



CONSERVE WILDLIFE

FOUNDATION OF NEW JERSEY

Great Bay Terrapin Project Internship
Great Bay Blvd. Wildlife Management Area
Little Egg Harbor Township, Ocean County, New Jersey

February 11, 2020

This volunteer internship is meant to help educate deserving students who wish to protect the quality of our natural resources in Barnegat, Great and Absecon Bay watersheds while learning wildlife management techniques. The goals of the Great Bay Terrapin Conservation Project are to document and reduce road mortality of northern diamondback terrapins from motor vehicles and to educate the public about the threats to the terrapin population in New Jersey.

PROJECT HISTORY

Since 2010 Conserve Wildlife Foundation of NJ (CWF) has been engaged in the conservation of northern diamondback terrapins (*Malaclemys terrapin terrapin*) in the Little Egg Harbor area. This year, we seek to continue to protect terrapins through ongoing conservation and education initiatives by conducting road patrols, maintaining barrier fencing, and educating the public.

Terrapins are a coast hugging turtle that live exclusively in brackish water. Habitat loss, mortality from being drowned in crab traps, and road mortality all pose major threats to the health of the population but are only a fraction of the threats that they face. Each year hundreds of terrapins are killed by motor vehicles throughout their entire range (Wood, et al. 1997). On Great Bay Blvd. in Little Egg Harbor Township, scientific research has shown that road mortality may be depressing the local population of terrapins. Over time it has caused adult females to become smaller and less numerous (Avisar, 2006).

Road mortality is an unnatural cause of death for terrapins. During summer months, female terrapins exit the safety of their aquatic environment to find suitable nesting sites. These suitable nest sites are often on the shoulders of roads. Terrapins nest in upland areas that have a loose gravel-like substrate that's above the mean high tide line. On some days, during the peak of their nesting season as many as 50 terrapins can be seen along the road. Two studies have pointed to road mortality as having a negative effect on the structure and health of the local population here. Both studies

have called for conservation measures to be put in place to help stop the decline of terrapins in the area.

In 2020, we will be adding a nest monitoring component to this internship to determine the success of a large 1/2 acre habitat enhancement project is completed on Great Bay Blvd. in Little Egg Harbor. We will be recruiting 2-3 interns to assist with either aspect of the project - road surveys and/or nest monitoring.

As a volunteer research intern you will work with Ben Wurst, CWF's Habitat Program Manager to conduct and coordinate road surveys to collect data on the local terrapin population on Great Bay Blvd. in Little Egg Harbor Twp, Ocean County, New Jersey. While conducting these surveys, our research intern will collect data on terrapins encountered in the road. In addition, they will also continue a long term mark-recapture study by notching terrapins and recording recaptures. This unique opportunity is best suited for hard working individuals with experience working long hours in extreme outdoor conditions. There will also be opportunities to assist on other field projects in southern New Jersey that involve ospreys and peregrine falcons.

JOB DESCRIPTION:

- Conduct road surveys on Great Bay Blvd. in Little Egg Harbor from late May – late-July.
- Monitor GBB Habitat Enhancement Site for nesting. Record nests and collect morphometric data on nesting females. Mark adult females. Excavate nests to determine clutch size. Exclose nests using predator exclosures. Monitor for predation (mammal/avian tracks) and possible poaching by humans.
- Assist with the scheduling and management of several volunteer "Terrapin Stewards" that will help conduct road patrols and nest monitoring.
- Collect and record body morphometrics of live terrapins.
- Mark live terrapins by notching marginal scutes and PIT.
- Record sightings of live/dead terrapins along Great Bay Blvd and other roads in suitable habitat.
- Collect injured and/or road-killed terrapins for egg harvesting and/or transportation to rehabilitation and care facility.
- Educate the public about terrapins, our conservation efforts, and their threats in the environment.
- Help maintain barrier fence using line trimmer/lawn mower along Great Bay Blvd.
- Enter and summarize data in Google sheets/Excel and GPS data in Google Earth.

TIMETABLE:

- Dates - May 15 – July 31.
- Work ~20-30 hour work week, weekends and holidays may be required during peak nesting times or when volunteers cannot cover road patrols.
- Goal is to cover roads during high tide cycle and/or on days when most people are out, especially weekends, holidays, and when terrapins are most active (full

and new moons, night time). Usually this amounts to 4-6 hours a day 4-5 days a week (during peak nesting periods).

QUALIFICATIONS:

- Knowledge of reptile biology/fieldwork preferred, but not required.
- Must be highly tolerant of prolonged sun exposure and biting insects.
- Ability to work long hours in hot outdoor conditions.
- All applicants must have a valid driver's license, a good driving record, and the ability to adjust to varying schedules throughout the field season.
- Requires use of a personal vehicle for work (mileage reimbursable).
- Great communications skills.
- Knowledge of GPS and data entry and use of cloud based programs like: Google Calendar, Google Drive and Google Sheets.

Some field equipment will be provided. A list suggested equipment will be given to intern and they will be responsible for acquiring it.

EMAIL COVER LETTER AND RESUME BY MARCH 1, 2020 TO:

Ben Wurst, Habitat Program Manager
Email: ben.wurst@conservewildlifenj.org

References:

- Avissar, Naomi G. 2006. Changes in Population Structure of Diamondback Terrapins (Malaclemys terrapin terrapin) in a Previously Surveyed Creek in Southern New Jersey. Chelonian Conservation and Biology, Volume 5, Number 1. 154-159
- Szerlag, S., and S. P. McRobert. 2006. Road occurrence and mortality of the northern diamondback terrapin. Applied Herpetology 3:27-37
- Wood, R. C. and R. Herlands. 1997. Turtles and tires: the impact of road kills on northern diamondback terrapin, Malaclemys terrapin terrapin, populations on the Cape May peninsula, southern New Jersey. Pages 46-53. In J. Van Abbema editor. Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles--An International Conference. New York Turtle and Tortoise Society, New York, USA.