



Image from USFWS

Sea Turtle Management Project

Answers to Worksheet that Accompanies the
PhotoDocumentary by Rachel Teller

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1. Thousands of people across the world volunteer their time to help ensure the survival of sea turtle species. What kinds of jobs do they do? **They help with projects like nest protection and relocation, and public education.**
 2. What agency has the task of issuing permits for sea turtle nest management projects in South Carolina? **the Department of Natural Resources**
 3. T / F: If it is raining, the volunteers wait until it stops before they patrol the beach for tracks.
 4. Why are the beaches surveyed from the last high tide line? **So tracks that have been partially washed away by the water are not overlooked.**
 5. A **false crawl** is when the female comes out of the water, but does not lay a nest. Why do you think this happens sometimes? **There may be a physical barrier in her way, like a sea wall; there may be people or other disturbances present, like machines working on a beach renourishment project; or something else may have indicated to her that the area was not suitable for a nest.**
 6. What does it mean to leave a nest *in situ*? **to leave it in its original place**
 7. T / F: This photo shows tracks from two different females that came ashore to nest.

8. Based on the photo, in which direction was this turtle headed? **to the right side of the screen**
9. Volunteers study the **field signs**, like broken vegetation and where the sand was thrown, to infer the nest location within the body pit.
10. T / **F**: Volunteers probe the sand to allow air to get to the nest chamber.
11. A nest is always left in situ if the eggs have a chance to survive. The nest is left in its original place if it is...
- above the **high tide** line
 - on the **seaward** side of the sand dune
 - in an area with little **erosion**
12. T / **F**: Nests are relocated as often as possible so volunteers can monitor them.
13. During the relocation process, volunteers must be sure to protect the eggs from **heat** and **drying**.
14. When relocation is necessary, volunteers must be very careful because rotating the eggs or moving them abruptly can cause **movement-induced** mortality, which means the embryo inside dies.
15. What five criteria constitute a good alternative nest site?
- **it's close to the original**
 - **it is above the high tide line**
 - **it's not in dense vegetation**
 - **it is in an area with little erosion**
 - **there isn't much light pollution in the area**

16. Why are the eggs recounted as they're placed in the new nest site? **Recounting is just a step the volunteers take to ensure their data is correct. The correct answer– why not?!**

17. **T / F:** If a nest is left in situ, the number of eggs laid will be unknown.

18. A **hatchery** is a place where the eggs can incubate with limited threats from erosion and predators.

19. What is an exception to the rule that nests must be moved within 12 hours? **If a severe storm event threatens to wash the nest away, it can be moved at any time during incubation.**

20. **T / F:** The purpose of the screen in the photo is to block wind and blowing sand.

21. How do the volunteers know when to expect the hatchlings to emerge? **The volunteers know the average incubation period is 60 days, so they can estimate the emergence date based on when the nest was laid. Also, the pit that forms over the nest as the hatchlings are crawling their way out of the nest cavity is an indication of emergence.**

22. Why do you think the volunteers wait a few days after the nest has boiled before they excavate it for an inventory? **It usually takes hatchlings about three days to crawl out of the nest. Waiting a few days after the nest boils before excavating the nest for an inventory ensures the majority of hatchlings have a chance to emerge on their own.**

23. **Nest inventories** provide information about the reproductive health of the local sea turtle population.

24. T / F: After emergence, there are only empty shells left in the nest cavity.

25. Why might these turtles need help to get to the water? **Since they were unable to crawl out of the nest chamber on their own, they are probably not physically able to make it to the water because of physical restrictions.**

26. T / F: The volunteers' work is finished once all of the nests have been inventoried.

27. Why do you think we need to have a management plan for these animals? Why can't the species recover on its own? **These animals have been able to survive for millions of years because they are so well adapted for their lives at sea. As humans continue to inhabit more and more space, their nesting grounds are being destroyed. They cannot compete with the rapid increase in beach development.**

28. Now that you have learned about what others do, what are some things you could do to help ensure the survival of these marine reptiles? **Anything is something! Write a letter, do research, donate time, tell others, respect their habitat...**