



# OVERVIEW OF FISHERIES DATA AVAILABLE FOR CPCs in the Eastern Indian Ocean







To present a summary of fisheries data reported by CPCs present at the workshop (Eastern region)





# **CONTENTS:**

- Summary of data status related to major datsets
  - Retained catchCatch and effortSize frequency
- Active fishing vessels
- New fishery code example
- Availability of annual retained catch
- Availability of geo-reference catch and effort
- Availability of size frequency





## SUMMARY OF DATA STATUS



Fisheries are of various types, with mainly coastal fisheries, although not all CPCs report information for the coastal fisheries.



Information on industrial vessels is available in detail. Whereby, CPCs from the Eastern Indian Ocean have mainly longliners, both deep-freezing and fresh longline vessels



Spatial catches are well available for industrial fisheries, indicating that the industrial longline vessels also operate in the Western Indian Ocean.





# SUMMARY OF DATA STATUS...CONT



Spatial catches for coastal fisheries are either not provided or low coverage in some cases, with only 19.84% of total retained catches.



Spatial catches for the industrial longline are more representative of the longline retained catches, although not all CPCs reported raised spatial catches.



Spatial catches for the industrial purse seine, on the other hand, are far less representative of the purse seine retained catches, only at 4.75% of the total catch purse seine catch reported.





# SUMMARY OF DATA STATUS...CONT



Spatial catch and effort information of small-scale fisheries, particularly handline and coastal longline indicated that fisheries operated beyond their national jurisdiction



Size frequency data are available for several fisheries, although low coverage in some cases





# ACTIVE FISHING VESSELS





# GILLNET FISHERIES NUMBER OF GILLNET VESSELS REPORTED BY CPCs FOR THE PERIOD 2015-2022

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2018	2019	2020	2021	2022
	C/I	10	LOA	0	0	1,044	755	874	0	0	0
	G/L	15	LOA	0	549	688	527	0	0	0	0
			GT	0	0	0	0	95,169	130,360	90,093	0
			UNCL	0	0	0	0	18,241	20,367	14,673	0
		0	LOA	0	0	1,716	1,603	1,620	1,130	1,130	1,175
		1	GRT	5,107	5,011	9,003	9,000	11,419	0	10,463	10,185
Cillect		5	GT	0	0	0	0	13,542	17,954	13,768	0
Gillnet	GILL	10	GT	0	0	0	0	2,656	3,465	1,865	0
	0.11	10	LOA	2,544	1,830	69	471	980	906	1,273	1,128
		14	LOA	55	0	0	0	0	0	0	0
		20	GT	0	0	0	0	1,138	703	356	0
		30	GT	0	0	0	0	271	105	2	0
		35	GRT	2,962	0	0	0	0	0	0	0
		50	GT	0	0	0	0	1	115	21	0
	GIOF	10	LOA	0	0	0	0	315	123	233	224





#### **BAITBOAT FISHERIES**

### NUMBER OF BAITBOAT VESSELS REPORTED BY CPCs FOR THE PERIOD 2015-2022

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2018	2019	2020	2021	2022
			GT	0	0	0	0	7,196	8,988	3,744	0
			UNCL	0	0	0	0	5,901	1,215	835	0
		5	GT	0	0	0	0	456	208	648	0
Deitheet	DD	10	GT	0	0	0	0	122	69	57	0
Baitboat	BB	10	LOA	544	356	356	358	0	0	0	0
		20	GT	0	0	0	0	257	173	161	0
		24	LOA	0	184	149	147	365	373	0	0
		30	GT	0	0	0	0	14	25	0	0
		50	GT	0	0	0	0	0	7	0	0





#### LINE FISHERIES

### NUMBER OF LINE VESSELS REPORTED BY CPCs FOR THE PERIOD 2015-2022

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2018	2019	2020	2021	2022
			GT	0	0	0	0	32,810	43,949	65,214	0
			UNCL	0	0	0	0	10,357	10,734	7,299	0
		0	LOA	0	0	0	274	324	55	84	76
		4	LOA	5	5	5	5	5	5	0	0
Line	HAND	5	GT	0	0	0	0	3,605	3,054	4,382	0
LINE	HAND	10	GT	0	0	0	0	1,260	667	657	0
		10	LOA	85	130	337	177	168	744	1,320	1,835
		20	GT	0	0	0	0	473	456	321	0
		30	GT	0	0	0	0	77	87	38	0
		50	GT	0	0	0	0	5	180	325	0 _





