



**Progress made by ICCAT on the key areas  
for action for the joint t-RFMO FAD WG**

*ICCAT Secretariat*

2nd Meeting of the Joint Tuna RFMOs Working Group on FADs  
San Diego, California USA, 8-10 May 2019

**ICCAT CICTA CICAA**



# ICCAT Recommendation 16-01

## Management of FADs

- Area/Time closure in relation with the protection of juveniles
  - Between 1 January and 28 February
  - Eastern Equatorial Atlantic (5°N-4° S, 20°W and African coast)
  - Prohibition of setting FADs and fishing associated with natural or artificial objects
- Limitation of FADs
  - No more than 500 FADs with or without instrumental buoys active at any one time in relation to each of the purse-seine vessels
- FAD Management Plans
  - Purse seine and baitboat vessels fishing in association with objects that could affect fish aggregation, shall submit annual Management Plans for the use of such aggregating devices by vessels flying their flag
  - Plans shall be drawn up by following the Guidelines for Preparation for FAD Management Plans
- FAD logbook and list of deployed FADs
  - Deployment of any FAD, visit on any FAD and loss of any FAD
  - Vessels shall keep updated (monthly basis and per 1°x1° statistical rectangles) list of deployed FADs and buoys
- Reporting obligations on FADs and on support vessels
  - No. actual FADs and buoys deployed, av. no. beacons/buoys activated and deactivated, av. no. lost FADs, etc
- Mandatory use of non-entangling FAD and gradually use of biodegradable FADs



# General issues

## Legal aspects

- Definitions of FADs, ownership and responsibilities
  - ICCAT adopted in 2016 a set of definitions following the suggestions made by the EU CECOFAD research project
  - Pending on the proposals/agreements from the 2<sup>nd</sup> joint tRFMO FAD WG meeting

## Definitions and common indicators

- Work conducted within the ICCAT FAD WG and the SCRS between 2015-2017
- Pending on the proposals/agreements from the 2<sup>nd</sup> joint tRFMO FAD WG meeting

## Enhanced cooperation

- Several initiatives are ongoing involving national scientists and industry regarding the improvement of the collection of data, research and development of mitigation measures
- Some of the initiatives have a wider regional scope

## Elaboration and implementation of appropriate management frameworks

- Intersessional work on going within Panel 1 aiming to revise ICCAT Rec. 16-01
- Proposals from the 2<sup>nd</sup> joint tRFMO FAD WG meeting



# Data gaps and needs

- Collection of data, optimize and harmonize the collection of data and develop common minimum standards and formats, etc
  - Ongoing work within the FAD WG (limited data collected between 2016-2018)
  - Updated e-form for FAD data submission approved by the Tropical WG, SCRS and Commission 2018
- Facilitate access by scientists to acoustic records of the echo-sounder buoys, ensure/facilitate access to data for scientists and managers
  - Limited ongoing work by a few Contracting Parties SCRS scientists/operators



# Submitted information

**Legend:**

- AFAD – Anchored FAD
- DFAD – Drift artificial FAD
- FADA – Artificial FAD
- FADN – Natural FAD
- GPS – GPS signal transmitter
- NA - Unknow
- RDDGPS – Radio directing Finder & GPS
- SAT – Satellite signal
- SATES – Satellite signal & Echosounder

**Summary of available information:**

- Time frame: 2011 to 2017
- No. FADs deployed by type: available for a limited number of CPs
- No. beacons followed: available for recent years only
- No. FADs lost: very limited info

