INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

FIFTH MEETING

La Jolla, California (USA)
12-16 May 2014

DOCUMENT SAC-05-05

STANDARDIZED FISHING GEAR DESCRIPTIONS FOR SCIENTIFIC PURPOSES

The tuna-fishing fleets are very dynamic in adopting new technology and in modifying fishing gear to improve catch rates. For example, in recent years, purse-seine nets have increased in length and depth, and the mesh size has changed in some sections of the net. Similarly, the characteristics of fish-aggregating devices (FADs) have also changed: the depth of the webbing hanging underneath has increased, and the proportion of FADs with sonic buoys has tripled in the last few years.

The staff's assessments of the status of the stocks of tunas or other species of interest to the IATTC rely on analyses of fisheries data in reaching their conclusions, which are in turn the basis for management recommendations. In some cases, the data collected by observers and/or field office staff make it possible to take some of the changes in gear configurations into account, but other variables cannot be observed directly or accurately, whether at sea or in port. For instance, while observers can determine the mesh size in the body of a purse-seine net, they cannot see the complete design of the net, or get good measurements of mesh sizes in different sections of the net, which may influence the tonnages caught or the species and size compositions of the catches.

Since the configuration of a vessel's gear affects its fishing performance, knowing the characteristics of the fishing gear of individual purse-seine and longline vessels is necessary to standardize fishing effort and to improve the staff's understanding of the variability in catch and bycatch rates, which will in turn improve its assessments of the stocks. It is therefore important that detailed descriptions of the characteristics of a vessel's net or lines be made available to the IATTC staff for use in its analyses, and the staff encourages vessel owners to provide this information, which will of course be subject to the Commission's rules of confidentiality.

In consultation with outside experts, the staff prepared forms (attached) for collecting the necessary data on longline and purse-seine gear configurations. They are also available (with the associated instructions) on the IATTC website.

Tuna Purse Seine Form

Vessel name	Registration	Date	Location	Recorded by

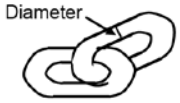
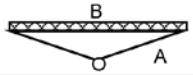
GENERAL INFORMATION

Dimensions	Dolphin safety panel (DSP)	Sack area
Total length: _____ fath	Length: _____ fath	Float diameter: _____ in
Maximum depth: _____ fath	Max. depth: _____ fath _____ strips	Twine No.: _____
_____ strips	Net mesh stretched: ____ in	Net mesh stretched: ___ in
Net webbing:	Hanging ratio: _____	Hanging ratio: _____
Knot [ ] 1 Intertwine [ ] 2	Double cork line percent: _____ %	Sack with double mesh:
Other [ ] 3 _____	Float diameter: _____ in	Yes [ ] No [ ]
	Twine No.: _____	

NET AREA INFORMATION

Upper section (stern)	Upper center section	Upper section (bow)
Float diameter: _____ in	Float diameter: _____ in	Float diameter: _____ in
Twine No.: _____	Twine No.: _____	Twine No.: _____
Net mesh stretched: _____ in	Net mesh stretched: _____ in	Net mesh stretched: _____ in
Hanging ratio: _____	Hanging ratio: _____	Hanging ratio: _____
Middle section (stern)	**Middle center section**	**Middle section (bow)**
Twine No.: _____	Twine No.: _____	Twine No.: _____
Net mesh stretched: _____ in	Net mesh stretched: _____ in	Net mesh stretched: _____ in
Lower section (stern)	**Lower center section**	**Lower section (bow)**
Twine No.: _____	Twine No.: _____	Twine No.: _____
Net mesh stretched: _____ in	Net mesh stretched: _____ in	Net mesh stretched: _____ in

LEAD LINE

Chain line	Rings	Pursing cable	Bridle Chain
Diameter: ___ in	Solid [ ] 1 Snap [ ] 2	Diameter: _____ in	Length A: _____ fath B: _____ fath
	Other [ ] 3 _____		Bridle chain diameter: _____ in
	Total number: _____		
	Weight: _____ Kg		

