

Workshop to review the Shark NDF Guidance

Bundesamt für Naturschutz
Konstantinstrasse 110, D-53179 Bonn, Germany

20-21 August 2014

Report of meeting

Introduction

The German government is supporting Parties with their implementation of the Appendix II listings of shark species agreed by the 16th meeting of the CITES Conference of the Parties (CoP16) in March 2013¹, which come into effect on 14th September 2014. This has been done by commissioning the development of “CITES Non-detriment Findings Guidance for Shark Species” by Mundy-Taylor *et al.* (2014)², followed by practical tests of the Guidance on selected stocks of the shark and manta ray species listed in CITES Appendix II.

The Shark NDF Guidance was initially presented at the 27th meeting of the CITES Animals Committee in April/May 2014³. On 20th and 21st August 2014, a workshop was convened at the offices of the German Federal Agency for Nature Conservation (BfN) in Bonn, Germany, to evaluate the results of ten case studies undertaken by experts to test the Shark NDF Guidance. The Workshop was attended by over 20 experts in CITES, shark⁴ conservation biology and fisheries management issues (see **Annex 1**), from a total of 14 countries across Africa, Asia, Europe, Latin America, the Middle East, North America and Oceania. CITES Management and Scientific Authorities, national government fisheries departments, Regional Fishery Bodies and the European Commission were all represented at the workshop.

The workshop centered on considering the findings of ten case studies to test the Shark NDF Guidance through their application to real-world data on shark and manta ray populations and relevant management measures. These findings were used to develop recommendations as to how the guidance might be revised and further improved, as a practical tool to assist CITES Parties in making NDFs for sharks.

This report summarises the discussions at and outcomes of the Workshop. The case studies presented are listed in Table 1 and the presentations provided as **Annex 2** to this Report.

¹ The CITES Appendix II shark listings agreed at CoP16 were: (i) Oceanic Whitetip Shark *Carcharhinus longimanus*; (ii) Porbeagle *Lamna nasus*; (iii) Scalloped Hammerhead Shark *Sphyrna lewini*; (iv) Great Hammerhead Shark *Sphyrna mokarran*; (v) Smooth Hammerhead Shark *Sphyrna zygaena*; (vi) the Manta rays *Manta birostris* and *Manta alfredi*. The Basking Shark *Cetorhinus maximus*, Whale Shark *Rhincodon typus* and White Shark *Carcharodon carcharias*, were earlier listed in Appendix II. The Sawfish, Family Pristidae, are all listed in Appendix I, which prohibits commercial trade.

² Mundy-Taylor, V., Crook, V., Foster, S., Fowler, S., Sant, G. and Rice, J. (2014). CITES Non-detriment Findings Guidance for Shark Species. A Framework to assist Authorities in making Non-detriment Findings (NDFs) for species listed in CITES Appendix II. Report prepared for the Germany Federal Agency for Nature Conservation (Bundesamt für Naturschutz, BfN).

³ See <http://www.cites.org/sites/default/files/eng/com/ac/27/E-AC27-22-03.pdf> and <http://cites.org/sites/default/files/common/com/ac/27/E-AC27-Inf-01.pdf>.

⁴ The term “shark” is used in this Report to refer to all sharks, rays and chimaeras.

Table 1. NDF case studies presented to the Workshop.

Case study	State/region	Species	Undertaken by
1	Indo-Pacific	Oceanic Whitetip <i>Carcharhinus longimanus</i>	Shelley Clarke
2	Australia	Oceanic Whitetip <i>Carcharhinus longimanus</i>	Colin Simpfendorfer
3	Canada / Northwest Atlantic	Porbeagle <i>Lamna nasus</i>	Jennifer Shaw
4	New Zealand	Porbeagle <i>Lamna nasus</i>	Malcolm Francis*
5	Southern Mexico (Pacific)	Scalloped Hammerhead <i>Sphyrna lewini</i>	Javier Tovar Àvila
6	Malaysia	Scalloped Hammerhead <i>Sphyrna lewini</i>	Ahmad bin Ali
7	Indonesia	Scalloped Hammerhead <i>Sphyrna lewini</i>	Fahmi
8	Australia	Smooth Hammerhead <i>Sphyrna zygaena</i>	Colin Simpfendorfer
9	Seychelles	Great Hammerhead <i>Sphyrna mokarran</i>	John Nevill
10	Sri Lanka	Oceanic Manta ray <i>Manta birostris</i>	Daniel Fernando

*by correspondence

Workshop discussions

The case study reviews and subsequent discussions among Workshop participants identified several key issues relating to the content/structure of the Shark NDF Guidance that warranted further, more detailed, consideration.

A common theme was the need to streamline the Guidance, with several suggestions provided as how this could be achieved.

Other key issues warranting further consideration included the following:

- whether the explanatory text on Introduction from the Sea should be further elaborated in the Guidance, and diagrams included;
- whether certain information (e.g. under Step 2 on Intrinsic Biological Vulnerability) should be “pre-filled” (i.e. default/non-stock specific information provided as part of the Guidance) to assist Authorities;
- regarding the factors to be considered under Section 2.1 of Step 2 (Intrinsic Biological Vulnerability): whether any existing factors should be removed and/or additional factors added, and the explanatory text revised;
- the need to re-evaluate/adjust the scales for certain indicators/metrics in Step 2 (Intrinsic Biological Vulnerability and Conservation Concern);
- whether risk assessment methods should be integrated into Step 2 and/or Step 3;
- whether other pressures, such as habitat degradation, pollution and climate change, should be included for consideration in Step 3;
- whether it is appropriate to consider trade and fishing pressures separately in Step 3 (the key issue being the overall fishing mortality);
- whether to include criteria and scale for scoring based on a precautionary approach in Step 3;
- whether to include further guidance in Step 3 on assessing the “level of confidence” associated with the evaluation of fishing/trade risk;

- (j) whether the various tables/stages in Step 4 could be streamlined/combined, and how existing repetition might be removed to make the Worksheets more user-friendly;
- (k) the need to re-evaluate/adjust the response options/scales/categories for certain questions in the Step 4 Worksheets;
- (l) whether the outcomes identified in Steps 2 to 4 should be integrated (e.g. scored/weighted) to assist authorities in formulating an NDF;
- (m) the need to amend the current explanatory text and decision tree under Step 5 (which leads to the decision to make a Positive or Negative NDF and whether conditions or further advice on management are appropriate) and to include further guidance on decision-making in data-poor situations;
- (n) whether the guidance should be further elaborated to describe how Step 6 might operate in practice (e.g. how advice on management improvements may be provided to a relevant body/authority);
- (o) whether Annex 1 is useful and should be retained and, if so, whether revisions are necessary and further guidance on minimum management measures warranted;
- (p) whether the “shortcuts” (i.e. to a Negative NDF) at the end of Steps 2 and 3 are appropriate or should be removed;
- (q) whether a “stepwise” approach to Steps 2 to 4 of the Guidance is appropriate, or whether these Steps should instead be considered in parallel;
- (r) whether the Guidance adequately considers trends (e.g. in abundance, fishing mortality, trade) throughout.

The Workshop participants were divided into three Sub-groups tasked with discussing revisions to specific Steps of the Guidance. The Sub-groups were asked, in particular:

1. To reflect upon the outcomes of the ten case study presentations and key issues summarized above.
2. To reflect upon the comments arising from the expert case study reviews (provided to participants as a compilation, organized by over-arching issues and by section).
3. To discuss and agree their recommendations on relevant sections of the Guidance, bearing in mind its intended audience/readership.
4. To record their recommendations on content for the authors and for presentation back to the Workshop.

The Sub-groups reported back on their recommendations on Day Two of the Workshop for discussion in plenary. The consensus agreement of the Workshop, in terms of revisions to the Guidance document, may be summarized broadly as follows:

1. The Guidance Notes and Worksheets for Steps 1 and 2 should be amended to incorporate the case study and plenary discussion recommendations, for example, to include explanatory diagrams to assist understanding of Introduction from the Sea; to clarify the issue of “non-compliance”; to provide more explicit guidance on dealing with shared/high seas stocks, e.g. in terms of information-sharing; to add terms to the glossary, and to include additional references/links to relevant resources.
2. The list of intrinsic biological factors and indicators/metrics under Step 2 should be amended as appropriate and additional explanatory text included for certain factors.
3. As an NDF is in itself a risk assessment, it is not necessary or appropriate to integrate further risk assessment methods within, for example, Step 2 of the Guidance. It may be helpful, however, to include reference to available types of risk assessment methods in the Guidance and to other tools/indicators that might assist Parties in making NDFs⁵.

