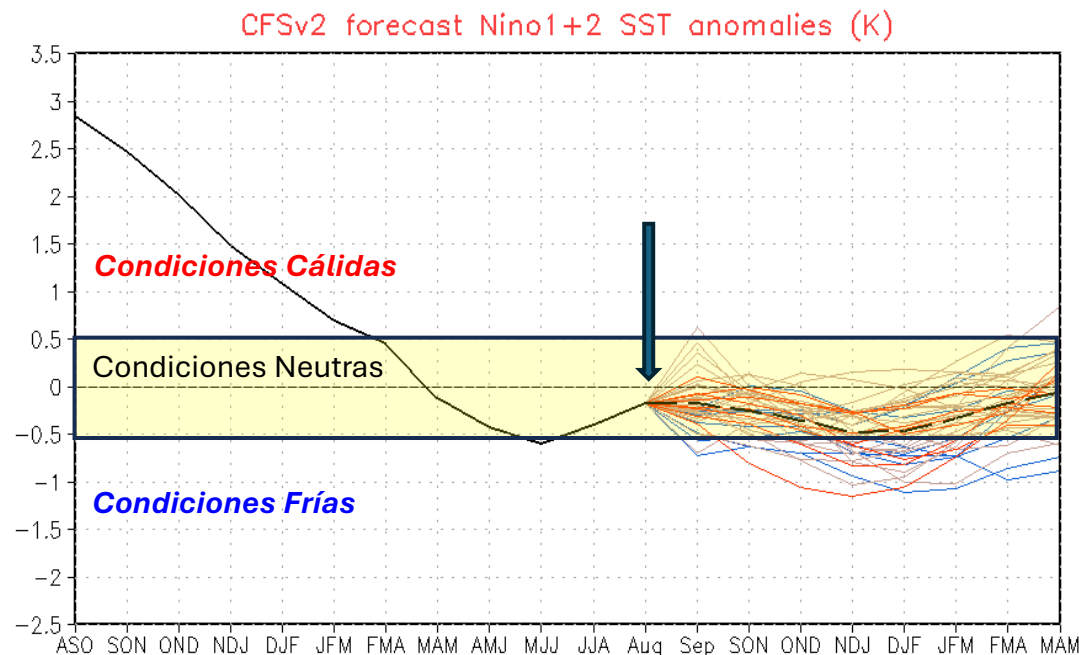
The follow up of the forecast of region 3-4 (central equatorial Pacific) are carried out because they affect the income conditions in El Niño region 1-2.

对区域3-4（赤道太平洋中部）的预报进行了跟进，因为它们影响了厄尔尼诺区域1-2的收入状况。



NWS/NCEP/CPC

Last update: Mon Aug 19 2024
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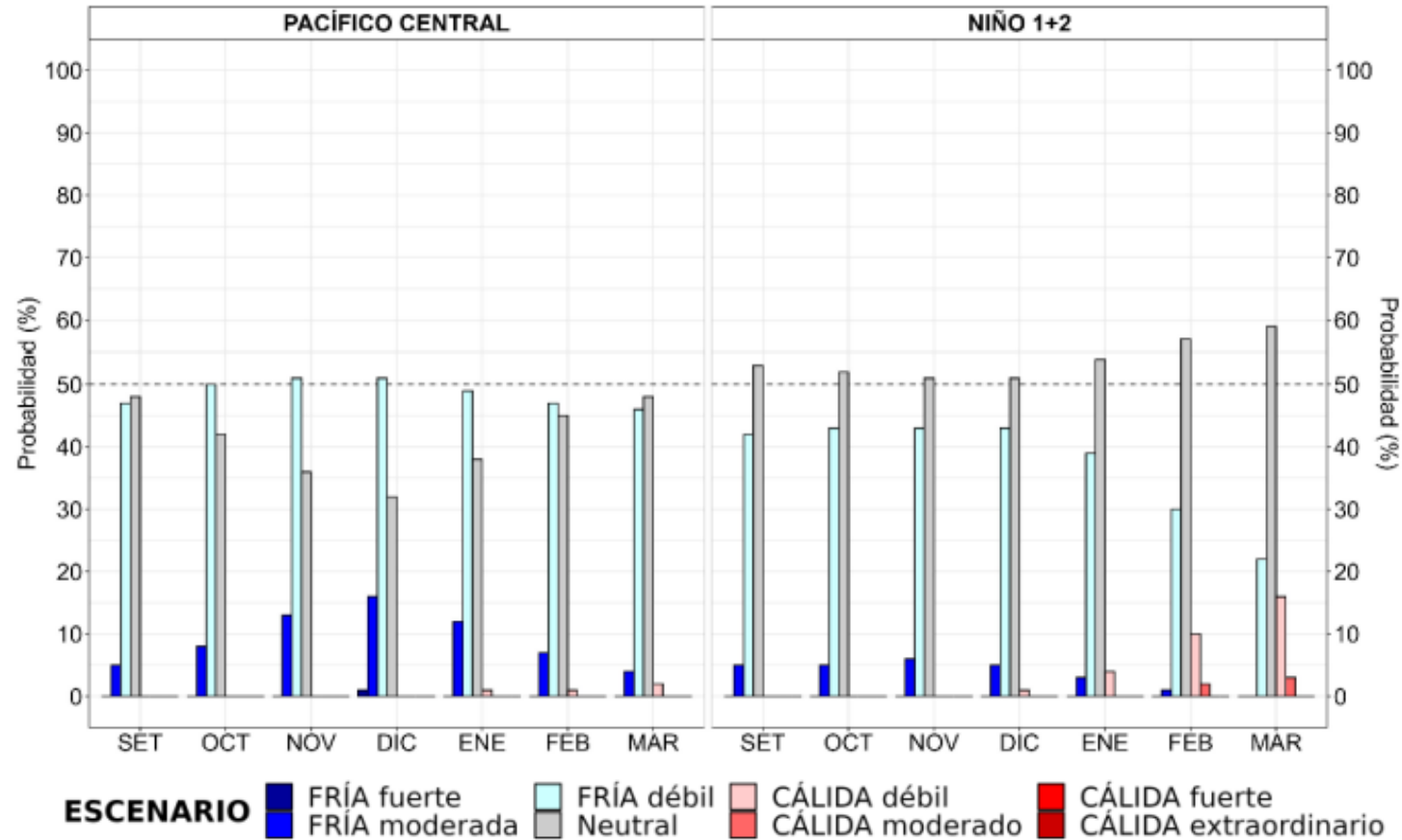
— Latest 8 forecast members
— Earliest 8 forecast members
— Other forecast members
— Forecast ensemble mean
— NCEI Olv2.1 daily analysis
 (Climatology base period: 1991–2020)

Follow up of the El Niño 1-2 region defines the conditions within the Peruvian sea.

对厄尔尼诺区域1-2的跟进确定了秘鲁海的状况。

ENFEN PROJECTIONS

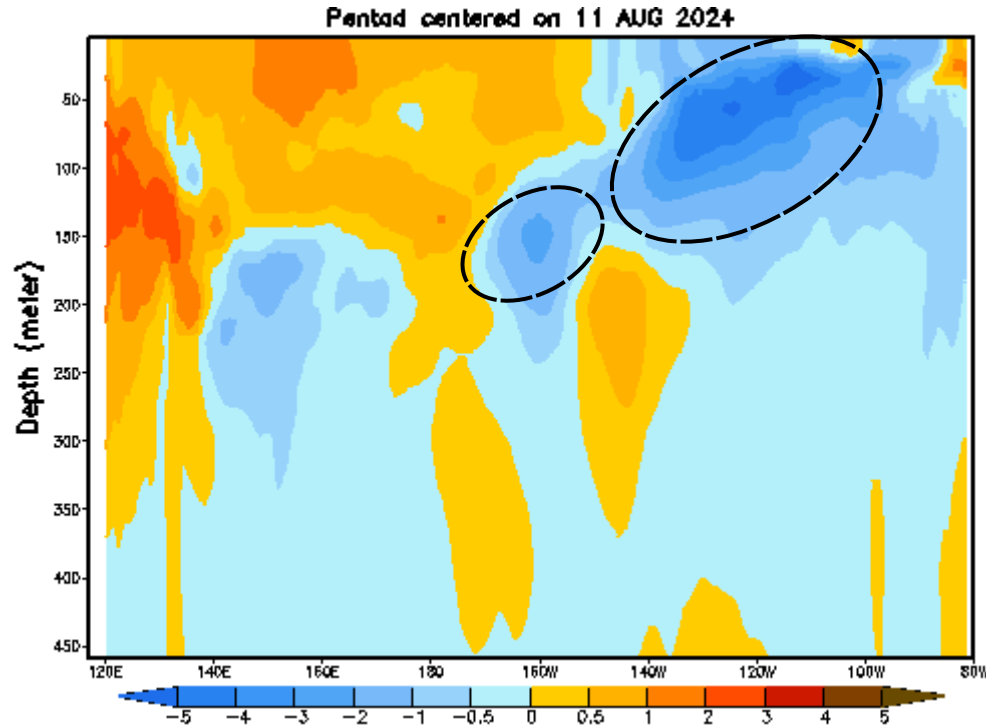
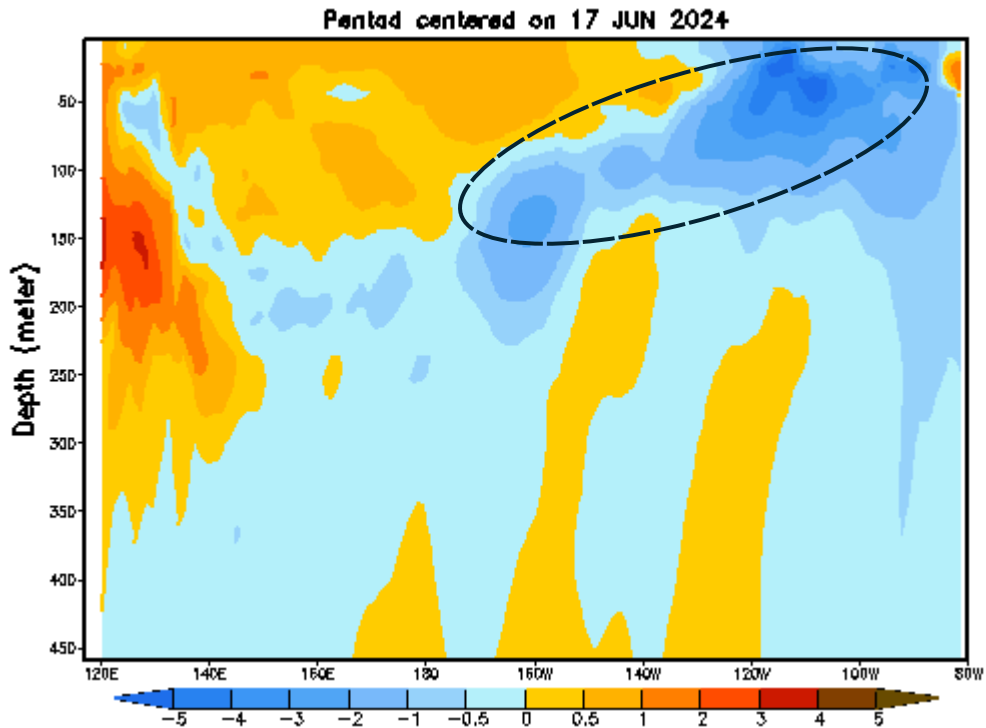
秘鲁厄尔尼诺现象研究委员会预报