### Line fisheries....

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2	2018	2019	2020	2021	2022
Line	LLCO		GT	0		0	0	0	12,336	14,202	11,496	0
			UNCL	0		0	0	0	1,845	1,415	555	0
			0 LOA	0		0 8	54	378	405	422	422	422
			5 GT	0		0	0	0	2,657	2,611	2,008	0
		1	.0 GT	0		0	0	0	472	133	350	0
		1	LO LOA	647	1,11	6 6	02	1,118	1,104	1,936	2,486	2,614
		1	L5 LOA	23	3	2	48	487	600	855	0	0
		2	20 GT	0		0	0	0	494	236	104	0
		2	24 LOA	2		4	3	0	0	0	0	0
		3	80 GT	0		0	0	0	88	34	40	0
		5	50 GT	0		0	0	0	92	107	145	0





### Line fisheries....

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2018	2019	2020	2021	2022
Line	TROL		GT	C	) 0	0	C	5,621	5,845	12,988	8 0
			UNCL	C	) 0	0	C	2,018	2,024	2	2 0
		1	GRT	1,082	1,213	100	100	154	0	113	133
		5	GT	C	) 0	0	C	1,031	838	1,186	5 O
		5	LOA	ç	9	9	9	9	9	C	0 0
		10	GT	C	) 0	0	C	820	317	263	0
		10	LOA	52	19	24	308	316	336	336	336
		20	GT	C	) 0	0	C	217	76	77	<b>'</b> 0
		30	GT	C	) 0	0	C	28	36	1	. 0





#### LONGLINE FISHERIES

### NUMBER OF LONGLINE VESSELS REPORTED BY CPCs FOR THE PERIOD 2015-2022

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2018	2019	2020	2021	2022
		0	LOA	6	3	0	0	0	0	0	0
		10	LOA	0	0	0	0	0	0	0	435
	FLL	15	LOA	336	139	99	117	0	599	696	208
	FLL	24	LOA	82	64	71	189	47	48	48	40
Longline		40	LOA	9	4	4	0	0	0	0	0
		85	GT	0	0	0	0	59	37	86	0
		24	LOA	190	90	87	18	20	18	18	20
	LL	40	LOA	42	44	60	61	62	56	54	55
	LLEX	24	LOA	4	4	4	4	4	4	4	0





#### PURSE SEINE FISHERIES

### NUMBER OF PURSE SEINE VESSELS REPORTED BY CPCs FOR THE PERIOD 2015-2022

Fishery_group	Gear	ClassLow	ClassTypeCode	2015	2016	2017	2018	2019	2020	2021	2022
		15	LOA	1	1	0	0	0	0	0	0
		24	LOA	12	11	31	64	0	0	0	0
	PS	40	LOA	1	0	1	1	0	0	0	0
		78	GT	0	0	0	0	389	279	289	0
		200	GT	0	0	0	0	0	1	3	0
			GT	0	0	0	0	1,263	1,322	1,739	0
			UNCL	0	0	0	0	835	834	0	0
Durse Seine		5	GT	0	0	0	0	986	1,175	750	0
Purse Seine	DCC	10	GRT	291	305	330	330	497	0	420	315
	PSS	10	GT	0	0	0	0	1,451	1,742	1,040	0
		14	LOA	393	329	286	238	236	228	227	219
		20	GT	0	0	0	0	1,882	1,158	1,241	0
		30	GT	0	0	0	0	396	71	206	0
		50	GT	0	0	0	0	197	183	234	0
	DIN	0	LOA	0	0	10	685	626	616	520	512
	RIN	10	LOA	415	870	933	472	738	1,386	1,386	728
	RNOF	10	LOA	0	0	0	191	279	182	182	878





# NEW FISHERY CODE -

Expected fishery codes to use for coastal and industrial

- Fishery categorization;
- Type of operation;
- Purpose of fishery operation
- Operating area;
- Target species.





