AGAC four oceans Integral Purse Seine Tropical Tuna Fishery (Western and Central Pacific Ocean) MSC Notice of Objection

1 Introduction

The MSC Objection Procedure provides an orderly, structured, transparent and independent process by which stakeholder or client objections to the Final Draft Report and determination of a certifier (or Conformity Assessment Body) can be resolved.

The Objection Procedure is not intended to review the fishery against the MSC Fisheries Standard, but to determine whether the certifier (CAB) made an error of procedure, scoring, or condition setting that is material to the determination or the fairness of the assessment.

Learn more about MSC objections >

Please complete all unshaded fields. All grey boxes containing instructions may be deleted, e.g. the 'Introduction' section. All notes and guidance indicated in *italics*, please delete and replace with your specific information.

The MSC Notice of Objection Template should be completed and sent to <u>objections@msc.org</u>. Please ensure you will complete Sections 2.1 and 2.2 from this template. Depending on the selected objection category in Section 2.3, complete Section(s) 2.4-2.7 accordingly.

Information on objection costs and the MSC Objection Fee Cost Waiver Form can be found in the appendices.

2 Marine Stewardship Council Notice of Objection

2.1 Your details

Table 2.1.1 – Contact details		
1	Contact name	
	First*	Last*
	Alex	Hofford
2	Title	
	Mr	

Table 2.1.2 – Organisation details	
1	Organisation*
	- Please enter the legal or registered name of your organisation or company.
	Coalition for Transparent Tuna Fisheries (CTTF)
2	Department
3	Job title*
	Convenor
4	Description
	- Please provide a short description of your organisation.
	The Coalition for Transparent Tuna Fisheries' (CTTF) brings together a group of like-minded organisations that are concerned about the ongoing negative environmental impacts of industrial tuna fisheries.
5	Phone
	+44 7366 200761
6	Email*
	alexhofford@gmail.com

Four Oceans Integral Purse Seine Tropical Tuna Fishery (Western and Central Pacific Ocean)
Register
owing objection is being lodged on behalf of the above-named organisation(s) and I am authorised to his submission on their behalf*
Signature*
021
W .
by: Alex Hofford, Convenor, CTTF

2.2 Objecting party's involvement

Table 2.2.1 – Prior involvement	
Please indicate your prior involvement with this assessment	
Fishery client – FCP v2.1 Annex PD2.3.1.a	No
Written stakeholder submissions - FCP v2.1 Annex PD2.3.1.b	Yes
Meetings attended - FCP v2.1 Annex PD2.3.1.b	No
Participation prevented or impaired - FCP v2.1 Annex PD2.3.1.c	No

Table 2.2.2 – Evidence	
1	Supporting evidence of prior involvement in the assessment
	- Provide evidence and/or outline details to support this classification.
	CTTF provided written feedback for the PDCR, however, we feel the CAB did not respond accordingly to the information.
2	Background
	- State here your interest in the fishery and it's certification.
	The Coalition for Transparent Tuna Fisheries' (CTTF) brings together a group of like-minded organisations that are concerned about the ongoing negative environmental impacts that industrial tuna fisheries, and the destructive fishing gears they use, are having on ocean biodiversity. In the face of the accelerating impacts of climate change, high levels of biodiversity loss, and increasing human pressures on the ocean, CTTF believes that responsible stewardship is required now more than ever to ensure that tuna fisheries are truly sustainable, not just in name only, and that they are operated in a transparent and responsible manner.

2.3 Your objection

Table 2.3.1 – Objection category

Are you objecting on the basis that, in your opinion (please select any that apply)	
There was a serious procedural or other irregularity in the fishery assessment process that was material to the fairness of the assessment (FCP v2.1 Annex PD2.8.2.a). Complete Section 2.4.	Νο
The setting of conditions by the certifier (CAB) in relation to one or more Performance Indicators cannot be justified because the conditions fundamentally cannot be fulfilled, or the condition-setting decision was arbitrary or unreasonable in the sense that no reasonable certifier (CAB) could have reached such a decision on the evidence available to it (FCP v2.1 Annex PD2.8.2.b). Complete Section 2.5.	No
The score given by the certifier (CAB) in relation to one or more of the Performance Indicators cannot be justified, and the effect of the score in relation to one or more of the particular Performance Indicators in question was material to the determination (FCP v2.1 Annex PD2.8.2.c). Complete Section 2.6.	Yes
Additional information not forming part of the record (FCP v2.1 Annex PD2.7.5.a) that is relevant to the circumstances at the date of determination has not been considered (FCP v2.1 Annex PD2.8.3). Complete Section 2.7.	Νο

2.4 Process

Objection in line with FCP v2.1 Annex PD 2.8.2.a.

Please ensure you have filled in your contact details (Section 2.1) and objections category (Section 2.3) before filling in this section.

1	Proced	dural issues
	-	State here the procedure(s) that you or your organisation believes were omitted or incorrectly followed by the certifier in the conduct of this assessment, in relation to the version of the FCP used
2	Other	
	-	State here any other irregularity in the fishery assessment process that you or your organisation believes was material to the fairness of the assessment.
3	Effect	on the determination
	-	Please state why you or your organisation believes that the failure of the CAB to follow procedures has significantly affected the result of the determination such that the determination should be altered.

2.5 Conditions

Objection in line with FCP v2.1 Annex PD2.8.2.b.

Please ensure you have filled in your contact details (Section 2.1) and objections category (Section 2.3) before filling in this section.

Listing the conditions placed on the relevant Performance Indicator(s) and, using the template below, please clearly identify –

- a. The reason(s) why you or your organisation believes that the condition assigned to the Performance Indicator(s) and CAB review of the Client Action Plan within the Final Draft Report cannot be justified because it cannot fundamentally be fulfilled within the allocated time frame; or,
- b. The reason(s) why you or your organisation believes the condition setting decision was arbitrary or unreasonable in the sense that no reasonable certifier (CAB) could have reached such a decision on the evidence available.

Please repeat the table below as needed for each Performance Indicator and condition to be included in the objection.

