

CODE OF GOOD PRACTICES ON BOARD FOR
MANAGEMENT AND RELEASE OF ACCOMPANYING SENSITIVE FAUNA
ACCORDING TO MITIGATION MEASURES ADOPTED BY
THE INTER-AMERICAN TROPICAL TUNA COMMISSION (IATTC)



This document has been prepared within the framework of the fisheries improvement project of the companies: EUROFISH, GRUPO JADRAN, NIRSA, SERVIGRUP and TRIMARINE focused on the will to assume effectively the commitment to carry out responsible fishing, applying the measures and rules adopted by the IATTC, in order to reduce the adverse ecological impacts of the purse-seine tuna fishery, through a code of good practice on board.

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October, 2016

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1. INTRODUCTION

Today the need to maintain healthy and sustained fisheries and the conservation of marine biodiversity is recognized. Marine ecosystems are subject to several types of impacts, including fishing. That is why suitable fisheries management is required to contribute to the economic, nutritional and social development of the country.

The fishing activity is responsible to the maintenance for the conservation of marine ecosystems and facing its challenges by the oceans conservancy, the fisherman plays today a custodian of ecosystems role, for the Food supply to a growing human population and maintaining the balance of life on the planet.

Ecuadorian tuna fishery is one of the main industrial fisheries in Ecuador. However, the purse-seine net, as all fishing gear, has its environmental impact level, which is often measured in terms of fishing mortality of non-target species (bycatch); As well as objective species (too small, damaged, unfit for consumption), That once is dead it is discarded and thrown into the sea, being known as incidental fishing (Hall and Roman, 2013). In addition, the use of FADs (fish aggregating Devices) in the tuna purse-seine fishery since the 1990s has generated a lot of pressure on populations of juvenile tunas and other vulnerable or threatened marine species such as sharks, Sea turtles, rays, etc., that require management measures to mitigate negative effects of their use.

This code proposes to test:

- a) Prototype of non-entangling and biodegradable FAD, specifically towards to protect sea turtles and sharks, until it is defined and demonstrated its effectiveness;
- b) To provide knowledge of the crewmembers, to consider recommended methods and best-practice techniques on board, to minimizing the environmental impact of tuna purse-seine fishing;
- c) An information collection template of the ship's sets, species catches, FAD's activity, and fishes sorting grids.

1.1. Purpose of the code.-

The code is intended to be a guide for both, beginner and experienced crews to encourage good on-board management practices and to mitigate the mortality of vulnerable species that interact in purse-seine tuna fisheries. **It is a code that reflects the measures taken voluntarily by the fleet, which help to improve the maneuvers of tuna seiners and to minimize the impact on the marine ecosystem.**

2. DESIGN OF A NON-ENTANGLING AND BIODEGRADABLE FAD

The construction of the traditional FAD's in the Eastern Pacific Ocean (EPO), includes in their structure (floating part) and in the submerged tail (part pendant) 4 ¼ "and 1 ¼" of old mesh net. Certain vulnerable or endangered species such as sharks, rays and sea turtles may become entangled in hanging meshes. Faced with this reality, the scientific staff of the IATTC in 2015 made recommendations regarding the design and use of FADs, establishing the following criteria:

- a) *If a flat raft is used as a FAD, the surface structure should not be covered, or only covered with material that attempts to minimize entanglements.*
- b) *Any subsurface component of the FAD should be constructed in a way designed to avoid entangling marine life.*
- c) *To reduce the amount of synthetic marine debris, the use of natural or biodegradable materials (such as hessian canvas, hemp ropes, etc.) for drifting FADs should be promoted.*

Studies on plantation activities have been intensified over the last few years and have been made efforts to develop technological innovations and recommendations by RFMOs, governments and NGOs to mitigate their associated by-catch.

