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ISSF SKIPPER WORKSHOPS: UNDERSTANDING FADS FROM THE FISHERS' PERSPECTIVE



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ISSF INTERNATIONAL SEAFOOD SUSTAINABILITY FOUNDATION

ISSF BYCATCH PROJECT

1

ISSF SCIENTIFIC BYCATCH COMMITTEE

2

ISSF SKIPPERS' WORKSHOPS (FISHERS and KEY STAKEHOLDERS)

3

ISSF RESEARCH CRUISES

4

BEST PRACTICE GUIDELINES and TECHNICAL PUBLICATIONS

5

RESULTS

AID ADOPTION OF SUSTAINABLE REGULATIONS/RECOMMENDATIONS BY RMFOS, NATIONAL FISHERIES MANAGEMENT

PROMOTION OF SUSTAINABLE INDUSTRY INITIATIVES (IMPROVE FAD MANAGEMENT, ETC.)

ISSF PROACTIVE VESSEL REGISTER (PVR)

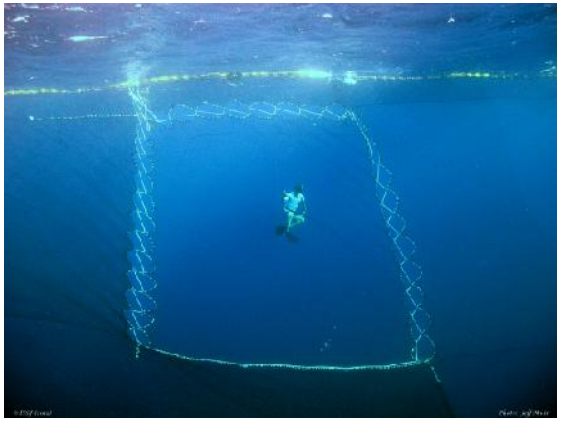
VOLUNTARY ADOPTION BY FLEETS OF BEST BYCATCH RELEASE PRACTICES, NON-ENTANGLING FADS, SELECTIVE EQUIPMENT

SKIPPER WORKSHOP MAP 2009-14

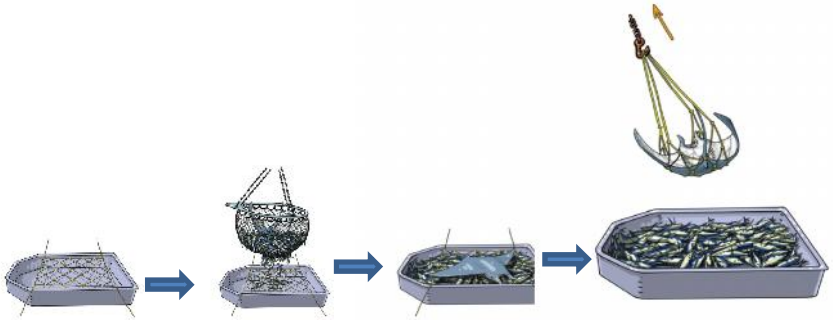
BYCATCH MITIGATION THEMES COVERED

AVOIDING BYCATCH BEFORE THE SET

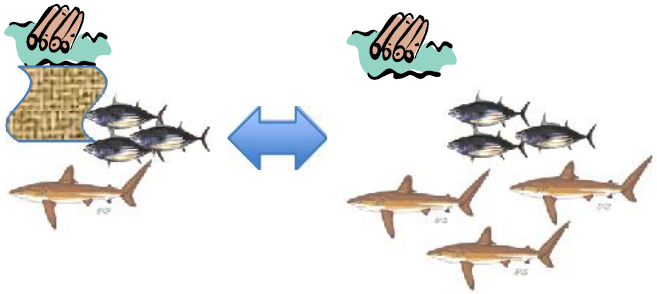
BYCATCH RELEASE IN THE NET



BEST ONBOARD RELEASE PRACTICES



NEW IDEAS FOR EXPERIMENTS

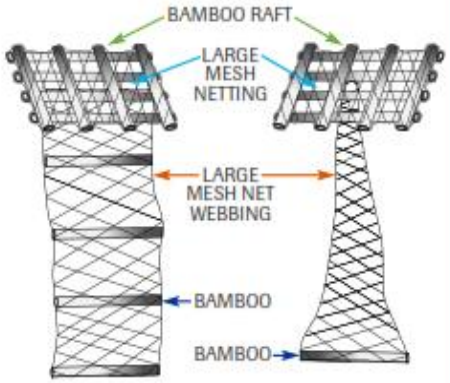


REVISED ISSF GUIDE FOR NON-ENTANGLING FADS

ISSF GUIDE FOR NON-ENTANGLING FADs

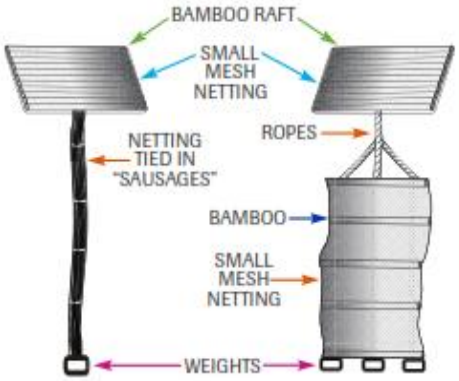
Considering the variety of designs and materials used in construction of FADs worldwide the ISSF Bycatch Steering Committee proposes a ranking of FADs according to the risk of entanglement associated with each design. Starting from highest to lowest risk of entanglement, four categories are described and illustrated examples provided of FAD designs:

HIGHEST ENTANGLEMENT RISK FADs:



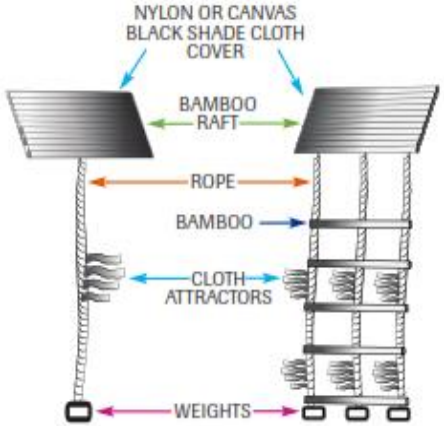
- Constructed with any netting materials, including old purse seine netting, used to cover rafts or suspended beneath in open panels
- These DFADs are known to cause entanglements with turtles and sharks

LOWER ENTANGLEMENT RISK FADs:



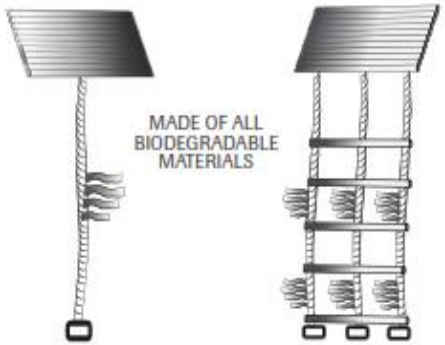
- Only small mesh netting used (e.g. < 2.5 inch (7 cm) stretched mesh)
- Rafts are tightly wrapped with small mesh netting, with no loose netting hanging from it
- The underwater structure is tightly tied into bundles (sausages)
- A single panel can be used instead of bundles, but the panel must be weighted to keep it taut
- The panel should consist of either netting with a stretched mesh of 2.5 inches (7 cm) or less, or a solid sheet (e.g., canvas or nylon)
- Despite using netting, these design elements reduce the risk of entanglement events

NON-ENTANGLING FADs:



- No netting is used in their construction
- The raft is not covered or covered with shade cloth or canvas
- The subsurface structure is made with ropes, canvas or nylon sheets, or other non-entangling materials
- These FADs are expected to have minimum risk of causing entanglement

BIODEGRADABLE NON-ENTANGLING FADs:



- In addition to having minimal risk of entanglement, they are constructed exactly like other non-entangling FADS, but using only natural and/or biodegradable materials, further reducing the environmental impact of DFADs on the oceans

HIGHEST RISK

LOWEST RISK

MOVING TOWARDS NON ENTANGLING FADS

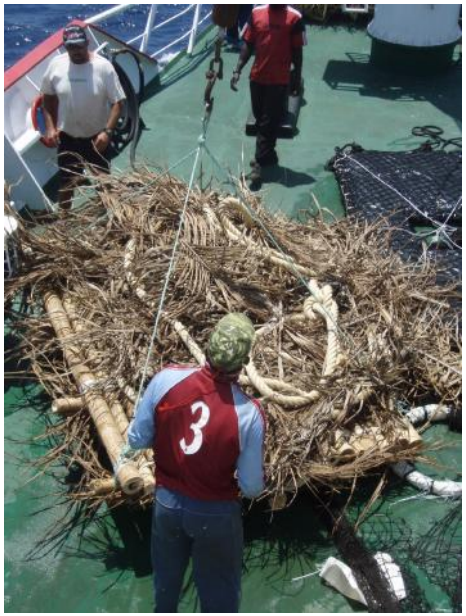
ENTANGLING FADS

BEFORE 2012

LOWER RISK ENTANGLEMENT FADS

2012-2015

BIODEGRADABLE NON ENTANGLING FADS



2015 – OWNARDS?