⁵ For example, Ecological Risk Assessment considering productivity and susceptibility, e.g. Figure 3 of http://www.iccat.int/Documents/Meetings/Docs/SCRS/SCRS-08-138_Cortes_et_al.pdf or Lack, M., Sant, G., Burgener, M., Okes, N. (2014). Development of a Rapid Management-risk Assessment Method for Fish Species Through its Application to Sharks. Report to the Department of Environment, Food and Rural Affairs. Defra Contract No. MB0123. TRAFFIC.

4. Default (species-specific) information should be pre-filled/provided under Section 2.1 of Step 2, noting however, that stock-specific information should be used where available.
5. Under Section 2.2 of Step 2, Conservation Status should be divided into two parts: "Stock status" and "Trend in population".
6. Other pressures on the stock such as habitat degradation, pollution and climate change should be considered as "backdrop" issues (i.e. to be kept in mind as potentially warranting a greater level of precaution), rather than specifically under Step 3.
7. Trade and fishing pressures should both be considered under Step 3, with the addition of further explanatory text on the relationship between the two factors and the overarching aim of determining overall fishing mortality.
8. Further explanation should be added regarding levels of confidence under Step 3, with suggestions of what to do if the level of confidence remains low.
9. Certain questions and response options in the Step 4 Worksheets should be amended and the summary worksheet under Step 4 removed.
10. Further explanatory text should be added in the Guidance on the adoption of a precautionary approach in the absence of robust information. This should be brought out clearly in the Guidance Notes to Step 5 and Worksheets.
11. The Guidance is intended to guide the decision-making process in relation to NDFs, rather than providing a set formula on the decision to be made. Therefore, it is not appropriate to include a scoring or weighting system for the various factors in the Guidance, as the decision will ultimately require a judgment to be made. Additional explanatory text to this effect should be provided in the Guidance Notes to Step 5.
12. The text under Question 5.1 in the Worksheet for Step 5 should be amended for clarity and to distinguish between mandatory "conditions" and "recommendations". The terminology in the flow chart should be amended accordingly for Step 5 and Step 6.
13. Step 6 should be retained (with revisions) and considered in all cases (even for a Negative NDF) as this forms part of an adaptive management approach.
14. Annex 1 should be retained and amended as necessary/further management measures added. The Guidance should make clear that Annex 1 is a starting point and that experts with context-specific knowledge should be consulted regarding management.
15. An NDF requires the completion in full of Steps 2, 3 and 4 (as is it is essential to consider how concerns/risks/pressures are mitigated in Step 4). Therefore the "shortcuts" from Step 2 and Step 3 to a Negative NDF should be removed. However, the stepwise approach (considering Steps 2, 3 and 4 sequentially) should be retained.
16. The Guidance should be amended to explain that the completion of Step 4 allows for the provision of advice on what should be considered in Steps 5 and 6.
17. Existing Porbeagle-specific information within the Guidance text should be removed. Hyperlinks to the final risk assessments for the CITES-listed sharks (including the risk assessment for Porbeagle)⁶ should be provided in an Annex to the Guidance (as they become available).
18. The Guidance could be made more user-friendly by reversing the Guidance Notes and Worksheets (i.e. providing the Worksheets upfront with reference to the Guidance Notes in an Annex).
19. The flow chart should be amended for clarity and to reflect the above revisions.
20. It is vital that distribution of the Guidance be accompanied by training courses/workshops for relevant authorities in exporting countries, to facilitate its use.

The Chair acknowledged that it was not possible to discuss in detail all comments arising from the ten case study reviews and raised by participants during the Workshop. However, all comments provided (including the recommendations summarized above) would be given

⁶ Lack *et al.* (2014).

due consideration by the authors during their revision of the Guidance document and incorporated to the extent possible/appropriate. A revised version of the Guidance, the ten case study presentations delivered at the Workshop and the meeting report would be made available on the CITES website during the course of October. The possibility of translating the Guidance into the other CITES languages (French and Spanish) would also be explored. The Chair welcomed further comments on the Guidance as it is used, for example, within the framework of the Sharks Working Group of the CITES Animals Committee.



Workshop members meeting outside of the conference hall



Participants discussing shark issues during the workshop



Annex 1 - List of participants

Workshop to review the Shark NDF Guidance

Bundesamt für Naturschutz
Konstantinstrasse 110, D-53179 Bonn, Germany

20-21 August 2014

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Annex 2 – Case study Presentations

Annex 2. Shark NDF presentations

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* Oceanic Whitetip <i>Carcharhinus longimanus</i> (Indo-Pacific)	2
* Oceanic Whitetip <i>Carcharhinus longimanus</i> (Australia)	13
* Porbeagle <i>Lamna nasus</i> (Canada/Northwest Atlantic)	25
* Porbeagle <i>Lamna nasus</i> (New Zealand)	40
* Scalloped Hammerhead <i>Sphyrna lewini</i> (Mexico, Pacific)	51
* Scalloped Hammerhead <i>Sphyrna lewini</i> (Malaysia)	65
* Scalloped Hammerhead <i>Sphyrna lewini</i> (Indonesia)	76
* Smooth Hammerhead <i>Sphyrna zygaena</i> (Australia)	90
* Great Hammerhead (<i>Sphyrna mokarran</i>) (Seychelles)	102
* Oceanic Manta Ray <i>Manta birostris</i> (Sri Lanka)	114

Evaluation of CITES Non-detriment Findings Guidance for Shark Species

1

Case study for the Oceanic Whitetip Shark in the Western and Central Pacific Ocean

Author: Shelley Clarke

Organization: Areas Beyond National Jurisdiction Tuna Project / Western and Central Pacific Fisheries Commission

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Evaluation of CITES Non-detriment Findings Guidance: Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Opening comments

- * This case study is based on the assumption that an oceanic whitetip shark (OWT) is being exported from a Pacific Island Country (PIC) which is a member of the WCPFC and does not have its own national laws against possession of shark products
- * WCPFC prohibits retention of OWT, however, some PICs may not have implemented this management measure and so may undertake to provide NDFs for exports (possible, though unlikely)
- * Opinions presented here do not necessarily reflect the views of the WCPFC or any PIC.

Evaluation of CITES Non-detriment Findings Guidance: Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	⇒	Document is too long and detailed. Suggest splitting into a concise main body + annexes
Introduction from the sea	⇒	Suggest including mention of transshipment and internal waters issues
Sources of information	⇒	There is a lot of information on the t-RFMO websites which is not referenced at all
Flow chart	Yes	Excellent
Table 1. Structure of the Guidance	⇒	Could form the basis for an Executive Summary or more concise edition
General comments:		<ul style="list-style-type: none"> Flowchart and Table 1 provide good overviews but details quickly become overwhelming. Suggest more streamlining is necessary. Add diagrams to help explain NDF/export permit scenarios

Evaluation of CITES Non-detriment Findings Guidance: Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & Identification	⇒	Mix of false positive/false negative identification issues
Guidance notes	⇒	Standard of identification, as outlined, is unrealistic
Worksheets	⇒	Many questions seem more relevant to legality than identification
1.2. Legality of acquisition/export	⇒	There are cases where non-compliance with RFMO measures may <u>not</u> be illegal (in EEZ)
Guidance notes	⇒	Definition of "adequate MCS systems"?
Worksheets	⇒	If MCS is the responsibility of RFMO, should ask them to confirm compliance
1.3. Management	⇒	Many questions seem unnecessary
Guidance notes	⇒	Best information is likely held by RFMOs
Worksheets	⇒	

Evaluation of CITES Non-detriment Findings Guidance: Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	⇒	Shouldn't have to look up so much info—develop defaults for the CITES-listed species
Guidance notes	⇒	Many minor technical suggestions
Worksheets	⇒	Row titles don't match guidance notes
2.2. Conservation concern	⇒	Table 5's discussion of reference points is incorrect
Guidance notes	⇒	Much superfluous info here. Most stocks will not have assessments, but if they do just use their conclusions regarding stock status
Worksheets	⇒	Suggest having defaults and any different conclusion would require justification
General comments:		<ul style="list-style-type: none"> What is the purpose of this section? Surely if a species is not vulnerable and not of concern it wouldn't have been listed in the first place?

Evaluation of CITES Non-detriment Findings Guidance: Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
3.1. Fishing pressures	⇒	If rankings are made more conservative due to vulnerability, this should be noted
Guidance notes	⇒	Again, if there is a stock assessment these questions will have been answered, if not, chances are they can't be answered
Worksheets	⇒	Make the focus on F (retained+discarded), move IUU issues to uncertainty
3.2. Trade pressures	⇒	Suggest combining catch and trade → can't have trade without catch!
Guidance notes	⇒	Changes in population parameters or sex ratio due to trade??
Worksheets	⇒	Some questions repeated from catch section
General comments:		<ul style="list-style-type: none"> Why evaluate risk separately from mitigation/ management? Surely the outcome (mitigated risk) is the key point. Philosophically, the approach seems wrong.