However, as a temporary measure until we can define and approve the use of a non-entangling and biodegradable FAD in accordance with the criteria set out in resolution C-16-01, the companies EUROFISH, GRUPO JADRAN, NIRSA, SERVIGRUP and TRIMARINE, participants in this fishery improvement project, will support all efforts aimed at establishing a prototype non-enriching and biodegradable planting specifically aimed at protecting turtles and sharks; Because of that the companies put into consideration the elaboration of FAD's with natural materials of organic origin to test and to experiment with them in the fishing activities of their fleets, using as guide the two models of below:

2.1. FAD with Cabuya Fiber - Model 1

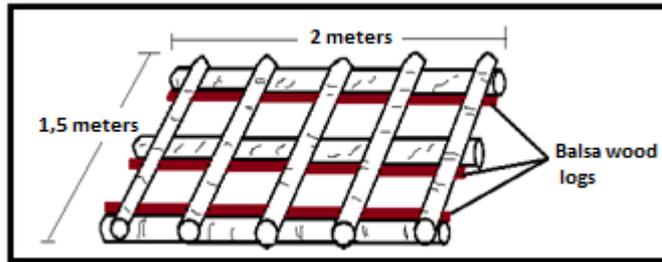
2.1.1. FAD materials – Model 1a.-

FAD 2m long by 1,5 m wide		
Quantity	Unit	Description
6	m	3 long canes of 2 m
7,5	m	5 short canes of 1,5 m
4,6	m	Balsa wood trunks 1.53 m long and diameter ~ (12 to 15) cm
220	m	Cabuya rope of 5/16 "for mooring of canes.
16	m	Fabric of Cabuya stained black of 50 cm wide, to cover structure
100	m	Cord of cabuya for sewing cloth that will cover the structure
50	m	Cabuya cloth dyed black 50 cm wide, for the hanging part, divided into 2 parts of 25 m
110	m	Cabuya rope 5/16 "to reinforce the sides of the pendant.
20	m	Cabuya rope 1/2 "for mooring FAD to buoy and hoisted on board
15	pound	River stone as ballast.

Table 1. Materials model 1a.

1. Structure, (Floating part).-

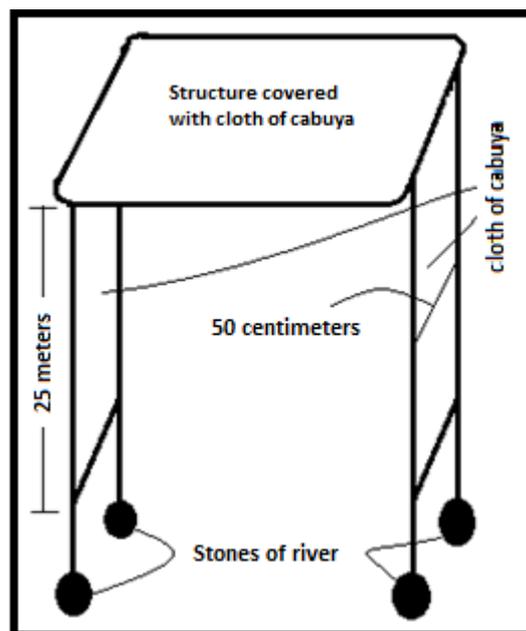
It is an FAD of normal dimensions, of rectangular form, of 2 m of length by 1.5 m of width. Guadua cane is used, 3 canes of 2m long, 5 canes of 1,5m wide, with 3 long canes and 5 short canes on top and perpendicular to the long ones, moored to each other at each point, with a cabuya rope of 5/16 " of diameter. As floats, balsa wood logs (1.15 m long by diameter ~ 12 to 15 cm) are used.



The structure is covered with fully closed cabuya fabric, the fabric is sewn with cabuya rope, the fabric can come tinted if is required.

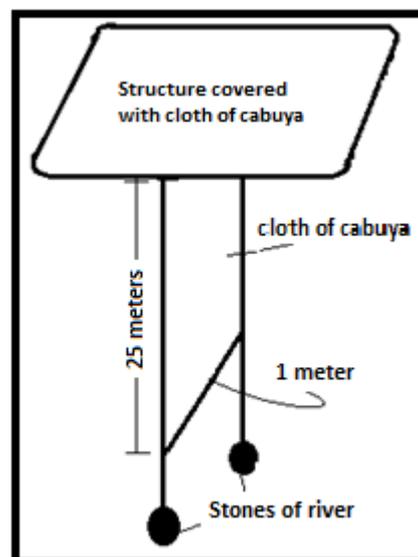
2. Submerged part or hanging.-

The hanging part is made of completely closed cabuya fabric, this fabric is made with 50 cm wide, but if a customer requires that it be 1 m wide, they can do it. But for this model will be used the one of 50 cm, and will be 2 stripes of 25 m of length (depth), in its final end will be a stones of river of approximately 15 lbs like weight ballast.