Year	CPC	FAD type	Beacon type	No. deployed FAD with beacon	No. beacons followed	No. deactivated beacons	No. deployed FAD w/o beacon	No. lost FADs
2011	EU.France	FADN - FADA		2869				
2012	EU.France	FADN - FADA		3320				
2013	Curacao	FADA		1696				
	EU.Spain	FADA		19933				
		FADN		41				
	EU.France	FADN - FADA		3293				
	Panama	FADA		314				
	St Lucia			6				
2014	Belize	FADA		1013				
	Curacao	FADA		1693				
	EU.Spain	FADA		17380				
		FADN		26				
		NA		2178				
	EU.France	FADA		1273				
	Ghana	FADA		9100				
	Panama	FADA		288				
	St Lucia	FAA		10				
2015	Belize	FADA		993				
	Curacao	SAT		85	37			11
		SATES		1294	2110			639
	EU.Spain	FADA		17327	950.1			14689
		NA		1248	74.3			1877
	EU.France	FADA		1287	3043			
	Panama	FADA		1525	1319			238
2016	Belize	DFAD		1291		207		36
	EU.France	DFAD		2845				1090
		DFAD		4				4
	Ghana	DFAD		17600	1310			
	Curacao	DFAD		22	4504			
	Panama	DFAD		27	5158			
2017	Belize	DFAD	SAT	9	0			
			SATES	132	11389			
	Curacao	DFAD	SATES	25	4509			
	EU.France	DFAD		1549	3206	2018		
			SATES	4123	6000	3998		
	Ghana	DFAD	RDFGPS	24825	1932			
	Guatemala	DFAD	SATES	25	4800			
	El Salvador	DFAD	SATES	22	4389			
	UK.StHelena	AFAD	GPS	8				





# ST08 FAD new form 2019

## Updated e-form

- Improve detailed information on FAD deployment by vessel, month, type of buoy and 1°x1° Lat Lon area
- Record by vessel of the number of FAD loss and or transfer FADs/buoys

Detail: Complete this section for each vessel FAD/Beacon deployment operation by month and 1x1 squares

Vessel attributes				Deployment (NEW FADs) details by vessel/month/1x1					Losses & Transfers by		
ICCAT Serial number	Vessel Name	Vessel type (cod)	Flag of vessel (cod)	Month	Latitude (+N/-S)	Longitude (+E/-W)	FAD type (cod)	Beacon/buoy type (cod)	Nº FADs deployed	Nº FADs lost	Nº FADs transferred (from other vessels)
ICCATSerialNo	VesselName	VessTypeC	FlagVesCd	Month	Lat	Lon	FadType	BeaconType	NoFADsDep	NoFADsLost	NoFADsTransf

- Estimation of the density of FADs by Month, 1°x1° Lat Lon grid, including the number of active vessels, and number of operating FADs with buoys within grid

Detail: Density estimation of active FADs by flag/month/1x1. If spatial information (1x1 squares) is NOT available please indicate the spatial level used for the estimation in the "Remarks"

Flag of vessel (cod)	Month	Latitude (+N/-S)	Longitude (+E/-W)	Nº Active Vessels	FAD type (cod)	Beacon/buoy type (cod)	Avg Number Operating FADs	Remarks
FlagVesCd	Month	Lat	Lon	NoVessels	FadTypeCd	BeaconTypeCd	AvgNOperatFADs	Remarks



# Mitigation

## **FAD design/material and research**

- Design and materials used
- Research on pre-set echo-sounder discrimination of species, and size
  - Several works/studies conducted by CPCs together with the industry and presented to the SCRS

## **Target species**

- Identification of hotspots for juvenile BET and YFT
- Effectiveness of time-area closures
  - Ongoing work within the SCRS and the AOTTP (tagging program)

## **Non-target species**

- Impacts of FAD fisheries on vulnerable elasmobranch and turtle species
  - Several studies conducted by CPCs and presented to the SCRS
- Identification of hot spots for vulnerable species
  - Ongoing work within the SCRS
- Best practices for handling and safe release of by-catch species, training of operators, non-entangling FADs
  - Ongoing activities and active under current Recommendations



# Mitigation

## Habitat

- Mapping and recognition of sensitive areas
- Tracking positions and trajectories of FADs
- Promote involvement of coastal communities in implementing actions or management measures
  - Very limited (capacity building) or no ongoing activities
- Develop innovative FAD designs to mitigate the habitat impact of FAD fisheries
  - Several works/studies conducted by CPCs together with the industry and presented to the SCRS
- Consider anchored and drifting FADs in the overall analysis of impacts
- Assess the effect of establishing limits on numbers of FADs deployed as well as on areas or periods of deployment
  - Ongoing discussion within FAD WG