Terrapin rescued from traffic. Photo by Lisa Swanger

Diamondback Terrapin Survey

Project Contact:

Nivette Pérez-Pérez
Manager of Community Science
nperezperez@inlandbays.org

Project Summary

Why Do Diamondback Terrapins Matter?

Very little data exists for diamondback terrapins in the Inland Bays, but we know that they face a variety of environmental and human threats including habitat loss caused by climate change and development, entrapment in abandoned fishing gear, and vehicle strikes. Unlike every other turtle species in Delaware, diamondback terrapins are lifelong residents of our coastal salt marshes and live exclusively in brackish water. As one of the top predators of salt marsh snails, terrapins keep the marsh ecosystem balanced and healthy.

How Do We Complete the Survey?

At low tide, volunteers count basking diamondback terrapins (terrapins with their heads out of the water) in the Inland Bays. Surveys are done either from fixed locations along the shorelines (land-based) or using small boats, kayaks, or canoes on pre-determined routes (water-based). Surveyors record the numbers and locations of terrapins observed and submit the data to the Center. Most terrapin survey methods are time-intensive and costly, but the rapid assessment technique, made possible by our participatory scientists, multiplies the effect of our efforts to characterize the terrapin populations in the Inland Bays.

Survey Goals

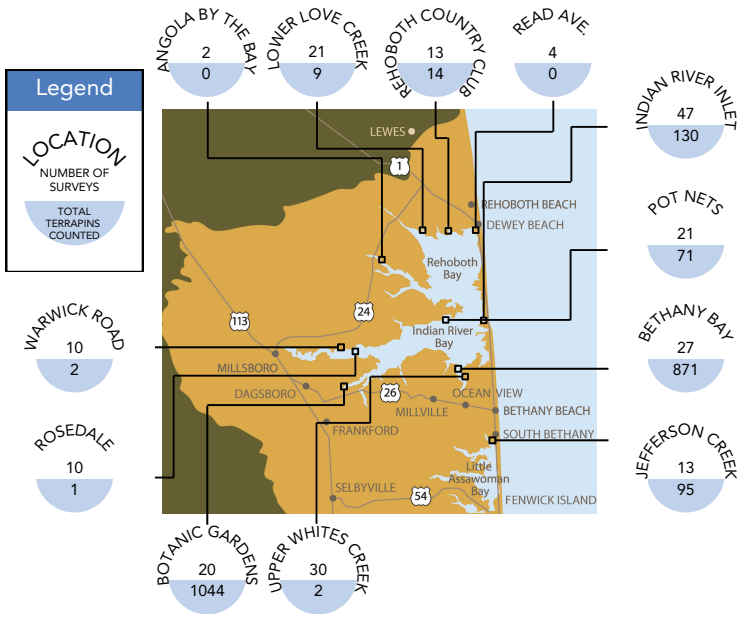
The primary goal of this program is to determine the abundance and distribution of diamondback terrapins in the Inland Bays. Possible long-term trends or changes in the population will be examined after five years. The data collected through this program will be used by the Center to identify priority areas for conservation and enhancement projects.

Participatory scientists searching for terrapins during a water-based survey.

