

were found floating just off shore along the southern margin of the lake. All of the turtles appeared to be in good condition, except for the turtle on shore which had bite marks on the head and left front shoulder, which may have occurred after death. No other species of turtle was found dead, even though >100 adult *Chrysemys picta* (Painted Turtle) are known to occur in the lake. It is unclear when the lake became ice free, but on 18 April it was still ~90% iced over.

Average monthly minimum temperatures for the winter were compared with the monthly minimum temperatures of the 30-year (1981–2010) climate normal from the Ottawa International Airport which is <10 km from Mud Lake (http://climate.weather.gc.ca/climate_normals/results_1981_2010_e.html?stnID=4337&lang=e&StationName=ottawa&SearchType=Contains&stnNameSubmit=go&dCode=1). Each month from November to April was colder than the climate normal. On average the monthly minimum temperature was 2.8°C (range: 1.0–5.7°C) colder than the 30-year climate normal. A colder than average winter could result in thicker ice causing some shallow portions of the lake to freeze to the bottom. *C. serpentina* is known to hibernate in shallow water near shore (Ultsch, *op. cit.*) and turtles in these areas may have died from freezing. Alternatively, a cold winter may have resulted in a longer than normal ice cover, causing turtles to die from prolonged anoxia. It is unknown what percentage of the adult *C. serpentina* population died. Adults were not observed less frequently in 2014, suggesting a significant portion of the population survived. It is unclear how often these kinds of mortality events occur, but dead turtles should be searched for after colder than average winters.

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CHRYSEMYS PICTA (Painted Turtle) and **CHELYDRA SERPENTINA (Snapping Turtle)**. **RAILROAD MORTALITY.** Railways can lead to turtle mortality when individuals become entrapped between rails and expire from overheating, dehydration, or train impacts (Kornilev et al. 2006. *Herpetol. Rev.* 37:145–148; Engeman et al. 2007. *Herpetol. Rev.* 38:331–332). Herein, I report observational evidence of railroad mortality in two turtle species. On 3 June 2014, at ~1300 h, I observed a dead adult female *Chrysemys picta* in the center of a railway adjacent to wetlands in Lime Ridge, Pennsylvania, USA (41.024208°N, 76.366718°W, datum WGS84; elev. ~150 m). The turtle's carapace was partially crushed and extensive blood loss was evident. Mortality appeared to have occurred shortly before my observation. No obvious evidence of predation or scavenging was present on the *C. picta* carcass. Due to the nature of the turtle's injuries and frequent locomotive traffic along this railway (pers. obs.), it is likely that mortality resulted from direct impact with a passing train.

In August 2014, I observed the carcass of a medium-sized adult *Chelydra serpentina* in the middle of a railway adjacent to a pond in Espy, Pennsylvania, USA (41.010206°N, 76.416294°W, datum WGS84; elev. ~150 m). The *C. serpentina* carcass had experienced partial decay and desiccation. Because of the state of decomposition, it was impossible discern whether the animal experienced mortality directly from a train impact or had expired from overheating, dehydration, or predation resulting from entrapment between rails (Kornilev et al., *op. cit.*).

In Pennsylvania, *C. picta* nest in late May–June and have been noted to use rocky substrates associated with railroad beds for nesting (Hulse et al. 2001. *Amphibians and Reptiles of*

Pennsylvania and the Northeast. Cornell Univ. Press, Ithaca, New York. 419 pp.; Bieber-Ham 2011. *Population and Nesting Ecology of Painted Turtles [Chrysemys picta] in Pennsylvania*. Honor's Thesis. Dickenson College, Pennsylvania. 37 pp.). Therefore, it is likely that the female *C. picta* became trapped between rails and expired while searching for nesting substrate associated with the railway. Likewise, female *C. serpentina* in Pennsylvania nest in late May–June and often utilize substrate associated with railways, including railway substrate near the location in which the aforementioned *C. serpentina* carcass was observed (Hulse et al., *op. cit.*; pers. observ.). Though the sex of the carcass could not be determined, this individual may have been a female that became entrapped between rails and expired during the nesting season. I thank Brittney R. Dieter for providing literature references.