Evaluation of CITES Non-detriment Findings Guidance. Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
4 Existing management measures	⇒	Questions could be more focused on output (not input), i.e. how much is mortality reduced by management
Guidance notes	⇒	Combine catch and trade; why assess both legal and illegal trade (mirror image)?
Worksheets	⇒	Tick categories too prescriptive and/or reductionistic; make more generic options
General comments:		<ul style="list-style-type: none"> The final consideration is more about "proof" or "verification" than "effectiveness" in general Implementation is often in shades of grey Much detail here but doesn't address why mgmt may be ineffective (e.g. no implementation? no monitoring? poor design? no observable result?)—the reason is important to corrective actions

Evaluation of CITES Non-detriment Findings Guidance. Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Yes	
Guidance notes	Yes	
Worksheets	Yes	
Developing advice	↓	
Guidance notes	↓	
Worksheets	↓	
General comments:		<ul style="list-style-type: none"> Some guidance on (or examples of) who can recommend what to whom and with what authority should be provided particularly with regard to instructions to international RFMOs (national authorities will want to know this)

Evaluation of CITES Non-detriment Findings Guidance. Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information		Be explicit about the need to consult the national fisheries management authority; this will identify practical options
Guidance notes	⇒	
Worksheets	Yes	
6.2 Improvements in management		Be explicit about the need to consult the national fisheries management authority; this will identify practical options
Guidance notes	⇒	
Worksheets	Yes	
General comments:		<ul style="list-style-type: none"> As for Step 5, explaining how a national SA could require a corrective action of an intergovernmental body will be very important to understand (with examples)

Evaluation of CITES Non-detriment Findings Guidance. Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Didn't use	
Acronyms & Abbreviations	Didn't use	
Biography	??	
Annex 1: Management measures	No (delete?)	Overly summarized and potentially misleading; some terminology issues
General comments:		<ul style="list-style-type: none"> By including everything that any reader might need, it becomes difficult to concentrate on the essential points and references (a question of balance)

Evaluation of CITES Non-detriment Findings Guidance. Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Conclusions

KEY ISSUES:

- * Document is likely to overwhelm most readers; suggest a 15-20pp main text with the rest in an annex
- * Lacks essential references to RFMO data & systems
- * Suggest defaults for Step 2 (vulnerability and conservation concern) –adjust only if different
- * Philosophical issue with separating risk from mitigation of risk — residual risk is the determinant
- * Unhelpful to separate catch & trade (and legal & illegal trade)
- * Explain how corrective actions could work in an RFMO context

Evaluation of CITES Non-detriment Findings Guidance. Case study for Oceanic Whitetip in the Western and Central Pacific Ocean

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Case study for the oceanic whitetip shark (*Carcharhinus longimanus*) stock(s) in Australia



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Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Opening comments

- * Based on my experience working with the Australian government to gather data for our NDFs.
- * This is NOT the Australian Government position.
- * The guidance provides an excellent approach for developing NDFs for CITES listed shark species.
- * The flow diagram and step-wise approach makes understanding the process easy.
- * Some room for improvement, but these are largely tweaks.

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	<input checked="" type="checkbox"/>	
Introduction from the sea	<input type="checkbox"/>	Complex issue. Well explained but may not cover all of the complexities.
Sources of information	<input checked="" type="checkbox"/>	
Flow chart	<input checked="" type="checkbox"/>	
Table 1. Structure of the Guidance	<input checked="" type="checkbox"/>	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification	<input type="checkbox"/>	Confusing as to whether this relates to specific specimens or whole species
Guidance notes	<input checked="" type="checkbox"/>	
Worksheets	<input checked="" type="checkbox"/>	
1.2. Legality of acquisition/export	<input checked="" type="checkbox"/>	
Guidance notes	<input checked="" type="checkbox"/>	
Worksheets	<input checked="" type="checkbox"/>	
1.3. Management	<input checked="" type="checkbox"/>	
Guidance notes	<input checked="" type="checkbox"/>	
Worksheets	<input checked="" type="checkbox"/>	

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	<input checked="" type="checkbox"/>	
Guidance notes	<input checked="" type="checkbox"/>	Issues related some attributes (see next)
Worksheets	<input checked="" type="checkbox"/>	
2.2. Conservation concern	<input type="checkbox"/>	Text refers to "spawning stock"; should be "breeding stock"
Guidance notes	<input checked="" type="checkbox"/>	
Worksheets	<input checked="" type="checkbox"/>	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Attribute issues

- * *Fecundity* – this attribute will only ever be scored as HIGH (vulnerability) for any elasmobranch. I suggest that it be rescaled or dealt with in another way.
- * *Geographic distribution* – it is not clear what this actually is or how you would work it out.
- * *Stock size* – this attribute appears to be coded back to front since the scale is vulnerability; so low abundance (<30%) should be the highest vulnerability.
- * *Trophic level* – this is ok except for the filter feeding sharks which have a low trophic level but high vulnerability because of size and other life history attributes

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
2.1. Fishing pressures		
Guidance notes		Fishing mortality impact assessment confusing; Size/Age/Sex incorrect
Worksheets		Related to above
2.2. Trade pressures		
Guidance notes		
Worksheets		
General comments:	<ul style="list-style-type: none"> This step can get quite confusing when considering a single nation in a multinational stock. Are all questions suited to this situation, or explained clearly enough? 	

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
2.1. Existing management measures		
Guidance notes		
Worksheets		monitoring/data collection column needs further consideration
General comments:	<ul style="list-style-type: none"> This step leads to quite a bit of repetition of information, can it be reduced? 	

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF		
Guidance notes		
Worksheets		
Developing advice		
Guidance notes		
Worksheets		
General comments:	<ul style="list-style-type: none"> Significant judgment is required in this step. Might be useful to make this apparent 	

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information		
Guidance notes		
Worksheets		
6.2 Improvements in management		
Guidance notes		
Worksheets		
General comments:	<ul style="list-style-type: none"> Did not consider this section much as not used for this test case 	

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Miscellaneous sections

	Adequate?	Recommendations
Glossary		
Acronyms & Abbreviations		
Biography		Call it Bibliography
Annex 1: Management measures		
General comments:	<ul style="list-style-type: none"> 	

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Conclusions

- * Useful guidance
- * Requires a lot of information
- * Some sections could be pre-filled for specific species

Evaluation of CITES Non-detriment Findings Guidance for Oceanic Whitetip stocks in Australia

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Case study for Porbeagle in the Northwest Atlantic

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Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Opening comments

Overview of Evaluation of Guidance

- well written, clear and easy to follow
- guides your thinking
- structure of guidance centered on worksheets, made guidance user friendly
- different interpretations and ambiguity forced looking with different perspective
- guidance lengthy, may appear intimidating to users, but only use when necessary
- useful product for developing NDFs for sharks

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	Yes	• remove text concerning the guidance being prepared with Porbeagle in mind
Introduction from the sea	Yes	• was not used but adequate
Sources of information	Yes	• remove Text box 3 specific to Porbeagle (also Section 2.1 worksheets and Annex 3) • Text box 3 - most relevant reference for NWA is DFO 2012/096
Flow chart	Yes	• extremely useful, concise, easy to follow
Table 1. Structure of the Guidance	Yes	• useful, clearly goes through the structure of the guidance giving good overview
General comments:		• good introduction, brief and concise • sources of information – did not use the sources of information section through out the document

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification	Yes	
Guidance notes	Yes	• did not use useful sources section
Worksheets	Yes	• did not use Sources of information column, could combine both columns
1.2. Legality of acquisition/export	Yes	
Guidance notes	Yes	• did not use useful sources section
Worksheets	Yes	• did not use Sources of information column, could combine both columns
1.3. Management	Yes	
Guidance notes	Yes	
Worksheets	Yes	• Reported global catch / Main catching countries add (most recent 5 years)

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	Yes	
Guidance notes	Could be improved	a) Average age at which 50% of cohort reaches maturity – discrepancy with worksheets, females only?? b) Average size at which 50% of a cohort reaches maturity – discrepancy with worksheets, females only?? c) Maximum age/longevity – discrepancy with worksheets d) Maximum size – discrepancy with worksheets g) Reproductive rate - indicator/metric reversed in guidance – low >0.35, high <0.15

