

## **KEMP'S RIDLEY SEA TURTLE RECOVERY TEAM 2<sup>ND</sup> STAKEHOLDER MEETING OVERVIEW**

On February 23, 2006, the U.S. Fish & Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) hosted a second Kemp's Ridley Stakeholder Meeting in Houston Texas. Thirty-eight individuals from NGO, university and government institutions attended and eight members of the Kemp's Ridley Recovery Team were present to discuss the plan and answer questions (see list below). The public posting of these comments is to inform the public of the issues and questions raised at the stakeholder meeting for team consideration.

The stakeholder comments received during the one day meeting and in writing shortly thereafter are organized into topics below. Some comments are simply listed as stated and some comments are listed below with responses from recovery team members when responses were given at the meeting (in italics). All comments have been considered by the team for the current version of the draft under development. The draft revised plan will be available for public review and comment during 2007.

### **Comments on Recovery Criteria:**

#### **Demographic criteria**

Stakeholder comment: Arribada size varies, and therefore the numbers for nesting females may imply greater accuracy than data allow.

*Team response: We don't want to give an impression of false accuracy, but use the number estimated from the Herrera film in 1948 as a baseline that the team feels is achievable but large enough to provide for predator swamping and other safeguards to the population. These numbers are a means to reference a historic baseline, even if exact numbers may be difficult to estimate. The Corps of Engineers is reviewing the film, and their product may provide information for further consideration.*

Subsequent stakeholder written comment: If Hildebrand's estimate for the Herrera film on the 1947 arribada is accurate then it should be used as a guideline in recovery planning. If not, then perhaps a more sound, scientifically defensible, estimate or approach should be substituted.

Stakeholder comment: In the new downlisting criteria, does the requirement of nesting females in Tamaulipas actually increase the geographic range for the count (from Rancho Nuevo to all of Tamaulipas state) and therefore result in a less stringent (relaxed) criterion?

*Team response: The Gulf of Mexico nesting population is all one population with Rancho Nuevo as the epicenter. Therefore, to specify Tamaulipas simply recognizes that it's one population and allows for flexibility in the case that any shifting takes place in the location of the epicenter. (It was noted that Rancho Nuevo is considered the 17.6 km reserve.) Secondly, it was noted that the 1992 downlisting criteria didn't specify where the 10,000 females needed to be counted so it wasn't necessarily limited to Rancho Nuevo.*

Stakeholder comment: The nesting numbers should be specific to Rancho Nuevo, because they derive from original estimates from only that nesting beach.

Subsequent stakeholder written comment: The revised plan should include a qualifying statement for the delisting criteria that the number of nesting females have to be counted in the area where the original (historic Herrera film) count took place (within Tamaulipas) or that the population must be stable at this number of females/season for a least 5 years.

Stakeholder comment: Is the higher number of nesting females for all beaches combined? Why?

### **Criteria based on the 5 listing factors**

Stakeholder comment: There is no criterion for disease now, yet an outbreak could happen of a disease such as fibropapillomatosis. A criterion for disease should be considered.

Stakeholder comment: Criteria presented require turtle excluder devices (TEDs) in “currently regulated” fisheries and ensure high compliance. One commenter suggested getting rid of the “current” language so not limited to fisheries currently regulated, thus inadvertently creating a loophole for future fisheries that need regulation. The commenter also suggested changing the language from TEDs specifically to be more general to include future technologies to allow for flexibility and also to avoid creating a loophole for non-TED technologies.

Stakeholder comment: The criteria addressing inadequacy of existing regulatory mechanisms seem very broad and far-reaching. What’s the point of delisting if the ESA will only be replaced by other laws? What kind of laws does the team have in mind?

Stakeholder comment: Where do we recognize nesting turtles in the state of Texas? Texas beaches should be recognized and designated as known nesting habitat.

*The recovery plan will reflect the known nesting habitat of the Kemp’s ridley including Texas.*

### **Threats Table**

Stakeholder comment: How would a female bias in the population affect adult equivalents which are based on a 1:1 ratio? Was a sensitivity analysis done?

Stakeholder comment: The information for the fisheries threats –trawl juvenile stage-- is out of date.

*The original paper was cited but the numbers used were from the NMFS Biological Opinion on the effects of the shrimp fishery on protected resources. The anticipated take in that Opinion is the standing estimate and shouldn’t be out of date.*

Subsequent stakeholder written comment: The revised plan should incorporate the most recent, updated, and scientifically sound information, data and analyses, especially with regard to age-based modeling results, since the team appears to be using such results as guide to revising the plan, priorities for recovery actions, and ranking of threats.

Stakeholder comment: Referring to the table, stated that the midpoint mortality of threat class interval converted to a logarithm does not represent the central tendency of the class interval very well. The commenter suggested instead that the logarithms of the upper and lower limits (mortality range) of each threat class interval should be taken first, and then the midpoint of these two logarithms calculated. The midpoint logarithm is detransformed (by antilog) and represents the geometric midpoint and central tendency of the class interval. This commenter also questioned the entire procedure of multiplying a reproductive equivalent or value by a logarithm to rank or prioritize threats.