Table	Table 2.5.1 - Conditions	
1	Performance Indicator	
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding	
2	Condition	
	- Enter the condition, as stated in the Final Draft Report.	
3	Reason	
	- Enter reason in line with (a) and (b) above.	
4	Supporting justification	
	- Please enter supporting justification for the reason(s) above.	

2.6 Scoring

Objection in line with FCP v2.1 Annex PD2.8.2.c.

Please ensure you have filled in your contact details (Section 2.1) and objections category (Section 2.3) before filling in this section.

Listing the conditions placed on the relevant Performance Indicator(s) and, using the template below, please clearly identify –

- a. The reason(s) you or your organisation believes that the score(s) presented within the Final Draft Report cannot be justified; and,
- b. Your rationale and/or evidence in support of a different conclusion, making reference to the particular Performance Indicator in question.

Please repeat the table below as needed for each Performance Indicator and condition to be included in the objection.

Table 2.6.1 - Scoring	
1	Performance Indicator
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding
	2.3.1. – ETP species outcome
2	Reason
	- Enter reason in line with (a) and (b) above.
	Ghost fishing by FADs was not adequately addressed.
3	Supporting rationale and or evidence
	- Please enter here the supporting rationale for the reason(s) above.
	It is well known that high levels of entanglement of silky sharks and other ETP species occur under FADs (Balderson and Martin, 2015; Filmalter et al., 2013; Pilling et al., 2017, Escalle 2020). Non-entangling FADs might prevent entanglement/ghost fishing to some extent however non-entangling FADs often break apart, become disentangled and will continue to ghost fish for many years after fishing event. The lack of management of FADs causes ghost fishing. 90 % of the shark catch from tropical tuna fisheries are silky sharks. Furthermore, in the WCPO, 90 % of silky sharks caught in purse seine fishing activities occur during sets on floating objects. Even though pelagic sharks are incidentally caught in the purse seine fishery, rather than targeted, the impact of such a large fishery can seriously compromise global conservation efforts. Observing entangled animals from the deck (by observers and crew) is nearly impossible – such observations are only possible by the use of remote cameras, divers making direct observations, or when the entire FAD is lifted out of the water. Despite reports that all silky sharks are returned using best practice 'to the extent possible' (as stated in the FDR), only approximately 10-20% of the returned silky shark may be expected to survive post-release (Hutchinson et al. 2015). Furthermore, it has been found that sharks do not remain entangled for long (often around 1 day) before either dropping out the net or being consumed. Filmater et al (2013) found that "Entanglement mortality of silky sharks (Carcharhinus falciformis) in the Indian Ocean was 5–10 times that of the known bycatch of this imperiled
	species from the region's purse-seine fleet. More importantly, these estimates from a single ocean (480 000– 960 000 silky sharks) mirror those from all world fisheries combined (400 000–2 million silky sharks), a situation that clearly requires immediate management intervention and extensive monitoring." Filmalter et al. (2013) found that FAD entanglement poses an immense threat to silky shark populations. They argued that most of the entanglements could be eliminated redesigning FADs so that it excludes meshed materials. Anecdotal evidence however persists showing that dFADs recovered once stranded (both in the Indian & Pacific Oceans) continue to use netting in their designs. There is no evidence to suggest that things are

different for the UoA, and in fact in recent times FADs belonging to vessels in the UoA have been recovered with entangling netting still part of the design.

The CAB acknowledge that silky shark populations have "declined steadily over the 1995-2016 model period...[and] although there is considerable uncertaintly associated with the estimate of stock status ... it was estimated that spawning biomass in 2016 was at 47% of the unexploited level... and if catches remain at the current level there is considered to be a high probability that the biomass will decline below the SB_{MSY} level in the foreseeable future (~5 years)."

With regard to Oceanic whitetip shark, the CAB states "there is no reason to believe [the post-release survical rate] will be substantially different or better than that of silky shark."

The CAB goes on the say "As for silky shark, there is a risk posed to oceanic whitetip sharks from entanglement in FADs, and subsequent unobserved mortality. Again, given the relative scale of the AGAC WCPO tuna fishery and its use of lower-entanglement risk FADs, it is considered that the unobserved mortality is very unlikely to pose significant risk to pose a significant risk..." However, use of low- and nonentangling FADs this has not been independently verified and, in fact, a 2020 report by Escalle states "in general, natural and low or non-entangling dFAD materials are rarely used in the WCPO". They go on to report "The use of nets on the dFADs appendages have the potential for the unintentional entanglements of sharks and turtles, i.e., ghost fishing, even on reef systems once detached from the raft. About 65-90% of dFADs, depending on the year considered, have at least some nets used as appendages as well as on the rafts. Less than 13% of observed dFADs had no nets at all. In practice, very few natural materials are used in dFAD rafts and submerged appendages in the WCPO, and most submerged appendages are constructed from artificial materials which have a long lifespan. The CAB assumes that non-entangling FADs are used by the UoA, but there is no independent verification to back up this claim. It is therefore highly likely that the entangling of silky sharks under the FADs deployed by vessels in the UoA continue to this day and continues to threaten the survival of this species. The entanglement of ETP species can occur at different life stages of a dFAD, from the time drifting at-sea, through ghost fishing when the dFAD is lost or abandoned, to final stages if the dFAD strands and gets caught on coral reefs" (Balderson and Martin, 2015; Filmalter et al., 2013; Pilling et al., 2017, Escalle 2020).

Guidepost 2.3.1 a (Effects of the UoS on population/stock within national or internationsla limits, where applicable) was deemed irrelevant to this fishery. SG 60 forGuidepost b (direct effects) states that known direct effects are not likely to **hinder recovery** of ETP species. Given the uncertainty of the true levels of entanglement; poor post-release survival rates; the lack of actual, no verified use of lower entangling FADs; and the fact that the CAB itself states that the continuation of current fishing levels will lead to a decline in biomass that will have a negative impact in a time period as short as 5 years – we believe that this PI cannot be scored as meeting SG 60 let alone SG 80.