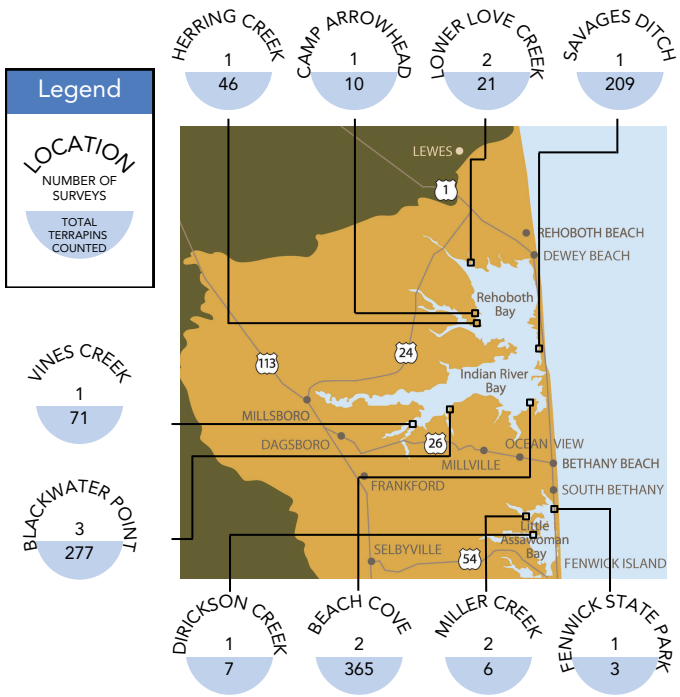
Get Involved!

Help us count terrapins! In 2024, volunteers can help with both water and land-based surveys. Everyone can also keep an eye out for terrapins crossing the road! For more information, visit our website at inlandbays.org.

2023 Land-Based Terrapin Survey Counts



2023 Water-Based Terrapin Survey Counts

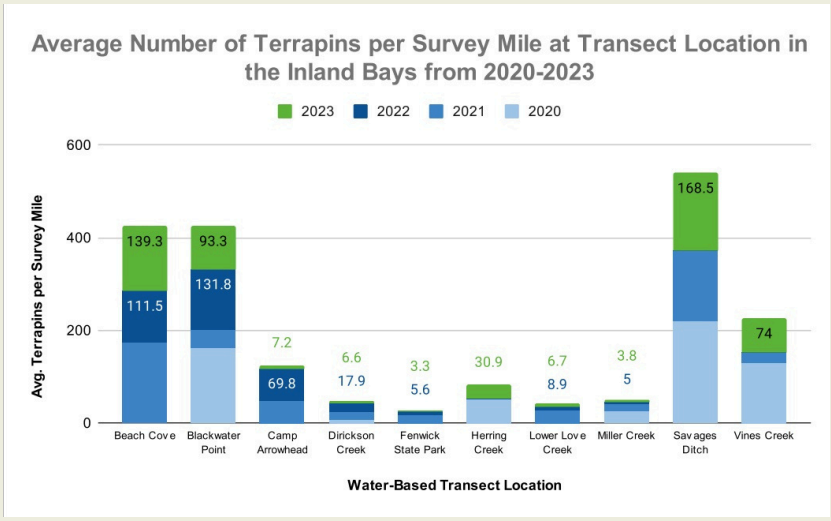


2023 Survey Highlights

We have now completed the third year of a five-year pilot survey to learn more about the terrapins of the Inland Bays. Check out some of our 2023 survey highlights:

- In 2023, a total of 3,254 terrapins were counted at 12 land-based and 10 water-based sites. 2,239 terrapins were counted from land, and 1,015 terrapins were counted on the water.
- This year, the Center's survey location at Savages Ditch had the highest average with 168.5 terrapins counted per mile! Beach Cove was second with an average of 139.3 terrapins counted per mile.
- Overall, more terrapins were counted in 2023 vs 2022.
- This year's surveys could not have been completed without our 22 water-based, and 23 land-based volunteer terrapin spotters.

Yearly Comparison of Terrapin Counts



Average number of terrapins per survey mile at each water-based survey site.
The numbers on the graph show the average number of terrapins counted per mile at each location for the years 2023 and 2022.

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39375 Inlet Rd
Rehoboth Beach, DE 19971

(302) 226-8105

The Delaware Center for the Inland Bays is a nonprofit organization established in 1994 to promote the wise use and enhancement of the Inland Bays and its watershed. With its many partners, the Center conducts public outreach and education, develops and implements restoration projects, encourages scientific inquiry, and sponsors research. To learn how you can get on board with the bays, go to inlandbays.org.