

Stepping Toward Sustainability

As we step into the 21st Century, the opportunity and inspiration to move forward in a more sustainable way is upon us. How can we incorporate new technologies that generate less pollution and build healthier human communities? How can we better balance the needs of people, wildlife, and the ecosystems upon which we depend?

Several members of the Audubon Cooperative Sanctuary Program have already taken up the challenge of answering the new century's pressing questions. What follows are snapshots of how they are contributing to a more sustainable future.



Conserve School, WI

Conserve School's Living Machine will be housed in a large greenhouse. Bacteria, plants, and animals in huge filtration tanks will digest and naturally filter campus wastewater.

Choosing Viable Alternatives

Conserve School,
Land O'Lakes, Wisconsin

When the Conserve School, an Audubon Signature Program member, opens its doors in 2002, many aspects of campus life won't resemble that of a typical high school (see *Sense of Place*, page 3). With an emphasis on environmental stewardship and sustainability, the school will be employing the latest technologies and practices from its classrooms to its restrooms. Yes, restrooms. In addition to standard low-flush toilets and water saving devices, the school is constructing a biological treatment system known as a Living Machine® for its wastewater. The Living Machine is an effective and economical system that can be used to treat high-strength industrial wastewater and sewage.

filter the wastewater. The resulting effluent will be 25 to 30 times cleaner than that produced by a septic system and will be used to irrigate the campus landscape. Students will be involved in Living Machine operations and will use it for research experiments.

Living Machines are successfully in use at a diversity of sites worldwide, including industries, schools, nature centers, and highway rest areas. To find out more about Living Machines®, visit <http://www.livingmachines.com>.

Creating Solutions

Cateechee Golf Course,
Hartwell, Georgia

Overwhelmed by increasing community growth in Hartwell, Georgia, and its demand on existing wastewater treatment facilities, the Georgia Environmental Protection Division, the city of Hartwell, and local businessman J. Lee Barton teamed up to solve the problem creatively. With the help of the Audubon Signature Program, the partners built an environmentally-friendly golf course adjacent to the water treatment plant that now uses the plant's effluent water for irrigation.

Opened late in 1997, Cateechee Golf Course uses more than 1 million gallons of treated wastewater per day. The high volume of water used on the property requires the course to carefully monitor water quality, routinely communicate with the treatment plant, and be ever alert to proper maintenance of the drainage system.

With the course in operation, the water treatment facility has been able to abandon its practice of discharging effluent water into a local stream. As an added benefit, the golf course preserves much of the land's natural features and includes wildflower and tall grass areas that provide additional wildlife habitat. To learn more about Cateechee Golf Course or the Audubon Signature Program, contact Nancy Richardson, Signature Program Director, at 270-869-9419.

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Cateechee Golf Course, GA

By using treated wastewater for irrigation, Cateechee Golf Course is helping the community of Hartwell mitigate increasing demands on its wastewater treatment facility and eliminate stream discharges of effluent water.

Audubon International Vision

Choosing Our Future

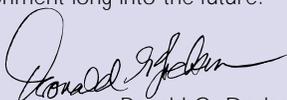
Take a look around your neighborhood. Have more cars, strip malls, or poorly planned developments replaced agricultural land and open space in your community? Do you and others in your town use resources such as water, energy, agricultural lands, or forests, in a way that ensures their continued health and viability for generations to come? Is commercial, industrial, and residential growth carefully planned and integrated to preserve the best environmental and community assets of your region? These are all questions of sustainability, and we believe that we must ask and honestly answer them to begin moving toward a more sustainable future.

Sustainability means that human beings should use the earth's natural resources and manage their daily lives in a manner that will improve the quality of their lives and the environment, while not adversely impacting the quality of other people's lives—both those living as well as those yet to be born. Sustainability means that we must purchase products, use products, build buildings, and manage land in ways that will not adversely impact the functioning of earth's ecosystems, which are necessary to sustain all life.

Sustainability does not mean "anti-growth." Hence, *smart growth* initiatives beginning to take center stage across the country are essentially about forging partnerships among government, business and industry, and environmental, agricultural, and community groups to create a future *that we choose* rather than one that we get by default. What results may be some of the most exciting and hopeful work we've ever known to build stronger, healthier communities for everyone.

