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# INTRAGUILD PREDATION ON SEA TURTLE NESTING BEACHES

by Brandon Barton

**In Florida, raccoons (*Procyon lotor*) are removed from loggerhead (*Caretta caretta*) nesting beaches to decrease egg predation. However, raccoons are also predators of ghost crabs (*Ocypode quadrata*), and ghost crabs also consume a large number of loggerhead eggs annually. Research conducted for my Masters degree demonstrated that intraguild predation by raccoons limited ghost crab populations and that raccoon removal resulted in higher densities of ghost crabs. Areas where raccoons were not abundant because of trapping still had the highest rates of total egg predation because of dense ghost crab populations. I am currently collaborating with researchers at the University of Central Florida to answer a question that arose during this project: why was raccoon predation highest where raccoon abundance was lowest? We believe that raccoons can easily locate sea turtle nests that have been attacked by ghost crabs because chemical cues are transmitted through the ghost crabs burrow and to the beach surface. Thus, as ghost crab density increases following raccoon removal, any remaining raccoons will be more efficient at finding sea turtle nests by following ghost crabs to the eggs. We are also using a long-term dataset to further address the effects of raccoon and ghost crab predation on sea turtle conservation.**

**Peer-reviewed publications**

Barton, B. T. and J. D. Roth (*In review*). Implications of intraguild predation for sea turtle nest protection.

Barton, B. T. and J. D. Roth (2007). Raccoon removal on sea turtle nesting beaches. Journal of Wildlife Management 71:1234-1237.

Schmitz, O. J., H. P. Jones and B. T. Barton (2007). Scavengers. Encyclopedia of Ecology. Elsevier, UK.