

Comisión Interamericana del Atún Tropical Inter-American Tropical Tuna Commission



Floating-object fishery indicators: a 2024 report

Indicadores de la pesquería con objetos-flotantes: un informe de 2024

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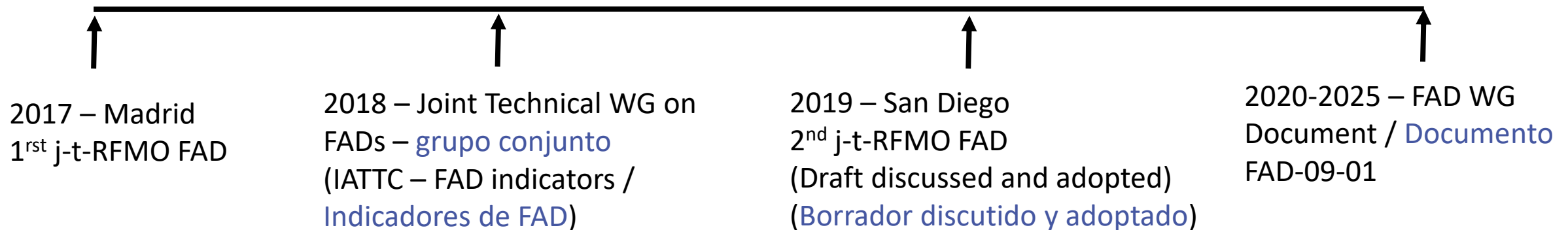
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9ª Reunión del Grupo de Trabajo *Ad hoc* sobre plantados - 2025

9th Meeting of the *Ad Hoc* Working Group on FADs - 2025

Background - Introducción

- Multi-dimensional impacts of the fishery, it must be holistically monitored
- Impacto multidimensional de la pesquería que requiere ser monitorizada de manera integral



Outline - Plan

Indicator Type	Priority - Prioridad 1 Major – Mayor, 2 Moderate - Moderada, 3 Minor – Menor	Tipo de indicador
Catch and effort	1	Captura y esfuerzo
Activity	1	Actividades
Buoy/FAD-use	1	Uso de Boyas/FAD
Capacity	1	Capacidad
Technology	2	Tecnologia
Ecosystem-Impact	2	Impacto-Ecosistema
Socio-Economico	3	Socio-Economico
Bio-Eco-Behavior	3	Bio-Eco- Comportamiento

Data - Datos

Five main datasets – Cinco bases de datos:

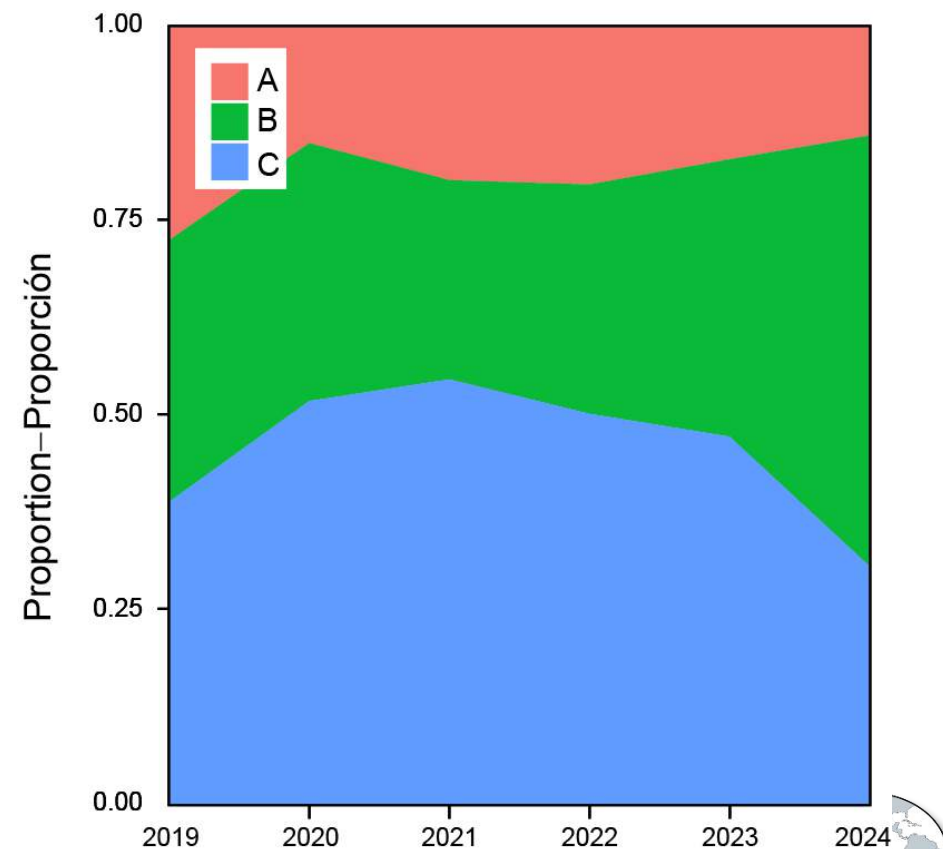
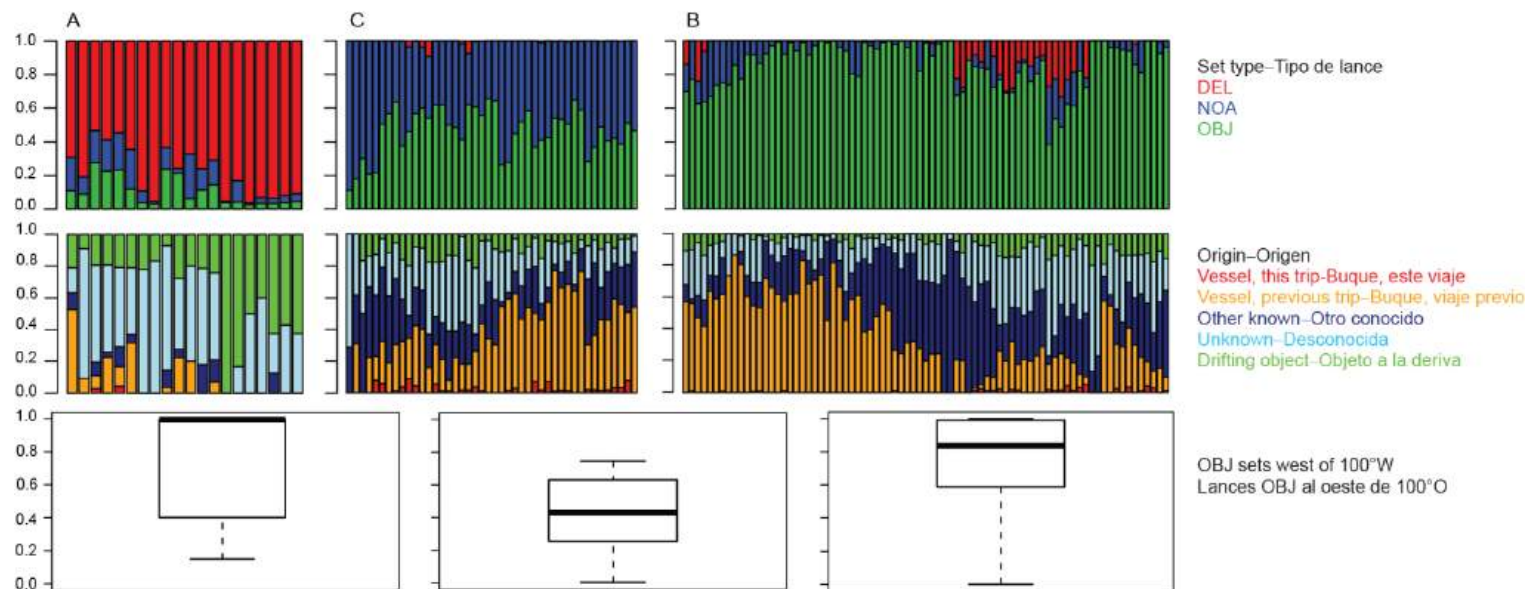
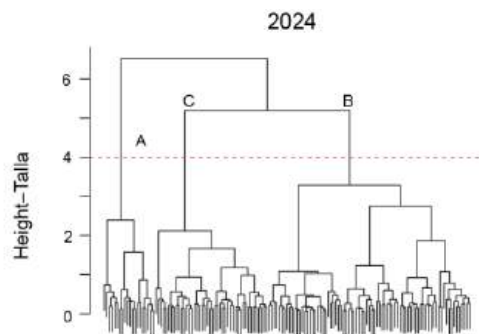
- a. 2019-2024 AIDCP observer data for Class-6 vessels [fleet behavior, activities, and technology].
a. Datos de observadores AIDCP 2019-2024 para buques de clase 6 [comportamiento de la flota, actividades sobre plantados y tecnología]
- b. Catch and effort data for all vessels (Classes 1-6) [catch and effort]
b. Datos de captura y esfuerzo para toda la flota (Clase 1-6) [captura y esfuerzo]
- c. Daily active buoy data for 166 vessels (Classes 1-6) reporting during 2024. [buoy-based indices]
c. Datos de boyas activas proporcionados por 166 buques de clase 1-6 durante 2024. [índices basados en boyas]
- d. 2022-2024 monthly remote deactivation and reactivation data for all vessels (Classes 1-6) [buoy indices]
d. Informes mensuales de desactivación y reactivación remota para toda la flota, 2022-2024 (Clase 1-6) [índices de boyas]
- e. 2020-2024 FAD form data for all vessels without observers (Class 1-5)[activities]
e. Formularios de plantados para los buques sin observadores (Clase 1-5) [actividades]

Fleet segments – Segmentos de la flota

A = > 100W + DEL and opportunistic OBJ sets (23)

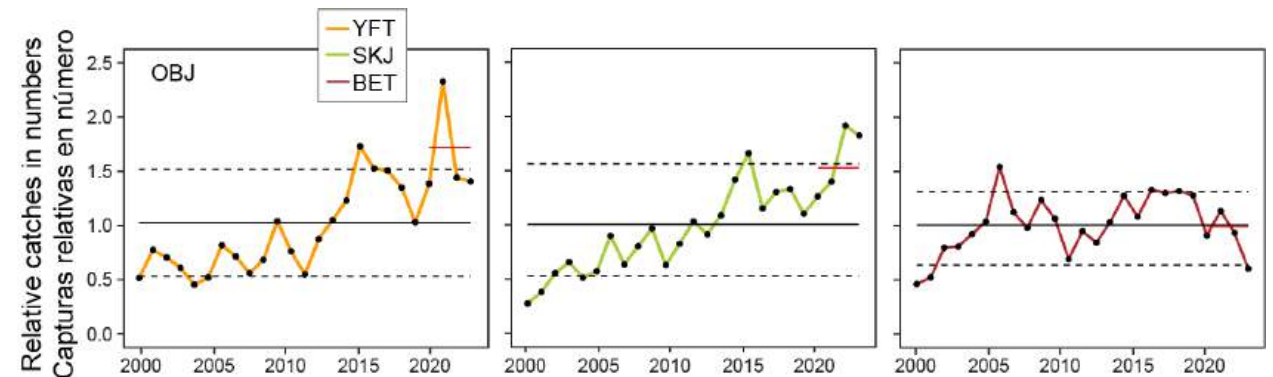
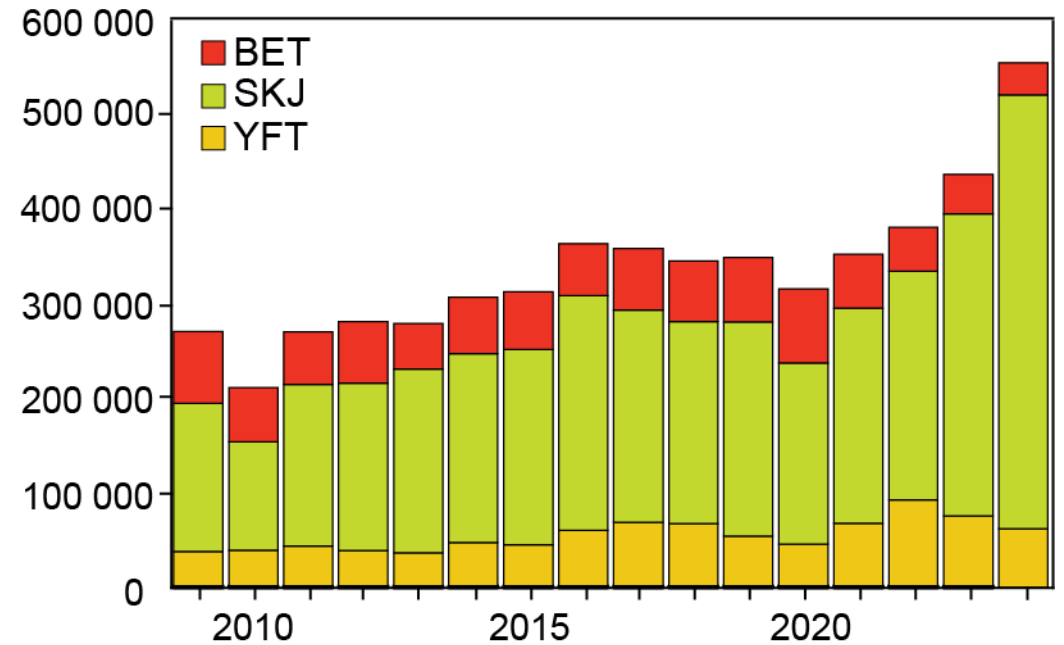
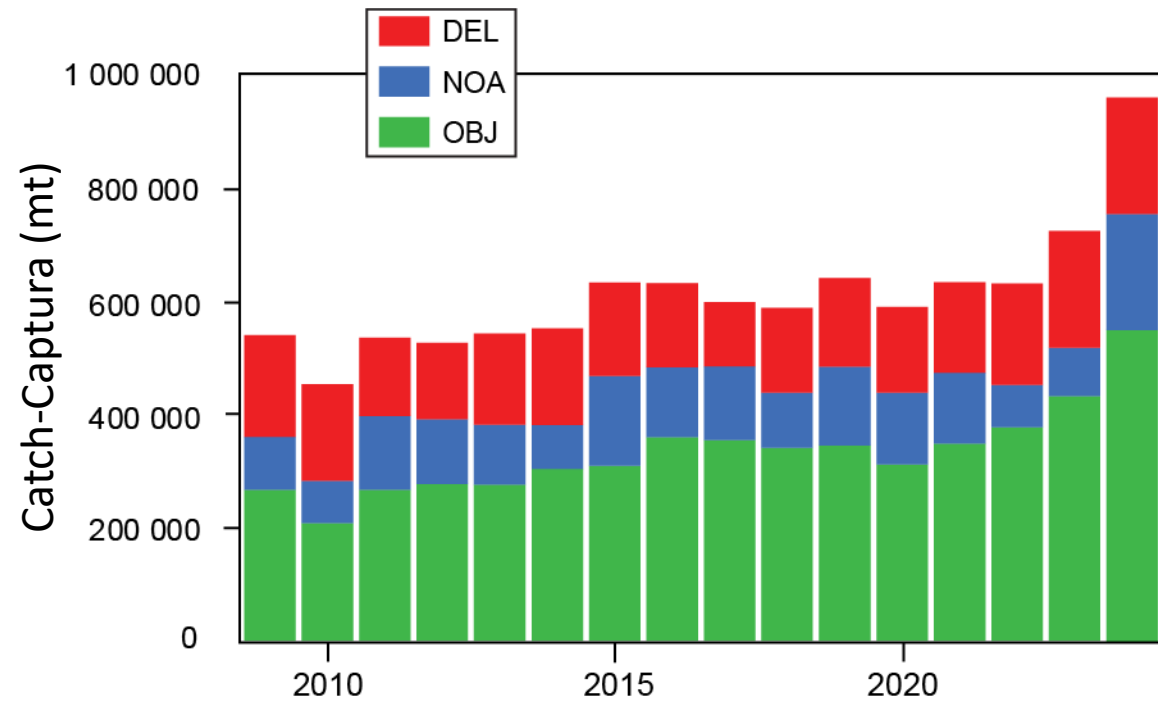
B = >100W + OBJ sets (monitored) (48)

