

USFWS West Indian Manatee Reclassification Proposal- Peer Reviewer Summaries

Nilda Jimenez- Puerto Rico

- "As a manager and biologist, working with this species, I urge you to reconsider the proposed rule, and suggest you evaluate them by sub-species."
- A PVA was completed for the Florida manatee, but not for the two subspecies or for the entire species throughout its range... A preliminary PVA for the Antillean manatee indicates the population is far from stable
- Information included for the Antillean manatee is only for those in Puerto Rico, lacking information of all the other countries of its range.
- "Having 342 individuals [in Puerto Rico], considering threats, habitat degradation, illnesses, habitat displacement, and so on, reflects a high percentage chance of this sub-species going extinct in the next 100 years, or at least cease of being viable.
- "arriving to the conclusion that the threat is being addressed is not accurate or real."
- For the Antillean manatee, "sea grasses are being severely impacted by anthropogenic actions... it is unknown how much sea grass is needed to sustain a large manatee population... "
- "for Puerto Rico, it indicates that there is a collective effort of different agencies to avoid, minimize, and mitigate project impacts on important manatee habitat. In paper this is correct, but not in practice."
- "In Puerto Rico, the Service conducted a study to identify important manatee habitat... no protection has been granted because of the developmental pressure these areas are subject to..."
- "outside of US... we are very far from saying that the threat of manatee habitat fragmentation and loss is being offset so efficiently as to the point to feel comfortable with the outcomes achieve so far."
- "In Puerto Rico, although we have a regulation that establishes speed limit to 150 feet from shore, we don't have the staff to enforce it, nor the way to implement it outside of a public beach, because of the signing."
- "The main manatee habitat, although long recognized as such, have no protection because of economical pressures."
- And of all the countries within the Antillean manatee range, only three has protected these habitats. The present or threatened destruction, modification, or curtailment of the Antillean manatee habitat or range is a significant threat."
- "Poaching is a major threat through out most of the countries within the range of the Antillean manatee. This is a threat that could bring the species to extinction and responsible to cause extinction in some countries.... It is a clear and present threat for the Antillean manatee."
- "Harassment has increase, at least in Puerto Rico, with no legal consequences. It is not an anecdotal account, contrary to the information provided in the document... The same situation is faced by the Antillean manatee through out its range, where uncontrolled tour operators are having a negative impact over the sub-species with no consequences."
- "Poaching by itself is a huge threat. If we add harassment it is concluded that the overutilization of the Antillean manatee for commercial and recreational purposes is a significant threat."

- "Through out the rest of the range of the Antillean manatee, much is unknown. Disease is a potential significant threat, especially when considering water quality problems faced throughout its range."
- "the lack of implementation, enforcement and oversight, make many of the conservation strategies inefficient or fruitless.... Ruling and conservation measures, that are not currently strong enough because of lack of enforcement, will be more lenient."

Lynn Lefebvre, Ph.D.- USGS, Retired

- "The weakest aspect of the proposed rule for the Florida manatee is how it deals with manatee habitat. The recent (2010-2012) phytoplankton blooms in the Indian River Lagoon have caused catastrophic loss of seagrasses in the most important manatee habitat on the Atlantic coast, yet it is barely mentioned."
- "In Florida, securing habitat has always taken a back seat to protection of warm-water refuges, including power plants, in part because foraging resources have been viewed as non-limiting." In hind sight, this seems short-sighted."
- "The [report] states that 'Habitat fragmentation and loss are thought to be the single greatest threat to manatees outside the United States.' I think this is becoming true inside the U.S. as well."
- "It is unfortunate that downlisting is being considered for the West Indian manatee in Puerto Rico. I know there are legal reasons for doing so, but ecologically and biogeographically, it does not make sense."
- "There is great uncertainty about the status of *T.m. manatus* throughout its range. Decoupling the two subspecies for the purpose of rule-making makes biological sense, if not legal sense."

Benjamin Morales-Vela, Ph.D. - El Colegio de la Frontera Sur, Mexico

- "In my opinion, the publication of Castelblanco-Martinez et al. (2012) that describes at the Antillean manatee as a metapopulation with an estimated size of 6700 manatees and predicting a positive growth do not have a solid scientific basis. This opinion is based on that the most of the existing population estimation information of this subspecies in different countries are based on anecdotal information, and because the authors assumed that the Antillean manatee has a metapopulation structure along of its range distribution."
- "... the Mexican manatee population could be lower that we estimated before based on fragmented experience and anecdotal information... In the other Mesoamerican countries, the Greater Antilles and South American countries the manatee abundances are low or unknown."
- "... some species with a historical continuous spatial distribution are being turned into possible metapopulation by habitat fragmentation, but cannot necessarily function as a metapopulation, with limited dispersal ability of the individuals, that local population, once extinct, will remain extinct. This is the case of the Antillean manatee."
- "As poaching, habitat loss, chemical contaminants, entanglements, boat collisions, deforestation, draining of wetlands, sedimentation, and oil and gas exploration, most of these threats are not yet evaluated. In Mexico, metal concentrations detected in bone tissues of manatees were higher than most of those reported for bones in other marine mammals around the world."
- "Oil production in Mexico may increase in the coming years because of recent energy reforms implemented by the Mexican government. These type of changes in the political economy in the oil and energy industry with the highest impact on the habitat of the manatees are difficult

to predict. In this cases, the concept of the precautionary approach is a policy action that the states need to implement..."

- "The U.S. government need to use this precautionary approach and to avoid to reclassify the West Indian Manatee; that is in danger of extinction throughout all or a significant portion of its range. At least, is necessary that the Service consider the Antillean manatee subspecies as a separate listing of the Florida subspecies."

Thomas O'Shea, Ph.D.- former USFWS Sirenia Project research biologist and Sirenia Project Leader

- "I cannot support the downlisting of the West Indian manatee as proposed..."
- "... in addition to population growth and stability, a main goal for recovery of the Florida manatee as defined in the Recovery Plan is reduction in threats to habitat and human-caused take of manatees. Reduction in threats to manatee habitat is not clearly indicated with strong supporting data in the Federal Register notice. In my opinion many of these threats are very likely to continue to increase and are of great concern. "
- "I am also very concerned about the down-listing of the Antillean subspecies... I cannot support down-listing of the Antillean subspecies because it is not based on reliable knowledge."
- "I feel that my opinions should carry some weight given my credentials."
- "The paper by Castelblanco-Martinez et al. (2012) is one of the fundamental sources for the decision to downlist the Antillean subspecies. In my opinion that analysis, based on a 'canned' program (Vortex), rests on assumptions about the data structure that are not possible to accurately determine over the range of the subspecies. The paper is an academic exercise (yet was not published in a top tier journal), not grounded n strong data that provide reliable knowledge."
- "the anecdotal information in support of downlisting the Antillean subspecies does not constitute reliable knowledge, and it will be premature for FWS to reach a final decision to downlist this subspecies."
- "In addition there are no firm data in the Federal Register notice to support downlisting, but instead statements are given to the contrary."
- "None of the statements under these [five] factors provide analysis of threat data for the Antillean subspecies, and none indicate sufficient change in these threats range wide to reclassify the original listing as endangered."
- "The only support for evidence of amelioration of threats is the existence of protective regulations, which in many cases are on paper only and not effective in the field."
- "The two subspecies are too dissimilar in the soundness of the knowledge about their populations and the effectiveness of their management to be considered as equally eligible for downlisting at this time."