## COASTAL FISHERIES

			Semi-industrial (AUNJ)	Small-scale	Subsistence
BBM				I	
	Pole-and-line	PL	PL.ME[SI]	PL.ME[SS]	
BBN					
	Pole-and-line	PL	PL.NM[SI]	PL.NM[SS]	
BS					
	Beach seine	BS		BS[SS]	BS[SU]
CN					
	Cast net	CN		CN[SS]	CN[SU]
DDSEI					
	Danish seine	DS		DS.DM[SS]	DS.DM[SU]
DSEI					
	Danish seine	DS	DS[SI]	DS[SS]	DS[SU]





## COASTAL FISHERIES

		Semi-industrial (AUNJ)	Small-scale	Subsistence
GILL				
Encircling gilln	et GE		GE.AS[SS]	GE[SU]
Set gillnet	GS		GS[SS]	GS.AS[SU]
HAND				
Handline	HL	HL[SI]	HL.ME[SS]	HL[SU]
HARP				
Harpoon	HR		HR[SS]	HR[SU]
HATR				
Handline and trolling line	HL+TL	HL+TL[SI]	HL+TL[SS]	HL+TL[SU]
НООК				
Hook and line	HL+TL+DL	HL+TL+DL[SI]	HL+TL+DL[SS]	





## COASTAL FISHERIES

			Semi-industrial (AUNJ)	Small-scale	Subsistence
LIFT					
	Lift net	LN	LN[SI]	LN[SS]	LN[SU]
LLCO					
	Drifting longline	DL	DL[SI]	DL[SS]	
LLTR					
	Drifting longline and trolling line	DL+TL	DL+TL[SI]	DL+TL[SS]	
PSS					
	Purse seine	PS	PS[SI]	PS[SS]	
RIN					
	Ring net	RN	RN-DA[SI]	RN-DA[SS]	





## COASTAL FISHERIES...

			Semi-industrial (AUNJ)	Small-scale	Subsistenc e
TRAP					
	Тгар	ТР		TP[SS]	TP[SU]
TRAW					
	Trawl	TR	TR[SI]	TR[SS]	TR[SU]
TROL					
	Trolling line	TL		TL[SS]	TL[SU]
TROLM					
	Trolling line	TL		TL.ME[SS]	
TROLN					
	Trolling line	TL		TL.NM[SS]	
UNCL					
	Unknown gear	UN	UN[SI]	UN[SS]	UN[SU]





## LONGLINE FISHERIES

			Exploratory	Industrial	Semi-industrial (ABNJ)
FLL					
	Drifting Iongline	DL		DL.FR[IN]AL	DL.FR[IS]AL
LL					
	Drifting Iongline	DL		DL.DF[IN]AL	DL.DF[IS]AL
LLEX					
	Drifting Iongline	DL	DL.DF[EX]		





## SURFACE FISHERIES

			Exploratory	Industrial	Semi-industrial (ABNJ)
BBOF					
	Pole-and- line	PL		PL- AF[IN]BF	PL-AF[IS]BF
HLOF					
	Handline	HL		HL- DA[IN]AL	HL-DA[IS]AL
PS					
	Purse seine	PS	PS[EX]	PS[IN]BF	PS[IS]BF
RNOF					
	Ring net	RN			RN-AF[IS]MS

