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Progress on FAD research conducted on behalf of the tRFMOs

Joint t-RFMO meeting of technical working
group on FADs May 2019 San Diego, USA

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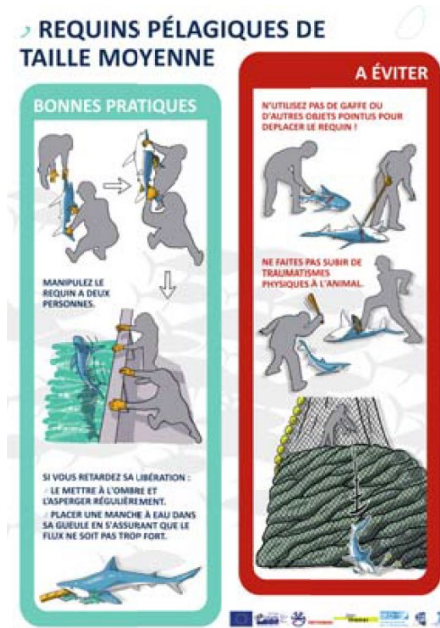
Department of Marine Ecosystems and Society

Scope of research work

- Tuna RFMOs and their stakeholders have, in recent years invested considerable resources in FAD research.
- Research in support of the work of the FAD working group existing in some of the Commissions (IATTC 2016, ICCAT 2017a, IOTC 2017), to the joint tRFMO meeting on FADs (ICCAT 2017b) and to the scientific committees of the Commissions.
- Research on FADs is regarded as one of the fundamental issues to be tackled by the strategic research plans of tRFMOs (ICCAT 2014, IOTC 2016).

Research participation and funding

- Much of the research is done in collaboration with industry and NGOs.
- Industry and NGOs have contributed with knowledge and operational resources, such as access to their vessels and time spent by their scientists, crews and technicians in the research.
- The European Union has provided a large portion of the funds spent in support of this research.



Industry codes of good practice

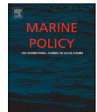
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To FAD or not to FAD: A challenge to the Marine Stewardship Council and its Conformity Assessment Bodies on the use of Units of Assessment and Units of Certification for industrial purse seine tuna fisheries



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Peer review scientific articles with industry authors

Research spans a wide range of topics

FAD research theme	Example project	Leading Institution	Collaborators	tRFMO
FAD terminology harmonization	RECOLAPE	AZTI	IRD, IEO	Global
Materials, design and construction techniques	dFAD construction in the WCPO	SPC		WCPFC
Technology	BAI	AZTI	IRD, IEO	ICCAT, IOTC
Marking and monitoring	PNA FAD tracking	SPC		WCPFC
FAD contribution to fishing mortality of target species	Shallow vs deep FAD performance	ISSF	NIRSA company, IATTC secretariat	IATTC
Ecology of FAD-associated communities	CECOFAD2	IRD	AZTI, IEO, CEFAS, MRAG	ICCAT, IOTC
Mitigation of Environmental effects	FAD-WATCH	AZTI	OPAGAC, ICS, SFA, IDC	IOTC
Evaluation of FAD management	AOTTP	ICCAT secretariat	CRODT, CRO-CI, FSSD, INDP, IEO, IMROP, CIPA, DGPA Gabon, DP São Tomé e Príncipe	ICCAT
Legal aspects				

Research project list

A preliminary list of FAD related research projects has been developed (EXCEL) but needs contributions from all participants at this meeting to be made more comprehensive. Such a list can be a tool for tRFMOs and FAD working groups to promote collaboration and reduce duplication.