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 2 Continued

	Adequate?	Recommendations
2.1 Guidance notes Continued	No	h) Geographic distribution – low distribution not restricted /limited fragmentation, medium distribution partially restricted/fairly fragmented, high distribution severely restricted, highly fragmented i) Stock size - indicator/metric reversed in guidance – low >60%, high <25%, move to 2.2? k) Trophic level – suggest removing, may not be as relevant as other factors, does not appear in guidance notes
Worksheets	No	• include information for each indicator and Notes section in the worksheets
2.2. Conservation concern	Yes	• guidance missing information on trends in abundance • incorporate into 2.2 as an indicator

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 2 Continued

	Adequate?	Recommendations
2.2 Guidance notes	Yes	<ul style="list-style-type: none"> under assessing Conservation Status include 3 factors – stock size and abundance, trend in population and fishing mortality
Worksheets	Yes	<ul style="list-style-type: none"> change National/Regional to Stock/Regional roll up of conservation status and scope of conservation concern difficult suggest changing scope of conservation concern to low – none/local, Medium – stock/regional, High – global, unknown
General comments:		<ul style="list-style-type: none"> important to focus on abundance and trends in population when assessing conservation concern

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
3.1. Fishing pressures	Yes	
Guidance notes	Yes	<ul style="list-style-type: none"> 3(a) include how to evaluate fishing risk severity if you have population or projection model
Worksheets	Yes	<ul style="list-style-type: none"> Fishing mortality – include as an indicator Fmsy as an option with current description
3.2. Trade pressures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:		<ul style="list-style-type: none"> Step 3 well laid out in guidance, easy to use Guidance notes comprehensive / worksheets were intuitive

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
4 Existing management measures	Yes	
Guidance notes	Yes	<ul style="list-style-type: none"> Annex 1 useful and comprehensive
Worksheets	Yes	<ul style="list-style-type: none"> Relevant MCS measures listed in 4.1c are being implemented in varying degrees, not apparent or visible in current worksheet 4.1d change categories under Is monitoring/ data collection required – No data/unknown, Very limited data, Limited data, Comprehensive data required

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 4 Continued

	Adequate?	Recommendations
Worksheets Continued	Yes	<ul style="list-style-type: none"> for NWA Porbeagle no trade related management measures in place, worksheets force you to continue even if not applicable, change box to No data/unknown/not applicable in 4.1c 4.1d
General comments:		<ul style="list-style-type: none"> summary worksheet for step 4 very useful, add Not applicable as option in boxes population monitoring/fishery independent survey data not captured in section 4. Could it be included as a Relevant MCS measure?

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Yes	
Guidance notes	Yes	
Worksheets	No	<ul style="list-style-type: none"> add not applicable to boxes Question 5.1: Suggest the following <ul style="list-style-type: none"> A) Can a positive NDF be made (Yes – go to B) No – Corrective measures are required. Go to Step 6. B) Are there other recommendations to accompany the positive NDF? Yes – list below (see examples to improve monitoring or management in Section 6) and Process stops here No – Process stops here
General comments:		<ul style="list-style-type: none"> section useful in visually summarizing all previous steps Question 5.1 on process could be better clarified

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	Yes	
Guidance notes	Yes	
Worksheets	Yes	<ul style="list-style-type: none"> state in worksheet 'Negative NDF – improvement in monitoring or management required for positive NDF in future'
6.2 Improvements in management	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:		<ul style="list-style-type: none"> Information in guidance notes on improvement in monitoring and management is comprehensive

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Yes	<ul style="list-style-type: none"> not used, could remove if looking to cut down on size of document
Acronyms & Abbreviations	Yes	<ul style="list-style-type: none"> not used, could remove if looking to cut down on size of document
Biography	Yes	<ul style="list-style-type: none"> rarely used, but necessary, comprehensive
Annex 1: Management measures	Yes, used extensively but could be improved	<p>A. Harvest-related management measures</p> <p>1) Limited entry/ Appropriate for which pressures - Include Discards.</p> <p>2) Fishing time Restrictions – Under compliance measures include Sound licensing system, Dockside monitoring, Hail in/Hail out requirements</p> <p>3) Fishing Gear Restrictions – Under compliance measures include Sound licensing system, On-board observer coverage</p>

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Miscellaneous sections Continued

	Adequate?	Recommendations
Annex 1: Management measures Continued	Yes, used extensively but could be improved	<p>6) TAC - under compliance measures include On-board observer coverage, Log books</p> <p>7) Individual Quota – under compliance measures add Log books</p> <p>8) Fishing Trip limits – add On board observer coverage</p> <p>Population monitoring/fishery independent survey data not captured in section 4. Could it be included as a Relevant MCS measure?</p> <p>B. Trade-related management measures</p> <p>Add another trade-related management measure 3) Record of exports, Appropriate for which pressure - legal trade, Relevant compliance measures – requirement of export permits</p>
General comments:	suggest removing Annex 3 from guidance	

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Conclusions

Evaluation of Guidance

- clear, easy to follow and guides your thinking
- structure of guidance centered on worksheets, made guidance user friendly
- importance of assessing stock status, trends in abundance and fishing mortality
- importance of population survey/fishery independent data and projection models
- useful product for developing NDFs for sharks

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in the Northwest Atlantic

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Case study for the porbeagle shark stock in New Zealand

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Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Opening comments

- * Porbeagle stock distribution in the Southern Hemisphere is unknown. For this exercise I have treated the New Zealand EEZ as a 'stock', although we know that porbeagles move out of the EEZ into the high seas, and possibly into the EEZ of other states.

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	Yes	
Introduction from the sea	Yes	
Sources of information	Not used	The CITES portal link labelled 'Sharks of South Pacific' covers sharks of the Pacific coast of South America so is mis-labelled, but it does cover the pelagic sharks of the South Pacific. The FAO website link to NPOAs has few NPOAs, the latest being 2009. The latest NZ NPOA was published this year (2014).
Flow chart	Yes	
Table 1: Structure of the Guidance	Yes	
General comments:	I realise it's impossible to provide links to all the likely resources that people will need, but the lists provided seem very limited and some are out of date. Perhaps with time the list will be increased and become more useful but for now it seems a bit redundant.	

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification	Yes	
Guidance notes	Yes	
Worksheets	Yes	
1.2. Legality of acquisition/export	Yes	
Guidance notes	Yes	
Worksheets	Yes	
1.3. Management	Yes	
Guidance notes	Yes	
Worksheets	Yes	Annex 3 was useful as a guide to the kind and extent of information sought for this section. However not all the items requested under question 1.3 are included in Annex 5.

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	Yes	
Guidance notes	No	This section contains a number of errors, discrepancies with the worksheet, and confusing ambiguities that need correcting.
Worksheets	No	
2.2. Conservation concern	Yes	
Guidance notes	Yes	
Worksheets	No	In the Summary part of the table, it is not clear what the three subheadings (in green) are for and how they relate to the four category levels below them
General comments:	This section needs careful review and better correspondence between Guidance and worksheet	

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
2.1. Fishing pressures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
2.2. Trade pressures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
2.1. Existing management measures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	I became frustrated and bored with the amount of repetition requested in sections 4 (especially the summary), and 5. Every time the word 'transfer' occurs, it requires one to scroll back to an earlier section, copy some text, scroll forward, and paste the text. Not only is this time-consuming and probably pointless (this could probably be automated), it is also prone to human errors leading to incorrect assessments. Automation could be achieved by entering the data in an Excel spreadsheet rather than a Word document, and inserting automatic cell copy commands between tables or worksheets.	

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Yes	
Guidance notes	Yes	
Worksheets	Yes	
Developing advice	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	See section 4 comment	

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	Not used	
Guidance notes	Not used	
Worksheets	Not used	
6.2 Improvements in management	Not used	
Guidance notes	Not used	
Worksheets	Not used	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Yes	
Acronyms & Abbreviations	Yes	
Biography	Not used	Should be bibliography, not biography
Annex 1: Management measures	Not used	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Conclusions

- * The Guidance and worksheets are generally clear, comprehensive and easy to follow. Exceptions are in:
- * Question 2.1 where there are errors, and inconsistencies between the Guidance and the Worksheets.
- * Sections 4 and 5 where there is excessive repetition and cutting and pasting required, leading to potential errors.
- * Overall the Guidance and Worksheet are too long and repetitive and should be streamlined and shortened.

