

Comments on US Draft Recovery Plan, NW Atlantic Loggerhead Sea Turtles

By Matthew Godfrey, NC WRC.

Thank you for the opportunity to review this document. The effort that went into its compilation and production was undoubtedly great, and it is a major step forward from the previous recovery plan published in 1991. The background, recovery goals and action items are thorough and detailed, and provide an excellent blueprint for recovery of this species in the NW Atlantic. I also appreciate the effort that went into quantifying threats and also ranking them in terms of importance. This should prove to be beneficial in developing management actions that help towards recovery of this species.

I have provided a number of comments, suggestions, and citations directly on the MS Word document that I feel could improve the quality of the document. Please contact me for further information if more background or details are needed.

Major comments I have are as follows:

I. I would like to see more specific details related to the Action Items, particularly related to how those actions can be reached. For instance, Action 15 and subsections recommends the collection of data to establish female reproductive parameters. Presumably, to get these values, there must be tagging programs that feature night-time tagging patrols to intercept and tag females. It would be better to specifically state the need for these nighttime patrol programs in each Recovery Unit, in order to have them established and/or maintained.

Another example relates to the various sections concerning the quantification of loggerhead bycatch in various fisheries in Section 62. In addition to requiring observer coverage that is statistically valid, it would be easier if a specific minimum value is given (e.g. >10% observer coverage by effort). I have made suggestions towards these and other action items directly in the text.

II. I was surprised to see no direct mention of permitted lethal takes of loggerheads by NMFS in commercial fisheries in US waters. According to Griffin et al. 2006 Net Casualties. Report for Oceana (available here:

http://www.oceana.org/fileadmin/oceana/template/sea_turtles/images/Net_Casualties_FINAL_spreads_01.pdf), more than 4000 loggerheads mortalities are permitted by NMFS in fisheries each year in US Atlantic waters. That represents a major impact on the NW Atlantic loggerhead population, much more than the directed take in the Caribbean (see comment III below). I think the Recovery Plan must address directly the issue of allowable takes and specifically state that the cumulative numbers of permitted lethal takes must not increase in the future (as is the case with km of beaches where beach driving is allowed), and should be decreased until there are signs of recovery.

III. There is an emphasis on reducing/eliminating legal/illegal directed take in other countries (Action 31). Rather than calling for complete elimination of direct take, it would be better to call for elimination on *unsustainable* take. By definition, sustainable take should not affect population recovery. Also, I was surprised to this Action (31) given the highest priority in the Implementation Schedule, when it is also stated elsewhere that directed take of loggerheads is relatively low the Caribbean/West Atlantic (Fleming 2001; see also Bell et al. 2006 *Endangered Species Research* 2:63-69). Relative to other threats (e.g. bycatch in commercial fisheries in the US), directed take in the Caribbean does not appear to be a major threat to the recovery of the NW Atlantic loggerhead population. However, if there are data showing current high levels of directed take in the NW Atlantic, then the Recovery Plan should provide them and maintain this item as high priority.

IV. There are two action items that are not related to biology, specifically items 32 and 77. It is not clear why these items are included in the Recovery Plan that was prepared by biologists, or whether they would contribute to recovery.

With respect to item 32, there is little demonstrable evidence that ecotourism is a valuable and sustainable alternative to sustainable direct take. If the authors are referring to the report entitled *Money Talks*, by Troeng and Drews, I urge them to read a review of this report by an economist that was published in the Sustainable Newsletter (attached). It may be the case that some ecotourism projects are suitable alternatives to directed sustainable harvest of marine turtles, but this is hardly axiomatic, and it is easier to find projects that do not meet the criteria of ecotourism than those that do (see Ross and Wall 1999. *Tourism Management* 20: 123-132). Perhaps the item could be reworded as: Encourage local communities to explore alternatives to sustainable harvest of sea turtles. However, this is also quite tepid as an action item. In lieu of a more meaningful action item, I suggest deleting it.

With respect to item 32, I would like to highlight that Willingness To Pay (WTP) studies remain highly contentious. I have excerpted some discussion on the difficulties in assessing the results of such studies, from Campbell and Smith. 2006. *Environmental Management* 38:84-98:

Furthermore, because surveys rely on respondent self-reporting, actual activity may be over-reported, and surveys have often proven an inadequate predictor of environmental action (Fransson and Garling 1999). Criticisms of contingent valuation include that methods such as WTP fail to account for the robust, layered, and complex nature of environmental values (Freese 1997; Brouwer and others 1999; Taylor and Douglas 1999), and that these cannot be measured solely in economic terms (Lockwood 1999). Burgess and others (1998) and Clark and others (2000) illustrate how WTP survey respondents had trouble framing meaningful replies regarding monetary values. Fearnside (1999) and Clark and others (2000) suggest that the values generated through the WTP method are not real values for an environmental "good," and Freese (1997) maintains that WTP surveys often overestimate what individuals would actually pay if required.

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I would recommend deleting this action item unless it is placed in a wider context of assessing economic impacts of all activities related to sea turtle management.

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