- In the central Pacific (Niño 3-4 region), the development of weak La Niña conditions is most likely between September 2024 and summer 2024-2025.
- 在太平洋中部（厄尔尼诺区域3-4），在2024年9月到2024-2025年夏季（秘鲁）期间可能形成微弱的拉尼娜现象。

- In the Niño 1+2 region, ENFEN maintains the “Alert System Status” of “Not Active”, since, although negative sea surface temperature anomalies are currently present in the Niño 1+2 region, these would continue within the neutral range in the coming months.
- 在厄尔尼诺区域1+2，该委员会维持预警系统状态为“不活跃”，尽管该地区目前海面温度出现异常，这种情况或持续，未来几个月进入中性条件范围。

KELVIN WAVES 开尔文波



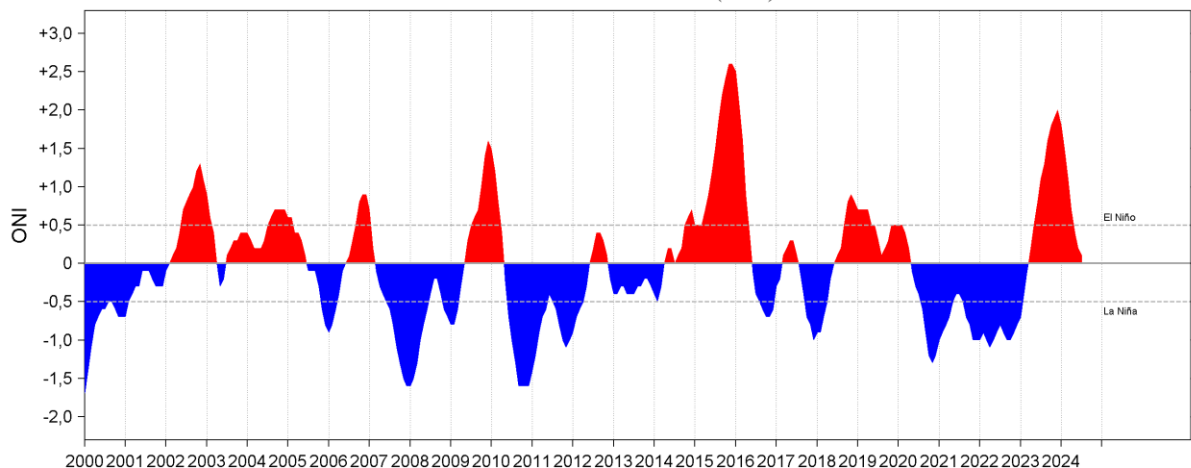
The entry of cold Kelvin waves (possible Niña conditions) and the entry of warm Kelvin waves (possible Niño conditions) are monitored because these waves are indicators that impact oceanographic conditions, therefore impact the distribution of the anchovy.

对冷开尔文波（可能的拉尼娜现象）和暖开尔文波（可能的厄尔尼诺现象）的到来进行监测，这些波是影响海洋状况的指标，进而会影响鳀鱼的分布。

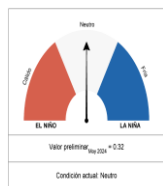
OCEANIC AND COASTAL EL NIÑO INDEX

海洋和沿海厄尔尼诺指数

Índice Niño Oceánico (ONI)

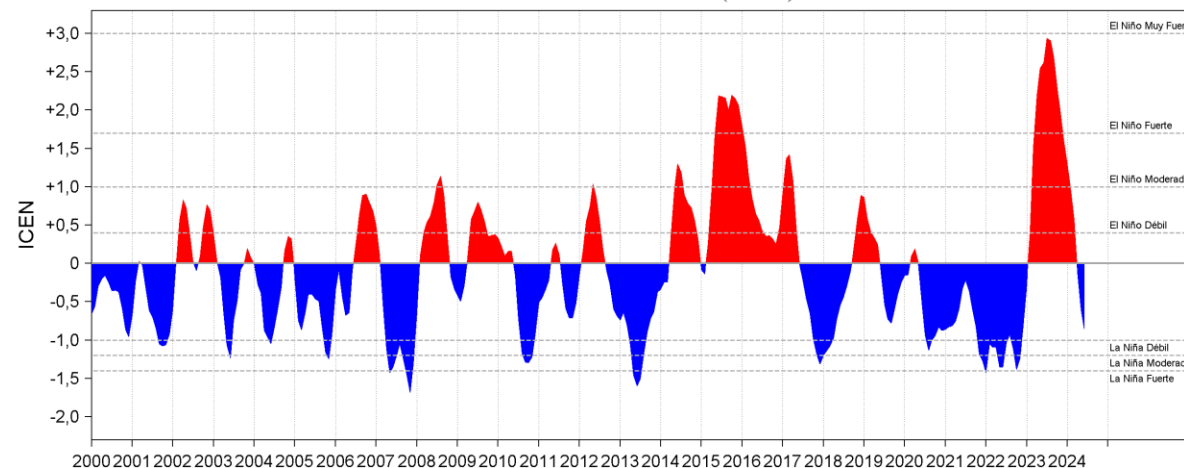


Producto: INO (ONI en inglés), Huang et al. (2017)
 Datos: NOAA ERSST.v5
 Climatología: 1986-2015
 Procesamiento: LHFMAFIOF/DGIOCC/IMARPE
 Nota: El valor de julio 2024 es preliminar
 Actualizado al: 31/07/2024

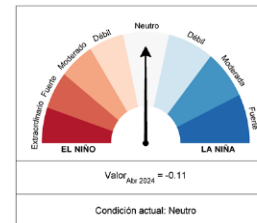


It is a measure of the condition of the El Niño-Southern Oscillation (ENSO) and its warm (El Niño) and cold (La Niña) phases in the central equatorial Pacific (Niño 3-4)
 它是衡量赤道太平洋中部厄尔尼诺-南方涛动现象 (ENSO) 及其暖 (厄尔尼诺) 和冷 (拉尼娜) 阶段 (厄尔尼诺区域3-4) 状况的指标

Índice Costero El Niño (ICEN)



Producto: ICEN (ENFEN, 2012; Takahashi, et al. (2014))
 Datos: NOAA ERSST v5
 Climatología: 1981-2010
 Procesamiento: LHFMAFIOF/DGIOCC/IMARPE
 Actualizado al: 31/07/2024



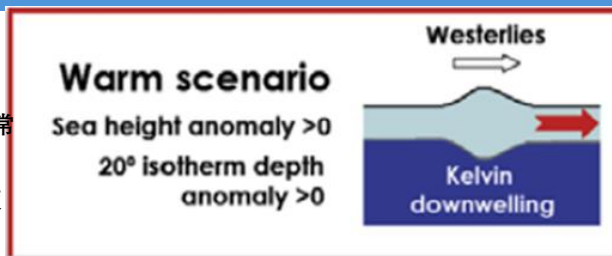
This index represents the variability of the regional climate in the eastern equatorial Pacific Ocean, which includes the areas off Ecuador and northern Peru. (Niño 1-2)
 该指数反映了赤道太平洋东部 (包括厄瓜多尔和秘鲁北部地区——厄尔尼诺区域1-2) 的区域性气候变化。

NIÑO CONDITIONS – WARM SCENARIO

厄尔尼诺现象——温暖情况

KELVIN WAVES
开尔文波

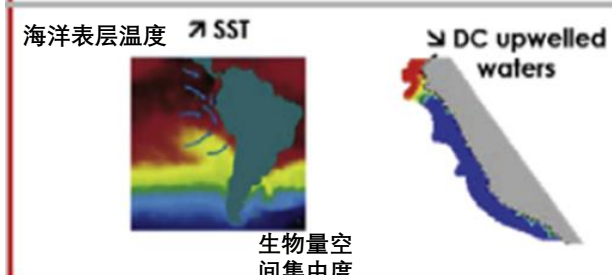
温暖情况
海平面高度异常 >0
20°等温线深度异常 >0



西风带

开尔文下降流

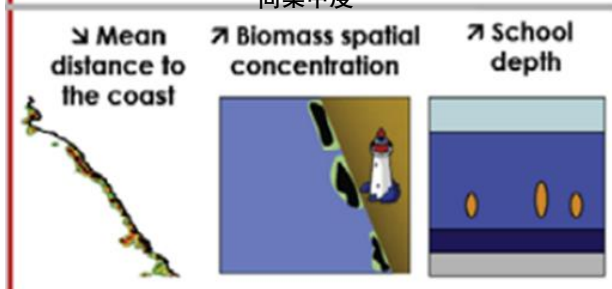
OCEANOGRAPHIC CONDITIONS
海洋状况



距离上升水域

ANCHOVY DISTRIBUTION
鳀鱼分布

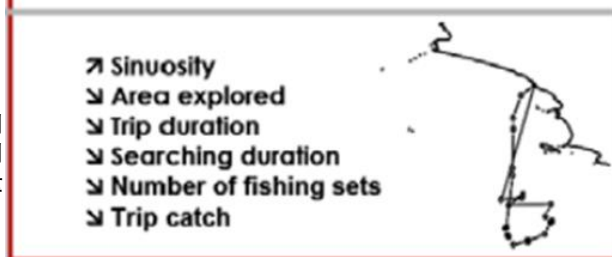
到海岸的平均距离



鱼群深度

FLEET BEHAVIOR
捕捞船队行为

弯曲度
搜寻区域
航程持续时间
搜寻持续时间
捕鱼设备数量
航程捕获量



The EL NIÑO conditions impact us in the environmental conditions, increasing sea temperatures.
厄尔尼诺现象对我们的环境状况造成了影响，导致海水温度上升。

Big concentrations of anchovy come closer to the shore, inside the 5 miles.
大量的鳀鱼靠近海岸5英里内。

The schools go very deep, searching for better temperatures.
鱼群深入海洋深处，寻找更适宜的温度。

In the year 2023-2024, strong intensity El Niño impacted our coast affecting the development of the fishing seasons.
2023-2024年，强烈的厄尔尼诺现象影响了我们的海岸，影响了捕季的进展。

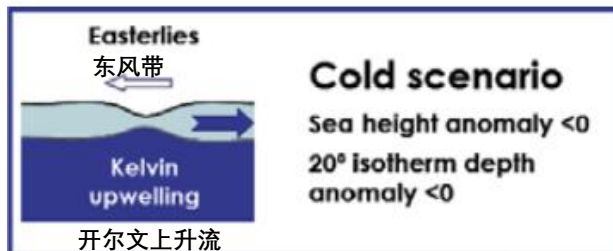
	El Niño ^{2 nota 1} 厄尔尼诺 ²⁻¹			
中度	2002-03	Medio	Junio de 2002 – marzo de 2003	2002年6月—2003年3月
较弱	2004-05	Leve	Julio de 2004 – marzo de 2005	2004年7月—2005年3月
较弱	2006-07	Leve	Septiembre de 2006 – febrero de 2007	2006年9月—2007年2月
强烈	2009-10	Fuerte	Julio de 2009 – abril de 2010	2009年7月—2010年4月
非常强烈	2014-16 ³	Muy intenso	Octubre de 2014 – mayo de 2016	2014年10月—2016年5月
较弱	2018-19	Leve	Septiembre de 2018 – julio de 2019	2018年9月—2019年7月
强烈	2023-24	Fuerte	Mayo de 2023 – marzo de 2024	2023年5月—2024年3月

