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Overview of ecologically related species (ERS) monitoring in the Indonesian southern bluefin tuna fishery in 2025.

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Abstract

This report provides an overview of interactions with ERS in the Indonesian southern bluefin tuna (SBT) fishery, based on data collected through multiple monitoring programs implemented in 2025. These programs include CDS, port sampling, logbook reporting, the ROS. Monitoring results indicate that 182 LL boats were active in 2025, deploying an estimated 25,184,871 hooks, of which 917,754 hooks were observed, corresponding to approximately 3.6% observer coverage. Fishing activities were primarily distributed across CCSBT statistical areas 1 and 2, with no significant deviation from spatial patterns observed in previous years. Based on CDS data, total reported SBT catches amounted to 9,477 individuals (935.9 t), with an additional 7.4 t recorded from artisanal fisheries. ERS data collected through the ROS comprised sharks and rays, sea turtles, and seabirds. A total of 673 shark and ray individuals, representing 12 shark species and two ray species, were recorded. Blue shark (*Prionace glauca*; BSH) was the dominant species, accounting for 524 individuals (77.86% of total shark catches). Of these, 418 individuals (79.77%) were retained, while 106 individuals (20.23%) were released alive. Seven sea turtles were recorded, including three loggerhead turtles (*Caretta caretta*; TTL), two olive ridley turtles (*Lepidochelys olivacea*; LKV), and two hawksbill turtles (*Eretmochelys imbricata*; TTH); all were released alive. Seabird interactions involved six great-winged petrels (*Pterodroma macroptera*; PDM), five sooty shearwaters (*Puffinus griseus*; PFG), and one light-mantled albatross (*Phoebetria* sp.; PHE). Great-winged petrels and sooty shearwaters were primarily caught at latitudes south of 17°S, while the light-mantled albatross was recorded in August 2025 at 31°02′S, 103°14′E. All seabirds were released alive.

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Introduction

Southern bluefin tuna (*Thunnus maccoyii*; hereafter SBT) is considered a bycatch species in the Indonesian tuna longline fishery, which primarily targets bigeye tuna (*Thunnus obesus*; BET) and yellowfin tuna (*Thunnus albacares*; YFT) in the Indian Ocean. For clarity, tuna longline fishing is a hook-and-line method in which a mainline, often extending for several kilometers, is deployed with hundreds to thousands of baited hooks attached at regular intervals to capture individual fish.

As a member of the CCSBT, Indonesia has been allocated an annual SBT catch limit of 1,336 tonnes for the 2024–2026 period. In contrast to previous years, when catches frequently exceeded the allocated limit, Indonesia's SBT catch in 2025 was well below the limit, total 943.3 tonnes. This comprised approximately 935.9 tonnes from 198 active tuna longline boats, based on catch documentation scheme (CDS) data, with an additional 7.4 tonnes derived from 27 artisanal boats, as recorded in fisheries logbooks.

In addition to southern bluefin tuna (SBT), Indonesian tuna longline boats operating in the Indian Ocean also interact with a range of bycatch species, including billfishes, other finfishes, and ecologically related species (ERS), such as sharks and rays, sea turtles, marine mammals, and seabirds. This report focuses on characterizing ERS interactions within the CCSBT-registered Indonesian tuna longline boats, using monitoring data derived from fishing logbook program and scientific observer (ROS) implemented in 2025.

Fisheries

Brief overview, the tuna longline fishery, hereafter referred to as LL was introduced to Indonesia by Japan in the 1930s (Simorangkir, 1982; Ishida et al., 1994); however, commercial operations did not commence until the early 1960s, nearly three decades later (Proctor et al., 2003). SBT has historically been caught as bycatch in Indonesian LL fleets targeting YFT since the late 1970s (Farley et al., 2014) and BET since the early 1980s following the introduction of deep LL-ing, with hooks set approximately 100–300 m below the surface (Sadiyah et al., 2011). Among Indonesian tuna fishing ports, SBT landings are concentrated primarily at Benoa Port, Bali and Nizam Zachman Fishing Port

SBT landing activities have been routinely monitored by the Research Institute for Tuna Fisheries (RITF) based in Benoa Bali through scientific port sampling and observer programs. The port sampling program was formally initiated in mid-2002, building upon collaborative research activities that commenced in 1993 (Farley et al., 2014). In addition, the scientific observer program was introduced in mid-2005 as part of an Indonesia–Australia collaboration (ACIAR Project FIS/2002/074) and has been continuously implemented by RITF with support from the Indonesian government since 2010.