C = <100W + mix of set types (64)

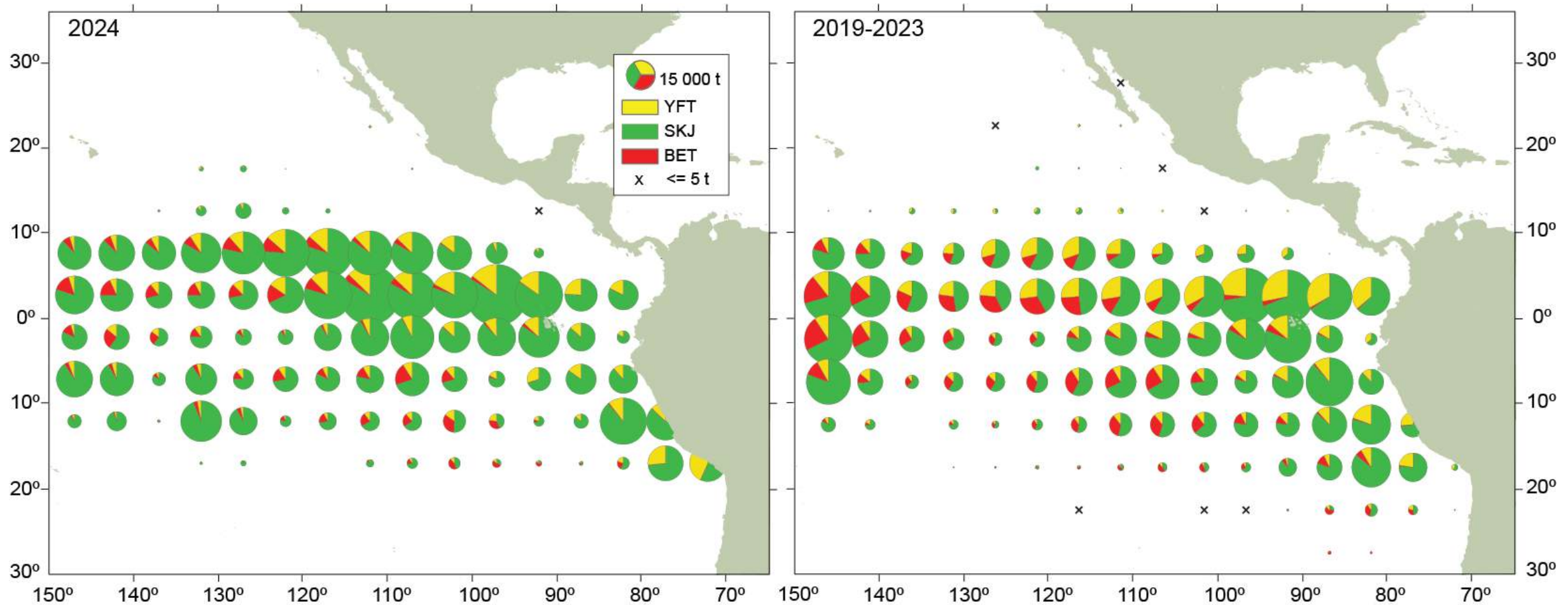


Catch and effort - Captura y esfuerzo

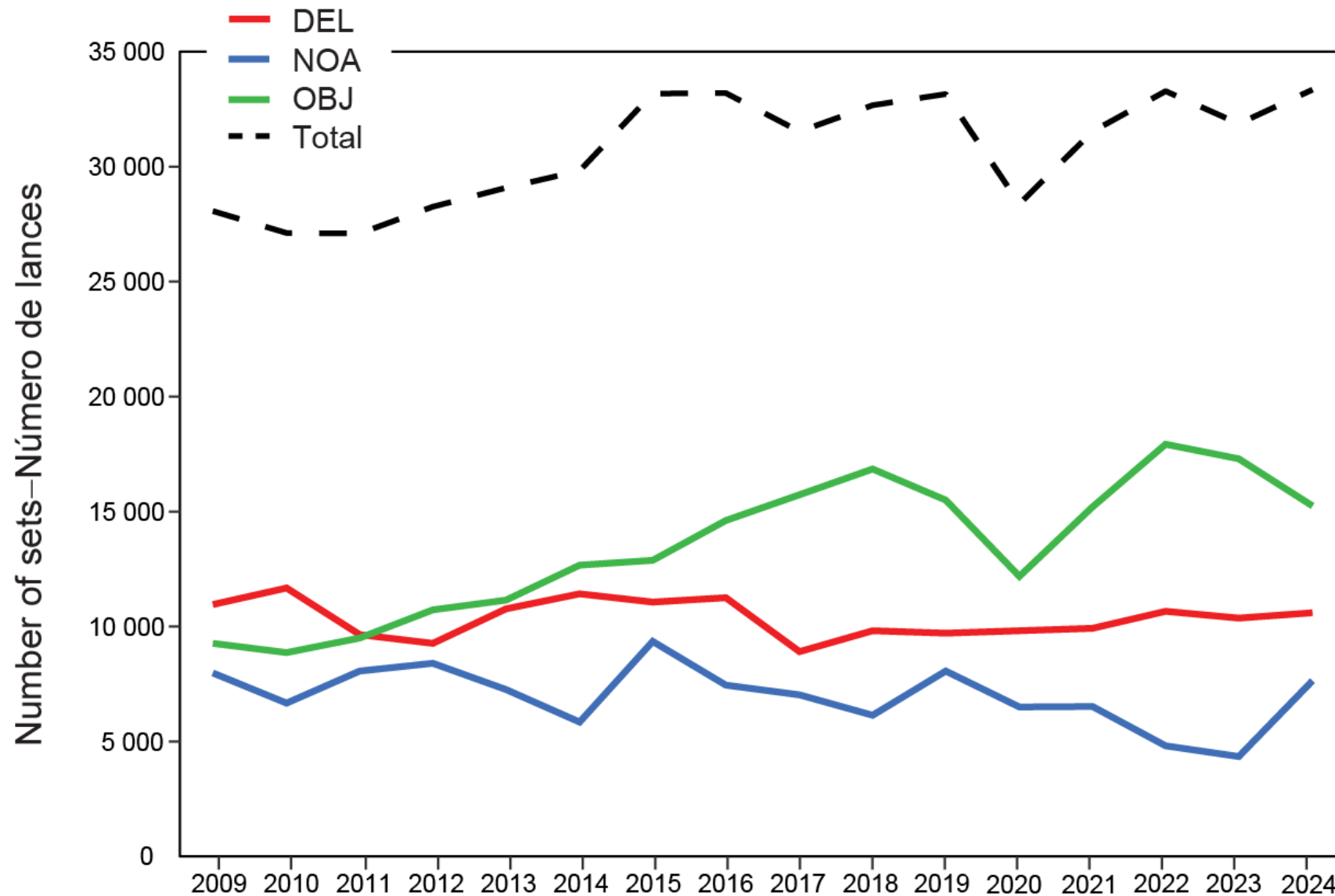
Catch by set type (and species) – Captura por tipo de lance (y especie)



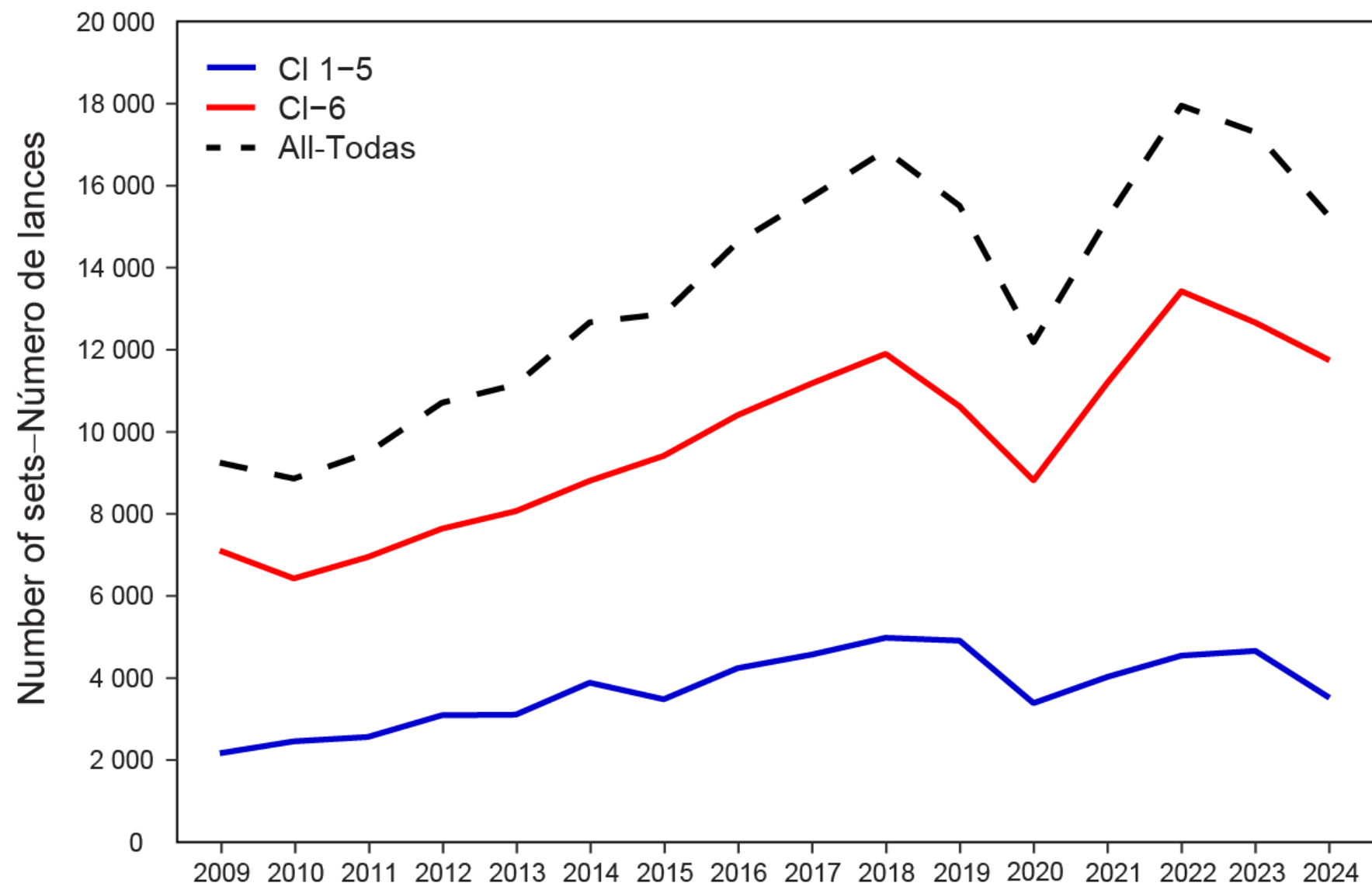
Spatial distribution of catches– Distribución espacial de las capturas



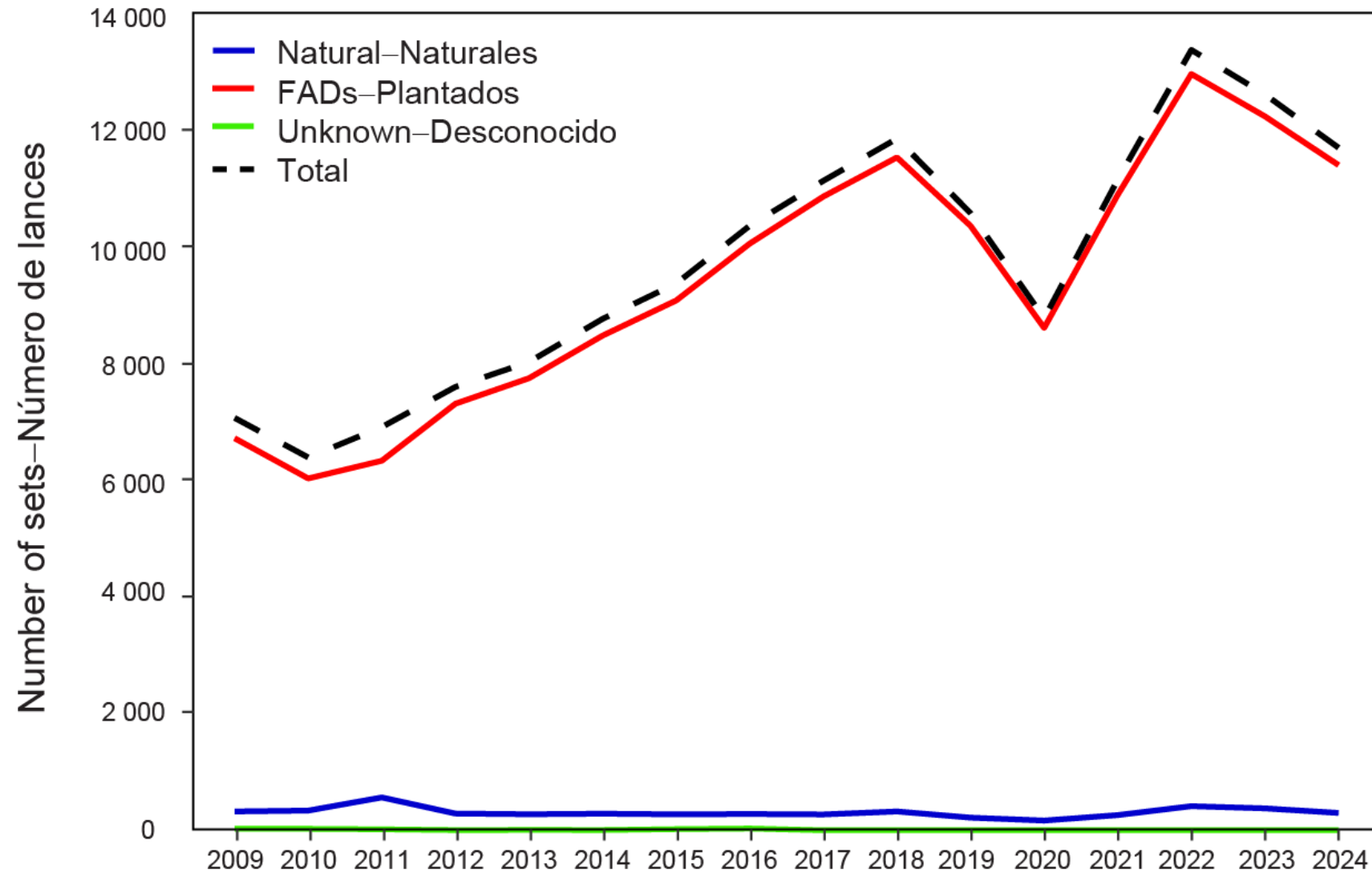
Total number of sets by set type – Numero total de lances por tipo de lance