3.1.2. FAD materials– Model 1b.-

The materials of the model 1b., Would be the same of the model 1a, only that the difference would be in its part submerged or hanging, its location is located in the central part of the structure of the FAD and will be a fabric of 1m of width by 25 m long (depth) or two stripes of 50 cm wide by 25 m long.



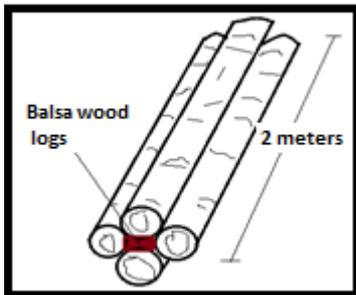
3.2. FAD with Cabuya Fiber – Model 2

3.2.1. FAD materials – Model 2a.-

FAD of 2m long with 4 thick canes agglomerated		
Quantity	Unit	Description
6	m	4 long canes of 2 m
106	m	Cabuya rope of 5/16 "for mooring of canes.
2	m	Balsa wood trunk diameter ~ 12 to 15 cm
3,5	m	Fabric of Cabuya stained black of 50 cm wide, to cover structure
100	m	Cord of cabuya for sewing cloth that will cover the structure
26	m	Cabuya cloth dyed black 50 cm wide, for the hanging part, divided into 2 parts of 25 m
110	m	Cabuya rope 5/16 "to reinforce the sides of the pendant.
20	m	Cabuya rope 1/2 "for mooring FAD to buoy and hoisted on board
15	pound	River rock as ballast

Table 2. Materials model 2a

1. Structure, (Floating part).-

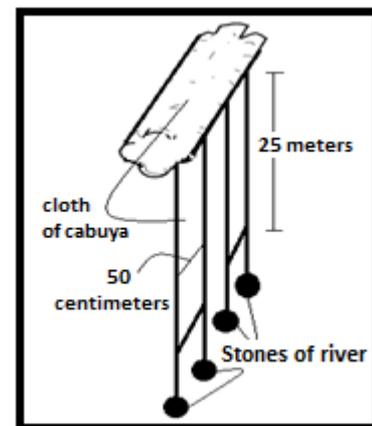


It is a FAD of tubular form, of 2 m of length. Guadua cane is used, 4 thick canes agglomerated and in its center a trunk of balsa wood as a float of 2 m long by diameter ~ 12 to 15 cm, moored to each other at their ends and center, with cabuya rope of 5/16 " diameter.

The structure is covered with fully closed cabuya fabric, each fabric is sewn with cabuya rope, and the fabric can come tinted if required.

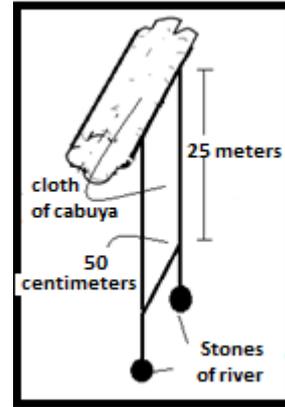
2. Submerged part or hanging. -

The hanging part is made of completely closed cabuya fabric, this fabric is made with 50 cm wide, but if a customer requires that it be 1 m wide, they can do it. But for this model will be used the 50 cm, and will be 2 stripes 25 m long (depth). At its end will be stones of approximately 15 lbs as ballast weight.



3.2.2. FAD materials– Model 2b.-

The materials and cost of the model 2 b., Would be the same of the model 2 a., Only that the difference would be in its part submerged or hanging, its location is located in the central part of the structure of the FAD and will be a fabric of 1m Wide by 25 m long (depth).