To strengthen catch data quality, the Directorate General of Capture Fisheries introduced a Catch Documentation Scheme (CDS) under the CCSBT framework in 2010, which has served as the basis for official catch statistics since 2015. The catches fluctuate annually, largely reflecting changes in the number of active boats and hooks deployed. For example, total catches increased from 1,029 tonnes with 227active boats in 2023 to 1,211 tonnes with 211 active boats in 2024, before declining to 936 tonnes with 198 active boats in 2025. A summary of historical SBT catches over the past 10 years is presented in Table 1.

Table 1. The summary of historical SBT catches over the past 10 years.

Year	Active vessels	Catch reported to CCSBT (tons)	Catch based on CDS (tons)
2016	107	601	601
2017	109	835	835
2018	139	1,087	1,087
2019	150	1,206	1,206
2020	155	1,298	1,298
2021	149	1,123	1,123
2022	170	1,031	1,031
2023	227	1,029	1,029
2024	211	1,224	1,224
2025	198	943.3*)	935.9

*) __ This amount represents the combined total of CDS-based longline (LL) catches (935.9 tonnes) and the remaining catch originating from 27 artisanal boats (7.4 tonnes).

Monitoring

Briefly, fishery monitoring in Indonesia has included the development of an onboard observer program by the Ministry of Marine Affairs and Fisheries (MMAF) since 2005. The program was initiated through the Scientific Tuna Observer Program (STOP), implemented by the Research Institute for Tuna Fisheries (RITF), MMAF Bali, from 2005 to 2021. A key limitation of STOP was its relatively low observer coverage compared with levels recommended by relevant Regional Fisheries Management Organizations (RFMOs), including CCSBT, IOTC and WCPFC, largely due to budgetary constraints and a limited number of trained observers. To improve observer coverage, the Directorate General of Capture Fisheries (DGCF), MMAF, has developed the Regional Observer Scheme (ROS) and the Regular Observer Program (ROP) since 2013. The implementation of Indonesia's observer programs, including ROS and ROP, follows RFMOs requirements for onboard data collection. In 2025, the DGCF–MMAF ROS covered 32 trips, comprising a total of 1,187 days at sea (DAS), 492 gear sets, and approximately 917,754 hooks observed out of an estimated 25,184,871 hooks deployed, corresponding to an observer coverage of 3.60% (Table 2). Although the level of observer coverage in 2025 remained well below the requirement set by RFMOs, particularly the CCSBT target of 10%, Indonesia's on-board observer coverage showed an improvement compared with previous years. This increase reflects Indonesia's seriousness and commitment to supporting the sustainable management of southern bluefin tuna (SBT) resources in the Indian Ocean.

Table 2. Summary of scientific observer (ROS) DGCF-MMAF activities period 2016-025.

Year	No. of active vessels	No. of Trip	Day at Sea (DAS)	No. of set observed	No. of hook observed	Estimation of total effort (hooks)	Coverage (%)
2016	107	3	170	110	175,868	20,587,757	0.85
2017	109	5	241	121	192,188	20,972,575	0.92
2018	139	6	321	164	262,856	29,241,984	0.90
2019	150	9	328	136	216,836	26,573,553	0.82
2020	155	2	108	55	86,845	28,554,500	0.30
2021	149	5	248	124	197,424	22,831,204	0.86
2022	170	10	453	248	396,700	22,128,927	1.79
2023	227	7	358	156	308,725	31,411,900	0.98
2024	211	25	1102	453	768,051	29,197,845	2.63
2025	182	32	1187	492	917,754	25,184,871	3.60

Note : The scientific observer program implemented by RITF during 2015–2021 and the ROS conducted by DGCF-MMAF during 2022–2025.

Monitoring results derived from fishing logbooks and observer data indicate that the fishing grounds of the Indonesian LL fleet in the Indian Ocean have not changed significantly. Individual skippers tend to operate consistently in the same fishing areas from year to year. Figure 1 and 2 illustrate the spatial distribution of set positions of the Indonesian LL fleet in the Indian Ocean during 2024 and 2025.