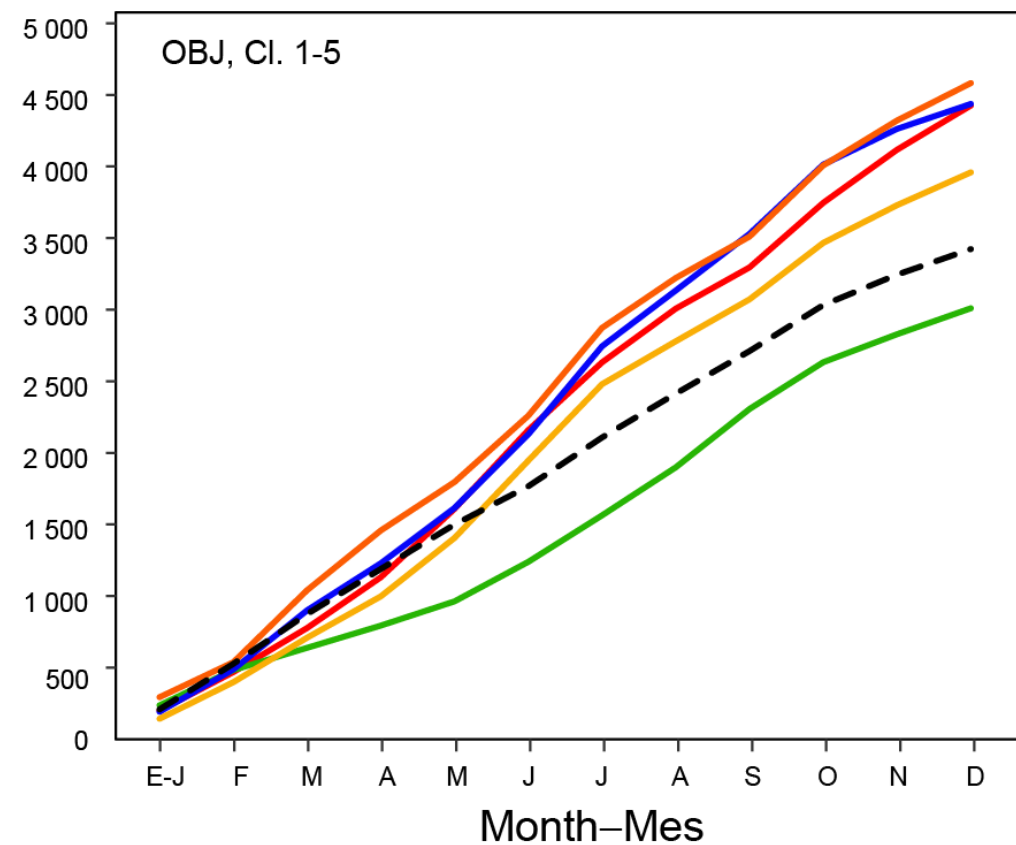
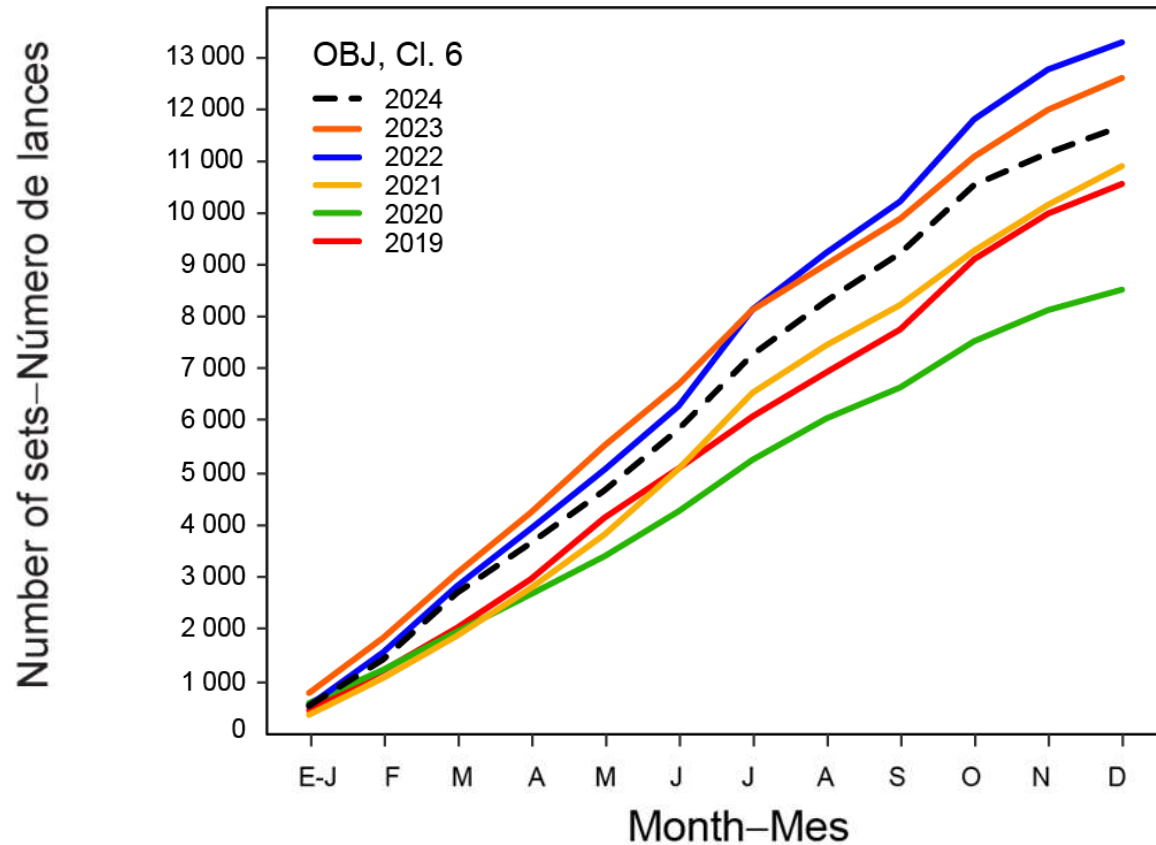
Number of sets on floating object by Class-size vessel – Numero de lances sobre OBJ por clase



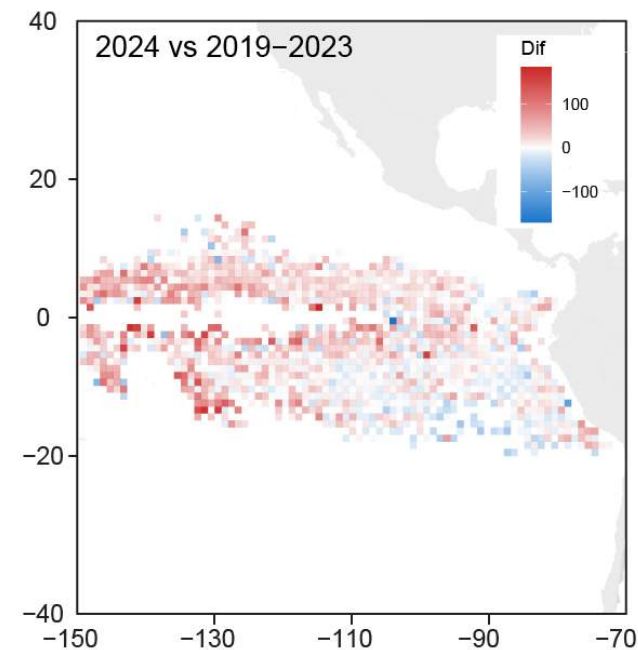
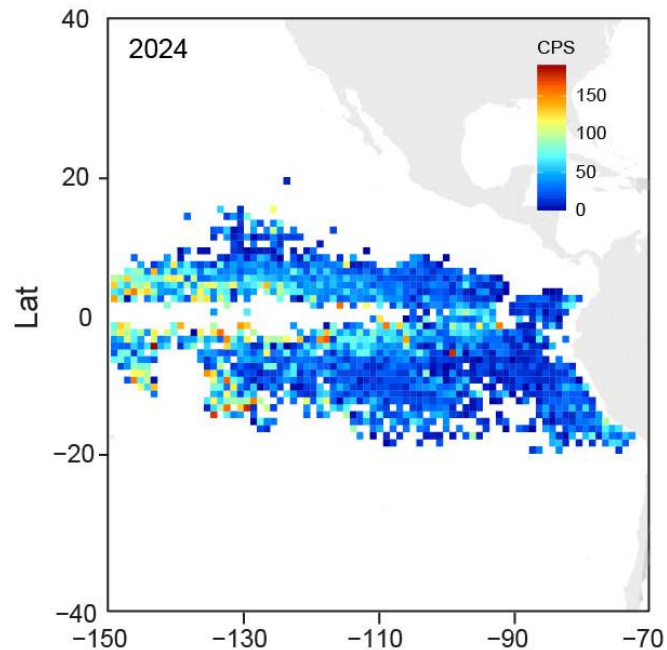
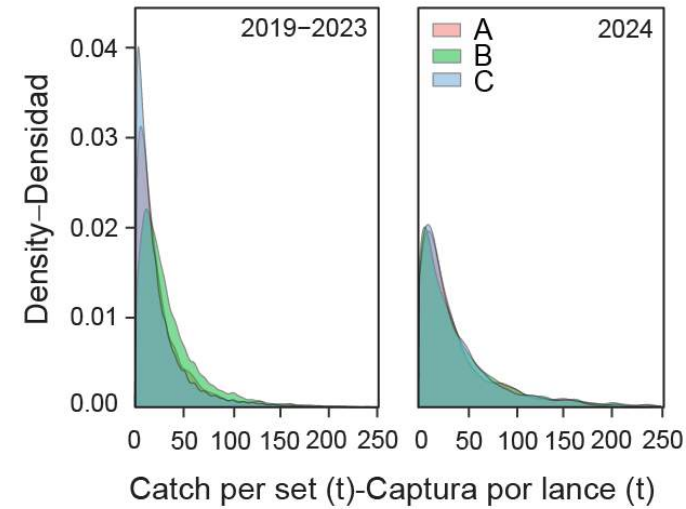
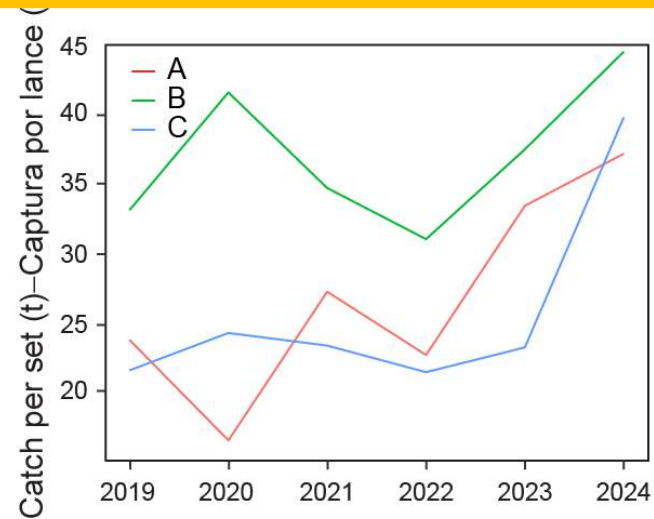
Sets by type of floating object made by Class-6 vessels – Lances sobre diferentes tipo de objeto para los buques de clase 6



Cumulative sets by Class-size vessel and set type – Lances acumulados para las diferentes clases de buques y tipo de lance



Catch per set – Captura por lance



Activity on FAD – Actividad sobre FAD

General OBJ activity table – Tabla de actividad general sobre OBJ

Only class 6 vessels > 5 OBJ sets – Solo buques clase 6 con > 5 lances sobre OBJ

Year	Own Now	Own Prev	Dep	Given	Taken	Adrift	Unk	Oth	Enc	Sets	Ves	Trips
2019–2023	19	6,386	25,378	3,864	7,132	2,840	6	5	48,254	10,804	140	656
2024	12	6,311	27,795	3,846	7,315	2,368	1	18	49,575	11,278	143	817

Year	Deployments		Encounters		Sets	
	Vessel	Trip	Vessel	Trip	Vessel	Trip
2019–2023	181.8	38.7	345.7	73.6	77.4	16.5
2024	194.4	34.0	346.7	60.7	78.9	13.8

Year	Cluster	Deployments		Encounters		Sets	
		Vessel	Trip	Vessel	Trip	Vessel	Trip
2019–2023	A	3.3	1.0	34.4	9.9	19.8	5.7
	B	424.4	91.6	650.3	140.3	103.2	22.3
	C	98.8	18.8	277.4	52.9	84.5	16.1
2024	A	3.2	0.9	30.0	8.0	22.6	6.0
	B	242.7	47.2	415.7	80.9	92.6	18.0
	C	194.5	25.5	366.7	48.0	79.8	10.4

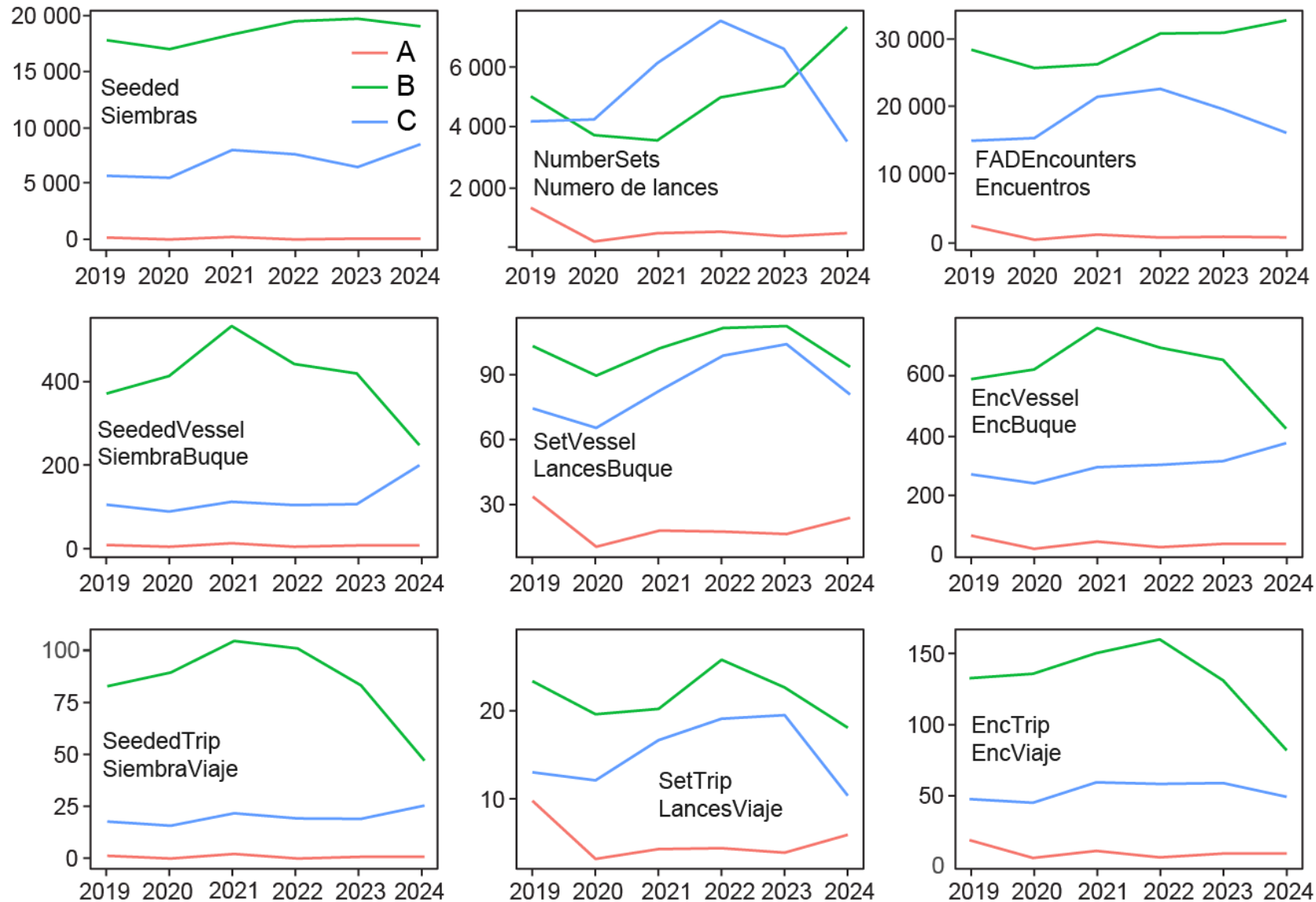
General OBJ activity table Class 1-5 – Tabla de actividad general sobre OBJ Clase 1-5

