

Getting to the hearts of the children

*Palm Beach GCSA and
Jupiter Farms Community
Elementary School:
Audubon Expansion*

BY JOSEPH HUBBARD, CGCS
*Jonathan's Landing Old Trail
Dickinson Management, Inc.*

Most people do not understand many things in life and no one person has all the answers all of the time. These are givens to our limitations and our domain, and accepted by most.

Yet, when these same people are shown the beauty of natural creations such as trees, streams, insects, flowers, mountains, wildlife, etc. the unification of their resolve to strip away those constraints becomes limitless. Their energy is renewed and their thirst for the knowledge of everything about that environment to be explored is all consuming.

Passion is sorely lacking today for almost any cause, but watch the eyes of children as they wonder in awe when they see an animal from the wilds brought to a school, or as they watch National Geographic specials on TV. They are totally mesmerized by the creatures before them which in turn brings an avalanche of questions.

It is learning in its purest form and can develop that passion at a young age. As I studied the pamphlet, Audubon Cooperative Sanctuary Program (ACSP) for Schools, that Audubon International had sent out, the children's eyes and eagerness to be involved came to my mind.

When you are a superintendent in the golf industry it is very easy to "live" your job and to not be absorbed in the lives of your children day in and day out. The long hours and the heavy demands can weigh you down (Although, you would be hard pressed to find one superintendent who would give it all up).

However, when something of this nature mirrors so close with what you are trying to achieve at your golf course,

Project Naturescope: Children Exploring Their Environment

Five years ago an on-going environmental effort was launched at Jupiter Farms Community Elementary School, which eventually was named *Project Naturescope*. Its initial intent was to utilize the pine flatlands of our campus to carve out a nature trail.

That first year far surpassed that goal when we succeeded in establishing two nature trails and a butterfly garden on our campus without cost to our school.

That first year 60 science students shared their efforts, along with the efforts of their parents, local scout troops, local nurseries and teachers, as they invited the entire school to attend the first of what have become annual Earth Week Tours of our natural areas and butterfly garden.

Project Naturescope has grown into a cooperative effort that continues to utilize student and community talents, as well as occasional assistance from students from the agriculture department of Jupiter High School.

It has operated solely on donated plants and materials since its inception, yet has succeeded in bringing to our school a \$1000 grant from the Community Foundation and \$250 grant of native trees from the Florida Nurserymen's Association.

Last year, recognizing the need to expand our efforts to include several areas on campus that had been sorely neglected by county landscape crews, Project Naturescope students removed approximately 20 badly diseased trees and shrubs and heavily pruned overgrown areas on campus.

These efforts were quickly recognized by Ray Bridges, School Board landscape and grounds supervisor, who offered us unlimited use of the county nursery in Delray Beach. JFES was given approximately \$750 worth of landscape plants, used to replant several areas on campus.

At this time we have been approved for adoption by the Golf Course Superintendents Association of Palm Beach County through the Audubon Cooperative Sanctuary System. We are one of two schools in Palm Beach County chosen for work we have already done in the area of environment science as well as school site.

We hope to receive help soon for acquiring gardening tools and much needed materials. As Project Naturescope continues to grow, more grant opportunities will be available to our school through the Audubon Society of New York State, perhaps to assist in the construction of the environmental center.

As 15 parents, 60 students, and two teachers converged last spring to celebrate Earth Day with a massive schoolwide Earth Day Clean-up, the success of Project Naturescope couldn't have been more evident.

Student "managers," trained all year to appreciate their environment, moved from area to area on campus, removing litter, weeding, pruning, and planting. That same day our application for the President's Environmental Award from the EPA arrived.

-Dianne Hermanski,
Project Naturescope Coordinator and
Third grade teacher
Jupiter Farms Elementary



Naturescope coordinator Diane Hermanski and Buzz Jaskela of Florida Landscape Design discuss the master plan for Project Naturescope. Photo by Joe Hubbard.