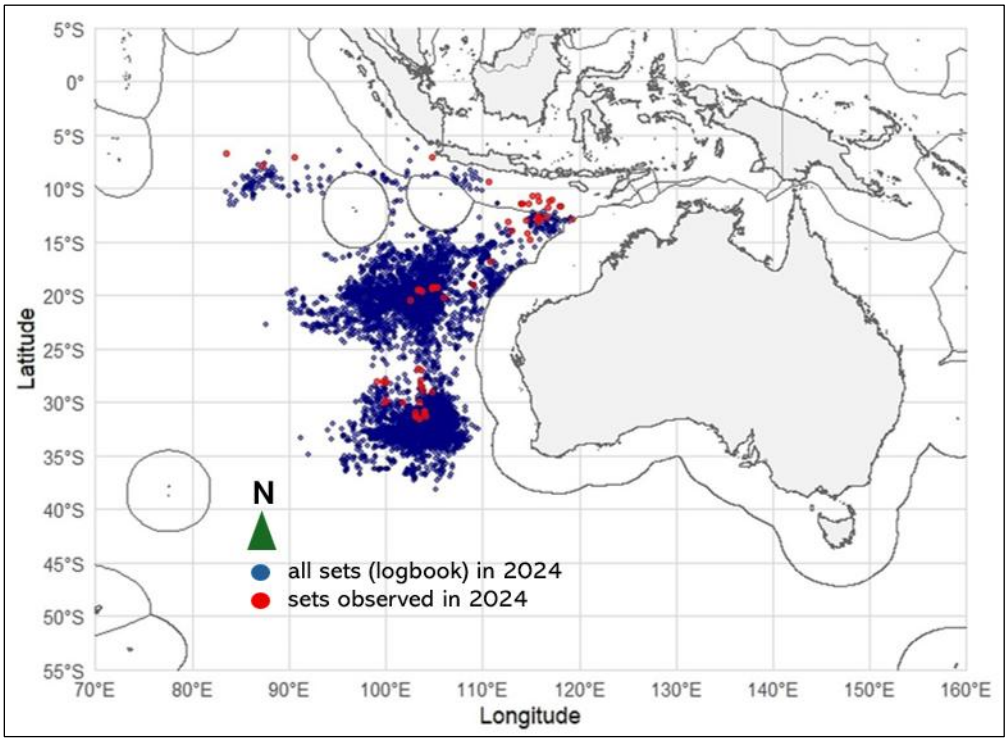


Figure 1. Spatial distribution of set positions from 211 active Indonesian LL boats registered with the CCSBT Secretariat (blue dots) and the 453 observed sets (red dots) in 2024.