Evaluation of CITES Non-detriment Findings Guidance for Porbeagle in New Zealand

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Case study for the scalloped hammerhead *Sphyrna lewini* stock in Southern Mexican Pacific (Chiapas)

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Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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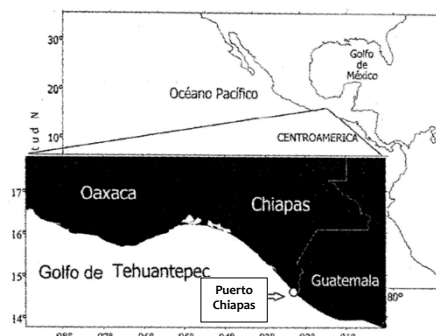
Opening comments

- * Mexico's status as a mega diverse country set the ground for the diversification in its fisheries, which tend to be multi-specific.
- * There are no fisheries that exclusively target *Sphyrna lewini* in Mexico.
- * Taking into account this national background we provide comments to the NDF Guidance for Shark Species.
- * The analysis of the guide was undertaken by several Mexican scientific and administrative authorities.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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Gulf of Tehuantepec, Southern Mexican Pacific

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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* Mexican Artisanal Shark Fishery

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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Evaluation of Guidelines: Introduction		
	Adequate?	Recommendations
Explanatory text	Yes	Include a paragraph in this section on the usefulness of the Worksheets in Annex 2.
Introduction from the sea	Yes	
Sources of information	Yes, with amendments	Include reference to: FAO FishStatI software for fishery statistical time series (http://www.fao.org/fishery/statistics/software/fishstatI/en) and Fishbase (http://www.fishbase.org/search.php) to have background references on the historical landings by species and country.
Flow chart	Yes	We suggest erasing the word "all" in the chart between Step 4 and Step 5 as follows: "All risks are known and existing management is ADEQUATE to mitigate all concerns, risks and impacts".
Table 1. Structure of the Guidance	Yes	
General comments:		
Evaluation of CITES Non-detriment Findings Guidance for <i>Sphyrna lewini</i> in Mexico (Pacific)		55

Evaluation of Guidelines: Step 1		
	Adequate?	Recommendations
1.1. Origin & identification	Yes, with amendments	In page 12 (antepenultimate paragraph) we suggest the following amendment: "International trade of captive-bred specimens of CITES Appendix II listed species requires that the Management Authority (with the advice of the Scientific Authority) certifies that the breeding facility meets the criteria on Resolution Conf. 10.16 (Rev. CoP16) to make an NDF. However, while specimens of other CITES-listed fish species (e.g. sturgeon) may be derived from captive-bred sources,..."
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
1.2. Legality of acquisition/export	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
1.3. Management	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Overview and Conclusions section.
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Evaluation of Guidelines: Step 2		
	Adequate?	Recommendations
2.1. Biological vulnerability	Yes, with amendments	We suggest amending the name of the Section to focus solely on Biological Vulnerability, without considering the harvest, since it is later addressed in Step 3, and furthermore the indicators (parameters) in Step 2 do not include harvest. Amend as follows: "Step 2. Intrinsic Biological vulnerability to harvest and conservation concern – introductory text".
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
2.2. Conservation concern	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
General comments:		
Evaluation of CITES Non-detriment Findings Guidance for <i>Sphyrna lewini</i> in Mexico (Pacific)		57

Evaluation of Guidelines: Step 2		
	Adequate?	Recommendations
Other recommendations and comment regarding Step 2, Biological vulnerability. <ul style="list-style-type: none"> It could be useful to clarify the approach taken to define that low M correspond to low vulnerability, since it is commonly conceived the other way around. Sharks M rarely gets over 0.3 (e.g. <i>S. tiburo</i> 0.37, <i>R. terraenovae</i> 0.44 & <i>M. californicus</i> 0.37; Smith et al. 1998). It could be useful to clarify the approach taken to define that low r correspond to low vulnerability, as it is commonly conceived the other way around. Maximum litter size reported for sharks is lower than the limits established in the guidelines, they should be adjusted. The limits to determine low, medium or high risk are not specified regarding h) Geographic distribution and j) Reliance on critical habitats and habitat vulnerability. It is not clear how limits for Stock size and abundance (paragraph i) where defined, as 50% of initial biomass usually equals RMS, and limits are already established in the literature. 		
Evaluation of CITES Non-detriment Findings Guidance for <i>Sphyrna lewini</i> in Mexico (Pacific)		58

Evaluation of Guidelines: Step 3		
	Adequate?	Recommendations
3.1. Fishing pressures	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
3.2. Trade pressures	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
General comments:	Although the guidelines point out certain threats or pressures to sharks (environmental variability, depletion of food sources, among others), these are ignored and only fisheries and trade pressures are considered. However, the guidelines could benefit from inclusion of this elements and discussion on this subject during the workshop, because for some species it could be of importance.	
Evaluation of CITES Non-detriment Findings Guidance for <i>Sphyrna lewini</i> in Mexico (Pacific)		59

Evaluation of Guidelines: Step 4		
	Adequate?	Recommendations
4.1. Existing management measures	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
General comments:	Steps 2 and 3 should be evaluated in parallel, considering there is no direct correlation or inter-dependence among them. Step 4 contributes to assess if management measures address concerns regarding both, biological vulnerability and pressures on the species.	
Evaluation of CITES Non-detriment Findings Guidance for <i>Sphyrna lewini</i> in Mexico (Pacific)		60

Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
Developing advice	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
General comments:	<p>It would be desirable to consider weighing the different indicators (parameters), as well as tools and recommendations to integrate the low, medium and risk outcomes in Steps 2-4, and formulate the NDF.</p> <p>Additionally, it would be useful to explore tools for population modeling and algorithms designed to estimate sustainable harvest levels to support NDF, whenever the information available allows it.</p>	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
6.2 Improvements in management	Yes	
Guidance notes	Yes	
Worksheets	Not used	View Conclusions section.
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Yes	
Acronyms & Abbreviations	Yes	
Biography	Yes	Bibliography
Annex 1: Management measures		
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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Other general comments and conclusions

- Regarding Step 2 it is important not to bias the issuance of NDF by assuming *a priori* that biological vulnerability alone can determine its outcome: a vulnerable species can be sustainably harvested through appropriate management measures, which are assessed in following steps of the guide.
- The NDF Guidance is quite lengthy and in occasions reiterative; it could benefit from further editing to contribute to its practicality and straightforward application.
- Worksheets in Annex 2 might be helpful to keep track of, and organize, the information; yet they were not essential to the implementation of the NDF guidelines. They might be friendlier if the cells to record the information are widened.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Mexico (Pacific)

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Case study for the *Sphyrna lewini* stock in Southeast Asia Region/Malaysia**Author:** AHMAD ALI**Organisation:** Marine Fishery Resources Development and Management Department, Southeast Asian Fisheries Development Center (SEAFDEC/MFRDMD)**Contact details:** SEAFDEC/MFRDMD, 21080 Chendering, Kuala Terengganu, MALAYSIA.**E-mail:** aaseafdec@seafdec.org.my**Fax:** 609-6175136**Tel.** 609-6171543/6175940Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Opening comments

