



# Margate Terrapin Rescue Project

## Citizen Science Program Details

### *Our Goal*

To reduce terrapin fatalities on the Margate Causeway using roadside barriers, daily road patrols, and educate the community about Diamondback Terrapins and their importance in the local ecosystem.

### *Background on the Margate Terrapin Rescue Project*

The project originated in 2007 by concerned Margate residents Lisa and Don Doherty. Northfield resident Bill Doughty Jr. who moved to the area in late 2007, then further strengthened it. The number of roadkill he observed while traveling on the Margate Causeway alarmed him. Doughty and Doherty have worked closely with Wetlands Institute scientists and staff, the Margate Bridge Company, the city of Margate, local businesses, local Boy Scout troop 634 and students from Atlantic City High School and The Atlantic County Institute of Technology. In recent years, the collaboration has grown with many community members showing their support.

Since 2007, this collaborative grassroots effort has significantly reduced terrapin roadkill by installing terrapin tubing and fencing, conducting road patrols to assist terrapins across the road and by educating the community about the importance of being alert for terrapins while traveling on the Margate Causeway. In 2020, the Margate Terrapin Rescue Project officially became designated as a 501(c)3 nonprofit organization.

### *Recent Research*

Like previous years, the causeway is patrolled daily to check for mortalities and assist terrapins across the road. We collect data through the iNaturalist app which is then compiled and sent to the NJ Fish & Wildlife Division at the end of the year to aid in conservation efforts at the state level.

We have two different types of roadside barriers along the causeway: 6" whole HDPE corrugated tubing and 10" halved/split HDPE corrugated tubing.

How does the 6 inch whole corrugated tubing work? It is generally high enough so that the terrapins cannot climb over. It is staked to the ground so it will not move or budge as easily. However, sometimes the tubing loosens from the stakes and gaps underneath the tubing are exposed. The terrapins can then wiggle their way underneath and have access to the roadways.

So how does the new halved or split tubing work? It is high enough that the terrapins cannot climb over. The inside of the halved tubing is smooth which does not allow the terrapins to grip on and climb over. Additionally, the halved tubing is dug into the ground via trenches.



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## *Your Role as “Citizen Scientist”*

As citizen scientists, you are a vital part to continuing the success and furthering the research of not only the Margate Terrapin Rescue Project but also other organizations that have been following our work and using our research in their own areas. Citizen scientists are those in the community who volunteer and contribute their time/resources towards scientific research in conjunction with scientists and researchers. Since we are a small group, we cannot perform all the research ourselves. We also want to get the community involved so that everyone can partake in something as rewarding and important as saving terrapins because who doesn't love a cute turtle!

## *What do I need to do?*

There are several components to the role. First and most importantly, we are trying to rescue and save terrapins from being hit by vehicles! The research we are performing is a component/part of the saving and rescuing of terrapins. All data will be recorded using the iNaturalist app and sent to the pre-loaded 2023 Margate Terrapin Rescue Project Nesting Data project.

**Daily Patrols-** On the day you signed up to patrol on, you either choose morning or evening. Please perform patrols during daylight hours for safety reasons. You can perform patrols multiple times per day outside of your normal patrol time if you wish as long as each patrol is recorded/documentated separately.

- You will drive to your designated roadway. If you live or are coming from Margate, then your patrol begins right on the other side of the toll bridge by the maintenance yard. If you are driving from Northfield, your patrol will begin by Bay Drive.
- Pull over to the shoulder and put your four-ways on for the entirety of your patrol.
- Place the magnet bumper sticker on your bumper (if it is not already there). Put on your safety vests or wear the provided bright colored “Volunteer” shirt.
- Have your cellphone on, the iNaturalist app open, shovel (if needed), and rubber gloves.
  - a. Make sure you open the iNaturalist app and give the GPS a minute to locate the satellites. Check your location accuracy throughout the patrol.
- You will then proceed to drive the shoulder of the roadway very slowly (~10 mph) **OR** you can walk each section if you would like (this way you can spot nesting, too!). Please stay on the grass if you are walking the section. You are looking for terrapins breaching the barriers, on the grass going towards the road, terrapins on the road, and lastly, any injured or deceased terrapins on the road already.