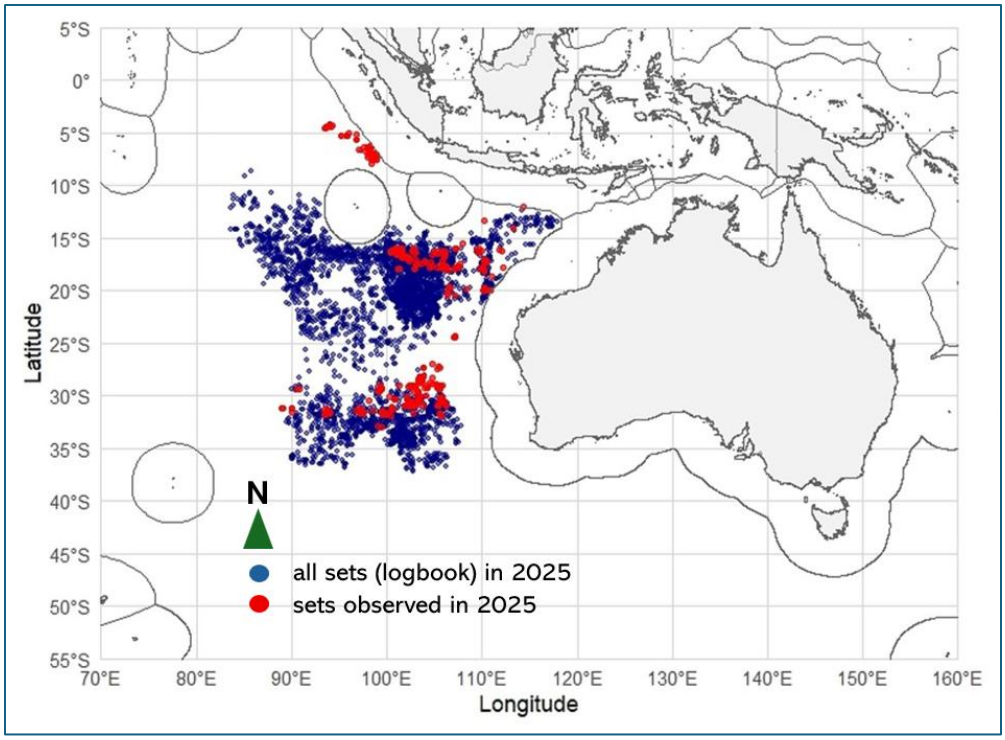


Figure 2. Spatial distribution of set positions from 182 active Indonesian LL boats registered with the CCSBT Secretariat (blue dots) and the 492 observed sets (red dots) in 2025.

Ecological related species (ERS)

Sharks and Rays

The LL fishery is known to have relatively high shark catch rates, accounting for up to approximately 30% of total LL catches (Clarke et al., 2014). In some cases, sharks may also be intentionally targeted during specific phases of a fishing trip. Data from the DGCF ROS in 2025 indicated that about 673 individuals (consist of 12 species of sharks and 2 species of rays) caught by Indonesian LL fleet, which blue shark (*Prionace glauca*; hereafter BSH) was the dominant i.e. about 524 individuals, that representing 77.86% of the total number of sharks caught; about 418 sharks or 79.77%. retained dead, while the remainder were 106 individual sharks (20.23%) released alive. The dominant ray species caught was the pelagic stingray (*Pteroplatytrygon violacea*; hereafter PLS). This species has no economic value and was therefore released alive back into the sea.

The LL fishery is known to have relatively high shark catch rates, accounting for up to approximately 30% of total longline catches (Clarke et al., 2014). In some cases, sharks may also be intentionally targeted during specific phases of a fishing trip. Data from the DGCF ROS in 2025 indicated that approximately 673 elasmobranch individuals, comprising 12 (twelve) shark species and 2 (two) ray species, were caught by the Indonesian LL fleet. Blue shark (*Prionace glauca*; hereafter BSH) was the dominant species, with 524 individuals recorded, representing 77.86% of the total shark catch. Of these, 418 individuals (79.77%) were retained dead, while the remaining 106 sharks (20.23%) were released alive. The

dominant ray species caught was the pelagic stingray (*Pteroplatytrygon violacea*; hereafter PLS). This species has no economic value and was therefore released alive back into the sea.

Sea turtles

Sea turtles are incidentally captured LL operations, with most individuals released back into the sea, either alive or dead. Restrepo et al. (2024) reported that approximately half or more of the turtles caught are released alive, indicating that primary mitigation measures focus on dehooking and the live release of captured turtles. Data from the DGCF ROS in 2025 recorded seven sea turtle interactions in the Indonesian LL fleet, comprising 3 (three) loggerhead turtles (*Caretta caretta*; hereafter TTL), 2 (two) olive ridley turtles (*Lepidochelys olivacea*; hereafter LKV), and 2 (two) hawksbill turtles (*Eretmochelys imbricata*; hereafter TTH). All recorded individuals were released alive

Seabirds

Seabirds are incidentally captured as ERS in LL operations, particularly at higher latitudes, notably south of 25°S (Anderson et al., 2011; Clarke et al., 2014). Data from the DGCF ROS in 2025 recorded interactions (caught) involving 6 (six) great-winged petrels (*Pterodroma macroptera*; hereafter PDM), 5 (five) sooty shearwaters (*Puffinus griseus*; hereafter PFG), and 1 (one) light-mantled albatross (*Phoebetria sp*.; hereafter PHE). The PDM and PFG were primarily caught at latitudes of 17°S and further south, while the PHE was caught in August 2025 at 31°02′ S, 103°14′ E. All seabirds caught were released alive. In addition, during steaming, drifting and gear operations (setting and hauling), observers frequently recorded seabirds flying around boat, although species-level identification was not always possible.