- * The guidance is very detailed, rich in information and well written.
- * This guidance should become a major reference document for all Parties in developing their own NDF guidance similar to IPOA-Sharks developed by FAO as a guidance for developing of RPOA-Sharks and NPOA-sharks at regional and national level.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	Yes	
Introduction from the sea	Yes	
Sources of information	Yes	
Flow chart	Yes	Difficult to follow the flowchart at first look. Many type of boxes showed in flowchart need to be clarified.
Table 1. Structure of the Guidance	Yes	
General comments:	Yes. Detailed and well explained.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & Identification	Yes	
Guidance notes	Yes	
Worksheets	Yes	
1.2. Legality of acquisition/export	Yes	
Guidance notes	Yes	
Worksheets	Yes	
1.3. Management	Yes	
Guidance notes	Yes	
Worksheets	Yes	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	Yes	Include biological information on CITES listed species during CoP 16 rather than general information on biology of sharks
Guidance notes	Yes	Some information are not reflected to CITES listed species eg fecundity >2000. Typo In first column item f) Fecundity (maximum litter size or number of eggs) . High should be <100 not > 100. Typo; reproductive rate. Under item g) (page 29). should be > 0.35 not < 0.35
Worksheets	Yes	
2.2. Conservation concern	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	Under guidance notes (Question 2.1). Information listed under column 'Species-specific indicator/metric' should be extended to other CITES listed species during CoP16 as a reference point for Scientific Authority. Information given only for <i>Lamna nasus</i> .	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
2.1. Fishing pressures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
2.2. Trade pressures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	For Step 3, based on available information on assessment of severity of fishing risk on the stock of <i>Sphyrna lewini</i> in Malaysia, most answer will be 'unknown'. Information on fishing mortality, discarded mortality, trade data by species etc. are not available in Southeast Asian Region. Therefore, these questions will be very difficult to answer in this region.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
2.1. Existing management measures	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	Currently no specific-species management measures are in place for newly CITES listed sharks and manta rays in Malaysia. However, whale shark and all sawfishes were protected under two Acts: namely Fisheries Act 1985; Fisheries (Control of Endangered Species of Fish) Regulations 1999, and International Trade in Endangered Species Act 2008 (Act 686). The regulation stipulates that no person shall fish or, disturb, harass, catch, kill, take, possess, sell, buy, export or transport any endangered species of fish or any part of it except with the written permission from Director-General of Fisheries Malaysia. Any person who contravenes the regulations is committing an offence and can be fined not exceeding RM 20,000 or a term of imprisonment not exceeding two years or both. International trade is controlled under International Trade in Endangered Species Act 2008 (Act 686). This is an Act to implement the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Malaysia and to provide for other matters connected therewith. The Act has six parts. Part I (Preliminary), Part II (Authorities), Part III (Trade of scheduled species), Part IV (Permit certificate and registration), Part V (Power relating to enforcement, seizure, arrest, etc. and Part VI (General). All CITES species are listed under the Act as Third Scheduled-Appendices I, II and III. At present, Malaysia never allowed exportation of any CITES listed sharks and sawfishes originated from Malaysia. Zero quotas were applied for export and import.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Yes	
Guidance notes	Yes	
Worksheets	Yes	
Developing advice	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	Based on information provided from Step 2 to Step 5, Malaysia had decided to impose zero quotas of export and import of hammerhead sharks and manta rays species listed by CITES during CoP 16 under International Trade in Endangered Species Act 2008 (Act 686). Existing management measures are inadequate to mitigate all concerns, risks and impact. Action will be taken to improve data collection at selected landing sites and trade of those species.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	Yes	
Guidance notes	Yes	
Worksheets	Yes	
6.2 Improvements in management	Yes	
Guidance notes	Yes	
Worksheets	Yes	
General comments:	To improve quality of fisheries data and trade data, Malaysia will continue to record landing data at species level at selected landing sites and to conduct a survey on trade for all CITES listed species in collaboration and financial support from SEAFDEC in 2015. Pilot project on recording landing data of sharks and rays at species level under BOBLME already completed in 2013.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Yes	Other terminologies should be included such as: <ul style="list-style-type: none"> Traceability measures: Genetic analyses: Eco-labelling: Look-alike species:
Acronyms & Abbreviations	Yes	Typo on EU-TWIX: "eXchange"
Biography		
Annex 1: Management measures		
General comments:	Detailed and well explained.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Conclusions

- * Since scenarios of fisheries for CITES listed sharks and manta rays species around the world are different from country to country and from region to region, CITES Secretariat should initiate to organize regional workshops to explain this guidance in more details to Management Authority and Scientific authority of Parties. This could be done in collaboration with Regional Fisheries Body to make it more user friendly at regional/national level. Overall the Guidance and Worksheet are too long and should be streamlined and shortened.
- * There is actually a large gap in term of quality of data collected in Malaysia as well as in the Southeast Asia Region as compared to other sharks fisheries in developed countries/other regions. Information on ecological, habitat characteristics, domestic and international trade by species especially CITES listed species are not well documented and systematically collected. In term of management of CITES listed species, existing management measures in Malaysia and the Southeast Asia Region in general are still inadequate. This will become a major constraint in conducting NDF using this guidance.
- * It is important to note that many countries in the Southeast Asia Region as well as in other regions are strongly constrained by a lack of funds and limited manpower to conduct NDF according to this NDF guidance. Financial and technical support by CITES Secretariat/other agencies to Parties will be very helpful.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Malaysia

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Case study for the Scalloped Hammerhead Shark *Sphyrna lewini* stock in Indonesia

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Opening comments

NDF Guidance:

- * Standardize guideline for each range state
- * Informative, helpful and easy to follow
- * There should be two scenarios of NDF guidelines:
 - * Adequate management
 - * Unmanaged (no adequate data and management)
- * Need socialization and technical supports
- * Collaborations in regional/international level

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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* General Conditions :

- * Indonesian Shark fishing → bycatch
- * CITES Shark species:
 - * Common species: *Sphyrna lewini*
 - * Wide distribution
 - * Caught by various fishing gear types
 - * All parts of its body are utilized and traded
- * Data availability:
 - * Indonesian fishery statistic → five sharks
 - * Hammerhead sharks (3 species) → 1 group (14% of total annual shark catch)
 - * *S. lewini* → no species-specific data on population, fishery, trade
- * Management measures :
 - * NPOA
 - * MCA and shark sanctuaries

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	Yes	Clear definition of NDFs Secondary catch – bycatch?
Introduction from the sea	Yes	Position of IFS box after the aim of the guidance Unlikely to be used for <i>S. lewini</i>
Sources of information	Yes	No
Flow chart	Yes	Dash arrows to Negative NDF (from conservation status & fishing pressure) can be omitted
Table 1. Structure of the Guidance	Yes	No
General comments:	Generally ok and easy to follow	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification	Yes	No
Guidance notes	Yes	Point (b) for conditions for Question 1.1 (b) can be added by the information from logbook to identify the origin of the specimen.
Worksheets	Yes	Some questions in the worksheet are confusing to answer rather than describing questions in the guidance (1.1 a and b).
1.2. Legality of acquisition/export	Yes	No
Guidance notes	Yes	No
Worksheets	Yes	No
1.3. Management	Yes	No
Guidance notes	Yes	No
Worksheets	Yes	No

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	Yes	No
Guidance notes	Yes	Point (f) high → <100 Point (h) → specific indicator for categorizing the level of geographic distribution. Indicators/metric on Point (i) → clarified the percentages derived. Point (j) → need indicators
2.2. Conservation concern	Yes	No
Guidance notes	Yes	For no stock assessment option: Indicators (sex ratio, decline in average size, CPUE and distribution) → categorizing by their severity level (low, medium and high) Point no 7 should at step 3 (fishing impacts). Therefore, if a state has no stock assessments, then it can jump to step 3.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 2 cont..

	Adequate?	Recommendations
Worksheets	Yes	The question of “conservation status of stock is unacceptable” is confusing.
General comments:	<ul style="list-style-type: none"> Conservation concern should be put after the explanation of the fishing impacts due to the close relation between fishing impact to the conservation status of the species. Step 2 and 3 have close relevancy and we have to proceed both steps to assess the NDF. Therefore, step 2 and 3 should be proceed together and we cannot decide to stop or continue the NDF process at step 2. 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
3.1. Fishing pressures	Yes	No
Guidance notes	Yes	No
Worksheets	Yes	<ul style="list-style-type: none"> Questions no. 3 and 4 in the guidance 3.1 (a) should be put in the worksheet to facilitate the answer of question 3.1 (b) The criteria of low, medium and high should be quantified based on data availability from indicators of adverse fishing impact. Choosing the confidence levels of the guidance are sometime confusing.
2.2. Trade pressures	Yes	No
Guidance notes	Yes	No
Worksheets	Yes	No

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 3 cont.

	Adequate?	Recommendations
General comments:	<ul style="list-style-type: none"> Decision for positive or negative NDF should not be made after assessing step 2 and 3 because existing management (step 4) should be considered as a united process together with step 2 and 3. Therefore, the option 2 for step 3 decision is not appropriate. 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
4.1. Effective mgmt measures	Yes	No
Worksheets 4.1.(c)	Yes	There are some repetitions in answering the risk factors, especially between discard mortality and size selectivity due to the similar management measures
Worksheets 4.1.(d)	Yes	The columns of questions with options to answer (v) are sometimes confusing. The guidance 4.1 (d) is easier to follow.
General comments:	<ul style="list-style-type: none"> Clear and easy to follow The decision for positive or negative NDF can be made after this step. However, there should be some indicators to qualify the existing management measures as lack, fair and appropriate. The worksheets are looked more complicated and difficult to follow. 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Yes	No
Explanatory text	Yes	For Text box 4: Setting catch and export quotas explanations (in text box 4) should be added by exercise or guidance on how to set up the quota especially for limited data available.
Guidance notes	Yes	There should be explanations on the consequences on choosing negative NDF (if any)
Worksheets	Yes	No
General comments:	<ul style="list-style-type: none"> There should be more explanations on positive and negative NDF, and what are the impacts of making the decision to a range state. There should be some suggestions on minimum management measures (in Annex 1) that should be applied for each range state. 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	Yes	No
Guidance notes	Yes	No
Worksheets	Yes	No
6.2 Improvements in management	Yes	No
Guidance notes	Yes	No
Worksheets	Yes	No
General comments:	<ul style="list-style-type: none"> The guidance for corrective measures to improve the monitoring/information and management would be better if they put based on the time frame of implementation (short, medium and long term). 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Yes	No
Acronyms & Abbreviations	Yes	No
Biography	Yes	Change to: Bibliography
Annex 1: Management measures	Yes	No
General comments:	<ul style="list-style-type: none"> Generally ok 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Conclusions