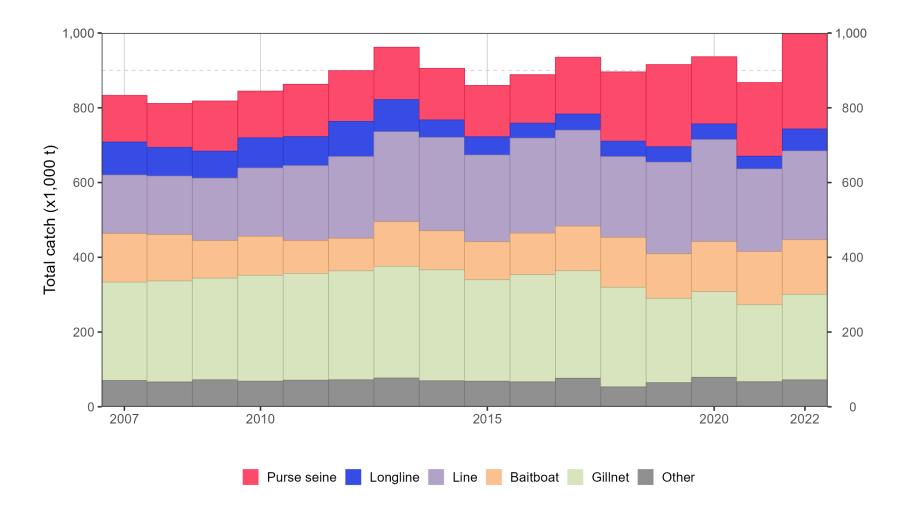




# AVAILABILITY OF ANNUAL RETAINED CATCH







Cumulative time series of annual retained catches (metric tonnes; t) of IOTC species by fishery as reported by CPCs in the Eastern Indian Ocean for the period 2010-2022



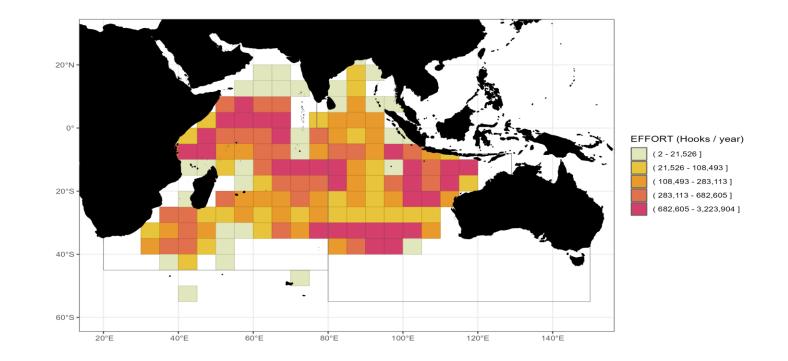


# AVAILABILITY OF GEO-REFERENCE CATCH AND EFFORT





# Spatial effort data avaiable - Longline fisheries

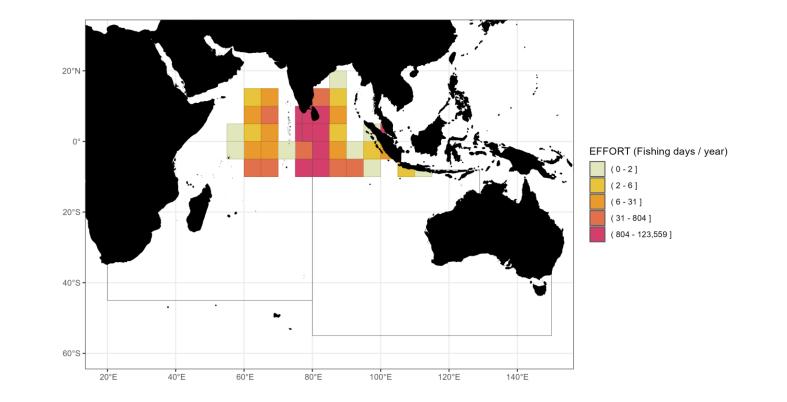


Distribution of effort for longline fisheries as reported by CPCs in the Eastern Indian Ocean for the period 2021-2022





