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**RE: Extended comment period for North West Atlantic Swordfish Longline fishery re-assessment**

The Ecology Action Centre has been a consistent stakeholder in the MSC certification of the NW Atlantic Swordfish Longline fishery since 2009 as well as a member of the fishery advisory committee for almost 10 years. We are submitting new information for consideration of the assessment team during this extended 30-day comment period. Should the North West Atlantic Longline Swordfish fishery be recommended for certification and a new PCDR released, we will also be commenting on the scoring rationale presented there.

**PI 1.2.2 - Harvest Control Rules**

This condition was, in our reading of MSC Guidance, closed prematurely. While, ICCAT is working to develop HCRs for North Atlantic swordfish and have adhered to a recovery plan in the past, the fact is, there are not yet HCRs in place for this fishery. New MSC Guidance on exceptional circumstances as they related to RFMO managed fisheries would allow extension of this condition.

The EAC does not necessarily agree that an extension and new certificate should be granted, however, closing it on the assumption that HCR rules will be put into place according to ICCAT's stated timeline is at the minimum premature. It should not be closed until the HCR rules are in place and there is evidence of implementation. To do otherwise, sets a precedent for other RFMO fisheries that have yet to adopt HCRs and lowers the MSC Standard.

**PI 2.3.1, 2.3.2, 2.3.3 – ETP Species**

Loggerhead sea turtles (*Caretta caretta*) were listed as endangered under Canada's Species at Risk Act (SARA) as of May 2017.<sup>1</sup> This Canadian national legislation and its

<sup>1</sup> [http://www.registrelep-sararegistry.gc.ca/species/speciesDetails\\_e.cfm?sid=1090](http://www.registrelep-sararegistry.gc.ca/species/speciesDetails_e.cfm?sid=1090)

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accompanying policies and documents should now form the basis for loggerhead inclusion and analysis under the MSC scheme.

A recovery plan is expected to be completed in 2017 with required actions to address threats. For aquatic species, SARA recovery strategies require the inclusion of a threat assessment based on Fisheries and Oceans Canada's (DFO's) Guidance on Assessing Threats, Ecological Risk and Ecological Impacts for Species at Risk (DFO 2014a).<sup>2</sup>

DFO has released a new *Threat Assessment for Loggerhead Sea Turtle (Caretta caretta), North West Atlantic Population* that the EAC submits to Acoura for inclusion and reference in the re-assessment of the North West Atlantic Longline Swordfish fishery.<sup>3</sup>

It is abundantly clear from this document that there is still limited data and understanding of loggerhead sea turtles in Canadian waters and in the wider population. It is important to continue collecting information as well as to move ahead on implementing mitigation measures that will reduce mortality. Action and cooperation by the NW Atlantic Swordfish Longline fishery are imperative to make progress in supporting the recovery of this species.

DFO's Threat Assessment document identifies this fishery as the only threat with documented mortalities in Atlantic Canadian waters. This reinforces information that has been known and discussed for at least a decade. It is hindering the recovery of the loggerhead not to have vigorously pursued needed information and changes through this fleet during the last decade. The long-life span and patchy occurrence of loggerhead sea turtles in Atlantic Canadian waters means consistent and long term data must be collected and analysed. One or two seasons of elevated observer coverage 2001-2002 cited by Acoura is now over 15 years old and is not providing enough information.

The DFO Threat Assessment is much more clear than previous assessments that while there are numerous threats to the recovery of loggerhead sea turtles in the North West Atlantic, the threat posed by the Canadian longline swordfish fishery should not be ignored:

Canadian recovery measures alone will not recover the Northwest Atlantic population of Loggerhead Sea Turtles; recovery requires international collaboration. However, recovery efforts within Canada **are needed** to increase survivorship of juveniles that occur in Atlantic Canada into the reproductive

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<sup>2</sup> DFO. 2014a. Guidance on Assessing Threats, Ecological Risk and Ecological Impacts for Species at Risk. DFO Can. Sci. Advis. Sec. Sci. Advis. Rep. 2014/013.