NIÑA CONDITIONS – COLD SCENARIO

拉尼娜现象——寒冷情况

KELVIN WAVES

开尔文波

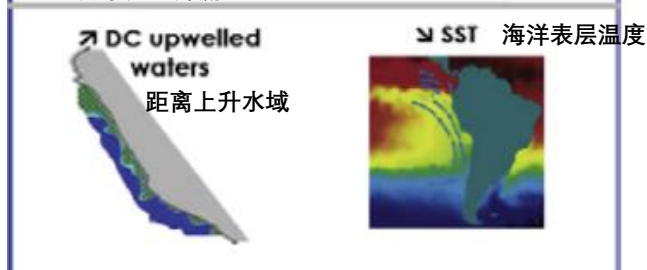


寒冷情况

海平面高度异常 < 0
20°等温线深度异常 < 0

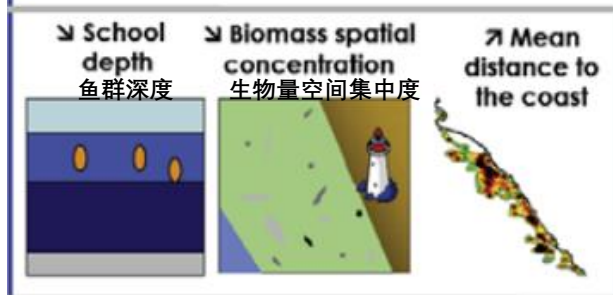
OCEANOGRAPHIC CONDITIONS

海洋状况



ANCHOVY DISTRIBUTION

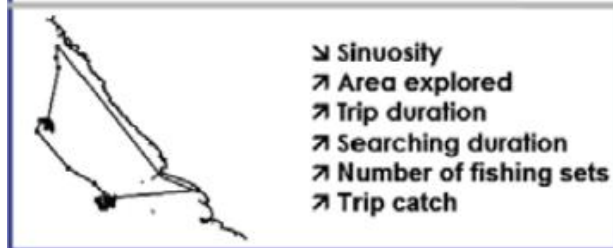
鳀鱼分布



到海岸的平均距离

FLEET BEHAVIOR

捕捞船队行为



弯曲度
搜寻区域
航程持续时间
搜寻持续时间
捕鱼设备数量
航程捕获量

La Niña conditions impact the environmental conditions, reducing sea temperatures.

拉尼娜现象对我们的环境状况造成了影响，导致海水温度下降。

The distribution of anchovy becomes wider, the biomass spatially dispersed and the shoals swim superficially.

鳀鱼分布越来越广，生物量在空间上分散；鱼群在表层海域活动。

It is predicted that, in August 2024, a LA NIÑA scenario of mild intensity will prevail.

据预测，2024年8月，轻度的拉尼娜现象将占据上风。

	La Niña ² 拉尼娜 ²		
强烈	1998-2001	Fuerte	Julio de 1998 - marzo de 2001 1998年7月—2001年3月
较弱	2005-06	Leve	Noviembre de 2005 - abril de 2006 2005年11月—2006年4月
强烈	2007-09	Fuerte	Junio de 2007 - abril de 2009 2007年6月—2009年4月
强烈	2010-12	Fuerte	Junio de 2010 - mayo de 2012 2010年6月—2012年5月
较弱	2016-17	Leve	Agosto de 2016 - enero de 2017 2016年8月—2017年1月
较弱	2017-18	Leve	Octubre de 2017 - mayo de 2018 2017年10月—2018年5月
中度	2020-23	Medio	Agosto de 2020 - febrero de 2023 2020年8月—2023年2月
较弱	2024-presente	Leve	Agosto de 2024 - presente 2024年8月至今

PACIFIC
OCEAN

ANCHOVY
ENVIRONMENT
鯷鱼的环境



SURFACE OCEAN TEMPERATURE 海洋表层温度

Monitoring sea surface temperature is important because this variable can limit or expand the distribution of the resource.

监测海洋表层温度很重要，因为该变量可以限制或扩大鱼类资源的分布。

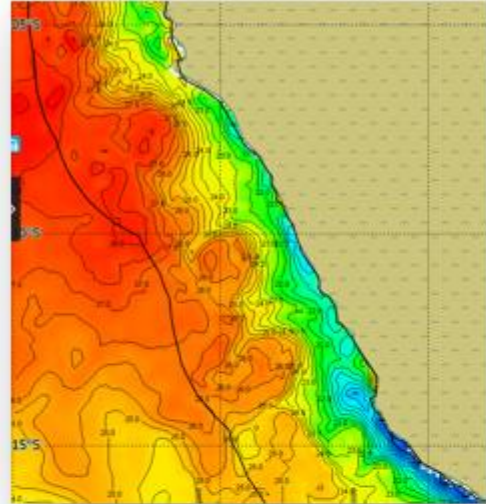
Furthermore, it is the variable that is linked to the Niño and Niña scenarios.

此外，该变量与厄尔尼诺和拉尼娜现象有关

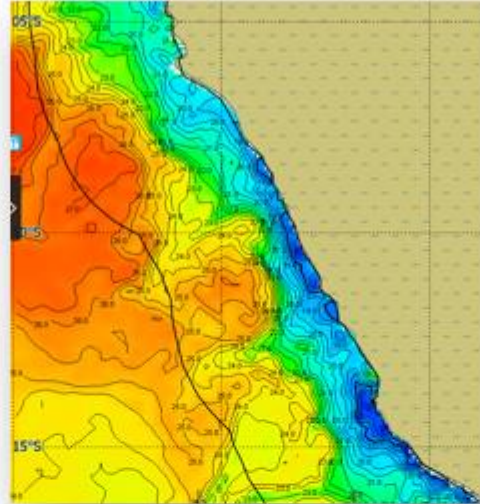
T°[14-21°C] anchovy presence
温度°[14-21°C]鳀鱼存在

T° [17-19°C] optimal for the catch of anchovy
温度°[17-19°C]最适合捕捞鳀鱼

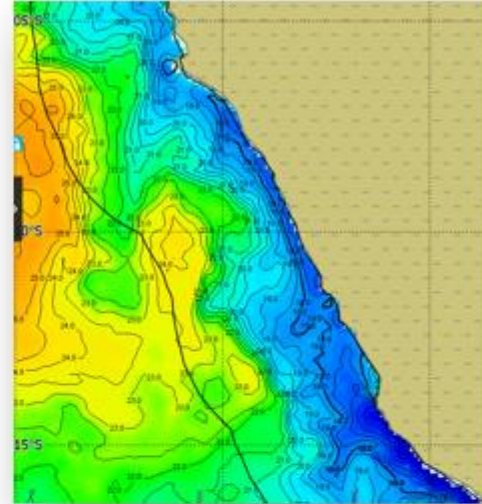
MARZO 2024 2024年3月



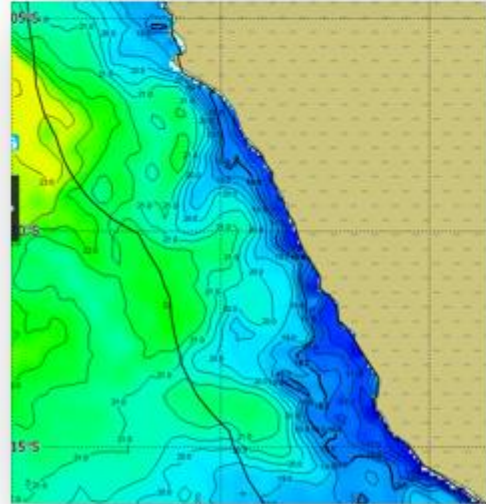
ABRIL 2024 2024年4月



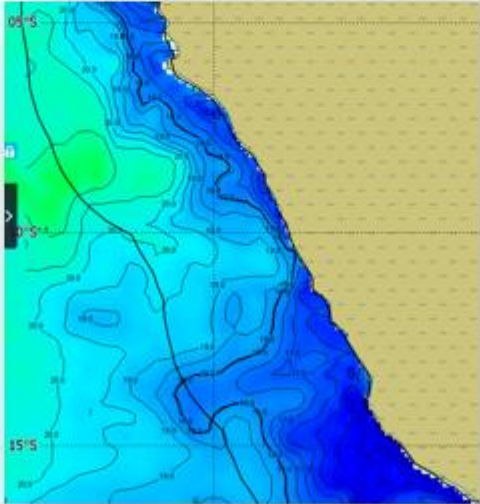
MAYO 2024 2024年5月



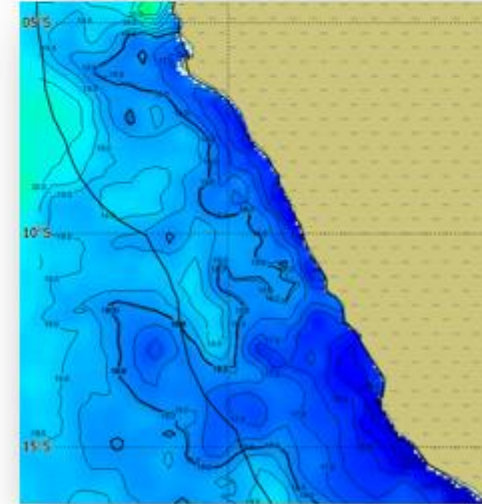
JUNIO 2024 2024年6月



JULIO 2024 2024年7月



AGOSTO 2024 2024年8月



SALINITY

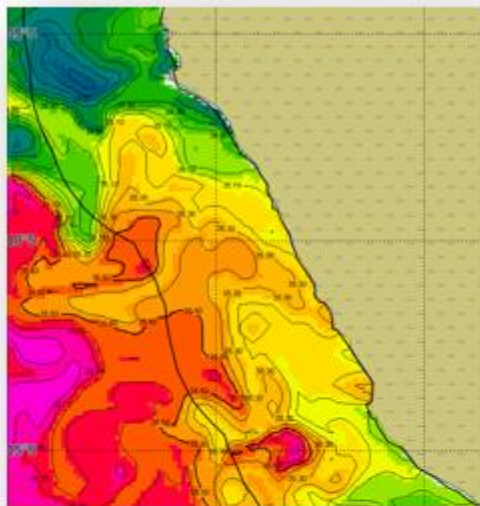
盐度

Monitoring sea surface salinity is important because this variable can limit or expand the distribution of the resource, since anchovy is distributed in conditions of cold coastal waters and mixed water. Furthermore, it is the variable that is linked to the Niño and Niña scenarios.

