Spotted Turtle Summary for 2017

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Background: The Spotted Turtle is small (shell usually less than five inches long), has yellow spots on a dark shell, and lives in shallow wetlands. It takes eight to ten years for a Spotted Turtle to reach maturity, and they may live as long as 60-100 years. Three to four eggs are laid by early June and, if lucky, young hatch in September. Spotted Turtles hibernate underwater from November to March. Tadpoles are an important spring food, but Spotted Turtles also eat vegetation, fruit, and insects.

Habitat loss and alteration, isolation of populations, road mortality, increases in turtle predators such as raccoons and skunks, and collection of wild turtles as pets have contributed to declines in Spotted Turtle populations. Survival of the adult breeders is very important to maintaining this species and loss of even a few adults may send a population into decline. Survival of eggs and hatchlings is low, but over time, a long-lived adult female is hopefully able to replace herself with a few offspring that survive to breeding age.

Spotted Turtles range primarily along the eastern seaboard states and a few lake states. It is listed as an endangered species and recognized as a Species of Greatest Conservation Need due to its scarcity and vulnerability to loss in Vermont. It is more common in Massachusetts where it ranges to the Vermont border. Turtles collected as pets, which is illegal in Vermont, sometimes get released or escape. A turtle found crossing a road might get moved to a new location. Despite this, any sighting of a Spotted Turtle is worth reporting and may indicate a population.

Collection of Spotted Turtles for the pet trade is a real concern and we have taken possession of Spotted Turtles in the past that were being traded in Vermont. We try not to share Spotted Turtle locations in Vermont due to our concern about collection and our Vermont Endangered Species Law has a “Location Confidential” section that gives us the legal authority to restrict this spatial information.

Activities during 2017 were carried out in compliance with the Vermont Endangered and Threatened Species Permit issued to me as a biologist with the Vermont Fish and Wildlife Department. I greatly appreciate the cooperation of landowners who allowed access to their properties and the assistance of Jodi Shippee, Toni Mikula, and Kerry Monahan (VFWD) as well as volunteer Reenie Rice.

Results and Discussion:

Spotted Turtle sites in southeast Vermont were visited several times by Jodi Shippee during 2017. No Spotted Turtles were observed. The 13 nesting pits created along the railroad line where kept clear of vegetation. No turtle nests or signs of nest depredation were found. This site has 20 under-rail passages between two sections of the wetland. All passages were kept free of obstructions so Spotted Turtles and other small animals could move between the sections. Japanese Knotweed was monitored, and hand pulled at a

nearby location. Two previously robust clumps had been reduced to plants with several weak stems and weak taproots. By September, only one plant was found and by late October, none. This invasive plant has been pulled since 2008, but it still manages to send up shoots. Continued monitoring and pulling will be needed.

Visual observations from the road and edges of the wetland were conducted by volunteer Reenie Rice during the nesting season in a wetland complex in southwest Vermont where she has located two female Spotted Turtles in the past. Reenie did not observe any Spotted Turtles during 2017. This nonintrusive method often fails to detect this small, secretive species, which we believe is rare at this site.

With the assistance of other VFWD staff (Toni Mikula and Kerry Monahan), I surveyed a remote section of the same southwest wetland complex in an area I had suspected of harboring turtles. We hiked into the site and then through the wetland itself, often pushing our way through thick shrub cover. No Spotted Turtles were observed on our initial spring survey. We returned 11 days later and covered much of the same area of wetland. At the end of the day we did find a female Spotted Turtle basking in the section of wetland I had thought was likely to hold turtles. This is the third Spotted Turtle documented at this wetland complex and all have been females. A radio tag was glued to her carapace (top shell) with waterproof epoxy and Kerry released her the next day after the epoxy had cured. We also located Wood, Painted, and Snapping Turtles in this wetland. I returned twice during the nesting season but did not locate a new nesting area. The Spotted Turtle is able to nest in sandy substrate or in sphagnum moss. Given her location at the beginning of the nesting season I believe she moved toward open areas near a road to nest. I next found her back in the area of the wetland where she was first encountered. I visit several times and continued to locate her radio signal in the same general area of the wetland. I last determined her location in late October and believed this might be where she would overwinter underwater.

I did not visit often so that my presence would not attract the attention of people or predators. The wetland was quite heavily vegetated during the summer and fall, and not easily traversed without leaving sign of my passage. My plan is to visit the wintering site in the spring and not only locate the turtle still carrying a radio tag, but hopefully some other Spotted Turtles that might share this site.

Due to limited staff resources and other project needs, a third Spotted Turtle site was not monitored during 2017. The large size of this wetland complex and it not being located near a road or railroad line provides a greater measure of security. It has been well surveyed in the past.

Spotted Turtles are difficult to locate and when they are few in number, it is even more difficult. I urge anyone who observes a Spotted Turtle to contact me at the email above or at 802-371-7142. Your sighting could lead us to new population, which would be very important. If you can, please take a photo. Thank you.