Only class 1-5 vessels– Solo buques clase 1-5

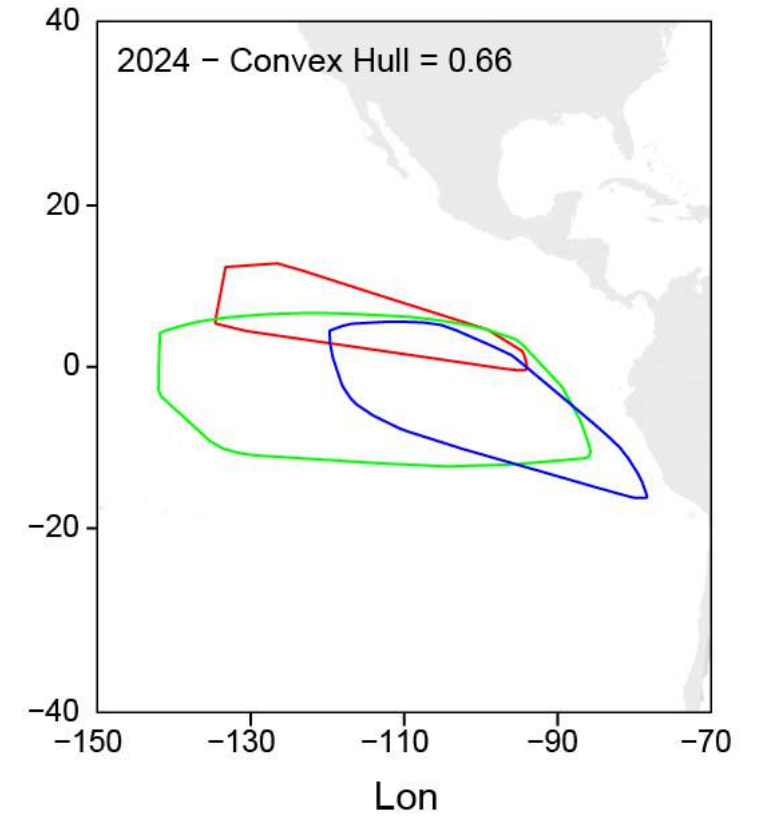
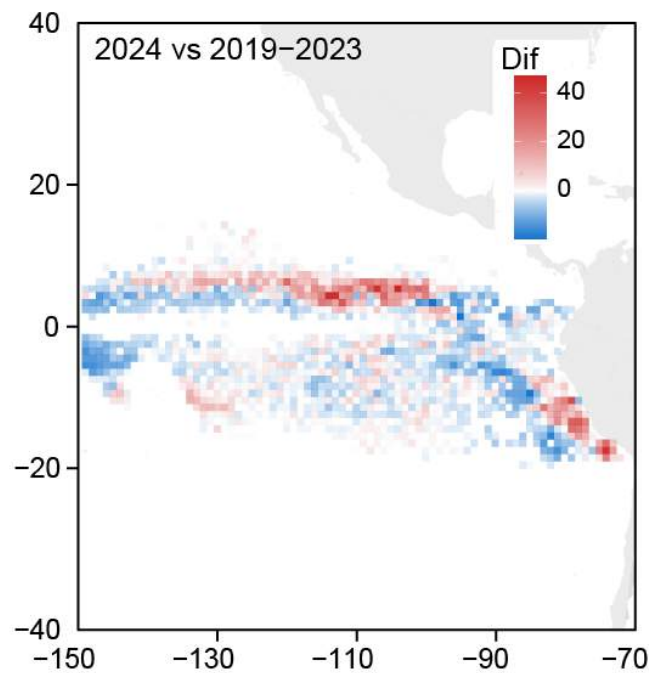
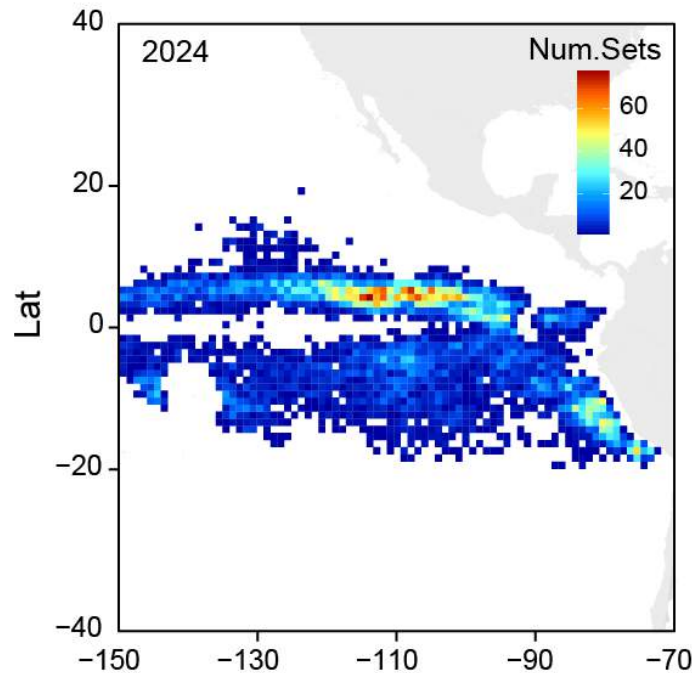
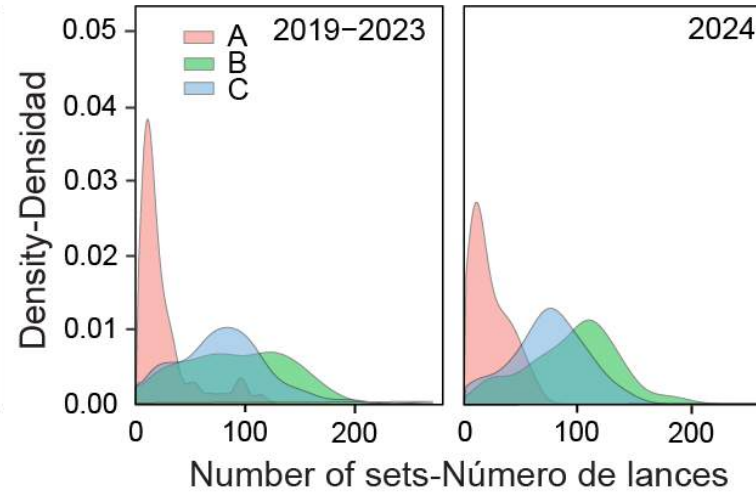
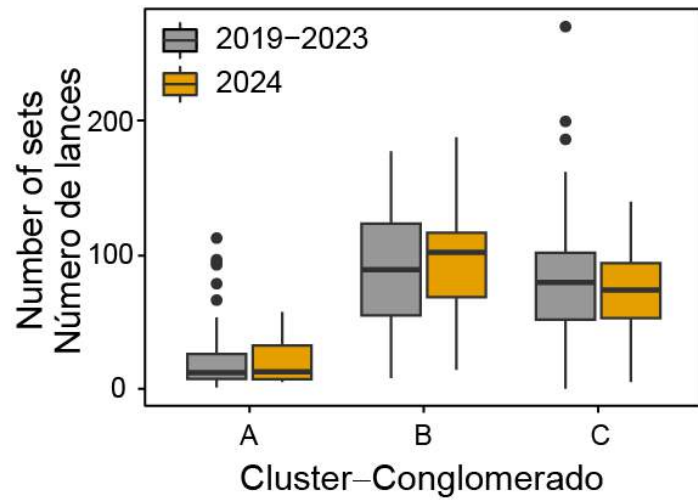
Year	Dep	Enc	Sets	Ves	Trips
2020–2023	919	3900	2011	31	172
2024	659	2603	1197	22	134

Year	Deployments		Encounters		Sets	
	Vessel	Trip	Vessel	Trip	Vessel	Trip
2020–2023	29.6	5.3	125.8	22.6	64.8	11.6
2024	29.9	4.9	118.3	19.4	54.4	8.9

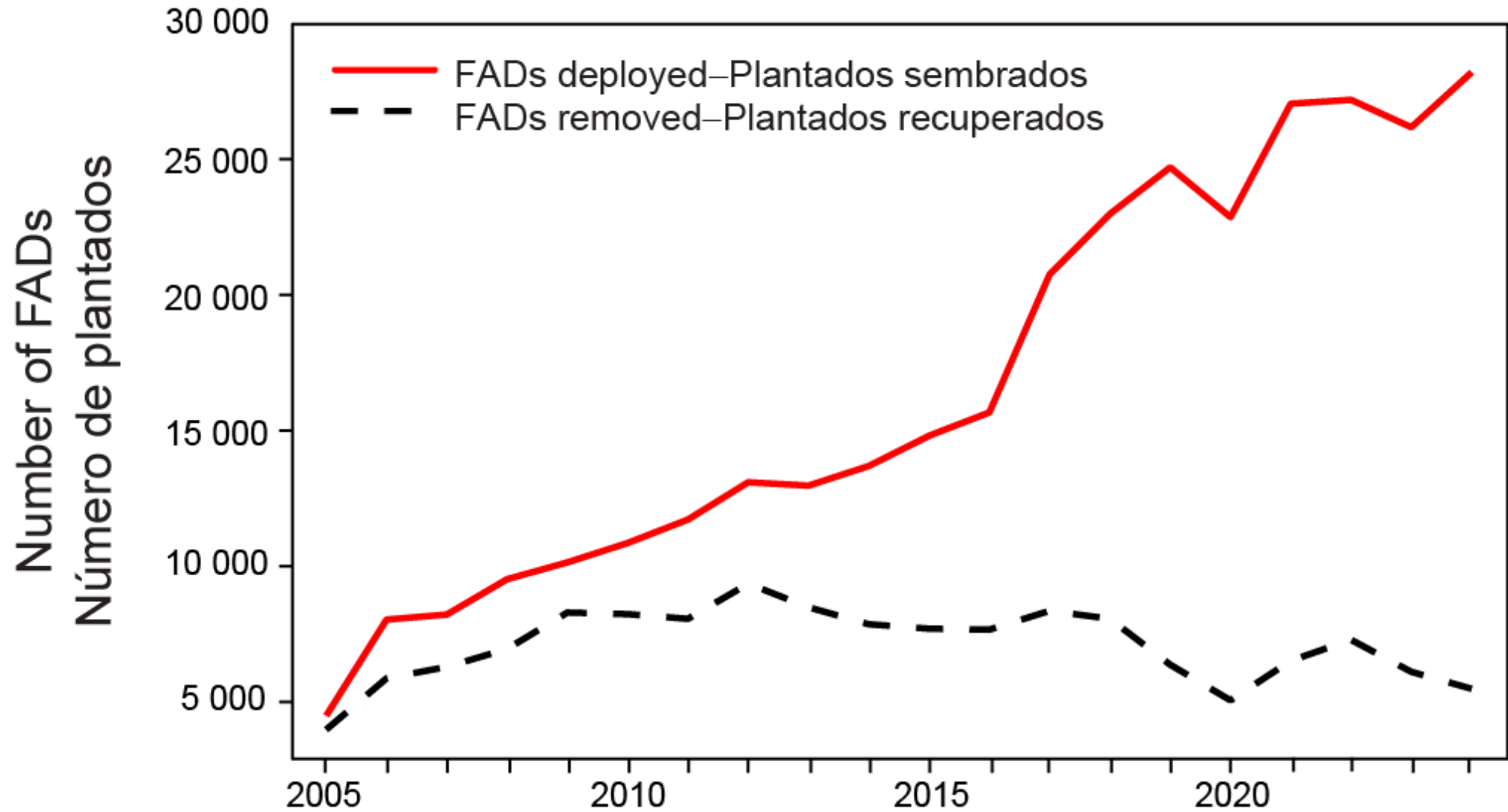
General OBJ activity evolution – Evolución de actividad general sobre OBJ



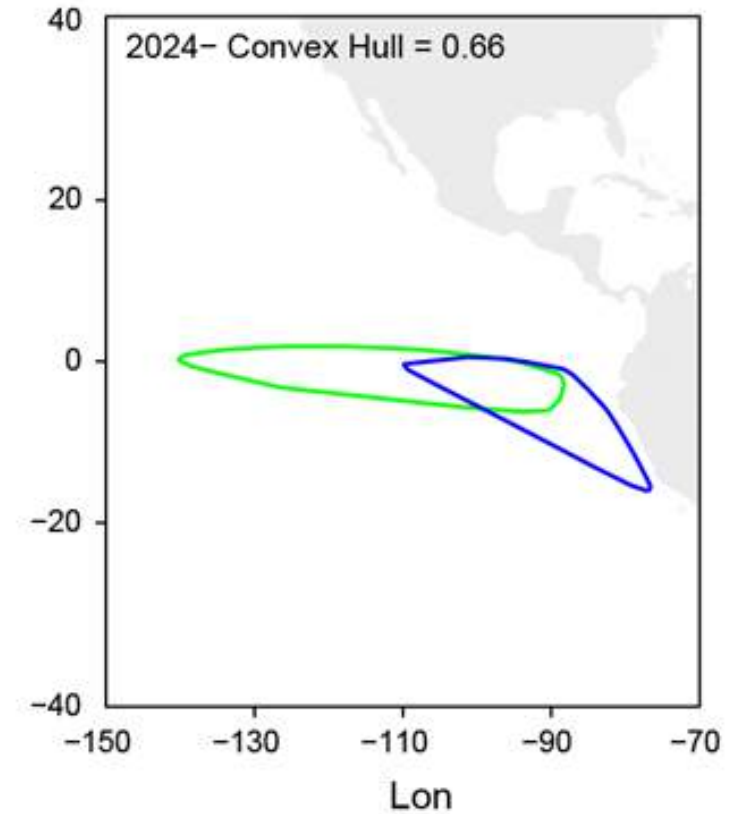
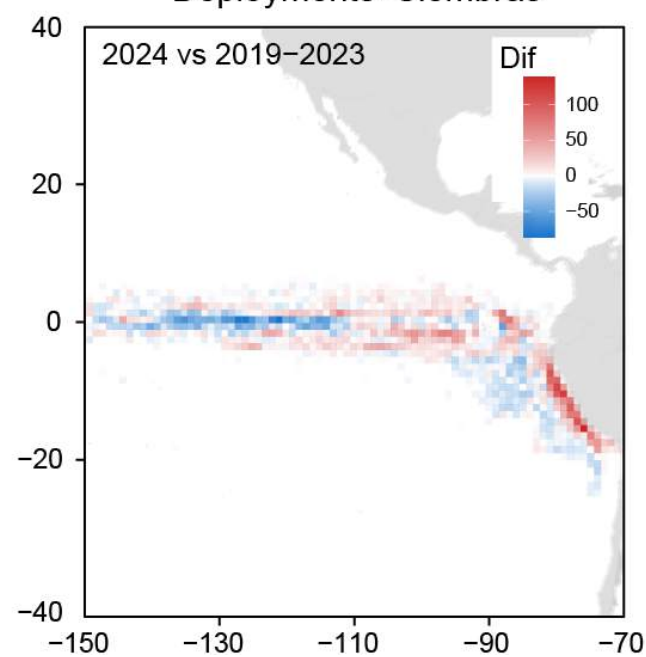
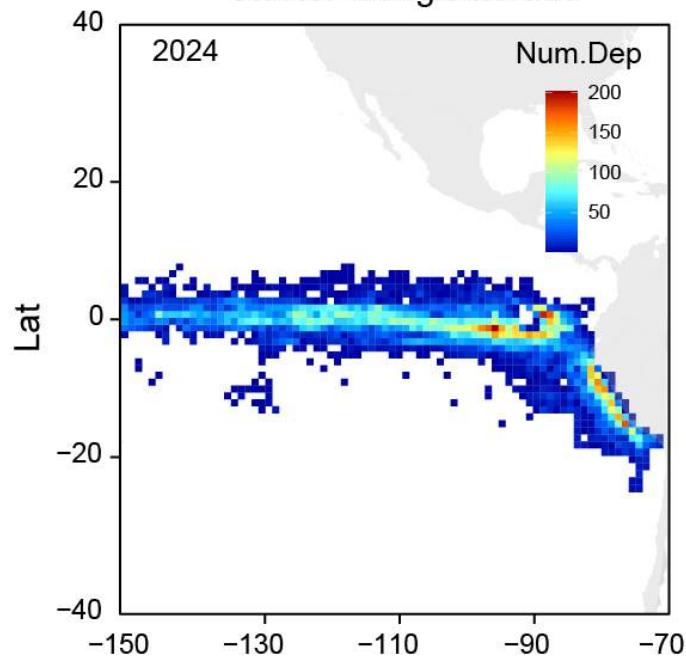
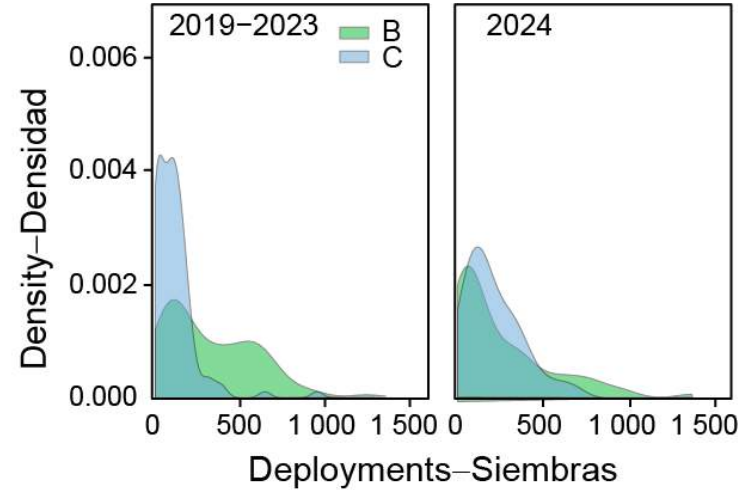
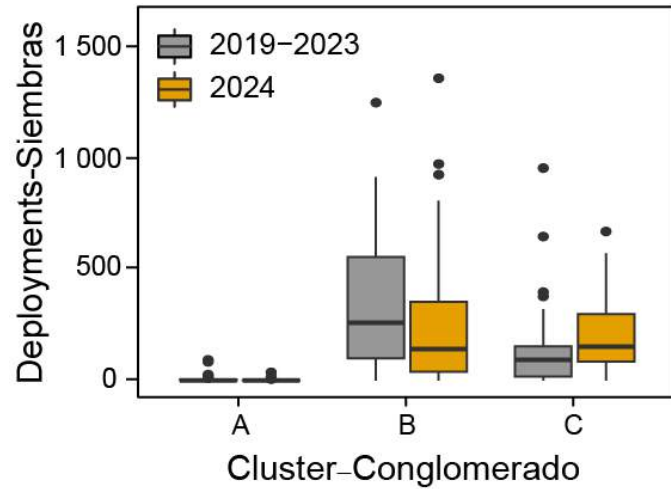
OBJ sets – Lances sobre OBJ