One of two nature trails established during the first year of Project Naturescope. Photo by Joe Hubbard.

there can be no other recourse than to get involved with your child's school or any school close by that is making an effort to better the world around them.

One such school is Jupiter Farms Community Elementary School located in the northern part of Palm Beach County, west of Jupiter. It is noted for its rural area, with many horse owners, trainers, dirt roads, wildlife, natural uplands and wetlands.

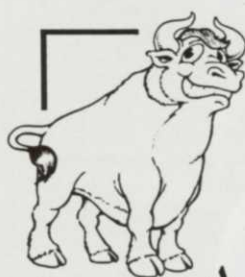
The school is located in the heart of Jupiter Farms or "The Farms" as it is respectfully called. With an average of 870 students in attendance, grades kindergarten through fifth, 41 teachers try to expand the potential of each child to be an example of community effort for everyone's benefit.

The Palm Beach Chapter of Florida Golf Course Superintendents, proudly adopted the school into the ACSP for Schools program in 1997. We wanted to help make a difference in the kids percep-

tion of the environment by broadening their window of knowledge further than the classroom. Many people do not realize what scope of stewardship superintendents must elevate to in understanding the natural environment of our properties and what it takes to *protect* it at all costs. With the help of volunteers, teachers, various clubs and nurseries, this type of responsibility and love for the environment is what we hope to instill in our children.

With the support of Diane Hermanski, third grade instructor and Naturescope Coordinator (*see sidebar*), principal Marilyn Weisgerber and assistant principal Lela Tolbert, our plans for this school are to start upgrading some of the sorely neglected areas on campus.

Buzz Jaskela, of Florida Landscape Design, and I had an opportunity to identify these areas on our recent visit with Hermanski. A master plan for phase development that Jaskela will help design,



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will enable the school to become an important environmental base for the Jupiter area, while eventually achieving certification with the ACSP for Schools.

There are plans already in the works for several of the 59 acres that encompass the school property. Building a state-of-the-art environmental center in the southern section of land by the wetlands will enhance the ACSP program to another level.

Jupiter Farms' close proximity to superintendent Mike Ballard's course, Cypress Links Golf Club and to my course, Jonathan's Landing Old Trail Country Club will enable us to have a "hands on" relationship with the school. Several other superintendents, including Chip Fowkes at Frenchman's Creek, have expressed a desire to be involved in the development of this program and can help in making presentations to the community on our progress.

According to Audubon International,

the concept of the Audubon Cooperative Sanctuary System was to create an international program designed to help landowners preserve and enhance the environmental quality of their property.

Schools in the program protect and learn about our natural heritage through stewardship projects that enhance wildlife habitat and conserve natural resources on school grounds.

Rather than focusing on field trips or environmental studies of exotic places and wildlife species, the program provides information and guidance to help schools turn part of their grounds into natural areas that attract wildlife.

This program encourages the school to develop an outdoor classroom and adopt indoor conservation projects such as water and energy reduction, recycling and composting.

"By creating a sanctuary at the school, students build a lasting relationship with their environment and are empowered

with the knowledge that their actions do make a difference," explained Joellen Zeh, staff ecologist for the Audubon International. "We welcome Jupiter Farms School's commitment to environmentally responsible property management and environmental education.

By joining and participating in the ACSP, the school will be involved in projects that enhance wildlife habitat and conserve natural resources for the benefit of the community, while offering students engaging environmental education projects.

These projects may include: placing nesting boxes for cavity-nesting birds such as bluebirds and purple martins; using native plants in gardens to attract butterflies, hummingbirds and songbirds; conserving water and energy; composting; and recycling.

"The Cooperative Sanctuary System benefits both people and the environment," said Zeh.

ACSP FOR SCHOOLS

Palm Beach GCSA makes natural link with Kidstown

BY JEFF KLONTZ

Country Club of Florida

The Palm Beach Golf Course Superintendents Association wants to make a difference in environmental education. With funds from our annual Futures of Golf Tournament, we adopted Kidstown Learning Center into the Audubon Cooperative Sanctuary Program (ACSP) for Schools.