On a more personal level, sustainability is a method of thinking and making decisions. For instance, if you do not know where the water you drink and the food you eat comes from, maybe you need to find out. What is the impact of the car you drive or the chemicals you use? If you find that there could be adverse consequences to the environment as a result of your present actions, maybe you ought to change them. These are not big steps, but they are significant first steps toward a more sustainable future.

Put simply, sustainability is a journey, not a destination. The actions we take now on a personal and community basis will make a lasting difference for people and the environment long into the future.



Ronald G. Dodson, President

Stepping Toward Sustainability

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Making Recycling Possible

Griffin Industries,
Cold Spring, Kentucky

Did you ever wonder where your recyclables go after they leave your doorstep or your town's recycling center? Did you ever wonder where the products you use each day—from soap to plastic bags to paper towels—come from? ACSP Business member, Griffin Industries, headquartered in Cold Spring, Kentucky, is a company that stands at the forefront of both making recycling happen and bringing a variety of usable products to market.



Griffin Industries, KY

Griffin Industries has made environmental stewardship a company policy.

In the United States, 95–100% of animal materials and bakery byproducts are continually recycled into high quality products by companies like Griffin Industries. But Griffin has gone one step further by making environmental stewardship a company policy and developing environmentally-friendly products. For instance, animal wastes are turned into organic fertilizers and soil conditioners sold under Griffin's *Nature Safe* label. In addition, animal fat in refined forms is a major raw material used in hundreds of commercial products and applications, including all rubber production, plastics, paints and varnishes, cleaners, polishes, soaps, water repellents, and cosmetics.

Griffin Industries is also taking a leading role in using technology patented in Europe to produce an alternative fuel known as *biodiesel*. Derived from a wide range of vegetable oils and feedstocks, biodiesel substantially reduces toxic emissions. Griffin supplies biodiesel to the motor fuel industry, regulated motor vehicle fleets, and other diesel fuel markets.

By developing innovative technologies and manufacturing recycled products, Griffin Industries closes the loop on recycling, while cutting pollution, and promoting a more sustainable future. To find out more about Griffin Industries or Nature Safe natural & organic fertilizers, contact Rick Geise, Director of Marketing, at 606-572-2558.

Measuring Sustainable Business Practices

Trucost, New Zealand

Just what is the environmental impact over the next 10,000 years of disposing of your old toothbrush in a landfill compared to having it incinerated?

While such a question may seem absurd, it points to the very relevant issue of how the manufacture, use, and disposal of the myriad products we use may adversely impact the planet.

To date, a variety of methods have been invented to measure environmental impact, yet because of the complexity of the problem, the process is notoriously difficult. As consumers, we have little, if any, knowledge of whether the companies who make what we buy implement environmentally-sustainable practices, and little ability to make informed decisions about those products...yet. Just such a rating system is now in the works.

Called *Trucost*, the tool can give an environmental sustainability rating for any company in any industry in any country. Developed in New Zealand, Trucost has a patent on the process and is presently gearing up to offer it to companies in the United States and Europe. The aim of the Trucost rating is to evaluate the environmental sustainability of companies and give consumers a choice between different products based on this criterion, just as they currently choose on price. Audubon International has been a key player in an international review team helping to develop the Trucost Index. The final rating tool will be comprehensive and practical, yet cost effective for companies to implement. To find out more, visit the Trucost website at: www.trucost.net



Educating Environmental Stewards

Audubon Signature Program Helps Conserve School Realize Its Dreams

By Beth Black, Dean of Students

Back in 1965, James R. Lowenstine began to envision a future use for his 1,200-acre estate in northern Wisconsin. Plans evolved for a school that would teach youth to appreciate the natural beauty of the Northwoods and motivate them to become ethical environmental stewards of the future. In 2002, six years after his death, Conserve School will open its doors to realize that dream. A non-sectarian, independent, coeducational residential high school, Conserve School will offer students a unique educational opportunity through its innovative, interdisciplinary curriculum focused on 21st century sustainability issues and ethical leadership.

