# AMERICAN TROPICAL TUNA COMMISSION 95<sup>TH</sup> MEETING

(By videoconference) 30 November-4 December 2020

### PROPOSAL IATTC-95 C-1

### SUBMITTED BY THE EUROPEAN UNION

## EU PROPOSAL TO AMEND RESOLUTION C-19-08 ON SCIENTIFIC OBSERVERS FOR LONGLINE VESSELS

#### **EXPLANATORY MEMORANDUM**

The European Union (EU) is proposing to amend Resolution C-19-08 to reflect the progress made by the IATTC Scientific Staff in 2020 towards the development of minimum standards for electronic monitoring of longline fisheries, and more specifically the objectives and timeline for its activities in 2021 on this field notably:

- The organisation by the Staff of a workshop on electronic monitoring. This workshop would discuss objectives, scope, minimum standards and structure of the EMS program with the aim of discussing its results at the Scientific Advisory Committee (SAC) in 2021.
- The presentation by the SAC, in consultation with the IATTC Scientific Staff, of specific recommendations for the adoption of standards on electronic monitoring at the Commission annual meeting in 2021.

### RESOLUTION ON SCIENTIFIC OBSERVERS FOR LONGLINE VESSELS

The Inter-American Tropical Tuna Commission (IATTC), on the occasion of its 94<sup>th</sup> (Bilbao, Spain) and 95<sup>th</sup> Meetings (virtual);

*Recognizing* the need to collect scientific information on target species as well as comprehensive data on interactions with non-target species, in particular, sea turtles, sharks and seabirds;

*Noting* the need to ensure uniform and equitable treatment of all tuna-fishing vessels operating in the Convention Area;

Noting that all large purse-seine vessels operating in the Convention Area are required to carry scientific observers aboard, in accordance with the Agreement on the International Dolphin Conservation Program, and that the Commission has recommended the extension of observer coverage to smaller purse-seine vessels on a voluntary basis;

Taking into account that IATTC scientific staff and the IATTC Working Group on Bycatch have reiteratedly recommended at least 20% observer coverage on longline vessels fishing for tunas in the Convention Area, and that the Working Group on Bycatch suggested that human observer coverage could be supplemented by electronic monitoring systems (EMS) in order to achieve that goal;

*Noting* that the Scientific Advisory Committee (SAC), at its 10<sup>th</sup> meeting in May 2019, determined that the appropriate measure of longline fishing effort for calculating observer coverage is "number of hooks" and

Acknowledging the progress the IATTC Scientific Staff made in 2020 towards developing minimum standards for EMS of longline fisheries.

Agrees that:

1. For the purposes of this Resolution, longline fishing effort is defined as the number of effective days

- of fishing<sup>1</sup> or hooks deployed.
- 2. The main task of the scientific observers and/or EMS shall be to record, consistent with data standards established by the SAC, any available biological information, the catches of targeted fish species, species composition, and any available biological information, as well as any interactions with non-target species such as sea turtles, seabirds and sharks.
- 3. Each Member and Cooperating Non-Member (CPC) shall ensure that at least 5% of the fishing effort made by its longline fishing vessels greater than 20 meters length overall carries a scientific observer.
- 4. Each CPC shall endeavor to ensure that observer coverage is representative of the activities of its fleet, including in terms of gear configuration, target species and fishing areas.
- 5. CPCs shall:
  - a. Ensure that the minimum level of coverage is met;
  - b. Take all necessary measures to ensure that observers are able to carry out their duties in a competent and safe manner:
  - c. Endeavor to ensure that observers alternate vessels between their assignments;
  - d. Ensure that the vessel on which an observer is placed provide suitable food and lodging during the observer's deployment at the same level as the officers, where possible. Vessel masters shall ensure that all necessary cooperation is extended to observers in order for them to carry out their duties safely, including providing access, as required, to the retained catch, and catch which is intended to be discarded.
- 6. The reporting requirements established by the SAC pursuant to resolution C-11-08 can be found in Annex A. The SAC may decide to modify these reporting requirements or establish new ones whenever deemed necessary and shall notify the Commission as appropriate for endorsement at the subsequent annual meeting of the IATTC.
- 7. CPCs shall submit operational data collected by observers from the previous year, consistent with the Minimum Data Reporting Standards (Annex B), to the Director no later than June 30 of each year.
- 8. Unless otherwise specified by the SAC, CPCs shall submit other reporting under this Resolution by 31 March of each year.
- 9. In the first quarter of 2021, the IATTC Scientific Staff will organise, in consultation with CPCs, a workshop on electronic monitoring to discuss objectives, scope, minimum standards and structure of the EMS program with the aim to present the results of the workshop at the 12<sup>th</sup> meeting of the SAC in 2021.
- 10. The SAC, in consultation with the IATTC Scientific Staff, shall present recommendations for the adoption of standards on electronic monitoring to the Commission for its consideration at its annual meeting in 2021.