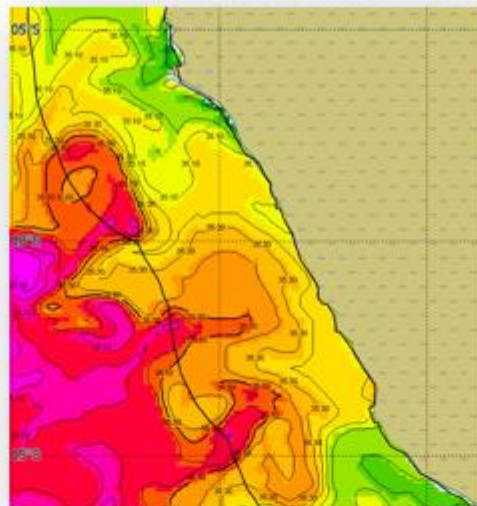
监测海洋表层盐度很重要。因为该变量可以限制或扩大鱼类资源的分布。因为鳀鱼分布在寒冷的沿海水域和混合水域中。此外，该变量与厄尔尼诺和拉尼娜现象有关。

Anchovy develops in an environment between 34.8gr/L and 35.1gr/L.
鳀鱼生长在34.8克/升至35.1克/升的环境中。

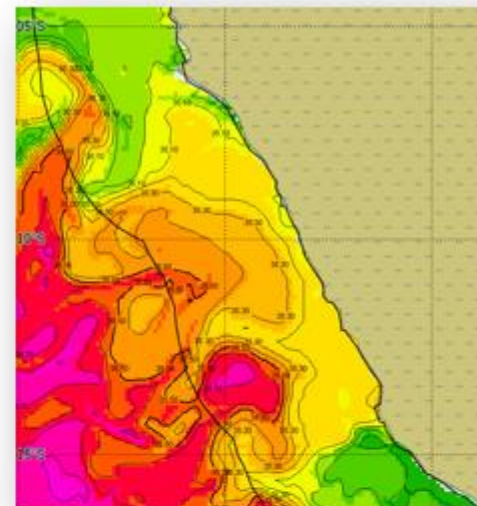
MARZO 2024 2024年3月



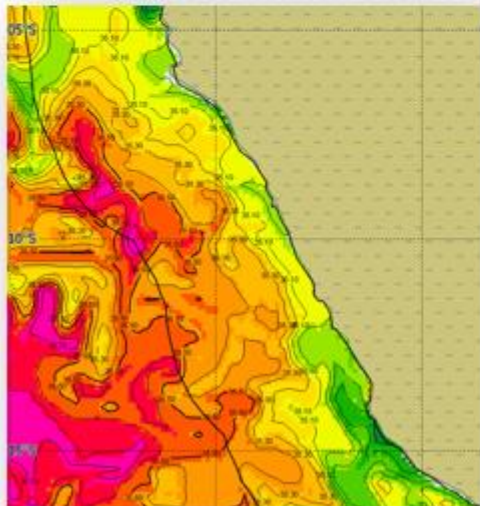
ABRIL 2024 2024年4月



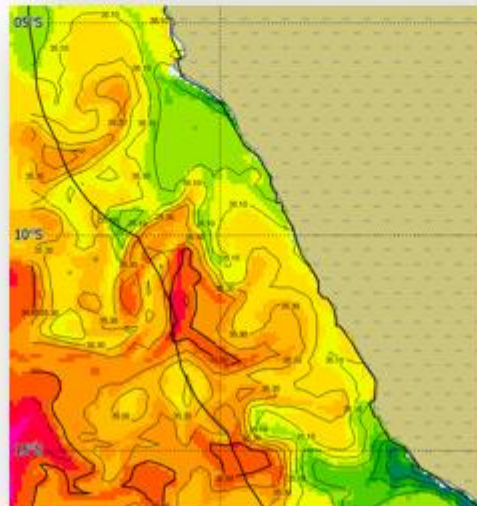
MAYO 2024 2024年5月



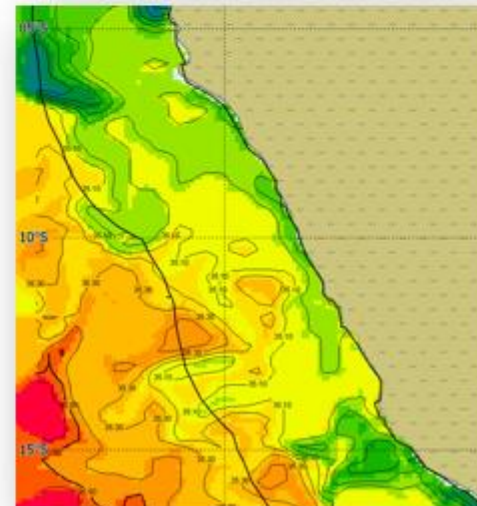
JUNIO 2024 2024年6月



JULIO 2024 2024年7月



AGOSTO 2024 2024年8月

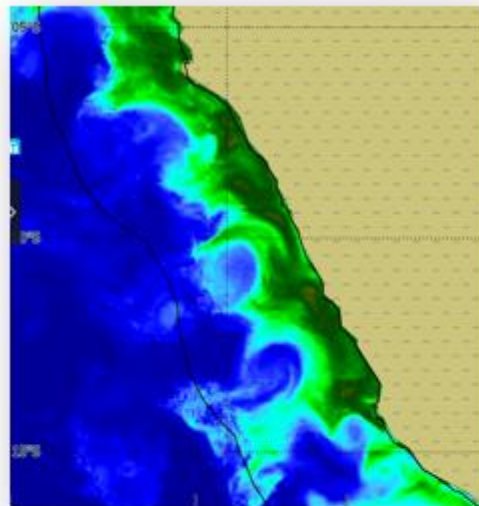


SEA SURFACE CHLOROPHYLL 海洋表层叶绿素

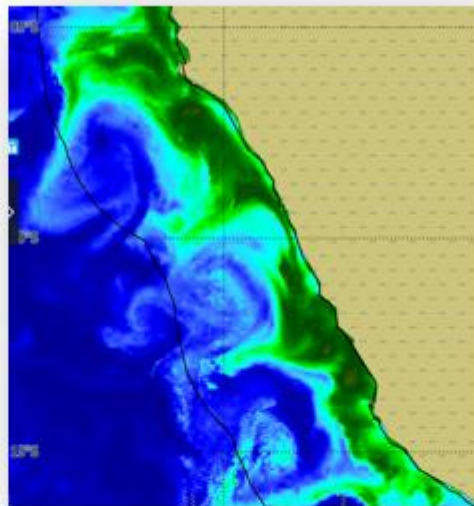
Monitoring the surface chlorophyll of the sea, this variable can limit or expand the distribution of the resource, because it indicates the availability of food so that the resource can be found in certain areas. (Phytoplankton and zooplankton)

