



REMARKS

HATCHLING SNAPPING TURTLES OVERWINTERING IN THE NATAL NEST

It is known that hatchling *Chrysemys picta* (Painted Turtles) and *Graptemys geographica* (Northern Map Turtles) often hatch in the ground and overwinter in their natal nest until spring, as opposed to emerging in the fall to overwinter in a wetland suitable for hibernation (Baker et al. 2003. J Comp Physiol B. 173:643-651). Natal nest overwintering by hatchling turtles is likely done as a predator avoidance mechanism when resources are limited (i.e., in autumn), therefore turtles cannot use those resources for growth (Wilbur 1975. Ecology. 56:64-77). In order for hatchling turtles to overwinter successfully in their natal nest, they must be able to withstand exposure to subzero temperatures (Sims et al. 2001. J Herpetol. 35:514-517). Unlike *C. Picta* and *G. geographica*, hatchling *C. Serpentina* are not known to frequently overwinter outside of the thermal stability of water (Constanzo et al. 1995. Ecology. 76(6):1772-1785).

We have observed an increasing number of calls related to *C. serpentina* nests emerging in the spring over the last three years. As Ontario's third largest turtle egg incubator, we work under permits (permit number: 1102753, OMNRF) to excavate high risk nests and incubate the eggs at our facility, which greatly increases the survival rate of eggs. When we are called to excavate in early spring, we notice that very few hatchlings are alive, and most have decomposed in the ground over the winter. As early as May, we have been observing *C. serpentina* hatchlings emerging from their nest. Similarly, we have been contacted to excavate *C. serpentina* nests in late October, only to find that they have hatched in the ground. Future studies should investigate how climate change impacts the frequency and success of hatchling *C. Serpentina* who overwinter in their natal nest.



Leora Berman



Michaela Bouffard