Kidstown Learning Center in Boynton Beach has children from infants to 12 years old. The teachers plan to educate students about the environment they live and play in. The Audubon program will enhance children's value to belong with nature and will teach them to respect the earth's natural resources.

Paula Poupore, owner of Kidstown Learning Center, was very interested in working jointly with the PBGCSA to



Using funds from their annual Futures of Golf Tournament, the Palm Beach GCSA helped Kidstown Learning Center build a butterfly garden, aviary, caterpillar garden and a vegetable garden.

incorporate the Audubon program into the curriculum at the school.

The first step was creating a plan.

Since the property was under construction, we enlisted Buzz Jaskela, a landscape architect, to help create a plan of action that would incorporate all aspects of the school program developed by

Audubon International. Before drawing up this plan, we met with teachers to get their input into projects they would like to see developed for the children.

Within 30 days, we had a plan of action that included a butterfly garden, aviary, caterpillar garden, and a project the teachers expressed the most

interest in — a vegetable garden. The PBGCSA also had a special interest in some burrowing owls that were located on the property, and this was also included in the plan.

Our first project, in June, was to recreate the burrowing owl habitat on the property. The owls had relocated to a vacant lot due west of the school. Damian Flaso, superintendent at Villa Delray, Steven Bernard, superintendent at Emerald Dunes, Jim Cassells and myself, helped build and install two perches to be placed on the west side of the building.

We also started two burrows in the ground. This future habitat area is within 20 feet of the building, and the children will be able to watch the owls from the classroom. This required the relocation of some existing cocoplum and the removal of a black olive tree that did not survive the original landscaping.

Within 30 days, we had a plan of action that included a butterfly garden, aviary, caterpillar garden, and a project the teachers expressed the most interest in — a vegetable garden.

Phase two of the plan was accomplished in July.

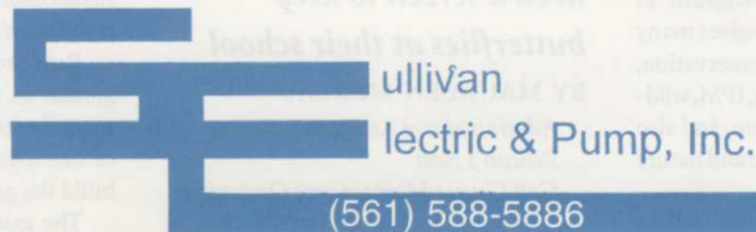
An aviary was created at the far southeastern corner of the property. An area of high maintenance that required weed-eating on a routine basis, the lawn maintenance crew was happy to see us remove the sod and replace it with native plant material.

Karl Schmidt, superintendent at Atlantis Golf Club, Steve Hamilton from Hamilton Grading, Jim Cassells, Buzz Jaskela, Leonardo Flores, assis-

tant superintendent at Country Club of Florida, and myself, installed the garden that included plants such as Beauty Berry, Wild Coffee, Porterweed, Bottle Brush and an Orange Geiger Tree.

Sue Shaw, assistant director of Kidstown Learning Center, and teachers helped to get the children involved by showing them how to plant, fertilize and water the plant material.

The plants were all donated by Boynton Botanical in Boynton Beach.



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The compost was donated from Atlas Peat and Soil. Jim Cassells donated a recycled birdhouse, and we plan to add a birdfeeder and birdbath.

The project took three hours to complete. We want to thank all of our volunteers and suppliers that helped to make this bird aviary a success.

Next phases begin soon

In the near future, we will start the other phases of the project, including a butterfly garden, vegetable garden and caterpillar garden.

Paul Popore would like Kidstown Learning Center to be the first fully certified Audubon School Sanctuary in Palm Beach County.

With the help of the PBGCSA, we plan to accomplish this within two years. We would also like to help other schools get involved in the Audubon school program.