VARIETY OF DESIGNS FOR NON-ENTANGLING RAFTS

Tight small mesh net

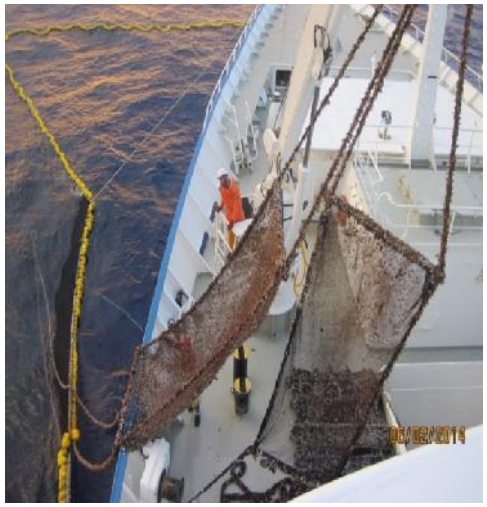
No cover

Black canvas

Fiber raft

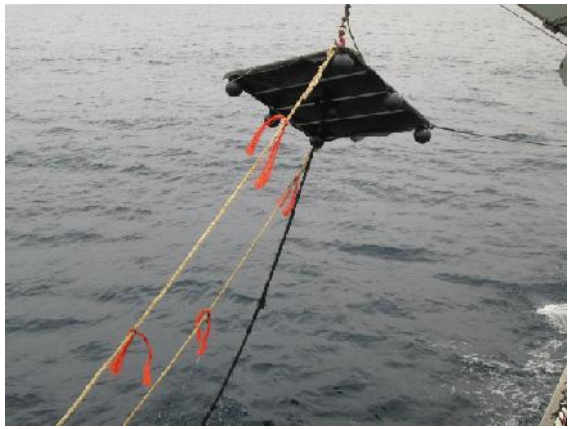
DESIGNS FOR NON-ENTANGLING UNDERWATER APPENDAGE

Small mesh panel



Canvas/cloth

Mixed rope and net bundle



Rope with attractors

PRESENT TRIALS WITH BIODEGRADABLE FADS

Coconut fiber

STRONG, CHEAP, AVAILABLE BIODEGRADABLE MATERIALS ????

WORKSHOP QUESTIONNAIRE

INFORMATION ON:

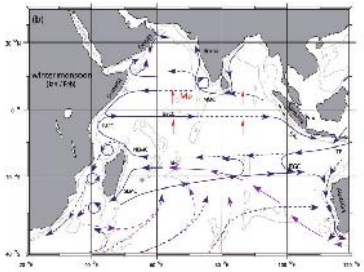
- HISTORICAL USE OF BUOYS IN FADS
- FAD STRUCTURE AND IMPORTANCE OF FAD ELEMENTS
- FAD CONSTUCTION AND DESIGNS
- APPROXIMATION TO NUMBERS AND DISTRIBUTION OF FADS
- FISHING STRATEGIES WITH FADS
- BYCATCH COMPOSITION UNDER FADS WITH AREA AND SEASON

IMPORTANT FAD ASPECTS FOR FISHERS

- AREA/TIME OF DRIFT MOST IMPORTANT FACTOR TO ATTRACT TUNA

- MANY FACTORS IMPORTANT FOR FISHING: DURABILITY, DRIFT DIRECTION, SPEED, VISIBILITY, SHADOW FORMATION, PRICE, AVAILABILITY OF MATERIALS, …

- ATLANTIC MOST DIFFICULT OCEAN TO APPLY NON-ENTANTLING FADS → COMPLEX CURRENTS



- SOME FLEETS MORE RELIANT ON FADS THAN OTHERS

- IDEA OF DEGREE OF TECHNOLOGY ADOPTION AND USE BY FLEET

MONITORING CHANGES IF FAD CHARACTERISTICS

ECHO-SOUNDER BUOY USE IN FADS PER FLEET (2013 QUESTIONNARIES)

Proportion of FADs with echo-sounder buoys (%)	Ghanaian fleet boats (%)	Spanish fleet boats (%)
0-25	50	0
25-50	30	0
50-75	20	72
75-100	0	28

FAD DEPTH IN EACH OCEAN (QUESTIONNAIRES 2010-14)

FAD Depth (m)	FADs Spanish fleet			FADs Ghanaian fleet
	Pacific (%)	Indian (%)	Atlantic (%)	Atlantic (%)
0-20	41	36	0	0
21-40	41	41	15	10
41-60	12	13	32	70
61-80	3	5	37	20
> 80	3	5	16	0

BENEFITS PARTICIPATORY APPROACH BETWEEN SCIENTISTS-SKIPPERS

- Co-authorship of solutions leads to **VOLUNTARY ADOPTION** like lower risk entangling FADs (in Spain, France, Ecuador, Ghana,…).

- **MORE POWER AND SIZE** of trials to find appropriate functional FADs in different oceans.

- Source of **"REAL TIME" INFORMATION** on the adoption of new FAD associated technology, fishing practices and strategies.

- Efficient **KNOWLEDGE TRANSFER** between fleets on best sustainable FAD designs used by other fishers.

ISSF SKIPPERS WORKSHOPS

http://iss-foundation.org/bycatch-reduction/skippers-workshops/

http://www.issfguidebooks.org/

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THANK YOU