Annex A: Annual Summary Reporting (established by SAC-10)

Annex B: Minimum Data Reporting Standards (2 options, established by SAC-08)

Option 1 (harmonized with WCPFC)

Option 2 (IATTC-developed longline observer forms)

<sup>&</sup>lt;sup>1</sup> As defined by SAC-03 in 2012

#### Annex A.

## Template for annual summary reports on fleet information and observer data for longline vessels >20 m LOA operating in the EPO

(adopted by the 10<sup>th</sup> Meeting of the IATTC Scientific Advisory Committee, May 2019)

СРС	Name

FLEET INFORMATION (vessels >20 m LOA)										
	Both :	set types com	bined		Shallow sets or <100 m max	( hook depth)	Deep sets (≥15 HPB/HBF or ≥100 m max hook depth)			
Period covered	DD-MM	Date range DD-MMM-YY – DD-MMM-YY			Date range DD-MMM-YY – DD-MMM-YY			Date range DD-MMM-YY – DD-MMM-YY		
Area fished	from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N			from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N			from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N			
	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	
No. of vessels that fished										
No. of trips										
No. of effective days fishing										
No. of sets										
No. of hooks (in thousands)										
(If unknown, approx. no. of hooks/set, using a *)										
Predominant <sup>2</sup> hook type/size ( <u>IATTC code</u> )										
Predominant bait type <sup>3</sup>										

<sup>&</sup>lt;sup>1</sup> Hooks per basket / Hooks between floats

<sup>&</sup>lt;sup>2</sup> 'Predominant' means most common, i.e., >50%

<sup>&</sup>lt;sup>3</sup> Bait codes: SQ – squid; F – fishes (e.g. Scomber spp.); A – artificial lure (e.g. plastic jig)

		1	NON-RETAINE	ED SPECIES (vess	sels >20 m LO	A)				
					No. o	f individuals o	bserved			
		Boti	n set types co	mbined	(<15 HPB/HE	Shallow sets BF1 or <100m m	s ax hook depth)	Deep sets (≥15 HPB/HBF or ≥100m max hook depth		
			Released			Released			Released	
Species code	Species	Alive	Dead	Condition unknown	Alive	Dead	Condition unknown	Alive	Dead	Condition unknown
DKK	Leatherback (Dermochelys coriacea)									
ΠL	Loggerhead (Caretta caretta)									
TUG	Green (Chelonia mydas)									
LKV	Olive ridley (Lepidochelys olivacea)									
	Add rows for additional species as required									
Sharks ar	nd rays									
FAL	Silky (Carcharhinus falciformis)									
ocs	Oceanic whitetip (Carcharhinus longimanus)									
BSH	Blue shark (Prionace glauca)									
SMA	Shortfin mako (Isurus oxyrinchus)									
SPL	Scalloped hammerhead (Sphyrna lewini)									
SPZ	Smooth hammerhead (Sphyrna zygaena)									
SPK	Great hammerhead (Sphyrna mokarran)									
RMB	Giant manta ray (Manta birostris)									
	Add rows for additional species as required									
Marine n	nammals									
FAW	False killer whale (Pseudorca crassidens)									
DRR	Risso's dolphin (Grampus griseus)									
SGF	Guadalupe fur seal (Arctocephalus townsendi)									
	Add rows for additional species as required									
Seabirds										
DQS	Antipodean albatross (Diomedea antipodensis)									
DPK	Waved albatross (Phoebastria irrorata)									
DIZ	Laysan albatross (Phoebastria immutabilis)									
DAQ	Short-tailed albatross (Phoebastria albatrus)									
	Add rows for additional species as required									
Billfishes										
MLS	Striped marlin (Kajikia audax)									
SSP	Shortbill spearfish (Tetrapturus angustirostris)									
BUM	Blue marlin (Makaira nigricans)									
	Add rows for additional species as required									