<sup>3</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf)

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stage; which would contribute to the recovery of this population.(emphasis added)<sup>4</sup>

### PI 2.3.1

It is clear from the DFO Threat Assessment and the literature referred to therein and elsewhere, that while the NW Atlantic swordfish longline fishery is not sole cause of the endangered status of loggerhead sea turtles in the North West Atlantic - this fishery is part of the reason this species has declined and bycatch impact from this fishery needs to be further addressed.<sup>5</sup>

The population for the NW Atlantic is still uncertain and the DFO Threat Assessment notes that the nest numbers from Florida used in the latest IUCN status assessment may be showing an increase, however there is uncertainty in this estimate and more years of data are needed to determine trends. The DFO report also notes IUCN data does not include Caribbean nesting beaches or the possible overlap with turtles from the North East Atlantic population. It is also important to note there is not enough data to assess 3 generations of loggerhead sea turtles and the IUCN status report must rely on a data timeline starting in the mid 1990s, when conservation efforts started. While the IUCN report is important, SARA, as national legislation, and related documents should be given more weight than the IUCN non-binding assessments.

It is not clear the impact of this fishery on loggerheads are within national limits as required by scoring level 60 of 2.3.1. Requirement and acceptable limits for this species are still to be defined under SARA. While it appears a Permit to Harm for loggerhead sea turtles is in the new fishery Licence Conditions, the EAC will be questioning the validity of the process undertaken to grant this even before the species was fully listed under SARA. These are granted under SARA and there are a number of requirements a fishery must show to receive a permit. This permit is not yet published on the SARA registry, nor has there been a process explaining how the fishery has qualified for this even before a Recovery Plan has been written.

The current knowledge about the effects of this this fishery is highly uncertain:

Catch data used to calculate mortalities from the pelagic longline fishery in Canada is outdated (2002-2008) and is based on rates of post-hooking mortality (20-45%) that may also be outdated.<sup>6</sup>

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<sup>4</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf), p26.

<sup>5</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf), p2

<sup>6</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf), p24.

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In the 4<sup>th</sup> Surveillance Audit for this fishery, Acoura is relying on a few key pieces of information to determine the fishery meets the 80 score. The number of adult equivalencies estimated to die is heavily relied on. First, to clarify, the estimated incidental catch rate referred to in the 2010 loggerhead sea turtle Recovery Potential Assessment was 1200 **annually**, not for the period between 2002 – 2008 as noted by Moody in the original assessment. This catch rate is in turn estimated to cause 200-500 loggerhead deaths annually, those are primarily assumed to be juveniles as that is the life stage that most likely occurs in Canadian waters. These estimated deaths are then converted into adult equivalents:

This equates to 5 – 15 adult female equivalent mortalities of oceanic juveniles or 47 – 118 nesting female equivalents of neritic juveniles (range of 5 – 118 nesting female equivalent mortalities) using the relative reproductive value (RRV) for oceanic juveniles presented in NMFS-USFWS (2008a).<sup>7</sup>

Note, the number range used in the Threat Assessment is between 5-118 nesting female equivalents.

There are two important concerns about overly relying on this particular data point to conclude the direct effects are highly unlikely to create unacceptable impacts to the ETP species. First, this original estimate is based on a paucity of observer data that was not considered fully reliable at the time (this is discussed in the original paper by Brazner and McMillan)<sup>8</sup>. The extrapolation method did not account for tuna vs swordfish directed trips nor look fully into spatial and temporal coverage. While it is the best estimate we have, it is acknowledged that it is uncertain and, therefore, should be built upon with caution. The 2010 COSEWIC assessment notes:

Difficulties in matching data from the IOP and total landings databases (e.g., estimated vs. actual weights, missing values) introduced bias into estimates of Loggerhead Sea Turtle bycatch; hence, bycatch estimates should be considered minimum numbers, with actual bycatch potentially considerably higher.<sup>9</sup>

The method used to create a number of female nesting equivalencies is also uncertain and is best guess.

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<sup>7</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf), p9.

<sup>8</sup> Brazner, J.C., and J. McMillan. 2008. Loggerhead turtle (*Caretta caretta*) bycatch in Canadian pelagic longline fisheries: relative importance in the western north Atlantic and opportunities for mitigation. Fisheries Research 91:310-324.