Table 2.6.1 - Scoring	
1	Performance Indicator
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding
	2.3.2. – ETP species management
2	Reason
	- Enter reason in line with (a) and (b) above.
	Lack of management of FAD ghost fishing impacts of FADs
3	Supporting rationale and or evidence
	- Please enter here the supporting rationale for the reason(s) above.
	It is well known that high levels of entanglement of silky sharks and other ETP species occur under FADs (Balderson and Martin, 2015; Filmalter et al., 2013; Pilling et al., 2017, Escalle 2020). Non-entangling FADs might prevent entanglement/ghost fishing to some extent however non-entangling FADs become disentangled and will continue to ghost fish for many years after fishing event due to the long lifespan of the

lea ne W	aterials used in building dFADs. About 65–90% of dFADs, depending on the year considered, have at ast some nets used as appendages as well as on the rafts. Less than 13% of observed dFADs had no ets at all. In practice, very few natural materials are used in dFAD rafts and submerged appendages in the ICPO, and most submerged appendages are constructed from artificial materials which have a long espan (Escalle 2020).
otl up "sa as	urthermore, many dFAD designs promoted as "non-entangling" or less entangling still use netting and her meshed materials which have been scientifically shown to cause large scale ghost fishing impacts oon sharks, turtles, porpoises and many other species. Some of the promoted designs tie this netting into ausages" or have other similar suggestions, but the netting unravels and becomes an entanglement risk is the dFAD degrades at sea or collides with a reef or other habitat (Filmalter et al 2013. Stelfox et al. 014, Chanrachkij and Loog-on 2003, Seychelles 2021).
Sy bid re (D 20 da tha an It I Ho fis 40	any FADs are still constructed of non-biodegradable materials and can be more than 100m in length. withetic materials such as nylon, polyethylene, and polypropylene are impervious to natural odegradation and can remain unchanged in the marine environment for decades (Stelfox 2016). A 2020 port by Banks and Zahara examined the impact from the loss of Drifting Fish Aggregation Devices DFADs) from the Western and Central Pacific purse seine fishery. Based on recent FAD deployments, in D17-2019, between 44,700 and 64,900 FADs are estimated to have been deployed annually. Using the ata available from the Parties to the Nauru Agreement (PNA) FAD Tracking Programme it is estimated at, 5,912 to 8,583 FADs were retrieved (8.4%), 9,254-13,463 FADs beached and 29,534-42,881 sunk mually. has been difficult to estimate the impact of sunk FADs (lost FADs that are not retrieved and not beached). owever, the scale of lost gear is highly significant, set against the background of overall gear losses from shing. Approximately 66% of all deployed FADs are expected to have sunk. This could mean that over 0,000 FADs annually (from the upper number from the upper range of DFAD deployed of 64,900 eployments/year).
"e, fis ta, pr te ("j) ar Re ar, ra FA the tha for re	tricle 5 of the WCPFC Convention requires that CCMs: adopt measures to minimize waste, discards, catch by lost or abandoned gear, pollution originating from shing vessels, catch of non-target species, both fish and non-fish species, (hereinafter referred to as non- rget species) and impacts on associated or dependent species, in particular endangered species and comote the development and use of selective, environmentally safe and cost-effective fishing gear and chniques;" and implement and enforce conservation and management measures through effective monitoring, control nd surveillance." easons provided by the CAB for meeting SG 80 are mainly centred around the facts that the requirements e operationalised through the use of best practices for releases - however, when post-release survival tes are only 10-20%, it is concerning how this may be deemed 'best practice'; and, that low-entanglement AD designs are required – however, as stated earlier, it is evident that this is not the case. Furthermore, e level of abandonment of FADs and low rates of retrieval (90.6% are not retrieved), is another example at the requirements are not actually being complied with. We question how SG 60 can be said to be met r guidepost C (measures are expected to be highly likely to achieve national and international quirements for the protection of ETP species) and guidepost C (measures are considered likely to work), hen there is abundant evidence that Convention requirements are not being complied with.

Table 2.6.1 - Scoring	
1	Performance Indicator
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding
	2.3.3. – ETP species information
2	Reason
	- Enter reason in line with (a) and (b) above.

Supporting rationale and or evidence
- Please enter here the supporting rationale for the reason(s) above.
The WCPFC Convention and almost all national fishery Acts define FADs as fishing gear. Furthermore, analysis by Hanich et al. (2019) concludes that a drifting FAD in the WCPFC Area is 'fishing' from deployment to recovery, thereby creating obligations to monitor, control and report drifting FADs, consiste with broader obligations for coastal and flag states. This means that a FAD drifting in any closed area such as territorial seas, a closed area around main Islands, or any other closed area, could be regarded as illeg fishing; a FAD drifting in a zone in which any vessel associated with the FAD is not licensed is regarded a illegal fishing.
Whilst the CAB has responded that the AGAC fishery uses low- and non-entangling FADs this has not been independently verified and, in fact, a 2020 report by Escalle et al. states "in general, natural and low or non- entangling dFAD materials are rarely used in the WCPO". They go on to report: The use of nets on the dFADs appendages have the potential for the unintentional entanglements of sharks and turtles, i.e., ghost fishing, even on reef systems once detached from the raft. About 65–90% of dFADs, depending on the ye considered, have at least some nets used as appendages as well as on the rafts. Less than 13% of observed dFADs had no nets at all. In practice, very few natural materials are used in dFAD rafts and submerged appendages in the WCPO, and most submerged appendages are constructed from artificial materials which have a long lifespan. The entanglement of ETP species can occur at different life stages of dFAD, from the time drifting at-sea, through ghost fishing when the dFAD is lost or abandoned, to final stages if the dFAD strands and gets caught on coral reefs (Balderson and Martin, 2015; Filmalter et al., 2013; Pilling et al., 2017, Escalle 2020). Some of the promoted lower entangling FAD designs suggest tyrin netting into "sausages" or have other similar suggestions, but the netting unravels and becomes an entanglement risk as the dFAD degrades at sea or collides with a reef or other habitat (Filmalter et al 2013; Stelfox et al. 2014, Chanrachkij and Loog-on 2003, Seychelles 2021).
In scoring guidepost a (Information adequacy for assessment of impacts), Evidence for meeting SG 60 for silky sharks and oceanic whitetip sharks, the CAB emphasises the role of lower entangling FAD designs, including having non-mesh materials of the tying of marger mesh into sausages – however the use of lower entangling FADs has not been independently verified, conversely there is evidence that they are not being adopted, and 'sausages' become unravelled and so are not effective in reducing the risk of entanglement. such, SG 60 for this guidepost cannot be met. Regarding guidepost b (Information adequate for management strategy), the CAB states that the level of detail regarding [target] catch, and the use of best practice for releases, allows for adequate information regarding ETP management – however, in the previous guidepost, the reason that only SG 60 is met for silky sharks and oceanic whitetip sharks is that 'present it is only possible to say that there is qualitative information that is adequate to estimate the UoA related mortality on ETP species." As a result of the lack of independently verified use of lower-entangling FADs, the fact that ETP specific data are qualitative at best, and the dynamic, long-lasting ghost-fishing nature of drifting FADs; we feel it is not possible to score SG 60.