Protecting An Incredible Site

Conserve School is located on 1,200 acres of Jim Lowenstine's former estate in Land O'Lakes, Wisconsin, a small resort community whose population of 800 year-round residents nearly doubles in the summer months. Known for its thick birch and evergreen forests, pristine lakes, wetland marshes, and abundant wildlife, this Northwoods retreat provides an idyllic setting for a school devoted to preserving the balance of nature. Future students will share their home with white-tailed deer, bobcats, black bears, bald and golden eagles, woodpeckers, red foxes, fishers, and other wildlife.

Staff from the school, an architectural/engineering firm, and the Audubon Signature Program are working closely together to develop the Conserve School with sensitivity and respect for the site and the school's educational mission. The goal has been to design a land development project that future students can study as a model of careful, ethical environmental planning. School buildings will occupy only 120 acres of the 1,200-acre campus, leaving most of the land and the seven lakes on the property as an "outdoor classroom" for students.

Combining Innovative Technologies With Common Sense

Nestled amid the birch trees on the Conserve School site will be five residence halls, an academic building, a recreation center, a maintenance center, and an ecological waste water treatment facility called the "Living Machine®"—a series of tanks filled with plants, animals, and bacteria that will naturally filter campus wastewater into effluent that can be used in irrigation (*See article on page 1*).

During construction, great care is being taken to ensure that the fewest possible trees are removed, wildlife habitats are not disturbed, and impact on the ecosystem is minimized. Lumber from trees that must be removed is being used for exterior facing of the buildings, auditorium flooring, and stu-



Plans for the Conserve School in Wisconsin call for careful, ethical environmental design and construction and a curriculum focused on ecology and stewardship.

dent projects. Conserve School is also participating in a regional re-forestation effort to restore the pine ecosystem that existed throughout the Northwoods in the early 1800s.

Inspiring Future Leaders

Experimentation and invention will be stressed throughout the Conserve School curriculum. In addition to college preparatory courses and studies of diverse global ecosystems, students will participate in hands-on, problem-solving activities. They will learn to generate creative solutions for the ecological concerns of the area, use the latest technologies as sustainability tools, and help area residents to understand and resolve issues such as changes in the water levels of nearby lakes, excessive destruction of wildlife habitat by beavers, or decreases in the loon population.

"Imagine the future," says Dr. John Friedrich, Director of Conserve School, "when skilled, knowledgeable, ethical Conserve School graduates hold key positions in industry and government and are able to influence community decisions about land use, air and water quality standards, and protection of wildlife habitats!" Friedrich is excited about providing students with real opportunities to work on restoring the balance of nature. In the meantime, as construction crews prepare for students to arrive, deer and eagles continue to keep a close watch on Jim Lowenstine's land—and his dream.

To learn more about the Conserve School, visit its web site at: www.conserveschool.org.

Developing an Ecologically-Sustainable Community

Property:	Provenance: An Ecologically Sustainable Community Project
Location:	Henderson, Nevada
Principal Partners:	Audubon International and The LandWell Company

Just twelve miles southeast of the Vegas Strip, in Henderson, Nevada, a renaissance is under way in the form of a new master-planned community. The story begins with a land developer, The LandWell Company, which looked at a forlorn piece of earth that had endured contamination resulting from manufacturing that supported the war effort during World War II and subsequent industrial activities. They began to ask themselves one very simple question: “*what if?*”

“*What if we could heal the land?*” “*What if we could make it beautiful again?*” “*What if we created something completely different?*”

Soon “*what if?*” turned into “*why not?*” and their answers led to a partnership with Audubon International. By working together, LandWell and Audubon International are developing an ecologically sustainable community that will restore the desert, improve the area’s environment, and provide a true community for the people that will live there.



The Provenance site is located in Henderson, Nevada, a “gateway community” into the Las Vegas region and the second largest city in the state. The 3,200-acre property lies within the Southern Basin and Range ecological region. The current status of the site presents enormous opportunities for large-scale ecological restoration.

courses, all interconnected by parks and trails. Wildlife corridors will connect a network of natural reserves throughout the property. As an Ecologically-Sustainable Community Project, Provenance will be designed to weave together the basic tenets of smart growth: *ecological viability, economic feasibility, and social desirability.*

Project Description

The Provenance community will include neighborhood homes, business parks, a town center, and several golf

Key Site Features

Contaminated & Abused Land—One of the greatest opportunities and challenges of the Provenance project is the site itself. The property has had a long history of industrial use as a deposition area for wastes, and has



The Las Vegas Wash is a significant site feature. Project plans call for its enhancement and protection.