## Annex B, Option 1.

GENERAL VESSEL AND TRIP INFORMATION  VESSEL IDENTIFICATION  Name of vessel Name, including all numbers or other characters  Flag Registration Number The number issued to the vessel by the authorities of its flag State.  International Radio Call Sign If issued.  Vessel Owner/Company Name (individual or company) and contact information, if available, of the vessel owner.  International Maritime Organization If issued.  IMO' or Lloyd's Register number
Name of vessel  Flag Registration Number  The number issued to the vessel by the authorities of its flag State.  International Radio Call Sign  Vessel Owner/Company  Name (individual or company) and contact information, if available, of the vessel owner.  International Maritime Organization  If issued.  If issued.  If issued.
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of the vessel owner.  International Maritime Organization If issued.  'IMO' or Lloyd's Register number
International Maritime Organization If issued.  'IMO' or Lloyd's Register number
'IMO' or Lloyd's Register number
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VESSEL TRIP INFORMATION
Date and time of departure from The date and time the vessel leaves port to start its fishing trip. port
Port of departure Include both the port name and country.
Date and time of return to port The day and time the vessel returns to a port at the completion of its
trip.
Port of return Include both the port name and country.
OBSERVER INFORMATION
Observer name Full name.
Observer provider Name of the organization or agency that employs the observer and has placed him on the vessel.
Date, time and location of The date, time, and location where the observer boards the vessel
embarkation to start his trip.
Date, time and location of The date, time, and location where the observer leaves the vessel
disembarkation and concludes his observer duties.
CREW INFORMATION
Name of captain Full name.
Name of fishing master Full name.
Total number of crew  Total number of people aboard the vessel, excluding the observer
VESSEL CHARACTERISTICS
Note: These characteristics only need to be noted if what is observed differs from specifications reflected on the
IATTC vessel register.
Vessel fish hold capacity  The total combined capacity, in metric tons (MT), of the vessel freezers, wells, and any other areas that can be used to store catch.
Freezer type Some vessels may have more than one type of freezer. List all types present.
Length Over All (specify unit)  The "LOA" can typically be found in the vessel plans or other documents.
Tonnage (specify unit)  The vessel tonnage, as recorded in the vessel's registration
documents; may be expressed as Gross Tonnage (GT) or Gross
Register Tonnage (GRT).
Engine power (specify unit)  The engine power is typically listed in the vessel plans.
VESSEL ELECTRONICS
Indicate "Yes" if present, "No" if absent. If more than one of type is present, indicate the total number present
Radars "Yes" if present, "No" if absent.
Depth Sounder "Yes" if present, "No" if absent.
Global Positioning System (GPS) "Yes" if present, "No" if absent.
Track Plotter "Yes" if present, "No" if absent.

Data field	Description/Instructions/Comments
Weather Facsimile	"Yes" if present, "No" if absent.
Sea Surface Temperature (SST)	"Yes" if present, "No" if absent.
gauge	
Sonar	"Yes" if present, "No" if absent.
Radio/ Satellite Buoys	"Yes" if present, "No" if absent.
Doppler Current Meter	"Yes" if present, "No" if absent.
Expendable Bathythermograph	"Yes" if present, "No" if absent.
(XBT)	
Satellite Communications Services (Phone/Fax/Email)	Indicate all the vessel Satellite numbers if the vessel has Satellite communications on board
Fishery information services	"Yes" if present, "No" if absent. Please also list the information service used.
Vessel Monitoring System	Indicate the type(s) of VMS used on the vessel (e.g. INMARSAT, ARGOS, etc.)
Refrigeration Method	List all refrigerator types used on the vessel.
GENERAL GEAR CHARACTERISTICS	
Mainline material	List the of the mainline used by the vessel (e.g. Kuralon, Braided nylon, Monofilament Nylon, etc.).
Mainline length (specify unit)	The total length of the mainline when it is fully set
Mainline diameter (specify unit)	and the second s
Branch line material(s)	A branch line can consist of one type of material like monofilament
(2)	or it can be made up of many different materials like braided nylon
	wire trace and mono filament, etc. If different types are used in
	different branch line positions, please describe.
SPECIAL GEAR CHARACTERISTICS	, ,,
Wire trace	At the trip level indicate "Yes" or "No" -if the vessel uses wire traces
	on some or all of its lines. If wire traces used on all lines during the
	trip then record "ALL LINES." If the vessel used wire traces on certain
	branch line positions during the trip, describe the configuration. For
	example, "wire traces were used on first and tenth branch lines of
	each basket". If the proportion of leaders that are wire varies within
	a trip, record the average based on a sample
	of ten total baskets from a range of sets.
Mainline hauler	Does the vessel use an instrument to haul in the main line after it is set or is the line hauled by hand?
Branch line hauler	Does the vessel use a special hauler to coil branch lines?
Line shooter	Does the vessel use a line shooter?
Automatic bait thrower	Does the vessel use a bait thrower or are bait and branch lines thrown overboard manually?
Automatic branch line attached	Does the vessel have an automatic branch line mechanism that
Hook tune	attaches the branch at regular intervals or is this done manually?
Hook type	For each set, record the type of hook or hooks used, using the codes
	in the hook catalogue ( <i>e.g.</i> J hooks, circle hooks, offset circle hooks, etc.)
Hook size	<b>For each set,</b> record the size of the hooks used. If not sure, ask the bosun or refer to a hook catalogue.
Tori Lines	For each set, record whether the vessel uses Tori lines when setting; if yes, how many and their length.
side setting with bird curtain and	For each set, record whether the vessel used side-setting with a bird
weighted branch lines	curtain in combination with weighted branch lines.