监测海洋表层叶绿素。该变量可以限制或扩大鱼类资源的分布。因为它反映了食物的分布，从而可以在某些区域找到鱼类资源。（浮游植物和浮游动物）

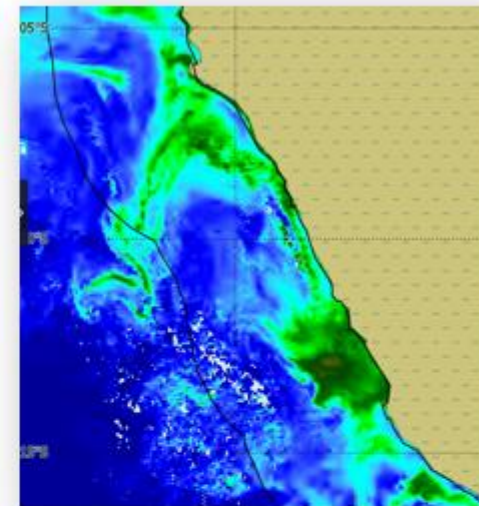
MARZO 2024 2024年3月



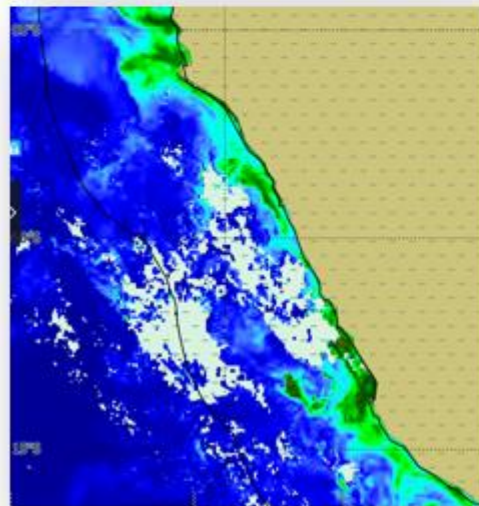
ABRIL 2024 2024年4月



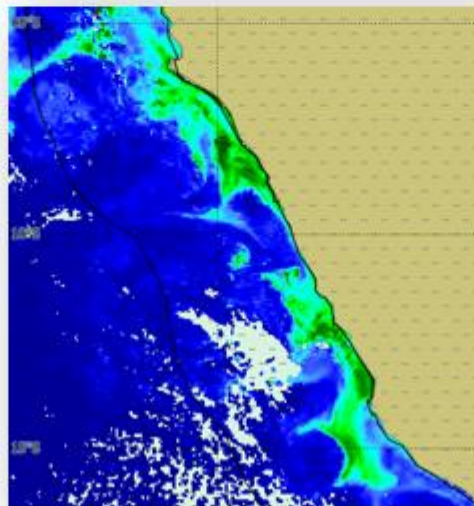
MAYO 2024 2024年5月



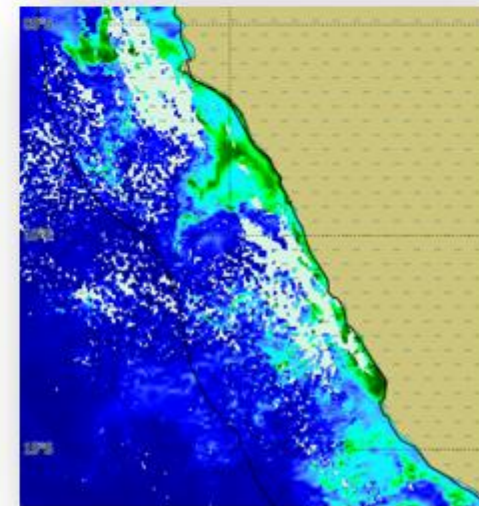
JUNIO 2024 2024年6月



JULIO 2024 2024年7月



AGOSTO 2024 2024年8月

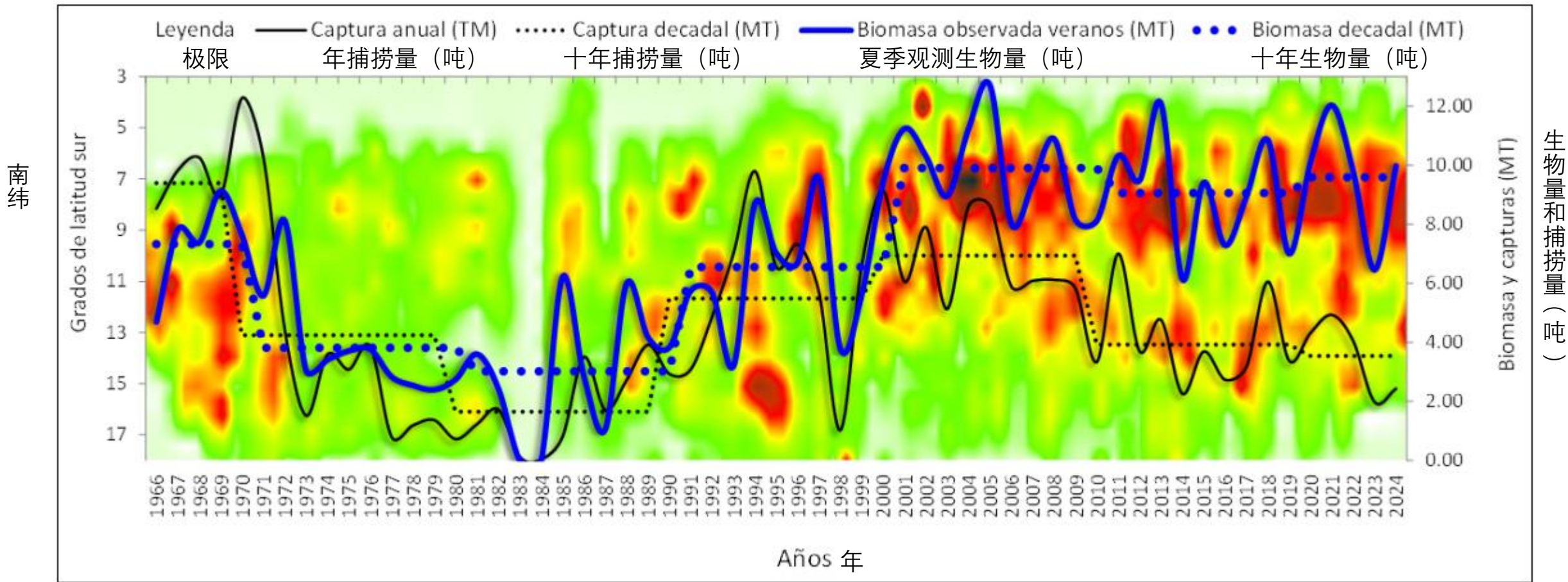




BIOMASS
CONDITIONS
生物量状况

BIOMASS FOLLOW UP

生物量跟踪调查

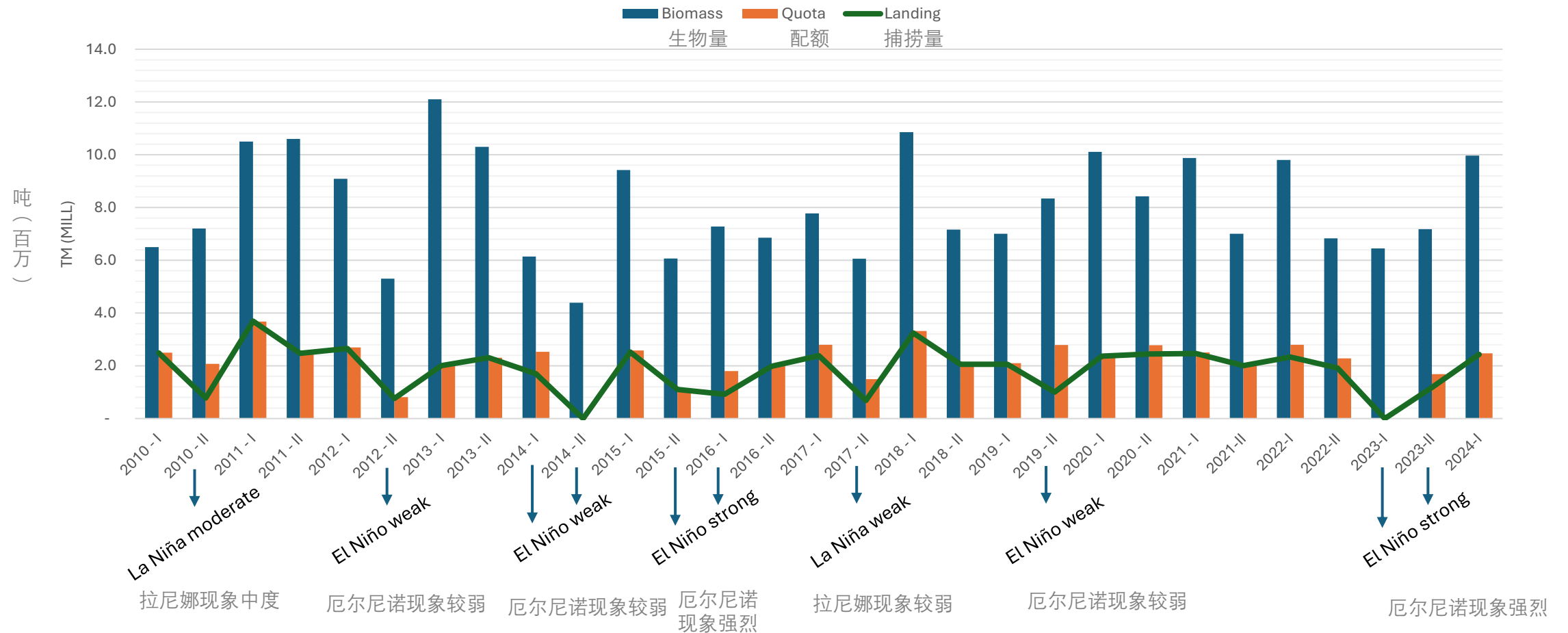


In Peru, this important fishery is managed with a maximum annual catch of 6 million tons in the north-central zone to ensure the stability of the anchovy. There are also biological reference points that vary between 4 and 5 million tons of adult fish as the minimum biomass necessary to ensure spawning and recruitment in the short term. The changes observed between 1966 and 2023 show the high biomass content of anchovy, which has existed since 1999 (after the El Niño event of 1997-98).

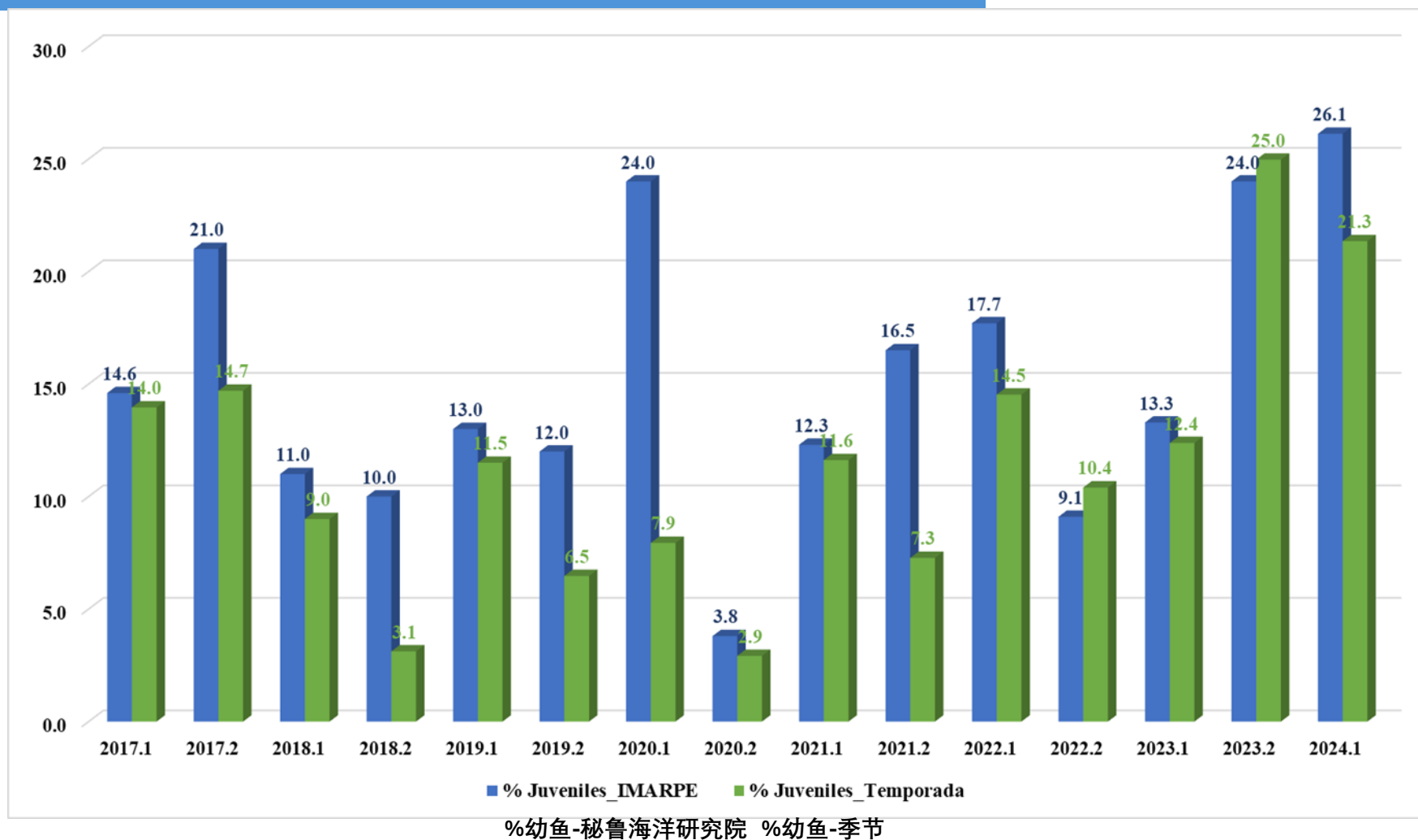
在秘鲁，为了确保鳀鱼的稳定性，这一重要渔业在北部/中部地区的年最大捕捞量为600万吨，成鱼的生物学参考点为400万至500万吨，这是确保短期内产卵和增长的最小生物量。1966年至2023年期间观察到的变化表明，鳀鱼的生物量很高，自1999年（1997-98年厄尔尼诺现象后）以来一直如此。