Marine mammals

Marine mammals here refer to cetaceans (whales, dolphins, and porpoises), it has been known that fisheries throughout the world result in mortality for cetaceans. Incidental catch in fisheries is considered the biggest threat to the survival of cetaceans globally (Soede, et al., 2019). It is further said that the interactions between marine mammals and tuna fisheries are primarily due to cetacean predation on tuna. The ROS-DGCF in 2025 reported that no cetaceans have been caught Indonesian LL. However, skippers explained that there are strong indications of interaction between LL and cetacean, especially orcas that prey on tuna that have caught LL, in general, orcas leave only the heads of preyed tuna. During trip, observers also recorded interactions between cetaceans and boats, including their presence around boats, in order to identify potential cetacean hotspots within longline (LL) fishing ground. Summary of interactions between Indonesian LL and the ERS based on DGCF ROS 2025 presents in Table 3.

Table 3. Summary of interactions between Indonesia LL and the ERS based on DGCF ROS 2025

Specien			Catch (Individual)	TL (cm)			Fate		
Common name	Scientific name	FAO spec code		Mininimum	Average	Max	Retained	Released alive	Dicarded
SHARKS - RAYS									
Blue shark	*Prionace glauca*	BSH	524	102	196	334	418	106	0
Pelagic stingray	*Pteroplatytrygon violacea*	PLS	41	-	-	-	0	39	2
Crocodile shark	*Pseudocarcharias kamoharai*	PSK	31	70	80	102	22	9	0
Pelagic thresher shark	*Alopias pelagicus*	PTH	20	180	244	394	13	7	0
Shortfin mako	*Isurus oxyrinchus*	SMA	18	79	119	251	14	4	0
Longfin mako	*Isurus paucus*	LMA	4	120	142	154	1	3	0
Bigeye thresher shark	*Alopias superciliosus*	BTH	4	103	217	340	2	2	0
Common thresher shakr	*Alopias vulpinus*	ALV	3	224	358	431	0	1	0
Milk shark	*Rhizoprionodon acutus*	RHA	2	118	119	120	2	0	0
Oceanic whitetip shark	*Carcharhinus longimanus*	OCS	2	163	167	171	0	2	0
Hammerhead shark	*Sphyrna spp*	SPN	2	183	183	183	0	1	0
Silvertip shark	*Carcharhinus albimarginatus*	ALS	1	172	172	172	1	0	0
Blacktip shark	*Carcharhinus limbatus*	CCL	1	168	168	168	1	0	0
Mobula ray	*Mobula spp*	RMV	1	-	-	-	0	1	0
SEA-TURTLES									
Loggerhead turtle	*Caretta caretta*	TTL	3	-	-	-	0	3	0
Olive ridley turtle	*Lepidochelys olivacea*	LKV	2	-	-	-	0	2	0
Hawksbill turtle	*Eretmochelys imbricata*	TTH	2	-	-	-	0	2	0
SEA-BIRDS									
Light-mantled albatross	*Phoebetria palpebrata*	PHE	1	-	-	-	0	1	0
Sooty shearwater	*Ardenia grisea*	PFG	5	-	-	-	0	4	1
Gear-winged petrel	*Pterodroma macroptera*	PDM	6	-	-	-	0	5	1

ERS mitigation and handling

Extensive guidance on mitigation measures and handling practices for ERS in tuna fisheries, including LL fisheries, is available from both scientific research and the practical experience of skippers. Many of these practices have been adopted by RFMOs as guidelines to support the sustainable management of tuna fisheries. This report refers to the guideline developed by the International Seafood Sustainability Foundation (ISSF, 2023), Skippers' Guidebook to Sustainable Longline Fishing Practices, which is available in Indonesian and is readily understood by Indonesian tuna fishery stakeholders, including skippers. The DGCF ROS monitoring program in 2025 reported on ERS mitigation measures and handling practices implemented on Indonesian LL boats, identifying practices that have been adopted as well as those that have not yet been implemented.

Sharks

Mitigation

Table 4. Types of mitigation measures to reduce shark bycatch and their implementation in the Indonesian LL fishery.

Type of mitigation measures	Implemented	Not yet implemented
Bait : using fish bait, such as mackerel can reduce sharks catch, do not use squid, sharks appear to favor squid over fish as bait.	✓	
C-hook : scientific research has found that shark catch rates are higher on circle hooks relative to J-shaped hooks.		✓

Set depth : shark catch rates are significantly higher on shallow-set longlines than deeper-set (deeper than 100 m) LL	✓	✓
Nylon leaders : it has long been known that the use of metal wire leaders maximizes the retention of hooked sharks	✓	
Prohibition of shark lines: to reduce shark bycatch, do not use branch lines running directly off the longline floats or float-lines, known as shark lines.	✓	
Limit soak duration : reducing total soak time could reduce at-vessel mortality rates of all shark species.	✓	✓

Table 5. Types of shark bycatch handling practices and their implementation in the Indonesian LL fishery to improve post-release survival.