Data field	Description/Instructions/Comments
Weighted branch lines-	For each trip where weighted branch lines are used, record the
	mass of the weight attached to the branch line. If more than one
	type of weighting is used during a trip, describe each type and
	indicate the proportion based on a sample of ten baskets from a
	range of different sets.
Shark lines	For each set, record the number of shark lines (branch lines running
	directly off the longline floats or drop lines) observed. Where
	possible, record the length of this line for each set.
Blue dyed bait	<b>For each set,</b> record whether the vessel used blue-dyed bait.
Distance between weight and hook	For each set, record the distance in meters from where the bottom
(in meters)	of the weight is attached on the branch line to the eye of the hook.
Deep setting line shooter	For each set, record whether the vessel used a deep setting line
	shooter.
Management of offal discharge	For each set, record whether the vessel used the management of
	offal discharge.
Date and time of start of set	For each set, record the date and time the first buoy is thrown into
	the water to start the setting of the line.
Latitude and Longitude of start of	For each set, record the GPS reading at the time the first buoy is
set	thrown into the water
Date and Time of end of set	For each set, record the date and time the last buoy (usually has
	radio beacon attached) at the end of the mainline is thrown into the
	water
Latitude and Longitude of end of set	For each set, record the GPS reading at the time the last buoy is
_	thrown into the water
Total number of baskets or floats	For each set, record the number of baskets utilized. A basket is the
	sum of all the hooks set between two buoys on a longline; usually it
	is the same as the number of floats set minus one.
Number of hooks per basket	For each set, record how many hooks set from one buoy to another,
(number of hooks between buoys)	the number is usually constant along the line, but can vary in some
	cases, also if the vessel also sets a branch line on the buoy, count
	this as a hook between floats as well.
Total number of hooks used	For each set, record how many hooks were used. This is typically
	calculated by multiplying number of baskets by the number of hooks
	per basket.
Line shooter speed	For each set where the vessel uses a line shooter, record the
	shooter speed. The shooter will normally have an indicator to show
	its running speed, as well as a sound indicator or light,
	that beeps at a regular interval, when it is time to attach a branch
	line.
Length of float-line	For each trip, record length of the line that is attached to the floats,
	get a coil and measure the length. It usually remains the same
	throughout the trip.
Distance between branch-lines	For each set, record the distance between branch line attachments
	to the mainline. This can be determined easily if vessel has a line
	shooter with electronic attachment indicator.
Length of branch-lines	For each set, measure the length of a sample of the majority of
	branch lines used, some may vary slightly due to repairs.
Time-depth recorders (TDRs)	Does the vessel use TDRs on its line? If yes record the number of
	TDRs used it may use and their location along the mainline.?
Number of light-sticks	For each set, indicate whether the vessel uses light sticks on its
	line, record the number used, and where possible, information on