1	Performance Indicator
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding
	2.4.1. – Habitats Outcome
2	Reason
	- Enter reason in line with (a) and (b) above.

Ecological Trap Hypothesis

3 Supporting rationale and or evidence

- Please enter here the supporting rationale for the reason(s) above.

We welcome the fact the CAB confirmed that the fishery was an enhanced fishery. However, we strongly disagree that the impacts of FAD incurred by habitats are 'not serious or irreversible'.

The ecological trap hypothesis for tuna was originally proposed by Marsac & Fonteneau (2000) and they proposed additional studies to look at the validity of the hypothesis. The ecological trap hypothesis is that dFADs exhibit zonal drift and so the associated populations of juvenile tuna and associated fauna are transferred to, and remain in, areas where such schooling was not previously observed, and which are not necessarily favourable for tuna feeding. It seems that FADs have a refuge function for small tuna, and a trophic function for large tuna, and probably for other associated pelagic species such as billfish and sharks (Menard et al. 2000). Such concentrations also may increase competition and exposure to predators. Hallier et al. (2008) provided evidence from the Atlantic that tunas caught in association with FADs were less healthy than free school tuna. They argued that these findings support the hypothesis that FADs act as a super-stimulus, misleading tunas to make inappropriate habitat selection and suggested that additional research is required to investigate the long-term effect of FADs on the entire life cycle of tunas. Dagorn et al (2013) found that (i) the processes for FADs to drive tunas to new areas, and possible consequences of such movements on the biology of individuals, could occur at scales smaller than originally thought and (ii) that the processes for FADs to retain tuna longer in some areas should be investigated, considering that the density of floating objects has been multiplied by a factor of 40 in some areas in recent years due to largescale deployment of FADs by purse seiners. These and other studies show that the ecological trap hypothesis may be causing serious and irreversible harm to ecosystems. Accordingly, the CAB is required to apply the precautionary approach and cannot dismiss the theory unless clear evidence is produced that it is not a problem.

In a study by Maufroy et al, (2017) tracks were combined from a large proportion of the French GPS buoys from the Indian ocean with data from observers aboard French and Spanish purse seiners and French logbook data to estimate the total number of dFADs and GPS buoys used within the main fishing grounds over the period 2007-2013. In the Indian Ocean, the number increased from 2250 dFADs in October 2007 to 10 300 dFADs in September 2013. Although the relative proportion of natural to artificial floating objects varies geographically, in no region do dFADs represent <50% of the floating objects and the proportion of natural objects has dropped over time as dFAD deployments have increased. This increased dFAD use represents a major change to the pelagic ecosystem, a study by Perez et al (2020) found "The increase of the number of floating objects in the ocean would lead to increases in the time tuna spend at FADs, which would increase their vulnerability to fisheries. Such consequence can be extended to all species that associate with floating objects, including bycatch species such as dolphinfish (Coryphaena hippurus) or silky sharks (Carcharhinus falciformis), a vulnerable species". Far from being reversible, deploying further FADs is adding to the problem. Slowing down the number of FADs being added to the ocean is not a reversal of the process (even assuming that the numbers additionally deployed are in fact reducing). Furthermore, there is evidence to show that non-entangling FADs can untangle and become entangling FADs. There is no empirical evidence that significantly fewer entanglements happen on any of the FAD sets that involves AGAC purse seiners. As a result, SG 60 is not met for guidepost a (commonly encountered habitat status).

Many FADs are still constructed of non-biodegradable materials and can be more than 100m in length. Synthetic materials such as nylon, polyethylene, and polypropylene are impervious to natural biodegradation and can remain unchanged in the marine environment for decades (Stelfox 2016). This is of concern for a variety of reasons, one of which is the impact on turtle nesting beaches when dFADs are beached. Nelms et al. (2016), found that plastic pollution (of which dFADs contribute greatly to), "may alter nest properties affecting temperature and sediment permeability. This could influence hatchling sex rations and reproductive success, resulting in population level implications. Additionally, beach litter may entangle nesting females or emerging hatchlings. Lastly, as an omnipresent and widespread poolutant, plastic debris may cause wider ecosystem effects which result in loss of productivity and implications for trophic interactions"

A 2020 report by Banks and Zahara examined the impact from the loss of Drifting Fish Aggregation Devices (DFADs) from the Western and Central Pacific purse seine fishery. Based on recent FAD deployments, in 2017-2019, between 44,700 and 64,900 FADs are estimated to have been deployed annually. Using the data available from the Parties to the Nauru Agreement (PNA) FAD Tracking Programme it is estimated that, 5,912 to 8,583 FADs were retrieved, 9,254-13,463 FADs beached and 29,534-42,881 sunk annually. The majority (92%) of the identified beaching events were likely to have occurred on coral reef habitat. The

remaining events occurred either on seagrass habitat (classified as a VME in the MSC standard), mangroves, or sandy beaches, where no coral reefs were mapped. Some FADs possibly impacted more than one type of habitat. Of the total coastal areas, the impact has been assessed as having affected cumulatively between 4 and 6 km2 of coral reef habitat per year. It is highly likely that none of the corals survived the impact. Analysis of beaching events in island communities identified that only around half of the FAD components recovered included components other than FAD buoys, suggesting that the buoys had been dislodged from the FADs at some stage. Other FAD materials such as floats and netting were also retained, but rarely recovered from reefs.