Type of handling practices	Implemented	Not yet implemented
Sharks that are hooked or entangled, the use of long-handled line cutters and dehookers while the shark remains in the water is recommended.	✓	
If the hook is not observed, cut the line of the leader as close as possible to the shark's mouth (and/or hook) leaving as little line/leader trailing as possible.	✓	
Proper for small sharks, - one hand on the dorsal (top) fin and the other holding the body from below, or - both hands holding the body, or - one hand on the pectoral (side) fin and the other holding the tail	✓	
Incorrect shark handling and release - do not lift the animal with its head or tail, as this can severely damage the spinal cord. - do not throw, hit, or squeeze the animal, prevent the animal from battering itself against the deck or other hard objects. - do not leave the animal in the sun. If possible, handle the animal in the shade or otherwise reduce its exposure to the sun. - do not yank or push the animal sharply. - do not insert hands or objects into the gill openings - do not insert a gaff, hook, or other pointed object to drag or lift the animal.	✓	

Sea turtles

Table 6. Types of mitigation measures to reduce sea turtle bycatch and their implementation in the Indonesian LL fishery.

Type of mitigation measures	Implemented	Not yet implemented
Use wide circle hooks (18/0 or larger for shallow-set fisheries).		✓
Use small, forage fish species (e.g., mackerel/opelu/ Saba / sanma), rather than squid or pieces of larger incidental bycatch, for bait.	✓	
Set hooks deeper than turtle-abundant depths (>100 m).	✓	✓
Use monofilament for the main line to reduce sea turtle entanglement and facilitate the release of sea turtles.	✓	
Avoid the use of light-sticks or light-emitting devices on the longline gear.	✓	
Shorter soak duration may reduce sea turtle bycatch and at-boat mortality rates.	✓	✓

Table 7. Types of sea turtle bycatch handling practices and their implementation in the Indonesian LL fishery to improve post-release survival.

Type of handling practices	Implemented	Not yet implemented
During catch: - always haul the turtle with a net, or by holding the carapace. - if not possible, cut the line as close to the mouth as possible.	✓	
During release: - do not release the turtle if comatose, wait for it to recover; otherwise it might drown. - place the animal in the shade, with the back end higher than the head. Once the turtle starts moving, release it.	✓	

Seabirds

Table 8. Types of mitigation measures to reduce seabird bycatch and their implementation in the Indonesian LL fishery.

Type of mitigation measures	Implemented	Not yet implemented
Bird-scaring lines (also known as streamer lines or tori lines), consisting of a line with streamers, towed as a scaring		✓

device over the area behind a vessel where sinking baited hooks are within range of diving seabirds, and attached to a tori pole (boom) at the vessel's stern.		
Weighted branch-lines, when weight is added close to the hook on a branch-line, the baited hook sinks faster and reduces the time that seabirds can access it.	✓	
Night setting, setting all hooks between nautical dusk and nautical dawn avoids birds' feeding activity on baited lines.	✓	✓
Hook shielding devices-the hookpod, the Hookpod-LED and hookpod-mini devices are polycarbonate capsules that encase the point and barb of baited pelagic longline hooks to prevent seabirds from becoming hooked and drowning during line-setting operations.		✓
Underwater bait setting devices, underwater bait setting devices deploy baited hooks individually underwater down along a track installed on the transom of the fishing vessel enclosed in a capsule or similar device to eliminate any visual stimulus to seabirds following the vessel.		✓
Use strategic offal discharge from the opposite side of the boat from setting/hauling, to actively encourage birds away from baited hooks	✓	

Table 9. Types of seabird bycatch handling practices and their implementation in the Indonesian LL fishery to improve post-release survival.