	the location (e.g. "used on first and tenth branch lines from the
	float").
Target species	What species does the vessel target? Tuna (BET YFT), Swordfish, Sharks, etc.
Bait Species	<b>For each set,</b> record the bait species used Pilchard, Sardine, Squid, artificial bait, etc.
Date and time of start of haul	<b>For each set,</b> record the date and time the first buoy of the mainline is hauled from the water to start the haul.
Date and time of end of haul	<b>For each set,</b> record the date and time the last buoy of the mainline is hauled from the water to end the haul.
Total number of baskets, floats	For each set, record how many floats or baskets were monitored by
monitored by observer in a single set	the observer?
INFORMATION ON CATCH FOR EACH	H SET
Hook number (location between	For each individual capture, record the hook number that the
floats)	animal is caught on, counting from the last float hauled on board.
Species	Use FAO species code.
Length of fish	Measure length of specimen, using the recommended measurement approach for the species.
Length measurement code	Reflect the type of length measurement taken using the appropriate
8	measurement code. For example, all tunas are measured from the
	end of the upper Jaw to fork of the tail, measurement code UF.
Sex	Sex the species if possible. If an unsuccessful attempt is made to sex
	the individual, record "I" for indeterminate. If no attempt to sex the
	individual is made, record "U" for unknown.
Condition when caught	For bycatch species (e.g. sharks, sea turtles, seabird, marine
<u> </u>	mammals, etc.) also reflect hooking location [i.e. hooked in mouth,
	hooked deeply (throat/ stomach), and hooked externally].
Fate	Record the ultimate disposition of the capture using the appropriate
	code (e.g. retained, discarded, etc.)
Condition when released	If released, record the animal's status when returned to the sea.
Tag recovery information	Record as much as information as possible on any tags recovered
SPECIES OF SPECIAL INTEREST	, , ,
Sea turtles, marine mammals, sea b	irds, and sharks
GENERAL INFORMATION	
Type of interaction	Indicate the type of interaction ( <i>e.g.</i> entangled, hooked internally, hooked externally, interaction with vessel only, etc.).
Date and time of interaction	Record ships date and time of interaction
Latitude and longitude of interaction	Record position of the interaction.
Species code of sea turtle, marine	Use FAO codes for Species.
mammal, or seabird.	OSCI AO COUES TOT Species.
LANDED ON DECK	
Length	Measure length, in centimeters.
Length measurement code	Measure using the measure method determined for that species.
Sex	Sex the animal if possible.
Estimated fin weight (for sharks)	Weigh the fins separately if shark has been finned by crew. If no
	scales, estimate the weight.
Estimated carcass weight (for sharks)	Weigh the carcass of a finned shark. If no scales available, carcass is discarded, or if it is too large to handle, estimate the weight.
Condition when landed on Deck	Record the animal's condition when landed on deck, using

Data field	Description/Instructions/Comments
	appropriate code.
Condition when released	If released, record the animal's condition at the time of release, using appropriate code.
Tag recovery information	Record as much as information as possible on any tags recovered
Tag release information	Record as much as information as possible on any tags placed on the species before release.

### LONGLINE GEAR FORM

1	Ę	1	)
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VESSEL:				SAMPLE	: No:	_ OBSE	RVER: _			
Registration				Length	m	Fuel o	capacity	gal	Number of cr	ew
Company name				Width	m	F	uel used	gal	Water capac	gai
Captain Name				Draft	m	Тур	e of fuel		Catch conser meth	
Departure date/time			Dista	nce deck to water	m		e (fibra- er ship)		If the vessel ↓ name of m	
Arrival date/time			Well	l capacity	MT	Number o	of fibras			
Departure port			Ma	in motor		Navigation and	d fishing eq	uipment:		
Arrival port			Aı	ıx. motor						
Characteristics	Quantity	Material *	Diameter	Length	Color *	Distance bt		ıx. hooks on nainline↓	Number of lights↓	Number of radio buoys↓
Mainline			mn	n Nm	L		bz			
Upper gangion			mn	ı fath	L	Mainline we Yes ( )			<u>Mainline</u> I	retrieval By hand ( )
Middle gangion			mn	ı fath	ı	Dropline co	nnection	to mainline:		al crank ( ) ic crank ( )
Lower gangion			mm	fath	ı	Knots (			Other	
Floatline / dropline				cm	L	Fishing gear di	iagram			
Buoy			cn							
Flag										
Float			cn							
Hooks Type (J/C)	Size	J-straight/ J-curved	Material*	Manufac- turer	Offset	Ring (Yes / No)	Other details	Observations		
Hook A										
Hook B										
Hook ©										