<sup>9</sup> [http://www.registrelep-sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr%5FLoggerhead%20Sea%20Turtle%5F0810%5Fe%2Epdf](http://www.registrelep-sararegistry.gc.ca/virtual_sara/files/cosewic/sr%5FLoggerhead%20Sea%20Turtle%5F0810%5Fe%2Epdf), p29

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Second, the DFO Threat Assessment makes it clear that deaths of juveniles in this fishery cannot be discounted as an insignificant impact on loggerhead recovery:

Likewise, threats in Canada can affect the number of Loggerhead Sea Turtles that survive to reproductive ages, thereby influencing the recovery of the population. Studies referenced in COSEWIC (2010) suggest that improving the survival of juvenile Loggerhead Sea Turtles would be more effective in maintaining the population than earlier life stages, because the reproductive value of juveniles as they transition into adulthood is higher....

Canadian recovery measures alone will not recover the Northwest Atlantic population of Loggerhead Sea Turtles; recovery requires international collaboration. However, recovery efforts within Canada are needed to increase survivorship of juveniles that occur in Atlantic Canada into the reproductive stage; which would contribute to the recovery of this population. As the COSEWIC assessment states: "Bycatch of juvenile-stage turtles is particularly significant because changes in survivorship of this life-history stage have the largest impact on population growth" (COSEWIC 2010). This is especially true for larger juveniles that are present in Atlantic Canadian waters, as they have a higher reproductive value than smaller juveniles. Therefore, mitigations in Atlantic Canada to reduce bycatch and post-release mortality are important for the recovery of the population. In addition, juvenile survival in Atlantic Canada may also affect the Northeast Atlantic population of Loggerhead Sea Turtles, as it is possible that the two populations mix in Atlantic Canadian waters.<sup>10</sup>

The 2010 COSEWIC assessment also stresses the importance of addressing mortality on juvenile loggerhead sea turtles:

Juvenile Loggerhead Sea Turtles have the highest reproductive value to the species (Crowder *et al.* 1994). Mansfield *et al.* (2009) note that "localized sources of mortality affecting juvenile loggerheads will ultimately translate to population impacts among all USA loggerhead subpopulations." Crowder (2000) and Lewison *et al.* (2004) discuss the responsibility of nations whose pelagic longline fisheries, like Canada's, take Loggerhead Sea Turtles as bycatch; they state, "the basin-wide distributions of both pelagic longline effort and sea turtles...suggest that effective protection for loggerheads and leatherbacks will require coordinated international action." The importance of conserving the population of Loggerhead Sea Turtles found in Atlantic Canadian waters should not be underestimated.<sup>11</sup>

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<sup>10</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf), p3, p26.

<sup>11</sup> [http://www.registrelep-sararegistry.gc.ca/virtual\\_sara/files/cosewic/sr%5FLoggerhead%20Sea%20Turtle%5F0810%5Fe%2Epdf](http://www.registrelep-sararegistry.gc.ca/virtual_sara/files/cosewic/sr%5FLoggerhead%20Sea%20Turtle%5F0810%5Fe%2Epdf), p35

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Just focusing on adult female equivalencies is not including the full impact of the fishery threat. We do not agree with this justification used by Acoura to argue that the fishery impacts are known and likely to be acceptable.

Acoura also relies on their analysis that the observer coverage in the fishery is sufficient to justify the new score of 80. It is made clear in the DFO Threat Assessment document that there is still a paucity of data available about the fishery interactions. The EAC objected to the fishery passing the 60 scoring for this at the original assessment and still hold that there has not been significant change in the amount of information available through observer coverage for this fishery. The original assessment imposed conditions to ensure that the observer coverage was analysed for its suitability to present a representative sample across space and time of the fishery as well as between setting for tuna or swordfish. This analysis has still not been complete. Indeed, the DFO agreed that this was also a priority, setting two Regional Assessment Processes – in 2011 and 2016 – neither process was able to come to a conclusion – there is still no answer mainly due to patchy data available for analysis and a disagreement about the proper method to use to try to interpret the little data that exists.

The 2017 DFO Threat Assessment Report for loggerhead sea turtles still directly recommends this same action:

In the short term, a new analysis of observer data would be useful to recalculate annual incidental capture and mortality of Loggerhead Sea Turtles in Atlantic Canadian waters, taking into account the change from J-hooks to circle-hooks and the varying levels of observer coverage depending on the target species (tropical tunas vs. swordfish) given additional data sources.<sup>12</sup>

Acoura notes in the 4<sup>th</sup> Year Surveillance Audit they feel this analysis is no longer needed as there is now randomized observer coverage and the observer coverage has meet the minimum 5% for the last number of years. These two points do not answer the original uncertainty about bycatch information in this fishery. This new randomized observer coverage has not been analysed for evidence that it is providing the needed information.