BIOMASS 生物量

Biomass, Quota and Landing of Anchovy 鳀鱼的生物量、配额和捕捞量



SIZE CONTROL 尺寸控制

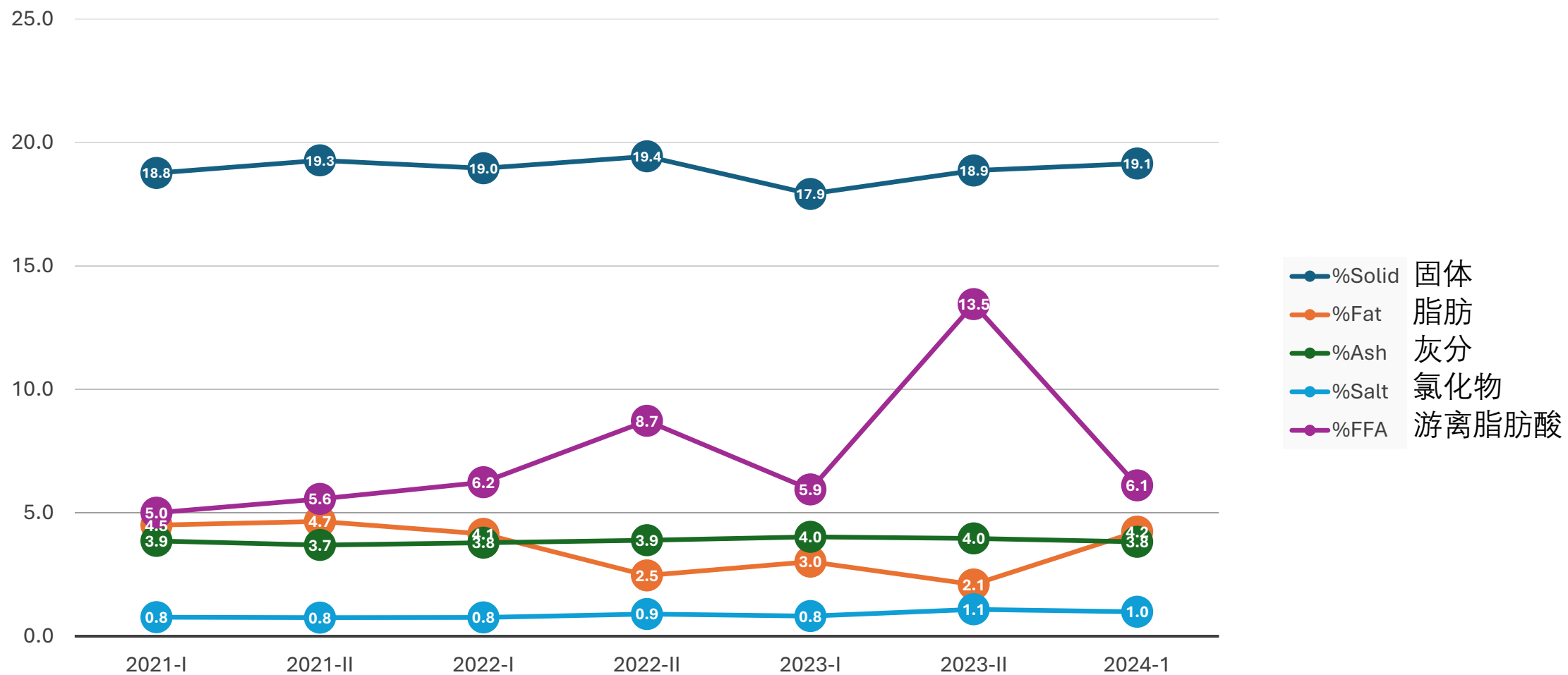


To control smaller sizes of anchovy (<12cm in length), IMARPE establishes a percentage for each fishing season (blue bars), During the development of the fishing season, controls are carried out to avoid reaching the established limit.

为了控制尺寸较小的鳀鱼（长度<12厘米），秘鲁海洋研究院为每个捕季设定了百分比（蓝条）。在捕季的开展过程中，会进行控制，以避免达到设定的限额。

RAW MATERIAL SPECIFICATIONS

原料规格

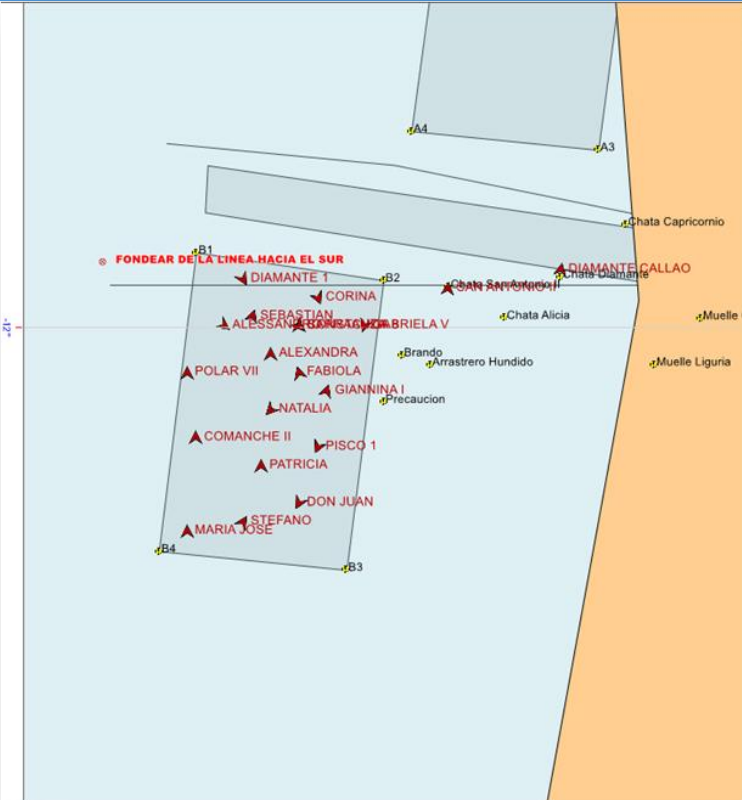


GOVERNMENT
REGULATIONS
政府法规



MANDATORY CONTROLS TO GRANT SUSTAINABILITY

确保可持续性的强制性控制



Posiciones		Datos recolectados							
Nave	Referenci...	Latitud	Longitud	Fecha y hora de la posic...	Rumbo	Velocid...	Tipo de nave	R...	
GRACIELA	516816	11°59.916' S	077°08.178' W	24/06/2024 15:30:01	000 °	0 kt	INDUSTRIAL		
PISCO 1	524647	12°00.210' S	077°09.012' W	24/06/2024 15:36:01	129 °	0 kt	INDUSTRIAL		
GABRIELA V	523672	11°59.994' S	077°08.946' W	24/06/2024 15:41:58	300 °	0 kt	INDUSTRIAL		
DIAMANTE 1	532264	12°00.072' S	077°08.448' W	24/06/2024 16:00:03	000 °	0 kt	INDUSTRIAL		
GIANNINA I	524751	12°00.114' S	077°09.006' W	24/06/2024 16:03:01	304 °	0 kt	INDUSTRIAL		
DIAMANTE CALLAO	511732	11°59.892' S	077°08.586' W	24/06/2024 16:07:23	347 °	0.51 kt	CHATA		
CONSTANZA	525072	11°59.994' S	077°09.066' W	24/06/2024 16:10:01	112 °	0.99 kt	INDUSTRIAL		
DON JUAN	532449	12°00.306' S	077°09.060' W	24/06/2024 16:10:59	306 °	0 kt	INDUSTRIAL		
PATRICIA	524638	12°00.246' S	077°09.132' W	24/06/2024 16:19:32	317 °	0 kt	INDUSTRIAL		
COMANCHE II	523377	12°00.198' S	077°09.240' W	24/06/2024 16:22:09	275 °	0 kt	INDUSTRIAL		
ALEXANDRA	525050	12°00.036' S	077°09.114' W	24/06/2024 16:23:01	000 °	0 kt	INDUSTRIAL		
CORINA	524980	11°59.952' S	077°09.024' W	24/06/2024 16:25:01	301 °	0 kt	INDUSTRIAL		
FABIOLA	524502	12°00.354' S	077°09.102' W	24/06/2024 16:29:01	286 °	0 kt	INDUSTRIAL		

With Supreme Decree 001-2014-PRODUCE, the regulations of the Satellite Monitoring System for Fishing Vessels (SISESAT) were updated.

根据秘鲁生产部001-2014号最高法令，更新了渔船卫星监测系统（SISESAT）的规定。

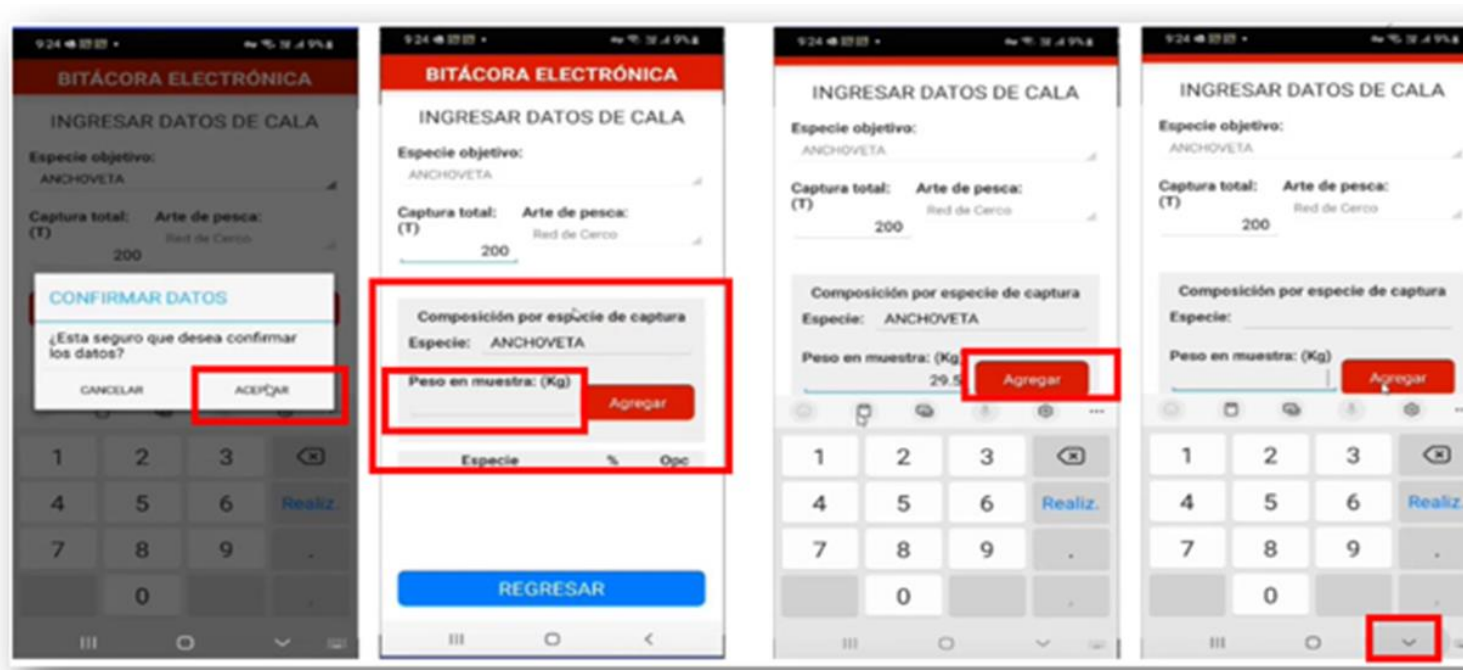
The objective of:

目标:

- a) Complete the monitoring, control and surveillance actions of fishing activities.
- a) 完成对捕捞活动的监测、控制和监察行动。
- b) Preserve hydrobiological resources whose ecosystem develops within the reserved area of (05) nautical miles or in areas that the Ministry of Production establishes as delimited.
- b) 保护其生态系统在5海里保护区或秘鲁生产部划定的区域内发展的水生生物资源。
- c) Acquire, among other things, the necessary evidence for the respective sanctioning process.
- c) 为各个制裁程序获取必要的证据等。

ELECTRONIC LOGBOOK

电子航海日志



ELECTRONIC LOGBOOK - SITRAPESCA: is an application used by the captains of the vessels to report and record information about their fishing activities. They must report each time, the findings of each catch (tonnage, the specie, the incidental catch, the calculation of % of juveniles). The position of the vessel is registered automatically as each vessel have the GPS connected by satellite to PRODUCE.

