



PLAYABILITY: In areas that come directly into play, use care in naturalizing so as to not slow down pace of play.

handicap golfers, care needs to be exercised as far as the distance of forced carries over naturalized areas.

COMMUNICATION

Letting your golfers know what is going on is critical to the success of naturalized areas. There are many creative signs you can use on the golf course, and like they say, “A picture is worth a thousand words”.



COMMUNICATION: Signage does two things. It makes the golfers aware of the environment and it let’s them know you’re doing something positive about it.

Here are typical game characteristics of golfers of different skill levels. Use them to help select appropriate areas suitable for naturalization with minimal impact to playability of the golf course.

Mid to high handicap player:

- Carry 175 to 230
- Slice zone.
- Difficulty in hazards.
- Lost balls.

Women

- Carry 75 yds.
- Difficulty with hazards.
- Hit the ball straight.

Low handicap players.

- Carry 200-250 yds.
- Little difficulty with hazards.
- Hit the ball fairly straight.
- Recovery shots.

Can Golf Improve its Environmental Game?

Editor’s Note: Here is an excellent resource for generating ideas and interest at for making practical and reasonable environmental improvements to your golf course. Environmental issues are not going away. Get with the program.

America’s love of golf is coupled with a passion for protecting and enhancing the natural environment in which the game is played. Evidence of that abounds in a new publication available from the United States Golf Association, which is in its 10th year of funding research and best management practices to provide golf course superintendents with the latest information on wildlife management and habitat conservation. *Wildlife Links: Improving Golf’s Environmental Game* highlights research findings while providing practical tips and success stories for superintendents and course designers eager to develop and hone their green-management skills.

The dialogue couldn’t be more timely. In the U.S. alone, there are more than 16,000 golf courses averaging upwards of 150 acres of open space per course and attracting 27 million golfers. Although golf courses are not substitutes for naturally occurring habitat, they increasingly are providing refuge to many wildlife species crowded out by urban development.

The connection is clear to Peter Stangel, Southeast regional director of the National Fish & Wildlife Foundation. “I grew up on a golf course,” says Stangel. “Our front yard was just a short chip shot from the first green of the Rockport (Ill.) Country Club. Leaving the car parked in the driveway was risking a nasty dent from an errant slice, and I had to scour the yard for golf balls each week before mowing commenced.”

Rockport offered great birding, recalls Stangel, who fantasized as a teenager about what he would do to make the course even better for wildlife. He

got his chance in 1995, when USGA and NFWF created Wildlife Links, golf's first comprehensive investigation of the game's relationship to and impact on wildlife and wildlife habitat. Since its inception a decade ago, USGA has funded nearly two dozen research projects with a total investment of more than \$750,000.

"I am inspired by the growing environmental conservation ethic within the golfing industry, which has embraced what has been intuitively understood all along – that a healthy environment is good for golf, and that golf can play a vital role in enhancing the natural environment," Stangel says.

"Interest has never been stronger," says Jim Snow, national director of the USGA Green Section, the one of the game's foremost authorities on turfgrass management. "This is a terrific opportunity to showcase industry leaders and demonstrate golf's commitment to environmental stewardship."

The publication includes sections on bird conservation, pollinators, small mammals, amphibians, water and wetland features, and creating an environmental plan. Also featured are additional resources (books, organizations and experts) to help golf course operators put ideas into action.

For a copy of the publication, contact the USGA Order Department at 800-336-4446 or visit www.usga-pubs.com.

Some environmental game success stories:

PINEHURST, NC

Endangered birds and birdies are rarities on most golf courses, but not at Pinehurst.

While golf's greatest were teeing off at the 105th U.S. Open in June 2005, red-cockaded woodpeckers were busy preparing their young to fly. The endangered bird is a treasured sight at the venerable North Carolina club, where stately long-leaf pines – some centuries old and among the last remaining stands in the Southeast – line emerald green fairways.

Thanks to an innovative agreement hatched a decade ago that gives



A juvenile bald eagle fledged at the Lemon Bay Eagle Preserve on the golf course. Photo by Danny Claude.

Independent Study

Lemon Bay Golf Club and Long Marsh Golf Course, Englewood

To involve the community in their environmental stewardship, Lemon Bay Golf Club and Long Marsh Golf Course reached out to a local high school for help in documenting their stewardship efforts for the Audubon Cooperative Sanctuary Program.

Danny Claude, a high school student looking to conduct an independent study for high school credit, and the two golf courses both benefited from Danny's enthusiasm. Danny not only completed the certification materials, but he coordinated the partnership between the high school and golf course on building nestboxes as well as arranged dinner dances to support the environmental projects and inform the membership.

The golf courses plan continue to support independent studies and will reach out to junior golfers.

private landowners flexibility in their development plans in exchange for cooperation in establishing and maintaining woodpecker habitat, the red-cockaded woodpecker is battling back from the brink of extinction. Pinehurst was the first landowner in the country to enter into a "Safe Harbor" agreement with the U.S. Fish & Wildlife Service to protect the rare bird.