## SPATIAL EFFORT DATA AVAILABLE - GILLNET FISHERIES

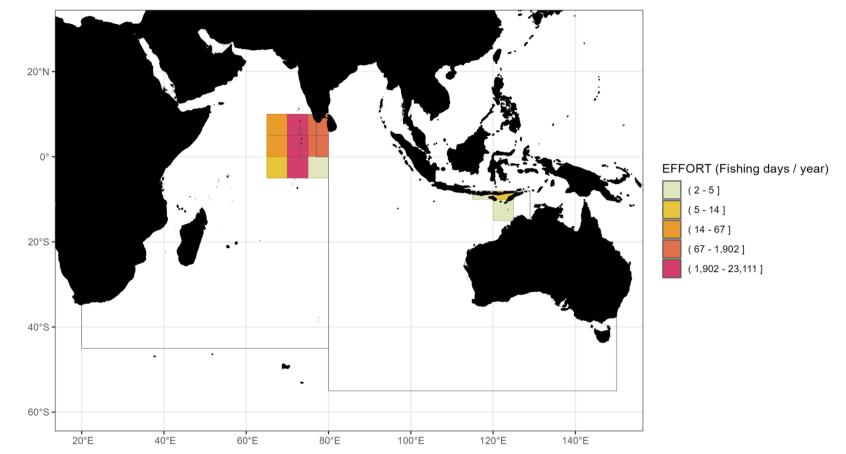


Distribution of effort for gillnet fisheries as reported by CPCs in the Eastern Indian Ocean for the period 2021-2022





## SPATIAL EFFORT DATA AVAIABLE -POLE AND LINE FISHERIES

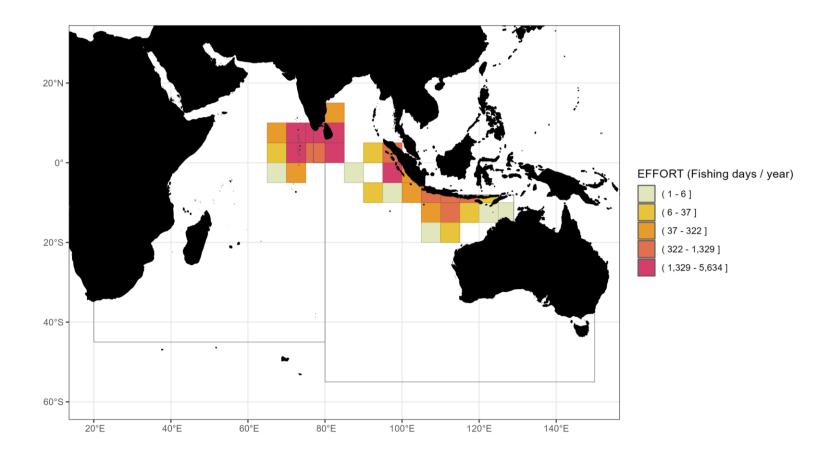


Distribution of effort for pole and line fisheries as reported by CPCs in the Eastern Indian Ocean for the period 2021-2022





## SPATIAL EFFORT DATA AVAIABLE -HANDLINE FISHERIES



Distribution of effort for handline fisheries as reported by CPCs in the Eastern Indian Ocean for the period 2021-2022



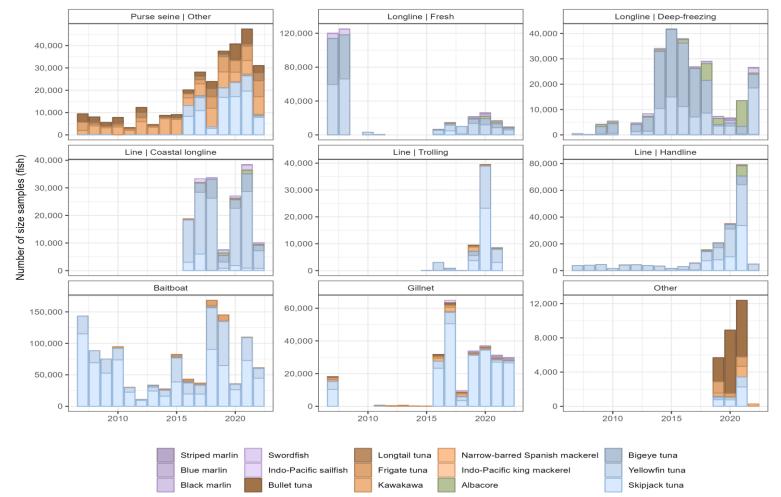


# AVAILABILITY OF SIZE FREQUENCY





## ANNUAL SAMPLE AVAILABILITY



Cumulative annual number of size samples by IOTC species reported for the main fisheries for the period 2005-