The Audubon school program at Kidstown Learning Center involves many other areas related to water conservation, recycling, energy conservation, IPM, wild-life enhancement and education, and also includes an outdoor classroom and nature trail.

The success of the program depends on teacher participation, and children who want to learn more about the environment. The PBGCSA will continue to act as volunteers, specializing in native plantings and soil amendments.



The butterfly garden at the Spring Creek Elementary School becomes a reality through the involvement of the school, community and Pelican's Nest Golf Course.

Butterfly Extreme
Kids learned they didn't need a screen to keep butterflies at their school

BY MAUREEN MERLAU

Administrative Assistant

Pelican's Nest

Golf Course Maintenance Operations

The most recent fifth grade class of teacher Pam Schroeder at the Spring Creek Elementary School in Bonita Springs introduced a question after raising butterflies and releasing them September '96.

"Why can't we keep them here?" was

what the children wanted to know.

Pam responded there might be a way. It took some convincing that the garden doesn't need to be screened in to keep the Lepidoptera around. According to Pam, it's a lesson in "build it and they will come."

Pam brought the idea of the butterfly garden to the attention of the environmental education mini grant department of Lee County and requested money to build the garden.

The existing ground cover was inadequate and unsuccessful at attracting butterflies. In February 97, the students' continued enthusiasm and interest, along with a go-ahead from the mini grant department to research the building of a butterfly

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garden, prompted Pam to contact the school's sponsor for the Audubon Cooperative Sanctuary Program.

The Maintenance Operations for Pelican's Nest Golf Course in Bonita Springs was very much interested in supporting the answer to the children's question of how to keep the butterflies at the school.

Jim Leiseberg, superintendent at Pelican's Nest, agreed to coordinate and immediately begin to build the butterfly garden in order to accomplish its completion April 22nd in honor of Earth Day 97. Jim contacted landscape architect Dave Salko of the firm WCI, who designed and provided the landscape plans for the 2,000 sq. ft. garden complete with a mulch walk path.

There were 20 different species of ground covers and trees donated and delivered by two local landscape suppliers, as well as 12 hours of their labor to support this school project. Pelican's Nest donated 120 hours of labor. The irrigation system and the perimeter fence were refined, and the garden was coordinated and developed.

Several teachers at Spring Creek used the appearance of the garden as an opportunity to

enhance the learning process at school as they acclimated their curriculum to the butterfly garden.

It was overheard at many a bus stop, discussions about the elaborate process of how butterflies evolve, as well as debating the times involved for what stages of metamorphosis. Teachers encouraged participation in the associated contests involving butterflies, and over 500 student entries were received for naming the garden.

Students sold T-shirts to raise money to help fund the garden at the school and also competed in poetry, poster and T-shirt design contests. For three days, more than 300 students from pre-K to fifth grade were plucked out of class to work with Jim and several other Pelican's Nest staff to help prepare the soil and plant the nectar and host plants for the butterflies.

Teachers had to be on their toes scheduling student help, and monitors were kept busy attempting to inhibit sneaking back into the garden to work during afternoon exercise and outside time to avoid over stimulation of the plants.

Some students couldn't work in the garden enough. It was evident that participation in the garden's completion was very important to Spring Creek Elementary students.

A few butterflies had already swooped down to check out the garden by the time the students gathered to dedicate and name Butterfly Extreme on Earth Day as projected. The butterfly poems were read, the contest winners were cheered, T-shirts were awarded to merit their talents, and the butterfly garden awaits the children each morning as they get off the bus to go into school.

Not only is the a garden successful learning resource and daily reminder of their part in its beauty but it will provide acknowledgment to students who are privileged to read in the butterfly garden as a reward for academic achievement.

Last year Jim Leiseberg and the golf course maintenance staff appropriated money collected from can recycling to provide Spring Creek with three *Field Guides to Birds* and materials to build a bird feeder and supply seed throughout the year.

Jim foresees a continued participation

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in conjunction with the school and its association with The Cooperative Sanctuary program.