It has been difficult to estimate the impact of sunk FADs (lost FADs that are not retrieved and not beached). However, the scale of lost gear is highly significant, set against the background of overall gear losses from fishing. Approximately 66% of all deployed FADs are expected to have sunk. This could mean that over 40,000 FADs annually (from the upper number from the upper range of DFAD deployed of 64,900 deployments/year). Some of the lost gear, which may include FADs, accumulates in convergence zones of the oceans. A noteworthy fact is that areas of possible accumulation in the Pacific Ocean are also areas rich in seamounts. It is commonly accepted that seamounts represent some of the richest biological hotspots of the oceans, providing habitats for coral, demersal fish and sharks (Jupiter et al., 2019). In addition, the abyssal plains are home to a diversified fauna of chemosynthetic communities that are poorly understood (Samadi et al., 2015). These vulnerable communities could be threatened by sinking DFADs.

Measuring the environmental impacts of ALDFG on seamounts and abyssal plains are extremely difficult to determine, and as per coastal FADs, these impacts are likely to be localized. However, a precautionary approach would be to not deploy FADs that are associated with high levels of synthetic debris (HER and LER FADs); or to require FADs to be recovered within a more limited lifespan of 10-12 months (Banks and Zahara 2020). Given the high percentage of FADs that are likely to have sunk and the extensive nature of Sea mounts and other VMEs in the Pacific Ocean – we suggest the fishery *is likely* to reduce structure and function os VME habitats, such as deep water corals and sea mounts, where there would be serious or irreversible harm. In fact, despite the CAB considering deep demeral habitats as 'minor habitats' (a point on which we disagree), they do acknowledge their finding that loss of FADs would not reduce the structure and function of the habitats to a point where there would be serious or irrevesable harm is "an intuitive finding rather than there being specific evidence". This PI should not be scored above SG 60.

Table 2.6.1 - Scoring		
1	Performance Indicator	
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding	
	2.4.2. – Habitats management strategy	
2	Reason	
	- Enter reason in line with (a) and (b) above.	
	Lack of transparency in FAD management in the WCPO where AGAC vessels are operating	
3	Supporting rationale and or evidence	
	- Please enter here the supporting rationale for the reason(s) above.	
	Positional data of FADs is not reported in real-time or near real-time to fisheries managers. It is well-known that relying on self-reporting for compliance and other purposes is not reliable at all. Regular FAD positional data and data on the location of deployment and retrieval of FADs is submitted long after events and no independent verification of data is done. This lack of transparency means that there is very little understanding of the true impacts on FADs on habitats. A 2020 report by Banks and Zahara examined the impact from the loss of Drifting Fish Aggregation Devices (DFADs) from the Western and Central Pacific purse seine fishery. Based on recent FAD deployments, in	

1	Performance Indicator
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding
	2.4.3. – Habitats Information
2	Reason
	- Enter reason in line with (a) and (b) above.
	Lack of data regarding impacts of FADs on habitats, especially VMEs

3	Supporting rationale and or evidence
	- Please enter here the supporting rationale for the reason(s) above.
	See above. There is a clear lack of information on the impacts that lost, abandoned and discarded FADs have on VMEs and other sensitive marine ecosystems. SG 60 is therefore not met.

Table 2.6.1 - Scoring		
1	Performance Indicator	
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding	
	2.5.1. – Ecosystem outcome	
2	Reason	
	- Enter reason in line with (a) and (b) above.	
	Ecological trap hypothesis – CAB didn't apply precautionary approach	
3	Supporting rationale and or evidence	
	- Please enter here the supporting rationale for the reason(s) above.	
	impacts of FADs and how this relates to the 'ecological trap hypothesis, the CAB stated "The contribution of the AGAC fleet to the number of floating objects in the fishing grounds is significant, however in spite of this, there is no indication that the increase in floating objects is resulting in either variation of the ecological trap hypothesis and when considering the life-span of FADs if fishing were to stop, and the FADs were effectively removed from the fishery by sinking, then the ecosystem would likely rapidly recover from any potential impact that FADs are having on tuna behaviour. (SG80 is met for this scoring element)." This statement is hugely problematic - a lack of data should not be taken as a lack of evidence that FADs are having impacts on how tuna, sharks and other species that are associated with FADs behave and how FADs have altered their normal migratory patterns, fecundity, feeding, individual health etc. It is also problematic that the CAB thinks that the sinking of FADs, which usually consists of entangling netting, is fine as it negates any long-lasting impacts in the more of the ecological trap hypothesis. The sinking of these FADs will have serious impacts on the marine environment, often on VMEs, when the beach or sink. These impacts, which includes ghost fishing of ETP species, will continue long after fishing operations cease. Analysis by Hanich et al. (2019) concludes that a drifting FAD is 'fishing' from deployment to recovery, thereby creating obligations to monitor, control and report drifting FADs, consistent with broader obligations for coastal and flag States. This means that a FAD drifting in any closed area such as territorial seas, a closed area around main islands, or any other closed area, could be regarded as illegal fishing; a FAD drifting in a zone in which any vessel associated with the FAD is not licensed is regarded as illegal fishing. Whilst there are many claims that only non-entangling and biodegradable dFADs are used, there is little evidence of this being	

Fonteneau et al. (2002) suggests ecosystem modelling such as ECOpath/Ecosim models should be applied to better understand the potential trends of offshore pelagic ecosystems under present increasing pressure by tuna fisheries and evaluate the effect of decreased tuna biomass. Whilst this was carried out by Allain et al. in 2007 and used in the current assessment this is now 14 years out of date. Substantial increases in fishing pressure (Hare et al. 2020), use of FADs and declining apex predator populations have occured since then. Significant decreases in target catch (as pointed to in the PNG assessment of skipjack and yellowfin - same p1 species as AGAC) aso means significant changes to the ecosystem as within open sea habitat "the biomass present is held in the bodies of the creatures that live in the water and is highly mobile. It is those creatures, and the ecological roles they fulfil... that constitute as habitat in the open sea" (O'Leary and Roberts, 2017).

