



The University of Memphis

Memphis, Tennessee 38152

Department of Biology
Division of Ecology and Organismal Biology

March 28, 1999

Glenn R. Miller
Refuge Manager
Wappanocca National Wildlife Refuge
PO Box 279
Turrell, AR 72384-0279

Dear Glenn,

Attached is a brief report of my turtle collection activities on the Wappanocca Wildlife Refuge during the spring of 1998. In addition I have included a list of all reptiles and amphibians encountered during my visits to the refuge, as well as a list of all species that SHOULD occur there according to the latest sources (references provided).

Despite the large numbers of turtles occurring at the refuge, several factors, explained in my report, made it difficult to capture the appropriate numbers of gravid females required to conduct my research. For the duration of the 1998 nesting season, I utilized another population of turtles occurring at T.O. Fuller State Park near Memphis. However, now armed with greater experience and more equipment and personnel, I would like to try again this spring to obtain eggs from female turtles at the refuge. I believe that the refuge population is healthier and more representative than the highly impacted habitats nearer to urbanization. My special-use permit (#29901) expires September, 1999. I will probably want to renew it through September, 2000, if possible. Thank you for your consideration.

Sincerely,

Donald L. Thomas

**Collection of turtles at the Wappanocca National Wildlife
Refuge, 1998.**

Donald L. Thomas
Department of Biology, The University of Memphis,
Memphis, TN 38152

March 28, 1999

During May of 1998, turtles were collected at the Wappanocca National Wildlife Refuge for use in research conducted by the University of Memphis. This ongoing research addresses the adaptive significance of overwintering in the nest by hatchling freshwater turtles and the proximate causes of hatchling emergence. Collection efforts focused on the Slider Turtle, *Trachemys scripta*. Collecting was restricted to habitat lying on either side of the main levee, located approximately 3/4 miles southeast of the ranger station. Hand collecting, dip netting, and hoop-net traps baited with canned sardines were utilized. Collection data is as follows:

5/18/98

Red-eared Slider (*Trachemys scripta*): 6 adults consisting of 1 male and 5 non-gravid females. These individuals were collected by hand on the levee or in weeds at the waters edge. Their reproductive condition was assessed on site and the animals were released where captured.

5/29/98

Red-eared Slider (*Trachemys scripta*): 4 non-gravid adult females. These individuals were collected by hand on the levee. Their reproductive condition was assessed on site and the animals were released where captured.

On both dates listed above, as well as on several other occasions, unsuccessful attempts were made to trap adult turtles in

the waters near the levee. Trap placement and recovery was hindered by the steep slope of the banks, water depth and thick mats of floating vegetation. The mats of floating vegetation made wading and dip netting techniques impractical and dangerous due to the potential threat of venomous snakes (*Agkistrodon piscivorous*). No intact turtle nests were located during my visits to the refuge. Despite the lack of success in collecting, large numbers of turtles of several different species were observed at relatively close range during my visits to the refuge. I feel that with improvement of trapping techniques and the addition of more personnel, the refuge will be an ideal location for the study of turtle nesting ecology and population dynamics in the future.