\* Use numbers from code tables F2s v2: 02/2012

## LONGLINE SET FORM

F3
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VESSEL: _					SA	MPLE No:_	0	BSERV	ER:			_
Set number		Start S1	ET End	RETR Start	IEVAL End	Number of	Hook.	Hook. B	Hook.		Type of bait	% o
	LAT	Start	Liiu	Start	Liid	hooks in the set by type:				Bait 1		tota
↓ Date ↓	LON					Total no. of h	ooks in set:			Bait 2		
	TIME					No. of ho	oks lost:			Bait 3		
Target Fishery	Set Special? Patrolled		Retrieval d Start to end End to start		Sea surf. temp.	No. hooks btwn. floats	Avg. hook depth	Bottom !	No			<b>'</b>
Observation	s:				•							
Set number		Start St	ET End	RETR Start	IEVAL End	Number of hooks in the	Hook.	Hook. B	Hook.		Type of bait	% o
	LAT					set by type:				Bait 1		
↓ Date ↓	LON					Total no. of h	ooks in set:			Bait 2		
	TIME					No. of ho	oks lost:			Bait 3		
Target Fishery	Set Special? Patrolled		Retrieval d Start to end End to start		Sea surf. temp.	No. hooks btwn. floats	Avg. hook depth		No			•
Observation	s:		ı		1							
Set number		Start S1	ET End	RETR Start	IEVAL End	Number of hooks in the	Hook.	Hook. B	Hook.		Type of bait	% o
	LAT					set by type:				Bait 1		
↓ Date ↓	LON					Total no. of h	ooks in set:			Bait 2		
	TIME					No. of ho	oks lost:			Bait 3		
Target Fishery	Set Special? Patrolled		Retrieval d Start to end End to start		Sea surf. temp.	No. hooks btwn. floats	Avg. hook depth		No			
Observation		<u> </u>	Zino to start		1		ratn					

F3s v1: 02/2012

### CATCH FORM

F4
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VESS	EL:				_ s	AMPL	E No:		OBSER	VER:					
						ъ.			LEN	GTHS (c	m)	Male	shark		
Set No.	Time	Species name	Number caught	Hook AB©	Hook location *	sition *	Sex M=1 F=2	Weight (kg)	POL-FL-TL-CCL	PCL- DL	IDS- DW- CCW	CL (cm)	C A L	S E M E N	Observations
* Use	numbers	POL POSTOCULAR LENOTH			FL: FORK L	ENGTH			— PCL: PRECAUDA	AL LENGTH — L LENGTH — S.INTERDORSAL SPACE		DW: DISC WIDTH	DL: DISC L	\   	TALLENGTH COL. CURVED CARAPAGE LENGTH COW: CURVED CARAPAGE WIDTH

### **TURTLE FORM**

F5

(Record turtle sightings only for hawksbill, loggerhead and leatherback turtles)

/ESSEL:				SAMPLE No:		OBSERVE	R:		
Date	Time	Set number	Species	Sex	CCL <sup>1</sup> (cm)	CCW <sup>2</sup> (cm)	Tail LTC (cm)	Hook AB©	Color of the nearest float or buo
Positio	on:	Latitude		Longitude					
Condition *(	)	Entanglemen	nt *( )	Hooking *(	)	Disp	oosition*(	) (	Observations:
Turtle location	ı in relation	to the fishing g	ear Hook loc	ation and turtle	entanglei	ment			
<b> </b>	Surface fish		_				$\mathcal{N}_{\mathcal{C}}$	L	Existing tag 1:
			_   _2		$\rightarrow$	0	, ,	$\supset \mathcal{U}$	Existing tag 2:
, ,	1 1		125	n LA	>			) L	New tag 1:
_	Bottom fish	ery	_		R	2	\_\	$\supset \Gamma$	New tag 2:
						L.Tr.	VENTRAL VIEW SHELL WIDTH SHELL LENS		
CCL: Curved cara	mace length 2	CCW: Curved cara	nace width						v

<sup>\*</sup> Use numbers from code tables F5s v1: 02/2012

### **BIRD FORM**

F6
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VESSEL:	SAMPLE No:	OBSERVER:

Set No.	Date	Time	Species name	Position		Age	Sex	Caught	Hook	Cond-	Mitig 1	Mitig. 2	Dispo-	Photo	
				Latitude	Longitude	Age Immature=1 Adult=2	M=1 F=2	in set Yes/No	Hook AB©	Cond- ition *	*	*	Dispo- sition *	Photo Yes/No	Observations

<sup>\*</sup> Use numbers from code tables