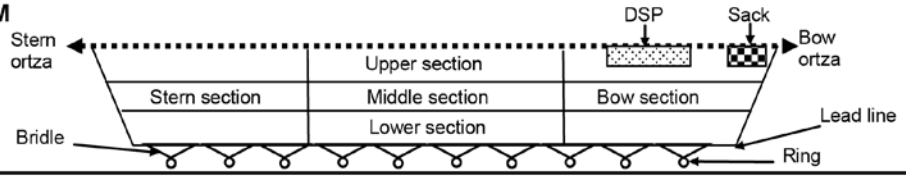
OTHER

Experimental equipment installed

None [ ] 1 Sorting grid [ ] 2 Other [ ] 3 _____

COMMENTS

NET DIAGRAM



TPSF 09/2009

Longline Gear Description Form

Vessel name	Registration	Date	Location	Recorded by

Hull: Wood [ ] **1** Fiberglass [ ] **2** Steel [ ] **3** Other [ ] _____ No. crewmen:_____

Length: _____ m Width: _____ m Main engine _____Hp Outboard [ ] **1** Inboard [ ] **2**

LINE INFORMATION

Vertical location: Surface [ ] **1** Mid-water [ ] **2** Bottom [ ] **3**

Setting mode: Drifting [ ] **1** Anchored [ ] **2** Other [ ] _____

Total number of hooks per set: Min:_____ Max: ____ Distance between hooks: _____ fath

Number of hooks between floats:_____

MAINLINE	FLOATLINE
Material: _____ Color: _____	Material:_____ Color:_____
Diameter: _____ mm Length:_____ Nm	Diameter: _____ mm Length:_____ fath
Lead in mainline: Yes [ ] No [ ]	Distance floatline and branchline:_____ fath
Distance between leads:_____ fath	Floatline/mainline connection: Knots [ ] **1** Snaps [ ] **2**
Comments:_____	Comments: _____

BRANCHLINES/GANGIONS

Section	Material	Diameter	Length	Color	Leads/swivels?	Comments
		mm	fath		Yes _ No___	
		mm	fath		Yes _ No___	
		mm	fath		Yes _ No___	
		mm	fath		Yes _ No___	
		mm	fath		Yes _ No___	

Branchline/mainline connection: Knots [ ] **1** Snaps [ ] **2** Swivel [ ] **3**

HOOKS

Type	Size	Material	Manufacturer	Offset	Ring (Y/N)	Other features

	FLOAT	FLAGPOLE	BUOY	RADIOBUOY
Quantity				
Material				
Color				
Comments				

CATCH INFORMATION

Main species captured (sort by importance)

1) _____
2) _____
3) _____
4) _____
5) _____

PREDATION ON CATCH/BAIT BY:

Species (sort by importance)	Predation on
1) _____	Catch [ ] **1** Bait [ ] **2**
2) _____	Catch [ ] **1** Bait [ ] **2**
3) _____	Catch [ ] **1** Bait [ ] **2**
4) _____	Catch [ ] **1** Bait [ ] **2**
5) _____	Catch [ ] **1** Bait [ ] **2**

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BAIT

	Main species (sort by importance)	Condition	Rigging
1)	_____	Live [ ] **1** Fresh [ ] **2** Frozen [ ] **3**	Whole [ ] **1** Strip [ ] **2**
2)	_____	Live [ ] **1** Fresh [ ] **2** Frozen [ ] **3**	Whole [ ] **1** Strip [ ] **2**
3)	_____	Live [ ] **1** Fresh [ ] **2** Frozen [ ] **3**	Whole [ ] **1** Strip [ ] **2**
4)	_____	Live [ ] **1** Fresh [ ] **2** Frozen [ ] **3**	Whole [ ] **1** Strip [ ] **2**
5)	_____	Live [ ] **1** Fresh [ ] **2** Frozen [ ] **3**	Whole [ ] **1** Strip [ ] **2**

FISHING CHARACTERISTICS

Most common fishing ground: _____

Most common fishing period:

Set: From: _____ To: _____

Haul: From: _____ To: _____

Number of sets per trip: _____

Number of days per trip: _____

Side setting: Yes [ ] No [ ]

Line-setter: Yes [ ] No [ ]

Line patrolled: Yes [ ] No [ ]

Line retrieval: Manual [ ] **1** Hand reel [ ] **2** Hydraulic/electric reel [ ] **3** Line hauler [ ] **4**

FISHING GEAR DIAGRAM

Hook type	Hook offsettings	Hook material
J Tuna C EZ		Steel SUS

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