

Preserving our natural heritage

By JEAN MACKAY

Where on Earth are plants most at risk of endangerment?

If you guessed the rain forests of South America or Asia, or the broad savannas and forested lands of Africa, or plants of Eastern Europe's blighted landscape, you'd be wrong. In fact, the United States is ranked first in the world, by far, among nations in total number of plants at risk.

According to the first comprehensive worldwide assessment of plant endangerment, conducted by the World Conservation Union, 4,669 species are judged to be threatened in the United States. That's 29 percent of the country's 16,108 plants species.

Scientists generally cite two main reasons why plants become endangered:

- destruction of large swatches of wild countryside by agriculture, logging, or
- development, and invasions of plants from one part of the world that run riot and crowd out native species in another part.

The World Conservation Union's findings, released last spring, required more than 20 years of work by botanists and conservationists around the world. The report's results raise many questions and have profound implications. Since plants form the basis of the food chain and are the primary producers of food for wildlife, what secondary impacts result from the loss of plant species? What mutually beneficial relationships are lost when

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Jean Mackay is education director for Audubon International, headquartered in Selkirk, N.Y.



Superintendent Darren Moore has plenty of help from schoolchildren planting trees at Manila Southwoods.

Manila Southwoods works toward certification

By ANDREW OVERBECK

CARMONA, CAVITE, The Philippines — Under the leadership of golf course superintendent Darren Moore, Manila Southwoods Golf and Country Club is marching towards becoming the first golf course in the Asia/Pacific region to achieve recognition as a Certified Audubon Cooperative Sanctuary.

Manila Southwoods, a 36-hole, Jack Nicklaus-designed course, was developed and is owned by Philippine real-estate giant Fil-Estate. Moore has worked with the Fil-Estate environmental affairs division in order to achieve certification in environmental planning, wildlife and habitat management and water conservation.

Having already developed programs to address the remaining certification requirements, Southwoods is well on its way to full certification. "We are in the home straight now," said Moore. "We

I expect the Integrated Pest Management certification to be interesting. On one hand, they don't use a lot of herbicides because they have workers that pick out the weeds, but on the other hand they have workers who eat endangered species.

— Audubon biologist Joellen Zeh

aim to have all of the components completed before we host the Philippine Open on May 27."

Moore has been hard at work to make sure that happens.

In preparation for the outreach and education certification, Moore has been holding monthly "eco-field trips" for local school children. During the field trips, youngsters learn about wildlife

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2nd Birdwatching Open scheduled

Birdies will be the order of the day on May 8 when Audubon International sponsors a special birdwatching competition on golf courses.

The second annual North American Golf Course Birdwatching Open presents an ecological twist to golf's traditional U.S. Open tournament. The event will take place on Certified Audubon Cooperative Sanctuaries and Audubon Signature Sanctuaries on Saturday, May 8, to coincide with International Migratory Bird Day. Birdwatching teams will record bird species during a 24-hour period to record data on migratory birds on golf courses.

The North American Golf Course Birdwatching Open is a light-hearted competition to raise awareness about the importance of golf courses for birds, especially migratory species that breed in North America and spend the winter in Central and South America. Many of these species stop at golf courses to rest and "re-fuel" during their long-distance flights, but others stay to breed and raise their young in a variety of non-play habitats, such as woods, prairie, or wetlands on golf course properties.

Last year's North American Birdwatching Open gathered valuable data about the great diversity of birds on golf courses that are managed with wildlife and the environment in mind. Thirty-six certified Audubon courses competed for the greatest number and diversity of bird species and when the results were tallied, we recorded a total of 273 species on golf courses. This included many common species and a few unusual sightings

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First certified Philippine course

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and habitat enhancement, water recycling and conservation, solid waste management and other environmentally friendly practices on the golf course. They also participate in planting trees and building bird houses for the 50 species of bird life that have been identi-

fied on the golf course property.

Moore has also been very successful in generating interest among Southwoods' members and getting them involved in the certification process.

"The club has really matured over the last few years and members have been very

supportive in creating wildlife habitats within the premises as urban and commercial development increases in the area," said Moore.

Not only have members been strong participants in the adopt-a-tree program, they have also helped to identify new species of bird life by filling out bird record cards that are placed strategically around the course.

With this help and support,

Moore has identified more than 150 diverse plant species ranging from native grasses to indigenous fruit and hardwood trees.

So far, Joellen Zeh, staff ecologist for the New York-based Audubon Cooperative Sanctuary System, has been very impressed with Fil-Estate's and Moore's efforts and innovations. "Not only have they gone further than any other golf club in Asia, their

presentations for each category have been immaculately prepared," said Zeh.

However, Zeh has come to expect some surprises in the certification process for Southwoods. "I expect the Integrated Pest Management certification to be interesting," said Zeh.

"On one hand, they don't use a lot of herbicides because they have workers that pick out the weeds, but on the other hand they have workers who eat endangered species."

Cultural differences aside, Zeh was particularly pleased with Moore's work on the water conservation certification.

Noting the trash and debris that was entering the Southwoods property through public waterways, Moore and the Fil-Estate environmental affairs division worked with residents in the community and educated them about solid waste disposal and then helped them set up a trash removal system.