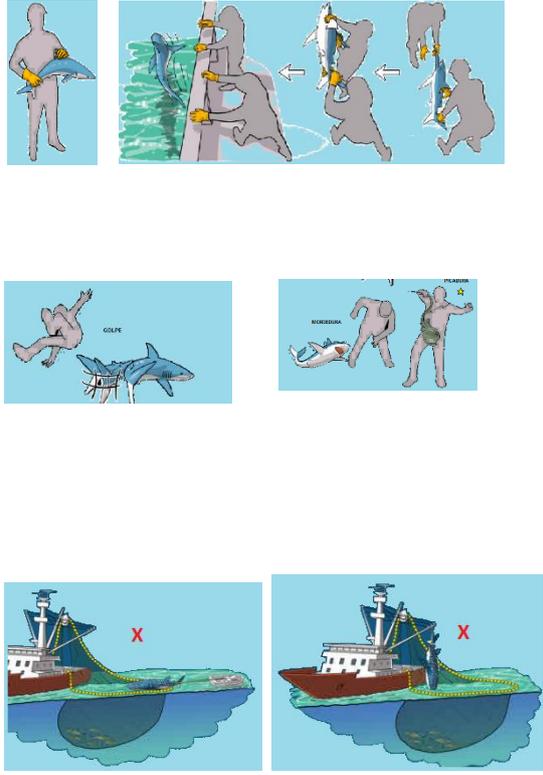
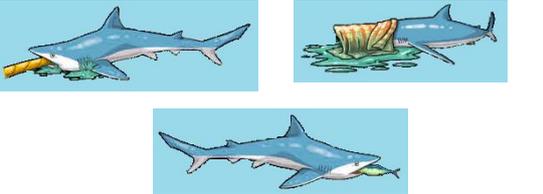


3. GOOD PRACTICES FOR THE MANAGEMENT AND RELEASE OF THE SENSITIVE SPECIES THAT INTERACT IN THE TUNA PURSE-SEINE FISHERY

In the of tuna purse-seine fishing, there are a variety of species that interact in fishing processes with the crewmembers. The most relevant and sensitive species are the sharks, rays, sea turtles and dolphins.

The survival rates of these sensitive species of bycatch would be improved if they are released during fishing maneuvers on time or when they are there are in the maneuvers aboard. Although animals may appear healthy when are released, preliminary studies suggest that this is often not the case. Based on the group of animals that interact with the gear, the maneuver can present certain complications.

3.1. Sharks and Rays	
Recommended handling techniques	
In any interaction with sensitive fauna, it is assumed that the crew is properly trained and have the necessary equipment for that purpose. The safety of the crew must be first and any measures that compromise it should be avoided.	
Before gear deployment, make sure that there are no individuals of these species in sight at risk of interacting with it.	
Animal Access Maneuver: When a sensitive animal is spotted on the net, every effort should be made to rescue it <u>before it becomes entangled</u> . The use of outboard is recommended if it is tangled or only surrounded. The ideal would be to release it from the net before the gear is charged, when the animal and the net lose contact with the water on the way and always with the charging mechanism paused.	
Disentanglement: If is necessary, cut the mesh from the net. Untangling the animal as soon as possible will maximize post-catch survival probabilities.	
Handling / Release: Never lift the animal by grabbing only the tail or by putting your hands in the gills. Avoid squeezing the lower or ventral part where the internal organs are located.	

