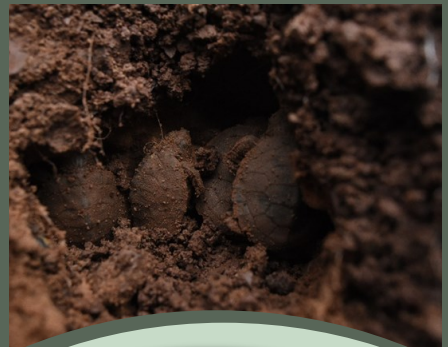
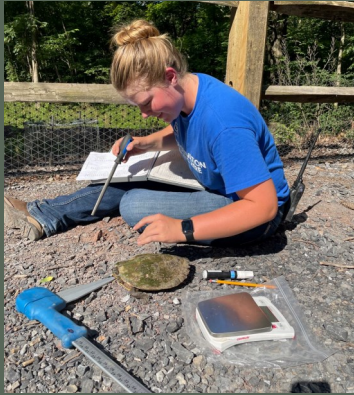


Turtle Nesting Mound Success at Raystown Lake

Article provided by Alicia Palmer, Natural Resources Specialist Raystown Lake

Through a collaboration with Juniata College professors, students, and volunteers at the Raystown Lake Project, the creation and monitoring of turtle mounds was a huge success during the 2021 turtle nesting season.

Environmental Stewardship staff created two mounds comprised of shale and sand at a prevalent turtle nesting area for Northern Map turtles. Nesting females often encounter vehicles at this location; therefore, a temporary fence was created to prevent turtles from accessing the parking area and reaching the road. A total of 60 reproductive female map turtles were marked and 27 nests were protected at the mounds. The mounds were monitored five times a day from June to mid-July primarily by an SCA intern. Once a turtle was found, a GPS point was taken and the turtle was processed by measuring the carapace and plastron lengths. Additionally, each turtle was weighed using an electronic balance. A unique code was given to each turtle using a file on the edge of their scutes so they could be identified if recaptured in the future.



Photos (Left to Right, Top to Bottom): SCA Intern Laney Reasner marking a map turtle. Northern Map turtle eggs uncovered at mounds. A Northern Map turtle females released at turtle mounds. SCA Intern Laney Reasner holding a male (left) and female (right) Northern Map Turtle. Northern Map Turtle exhibit designed by Juniata College student Jackie Eberle, showcasing the turtle mounds. Northern map turtle hatchlings within the nest cavity. Northern Map Turtle female utilizing the turtle mounds to lay eggs.

Nests were protected with cages to prevent predation. While eggs hatch in late summer, hatchlings often delay emergence until the following spring. Therefore, in the fall and spring, hatchlings were carefully excavated from their protected nests, cleaned, and given a small and harmless notch on the edge of their shell scutes before being released back into the Raystown Branch of the Juniata River.

A total of 166 northern map turtle hatchlings and 17 wood turtle hatchlings were produced at the mounds, meaning 183 turtles total were successfully hatched from the mounds! The wood turtle is considered an at-risk species that has been petitioned for federal listing under the Endangered Species Act (ESA). It is currently listed as 'Under Review' by the U.S. Fish and Wildlife Service (USFWS) with a determination expected in 2023. It was a pleasant surprise to have two successful wood turtle nests!

All work conducted with the turtles was conducted through a permit with the Pennsylvania Fish and Boat commission.