It cannot be claimed that the UoA is unlikely to disrupt the key elements underlying ecosystem structure as there is not enough evidence to confirm the statement. Additionally, the argument made by the CAB that the reduction of FAD effort by at least 50 % is predicted to increase the biomass of tuna species and sharks to return to the ecosystem structure to a pre-industrial state does not seem relevant as it is not a likely scenario when, in fact, fishing efforts in the UoA are increasing (Hare et al. 2020). SG 60 is not met.

Table 2.6.1 - Scoring		
1	Performance Indicator	
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding	
	2.5.2. – Ecosystem management strategy	
2	Reason	
	- Enter reason in line with (a) and (b) above.	
	FADs are deliberately abandoned as well as lost. Furthermore, impacts of these derelict FADs are not managed at all.	
3	Supporting rationale and or evidence	
	- Please enter here the supporting rationale for the reason(s) above.	
	166,093 dFADs were deployed in the WCPO between 2016 and 2019, 21 % of these were deliberately abandoned (n=35,046)– it is this type of deliberate abandonment of dFADs at sea which indicates a high level of non-compliance by purse seiners. 90.6% of dFADs that are abandoned, lost, or discarded are NOT retrieved. Due to the nature of the reporting disaggregation by and identification of fisheries is not permitted, therefore it cannot be stated that AGAC does NOT contribute to the deliberate abandonment of dFADs – in fact, the onus is on AGAC to prove that it does not do so.	
	discarded FADs. The lack of transparency in how these FADs are managed means that it is impossible to formulate a proper strategy to manage impacts on VMEs and other sensitive marine ecosystems.	
	The CAB argues that 100% observer coverage is a key part of the habitat management strategy, enabling SG 60 and 80 to be met. However, there are reports of the true coverage being 65-70% and – during the Covid-19 pandemic (2020-2021) may have been as low as 20% (although it was stated, via personal communication with the SPC that it did not drop below this level) (FDR). This is far from being 100% observer coverage. Furthermore, observers have very little insight into the ecological damage/damage to habitats caused by abandoned, discarded and lost FADs, even with 100% observer coverage there is no way of understanding whether a habitat management strategy is effective or not. FAD numbers are not independently verified and FAD operations continue to have a lack of transparency. The CAB also states that each vessel is limited to 350 FAD activated instrument buoys, yet the study by Banks and Zahara suggest that up to 194,781 FADs were retrieved, beached, or sank between 2017 and 2019 – it is, therefore, difficult to accept that the limiting of FADs is an effective enough management strategy given the disproportionate number of FADs not in use and their long lifespan. Finally, the use of lower entangling, or biodegradable FADs is raised again as part of the management strategy. This has not been independently	

Table 2.6.1 - Scoring

Performance Indicator

Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding

3.2.2 – Decision making processes

Reason

- Enter reason in line with (a) and (b) above.

The fishery specific management system includes effective decision-making processes that result in measures and strategies to achieve the objectives and has an appropriate approach to actual disputes in the fishery.

Supporting rationale and or evidence

- Please enter here the supporting rationale for the reason(s) above.

Scoring Issue (c) of PI 3.2.2 requires at SG80 that "decision-making processes use the precautionary approach and are based on best available information". It is clear that the management of FADs is done without applying the precautionary approach. With >90% never retrieved after deployment and the fate and impact of these FADs being mostly unknown and unmonitored, it can hardly be claimed that precaution is being applied. It is well-known that abandoned, lost and discarded FADs have long-lasting impacts on sensitive coastal and deepwater habitats and ecosystems and that they are a major contributor to pollution at sea. The scoring element should therefore fail.

Scoring issue (d) of PI 3.2.2 requires that at SG60 that "Some information on the fishery's performance and management action is generally available on request to stakeholders". It is well-known that FAD operations are done with a clear lack of transparency (Blue Marine. 2021. Minimum Requirements for Responsible Drifting FAD Use; https://www.bluemarinefoundation.com/wp-content/uploads/2021/10/Minimum-Requirements-for-Responsible-Drifting-FAD-Use.pdf). For instance, this means that no one is even sure how many drifting FADs are deployed around the world. It also means that FAD owners lack any responsibility for the impacts caused by their lost and abandoned FADs. This is no different for the UoA. Even fishery managers are denied access to data on FAD deployments, FAD tracking data and FAD retrieval data. It therefore cannot be claimed that SG60 for scoring issue (d) is met.

Due to the UoA not meeting SG60 on either scoring issues (c) or (d), PI 3.2.2 should therefore have been a fail and should not meet SG60.

Table 2.6.1 - Scoring	
1	Performance Indicator
	3.1.11 Legal and/or customary frafmework – Governance and policy
2	Reason
	Deliberate abandonment of FADs in violation of international marine pollution law

