

The staff of the Natural Diversity Section reviewed the eastern redbelly turtle habitat assessment survey report from your office for the above-referenced project. Based on the review of this information, there appears to be suitable habitat on-site for the redbelly turtle that will require further investigation. Therefore, we recommend that a herpetologist who is qualified/recognized to survey for the species of special concern conduct redbelly turtle presence-absence and nesting surveys on-site. A qualified biologist, who possesses the necessary Scientific Collector's Permit issued by the Pennsylvania Fish and Boat Commission, must conduct this presence/absence survey. A list of biologists recognized as qualified by the Pennsylvania Fish and Boat Commission to perform redbelly turtle surveys is enclosed.

Redbelly turtle presence/absence surveys should be conducted using a combination of visual surveys and turtle trapping, as well as nesting surveys. These surveys should be conducted no sooner than April 15 of the survey year and should conclude by October 15<sup>th</sup> of the survey year. Visual surveys should be conducted during the appropriate times of the day when turtle basking is at a peak. The turtle trapping should include the use of basking traps (3 traps per ac) and hoop traps (2 traps per acre baited with corn and sardines) set for at least 20 days. These traps should be set during appropriate climatic conditions and checked every 24 hours. All captured redbelly turtles and any non-native turtle species should be sexed, weighed, measured (carapace and plastron straight-line length), marked using the Ernst et al. method, and a digital photograph of the carapace and plastron should be taken of each captured turtle. Nesting surveys should be conducted from June 1<sup>st</sup> through July 31<sup>st</sup>. Potential nesting areas should be visited at least 4 times. All types of nesting activity must be recorded (nest construction, completed nests, predated nests, semi-completed nests, egg laying) of all turtle species present on site.

The survey report submitted to the Commission should include the following information:

- Name of surveyors and brief summary of their qualifications for all surveyors (leader and assistants)
- Dates of surveys (including start and end times) for each survey method
- Time spent per acre per visit
- A description of the survey methodology
- Types, numbers, locations, and frequency of inspection of all turtle traps
- Exact number and location (latitude/longitude coordinates) for all turtles and nests observed
- Weather conditions (including the starting and ending air and water temperatures)
- Detailed physical characterization (i.e., size, depth, flow velocity, submerged aquatic vegetation present, basking habitat available, substrate type) of the wetland, pond/lake or stream habitat and surrounding nesting habitat in question.
- Presence or absence of redbelly turtles
- A list of other reptile and amphibian species, and the number of each, observed on-site, and incidentally trapped
- A site map with all herpetofauna sightings, including redbelly turtles, annotated

If the presence of redbelly turtles is confirmed within or near the project area, then additional consultation with this office (Natural Diversity Section) will be necessary.