电子航海日志——SITRAPESCA: 是船长用于报告和记录其捕捞活动信息的应用程序，他们必须报告每次捕捞的结果（吨、种类、附带捕捞量、幼鱼百分比的估算）。由于每艘船都有通过卫星连接到秘鲁生产部的GPS，因此船只的位置会自动显示。

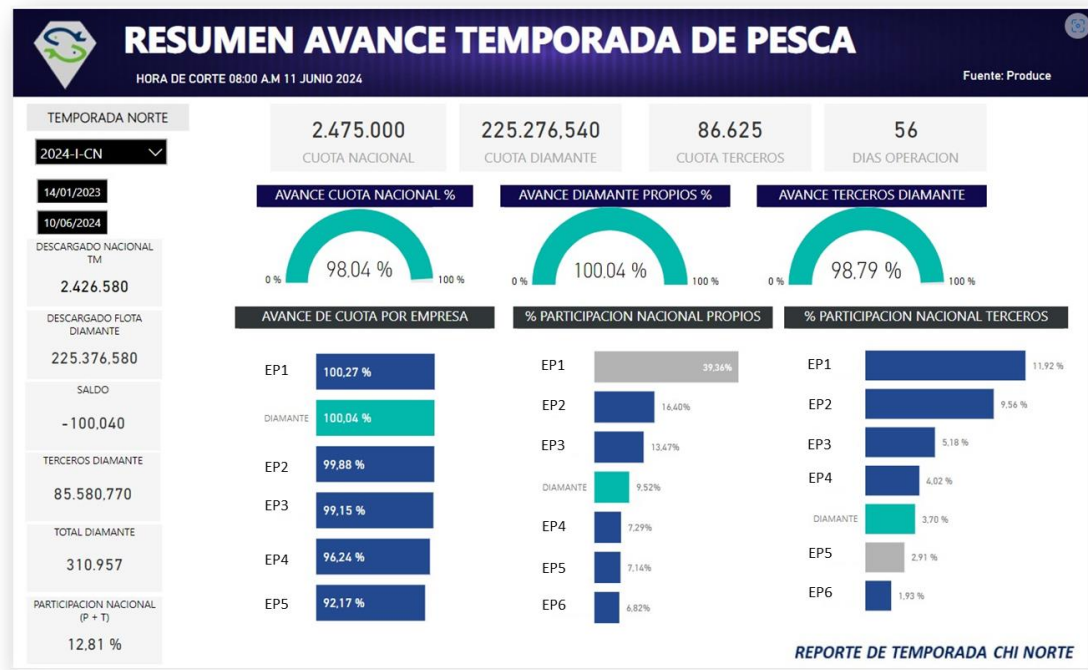
A signal is also sent when the vessels arrive at the fishing area, when they leave the fishing area, when they arrive at port, when they start discharging, all through that electronic logbook. Recently, the vessel's departure report has been incorporated to this system.

当船只到达捕捞区、离开捕捞区、到达港口、开始卸货时，都会通过该电子航海日志发送信号，最近船只的离港报告已被纳入该系统。

IMPORTANT INFORMATION AVAILABLE FOR PRODUCERS

可供生产商使用的重要信息

miércoles, 15 de mayo de 2024 CENTRO DE PESCA DIAMANTE																			
EP	CNOO S/NOV	CNOO C/NOV	DECLARADO	CAJAS	PESCA DE AVER	C A L L A S							ETA	D E S C A R G A (ZARPO)					
						1	2	3	4	5	6	7		AMBO	CHIVA	INCO	FIN	DESCARGA	BTACORA
CHICAMA 4.390 2.600																			
1	CORINA	350		350	4		70	50	180	50			15 16:30	PIQ N	17:36	19:37	124,175	14 18:59	2405143181
2	STEFANO	510	380	400	2		120	280					15 16:30	MARG N	17:25	18:47	409,745	14 16:52	2405143251
3	OLGA	520	390	400	3		60	180	180				15 17:00	MARG N	18:27	20:57	399,500	14 22:05	2405143205
4	DON JUAN	750	560	590	6	150	20	100	100	60	150		15 18:00	PIQ N	20:50	22:05	537,550	14 12:12	2405141212
5	POLAR III	410		240	4		30	80	110	20			15 18:45	MARG S	19:50	0:58	713,900	14 19:25	2405143325
6	PATRICIA	450	340	360	4		20	60	20	260			15 19:00	MARG N	21:44	23:30	348,090	14 21:03	2405142103
7	CONSTANZA	540	400	260	4		80	80	80	20			15 21:00	MARG N	23:55	1:00	245,380	14 23:45	2405142345
8	GIANNINA I	400		390	5		0	100	0	140	150		15 22:00	MARG N	2:17	4:30	124,770	14 20:04	2405142004
9	POLAR IV	460	340	240	5		0	80	40	50	70		15 23:00	PIQ S	0:22	2:22	187,430	15 00:09	2405150009
CHICAMA PROPIOS DECLARADOS			3.230	9			860	8					4.090						
SUPE 3.410 3.290																			
1	ALEXANDRIA	390		90	2		70	20					15 14:00	SAI N S	15:56	18:33	64,840	14 22:54	2405142254
2	POLAR VII	540		90	2		50	40					15 14:00	SAI N S	17:30	17:29	78,945	14 23:21	2405142321
3	POLAR XII	370		50	1		50						15 14:00	SAI N S	15:49	16:16	45,125	15 00:44	2405150044
4	PISCO I	370		35	2		15	20					15 14:05	CECL S	17:37	17:59	32,060	14 23:22	2405142322
5	NATALIA	510		90	2		40	50					15 14:05	SAI N S	18:05	18:05	89,160	14 23:00	2405142300
6	GRACIELA	460	340	160	4	70	20	60					15 14:35	SAI N S	16:48	17:51	154,385	14 03:41	2405140341
7	HABOIA	400		30	2		30	10					15 14:45	CECL S	17:37	18:05	26,365	14 23:18	2405142318
8	GABRIELA V	370		40	1		40						15 14:50	SAI N S	18:20	18:21	42,650	15 01:38	2405150138
SUPE PROPIOS DECLARADOS			585	8			07	0					585						
CALLAO 1.940 340																			
1	DANIELLA	460	340	40	2		10	30					15 20:30	OPE N	21:05	22:25	44,110	15 00:37	2405150037
2	SEBASTIAN	560	420	70	2		20	50					15 20:00	OPE N	21:52	23:11	55,570	14 22:52	2405142252
3	ALESSANDRO	460	340	120	5	70	30	20					15 21:00	OPE S	22:02	22:35	94,875	14 02:24	2405140224
CALLAO PROPIOS DECLARADOS			230	3			180	2					410						



Fishing seasons are monitored using indicators to measure the efficiency of the fishing operation based on the progress of the season's quota. The system (Electronic logbook) allows all the companies to keep controlling their efficiency.

根据捕季配额的进展情况，使用指标来衡量捕捞作业的效率，从而对捕季进行监控。该系统（电子航海日志）可以便于所有公司掌控他们的效率。

DISCHARGE SATELLITE REPORTS (ELECTRONIC SCALE)

卸货卫星报告（电子秤）

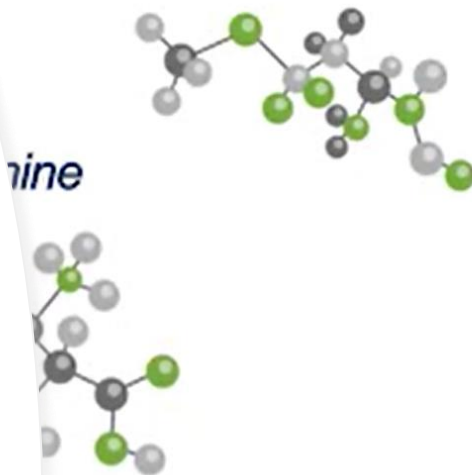
The discharge of anchovy in the fishmeal and fish oil processing plants is reported directly to the Ministry of Production via satellite under the supervision of the surveyor assigned by them