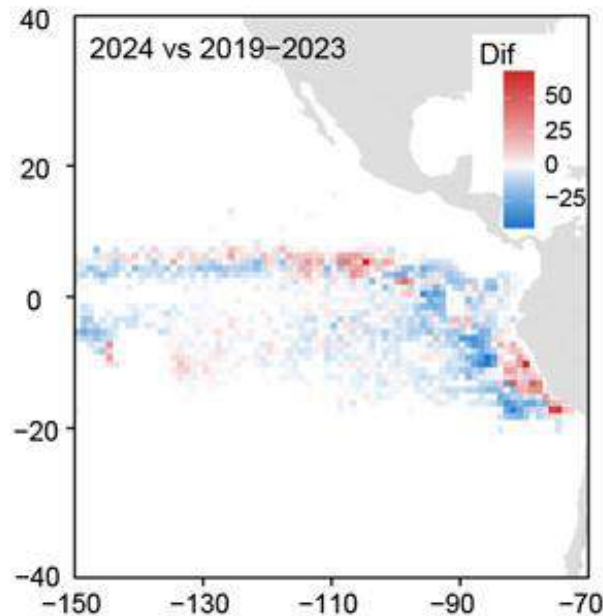
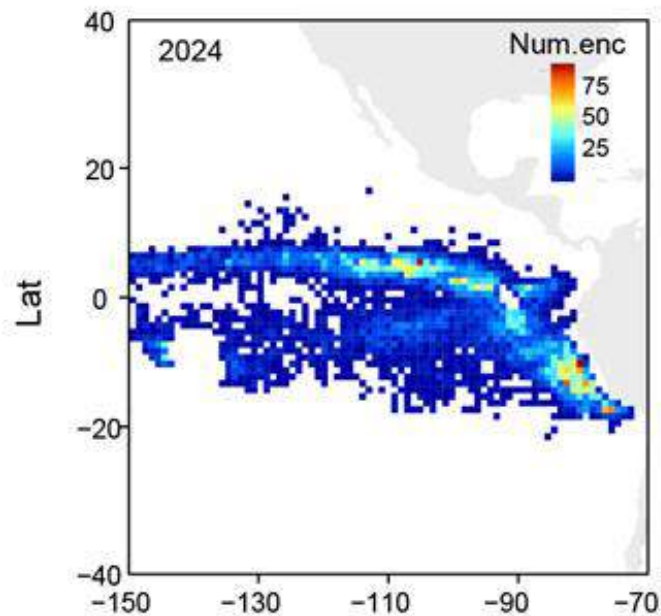
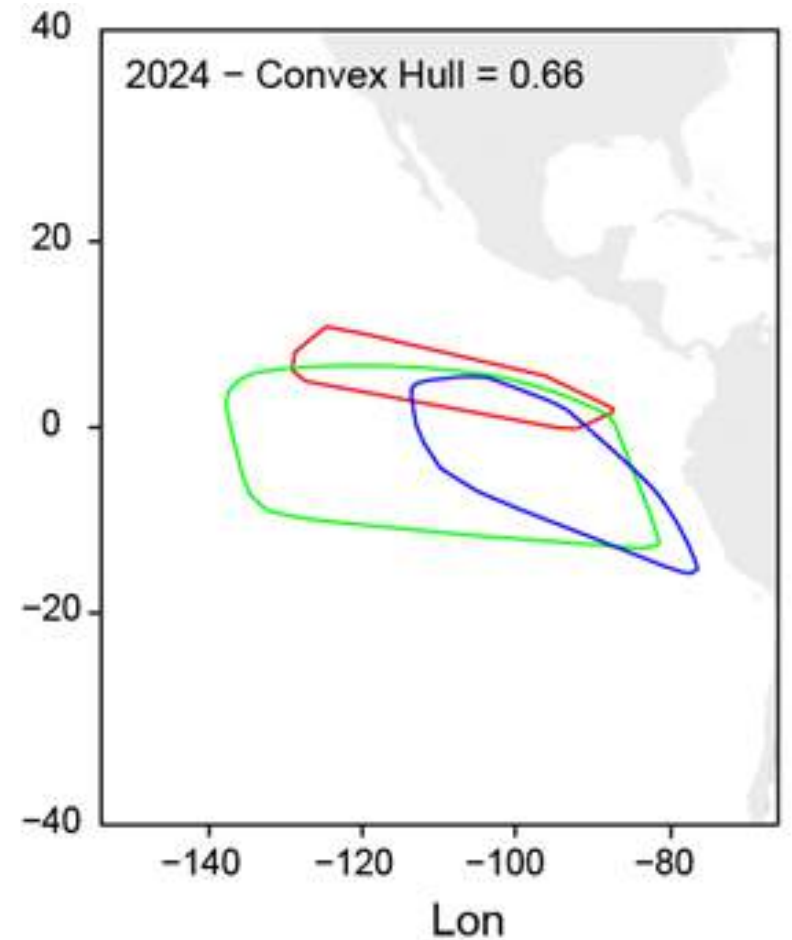
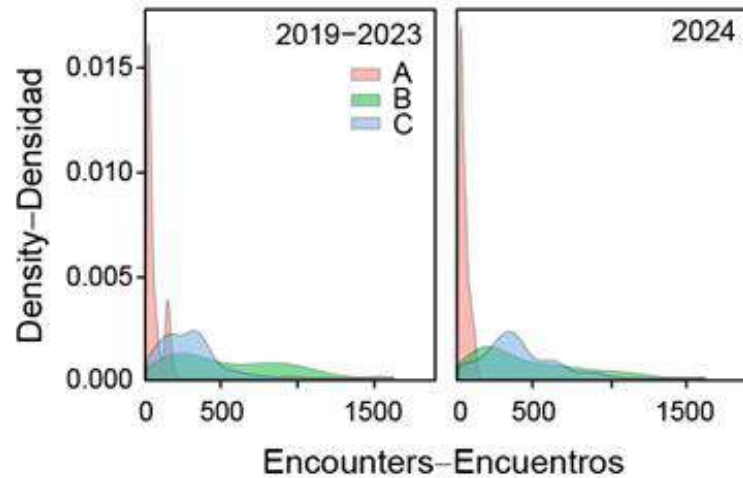
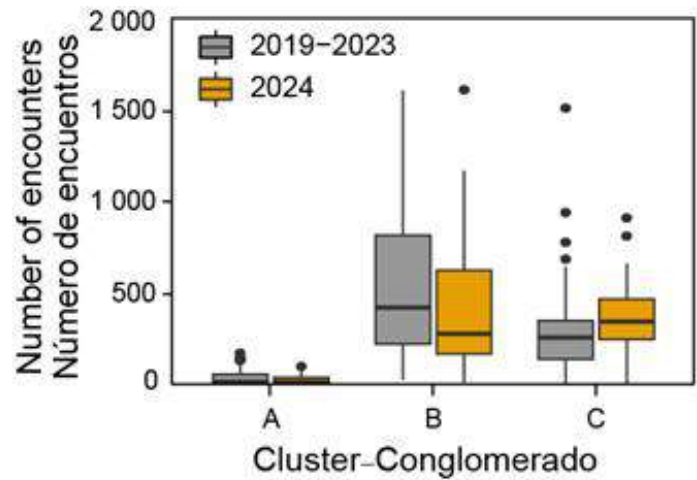
Deployments – Plantaciones



