

Wildlife, water quality can thrive on golf courses, study indicates

By PETER BLAIS

CHARLESTON, S.C. — With proper management, plant and animal life can thrive and water quality remain unaffected on golf courses, according to the initial findings of a three-year study conducted by Clemson University researchers at Kiawah Island's Ocean Course.

Using state-of-the-art testing methods, the 12-member research team detected little chemical contamination, no significant ground water pollution, minimal surface water problems and instances of increased animal activity, according to project director Dr. Ron Kendall.

One minor instance of pesticide poisoning was reported. Kendall considered the small number very positive.

"We found evidence of bendiocarb in a seagull's body and on its feet," Kendall noted. "The bird recovered quickly and flew off. The Kiawah staff made every effort to minimize pesticide use and the results demonstrate that."

Researchers found no significant evidence of vertical movement of chemicals into ground water or runoff into surface water. The only exception was the irrigation pond.

Architect Pete Dye developed a unique underground drainage system consisting of 14 miles of drain tiles that recycle irrigation and rain water. High levels of eutrophication and dense algae blooms were noted in the recycling pond.

Kendall speculated that fertilizers making their way through the drainage system and into the recycling pond were responsible for the eutrophication. However, he didn't see that as a significant problem since only the recycling

pond was affected and all other surface waters remained pollution-free.

"Pete developed the drainage system in his head," Kendall said. "We don't have any drawings or anything that would give us a lot of information to analyze. They may have to use algacides at some point."

The investigators found no drop-off in species diversity. In fact, several new species moved onto the course. Kendall labeled

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the 75 species of birds "a pretty high number" considering the lack of trees on the seaside layout.

"It shows that, with appropriate management, bird and animal life can actually be encouraged on golf courses," Kendall said. "[Golf and Tennis Director] Chris Cole and [Ocean Course superintendent] George Frye were very sensitive to environmental concerns. Their staff

was diligent in following their instructions."

The Clemson team, consisting of five faculty members and seven graduate students, will formally present its findings to the U.S. Golf Association board of directors in April.

The researchers, state agencies and the people of South Carolina consider the Ocean Course "a treasure deserving of further study and monitoring," Kendall said.

The new managers, Virginia Investment Trust, have assured Kendall the facility will be available for additional research. VIT is the parent company of AMF Inc., which is operating the course along with the owner, the Audubon Society of New York.

"We're delighted with the work Ron and his staff have done and are obviously delighted with the results," VIT Vice Chairman Beverly W. Armstrong said. "It's our intention that their work continue."



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Renovation help offered to supers

SAGAMORE BEACH, Mass. — A program to assist golf course superintendents with construction and renovation projects has been initiated by Massachusetts golf course consultants Richard and Associates.

Called Superintendent Design, the program is "a method to utilize in-house design talent with substantial cost savings," said Principal Ray Richard. "Many superintendents spend hours discussing design strategy and planning upgrade scenarios at their clubs.

"They are the best analysts of their own needs. We provide the technical support, making them the credited designers."

The program will determine the best strategy to help in the design/build process, offering drafting, presentation assistance, contract documentation and construction services, Richard said.