Acoura also refers to a verbal statement from the minutes of the 2015 ALPAC meeting by a DFO fishery manager that the observer coverage is considered 'sufficient'. First, this comment was not concerning the full representative nature of the coverage, but rather the percentage and it was referring to the 2015 fishing season. Second, this verbal comment does not explain then why the DFO went forward with the Regional Assessment Process to look at the observer coverage and incidental capture in this

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<sup>12</sup> [http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017\\_014-eng.pdf](http://www.dfo-mpo.gc.ca/csas-sccs/Publications/ScR-RS/2017/2017_014-eng.pdf), p25

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fishery in 2016. Third, under the new National Catch Monitoring Policy risk assessment process underway this fishery has once again been identified as high risk and will be required to improve their catch monitoring (our source for this is verbal communication with DFO managers, similar to Acoura's sourcing, and will be published soon in policy).

The lead DFO scientist for loggerhead sea turtles notes in the RPA 2016 proceedings that information about the hooking location and state of the animal is vital to understanding post release mortality and potential mitigation measures and could be collected by the fishery. If the fishery had been collecting even this little information over the last 5 years of the MSC certification period, it would have been a big improvement on information and understanding of the fishery impact and possible mitigation measures. Unfortunately, the fishery did not make an attempt to reduce the knowledge gap and collect needed information.<sup>13</sup>

Acoura also refers to a Javitech report on loggerhead catch from the 2001-2002 fishing seasons as evidence that most turtles are released alive and uninjured. It must be noted that this is not a peer reviewed document and is not reflective of the type of long term trend that is needed to assess sea turtle interaction and release state. The incidents of sea turtle capture are not evenly spread out over the fishing season, the fleet, and they vary annually depending on a number of ocean conditions and fishing practices. Also, it has been noted by DFO science that the observer data on loggerheads collected at that time did not capture the necessary detail to ascertain hooking location and health of the turtle properly, hence the need for observer training and a proper post-mortality study (pers comm Mike James 2012).

It cannot be argued that the observer coverage and information being collected about loggerhead sea turtles and other bycatch species is yet sufficient to properly understand the impacts and necessary steps or this would not be repeated over and over in loggerhead assessment documents as a key need.

**The fishery should not pass the 60 for this scoring post and, certainly, is not demonstrating 'global best practice' needed for 80.**

### PI 2.3.2

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<sup>13</sup> DFO (2016d). Proceedings of the regional peer review assessment of incidental catch in the Atlantic Canadian swordfish/other tuna longline fishery. DFO Can. Sci. Advis. Sec. Proceed. Ser. 2016/nnn.

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The Ecology Action Centre maintains that this PI was rescored to 80 without valid justification. The original assessment condition relied on the Loggerhead Conservation Action Plan (LCAP) as the 'strategy' in place for managing impacts of the fishery.

The LCAP has not been updated since 2012. We have submitted evidence before to show that many of the actions – and specifically the actions that could minimize mortality – have never been completed. The Ecosystem Working Group of ALPAC that was supposed to aid in overseeing such plans, only met once and has since been defunct.

The condition was closed in Year 3 also in anticipation of the RAP on incidental catch and observer coverage planned for this fishery in 2016. As noted above, the process was inconclusive and DFO's newest documents once again recommend such analysis be undertaken.

There is no evidence that any fulsome strategy is in place and working to mitigate turtle catch and mortality. While it is good that the turtle handling and release training and kits is now mandatory, there is no evidence to show the effectiveness of this measure yet - there has been no concerted effort to document use, assess if the gear is suitable for the fishery, and record detailed capture and release data. Even the limited mortality mitigation measures recommended, specifically those related to bait and soak time, in the 2010 Recovery Potential Assessment document have not been fully studied or implemented seven years later.<sup>14</sup>

### **PI 2.3.3.**

Relevant information for this scoring indicator is also included above for PI 2.3.1, please refer to the detail there also.

It cannot be concluded that there is clear information to determine the ongoing threat of this fishery to the loggerhead sea turtle population.

As noted above, the DFO Threat Assessment clearly states that though the fishery is not the sole reason the species is endangered it plays a role and that role should be addressed. The juvenile deaths are considered significant and need to be reduced.

