

From: [Michelle Baker](#)
To: [Britta Muiznieks](#)
Subject: sandy's questions
Date: 01/07/2009 10:56 AM
Attachments: [Questions for Sandy McPherson.doc](#)

Britta,

Here are the questions from Sandy MacPherson. The questions in red are the ones that I think the sub-committee should focus on in some capacity in order to complete their work. There are no simple answers to any of these questions and many of them cannot be answered at all.

There are a few questions that relate to CAHA, but our answer to all of these is that we don't know. Many of the questions have to do with things that we do not have data on at all, and the little data that we do have is not enough to make accurate assessments. You will see what I am talking about when you read the questions. Matthew may be able to answer some of the state questions, but I would try and prepare Larry and the subcommittee that most likely they will not receive answers to the majority of these questions.

I also think that it is important that they realize that while nest success is important to the survival of the species, it is not within the scope of the subcommittee's purpose to comment on our relocation practices. We have a legal obligation to follow the guidelines set forth by FWS and NCWRC. So while the questions that pertain to this is interesting and informative, they will ultimately not help the subcommittee move forward.

Talk to you later,

Michelle

Remaining questions for Sandy McPherson after Nov. Reg. Neg. meeting

Recovery Plan

1. That old (1991) Recovery Plan requests of all Federal and State agencies in the Southeast to do “temperature transects on representative beaches throughout the Southeast”. How many transects have been done and where? If none have been done why not?
2. There is no request for transects in the new draft plan why not?
3. The number one listed “objective” in the new draft recovery plan for the Loggerhead sea turtle is: “Ensure the number of nests in each recovery unit is increasing and this increase corresponds to an increase in the number of nesting females.” How do you do this when the policies used at CHNS have resulted in a loss of 46% (either entirely lost or hatched under 20% of eggs) of nests laid in the seven years between 2000 and 2006.
4. What is the time frame for recovery of Loggerhead, Green and Leatherback sea turtles?

Basic Questions

1. How long do loggerhead sea turtles live?
2. What is the age range that female loggerheads are able to reproduce?
3. What is the age range that male loggerheads are able to mate?
4. What would be an acceptable percentage of lost nests? The 1991 Loggerhead Recovery Plan seems to have put an alert at 40%.
5. What is the “normal” percentage of nests that are “lost” to weather in the state of NC? In the total nesting area?
6. Recent articles indicate a reduction in turtle nesting in North Carolina. Is this because there are not enough males or not enough females?
7. How many hatchlings at CHNS actually get into the water at CHNS and is this different from what is considered normal?
8. Do you believe that as far as site specific management plans go that one plan fits all or should plans for different areas recognize differences in

sites (low wide beaches vs. narrow steep beaches and/or man made dunes)?

9. What is the natural sex ratio of adult turtles off the coast of NC and is this ratio the same through out their range?
10. What is the natural sex ratio of male and female hatchlings at CHNS?
11. If research showed that the male to female hatchling ratio would be changed by less than 10% by moving nests from the high tide line to the base of the dune and possibly significantly reduce the number of lost nests why would you not do so?
12. How far away from land do sea turtles surface to look for a “good” nesting site?
13. Do vibrations in the sand affect incubation or hatchlings? At what distance can emerging hatchlings hear a passing car? At what distance can emerging hatchlings feel a car passing at 15 mph? And does either of these events alter their activity?
14. Is there any peer reviewed science that shows the time that females come ashore to nest? Is it different here at CHNS?
15. How many mature Loggerhead sea turtles are there?
16. How many of these are male and how many are female?
17. How many immature Loggerhead males are at sea?
18. How many immature Loggerhead females are at sea?
19. How many females does a male mate with in a season?
20. What is the greatest land predator of sea turtle eggs and hatchlings? (science to back up answer)
21. Should successful management practices used in one area be shared with and used in other areas?
22. Why not relocate all nests laid after the first week of July since we lose a high rate (over 50%) of these to our storm season.
23. How far does a stationary light source have to be to disorient an adult female?

- 24. How far does a stationary light source have to be to disorient a hatchling?**
- 25. How many vehicles were on the beaches in the vicinity of false crawls at CHNS in 2008, 2007, 2005 or any year?**
- 26. Why not institute a protocol at CHNS similar to that of Cape Romain and why did you not even mention this program in your presentation?**

False Crawls

- 1. How do you explain 24 false crawls at the hook at Cape Point inside a bird closure (with no ORV or human activity) in 2007?**
- 2. Where can I find peer reviewed research that explains why false crawls are bad and not that turtle just knows what she is doing?**
- 3. What happens when a turtle can not nest at a location? Do they abort or assimilate the eggs?**
- 4. Why do sea turtles make false crawls? List of scientific papers that attempt to explain why turtles make false crawls.**
- 5. What is the significance of false crawls?**
- 6. Do we need to be concerned with the false crawl to nest ratio? List of scientific papers that document the “acceptable” ratio.**
- 7. How do you explain a higher than 1:1 false crawl to nest ratio at sites where there is no ORV use, villages or ocean piers?**
- 8. How do you explain the fact that Cape Lookout historically has experienced a higher false crawl to nest ratio than at CHNS? Cape Lookout does not have seven ocean front villages, three fishing piers or nearly the human activity that we have.**
- 9. What time of night are false crawls made? Is the time of night that false crawls are made at CHNS the same as in say Fla.? Or on beaches where there is no ORV use? (Scientific papers to support answer).**