2022

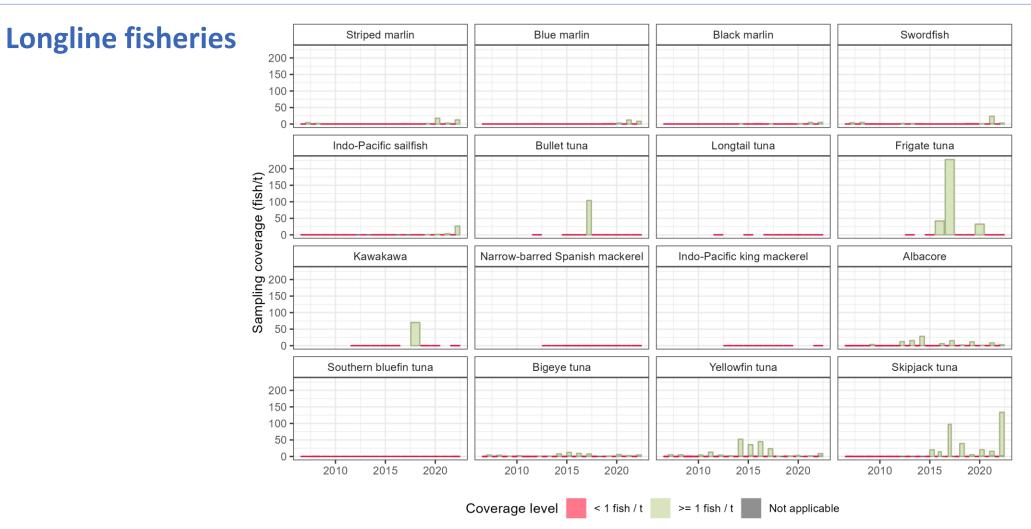




## Species-specific sampling coverage for each fishery



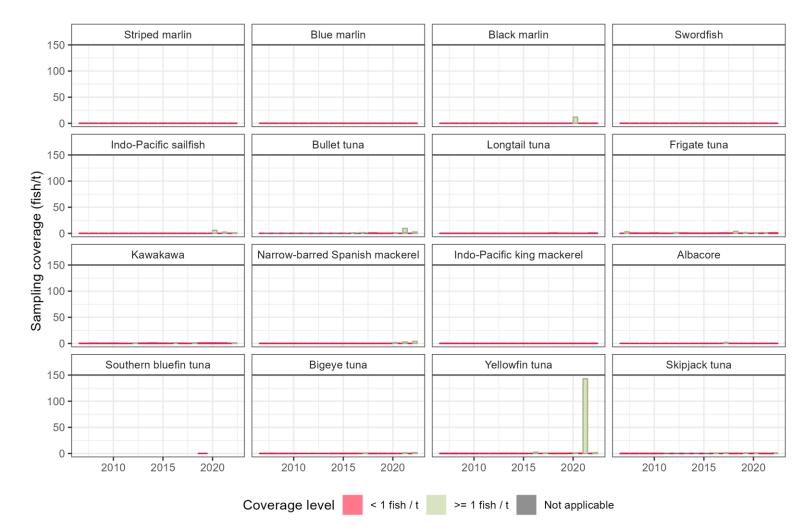








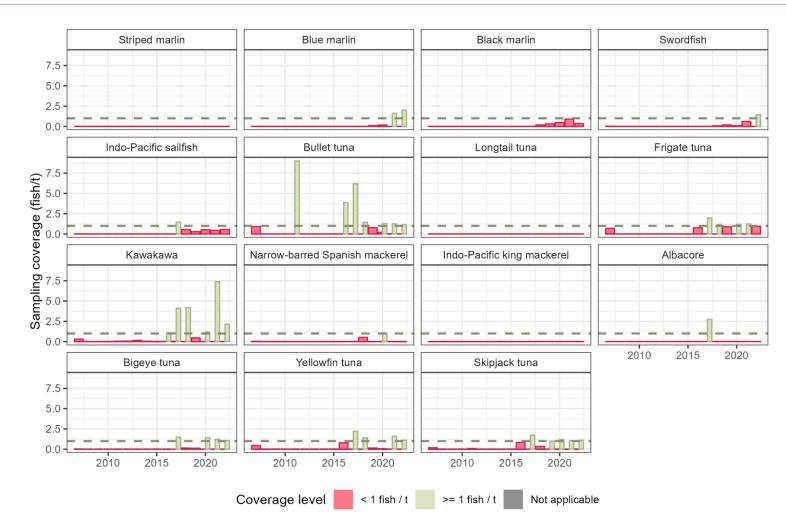