Type of handling practices	Implemented	Not yet implemented
- small seabird, use a long-handled dip net to bring the bird on board. - quite large, (a) hold it behind the head at the top of its neck, (b) fold the feathers and wings back into their natural position against the body, (c) do not accidentally restrict its breathing by covering its nostrils or squeezing the body too tightly (d) cover its body with a clean towel (without any sign of oil or petrol) to protect the bird's feathers from oils and the things that could damage it during handling.	✓	

Public Relations and Education Activities

Awareness-raising activities aimed at protecting ERS and reducing bycatch, including marine turtles, seabirds, and sharks, have been implemented through the development of printed educational materials such as posters and leaflets. These materials have been widely distributed to tuna fishery stakeholders, particularly in Bali and Jakarta, where SBT are commonly landed. Education on bycatch mitigation has also been actively promoted through initiatives including observer training-of-trainers programs, basic safety training, and

outreach activities involving members of fisheries legislative and regulatory bodies. In addition, Indonesia currently exchanges bycatch data with the IOTC and international NGO, including the BirdLife Foundation.

The IPOA–Seabirds and IPOA–Sharks

In response to the FAO mandate for the development of International Plans of Action (IPOAs) for the conservation and management of sharks and rays, and considering increasing global concern regarding their sustainability, Indonesia issued its first National Plan of Action (NPOA) for Sharks and Rays for the 2010–2014 period. This NPOA outlines strategic objectives and management actions aimed at ensuring the sustainable use and conservation of all shark and ray species. The NPOA has since been extended and is currently under revision. As part of the forthcoming updated action plan, the whale shark (*Rhincodon typus*) is proposed to be designated as a fully protected species. With respect to seabirds, bycatch mitigation measures are regulated under Ministerial Decrees No. 58/PERMEN-KP/2020 and No. 10/PERMEN-KP/2021 on the mitigation of ERS, which require the mandatory use of tori lines on all fishing boats operating south of 25°S. Indonesia also developed an NPOA for Seabirds in 2016, which was independently reviewed by BirdLife South Africa and assessed as fully compliant, receiving a "green" status..

Reference

Anderson O.R.J., C.J. Small, J.P. Croxall, E.K. Dunn, B.J. Sullivan, O. Yates and A. Black. 2011. Global seabird bycatch in longline fisheries. Endang Species Res 14:91-106. https://doi.org/10.3354/esr00347.

Clarke, S., Sato, M., Small, C., Sullivan, B., Inoue, Y. and Ochi, D. 2014. Bycatch in longline fisheries for tuna and tuna-like species. A global review of status and mitigation measures. FAO Fisheries and aquaculture technical paper 588. 199 pp.

Farley, J.H., Eveson, J.P., Davis, T.L., Andamari, R., Proctor, C.H., Nugraha, B., Davies, C.R., 2014. Demographic structure, sex ratio and growth rates of southern bluefin tuna (*Thunnus maccoyii*) on the spawning ground. PloS one 9, e96392.

Ishida, K., Yamamoto, T., Gafa, B., 1994. Development of fisheries for tuna and tuna-like fish in Indonesia with particular reference to the Jakarta-based tuna longline fishery. IPTP/94/WP/26, FAO.

Proctor, C.H., Merta, G.S., Sondita, M.F.A., Wahju, R.I., Davis, T.L., Gunn, J.S., Andamari, R., 2003. A review of Indonesia's Indian Ocean tuna fisheries. CSIRO Marine Research, Australia.

Sadiyah, L., Dowling, N., Prisantoso, B.I., 2011. Changes in fishing pattern from surface to deep longline fishing by the Indonesian vessels operating in the Indian Ocean. Ind. Fis. Res. J. 17, 87–99. http://dx.doi.org/10.15578/ifrj.17.2.2011.87-99.

Simorangkir, Sam. (1982). Perikanan Tuna Long Line Di Indonesia (Tuna Long Line Fishery in Indonesia). Perikanan Samudra Besar., 1982. Indonesia. Perikanan Tuna Long Line Di Indonesia | E-LIBRARY POLITEKNIK STIA LAN MAKASSAR.

Soede, L.P., D Natasasmita, I.G. Mahendra, & W. Rizki (2019). Marine mammals interactions with tuna fishing activities in Indonesian. IOP Conf. Ser.: Earth Environ. Sci. 399 012128.

Restrepo, V., H. Murua, A. Justel and H. Koehler. 2024. Tuna Fisheries' Impacts on Non-Tuna Species and Other Environmental Aspects: 2024 Summary. ISSF Technical Report 2024-03Rev. International Seafood Sustainability Foundation, Pittsburgh, PA, USA.