"This demonstrates that a golf course can be very beneficial to local communities," said Zeh. "In developing countries like the Philippines that is more true, because golf courses have resources that the community doesn't have."

Moore and Fil-Estate's environmental affairs division couldn't agree more and they continue to strive towards full certification and proving that well-managed golf courses can provide substantial benefits to the environment and the community.

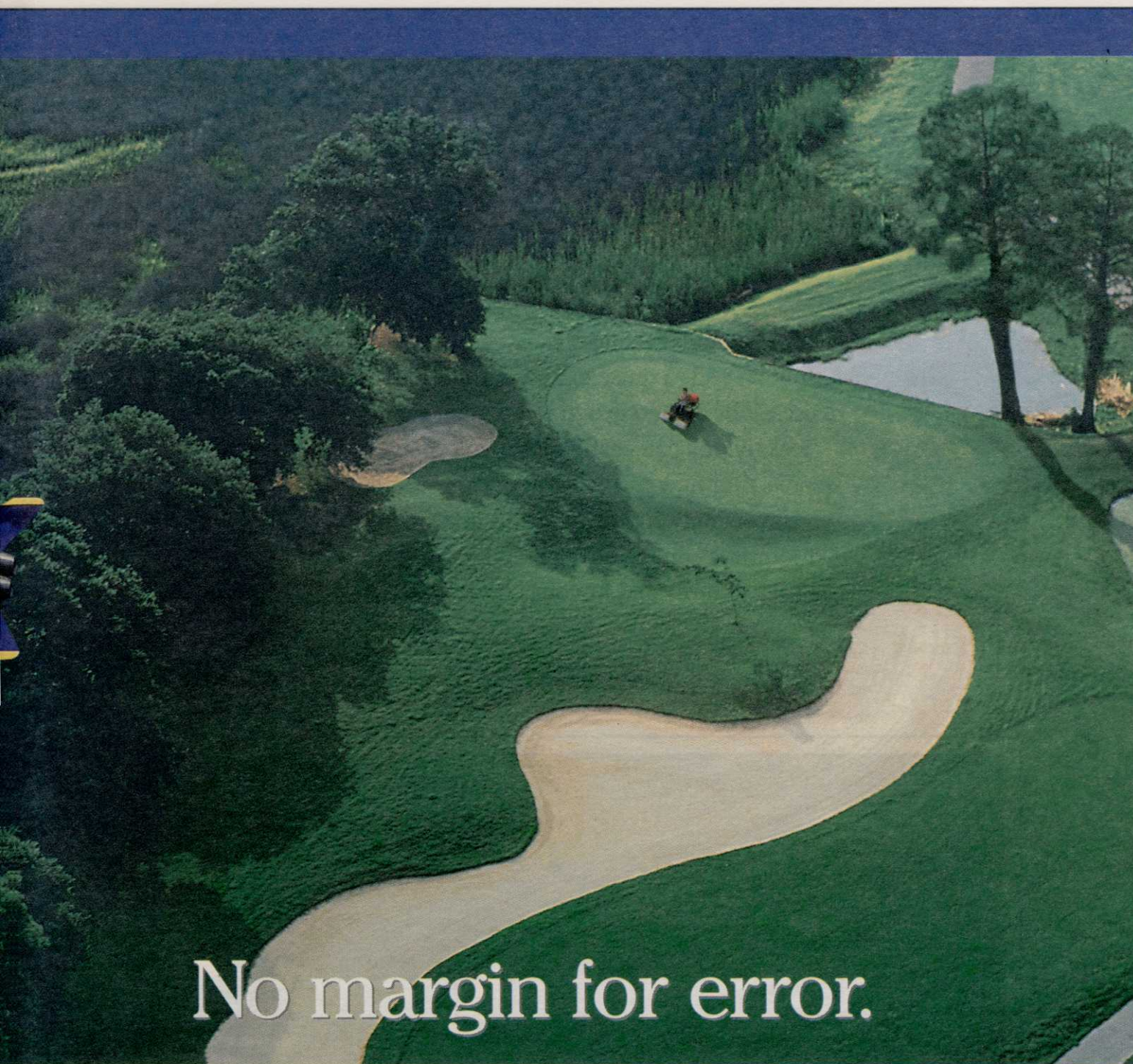
Pine Valley

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process has been very enjoyable for our members and employees, as well as the Pine Valley community. Audubon has made us more aware of protecting and enhancing the wildlife and natural resources on Pine Valley's 620 acres."

"Pine Valley Golf Club has shown a strong commitment to its environmental program. They are to be commended for their efforts to provide a sanctuary for wildlife on the golf course property," said Joellen Zeh, staff ecologist for the ACSS.

"To reach certification, a course must demonstrate that they are maintaining a high degree of environmental quality in a number of areas," explained Zeh. These categories include: Environmental Planning, Wildlife & Habitat Management, Outreach and Education, Integrated Pest management, Water Conservation, and Water Quality Management. Golf courses from the United States, Canada, and Europe have also achieved certification in the program.



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