

Canaveral Sea Turtle Strategy Defeats Raccoons

In 1982, Jennifer McMurtray of the University of Georgia NPS/CPSU, began to investigate hatching success of sea turtle nests on Canaveral National Seashore. Canaveral is one of the most important remaining nesting beaches for loggerhead sea turtles, supporting over 2,000 nests per year, and is also used by endangered green turtles and rarely, by hawksbills and leatherback turtles. McMurtray found that raccoon depredation was destroying nearly all sea turtle nests. Nest survivorship was less than 2% in the five-mile long study area and raccoons raided most nests within the first few hours after deposition. Researchers observed that raccoons sometimes consumed eggs while female turtles were still laying and had not yet covered the nest.

In 1983 McMurtray began to experimentally screen nests to discourage raccoons. Of the two screen designs employed, a four-by-four foot piece of dog wire (2 x 4-inch mesh) was the most practical. Clog wire has large enough openings that hatchling turtles can emerge while the screen is still in place. Other methods of discouraging raccoons, such as the use of human urine to scent nest locations, were found to be ineffective.

In 1984, Supt. Art Graham designated the protection of threatened or endangered sea turtle species as a priority resources management goal for the park. Graham initiated a new program in which seasonal technicians patrol nesting beaches, screen nests and if necessary, remove especially troublesome raccoons. At the end of two summer seasons, the program has significantly improved nest survivorship.

Richard Bryant, park technician in charge of the 1985 effort, reported a total of 2,508 nests deposited on Canaveral beaches, including 94 green turtle nests. Workers screened 1,023 nests. Storms destroyed 133 of these, while raccoons invaded 51. The remaining 839 nests hatched an average of 96 hatchlings each. Screening thus allowed an estimated 80,500 hatchlings to enter the ocean.

The program has not only reduced predation on screened sea turtle nests, but workers have observed fewer raccoons on the beach. The program may therefore also be providing some protection to *un*-screened nests. Reports on McMurtray's original study and on the successful 1985 management program have been issued by the NPS/CPSU at the University of Georgia.

Contact: Canaveral National Seashore, P.O. Box 6447, Titusville, FL 32782-6447 or NPS/CPSU, Institute of Ecology, University of Georgia, Athens, GA 30602.