As Acoura states in the 4<sup>th</sup> Surveillance Audit, it cannot be confirmed that the observer coverage is representative. This is the crux of the scoring and it really cannot be argued that there has been progress on this analysis and understanding. While the fishery may have mostly met their seasonal 5 % targets, the newly randomized observer coverage protocol Acoura relies on in their scoring justification has yet to be analysed to see if it is

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<sup>14</sup> <http://waves-vagues.dfo-mpo.gc.ca/Library/341241.pdf>



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collecting sufficient information to assess risk to ETP species. Acoura references a DFO 'analysis of observer coverage levels' in the 4<sup>th</sup> Surveillance Audit from a source called 'Provisional observer coverage estimates for swordfish longline 2011-2015' — to our knowledge is just an overview of the percentage of cover per year. It is not new information. This information is presented at ALPAC every year - it is not an analysis of spatial and temporal coverage.

The ongoing loggerhead tagging study is important to increase post-release mortality understanding, but not sufficient to answer the broader questions about interactions with ETP species and this fishery.

Now that the loggerhead sea turtles in listed under SARA there needs to be a completed Recovery Plan and declaration of Critical Habitat along with related action plans - this has yet to be finished.

Overall, for the scoring indicators 2.3.1, 2.3.2, 2.3.3 pertaining to loggerhead sea turtles, the EAC strongly disagrees that this fishery should receive a score of 80 signifying 'global best practice'. We also do not think the justification given for closing outstanding conditions of certification at the 3<sup>rd</sup> and 4<sup>th</sup> audit related to loggerhead sea turtles was sufficient. The fishery did not fulfill its milestones and conditions of certification during the 5-year period of certification and should not be rewarded with a second certification period.

If we look at the key actions the fishery has implemented since the initial MSC assessment of 2011-2012 to address their impact on loggerhead sea turtles, it includes switching to corrodible circle hooks, making the loggerhead handling and release guidelines and training mandatory – though these measures were already named as in place in 2010 and 2012 respectively - and a handful of the fleet boats have allowed researchers on board to undertaking a tagging study.

Currently our information about loggerhead sea turtles and the impact of fishing on them in Canadian waters, is almost entirely dependent on this fleet. Loggerhead sea turtles use Canadian waters for a portion of their lifecycle and their presence and interaction with the fleet is dependent from year to year on a number of factors. Consistent and long term data collection across the fleet is needed to ensure we have robust information to support the recovery of this endangered animal. A significant amount of data and work could have been done by this fishery to contribute to this over the last 5 years of MSC certification that was not done.

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Instead we are still seeing Canadian assessments and reports on this endangered sea turtle coming out with the same recommendations and data limitations as over a decade ago. The fishery has not demonstrated willingness to change this. It is against the Precautionary Principle to delay implementation of further mitigation measures that are actually the global best practice due to lack of data. We have enumerated these options in other submissions – they include interaction limits, move away protocol, video monitoring, measures for gangion length and soak time, measures related to gear setting and temperature, measures related to tuna target sets, etc. There is also viable alternative gear that many of this fleet hold a licence for also – harpoon for swordfish or troll for tuna (during the setting for which it is believed the majority of turtles are hooked) – shift more catch to this gear would definitely mitigate mortality for sea turtles. If the fishery was being scored under the Version 2.0 of the MSC Standard they would at the least need to assess each possible mitigation strategy and rationale for not implementing.

While, Acoura states that it does not look at other fisheries to compare action plans, it is worth noting that other pelagic longline fisheries both MSC certified and not have now far exceeded this fishery in terms of mitigation measures taken to address the bycatch associated with this gear type. It is also worth noting, that other MSC certified fisheries in Canada such as the lobster fishery or the halibut fishery have undertaken significant changes to their gear and fishing practices to limit their impact on ETP species and the relative bycatch of these fisheries is far lower than the pelagic longline fishery for swordfish. The MSC label is supposed to signify a fishery has implemented 'global best practice', not just the minimum a national regulator may require.

It is not acceptable to certify a fishery that has been identified as the main threat to an Endangered species without requiring changes in fishing practice on the water.

Thank you for accepting these comments to the continuing re-assessment process for the NW Atlantic Longline Swordfish Fishery.

Sincerely,



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