First Confirmed Record of American Alligator Nesting in Oklahoma

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The American alligator (*Alligator mississippiensis*) is native to the coastal plain of the southeastern United States from North Carolina south to Florida and west to south Texas, and north in the Mississippi River floodplain to northeast Arkansas. In Oklahoma, the American Alligator is native to the Gulf Coastal Plain of southeastern Oklahoma, occurring in the Red and Little River systems of Choctaw, Bryan, McCurtain, and Love counties (Sievert and Sievert 2005). The species is on the increase in Oklahoma in recent years probably as a result of protection from the Endangered Species Act and of immigration from Arkansas resulting from successful restocking efforts there from 1972-1984 (Trauth et al 2004).

Within Arkansas, Millwood Lake, and Grassy Lake (Little River drainage) contain a robust alligator population and confirmed records of nesting occurs in these locations (Kelly Irwin pers comm 2006). Nathan Garner (pers comm 2006) indicated that within northeast Texas, juvenile alligators indicative of a breeding population have been found in the Sulphur River bottoms (Morris, Titus, Franklin, Hopkins, and Delta Counties) and within Red River tributaries (Red River and Lamar Counties). Sightings of alligators within southeast Oklahoma have increased over the past 10 years, mainly within the Little River drainage, although no reproduction of alligators has been documented.

On 28 July 2005, the senior author observed a mound of vegetation on dry ground in a corner of the reservoir levee at the Red Slough Wildlife Management Area in McCurtain County. An animal had scraped the ground around the mound, piling up stems of bulrush (*Scirpus* sp.). The mound was 2 m wide by 1.8 m long at the base, approximately 0.6 m tall, and 5.7 m from the edge of the water. A worn trail, which passed through the dense bulrushes, led from the water to the mound. A patch of wet mud was observed where the trail entered the water. Between 29 July 2005 and 3 August 2005, regular checks revealed more alligator tracks and fresh material placed on the mound each night. Initially, the mound was somewhat flat on top but after several nights of adding more material, the mound became approximately 1 m tall (Fig. 1) and rounded on top. Between 4 August and 31 August 2005, the senior author found no more sign of the alligator visiting the nest. However, on 1 September 2005, fresh alligator tracks were found by the nest. On the afternoon of 8 September 2005, the senior author found the top of the mound torn open, and broken eggshells lined a mud trail between the nest and the water. Several hatchlings, approximately 4 cm long, were observed basking at the edge of the water. An adult alligator, estimated to be 2.6 m long, was in the shallow water nearby, apparently guarding the young. Terry Stuart, Oklahoma Department of Wildlife Technician, was informed regarding the hatch, and together we counted a total of 19 hatchlings within the dense growth of American lotus (*Nelumbo lutea*). We further opened the nest and found 1 egg that had not hatched. The

Figure 1. Alligator nest at Red Slough WMA, summer 2005 (Photo by W. David Arbour).

abandoned nest was infested with fire ants that were apparently feeding on the fluid from the hatched eggs. The nest was very moist and warm inside from the composting litter. Mike Smith, ODWC Southeastern Regional Biologist, and Robert Bastarache, Oklahoma Ranger District Biologist, also visited the site and witnessed the event.

Unverified nesting reports and the present observation lead us to believe the status of the American alligator in southeast Oklahoma is improving. Future efforts should focus on confirming the unverified nesting reports and monitoring the existing population.

REFERENCES

Sievert G, Sievert L. 2005. A field guide to Oklahoma's amphibians and reptiles. Oklahoma City (OK): Oklahoma Department of Wildlife Conservation. 205 p.

Trauth SE, Robinson HW, Plummer MV. 2004. The amphibians and reptiles of Arkansas. Fayetteville (AR): The University of Arkansas Press. 421 p.

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