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CHELONIIDAE (Marine Turtle) NEST PREDATION

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CHELONIIDAE (Marine Turtle). **NEST PREDATION.** On 19 June 2003 at 0217 h, an Opossum (*Didelphis virginiana*) was observed for 10 min while digging into a marine turtle nest and eating 4 eggs on the beach at St. Lucie Inlet Preserve State Park (SLIPSP) on Jupiter Island, Florida. The predation event was observed using night vision equipment as part of nightly patrols to protect turtle nests from Raccoon (*Procyon lotor*) and Armadillo (*Dasypus novemcinctus*) predation during the nesting season (Engeman et al. 2003. Biol. Cons. 113:171–178). After verification of an ongoing predation event, the Opossum was euthanized and removed. Prior to implementing predator removal on this beach, up to 95% of the turtle nests were destroyed annually by Raccoons (Bain et al. 1997. Sea turtle nesting and reproductive success at the Hobe Sound National Wildlife Refuge (Florida), 1972–1995. Report to U.S. Fish and Wildlife Service, ARM Loxahatchee NWR). In recent years, Armadillos, a species exotic to the east coast of Florida, have become severe predators of turtle nests (Bain et al., *op. cit.*; Engeman et al., *op. cit.*). While Foote

(2000. Proc. Sea Turtle Symp. 18:189–190) lists Opossums as incidental predators at marine turtle nests, our observation is the first that identifies an Opossum as a primary predator (excavator) of a marine turtle nest.

Three species of marine turtles nest on the SLIPSP beach: Loggerhead (*Caretta caretta*), Green (*Chelonia mydas*), and Leatherback (*Dermochelys coriacea*). Based on the ca. 60-cm depth of the nest, the nest could have belonged to either a Loggerhead or Green Turtle, but because nearly 90% of the marine turtle nests on the beach are Loggerhead (Engeman et al., *op. cit.*), the Opossum-predated nest most likely was Loggerhead. A Leatherback nest was unlikely, because it was too shallow and Leatherbacks nest infrequently on this beach (Engeman et al., *op. cit.*).

When a mammalian predator is not observed directly, determination of the species responsible for turtle nest predation is typically based on tracks. Our observation indicates that marine turtle researchers should pay close attention to track nuances, because superficial observation of a tail drag in the sand at a predated nest may not implicate an Armadillo as the predator. Care should be taken to also verify the footprints of the animal responsible. Opossum footprints are easily distinguished from Armadillo prints, because Opossum prints are hand-like with five digits on each foot, whereas Armadillo prints have all toes facing forward with claws usually evident and only four digits on the front feet (Murie 1974. A Field Guide to Animal Tracks, 2nd Edition. Houghton Mifflin Co., Boston, Massachusetts. 375 pp.).

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