Stakeholder comment: With use of TEDs, shrimpers shouldn't get "credit" for so much mortality – once perhaps, but not now. The stranding data should be credited to other forms of mortality. The team relied too much on old data such as the 1990 National Academy of Science Decline of the Sea Turtles report.

Subsequent stakeholder written comment: Will the treats table/analysis also be based on present-day mortality levels associated with "currently regulated" activities? For example, the two major threats, uncontrolled exploitation and predation of eggs on Tamaulipas nesting beaches, and losses due to shrimp trawling, have been reduced substantially. Will the new recovery criteria threats table reflect these successes (i.e. reductions in loss of turtles)?

## **Recovery Narrative**

Stakeholder comment: Reference 1.1.2.1 – Ensure long-term protection of main nesting beaches in Texas: Commenter recommended that vehicular traffic be specified under this category. Discussion also occurred about the use of 'suitable', and whether or not the term limits the scope of habitat that could be protected.

Subsequent stakeholder comment: Wanted it stated for the record that more than fifty biologists, regulators, commercial fisherman and environmental activists, voted unanimously during the meeting with a show of hands that the Texas coast and its adjacent waters should be recognized as active nesting areas for the Kemp's ridley turtle.

Subsequent stakeholder comment: Data gathered on Kemp's ridley nesting activity along the upper Texas coast are still very preliminary and are the result of incidental interactions of the beach-going public with nesters. A scientific assessment of nesting activity and the importance of the upper Texas coast to this activity is lacking. The potential for the upper Texas coast in serving as essential nesting habitat for the Kemp's ridleys must be assessed via standardized nesting surveys, characterization of inter- and post nesting movements should be continued via telemetric tracking, and programs that educate and integrate the beach-going public in reporting of nesting activity must be developed.

Subsequent stakeholder written comment: The revised recovery plan needs to recognize all Texas beaches as critical (Priority 1) nesting habitat for Kemp's ridleys and emphasize the following:

- 1 All Texas beaches and adjoining waters including the upper Texas coast must be a Priority 1 issue in the revised recovery plan with accompanying funding for protection, research and necessary staff.
- 2 Adequate and constant law enforcement in Texas waters must be present.
- 3 A Marine Protected Area or Marine Reserve must be established to protect the Kemp's ridley population in their marine environment at the Padre Island national Seashore and considered at other nesting sites in Texas as they develop.
- 4 Plans for future incubation of Kemp's ridley eggs with hatchling releases in the Galveston County/upper Texas coast area must be made now.

Stakeholder comment: Reference 1.1.3. – Assess long term impacts of global climate change on marine and terrestrial habitats: Discussion occurred about whether or not this should even be included, given the limits of affecting change through this specific recovery plan.

Subsequent stakeholder comment: This should be addressed and there is something that can be done, by assessing which beaches will likely be most vulnerable, and by taking steps to establish/enhance nesting colonies on the least vulnerable beaches, provided they meet certain criteria which the team can establish, based on scientific and technical evidence. If global climate change is real, and if it will (can) put the species in jeopardy in the future, then it needs to be addressed.

Stakeholder comment: Reference 1.2 – Protect and manage marine habitats: Will the team address hypoxic areas? Several people noted that it impacts their food sources, and suggested the team re-examine the issue. Other related comments: Impact of fishing vessels and turtles in the same place at the same time. Changes in nutrient ratios can cause harmful algal blooms.  
*Recovery team response: the team felt hypoxic areas were not directly impacting on ridleys.*

Stakeholder comment: Reference 2.1.7. – Monitor neophyte nesters: What does this mean?

*Recovery Team response: This refers to mean clutch size decreasing because of increasing number of neophyte nesters. It's important to monitor to ensure they increase as the percentage of neophyte nesters decrease. Need to clarify.*

Subsequent stakeholder written comment: I agree with the need to monitor neophytes, but the need is much broader than depicted by the draft, and should include sampling to determine the size/age distribution of all nesters. It has been said many times that the age structure (age-frequency distribution) of the Kemp's ridley population is stable. I find this hard to accept, since hatchling inputs have been increasing exponentially, the post-1990 reductions in benthic stage mortalities has been in effect less than two Kemp's ridley generations, and the average size of nesters in Tamaulipas seems to be declining. So, monitoring should continue to include sampling

for size of nesters, mark-recapture of nesters, clutch size, hatch success, etc. on nesting beaches. Also, the apparent shift toward smaller sizes (younger ages) of turtles in the population should be evaluated with regard to whether or not the age structure (frequency distribution) is stable or has been changing.

Stakeholder comment: The survival rate for *in situ* nests is very low – Will there be something to address this in the outline? Need to reflect current research and needs for higher survival *in situ*.

Subsequent stakeholder written comment: In the context that survival of eggs left *in situ* is extremely low (and this should be addressed in the revised plan), setting limits on protected nests is like sentencing the eggs left *in situ* to certain death, unless *in situ* nests get greater protection than they have been. However, the population would still recover, but less rapidly, if limits were set on numbers of protected nests. The team's intent in this regard should be stated and explained in the revised plan.

