

# A Walk on the Wild Side

Three courses at  
Bonita Bay are  
certified ACSP  
Sanctuaries and  
another is on the way

BY PAT HEWITT

Gravina-Smith Associates, Inc. and  
DIANNE RADKIN  
Bonita Bay Golf Maintenance

**B**onita Bay is a master-planned golf course community located in Bonita Springs on the coast of Southwest Florida where members are serious about the game of golf.

In 1979, David B. Shakarian, founder of Bonita Bay's 2400-acre community, dedicated his career to healthy living and to his dream of creating an environmentally responsible community. He saw the development team as stewards of pristine resources that include rivers, streams and beaches.

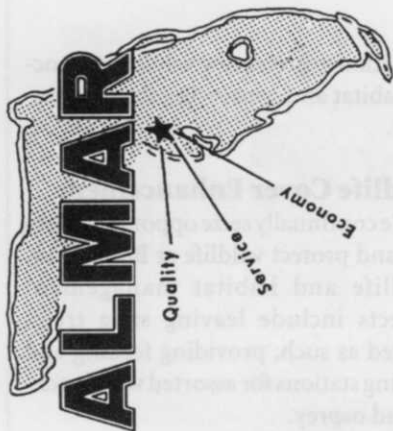
Today, 600 acres of natural preserves, 230 acres of lakes and 700 acres of golf courses provide the ultimate habitat for a variety of wildlife and birds. Bonita Bay is bordered by Estero Bay Aquatic

*Editor's Note: In the last issue, Shelly Foy submitted an ACSP Case Study profile of Bonita Bay. In this issue we follow up with how Bonita Bay accomplished its certification and some of the rewards it has reaped.*

Preserve, the Imperial River and Spring Creek.

Slough and mangrove preserves that are federally protected, salt flats and wetlands comprise the majority of Bonita Bay. Additionally, three championship golf courses, community parks and resident neighborhoods make up the remainder of the community. Many may not realize that golf courses provide challenging opportunities for golfers, but also provide habitats rich in local plants and wildlife.

Few were surprised when Bonita Bay's golf courses became the fifth, sixth and



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Water enhancement at Bonita Bay includes aquatic vegetation like the spike rush in the foreground which provides excellent cover for wading birds. Photo by Bonnie Vary.

seventh courses in Florida to become certified as Audubon Cooperative Sanctuaries. The program is sponsored by the United States Golf Association and is designed to help golf course superintendents preserve, enhance, encourage wildlife habitats and protect natural resources.

Mark Black took on the responsibility for complying with the program's certification requirements for the first three golf courses at Bonita Bay.

"Our club members and residents have a deep affection for the birds, wildlife and natural surroundings at Bonita Bay. This program is a natural for us says," says Golf Course Operations Director Mark Black, CGCS.

The Audubon Cooperative Sanctuary System "links together" Cooperative Sanctuary areas to form a nationwide system to benefit wildlife and the environment during all seasons of the year. In an organized manner this system will provide habitat for birds during breeding, migratory and wintering periods.

Cooperators are working toward environmental planning, wildlife and habitat management, public outreach and education, integrated pest management, water conservation and water quality management.

"I think it is important to know that the Audubon program is designed to assist golf course superintendents in preserving and enhancing wildlife habitat and to protect natural resources," Black said.

Shelly Foy with the USGA, played a large role in helping us start our Audubon Program. She always made herself available to answer questions and offer support during the certification process.

"Make no mistake, certification is not just a form you fill out and mail along with a fee to join. The program requires hard work, dedication and the desire to become certified. You must give of yourself and involve others." said Black.

Educating our members, residents and friends of wildlife gives us the opportunity to show our commitment and

dedication to preserving wildlife, enhancing habitat and conserving the environment.

### **Wildlife Cover Enhancement**

We continually seize opportunities to save and protect wildlife at Bonita Bay. Wildlife and habitat management projects include leaving snag trees, marked as such, providing feeding and housing stations for assorted woodpeckers and osprey.

Straw collected from native pine trees is used to promote favorable plant growth around surrounding landscape trees and plants. Pine Straw is more consistent for golfers to hit balls out of with minimal disturbance to natural areas.

Flowering vines i.e., Confederate jasmine, flame vine, bleeding heart, attract butterflies and hummingbirds.

Cordgrass, a low maintenance lowland and upland shrub used in many non-play areas provides cover for wildlife and houses smaller animals such as rabbits, quail and fox.

The Bay Island course is currently

home to eagles, nesting on site that has been designated as "eagle habitat."

All wetlands on Bay Island are protected. All exotic plants have been removed from the wetlands and replaced with native vegetation.

Water Enhancement includes aquatic vegetation: spike rush, soft rush and pickerelweed, planted in all man-made lakes.

"We feel these varieties provide excellent cover for smaller aquatic wildlife and feeding areas for wading birds like small blue herons and snowy ibis," Black said.