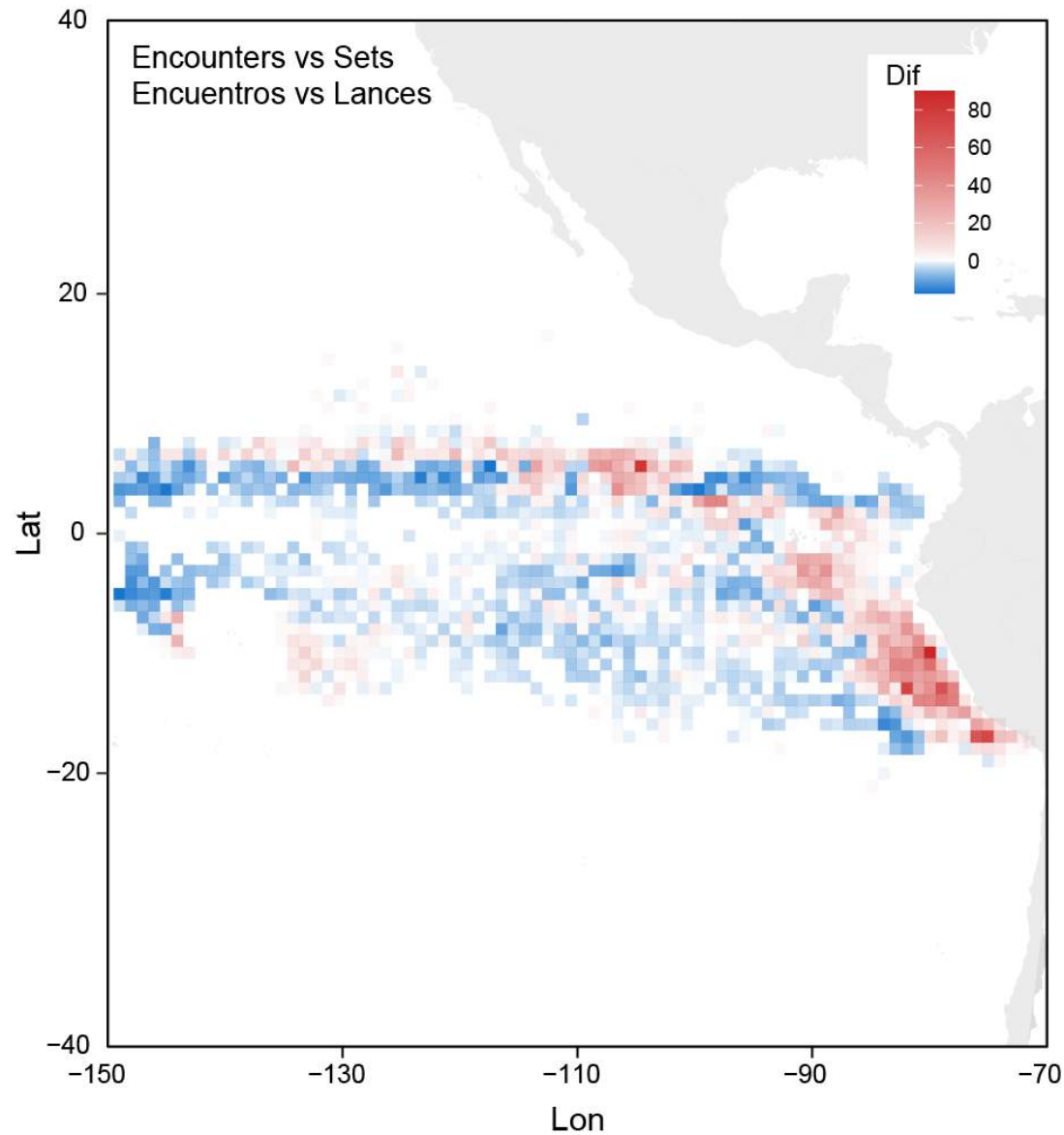
Deployments – Plantaciones



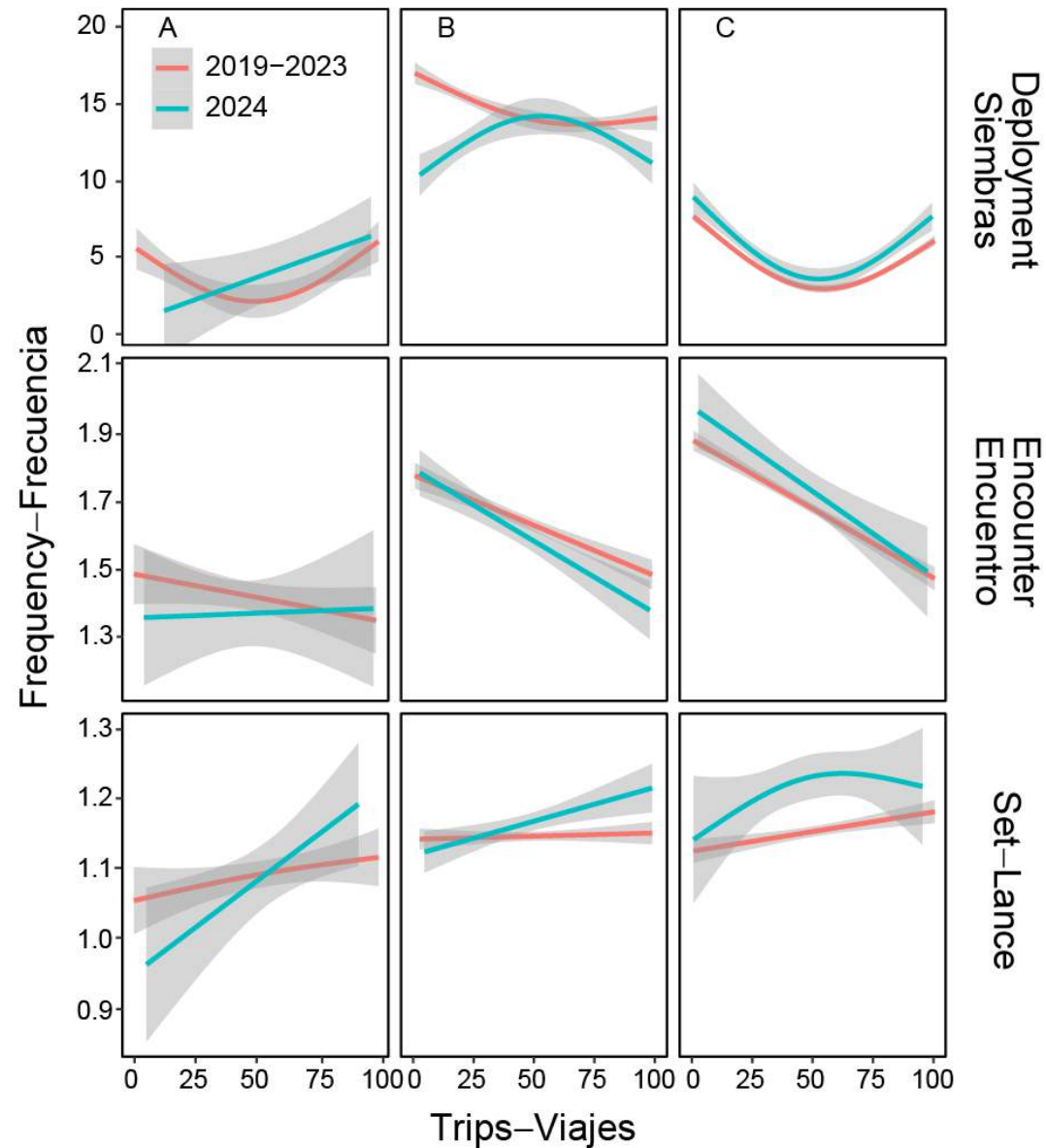
Encounters – Interacciones



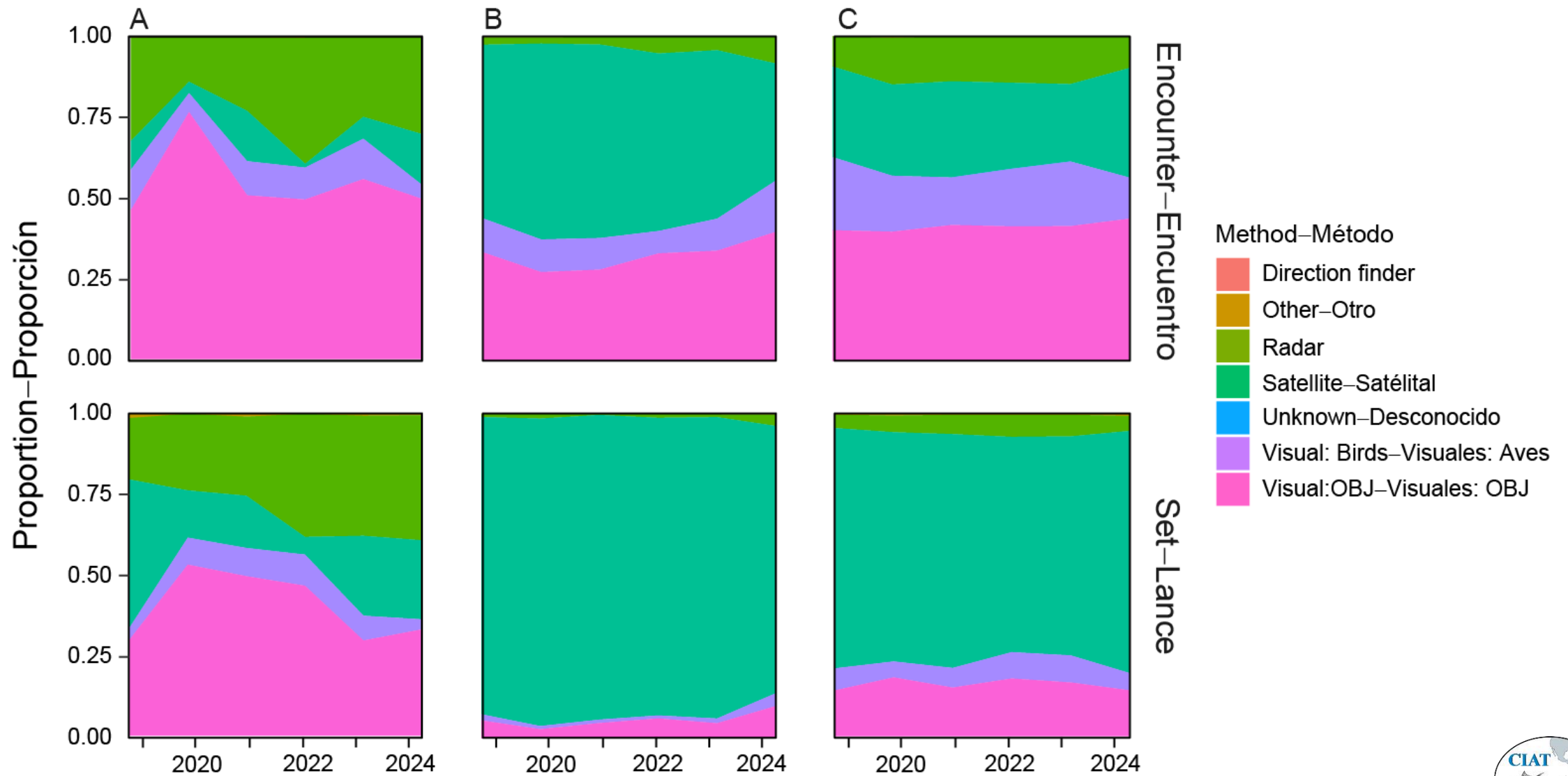
Encounters vs Sets – Interacciones vs Lances



Activities within the trip – Actividades durante el crucero



OBJ Location method – Método de localización de OBJ

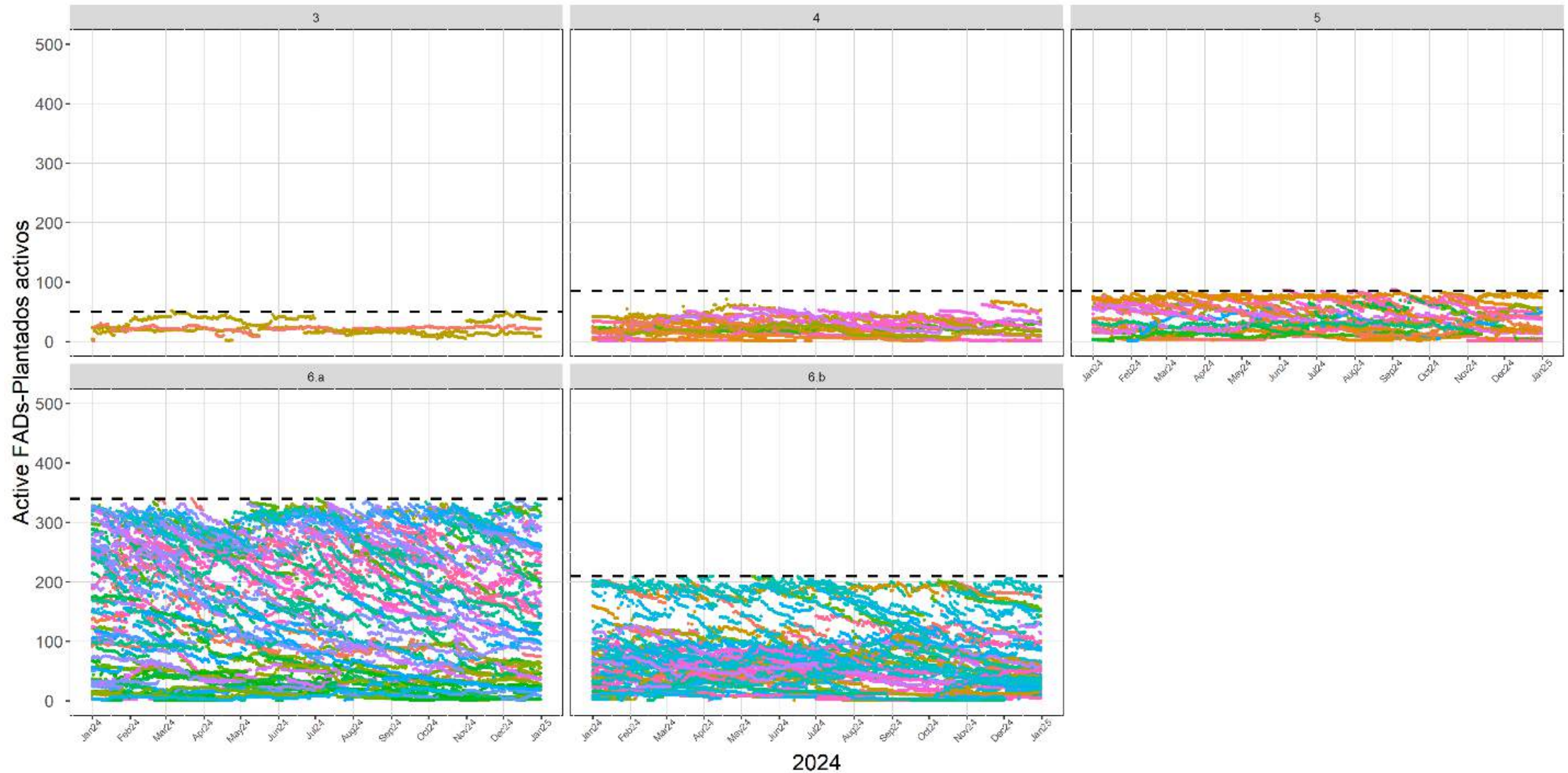


Buoy-based – Basados en boyas

Daily active FADs – Plantados activos diarios

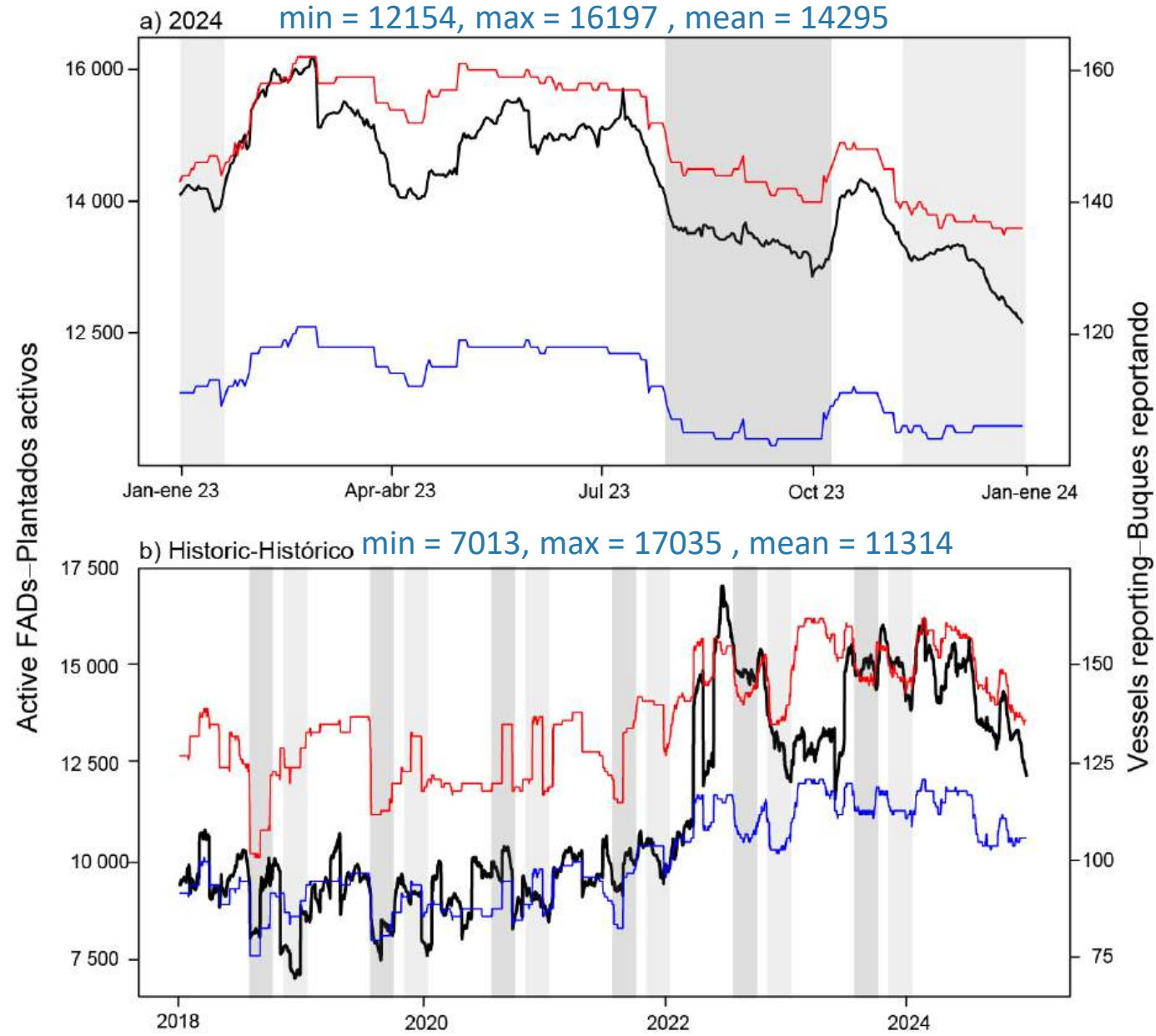
Res. C-21-04

(166 buques-vessels)