<p>Small sharks can be handled by only one person. It is best to hold the dorsal or pectoral fin with one hand and with the other the tail. The medium-sized sharks should be manipulated between two people: one grasps the pectoral and dorsal fins and the other the tail.</p> <p>The crew must take safety measures to avoid flipping, biting or pricking.</p> <p>Any interaction with whale sharks should always be handled in the water.</p> <p>Never tow a Whale Shark by the tail outside purse seine, nor lift a Whale Shark with the single tied in the tail.</p>	 <p>The top row shows a person holding a small shark by the dorsal fin and tail, and two people handling a medium shark. The middle row shows a person being flipped by a shark labeled 'GOLFE' and another person being pricked by a shark labeled 'MURRESCHON'. The bottom row shows two ships with whale sharks being towed by their tails, both marked with a red 'X' to indicate this is an unsafe practice.</p>
<p>Attention on board. In case you need to delay its release, put it in the shade in a safe place, with a hose in the mouth and a moderate flow of water. Cover its head with a damp cloth without pressing its eyes.</p> <p>To prevent bites, a fish can be put into your mouth while you are manipulating.</p>	 <p>The top row shows a shark with a hose in its mouth and a damp cloth over its head. The bottom row shows a shark being held in a person's mouth.</p>
<p>Monitoring: N/A</p>	
<p>Release: To release it, drop the animal (avoid throwing it) from a reasonable height with the head pointing towards the water. With larger animals, a brailer-crane can be used. Never use a crane with ropes / chains to suspend them.</p> <p>In any case, suspend it with crane / pulley supported on a tarpaulin. This canvas should be prepared on deck before collecting the gear.</p>	 <p>The left image shows a person dropping a shark into the water. The right image shows a shark being suspended by a crane over a tarpaulin on the deck.</p>
<p>It is very important to record the actions performed with this species during fishing maneuvers, not only for audit our management on board, but also to expand our knowledge of the behavior of the species in its environment. It is recommended to film these good release practices when possible and verify their effectiveness to show the public the development of the fleet.</p>	

3.2. Sea Turtles

Recommended handling techniques

In any interaction with sensitive fauna, it is assumed that the crew is properly trained and have the necessary equipment for that purpose. The safety of the crew must be first and any measures that compromise it should be avoided.

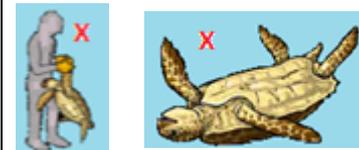
Before gear deployment, make sure that there are no individuals of these species in sight at risk of interacting with it.

Animal Access Maneuver: When a sensitive animal is spotted on the net, every effort should be made to rescue it before it becomes entangled. The use of outboard is recommended if it is tangled or only surrounded. The ideal would be to release it from the net before the gear is charged, when the animal and the net lose contact with the water on the way and always with the charging mechanism paused.

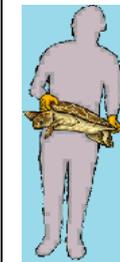
Disentanglement: If it is necessary to cut the net that entangles the animal. Untangling the animal as soon as possible will maximize post-catch survival probabilities. It is vital that you assist the entangled animal quickly so that its head can access the surface and allow them to breathe. You can use a piece of thick rope to raise its head



Handling / Release: **Never** lift the animal by grasping only the fins, **or** use sharp objects to remove it. **Do not** let the animal turn around.



The idea is to manipulate the turtle between two people, especially if is an adult. Attached yourself to the turtle with one hand on the front of the fin and the other on the edge of the lower third of the carapace. In the case of juvenile turtles of small size, one hand can be placed on the anterior part and another on its caudal region taking care to move it far enough away from the body so as not to suffer a flap.



The crew must take safety measures to avoid flapping, biting or cuts with the nails or the shell.

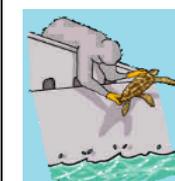
Attention on board / Comatose state: If you need to delay your release due to comatose or stunning, you are on a sloping surface with the head 15 cm lower than the back. This will allow you to drain the water out of your lungs.



It is important to keep the animal moist and protected from the sun while it is on deck (it can be covered with a wet towel without clogging the nostrils or mouth) and keep it at a temperature above 15°C.

Monitoring: Evaluate if the turtle has reflexes stimulating its cloaca or eyelids every 2-3 hours. If after 24 hours, the turtle does not show signs of recovery, it is very probably dead. If is recovered, proceed to release it following the procedure described.

Release: To release it, drop the animal (avoid throwing it) from a reasonable height with the head pointing towards the water. With larger animals, a salabardo-crane can be used. Never use a crane with cables / chains to suspend them. In any case, suspend it with crane / pulley supported on a tarpaulin. This canvas should be prepared on deck before collecting the gear.



It is very important to record the actions performed with this species during fishing maneuvers, not only to audit our management on board, but also to expand our knowledge of the behavior of the species in its environment. It is recommended to film good release practices where possible and to verify their effectiveness to show the public the development of the fleet.