3	Supporting rationale and or evidence
	166,093 dFADs were deployed in the WCPO between 2016 and 2019, 21 % of these were deliberately abandoned (n=35,046). The average weight of a dFAD is 1.5 metric tonnes, therefore approximately 52,568 metric tonnes of dFADs have been deliberately abandoned in the WCPO between 2016-2019 – it is this type of deliberate abandonment of dFADs at sea which indicates a high level of non-compliance by purse seiners. 90.6% of dFADs that are abandoned, lost, or discarded are NOT retrieved. Due to the nature of the reporting disaggregation by and identification of fisheries is not permitted, therefore it cannot be stated that AGAC does NOT contribute to the deliberate abandonment of dFADs – in fact, the onus is on AGAC to prove that it does not do so.
	The deliberate abandonment of FADs by vessels that are part of the AGAC fleet is a direct contravention of international marine pollution law and as such constitutes IUU fishing. Looking at the FAO definition of IUU, the deliberate abandonment of FADs is "in violation of national laws or international obligations". "A large number of FADs are lost or abandoned every year, with many eventually washing up on beaches as litter, stranding in sensitive marine habitats, such as coral reefs and seagrass beds, or sinking and causing damage to seabed habitats. That raises the question of whether international marine pollution law, in particular the international dumping regime (the London Convention, London Protocol, and UNCLOS) and MARPOL, could be used to regulate and mitigate such loss and abandonment. As far as the international dumping regime is concerned, the abandonment (but not the loss) of a FAD probably constitutes "dumping." It follows that where the London Convention is the applicable law, the state of loading or the flag state, as the case maybe, must prohibit the abandonment of FADs made of other materials that a fishing vessel intends to abandon. Where the London Protocol is the applicable law, the state of loading or flag state must prohibit the abandonment of FADs in a "organic material origin," and must issue permits for the deliberate abandon a FAD in the territorial sea, EEZ, or continental shelf of a state other than the state of loading or the flag state, it must obtain the express prior approval of that state. There is a due diligence obligation on the state of loading and the flag state to enforce the prohibitions and permit systems of the London Convention and Protocol. Where those states fail to do so, they may be made subject to the dispute settlement processes of the London Protocol and UNCLOS, and to the non-compliance procedure of the London Protocol.In the case of MARPOL, the non-accidental loss of a FAD constitutes a breach of Annex V. That is also the case with the abandonment of a F
	 "Deliberate abandonment of FADS constitutes "dumping" within the meaning of the international dumping regime and thus, depending on the material of which a FAD is made, is either prohibited or subject to a permit system, and that the non-accidental loss of a FAD breaches Annex V of MARPOL. " (Churchill et al. 2021). "Recent analysis indicates that most deployed FADs are eventually lost, stolen, beached, or abandoned, continuing their destructive impacts. This paper examines the legal regime, market forces, and other factors that frame FAD use. We demonstrate that, because deployed FADs are legally considered to be fishing, when they drift into closed areas or otherwise contravene national or international agreements or regulations, they are Illegal, Unreported, and/or Unregulated (IUU); vessels using such FADs are therefore IUU" (Gomez et al. 2020). MSC has clear guidance to CABs on how IUU should be assessed in fisheries: The MSC's intent and understanding of the standard in relation to illegal, unreported and unregulated (IUU) fishing is based on the FAO definition of IUU fishing and is as follows (FAO, 2002): Illegal fishing refers to fishing activities: Conducted by national or foreign vessels in waters under the jurisdiction of a State, without the permission of the standard.
	 of that State, or in contravention of its laws and regulations; Conducted by vessels flying the flag of States that are parties to a relevant regional fisheries management organisation but operate in contravention of the conservation and management measures adopted by that organisation and by which the States are bound, or relevant provisions of the applicable international law; or In violation of national laws or international obligations, including those undertaken by cooperating States to a relevant regional fisheries management organisation.
	The deliberate abandonment of dFADs at such a massive scale suggests that there is no effective framework that will deliver management outcomes consistent with MSC principles 1 and 2 and so this component does not meet SG 60, let alone SG 80.

Table 2.6.1 - Scoring		
1	Performance Indicator	
	- Please enter the Performance Indicator. E.g.: PI 1.1.2, Stock Rebuilding	
	3.2.4. – Monitoring and management performance evaluation	
2	Reason	
	- Enter reason in line with (a) and (b) above.	
	Lack of independent verification of FAD positional data, deployment, and retrieval data	
3	Supporting rationale and or evidence	
	- Please enter here the supporting rationale for the reason(s) above.	
	166,093 dFADs were deployed in the WCPO between 2016 and 2019, 21 % of these were deliberately abandoned (n=35,046). The average weight of a dFAD is 1.5 metric tonnes, therefore approximately 52,568 metric tonnes of dFADs have been deliberately abandoned in the WCPO between 2016-2019 – it is this type of deliberate abandonment of dFADs at sea which indicates a high level of non-compliance by purse seiners. 90.6% of dFADs that are abandoned, lost, or discarded are NOT retrieved. Due to the nature of the reporting disaggregation by and identification of fisheries is not permitted, therefore it cannot be stated that AGAC does NOT contribute to the deliberate abandonment of dFADs – in fact, the onus is on AGAC to prove that it does not do so.	
	The CAB argues that 100% observer coverage is a key part of the habitat management strategy, enabling SG 60 and 80 to be met. However, there are reports of the true coverage being 65-70% and – during the Covid-19 pandemic (2020-2021) may have been as low as 20% (although it was stated, via personal communication with the SPC that it did not drop below this level) (FDR). This is far from being 100% observer coverage.Furthermore, the CAB states that, with regard to sanctions, "their deterrence has not, or cannot been [sic] clearly demonstrated." If the effectiveness of mechanisms cannot be demonstrated then it begs the question whether the mechanisms are being applied/implements (as required for SG 60 in guideposts a and b). We also take issue with the requirement of guidepost d – no evidence of systematic non-compliance does not constitute sufficient evidence that there is systematic compliance; the fishery should be responsible for demonstrating compliance if it is to be deemed sustainable.	

2.7 Additional information

Objection in line with FCP v2.1 Annex PD2.8.3.

Please ensure you have filled in your contact details (Section 2.1) and objections category (Section 2.3) before filling in this section.

Using the template below, please list all additional information not forming part of the record (FCP v2.1 Annex PD2.7.5.a) that is relevant to the circumstances at the date of the determination that you feel has not been considered. Be sure to provide the reasons why you or your organisation believes that the information in question:

- a. Was known or should reasonably have been known to any party to the assessment process;
- b. Should reasonably have been made available to the CAB; or,
- c. If considered, could have been material to the determination or the fairness of the assessment.

Table 2.7.1 – Additional information				
1	Information			
	- Please state here the additional information.			
2	Reason why information was known or should reasonably have been known.			
	- Enter here the reasons why information was known or should reasonably have been known and should have been made available.			
3	Reason why information could have been material to the determination or the fairness of the assessment.			
	- State here the reasons why information could have been material to the determination or the fairness of assessment.			

3 Appendix 1 – Costs of the adjudication process (the Fee)

Objectors should note MSC Fisheries Certification Process v2.1 Annex PD2.10 in relation to the costs of the adjudication process.

Fee amount and payment details

The cost of the adjudication process is £5,000 or such lesser amount fixed by the independent adjudicator under FCP v2.1 Annex PD2.10.4 and PD2.10.5.

The cost of the adjudication process shall be calculated and paid in Great British Pounds.