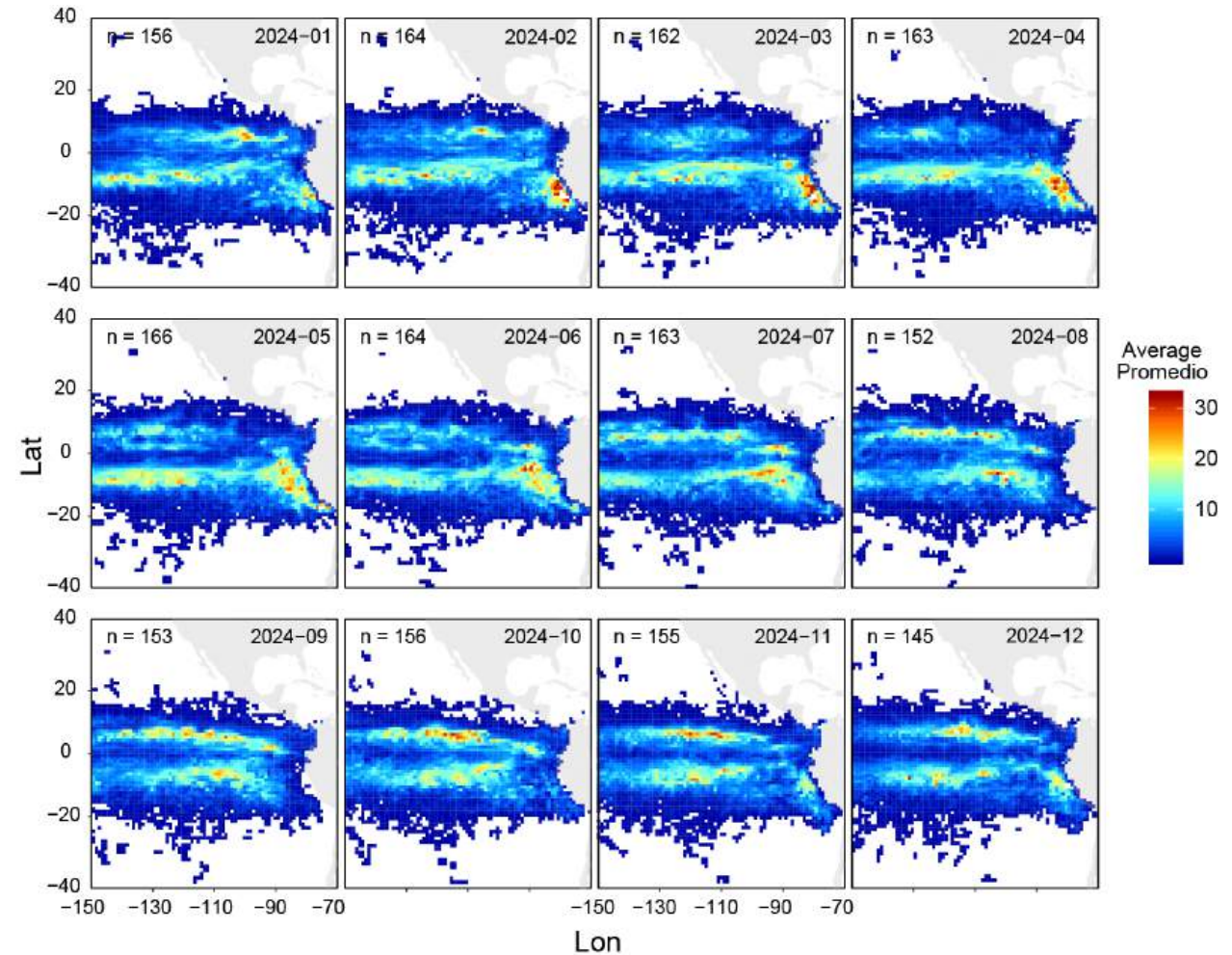
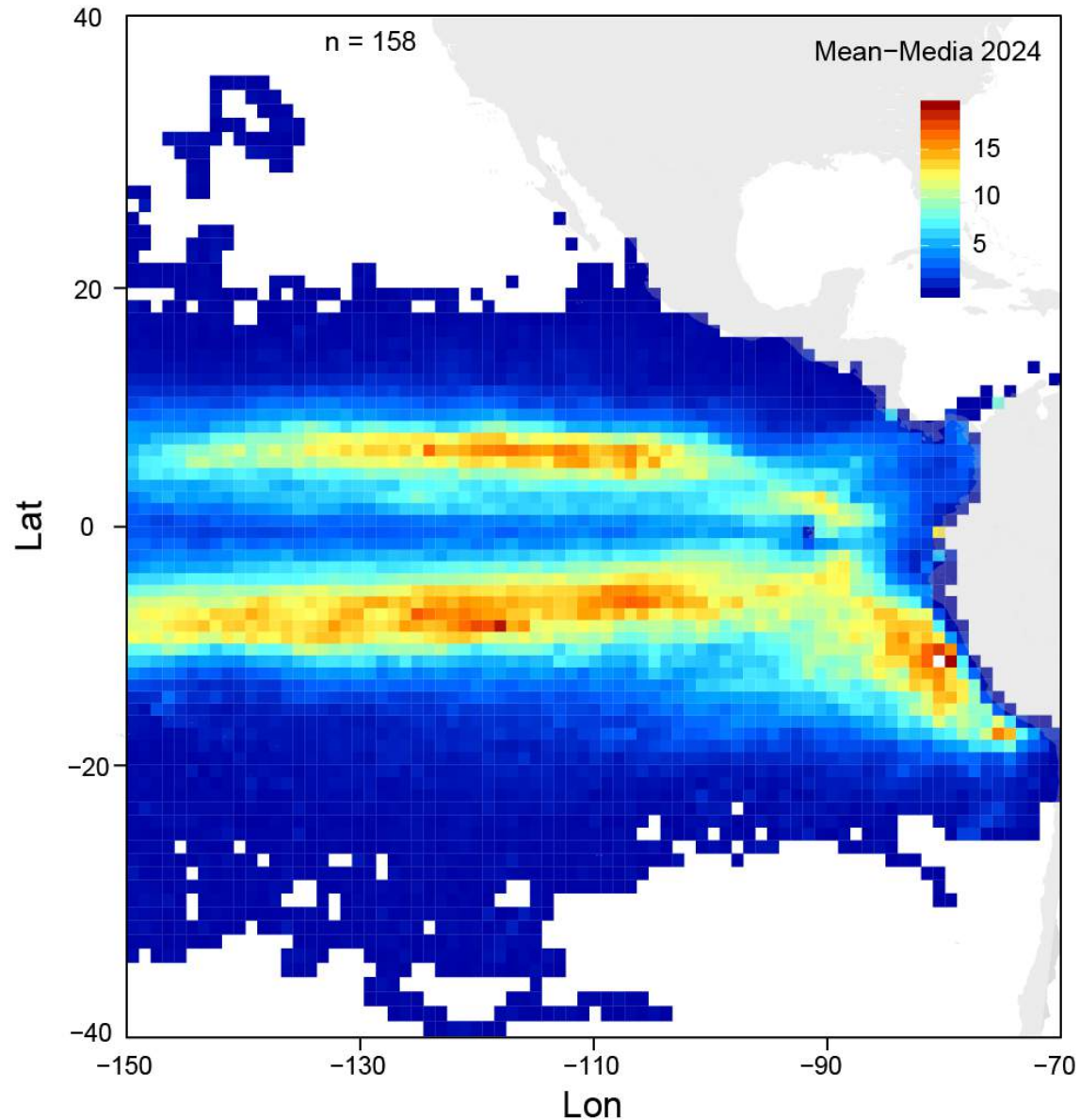


Daily total active buoys – Boyas activas diarias

166 vessels-buques
(123 Class 6
43 Class 1-5)



Active FADs densities – Densidades de plantados activos



145-166 vessels-buques
13040-16005 FADs-DCPs

FAD reactivation/deactivation – Reactivación/desactivación de Plantados

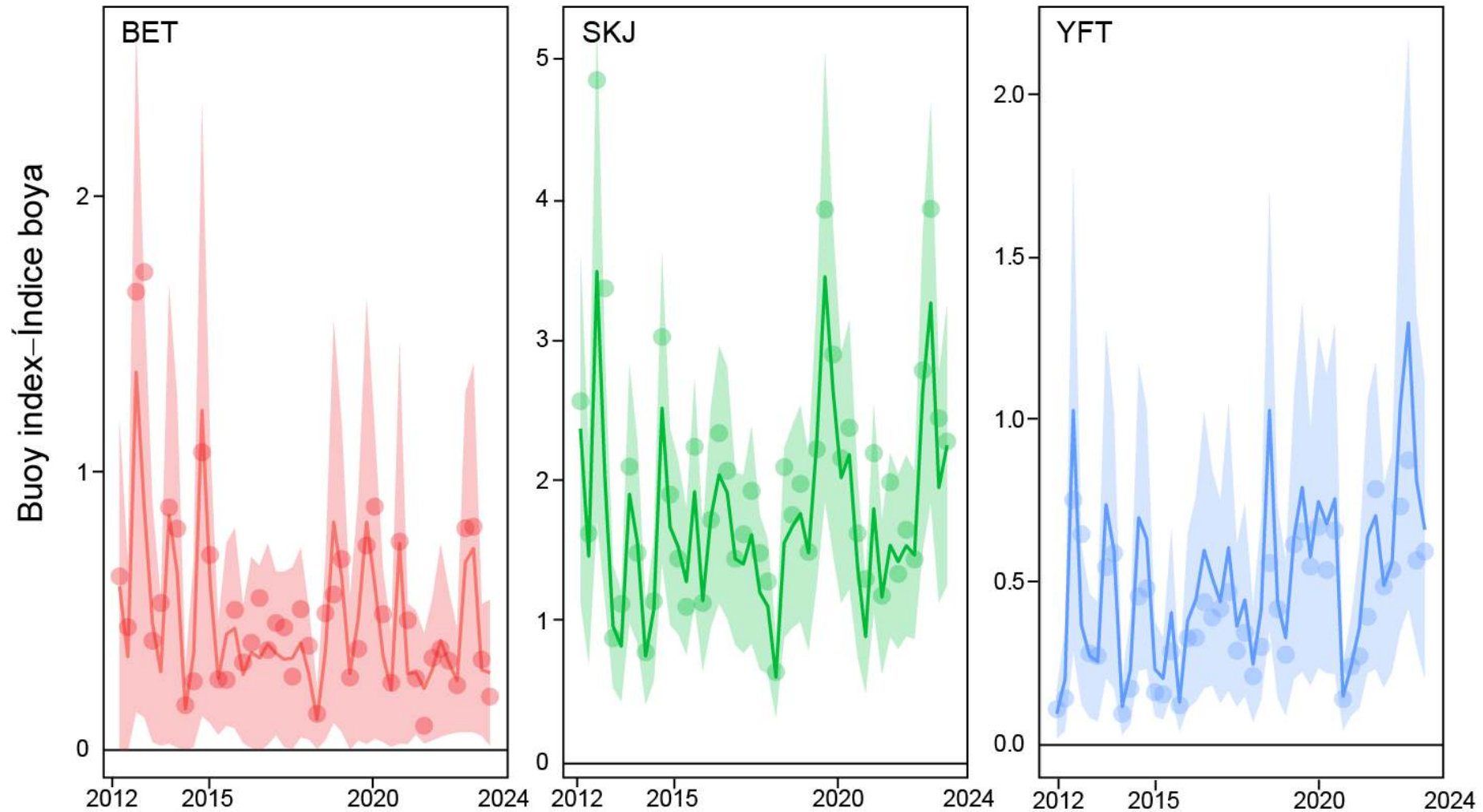
2024: 72 buques-vessels (7 clases 1-5, 65 clase 6) y 620 ficheros-files (8.6 files per month and vessel)

2023: 81 buques-vessels (11 clases 1-5, 70 clase 6) y 791 ficheros-files (6.9 files per month and vessel)

		2024		2022-2023	
Type	Reason	No. records	%	No. records	%
Deactivation	Beaching	125	0.7%	135	0.5%
	FAD outside the areas (par. 20; c-21-04)	5986	31.3%	7545	27.3%
	Other	1958	10.2%	3112	11.2%
	Signal loss	4982	26.0%	8716	31.5%
	Stolen FAD	3724	19.5%	5329	19.3%
	Temporarily during closure periods	41	0.2%	512	1.9%
	Transferred ownership	2329	12.2%	2326	8.4%

		2024		2022-2023	
Type	Reason	No. records	%	No. records	%
Reactivation	After a temporary deactivation during the closure period	61	0.9%	252	4.9%
	Other	1666	25.7%	298	5.8%
	Recovery of a signal loss	2264	34.9%	1897	37.0%
	Transfer of ownership	2504	38.6%	2675	52.2%

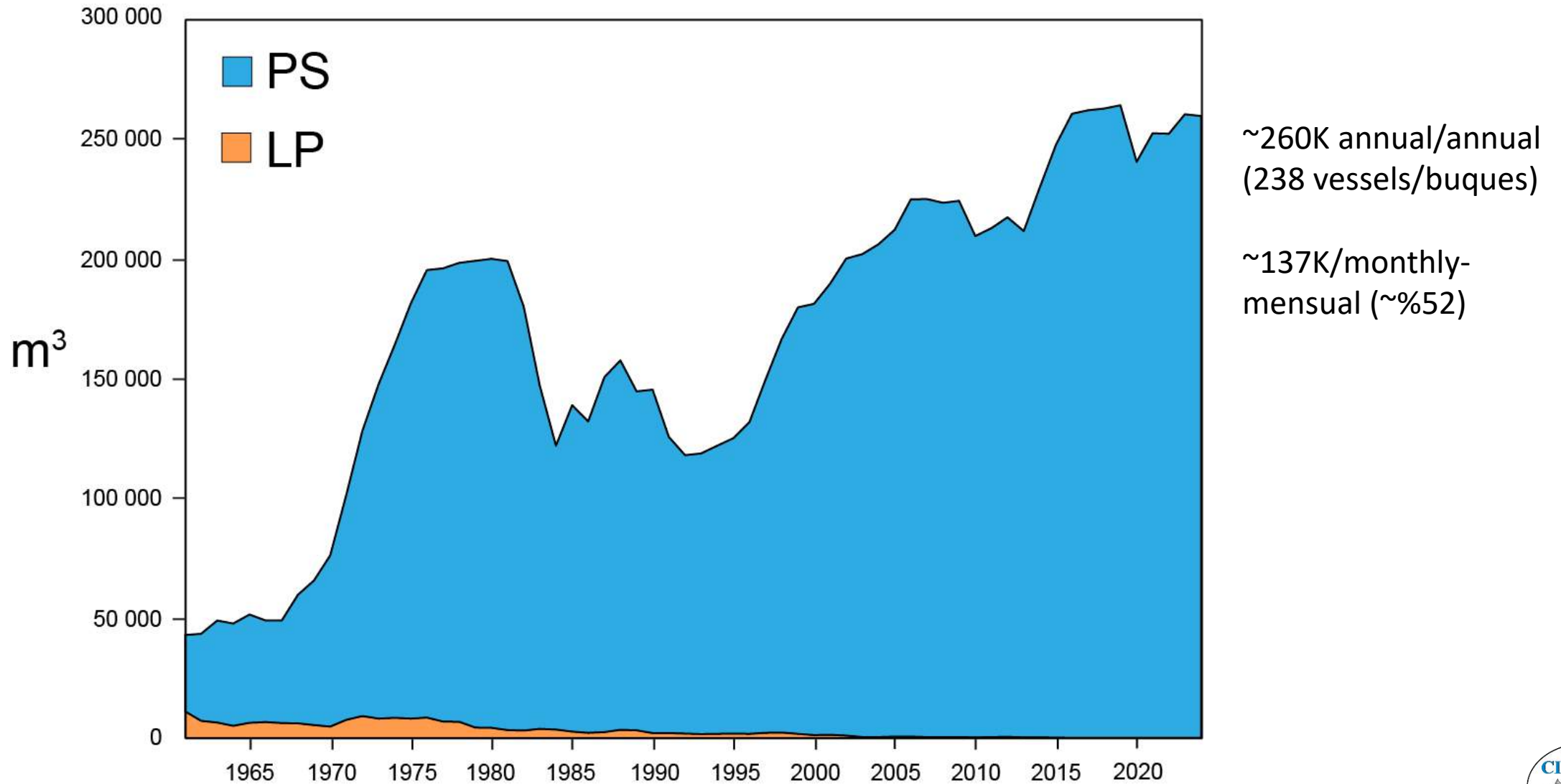
Buoy Abundance Index – *Índice de abundancia derivado de boyas*



FAD-08-03 – BAI indices / IAB tropicales
SAC-15-04 - SKJ assessment / evaluación de barrilete