ID	Project Acronym	Project title	Start (year)	End (year)	Thematic Area 1	Thematic area 2	Thematic Area 3	Contact person	Contact person email	Webpage	tRFMO	Ocean location	Lead Institution	Collaborating institutions
1	CECOFAD2	Catch, Effort, and Ecosystem Impacts of Tropical Tuna Fisheries	May-18	Aug-20	Contribution to fishing mortality	TEC - Acoustic technology	Ecology of FAD-associated communities	Daniel Gaertner	daniel.gaertner@ird.fr		ICCAT, IOTC		IRD	AZTI, IEO, CEFAS, MRAG
2	BIOFAD	Testing designs and identify options to mitigate impacts of drifting FADs on the Ecosystem	8/9/2017	12/9/2019	Mitigation of Environmental effects	FAD materials, design and construction techniques	-	Iker Zudaire	izudaire@azti.es	https://www.azti.es/atunerascion/geladores	IOTC		AZTI	IRD, IEO
3	Skippers Workshops	ISSF Workshops for purse seine bycatch mitigation measures	1/1/2010	7/1/2019	Mitigation of Environmental effects	FAD materials, design and construction techniques	Technology	Jefferson Murua	jmurua@azti.es	https://iss-foundation.org/what-we-do/areas-of-focus/bycatch/skippers-workshops/	GLOBAL		AZTI	ISSF
4	HELEA	Release equipment for bycatch in tuna purse seiners	2/1/2019	12/1/2019	Mitigation of Environmental effects			Jefferson Murua	jmurua@azti.es		GLOBAL		AZTI	
5	SELECT-Trop	Improve acoustic species and size selectivity of tropical tuna	9/1/2018	12/31/2019	TEC - Acoustic technology			Guillermo Boyra	gboyra@azti.es		GLOBAL		AZTI	ISSF
6	ICCAT/AOTTP	Atlantic Ocean Tuna Tagging Programme, Phase 2	9/1/2018	6/30/2019	FAD contribution to fishing mortality			Nicolas Gofii	ngofii@azti.es	https://www.iccat.int/AOTTP/en/	ICCAT	Atlantic	ICCAT	CRODT, CRO-CI, FSSD, INDP, IEO, IMROP, CIPA, DGPA Gabon, DP São Tomé e Príncipe
7	BAI	Buoy-derived Abundance Index	1/1/2018	12/31/2019	FAD contribution to fishing mortality	Technology	Management	Josu Santiago	jsantiago@azti.es		ICCAT/IOTC	Atlantic / Indian	AZTI	IRD, IEO
8	Tropicales	Biology and management of tropical tuna	1/1/2019	12/31/2019	FAD contribution to fishing mortality	Management	Ecology of FAD associated communities	Hilario Murua	hmurua@azti.es		ICCAT/IOTC	Atlantic / Indian	AZTI	
9	RECOLAPE	Strengthening Regional cooperation in the area of large pelagic fisheries data collection	1/1/2018	5/30/2019	FAD terminology harmonization	Technology	Management	Jon Ruiz	jruiz@azti.es		GLOBAL		AZTI	IRD, IEO
10	Best Practices	Verification of the Code of Best Practices in purse seine FAD Fishery	4/7/2014	continuous	FAD materials, design and construction techniques	Mitigation of Environmental effects		Maitane Grande	mgrande@azti.es	https://www.azti.es/atunerascion/geladores	GLOBAL		AZTI	
11	FAD-WATCH	FAD Watch: Removal of beached FADs from the Outer Islands on the Seychelles	7/5/2016	7/5/2017	Mitigation of Environmental effects	FAD materials, design and construction techniques		Iker Zudaire	izudaire@azti.es	http://www.iotc.org/documents/WPEB/14/12	IOTC		AZTI	OPAGAC, ICS, SFA, IDC
12		PNA FAD tracking Programme	1/1/2016	12/31/2018	Marking and monitoring	MIT -Recovery of lost, abandoned, stranded FADs		L. Escalle			WCPFC		SPC-OPF	

Project Acronym	Contact person	tRFMO
Project title	Contact person email	Ocean location
Start (year)	Webpage	Lead Institution
End (year)		Collaborating institutions
Thematic Area 1		Reference/Notes
Thematic area 2		
Thematic Area 3		



Conclusions

- Research has not necessarily always kept pace with the demands of managers to make decisions about FADs (e.g. FAD closures, FAD deployment limitation)
- Seen large benefits of engagement of scientists and industry in tackling FAD management questions. Industry have sometimes used the results of research to implement “best practices” ahead of the adoption of recommendations by the Commissions.
- The Joint Technical Group may not be the only mechanism for research coordination as competition for funding and different priorities between commissions may lead to inefficient investment of scarce resources
- tRFMO representatives to the Kobe process should acknowledge the benefits of long-term investing of Commission resources in joint-research on FADs

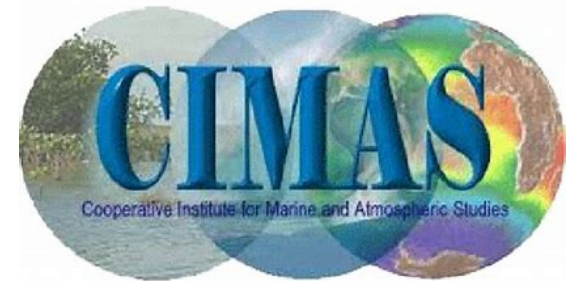
Acknowledgements

Meeting Hosts



Organizing FAD WG meetings and supporting my participation

Supporting my work related to tRFMOs



tRFMO FAD Tech WG



Sharing ideas and providing research project data

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