3.3. Sea Mammals

Técnicas de manipulación recomendada

In any interaction with sensitive fauna, it is assumed that the crew is properly trained and have the necessary equipment for that purpose. The safety of the crew must be first and any measures that compromise it should be avoided.

Before gear deployment, make sure that there are no individuals of these species in sight at risk of interacting with it.

Animal Access Maneuver: When a sensitive animal is spotted on the net, every effort should be made to rescue it before it becomes entangled. The use of outboard is recommended if it is tangled or only surrounded. The ideal would be to release it from the net before the gear is charged, when the animal and the net lose contact with the water on the way and always with the charging mechanism paused.

Disentanglement: If it is necessary to cut the net that entangles the animal. Untangling the animal as soon as possible will maximize post-catch survival probabilities. It is vital that you assist the entangled animal quickly so that your head can access the surface and allow you to breathe.

Handling / Release: Whenever possible, release into the water. Before the slightest symptom of risk to the crew cut with a cutting pole in place of the knife.



Attention on board: N/A

Monitoring: N/A

Release: Before releasing the animal, make sure that there are no elements in your evacuation route with which you could re-entangle.



It is very important to record the actions performed with this species during fishing maneuvers, not only to audit our management on board, but also to expand our knowledge of the behavior of the species in its environment. It is recommended to film good release practices where possible and to verify their effectiveness to show the public the development of the fleet.

4. DATA COLLECTION TEMPLATE

Presentation of the catch register template for target species and non-target species of the vessels of the companies that are part of the Fisheries Improvement Program for the different types of sets they carry out.

With detailed information on their catches and bycatch, the fleet will be able to evaluate and develop better techniques to reduce bycatch in the breeze and planted sets, for which I attach the following instructions (See Annexes # 1 and # 2).

4.1. INSTRUCTION FOR FILLING THE REGISTRATION SHEET FOR OBJECTIVE SPECIES CATCH AND BYCATCH.

General Information of the Fishing Trip

F/V: Enter the name of the vessel.

Registration number: Enter the naval registration number granted by the Port Captainty.

Fishing Trip N °: Record the corresponding fishing trip number of the year of capture, considering a fishing trip from the date of departure to fishing operations until the date of entry to port for unloading of the catch.

Travel days: Write down the days that the fishing trip took.

Sorting Grid: Record an SI or NO, if the vessel has fish-sorting grids.

DEPARTURE: to fishing.

Port: Write the name of the port from which the ship sails for fishing and in which it receives the ship.

Date: Write the sequence day-month-year. For example: April 14, 2016 will be noted 14/04/2016.

ENTRY: to Port.

Port: Write the name of the port of arrival where the landing of the catch is made.

Date: Write the sequence day-month-year. For example: 6 May 2016 will be dated 06/05/2016.

Fishing Captain: Write the name of the fishing captain who made the moves.

Responsible for the data: Write the name of the responsible person in recording the data.

Fishing Operations.-

Sets record

Date: Write the date the haul is carried out, with the day-month sequence. For example: 6 of May, it will be annotated 06/05.

N ° Set: Use a progressive numerical order of each set made, whether with or without capture during the fishing trip.

Geographical position: The site where the fishing sets are made. The latitude and longitude, both data expressed in degrees and minutes, should be noted.

Type of school: Mark with an "X" in the corresponding box, if the school is B. breeze, D. dolphins, P. palo, FAD. Planted.

Air help: Used air help to locate the shoal, mark an SI or NO in the column.

Time of the Set: The time register will be adjusted to the local time.

Start: Write the time when the network starts. Will be written in 24 hours; For example if it is one-fifteen in the afternoon, it will be noted 13:15 hours.

Finish: Write the time at which the fishing task ends. Will be written in 24 hours; For example, it is 4:40 p.m., it will be 4:30 p.m.

° T of Sea Water: Write the temperature of sea surface water in degrees centigrade. The measurement and recording will be done at the time of the start of the net draft.

Catch in tonnes: Record for each species of tuna, catch in tonnes per set. In others, note the catch in tons of other species of tunas (eg, bullets, black skipjack, etc.). In hold, register the holds where the capture of each set was putted. In discards, write down the fish that was discarded in the sea.

Observations: Note for example: incidental incidents during fishing operations.