#### **Purse seine fisheries**





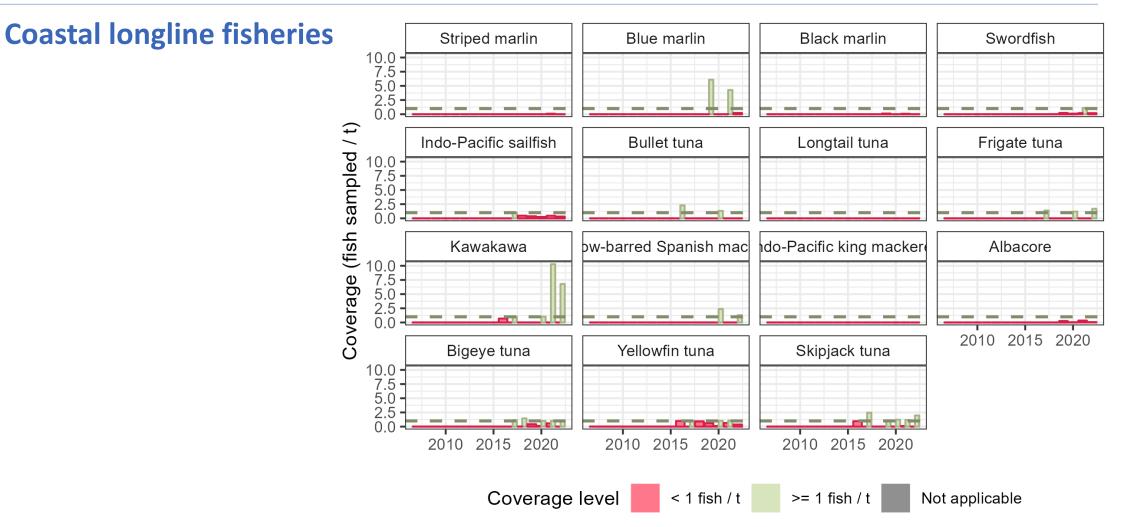


### **Gillnet fisheries**





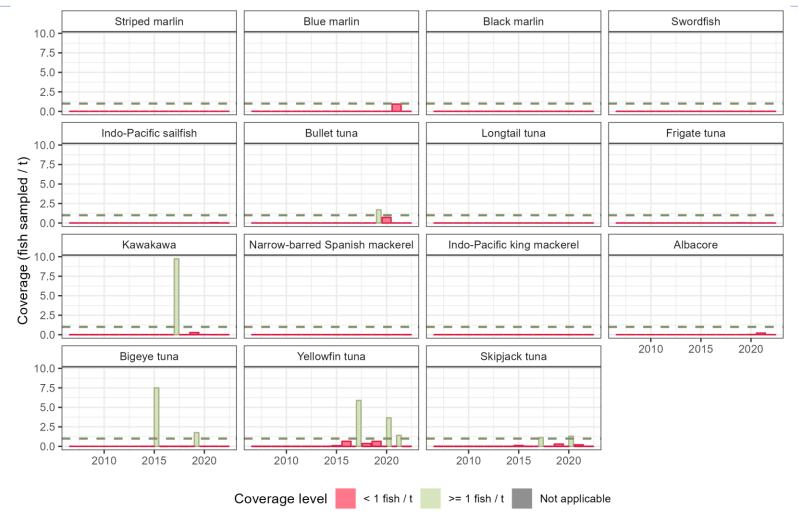








#### **Trolling fisheries**







#### **Pole and line fisheries**