### Integrated Pest Management

Black indicated that "Our IPM program is something we are very proud of." Records are meticulously kept by our licensed specialists. The most current and accurate application of IPM products, biological controls, curative treatments along with recognizing pest threshold levels is continuing.



This habitat-rich natural setting surrounds the 17th green on the Bay Island course. Photo by Bonnie Vary.



- Minimal damage to course.
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Pest management is scheduled only if needed. Sites are visually checked, soap flushes and cup-cutters are used to check for insects below the soil surface. A kiddie pool with water under a white light at night, alerts staff to migrating pests and insects.

Parasitic nematodes control mole crickets along lake banks and minimize run-off into lakes. Wildlife that thrives in these conditions help control worms, mole crickets and grubs. Golf course crew members attend seminars to teach them how to identify and control pests.

Our scouting, monitoring and sampling program combined with mapping and charting of all turf pests requiring pesticide control, has enabled us to use pesticides in a most effective and efficient manner. No spray zones have been established around all golf course lakes; most weeds are pulled by hand verses constant spot spray application.

“Our IPM team is constantly updating their knowledge about the environment they protect,” Black said.

### Water Conservation

Bonita Bay Club uses a TORO Network 8000 computer to coordinate irrigation of all three golf courses. The system calculates evapotranspiration rates, which convert to a water-as-needed program.

“We have more than 5,000 sprinklers on the 54 holes,” says Jeff Perbix, golf course irrigation specialist. “We have the flexibility to irrigate many zones, any single station and in any combination we need. Watering is generally done in groups, greens one night, collars the next,” says Perbix.

Surveillance and determination of the golf courses’ irrigation needs are determined daily. Watering times are adjusted frequently. Each hole is designed with adjustable arc perimeter sprinklers in addition to full-circle fairway heads.

“This allows us to water our courses from the outside in and greatly reduce sprinkler overlap into lakes, natural areas and sensitive wetlands,” Perbix says. Irrigation water is up to 100 percent reuse, non-potable water, brought in from Bonita Springs Utilities.

*The site covers 1,440 acres of sensitive habitat, including woodlands, 900 acres of cypress strands, marshes and improved pasture. Animal residents include whitetail deer, Osceola wild turkeys, Big Cypress fox squirrels, burrowing owls, sandhill cranes and within a few miles, Florida black bear.*

### Water Conservation Award

Residents at Bonita are eligible to receive an annual water conservation award. The annual award is presented by Bonita Bay Properties, Inc., in conjunction with the South Florida Water Management District (SFWMD), recognizing outstanding landscaping that reflects wise use of irrigation water. The natural landscaping thrives with little outside help or water.

To determine the winner each year, Glenn Van Riper, Bonita Bay’s director of utilities operations, calculates actual irrigation usage for each homesite. “Bonita Bay maintains a dual water system with two meters per home site. Irrigation water is a blend of reclaimed water and well-field supply, so residents don’t even have to be concerned with fertilization,” he said.

### Audubon Signature Cooperative Sanctuary

Matt Taylor is the lead golf course superintendent for Bonita Bay’s new off-site golf courses, a non-residential golf facility. The Cypress course, scheduled to open the fourth quarter of this year, is the first of two members-only golf courses being developed by Bonita Bay. The Cypress course, designed by Tom Fazio, is unfolding with the guidance and suggestions of the Audubon Signature Cooperative Sanctuary program reserved for new courses only.

“The Sable course is still in the drawing board stages but we are looking forward to the same cooperative guidance for this course as we have received on all courses in the past,” Taylor says. “Con-

struction is expect to start in the fourth quarter of this year.

“There is no ‘retrofitting’ in the Signature program,” says Taylor, the man responsible for complying with Audubon criteria. “We are advised on what needs to be accomplished, but the accomplishment is left to the development team’s creativity.”

The site of the golf club covers 1,440 acres of sensitive habitat, including woodlands, 900 acres of cypress strands, marshes and improved pasture. Animal residents include whitetail deer, Osceola wild turkeys, Big Cypress fox squirrels, burrowing owls, sandhill cranes and within a few miles of the site, Florida black bear.

Players who challenge The Cypress course will also encounter a variety of bird boxes providing additional habitat to feathered forest creatures like Eastern bluebirds, purple martins, owls, etc. Bird box holes are cut for the size of the bird and the nests are monitored “to make sure exotic birds aren’t invading,” Taylor says.

“We also have screech owl and wood duck boxes. They’re all made out of recycled PVC plastics, all painted white to cut down on heat, and they’re all strategically placed to encourage the desired species,” says Taylor.

How does a golf course superintendent know where to put a bird box? He may not. “That’s a really nice part about this program. Audubon representatives don’t expect you to do it all by yourself, they encourage you to use outside experts to help,” said Taylor.