Stakeholder comment: It is known that the sex ratio of hatchlings is female biased, and that sex ratios determined from strandings and in water research is female biased, so it is of concern that age-based modelers and the recovery team continue to assume a 1F:1M sex ratio.

Stakeholder comment: Will the recovery plan include a detailed description of the population model for Rancho Nuevo, so readers are comfortable with it? This should be something more than a literature citation, and should specify parameters used etc. The turtle expert working group is now using different model/parameters in the last couple of years.

Stakeholder comment: Additional concern was expressed about the modeling. The draft plan references a ratio of 1 adult to 40-50 hatchlings, then subsequently refers to a ratio of 1 adult to 400 hatchlings. (At first it was thought a typo, but it had to do with the difference between reproductive value and reproductive equivalents.) These need to be reconciled.

Subsequent stakeholder written comment: Is the Turtle Expert Working Group still doing age-based modeling? It seems clear that the recovery team is planning to use (is using?) 12 years to maturity, and a 1:1 sex ratio in an update of age-based models. Will these updated age-based models be included in the revised plan, along with an updated listing of Tamaulipas data time series (hatchling inputs and nests outputs) and updated parameter values? Will models be run over a range of parameter values, or will only single chosen values be used ?

Stakeholder comment: Reference 2.2.2.4. – Reduce mortality in all fisheries: The text does not account for conservation measures that already are in place. These measures need to be recognized.

*Recovery Team response: It was noted that this is given a thorough recap in the Conservation Actions section of the plan, and will probably be referred to in the narrative as well. [A suggestion was to re-title “Continue to reduce mortality in fisheries” to recognize what's been done.]*

Subsequent stakeholder written comment: Recommended FWS study regulations and protocols which would protect turtles migrating along the Texas coast from fishing pressure including the adoption of temporary closures and permanent or semi-permanent marine protected areas.

Subsequent stakeholder written comment: It should also be recognized and reflected in the threats analysis tables.

Subsequent stakeholder written comment: There is growing evidence that Kemp's ridleys will nest along the upper Texas coast and can establish fidelity to constituent habitats during some or all phases of the nesting season. This activity is likely to increase with the ridleys ongoing recovery and, in so doing, result in more nesters occurring in waters and on beaches of the upper Texas coast where they lack protection afforded their middle and lower coast conspecifics. As such, strong consideration should be given by the Recovery Team to expand current protection requirements to the entire Texas coast.

Stakeholder comment: Reference 2.2.3 – 1) All numbers under this start with 2.2.2 – need to re-number. 2) There's a second 2.2.3 (indented by mistake), which should be 2.2.4, and all subsequent numbers should be changed.

Stakeholder comment: Reference 2.2.6.3 – Need to separate out “Continue monitoring of red tide and harmful algal blooms”

Stakeholder comment: Reference 2.2.8. – Need to un-indent and separate out “2.2.9 Management of captive stocks.”

Stakeholder comment: Need to address issue of release of turtles.

*Recovery Team response: The section on “Management of captive stocks” captures this issue. Will clarify or add information if necessary.*

Stakeholder comment: Reference 2.2.7.2. – Genetic composition on foraging grounds: What is the purpose of knowing “genetic composition on foraging grounds?”

Stakeholder comment: Reference 2.2.7.1. – Monitor the status of hybrids: Is there really a need to monitor the status of hybrids?

Stakeholder comment: Reference 2.2.6.1. – Reduce entanglement in marine debris: Add “and ingestion of” to read “Reduce entanglement and ingestion of...”

Stakeholder comment: Reference 3.1.2 – Establish new programs for fishermen including conversion to other economic pursuits (including all gear types, not just shrimp trawls): Community involvement: Need some clarification on what this entails.

Subsequent stakeholder written comment: Is this a requirement of the Endangered Species Act? Wouldn't this come under the Magnuson-Stevens Fishery Conservation and Management Act in the United States? This needs clarification.

Stakeholder comment: Reference 4. – Legal framework: Given that having adequate laws in place is a criterion for delisting, need to flesh this out more. For example, this section only really talks about promoting awareness of laws, ensuring proper implementation of international conventions and identifying gaps in law such as adjusting the boundaries of the Rancho Nuevo sanctuary. What laws need to be in place to meet this criterion? If additional laws are unnecessary, then need to change the criterion (but there probably are some other safeguards the team had in mind).

Stakeholder comment: Is there a need to add an action on sperm limitation (possible issue in future)?

*Most people at meeting felt no.*

Stakeholder comment: Need to add an action to address boat strikes.

Stakeholder comment: Nothing in plan addresses beach renourishment, sea walls etc.

*Recovery Team response: Not addressed because not seen as a big threat for Kemps because most nesting in Mexico or U.S. public lands. [Commenter did not agree with explanation because there's still some nesting on private lands, and there will be more as numbers increase.]*

Stakeholder comment: How did cold stunning rank on threats analysis? Should it be included in recovery outline?

*Recovery Team response: Discussion indicated it should be added. It would be useful to point out the educational side of working with stunned animals. Perhaps it could be included (and specified) under the stranding network section.*