- Exercise result for *Sphyrna lewini* in Indonesia: **Positive advice subject to conditions**
- Corrective measures:
 - * Improving monitoring and controlling the trade chain; catch data collections into species level; trade data quality
 - * Conducting studies to identify nursery areas of the hammerhead sharks in Indonesian waters
 - * Stock assessment study in national and regional levels
 - * Implementing actions on NPOA sharks;
 - * Improving coordination, monitoring and controlling the implementation of existing management measures.
 - * Improving the social awareness for shark conservation
- The NDF guideline → applicable
- Final question: **How about the export?**

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna lewini* in Indonesia

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Case study for the *Sphyrna mokarran* stock in Seychelles

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Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Opening comments

- * Seychelles context:
- * Capacity:
 - * Scientific and Management Authorities
 - * Available data
- * All 3 Hammerhead spp. covered by CITES occur in Seychelles waters.
 - * *S. lewini* is by far the most common (2nd most common shark species in the artisanal fishery) and is subject to a targeted fishery.
 - * *S. mokarran* is relatively scarce & *S. zygaena* is rare.
 - * 2013 *S. lewini* 595 18%, *S. mokarran* 65 2%, *S. zygaena* 1.
- * Nature of *S. mokarran* Stock:
 - * Strong indication of distinct stock
 - * Pupping grounds and nursery grounds.
 - * Seychelles 1,000 miles from continental landmass
 - * Female philopatry and genetic work being undertaken to assess stock status.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Opening comments

- * Nature of fishery:
 - * No targeted fishery for *S. mokarran*
 - * Subject to by-catch in *S-I* billfish fishery, mackerel fishery and in the targeted *S. lewini* fishery.
- * Nature of Trade:
 - * Fins and some jaws of *S. mokarran* exported.
 - * Meat, skin, stomachs etc... consumed nationally.
 - * Fin price has collapsed 90% in 2014 and the *S.I.* fishery is reportedly cutting loose shark catch as a consequence.
- * Management Measures:
 - * PAs only 0.03% of EEZ... but one does cover a significant proportion of the main pupping/nursery ground.
 - * Net ban since 1998 – impact.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	Y	Clear and Concise
IFS	Y	
Sources of information	Y	Some excellent information sources. CITES shark portal however, refused permission to access the links on its page. General utility and clarity of the guidelines could be improved by removing aspects specific to the Porbeagle assessment.
Flow chart	Y	The structure of the flowchart is not intuitive. It does not read well left to right. Rather one has to read right and then look left etc... Could be re-designed to facilitate flow.
Table 1. Structure of the Guidance	Y	Clear, concise and useful. In two places the "level of confidence" is referred to. Guidance for scoring that in this context would be useful in particular for standardizing decisions from different authorities.
General comments:	Good. Clear, concise, informative and useful.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification	Y	Linguistic issue in fourth paragraph: fins are not technically transported in "large volumes" but rather "large numbers/quantities".
Guidance notes	Y	
Worksheets	Y	Table: Worksheet for Step 1. There is an asterisk in the first column but no cross-reference to explain it is visible on that page.
1.2. Legality of acquisition/export	Y	
Guidance notes	Y	
Worksheets	Y	Clear and concise.
1.3. Management	Y	
Guidance notes	Y	
Worksheets	Y	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	Y	Clear, concise and informative with excellent supporting references.
Guidance notes		i). There is no guidance for Intrinsic biological factor K). Trophic Level. ii). Typo on 2.1 guidance notes Row (f) Fecundity. High: should be less "<" than 100. iii). Row F: Fecundity. The number ranges given for litter size do not reflect shark size unless all sharks are to have high vulnerability with respect to fecundity. In which case why not just say so and provide only that option? iv). Row I: Stock size abundance. It appears that the baseline abundance scale is upside-down relative to the vulnerability scale and needs inverting such that high % of baseline abundance equates to low vulnerability.
Worksheets	Y	
2.2. Conservation concern	Y	
Guidance notes	Y	Excellent text that effectively addressed the particular queries that were raised by the <i>S. mokarran</i> /Seychelles context.
Worksheets	Y	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
3.1. Fishing pressures	Y	
Guidance notes	Y	Typo in 3(a) 3 rd bullet point, penultimate line. The word "be" should be added so the text reads: "should be considered (e.g. if CPUE...)"
Worksheets	Y	i). Under guidance for discard mortality, no guidance is given for other permutations e.g. a large proportion thrown back with medium or high survival rates etc... 3.1 (b) Good, well-structured sequential step to maintain clarity in the NDF process.
3.2. Trade pressures	Y	
Guidance notes	Y	
Worksheets	Y	
General comments:	What is really apparent in this section, is how limited the information available to answer these questions will typically be in a SIDS scenario. Can consideration be given for including criteria and scale for the use of a precautionary approach?	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
4.1. Existing management measures	Y	Linguistic issue covered in written report.
Guidance notes	Y	
Worksheets	Y	
General comments:	In the summary worksheet for Step 4, in the column, "Appropriate management measures in place?" There are options of yes, no and insufficient information. How does one then score for a fishery that has some appropriate measures in place but not all that would ideally be in place to mitigate fishing risks on population? Should there not be another category or a scale for degree of appropriateness?	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF	Y	
Guidance notes	Y	Excellent text here, bringing the different aspects together and giving substantive guidance on how to interpret the previous findings.
Worksheets	Y	Same comment here as raised in general comments above regarding Summary worksheet for Step 4.
Developing advice	Y	
Guidance notes	Y	
Worksheets	Y	
General comments:	Excellent text here in the guidance notes, bringing the different aspects together and giving substantive guidance on how to interpret the previous findings. There is still scope however I feel, even in light of the clear text here on interpretation, to reference precautionary approach options in earlier phases of the assessment.	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	Y	
Guidance notes	Y	
Worksheets	Y	
6.2 Improvements in management	Y	
Guidance notes	Y	Good clear guidance with excellent supporting references.
Worksheets	Y	
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Miscellaneous sections

	Adequate?	Recommendations
Glossary	Y	
Acronyms	Y	Typo on EU-TWIX: "eXchange"
Biography	Y	
Annex 1: Management measures		i). A really good table that takes the guide beyond one for NDF assistance to one for overall fishery cycle management. ii). Recommend adjustments in layout such that each issue starts and follows through on the same row in the table. E.g. Section 3 Fishing Gear Restrictions the numbered points currently overlap and this makes it difficult to follow a single point across the table. iii). Terminology incorrect for sharks in section 10. Fish Size Limits: "To ensure each fish can spawn " needs amendment. iv). Also Section 11. Gender-Based restrictions. "Through prohibition on retention of females or females bearing eggs " clearly this is not appropriate to sharks as you need to gut the shark to ascertain if it is carrying eggs. v). Pagination issue. No page 78 in current document.
General comments:		Clarity and logical flow are generally very good, which is key for such a document.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Conclusions

- * 1). Good, clear, concise structured approach to assist in the NDF process. I personally found it very useful in terms of how it broke down topics and itemized their elements for sequential consideration.
- * 2). This is far more detailed and step-by-step guidance than current CITES guidance on the Convention website for the undertaking of NDFs. The process set out here is more stringent and exacting and hence a very positive step towards realizing the objectives of the Convention.
- * 3). I feel that in the preliminary steps of the process more reference could be made to the precautionary approach and its scope for application in decision options in particular where information is lacking. I note that this is addressed more substantively in the subsequent decision-making steps where scoring options are presented in a more precautionary structure, but nevertheless I feel the balance of the document could benefit from these considerations being enunciated earlier.
- * 4). An excellent tool, and I think in particular for SIDS where CITES implementation capacity is often VERY limited.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna mokarran* in Seychelles

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Case study for the smooth hammerhead shark (*Sphyrna zygaena*) stock in Australia

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Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Opening comments

- * Based on my experience working with the Australian government to gather data for our NDFs.
- * This is NOT the Australian Government position.
- * The guidance provides an excellent approach for developing NDFs for CITES listed shark species.
- * The flow diagram and step-wise approach makes understanding the process easy.
- * Some room for improvement, but these are largely tweaks.