鯷鱼在鱼粉和鱼油加工厂的卸货情况在他们指定的检验员的监督下通过卫星直接报告给秘鲁生产部。

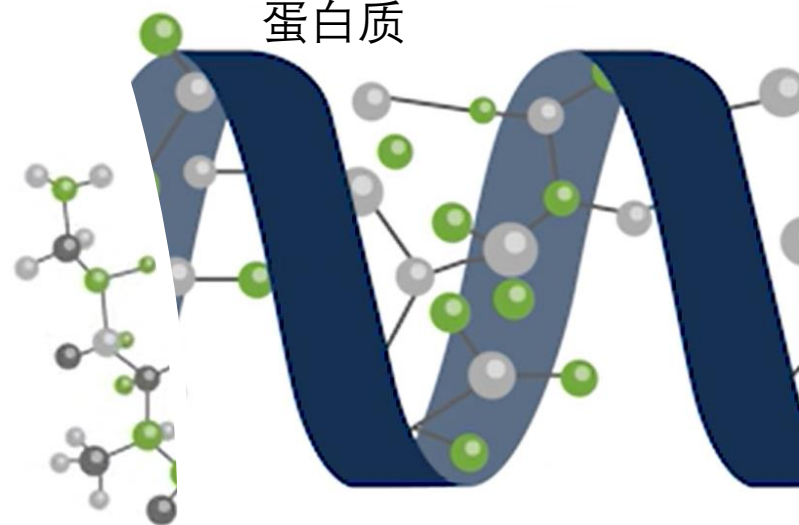


FISHMEAL AND FISH OIL PRODUCTION 鱼粉和鱼油生产

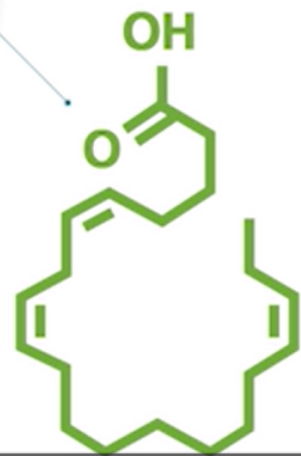
Methionine
蛋氨酸



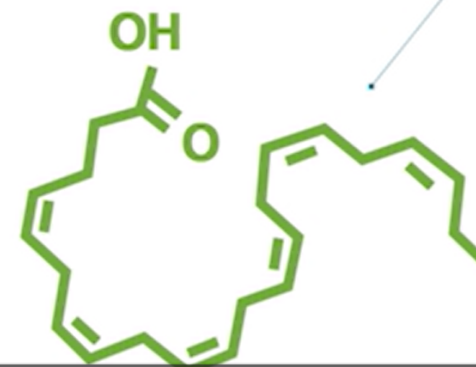
Proteins
蛋白质



OMEGA - 3

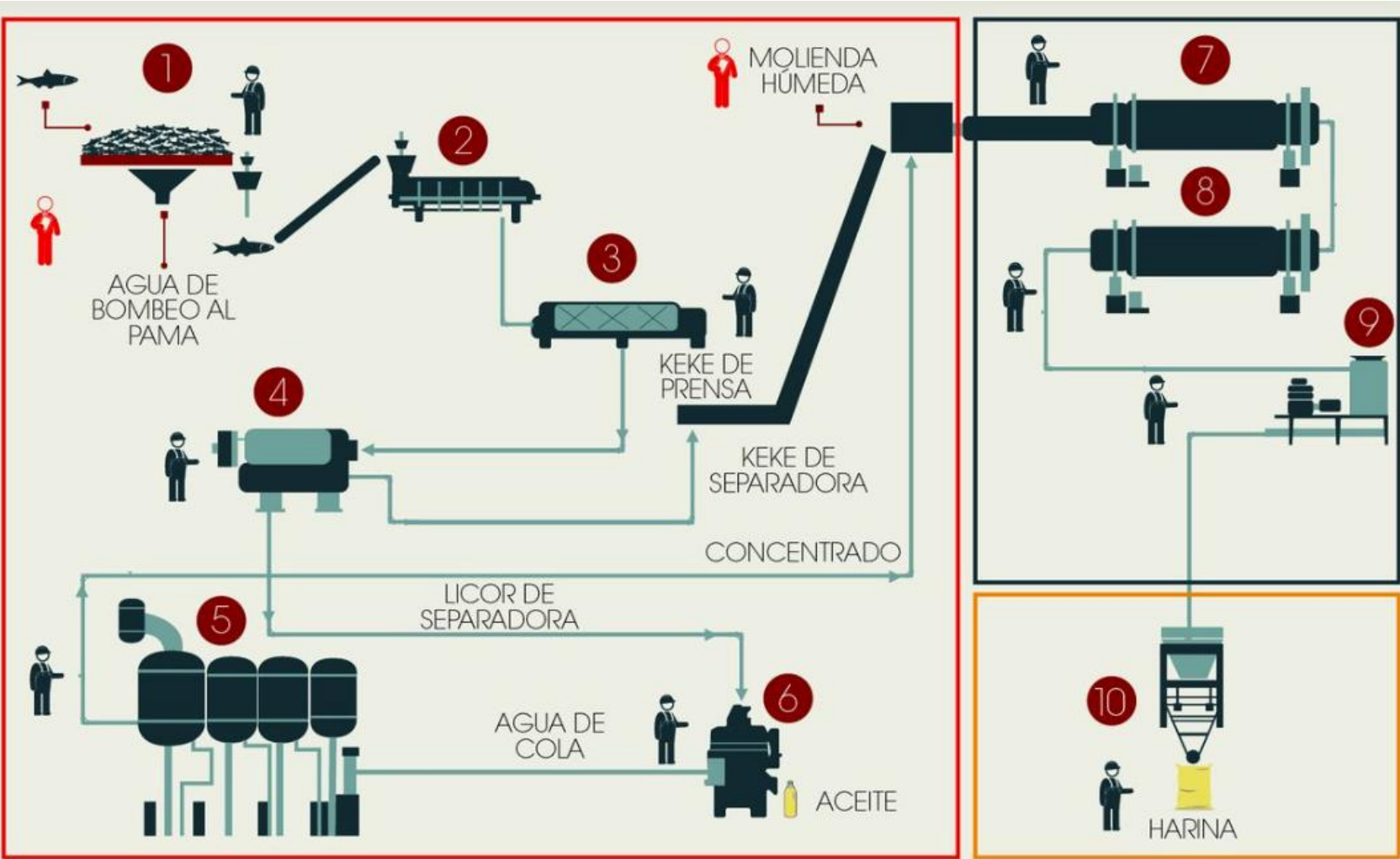


DHA



PRODUCTION OF FISHMEAL AND FISH OIL

鱼粉和鱼油生产



Source: SNP
信息来源：秘鲁国家渔业协会

QUALITIES OF FISHMEAL

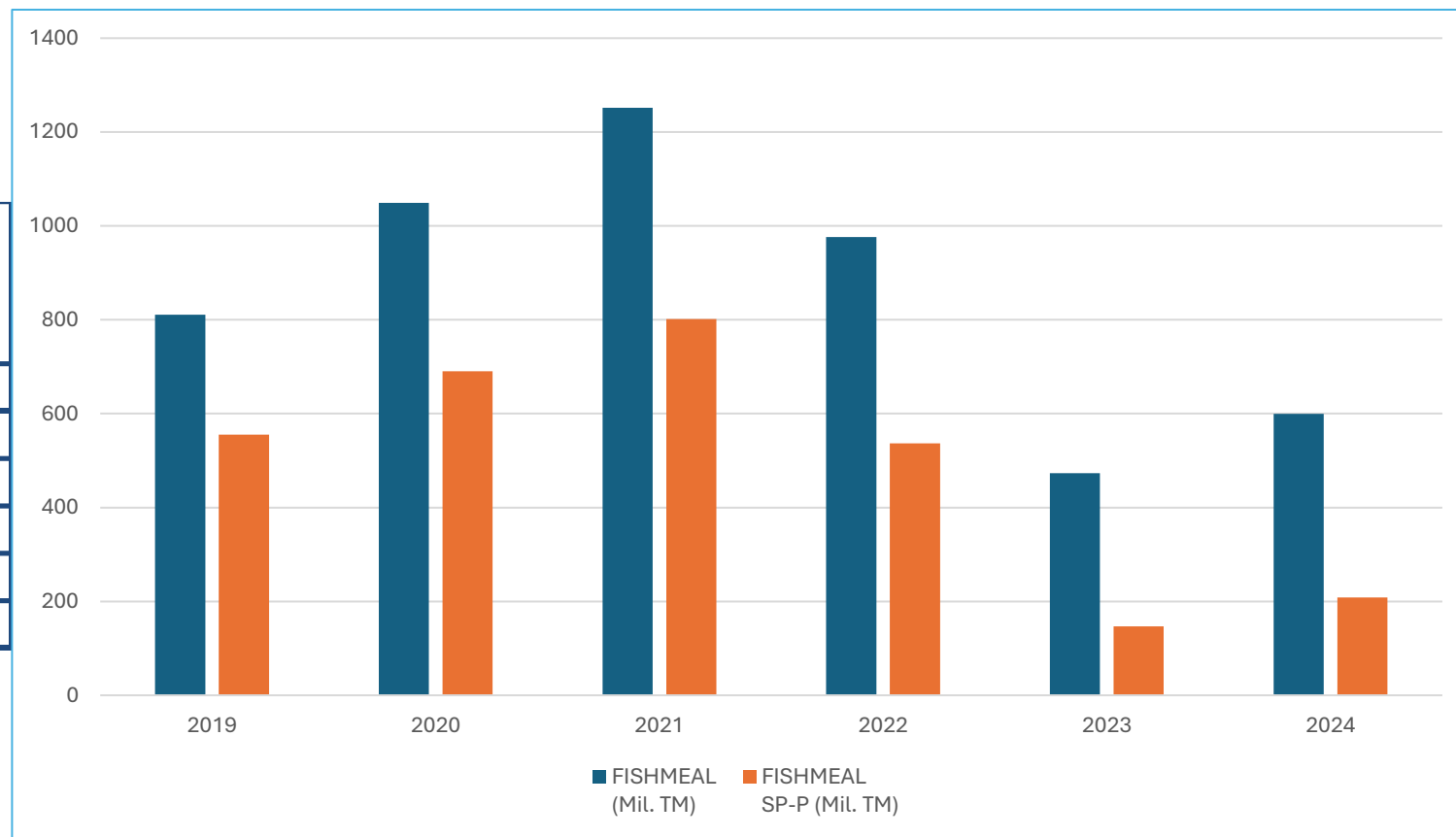
鱼粉的质量

FISHMEAL/鱼粉		QUALITY GRADES/质量等级				
STEAM DRIED SPECIFICATIONS/蒸汽干燥规格		SUPER PRIME/超级	PRIME/高级	TAIWAN/“台湾级”	TAILANDIA/泰国级	STANDARD/标准级
Protein/蛋白质	% Min/最低	68	67	67	67	65
Salt and sand/盐和砂	% Max./最高	4	5	5	5	5
Sand alone/仅砂	% Max./最高	1	2	2	2	2
TVN/挥发性盐基氮	mg/100gr Max./毫克/100克最高/	100	120	120	150	150
FFA/游离脂肪酸	% Max./最高	7.5	10	10	10	10
Histamine/组胺	ppm Max./百万分比浓度最高	500	1000			

QUALITIES OF FISHMEAL

鱼粉质量

	FISHMEAL (Mil. TM)/鱼粉 (百万吨)	FISHMEAL SP-P (Mil. TM)/鱼粉 超级—高级 (百万吨)	% SP+P/超级+高级	EFFECTO CLIMATOLIGICO/气候 效应
2019	811	556	69%	F. Niño Debi l
2020	1049	690	66%	-
2021	1252	801	64%	F. Niña Debi l
2022	976	537	55%	F. Niña Debi l
2023	473	147	31%	F. Niño Costero
2024	600	208	35%	F. Niña Debi l



鱼粉 (百万吨) 鱼粉超级—高级 (百万吨)

QUALITIES OF FISH OIL 鱼油质量

FISH OIL/鱼油		QUALITY GRADES/质量等级	
SPECIFICATIONS/规范		FOOD/食品	FEED/饲料
Free Fatty Acids (FFA)/游离脂肪酸	% max./最高	4	5
Moisture and Impurities/水分和杂质	% max./最高	1	1
Unsaponifiable Matter/不皂化物	% max./最高	2.5	2.5
Peroxide/过氧化物	% Meq/kg max./毫克/千克最高	5	10
Anisidine/茴香胺	max./最高	30	-
EPA + DHA	% min./最低	28	28
Totox/油脂总氧化值	max./最高	40	-
Color/颜色	max./最高	15	15

OMEGA 18/12	EPA (%)	18.0 ± 0.25
	DHA (%)	12.0 ± 0.25



	FISH OIL (Mil. TM)/鱼油 (百万吨)
2019	105
2020	169
2021	155
2022	82
2023	16

MAIN MARKETS OF FISHMEAL 鱼粉主要市场

国家	COUNTRY	2019	2020	2021	2022	2023	2024
中国	CHINA	69.78%	74.20%	77.38%	73.57%	75.70%	82.32%
厄瓜多尔	ECUADOR	1.62%	1.33%	1.35%	5.48%	5.88%	0.97%
秘鲁	PERÚ	5.80%	5.70%	5.40%	6.20%	5.15%	4.80%
德国	ALEMANIA	2.83%	3.17%	4.20%	4.97%	4.00%	0.99%
日本	JAPON	6.88%	4.88%	3.62%	3.30%	3.92%	4.20%
中国台湾	TAIWAN	2.68%	2.29%	2.54%	1.73%	1.26%	1.10%
越南	VIETNAM	4.18%	4.02%	2.22%	1.63%	0.84%	0.88%
其他国家	OTROS	6.71%	4.78%	3.56%	3.41%	3.47%	3.61%

MAIN MARKETS OF FISH OIL 鱼油主要市场

国家	COUNTRY	2019	2020	2021	2022	2023	2024
中国	CHINA	11.89%	12.15%	21.99%	25.60%	33.35%	4.78%
智利	CHILE	10.94%	12.03%	8.20%	15.69%	24.44%	46.64%
丹麦	DINAMARCA	23.33%	7.48%	12.76%	13.01%	0.00%	4.39%
秘鲁	PERÚ	10.00%	11.21%	9.50%	10.71%	9.00%	27.49%
挪威	NORUEGA	10.44%	8.24%	11.09%	6.85%	5.82%	15.03%
比利时	BELGICA	18.06%	24.76%	19.64%	5.82%	0.00%	0.00%
荷兰	PAISES BAJOS	0.60%	6.75%	1.15%	5.38%	14.29%	0.00%
其他国家	OTROS	14.75%	17.38%	15.69%	16.93%	13.10%	1.68%



THANKS
谢谢大家