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### *Different Situations When You Find a Terrapin:*

If you find a terrapin breaching the barrier or walking along the barrier on the 'safe' side:

- Stop your vehicle safely or if you are walking just pause, observe it for a few minutes to see if it is successful in going over the barrier or if it pauses to nest. If it is still trying to breach the barrier, you can pick it up and move it to the other side of the road and on the other side of that barrier. Measure the carapace and plastron and record this observation and all data in iNaturalist.

If you find a terrapin on the road:

- Stop your vehicle safely; get out of the vehicle when it is safe to do so. Wait until there is no traffic, and pick up the terrapin with two hands on both sides of its shell. Move it to the side it was walking towards or in the direction it was going onto the other side (close to the marsh) of the barrier. Measure the carapace and plastron and record this observation and all data in iNaturalist.

If you find a terrapin that is injured or hit by a vehicle:

- Stop your vehicle safely and get out of the vehicle when it is safe to do so or pause if you are walking.
- If the shell is only cracked, the terrapin may still be alive and can be saved or can be humanely euthanized. Record the location of the injured terrapin using the iNaturalist app. Then, contact Stockton University to notify them that you have an injured terrapin that you are taking to their facility (see below for phone number and more information).
- If there are eggs on the ground near the terrapin, carefully without moving the orientation of the eggs, place them into a container with sand and some grass. Do not disturb or move them once placed in the container. You can bring eggs to Stockton University to be incubated. Record the location of the found eggs on the iNaturalist app.
- If the terrapin is clearly deceased, record the deceased terrapin using the iNaturalist app. Depending on the terrapin's condition, there may be eggs that can be extracted and therefore can be taken to Stockton University. If the terrapin is very dismembered and there are no eggs, then with gloves or a shovel remove the deceased terrapin from the road and place into the marsh so another volunteer does not double count a fatality and then the circle of life can continue.

**Barrier Repairs-** If while on patrol you notice barriers dislodged, broken, or missing you can try to repair or reinstall the dislodged barrier. If you cannot fix it at the time, then make sure it is secured and will not move into the roadway. Then, contact us through GroupMe or email so we can go out and repair/replace/fix the barrier.



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**Other Wildlife-** The roadways are a great habitat for many types of wildlife. You will see many types of birds such as Ospreys, Oystercatchers, Least Terns, Red - Winged Blackbirds, and Willets. Please be aware of these birds and their nests as many times they nest near the terrapin barriers. If you find an injured bird, contact Cedar Run at (856) 983-3329. If you find an injured mammal, contact Wildlife Aid at (609) 927-0538.

## *What supplies do I need?*

- Map of sections of causeway
- Cellphone with iNaturalist app
- Rubber disposable gloves and plastic garbage bag
- Hand sanitizer (after handling each terrapin)
- Shovel (if preferred to remove deceased terrapins)
- Bug spray and sunscreen
- Plastic container or box (to place injured terrapins in or found eggs)
- Tape measure (for measuring plastron and carapace of alive terrapins)
- Margate Terrapin Rescue Project Magnet (provided)
- Turtle Patrol Volunteer Shirt (or brightly colored shirt)

## **Important Contact Information:**

1. Margate Terrapin Rescue Project: GroupMe app; Dione Tsoplakis at (609) 703-8676;  
Kim Wiech at (856) 906-0497 [text or call]
2. For injured terrapins, eggs to be incubated, or deceased terrapins with eggs:
  - a. Stockton University Animal Lab (until around 3 pm): (609) 652-4581
  - b. Wetlands Institute (until around 5:30 pm): (609) 368-1211
3. Injured Birds: Woodford Cedar Run Wildlife Refuge (856) 983-3329
4. Injured Mammals: Wildlife Aid (609) 927-0538



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