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EMYDID TURTLES. UNUSUAL BASKING LOCATION. Emydid turtles are most often observed basking aerially in aquatic settings (Boyer 1965. *Ecology* 46:99–118). Basking turtles primarily occupy deadwood structure when available (Lindeman 1998. *Chelon. Conserv. Biol.* 3:137–141), but will also opportunistically use other basking sites such as mammal lodges (e.g., beaver lodges; WS, pers. obs.) and anthropogenic structures (e.g., boat dock crossbeams, rope tethers; Lindeman 2013. *The Map Turtle and Sawback Atlas: Ecology, Evolution, Distribution, and Conservation*. University of Oklahoma Press, Norman. 460 pp.). Herein, we report an unusual basking location—an active nest of a reintroduced Whooping Crane (*Grus americana*)—used by emydid turtles in southwestern Louisiana, USA.

As part of an ongoing program to monitor the status of a Whooping Crane reintroduction in southwestern Louisiana, periodic monitoring was made of a crane nesting attempt in Avoyelles Parish (Louisiana) during Spring/Summer 2014. The nest was situated in an actively fished, commercial crawfish pond (*Procambarus clarkii*); these ponds are ephemerally flooded to promote crawfish production and often host an abundance of waterbirds (Huner et al. 2002. *Waterbirds* 25:66–78) and turtles (WS, pers. obs.). On 11 June 2014, a photograph was taken by SZ of the nesting crane via an aerial survey. After review of the photograph, a large emydid turtle was observed basking on the nest mound along with the incubating crane; the

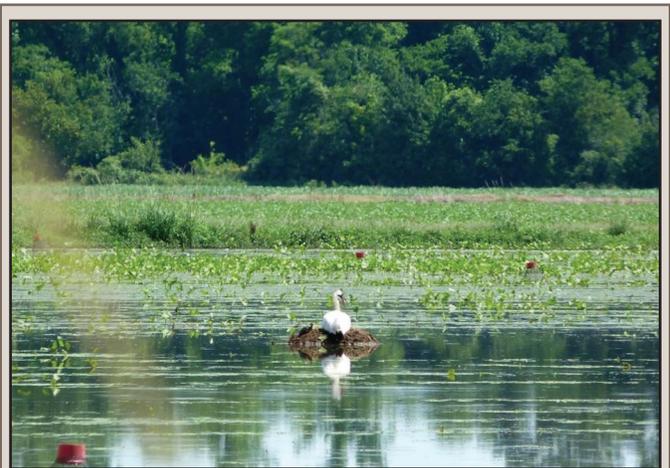


Fig. 1. Deirochelyine turtle basking on active nest of Whooping Crane in southwestern Louisiana.

turtle species could not be identified beyond family Emydidae, subfamily Deirochelyinae. On 12 June 2014, CS and CG made a second observation via ground blind of an emydid turtle basking on the nest mound (1505 h; conditions: 31°C, overcast with light rain). It was basking close to the incubating adult and remained there until 1607 h when the crane stood on the nest to preen and stretch its legs. On 20 June 2014, a third observation was documented by SZ and CS via ground blind of an emydid turtle that emerged to bask on the nest mound (1109 h; conditions: 28°C, sunny with scattered clouds). The turtle basked within 5–10 cm of the incubating crane (Fig. 1) and basked until SZ and CS left the site (1117 h).

Measurements of the nest mound by CG, CS, and SZ could not be taken until nesting had ceased (26 June 2014) to minimize disturbance and potential nest failure. The diameter of the nest measured from 92–96 cm across, with the nest mound protruding 13 cm above the water level. The water depth at the nest measured 29 cm, with mean water depth in the four cardinal directions similar to the level observed at the nest (mean = 30.3 cm, range 29–32 cm). The percent open water surrounding the nest was greater at 1 m (100%) and 5 m (100%), than at 10 m (70%).

Due to the distance between the observer and nest, the species identification was difficult to determine in all three observations beyond emydid subfamily Deirochelyinae. For the third observation, SZ took a photograph (Fig. 1) and upon closer inspection, the turtle has prominent yellow markings on the pleural scutes of the carapace and a short neck, probably eliminating *Deirochelys reticularia* (Chicken Turtle). Based on the characteristics of the turtle in the photograph, the type of habitat, and the abundance of *Trachemys scripta* (Slider) relative to *Pseudemys concinna* (Cooter) in this habitat type (WS, pers. obs.), it appears most likely to be an adult *T. scripta* of unknown sex. This is also the most likely species in observations #1 and #2, but cannot be definitively confirmed.

