

Wood Turtle Conservation at Big Marsh



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Part I: Overview of Workplace

Big Marsh is a Wildlife Management Area that is managed by the Iowa Department of Natural Resources. The total area includes almost 4,000 acres of grassland and another 1,500 acres each of marsh and timber. The marsh holds enormous amounts of water in the flood-prone, low lying area of North Central Iowa. In addition, the space provides hunters and fisherpeople with ample opportunity to harvest deer, doves, ducks, pheasant, and a variety of freshwater fish.

Part II: Workplace Focus

- Roles at the marsh included:
- Preparation and construction of protected wood turtle nesting sites
 - Preparation and planting of food plots for wildlife cover
 - Participation in Canada Goose and Dove Banding
 - Maintenance of various habitat within the Wildlife Management Area

Part III: Introduce the Problem

Wood Turtles are a threatened (federal status pending) species of turtle that resides in Iowa. They are a long-lived turtle with many unique adaptations including chromosome-dependent sex determination, a rare feature in Reptiles. At Big Marsh, turtles of an “old” age have been tracked and tagged using radio telemetry for several years. However, younger turtles are much less common in the Marsh and, in some years, are absent. This leads researchers to one of two conclusions - turtle eggs are being predated before they are able to hatch OR young turtles are not surviving to reproductive age. Why are turtles not surviving at Big Marsh? What can we do to increase the success of this unique species in this area?

Part IV: Background

- Wood turtles are a threatened (federally applied) species of turtle in Iowa
- Pregnant female turtles have been found at Big Marsh, but most of them are of an old age (30+ years). None of them are young (less than 10 years).
- What might be causing the wood turtle population to decline?
- What specific problem or problems might wood turtles be experiencing in
- What tools are available to conservation officials to help wood turtles improve the success of wood turtles?

Part V: Workplace Solution

A team from UNI has been tracking and collecting data on Black Hawk County Wood Turtles for close to 10 years. They have been locating adults using radio telemetry. When able, they have protected wood Turtle nests using metal “cages” and have been collecting a wealth of data on this population. Because this population has had such difficulty recruiting young turtles, the population is increasing in average age. The researchers and conservation officials have been trying to protect nests as much as possible, but have run into a number of challenges including frequent flooding, predation by raccoons, and nearby construction.

Part VI: Educational Pathways

- What education is needed to perform the various roles in the workplace? Talk with the people around you to learn their career pathway.
- An education in natural resource management is required
 - A background in reptile biology
 - A strong ability to communicate and problem solve with many groups (the public, construction companies, land owners, conservation officials, academics)
 - Several years of experience in the field as a seasonal / part time employee