On June 27, 1997 I received a phone call from Pam about the goings on at Butterfly Extreme. The host plants had successfully nourished the eggs and larva, and provided shelter for the pre-emerged butterflies. The timing was impeccable.

School ended for the year on June 12, and the butterflies emerged between June 5 and June 10 as though they were a gift to the children.

Pam was checking the garden, although she has the summer off, and couldn't resist calling me today to tell of the caterpillars again on the host plants. The Queen and Monarch butterflies had returned to lay their eggs and the cycle is repeating.

Butterfly Extreme has established itself as a butterfly garden. The children will be pleased and they will most likely have an increased interest in and appreciation for the butterflies upon their return to school in the fall. 

Certification Update

Audubon Cooperative Sanctuary Program for Golf Courses

The certification process for golf courses has been updated to lessen the turnaround time for reports. These changes will better define the program and encourage more participation.

1. The Resource Inventory and Environmental Plan have been combined.
2. There have been questions added to the certification workbook, and some questions have been reworded for clarification.
3. Minimum requirements have been established for all categories, and checklists are provided to ensure your request is complete.

These changes were effective June 25, 1997. If you have not received this information, call Audubon International, (518) 767-9051 to request the updated forms.

- Remember, when you join the program, you will receive the Resource Inventory/Environmental Plan. You will not receive the certification workbook until you have returned the Resource Inventory/Environmental Plan.



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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

Bonita 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.

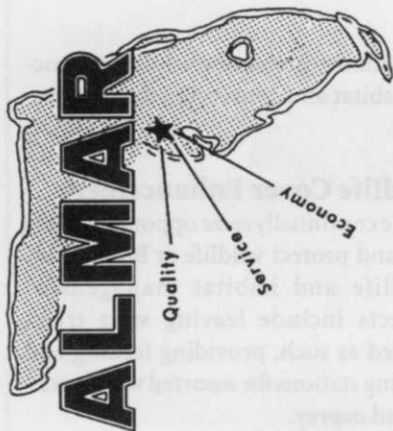
Today, 600 acres of natural preserves, 230 acres of lakes and 700 acres of golf courses provide the ultimate habitat for a variety of wildlife and birds. Bonita Bay is bordered by Estero Bay Aquatic

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.



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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), affiliate chapter presidents, program sponsors and the GCSAA service center (800/472-7878).

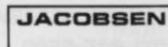
We'll look forward to receiving your application by October 31, 1997.



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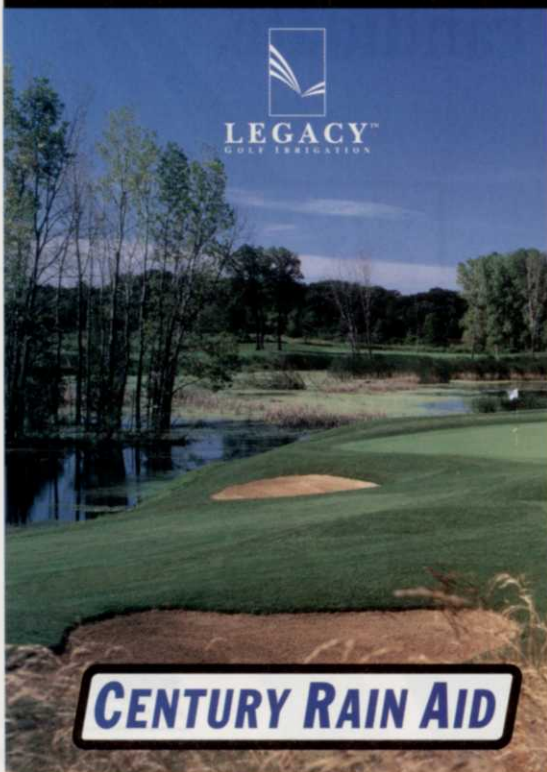
2400 acres of natural preserves, lakes and golf courses are home for a variety of wildlife at Bonita Bay. Pictured is the 12th hole of the Bay Island course.

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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