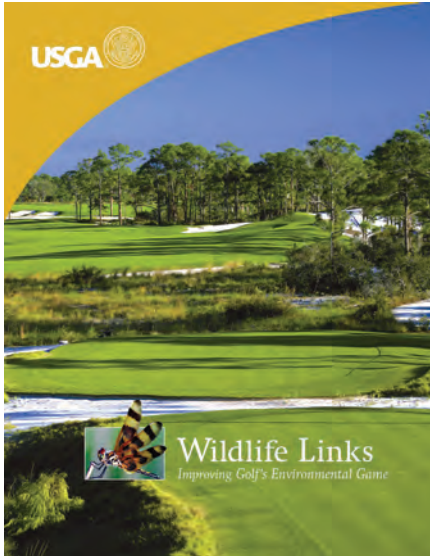
Today, Pinehurst boasts 21 colonies of red-cockaded woodpeckers, including nesting clusters and trees harboring active pecking adults. Maintenance crews have installed artificial nesting cavities in pine trees, finishing in hours what it takes a woodpecker

up to six years to complete. They also keep the understory clear to prevent hardwoods from intruding into the birds' flight and foraging corridors.

Superintendent Brad Kocher is quick to point out that Pinehurst's environmental ethic is not extraordinary by its standards, but rather business as usual for a company that operates on a simple principle. "We wear a little button here at Pinehurst. It says: 'Do what's right.'"

WILDHORSE RESORT, ORE.

Sean Hoolehan will never forget the morning in 1997 when he arrived at work to find a mysterious offer-



ing of brightly colored bowls strewn along the edge of his golf course. “It looked like a wind had randomly blown them all around,” recalls Hoolehan, superintendent at Wildhorse Resort in northeastern Oregon, run by the Confederated Tribes of the Umatilla Indian Reservation.

Turns out the collection bowls, filled with a soapy solution, were bait for unsuspecting bees – the initial steps in a pollinator conservation project Hoolehan had authorized. The tempting potion did the trick, luring pollinators to dozens of Technicolor receptacles from which researchers were able to identify the diversity of resident bees – more than 30 in all.

Nestled in the foothills of Oregon’s Blue Mountains, Wildhorse is an oasis of green in an amber quilt of wheat fields that stretch as far as the eye can see. Back then, construction crews were busy putting the final touches on a course designed by John Steidel, while researchers from the Xerces Society worked with Hoolehan to roll out the welcome mat for an entirely different set of players – native bees, the master pollinators responsible for sustaining countless species of flowers and plants.

“If we’re ever going to restore habitat, for me connecting the dots between native pollinator bees and native plants is easy,” says Hoolehan. Besides, he adds, “I always tell people that native pollinators are gentle,” coun-

tering a popular misconception.

After identifying native bees on site, the team set up nesting boxes in out-of-play areas to woo the pollinators. Native flowers, both annual and perennial varieties, were added to provide a food source for the diminutive creatures. Not only were bees drawn to the flowering landscape, but the course also began attracting birds like ruddy ducks, curlews, hawks and owls – and recently welcomed its first quail.

“I’m always amazed at the positive reception from golfers,” says Matthew Shepherd, Xerces’ director of pollinator conservation. “Once they know what we’re up to, it’s easy to sell because there’s a concrete connection to their lives.”

THE OLD COLLIER CLUB

At The Old Collier Golf Club in Naples, Audubon International’s first Gold Signature Sanctuary, naturalized buffer zones along streams connect wildlife habitat patches on the course to hundreds of acres of protected mangrove swamp. Environmental pressures in the fast-growing South Florida region, including demands for dwindling freshwater resources and declines in sensitive native habitats, led devel-

opers at Collier Enterprises down an unconventional path when they set out to create a world-class golf course that would complement nature.

With water conservation as a primary aim, Old Collier identified a salt-tolerant grass, seashore paspalum, to use on its entire course including greens, tees, fairways and roughs. It became one of the first golf courses in the world to irrigate with brackish water, using a state-of-the-art computerized system complemented by indigenous plantings that further reduce the need for watering.

But conservation didn’t stop there. The club’s Integrated Pest Management program has reduced reliance on pesticides and fertilizers, resulting in substantial cost savings and reduced runoff. Its commitment even extends to bridge surfaces, benches and trashcans, which are forged from 100 percent post-consumer recycled materials.

The stunning results of Old Collier’s vision are best represented by the wildlife at home there. Today, more than 100 species of birds including the bald eagle, great horned owl and screech owl, along with bobcats, foxes and gopher tortoises, share the magnificent property with the club’s golf members.



Wildlife at Old Collier Club

“Snackin’ on a snag,” a photo by Neil Cleverly at The Old Collier Golf Club in Naples, won first place in the Wildlife on the Course catetory in the 2002 Florida Green Photo Contest.