Registration of Sorting Grid

Grid Model: Note the model that is installed in the network (Arrúe, Eliseo "stainless wire", Salic "network wire", Probrisa "corporal dyneema", Salic "net wire-hexagonal mesh", Arrúe "modified").

% Submerged: Note the percentage of the submerged grid from the beginning of the escape (25%, 50%, 75%, etc.).

Tunas that escaped through the grid: Try to determine the number of individuals you observed leaving; If the evasion is massive try to estimate in tones what came out. According to the species try to categorize the sizes. If you can not make an estimate by size category, leave the spaces in each category blank and fill in the Total column only.

Other species that escaped through the grid: Try to determine the number of individuals per species - carcase or weight - that exited the grid, If you can not make an estimate by size category, leave the spaces of each category blank and complete only The Total column.

Observations: Note any incidents occurring during the use of the sorting grid in the set.

Register of Incidental Capture in Natural Objects or FAD

Natural object: Indicate if it is a natural object.

FAD: Indicate if it is a FAD.

ID of the FAD or Obj. Nat.: Enter the Identification of the Natural Object or the FAD.

Name of the species: Enter the name of the species captured.

Estimated Capture: Annotate in # individuals, Kgs or Tones.

Number of live released specimens: Note whether any live specimens were released.

Observations: Note relevant points in fishing operations.

Object Log

Type: Indicate whether it is a natural object (stick) or a FAD.

Event: Choose the numerical code below, which best describes the event.

- 1. Check:** The ship approaches to check if the object or FAD has fish, but does not set
- 2. Deployment:** The ship places a new or relocated FAD.
- 3. Collection:** The object or FAD is collected and kept on board.
- 4. Other:** Record any activity not described above under comments

Date: The date of the event to be registered, in the format DD / MM / YY (day / month / year)

Time: Local time in 24-hour format (13:00 = 1 pm) in which the event occurred.

Latitude (N/S): Enter the geographical position of the event (Latitude) in degrees and minutes, indicating the hemisphere (N = North, S = South).

Length (E/W): Enter the geographical position of the event (Length) in degrees and minutes, indicating the hemisphere (E = East, W = West).

Buoy id: Enter the unique identification number of the beacon.

5. CODE REVIEW COMMITTEE:

To improve this Code, it is recommended to form a Review Committee, whose main function will be to ensure its correct application and keep it up to date, incorporating the suggestions of fishermen and technical advisers of the FIP. It is recommended that this Committee meet annually to evaluate the implementation of the Code.

6. Bibliography

- Good Practices for the Mitigation of the Environmental Impacts of Siege Fishing.
- Guidelines for reducing sea turtle mortality in fisheries operations FAO 2011
- Information document for the Kobe II Workshop on Bycatch SHARKS.
- Information document for the Kobe II Tortugas by-catch workshop.
- A guide to good practices for reducing the mortality of shark-rays caught accidentally by tropical tuna seiners.
- Identification guide for fish involved in purse seine tuna fishing in the Tropical Eastern Pacific Ocean, Version 2005-001.
- Hall, M., & M. Román. 2013. Bycatch and non tuna catch in the tropical tuna purse seine fisheries of the world. FAO Fisheries and Aquaculture Technical Paper. No. 568. Rome. FAO. 262 pp.
- SAC-05-03c Safe release of turtles and manta rays. SCIENTIFIC ADVISORY COMMITTEE - FIFTH MEETING. La Jolla, California (USA) May 12 -16, 2014.