“An ornithologist, who is part of our

Audubon Resource Advisory Committee, scoured the terrain, identified the species and made recommendations for help enhance bird habitats. "He will assist us with our entire nesting program; all the identification of the species; he'll give tours for Bonita Bay residents on birdwatching and even set up slide programs."

"We had cow pastures here that are now golf holes, where pine trees, cypress trees and live oaks have been planted," Taylor says. "We are recreating pine forest and open pine woods where we have located some of our Eastern bluebird boxes."

The single challenge Taylor sees in working toward certification is cultivating a mindset in all people.

"At Bonita Bay, it is a priority for everyone," he said. "While the Audubon program is beneficial in terms of habitat enhancement, it also provides long term benefits and cost savings."

Recycling had been in effect at Bonita Bay since May of 1994. A significant cost reduction was realized in trash disposal. In real dollars, \$7,000 was saved in the first four months of 1995.

The members play an important part of this savings by recycling their Styrofoam cups and aluminum cans in the designated bins while on the course. We have found that 50 percent of Bonita Bay Club's trash is Styrofoam and 75% of the golf maintenance trash is Styrofoam. We expect similar results at the east courses.

Taylor says, "Audubon helps us direct our efforts toward habitat enhancement and environmental issues. The Cypress course has the same systems in place as the West courses for good reasons. Our attention is focused on preserving our natural habitats, wildlife and on our playing surfaces."

The architectural design of the Cypress course enhances natural land fea-

tures. For example, in the improved pasture area, sandy areas became natural waste bunkers. In non-mow, non-maintenance areas, we planted *paspalum vaginatum*.

"We apply slow release fertilizers that meet Audubon criteria; it's just good sense. Quick release fertilizers leach too readily and produce inconsistent growth rates," said Taylor.

### Rewards

Benefits of responsible stewardship reach beyond cost savings and low maintenance for Bonita Bay. Members, residents and employees alike have joined hands in the spirit of the program by counting bird species, erecting bird houses and feeding stations and avoiding designated areas as no hunt zones. They meet to compare notes of sightings and discuss environmental issues and habitat enhancement.

Residents can be seen walking and

## Consider yourself a candidate.

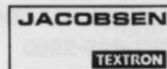
Applications for the 1998 Environmental Steward Awards are available from the August issue of *Golf Course Management*, GCSAA Online ([www.gcsaa.org](http://www.gcsaa.org)), affiliate chapter presidents, program sponsors and the GCSAA service center (800/472-7878).

*We'll look forward to receiving your application by October 31, 1997.*

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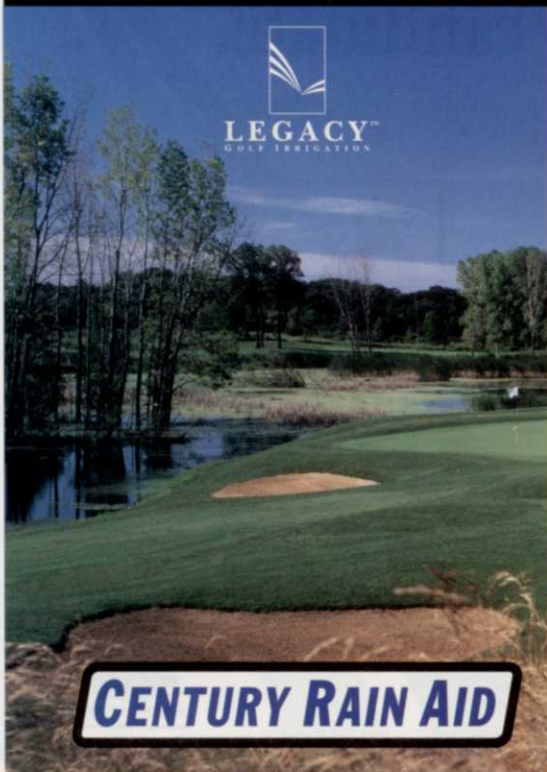
2400 acres of natural preserves, lakes and golf courses are home for a variety of wildlife at Bonita Bay. Pictured is the 12th hole of the Bay Island course.

biking along nature paths and trails. Encounters may include a rare pileated woodpecker, flocks of water birds, deer, hawks, osprey, screech owls, otters and bobcats that live in harmony with residents. On the golf courses, players report wildlife sightings and enjoy watching bird families. It's simply part of the game in this community.

Special thanks to Mark Black, CGCS, golf course director, Matt Taylor, Cypress course lead superintendent, Jeff Perbix, irrigation specialist, Glenn Van Riper, director of utilities operations, Marile Barbe', Bonnie Taylor, photographers, Sue Skytta, administrative assistant, for her diligent proof reading and grammar corrections, Mary Jack, Audubon International and Shelly Foy, USGA for their input and support. Audubon is a program that involves many individuals.

Mark Black said, "you must give of yourself and involve others."

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