

## Researchers from NSU's National Coral Reef Institute Making New Discoveries for ExxonMobil



(L to R) Kevin Kohler and Sam Purkis present the CarbEmu modeling algorithm to research geologists at ExxonMobil

NSU National Coral Reef Institute (NCRI) scientists Sam Purkis, Ph.D., assistant professor, and Kevin Kohler M.S., director of computing services, traveled to ExxonMobil headquarters in Houston on Sept. 2. They presented an interim milestone report on the status of an ongoing collaborative project with the oil giant. Purkis and Kohler received \$195,000 of funding to develop two solutions for the company: a toolkit of satellite remote sensing algorithms and a model to predict lithology of subsurface carbonate reservoirs based on fractal statistics.

The solutions are used to explore the use of modern reef environments as proxies for ancient carbonate depositional systems, which are believed to contain up to 50 percent of all oil and natural gas reserves in the world. Information gained from this effort will hopefully enable ExxonMobil to recover hydrocarbons from the Earth's crust more efficiently and with fewer drywells drilled. Purkis and Kohler's work is projected to continue through 2010.

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