ANEXOS

ANNEX # 1 MARINE FAUNA CODES

Family	Scientific Name	Common Name	Code
Billfishes (needles, billfish, sailfish, swordfish)			
Xiphiidae	<i>Xiphias gladius</i>	Swordfish	SWO
Istiophoridae	<i>Istiophorus platypterus</i>	Sailfish	SFA
	<i>Kajikia audax</i>	Striped Marlin	MLS
	<i>Tetrapturus angustirostris</i>	Shortbill spearfish	SSP
	<i>Makaira indica</i>	Black marlin	BLM
	<i>Makaira nigricans</i>	Blue marlin	BUM
Elasmobranchs (sharks)			
Carcharhinidae	<i>Carcharhinus falciformis</i>	Silky	FAL
	<i>Carcharhinus limbatus</i>	Black tip	CCL
	<i>Carcharhinus longimanus</i>	Oceanic white tip	OCS
	<i>Carcharhinus leucas</i>	Bull	CCE
	<i>Prionace glauca</i>	blue	BSH
Sphyrnidae	<i>Sphyrna lewini</i>	Scalloped Hammerhead	SPL
	<i>Sphyrna zygaena</i>	Smooth Hammerhead	SPZ
	<i>Sphyrna mokarran</i>	Great Hammerhead	SPK
Lamnidae	<i>Isurus oxyrinchus</i>	Shortfin Mako	SMA
	<i>Isurus spp.</i>	Mako	MAK
Alopiidae	<i>Alopias pelagicus</i>	Pelagic Thresher	PTH
	<i>Alopias superciliosus</i>	Bigeye Thresher	BTH
	<i>Alopias vulpinus</i>	Thresher	ALV
Rhincodontidae	<i>Rhincodon typus</i>	Whale shark	RHN
Elasmobranchs (manta rays and rays)			
Mobulidae	<i>Mobula thurstoni</i>	Smoothtail manta	RMO
	<i>Mobula japanica</i>	Spinetail manta	RMJ
	<i>Mobula munkiana</i>	Munk's devil ray	RMU
	<i>Mobula tarapacana</i>	Sickle-fin Devil Ray	RMT
	<i>Manta birostris</i>	Giant manta	RMB

Dasyatidae	<i>Pteroplatytrygon violacea</i>	pelagic stingray	PLS
Large and medium teleosteos (fish)			
Coryphaenidae	<i>Coryphaena hippurus</i>	Common dolphinfish	DOL
	<i>Coryphaena equiselis</i>	Pompano dolphinfish	CFW
Carangidae	<i>Seriola rivoliana</i>	Amberjack	YTL
	<i>Seriola lalandi</i>	Yellowtail amberjack	YTC
	<i>Seriola peruana</i>	Fortune Jack	RLN
	<i>Elagatis bipinnulata</i>	Rainbow runner	RRU
Scombridae	<i>Acanthocybium solandri</i>	Wahoo	WAH
Lobotidae	<i>Lobotes surinamensis</i>	Pacific Tripletail	LOB
Molidae	<i>Mola mola</i>	Ocean sunfish	MOX

ANNEX # 2 CAPTURE REGISTRATION TEMPLATE



**Fisheries Improvement Project
General Fishing Trip Informaon**

F/V:				Naval Registry:				
Fishing Trip N °:	DEPARTURE			ENTRY				
Travel days:	Port:				Port:			
Sorting grid:	Fecha:	/	/	Fecha:	/	/		
Fishing Captain:				Responsible for the data:				

Fishing Operaons

Sets record																	
Date	N° Set	Geographical position	Type of school				Air help	Time of the Set		T of Sea Water	Catch of tuna (tonnes)						
			B	D	P	FAD	Yes/No	start	finish		YFT	SKJ	BET	Ot-hers	hold	Dis-cards	
		Lat.:															
		Length:															

Observaons :

Registraon of Sorting Grid

Grid model:		% Sub-merged	Other species that escaped through the grid													
Tunas that escaped through the grid (Tons o N° Individuals)					Dorados (Tons o N° Individuals)			Wahoo (Tons o N° Individuals)			Others (Tons o N° Individuals)					
Species	Small < 2,5 Kg	Medium 2,5 - 15 Kg	Large > 15 Kg	Total	Small < 80 cm	Large > 80 cm	Total	Small < 12 lb	Large > 12 lb	Total	Specie 1	Specie 2	Specie 3	Total		
SKJ																
YFT																
BET																

Observaons :

Register of Incidental Capture in Natural Objects or FAD

Natural Object	FAD	ID of the FAD or Obj. Nat..	Name of the species	Esma - ted Capture (kg) o (Ton)	Number of live released specimens	Observaons

Object Log Types: Natural (Scck) and/or R ant ed (FAD) - Acons							(f) Responsible for the data
Type:	Event:	Date:	Time:	Lat. N/S	Length E/W	ID Bouy:	