

**Final Report to
NS Department of Natural Resources
Species at Risk Conservation Fund**

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Project Title: Increasing knowledge of the distribution of freshwater turtle species at risk in Nova Scotia

Background

Wood turtles have recently been listed as Threatened by COSEWIC and this proposal is a direct result of the inaugural meeting of the interim Nova Scotia Wood Turtle Recovery Team which identified both understanding the distribution in the province and developing a long-term database as high priorities. Posters entitled "Have you seen this turtle?" have been used successfully in past to increase the knowledge of the range of both Blanding's and wood turtles (Adams 1995, McNeil 2002). However, it has been several years since the last full-scale poster campaign. This project included the development of revised posters, which allows us to solicit additional sightings increase knowledge of the species range in the province. The sighting report process is simplified through the Mersey Tobeatic Research Institute's species at risk reporting hotline which provides a single toll-free reporting number.

Wood turtle research has been ongoing in Nova Scotia for over a decade through a several different projects, and the resulting data is stored in a variety of formats in a several locations. The need for a single accessible, current, database is a main objective identified the NS DNR document entitled "Protecting and conserving wood turtles, a stewardship plan in Nova Scotia (MacGregor and Elderkin 2003). The Blanding's turtle recovery team has developed a comprehensive database that contains all records in the province including details on observations, survey and trap effort, and nest success. The team has also developed an online password-protected website that provides resources for team members, students, select volunteers, ENGO's and others involved in recovery: www.speciesatrisk.ca/resource. In 2009-10, funding from the Habitat Stewardship Program allowed us to expand the resource site to include an online version of the Blanding's turtle database, allowing select individuals to enter and access varying levels of data. Funding from this proposal allowed us to simultaneously expand the database beyond just Blanding's turtles to include all freshwater turtle species at risk in NS. This database will allow for accurate and timely information to be available to Recovery Teams, NS DNR, Parks Canada and ACCDC, while still allowing a variety of partners to access to the data.

Project goal and objectives

The goal of this project is to improve our knowledge of the distribution of freshwater turtle species at risk in Nova Scotia and to facilitate knowledge sharing among recovery managers.

To accomplish this, the following objectives were identified:

1. Enter all historical and current wood turtle and snapping turtle data into an online password-protected database that provides an up-to-date resource for all those involved in recovery.
2. Improve knowledge of the distribution of wood turtle and Blanding's turtles by developing posters that solicit public sightings.

Project achievements and results

Database development and data entry

The online database was expanded and modified to include all species of freshwater turtles in Nova Scotia. This followed the format of the newly implemented data collection cards which are being used for Blanding's turtle, wood turtle and snapping turtle research. The new database is accessible to a variety through the password protected species at risk resource site. The new site features developed during this project include:

- Section for users to enter and view information on notched wood turtles
- Section for users to enter and view all wood turtle observations (notched or un-notched)
- Notch code list for wood turtles, which shows all codes that have been given out and allows users to reserve codes for particular projects
- Section for users to enter and view information on notched snapping turtles
- Locations of snapping turtles and painted turtles caught in traps as by-catch during Blanding's turtle research
- Customizable user access permissions so that site users can be granted access to data for each species individually
- Downloadable spreadsheet of effort, trapping and observation records to facilitate data sharing
- Expansion of the document library to include wood turtle and snapping turtle sections

Members of the Interim Wood Turtle Recovery team were updated on the database as it progressed, asked to provide feedback on its design, and were encouraged to provide historical data for the database.

Current data has been entered into the database, as well as historical data as that was provided. The database currently houses information on 25 individually notched snapping turtles, 500+ locations of snapping turtles, 110 individually notched wood turtles, and 1400+ locations of wood turtles.

Poster development

Two versions of a wood turtle poster and one version of a Blanding's turtle poster were developed and printed (Figures 1-3). These posters contain photographs of the turtles, a brief description of the turtles, their habitats and how people can help, and also provides a toll-free number for people to report sightings. Initial poster distribution has begun and distribution will continue throughout the 2011 season.



Have you seen a Wood Turtle?

You can help protect this threatened species!

HOW TO HELP

- Do not collect or disturb the turtle
- Report all sightings
- Become a wood turtle volunteer
- Leave a natural border around stream edges
- Raise the blade of your mower when haying

Wood turtles live in and around slow moving streams and rivers. They are often found on land in fields, on river banks, in alder stands and on roadsides.



WHAT THEY LOOK LIKE

- 16-21 cm shell length
- Top shell grey-brown with a carved wood-like appearance
- Orange-red colour on neck and legs
- Bottom shell yellow with black patches

To report a sighting or learn how to get involved
call toll free: 1-866-727-3447
or email: sightings@speciesatrisk.ca

This project was undertaken with financial support from the Nova Scotia Department of Natural Resources and from the Government of Canada provided through the Department of Environment. Photos by Wendy Holman and Jeffie McNeil.

Figure 1. First version of the Wood turtle poster



Have you seen a Wood Turtle?

You can help protect this threatened species!

HOW TO HELP

**Do not collect or disturb the
turtle**

Report all sightings

**Become a wood turtle
volunteer**

**Leave a buffer of natural
vegetation around water
courses**

**Raise the blade of your mower
when haying**



Hatchlings are only the size of a toonie!



WHAT THEY LOOK LIKE

- 16-21 cm shell length
- Top shell grey-brown with a carved wood-like appearance
- Orange-red colour on neck and legs
- Bottom shell yellow with black patches

WHERE THEY LIVE

- In and around slow moving streams and rivers
- On land in fields, river banks, alder stands and roadsides

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Figure 2. Second version of the Wood turtle poster



Have you seen a Blanding's Turtle?

You can help protect this endangered species!

HOW TO HELP

Do not collect or disturb the turtle

Report all sightings

Become a volunteer

Watch for turtles on the road, especially in June



Spots are more prominent when the turtle is wet



Hatchlings are only the size of a toonie!



WHAT THEY LOOK LIKE

- Adult shell 18- 25 cm long
- Long neck with bright yellow throat
- High domed top shell that is grey to black with yellow flecks
- Bottom shell orange-yellow with black patches

WHERE THEY LIVE

- Vegetated freshwater wetlands, slow moving brooks and shallow lake coves
- Nest in a variety of habitats including lake shores, roadsides, gravel pits and outcrops, which are often far from water

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Figure 3. Blanding's turtle poster

Recommendations for follow-up

The development of the password protected resource site and its associated databases is an ongoing process. In future, we hope to integrate this site more fully with the public Species at Risk website (www.speciesatrisk.ca) so that select summary information can be easily shared with the public and updated regularly.

As an immediate follow-up to this project we will continue to:

- Enter all new turtle data into the databases
- Seek and enter additional historical wood and snapping turtle data
- Solicit public sightings using the posters and follow up on any credible sighting reports
- Work with the recovery teams to ensure the database development and management is meeting the needs of all involved in recovery.

Literature Cited

Adams, J.D. 1995. An evaluation of wood turtle (*Clemmys insculpta* LeConte) distribution in Nova Scotia through public surveys. B.Sc. Thesis, Acadia University, Nova Scotia. 48 pp.

MacGregor, M., and Elderkin, M. 2003. Protecting wood turtles: a stewardship plan for Nova Scotia. Wildlife Division, Nova Scotia Department of Natural Resources. Kentville, Nova Scotia.

McNeil, J.M. 2002. Distribution, movements, morphology and reproduction in a population of Blanding's turtle (*Emydoidea blandingii*) in an unprotected landscape in southwest Nova Scotia. MSc thesis. Acadia University, Wolfville, NS.