

SEA Makes a Splash!

Besides constantly striving to improve existing client relationships, a successful environmental consulting firm should continually broaden the services they provide. A better term in this case might be **deepen** those services. Scheda Ecological Associates is now offering marine and aquatic environmental consulting. With the addition of experienced, scientific staff and a great deal of enthusiasm, SEA is making these new benefits available to our clients. The new marine and aquatic environmental consulting will include such things as inshore and coastal water and sediment sample collection, water quality monitoring, benthic characterization surveys (including hardbottom and coral mapping), coral relocation, seagrass mapping, seagrass restoration, manatee monitoring, monitoring sea turtle nesting activity, permitting for beach nourishment projects, and TMDL development. SEA now has trained personnel and resources in place (including water craft, SCUBA equipment, water sampling and sediment collection equipment, and underwater still-frame and video equipment) to better serve you within the aquatic and marine environments.

SEA Team collecting GPS data



Sea Turtle Training

SEA scientists Kristin Caruso, Eddie Hughes, Robert Mrykalo, and Wendy Sotera recently attended the 2006 Nesting Beach Survey Training Workshop given by the Florida Fish & Wildlife Conservation Commission's Fish and Wildlife Research Institute (FWC-FWRI) on Sanibel Island, Florida. Sea turtle experts presented recent population data trends on the different species of sea turtles found along Florida's coastal beaches. They also instructed attendees in species identification based on nesting tracks and how to determine the presence and location of nests. Other topics covered included sampling protocols and data

SEA Scientist Kristin Caruso working with an olive ridley sea turtle in Costa Rica.



reporting, light disorientation event statistics for the different coastal counties, as well as shorebird protection as shorebirds and sea turtles share some of the same beach resources for nesting.

Kristin brings two years of sea turtle knowledge to SEA with her previous work experience for the sea turtle department at FWC-FWRI, as well as monitoring and research work she conducted along Costa Rica's Atlantic and Pacific coasts with the Caribbean Conservation Corporation and University of Costa Rica. Robert and Eddie gained experience this summer while volunteering with existing sea turtle watch groups in Pinellas County. Wendy Sotera, who is SEA's Southeast Regional Manager, also plans to get involved with nesting surveys along Palm Beach and Martin County's coastline.

Protected Coral

NOAA's National Marine Fisheries Service announced its decision on May 4, 2006 to list elkhorn (*Acropora palmata*) and staghorn corals (*Acropora cervicornis*) as threatened under the Endangered Species Act (ESA). The final rule was published the week of May 8th, and the listing became effective 30 days after that date. This will be the first time a coral has been listed as endangered or threatened under the ESA. A species is considered endangered if it is in danger of extinction throughout all or a significant portion of its range. A species is considered threatened if it is likely to become an endangered species within the foreseeable future.

This designation will likely have implications for coastal projects planned for South Florida. SEA scientists will continue to keep up-to-date with Federal and state species listings, guidelines, and requirements, including these coral species and other species located within the terrestrial, aquatic, and marine environments.

Elkhorn Coral (*Acropora palmata*) - photo from FWC-FWRI's [Coral Reefs and Hard Grounds - Introduction to Coral and More webpage](#)



Staghorn Coral (*Acropora cervicornis*) - photo from FWC-FWRI's [Coral Reefs and Hard Grounds - Introduction to Coral and More webpage](#)



PointCount Software

SEA recently acquired new software - PointCount99. The software was derived from a previous version in support of the United States Environmental Protection Agency's Florida Keys Coral Reef Monitoring Project (US EPA CRMP). The software utilizes the random point count method for accurately estimating percent coverage of corals, sponges, and associated substrate from digitally frame-grabbed underwater video images. SEA scientist Eddie Hughes has used this software extensively for various benthic mapping projects around the state of Florida and in the Caribbean, both on natural and artificial reefs as well as seagrasses. He also modified the software for one particular project to assess benthic fauna that had colonized the legs of oilrigs off of the coast of California. Two benefits of assessing percent coverage with this method are 1) it's conducive to repetition. The data has been collected and stored as video or still frames so others can see how the user identified certain points in the photograph; and 2) it's efficient. Once all of the identifications are done, the points are readily exportable to Excel or statistical software for analysis. This is yet another way SEA is striving to help its clients meet their time and budget deadlines while still delivering excellent service.

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