During these observations, both crane and turtles did not appear to show any aggression towards each other. Whooping Cranes can be quite aggressive towards other bird species and conspecifics within their nesting territory (Allen 1952. The Whooping Crane. Research Report No. 3 of the National Audubon Society. New York, New York. 246 pp.), but also readily accept other nearby birds or non-predatory mammals (Lewis 1995. In A. Poole [ed.], The Birds of North America Online. Cornell Lab of Ornithology; <http://bna.birds.cornell.edu/bna/species/153>; accessed 23 September 2014). For the turtle, however, an emergent nest mound is likely a very desirable basking substrate and similar to the characteristics of mammal lodges. These sites are desirable because they are 1) surrounded completely by water to avoid terrestrial predators; 2) the field of view is unobstructed, thereby lowering predation risks from aerial predators; and 3) it lacks vegetation and increases the thermoregulatory potential of the site early in the spring. Vegetation is thick on the surrounding levees of crawfish fields (see Fig. 1) which likely reduces its desirability as a basking site for all reasons listed above. To our knowledge, this is the first report of emydid turtles using a Whooping Crane nest as a basking site.

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EMYDOIDEA BLANDINGII (Blanding's Turtle). JUVENILE DIET. Adult Blanding's Turtles are known for being primarily carnivorous (reviewed by Ernst and Lovich 2009. Turtles of the United States and Canada. 2nd edition. Johns Hopkins University Press, Baltimore, Maryland. 840 pp.). For example, past reports indicate that crustaceans and insects are important dietary components, but they also consume various vertebrates and vegetation (Lagler 1943. Am. Midl. Nat. 29:257–312; Kofron and Schreiber 1985. J. Herpetol. 19:27–40; Rowe 1992. J. Herpetol. 26:111–114). Although the diet of adult Blanding's Turtles is well known, little is known about the diet of juveniles. Juveniles are secretive, and past studies have noted the difficulty in detecting/capturing them during population research (Congdon et al. 1993. Conserv. Biol. 7:826–833). The difficulty associated with capturing juvenile Blanding's Turtles poses challenges to investigation of their dietary habits. We were able to obtain dietary data on a radio-tracked juvenile Blanding's Turtle that was part of an ongoing study conducted in Rock Co., Wisconsin, USA. These findings apparently represent some of the first published data on diet and feeding ecology for a juvenile Blanding's Turtle.

A radio-tagged juvenile Blanding's Turtle (straight-line carapace length: 122.25 mm, carapace width: 89.71 mm) was removed from the field and brought into the lab on 7 July 2014, to replace a damaged transmitter (3.9 g, model PD-2, Holohil Systems Ltd., Carp, Ontario). Prior to transmitter replacement, the turtle was placed in a large plastic container partially filled with water. While in the water, the turtle defecated and was subsequently removed. The water and fecal sample were next carefully strained through a 1-mm mesh sieve to acquire all available remains from the feces. The retained fecal sample was placed in 70% ethanol to prevent degradation and later investigated. The collected remains were first separated into broad categories (i.e., belonging to an insect, or plant remnants, etc.) by sifting through them under a dissecting microscope. All invertebrate remains were further investigated under a dissecting scope and identified to taxonomic family. This was accomplished by comparing the fragments found in the fecal sample to preserved specimens of local aquatic macro invertebrates that have been previously collected and identified. Given the number of representative fragments observed, it was possible to estimate the number of individuals in each family identified.

The fecal matter contained primarily insect remains and only 2% of the discernable sample contained plant fragments. The insects identified are frequently found in wetlands, and included members of the families Dytiscidae (N = 14 larvae), Belostomatidae (N = 6; adults and various eggs), Corixidae (N = 4), Notonectidae (N = 4), adult Hydrophilidae (N = 2), and Nepidae (N = 1). Members of the families Dytiscidae, Belostomatidae, Corixidae, and Notonectidae can be found in water depths less than 30 cm (Krull 1970. J. Wildl. Manag. 34:707–718; Ward 1992. Aquatic Insect Ecology I: Biology and Habitat, John Wiley and Sons, Inc., New York. 456 pp.). These insects are considered nektobenthic, meaning they are competent swimmers that also spend substantial time attached to the stems of submergent/emergent aquatic vegetation, rather than the sediments (Ward 1992, *op. cit.*). The insect remains found in the fecal matter contribute to a better understanding of this juvenile Blanding's Turtle's diet and where it fed. For example,