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CROCODYLIA--*ALLIGATOR MISSISSIPPIENSIS* (American Alligator). HOMING AND SITE FIDELITY.

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ALLIGATOR MISSISSIPPIENSIS (American Alligator). **HOMING AND SITE FIDELITY**. Since the passage of the Lacey Act Amendment in 1969 and the Endangered Species Act in 1973, American alligator populations in Florida have increased substantially (Mazzotti and Brandt 1994. *In* Davis and Ogden, [eds.], Everglades: The Ecosystem and Its Restoration, pp. 485–505. St. Lucie Press, Delray Beach, Florida). Simultaneously, human populations and waterfront development have increased, leading to greater conflict between humans and alligators (e.g., Conover and Dubow 1997. Herpetol. Rev. 28:120–124). Several management options exist for resolving potential human-alligator conflicts, one of which is alligator translocation (e.g., Hines and Woodward 1980. Wildl. Soc. Bull. 8:234-241). However, homing by translocated alligators could negate the purpose of this management action. Juvenile alligators have been observed to home directly toward their origination site when displaced up to 10 home range diameters away, unless a major habitat barrier separated an alligator from its home site (Rodda 1984. Behav. Ecol. Sociobio. 14:241-246). Here, we augment the few data on homing following translocations with the report of an adult *A. mississippiensis* from southeastern Florida.

On 30 April 1998, we translocated an adult (2.2 m) female *A. mississipiensis* ca. 3.3 km straight-line distance from a pool on the North Fork of the Loxahatchee River (3-5 m average width) in Jonathan Dickinson State Park (JDSP; Florida) to a lake in the southwest corner of the park. The alligator was a breeding female and its pool was adjacent to human traffic, with harassing intrusions by humans being commonplace. The decision to move the alligator was based on human health and safety concerns, because she would aggressively defend her young from such (unlawful) intrusions. As required by Florida statutes, the capture and translocation of an alligator of this size was conducted by a nuisance alligator trapper (the senior author [JWW] herein) licensed by the Florida Fish and Wildlife Conservation Commission (license no. ATL 3725).

No direct waterways existed connecting the origination and relocation sites. Intervening habitat was comprised of a mix of pine-flatwoods, scrubby-flatwoods, and sand pine scrub. Eight days after translocation, the alligator was opportunistically observed in the same pool from which it had been moved. As the site of origin was not specifically monitored for the female's return, the 8 days is an upper bound on return time. Distinctive scars on its back, a

missing right eye, and its size unmistakably identified this female, making it impossible to confuse with other individuals. The alligator remains in the same pool at this writing, and continues to breed annually.

The distance traveled by this alligator was not as remarkable as its ability to traverse the intervening terrain, and its ability to locate the same small pool from which it was removed. We were unable to discern the route of this animal's return to its site of origin. A water-based route would have required the female to "hopscotch" between small wet areas. However, Rodda (1984. Behav. Ecol. Sociobio. 14:241–246) observed juvenile alligators to chose direct routes towards their sites of origin, even when much easier indirect routes were available, supporting the hypothesis that alligators possess a directed navigational ability. Thus, given that no major topographic obstacles existed between the sites of origin and translocation, and the short span of time for this alligator to return, a direct return would seem logical. From a management perspective, translocation of alligators might not be successful unless a barrier to movement exists between the point of origin and translocation sites. Even if a barrier does exist, the intervening habitat near the translocation site should be evaluated to reduce the likelihood that an attempted return would place the animal in a position of conflict with humans, such as in a residential area. Hines and Woodward (1980. Wildl. Soc. Bull. 8:234–241) believed relocation to be the least economical and effective management approach for handling nuisance alligators. It might be warranted for select cases, but seems contraindicated as a general management tool.

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