The MSC will email remittance details for the costs of the adjudication process within five days of the date on which the independent adjudicator notifies the parties that the adjudication phase will commence.

Please ensure the bank charges imposed by your own bank are not deducted from the Fee.

All sums, prices, costs, expenses and revenues referred to under the cost of the adjudication process are inclusive of VAT and any other taxes.

As per FCP v2.1 Annex PD2.10.3, an objection will not proceed to adjudication unless, within 15 days of the date on which the independent adjudicator notifies the parties that the adjudication phase will commence, the objector(s) has either:

- Paid the costs of the adjudication process to the MSC, or
- Obtained a waiver from the independent adjudicator in accordance with FCP v2.1 Annex PD2.10.4 and PD2.10.5.

4 Appendix 2 - MSC Objection Fee Cost Waiver Form

4.1 Introduction

This form should be completed in accordance with the MSC Objections Procedure (FCP v2.1 Annex PD).

This form may be completed and emailed to the MSC at objections@msc.org, where it will be forwarded to the Independent Adjudicator.

All information included here in will be kept strictly confidential between the MSC and the appointed Independent Adjudicator.

Objectors should note the following excerpts from the MSC Fisheries Certification Process (FCP) v2.1 on submission of a cost waiver request:

- PD2.10.4 Objectors may apply to the independent adjudicator for the Fee to be waived (in whole or in part) using the application form in the 'MSC Notice of Objection Template'.
 - PD2.10.4.1 The objector shall submit the Fee waiver application to the independent adjudicator within 15 days after the date of publication.
 - PD2.10.4.2 Such an application shall provide the justification as to why a waiver is sought and shall be accompanied by appropriate evidence to demonstrate exceptional circumstances, including, where available, the objector's most recent audited financial report.
- PD2.10.5 The independent adjudicator shall decide within 5 days of receiving any waiver application whether to refuse the application or to waive the whole or part of the costs that would otherwise be attributed to the objector.
 - PD2.10.5.1 A waiver shall only be granted if the independent adjudicator is satisfied that there are exceptional circumstances justifying such a waiver. The onus is on the objector to demonstrate that there are such exceptional circumstances. In determining whether there are exceptional circumstances, the independent adjudicator shall consider:
 - a. Any evidence relating to the financial ability of the objector to meet the costs of the adjudication process.
 - b. The impact on the objector's other activities of paying the costs of the adjudication process.
 - c. The ability of the objector to raise funds from external sources, including support from other participants in the assessment process, for the purposes of meeting the costs of the adjudication process.
 - PD2.10.5.2 If the independent adjudicator fails to decide on the waiver application within the time frame specified in PD2.10.5, and such failure is attributable solely to the independent adjudicator, the independent adjudicator shall extend the time frame and inform relevant parties of the extension.

Please note that in case of discrepancies between the text above and the Fisheries Certification Process v2.1 on the MSC website, individuals should refer to the Fisheries Certification Process v2.1 on the website.

Please complete all unshaded fields. All notes and guidance indicated in *italics*, please delete and replace with your specific information. All grey boxes containing instructions may be deleted, e.g. the 'Introduction' section.

4.2 MSC Objection Fee Cost Waiver Form

4.2.1 Identification detail

Table 4.2.1.1 – Identification details

1	Fishery assessment to which this objection applies		
	AGAC Four Oceans Integral Purse Seine Tropical Tuna Fishery (Western and Central Pacific Ocean)		
Contact details for objecting party			
2	Organisation(s)		

	Coalition for Transparent Tuna Fisheries (CTTF)			
3	Contact person			
	Alex Hofford			
4	Address			
5	Phone number			
	- Include country code			
	+44 7366 200761			
6	Email address			
	alexhofford@gmail.com			

The following the following cost waiver is requested on behalf of the above-named organisation(s).

I am authorised to make this submission on the above-named organisations' behalf.

Name: Alex Hofford

Position: Convenor, Coalition for Transparent Tuna Fisheries (CTTF)

Hum

Signed:

Dated: 03/11/2021

4.2.2 Evidence of exceptional circumstances

Table 4.2.2.1 – Evidence of exceptional circumstances

1	Any evidence relating to the financial ability of the objector to meet the costs of the adjudication process (FCP v2.1 Annex PD2.10.5.1.a). (FCR v2.0 Annex PD2.9.6.1)	
	We are a recently formed loose coalition of NGOs with no funds and no recent audited financial accounts, hence we are unable to pay the adjudication process fee	
2	The impact on the objector's other activities of paying the costs of the adjudication process (FCP v2.1 Annex PD2.10.5.1.b). (FCR v2.0 Annex PD2.6.9.2)	
	We are a recently formed loose coalition of NGOs with no funds and no recent audited financial accounts, hence we are unable to pay the adjudication process fee. Being forced to pay the fee would hinder our ability to conduct our other conservation projects effectively.	
3	The ability of the objector to raise funds from external sources, including support from other participants in the assessment process, for the purposes of meeting the costs of the adjudication process (FCP v2.1 Annex PD2.10.5.1.c). (FCR v2.0 Annex PD2.9.6.3)	
	We are a recently formed loose coalition of NGOs with no current ability to raise funds from external sources, including support from other participants in the assessment process, for the purposes of meeting the costs of the adjudication process fee. We do not have the funds or capacity to employ a full or part-time fundraising person.	

4.2.3 Appendices

Please include your organisations most recent audited financial report, and any other relevant supporting documentation.

5 Template information and copyright

This document was drafted using the 'MSC Notice of Objection Template v3.0'.

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Template version control

Version	Date of publication	Description of amendment
1.0	March 2009	Issued with TAB Directive-023 Revised Fisheries Certification Methodology Objections Procedure
1.1	February 2010	Updated in line with release of TAB Directive-023 Objections Procedure v2
1.2	26 October 2012	Updated in line with release Certification Requirements v1.2
2.0	08 October 2014	Updated in line with release of Fisheries Certification Requirements v2.0
3.0	17 December 2018	Release alongside Fisheries Certification Process v2.1

A controlled document list of MSC program documents is available on the MSC website (msc.org)

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