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text		
Introduction from the sea		Complex issue. Well explained but may not cover all of the complexities.
Sources of information		
Flow chart		
Table 1. Structure of the Guidance		
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification		Confusing as to whether this relates to specific specimens or whole species
Guidance notes		
Worksheets		
1.2. Legality of acquisition/export		
Guidance notes		
Worksheets		
1.3. Management		
Guidance notes		
Worksheets		For a fishery that operates at a sub-national level, guidance is aimed at multi-national approach

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability		
Guidance notes		Issues related some attributes (see next)
Worksheets		
2.2. Conservation concern		Text refers to "spawning stock"; should be "breeding stock"
Guidance notes		
Worksheets		
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Attribute issues

- * *Fecundity* – this attribute will only ever be scored as HIGH (vulnerability) for any elasmobranch. I suggest that it be rescaled or dealt with in another way.
- * *Geographic distribution* – it is not clear what this actually is or how you would work it out.
- * *Stock size* – this attribute appears to be coded back to front since the scale is vulnerability; so low abundance (<30%) should be the highest vulnerability.
- * *Trophic level* – this is ok except for the filter feeding sharks which have a low trophic level but high vulnerability because of size and other life history attributes

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
2.1. Fishing pressures		
Guidance notes		Fishing mortality impact assessment confusing; Size/Age/Sex incorrect
Worksheets		Related to above
2.2. Trade pressures		
Guidance notes		
Worksheets		
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
2.1. Existing management measures		
Guidance notes		
Worksheets		monitoring/data collection column needs further consideration
General comments:		

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF		
Guidance notes		
Worksheets		
Developing advice		
Guidance notes		
Worksheets		
General comments:	<ul style="list-style-type: none"> Significant judgment is required in this step. Might be useful to make this apparent 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information		
Guidance notes		
Worksheets		
6.2 Improvements in management		
Guidance notes		
Worksheets		
General comments:	<ul style="list-style-type: none"> Did not consider this section much as not used for this test case 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Miscellaneous sections

	Adequate?	Recommendations
Glossary		
Acronyms & Abbreviations		
Biography		Call it Bibliography
Annex 1: Management measures		
General comments:	<ul style="list-style-type: none"> 	

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Conclusions

- * Useful guidance
- * Requires a lot of information
- * Some sections could be pre-filled for specific species

Evaluation of CITES Non-detriment Findings Guidance for *Sphyrna zygaena* in Australia

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Case study for the Oceanic manta
Manta birostris stock in Sri LankaAuthor: **Daniel Fernando**Organisation: **The Manta Trust**Contact details: daniel@mantatrust.org

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Evaluation of CITES Non-detriment Findings Guidance for Shark Species

Opening comments

- * This guidance is a valuable document but possibly a bit over-whelming.
- * Will CITES management authorities actually read all of this?
- * Maintain, and make more prominent, the colour-coding scheme from the flow chart throughout the document to easily identify each stage.

Evaluation of CITES Non-detriment Findings Guidance for *Manta birostris* in Sri Lanka

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Evaluation of Guidelines: Introduction

	Adequate?	Recommendations
Explanatory text	YES	Mention that this document only deals with Appendix II shark/ray species, not App. I Are the "key milestones" required here?
Introduction from the sea	YES	
Sources of information	YES	What sources are generally acceptable? Personal communications etc?
Flow chart	NO	A bit difficult to follow at first glance. Is there some way to improve it visually?
Table 1. Structure of the Guidance	YES	Include color scheme from the flow chart!
General comments:	State clearly – not just in a footnote – that "sharks" in this document refers to all sharks, rays and chimaeras.	

Evaluation of CITES Non-detriment Findings Guidance for *Manta birostris* in Sri Lanka

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.1. Origin & identification	YES	Provide links to primary sources for ID guides (gill-plate/shark-fin guides etc).
Guidance notes	YES	
Worksheets	NO	1.1b - Is information on origin sufficiently detailed for question 1.2 to be answered? (Use answer at end of question 1.2) - This is not really clear? No reference for the "!"

Evaluation of CITES Non-detriment Findings Guidance for *Manta birostris* in Sri Lanka

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.2. Legality of acquisition/export	YES	These cannot be answered for Sri Lanka as most vessels do not have any traceability system (logbooks etc).
Guidance notes	YES	
Worksheets	YES	Worth highlighting that countries could be subjected to a "Review of Significant Trade"?

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Evaluation of Guidelines: Step 1

	Adequate?	Recommendations
1.3. Management	YES	
Guidance notes	YES	Section 9: "Identify main catching countries that are not members of relevant RFBs" - Within the stock being assessed or globally? Also since you are asking for countries <u>not</u> part of RFBs, perhaps change worksheet question from "RFB Membership". Part 2, section 1: Include definition of target and non-target fisheries again! Part 2, section 3: Data only from <u>FAO</u> guide?? Not available for <i>Manta birostris</i> !
Worksheets	YES	

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.1. Biological vulnerability	NO	How does one calculate natural mortality? – Any links or explanations?
Guidance notes	NO	Guidance for "trophic level" is missing. Under fecundity – high level should be <100, not >100 How does one assess geographic distribution? How big or small does a regional population need to be to become medium or highly vulnerable? Notes for stock size and abundance not clear.
Worksheets	YES	

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Evaluation of Guidelines: Step 2

	Adequate?	Recommendations
2.2. Conservation concern	YES	
Guidance notes	YES	Move the "next steps" below table 5.
Worksheets	YES	Under <i>Geographic Extent</i> , make it <i>low</i> , <i>medium</i> and <i>high</i> ? Will any of these species be <i>local</i> ? Will they not be national/regional?
General comments:		

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Evaluation of Guidelines: Step 3

	Adequate?	Recommendations
3.1. Fishing pressures	YES	
Guidance notes	YES	
Worksheets	YES	
3.2. Trade pressures	YES	
Guidance notes	YES	
Worksheets	YES	<i>Magnitude of illegal trade</i> – "some concern about substitution for a look-alike species"???
General comments:		The bullet points do not follow the same as in worksheets – gets confusing and difficult to cross-reference.

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
4.1. Existing management measures	YES	
Guidance notes	NO	Annex 1 should be read,
Worksheets	NO	4.1 a) & b) These sections are not very clear. What exactly am I supposed to fill out? 4.1 d) <i>Is monitoring/data collection required?</i> Not really sure what you mean here! What methods needed for data collection or what data is already available?

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Evaluation of Guidelines: Step 4

	Adequate?	Recommendations
4.1)		
General comments:		<ul style="list-style-type: none"> A lot of copy-pasting and repetition! Final summary table is almost exactly the same as step 5! Can some parts of Step 4 be merged together? Automate this? Surely most people will be filling this out on a computer, so could use an automated PDF?

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Evaluation of Guidelines: Step 5

	Adequate?	Recommendations
Determining the NDF		
Guidance notes		
Worksheets	NO	Overlaps with step 4
Developing advice		
Guidance notes		
Worksheets		
General comments:		When following the general guidelines for the NDF for <i>M. birostris</i> in SL, it would not have passed beyond Step 3. However I think that Step 4&5 is vital to ensure that data collection and management of fisheries is encouraged and recommended!

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Evaluation of Guidelines: Step 6

	Adequate?	Recommendations
6.1 Improvement of monitoring & information	YES	
Guidance notes	YES	
Worksheets	NO	
6.2 Improvements in management	YES	
Guidance notes	YES	
Worksheets	NO	
General comments:		I think for the above two sections in the worksheet there should be more details. Perhaps a list of recommended actions/improvements that can be ticked off (from the guidance notes)? And then a separate section for additional notes/points.

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Miscellaneous sections

	Adequate?	Recommendations
Glossary		Define management bodies
Acronyms & Abbreviations	YES	
Bibliography	YES	
Annex 1: Management measures	YES	
General comments:		

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Conclusions

- * Include one completed worksheet as an example?
- * Provide a document containing all the basic life-history data for all CITES shark/ray species since they should be the same for each region.
 - * This could be maintained on the CITES webpage and updated when required.
 - * Also include information on the *nature of harvest* and *products in trade*.

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Conclusions

- * Remove Text Boxes with Porbeagle information and move to one section in an annex?
- * Will stock assessments for any of these species really be possible?
- * Countries using these guidelines may realise that a positive NDF is not possible and abandon it and create their own NDF?

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Conclusions

- * Important to go through entire NDF procedure even if negative to ensure data collection and management of the fisheries is encouraged?
- * How easily can scientific authorities decide and ultimately recommend management measures? This might require additional guidance.

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