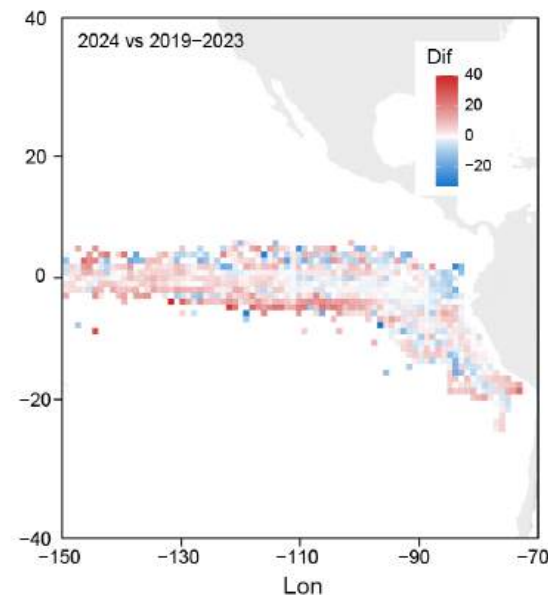
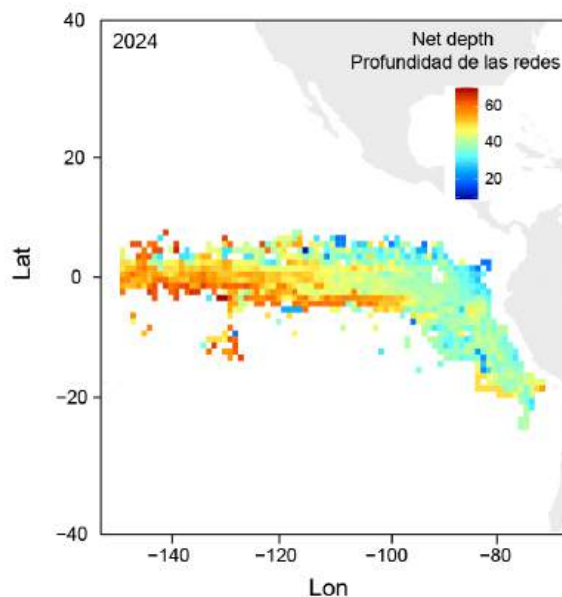
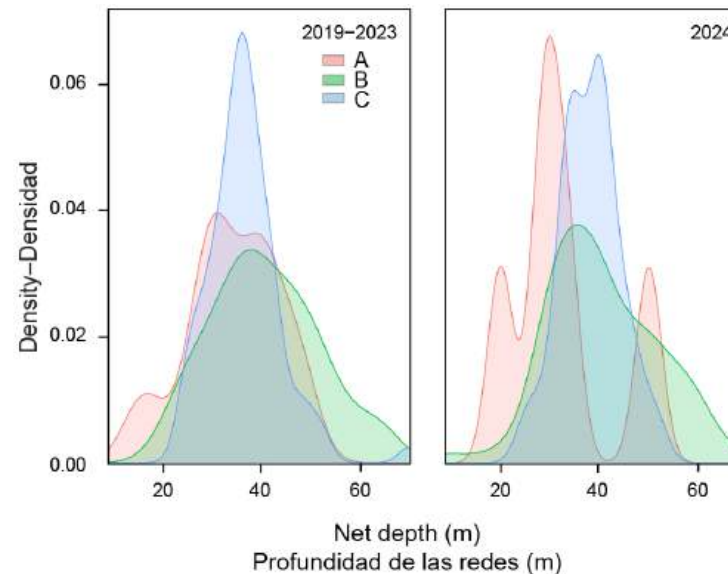
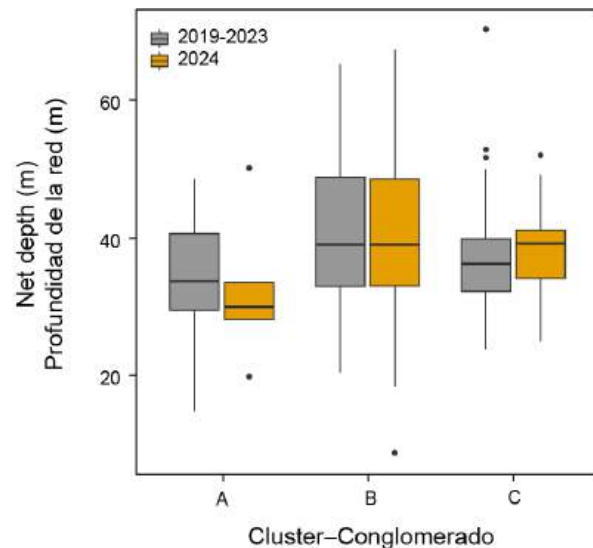
Capacity – Capacidad

Carrying Capacity – Capacidad de la flota

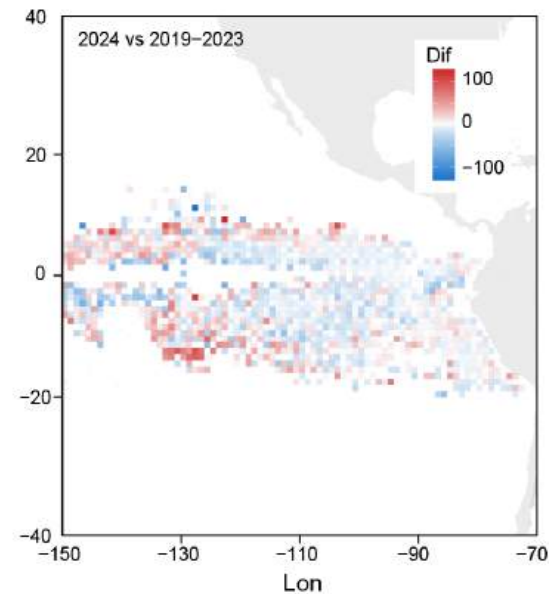
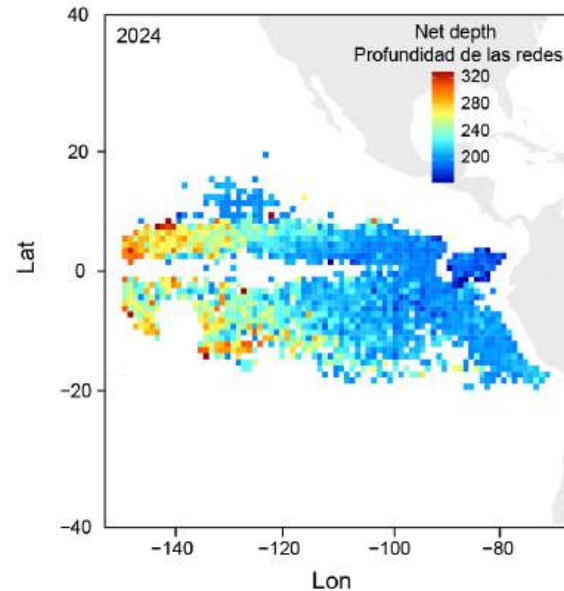
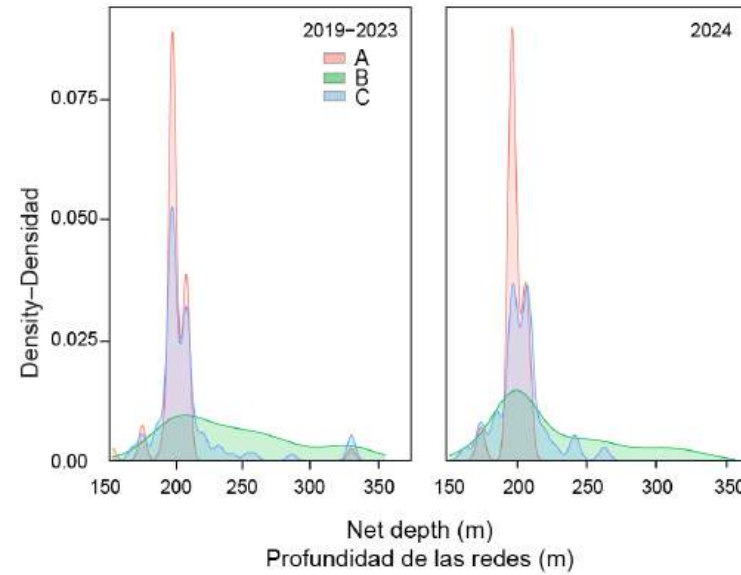
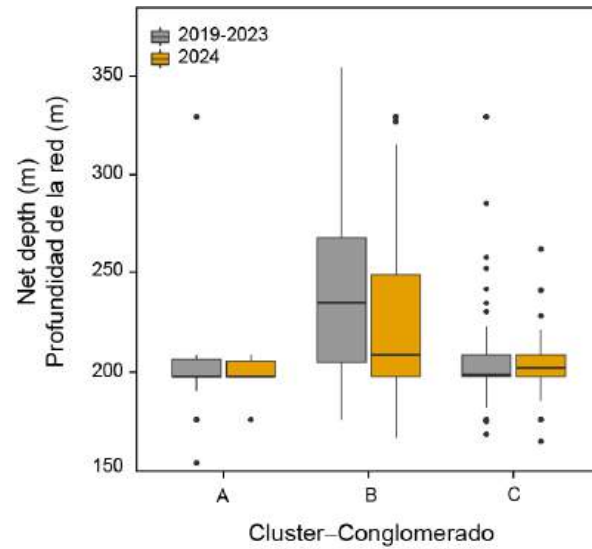


Technology – Tecnología

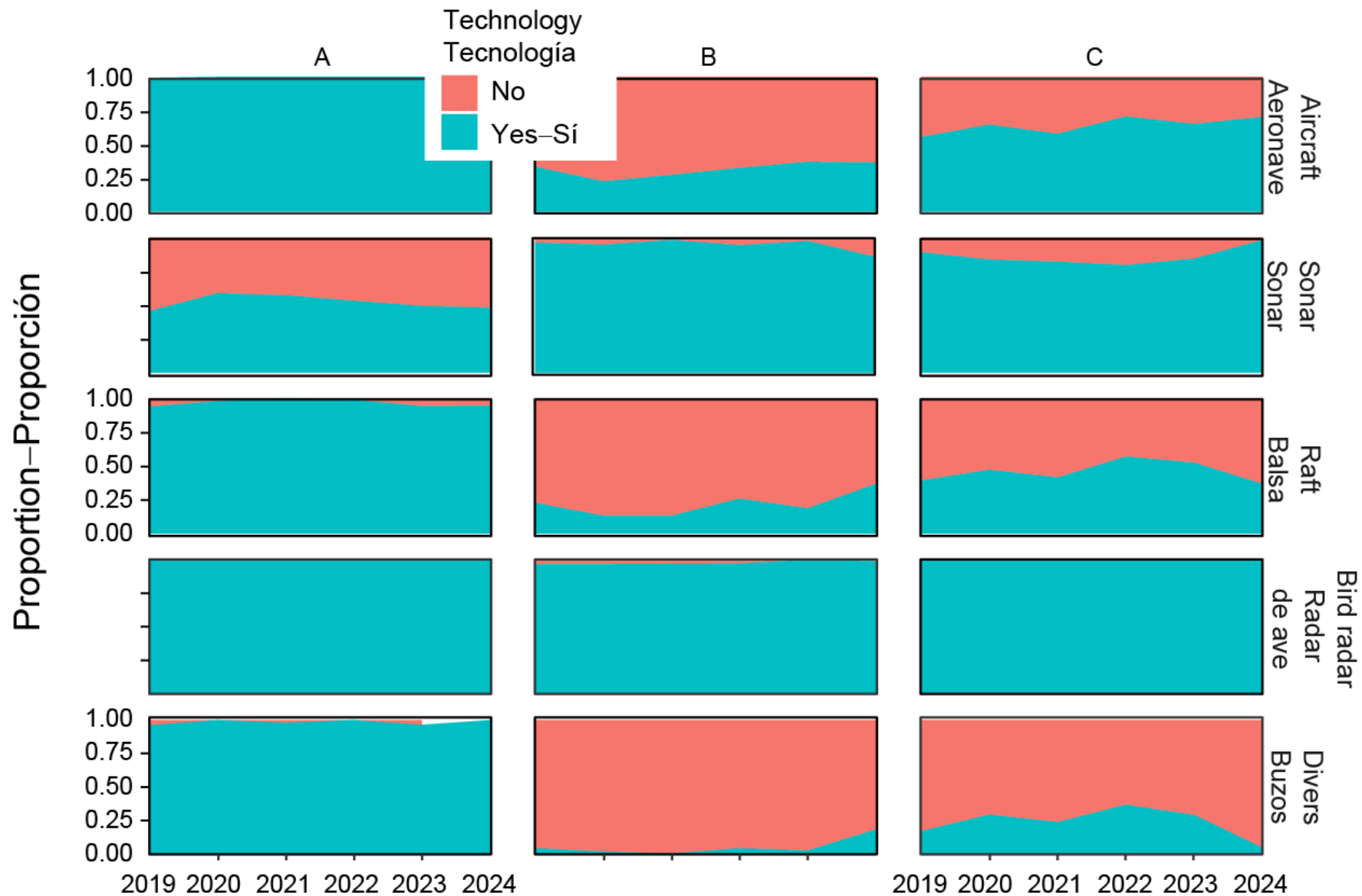
FAD depth – Profundidad de plantados



Net depth – Profundidad de red



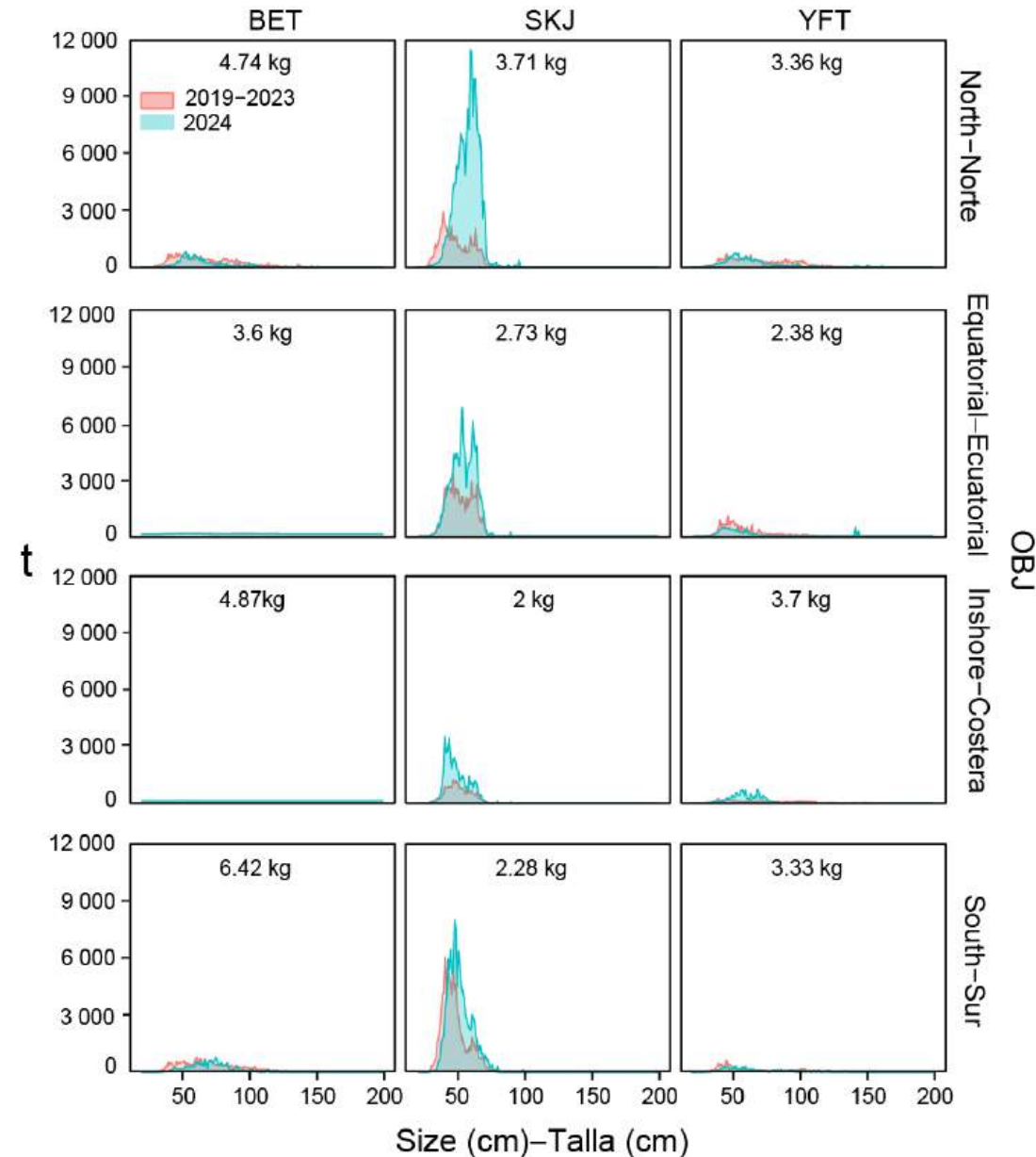
Onboard technology – Tecnología a bordo



Ecosystem impacts – Impacto sobre el ecosistema
(see/ver SAC-14-11)

Biology – Biología

Size composition of tuna – Composición de tallas de atún



Future prospects – Trabajo futuro

- Extend to include other indicators of interest: e.g., stranding and recovery events (M.5.b).
- Incluir otros indicadores de interés: e.g., cuantificación de varamientos y recogida (M.5.b).
- Use fishers workshops for capacity building and collect near-real time information of fishery dynamics (started in 2020-2021)
- Usar los talleres de capitanes para mejorar las aptitudes de los pescadores pero a su vez, recolectar información de primera mano sobre las dinámicas de la pesquería (comenzado en 2020-2021)
- Support science/indicators-based decision making – see new FAD workplan in the SSP 2026-2030.
- Promover decisiones de manejo apoyadas en ciencia e indicadores – i.e. nuevo plan de trabajo sobre FADs para el SSP 2026-2030.
- IATTC staff recommends: to provide to the IATTC staff the historic raw buoy data received by original users.
- El personal de la CIAT recomienda: suministrar al personal de la CIAT los mismos datos históricos crudos que reciben los usuarios originales.



Preguntas—Questions