R. Dodson



R. Dodson

Cleanup and ecological restoration of the site's numerous dumpsites and hazardous waste areas is currently underway.

endured years of contamination and abuse from off-road vehicles and illegal residential trash dumping. Approximately 400 acres are polluted with a variety of contaminants, including metals, pesticides, and asbestos. As a result, the land suffers from a serious lack of habitat, diminished wildlife populations, and an overall loss of environmentally redeeming qualities.

The current status of the site presents enormous opportunities for large-scale ecological restoration. The first phase of the project calls for cleanup and decontamination of *brownfield* areas and the restoration of 2,800 acres of the Mojave Desert.

The Las Vegas Wash—Another significant aspect of the site is the Las Vegas Wash, which flows through the property. Formerly a natural wash that collected seasonal storm water, it is now a nearly twelve-mile channel with year-round flows from treated wastewater, urban runoff, shallow ground water, and storm water runoff. Despite its often-poor water quality, the wash provides substantial recreational opportunities and wildlife habitat, and acts as a filter for water inflows to Lake Mead, the region's water supply.

Project plans call for overall restoration of the impaired land, creation of significant acreages of native and natural habitat, including several riparian corridors and wetland areas, and natural landscaping for the community. Protecting the Las Vegas Wash from contaminated runoff and invasive plant species will also be important components.

The Site Development Plan

The development of an ecologically sustainable community at Provenance is a multi-step process requiring

long-term planning and project implementation to be phased in over a number of years.

Step 1: Site Assessment and Ecological Evaluation—A site assessment team, including numerous specialists brought together by Audubon International, first conducted site surveys and multiple analyses of site conditions.

Step 2: Development of an Environmental Master Plan—A set of detailed documents is being prepared for Provenance, which constitute the Environmental Master Plan. These documents provide a working plan for the ecologically responsible development of Provenance, as well as the vision for its future management and operations.

Step 3: Implementation—Project implementation for such as vast project will take place in several stages, including: *Restoration, Construction, and Community Education*. The restoration phase is currently underway.

Cooperative Partners

A diversity of experts has been charged with the task of coordinating, developing, and completing various aspects of the project. The team includes environmental and land planners, wildlife biologists, turf and soil scientists, sustainable building technology specialists, and others.

For More Information

Contact: Natalie Archambault,
Administrative Coordinator
Audubon International Institute,
Environmental Planning Department
natarc@audubonintl.org
(919) 380-9640

Wildlife and Habitat Management Backyard Basics

Whether your backyard is a golf course, there are some of the most commonly asked

What type of seed should I use in my bird feeders and what can I do to keep squirrels from eating most of it?



De Bary Golf & Country Club, FL

A gray squirrel can jump 8 feet sideways, 4 feet straight up, and 15 feet down. When possible, feeders should be more than 8 feet from a tree or building and should not be under anything from which a squirrel can easily jump. If the feeder is on a pole, protect it with a squirrel baffle at least 18 inches wide.

Research continually demonstrates that black oil sunflower seed is the number one choice of most birds that frequent feeders. Smaller finches, siskins, and towhees, as well as larger cardinals and grosbeaks, can easily crack black-oil seed, while sparrows, wrens, and juncos eat the leftovers that fall to the ground. You can diversify your feeder offerings by adding suet cakes, mealworms, thistle, or millet, and by varying the placement and type of feeders you put out.

As for minimizing the damage and frustration of squirrels hogging your seed, we have only bad news to report. Fifty to 80 million people watching and feeding birds in the United States have been busily experimenting for years with all sorts of mainly useless contraptions to keep squirrels out. Feeder manufacturers recommend baffles and squirrel-proof models, but squirrels are quick to find a way around them. The fact is, neither squirrels nor birds know or care that you've put out seed exclusively for birds. To reduce squirrel feeding, try changing the location of your feeder from time to time, regularly cleaning up dropped seed and hulls, or removing feeders during the summer when natural food sources are plentiful.

You often recommend planting native species of shrubs, trees, and flowers. How do I tell what's native when I'm at the nursery buying plants?



Consult a regional native plant list before you shop to learn what will grow best in your location. Purple coneflower is an excellent choice for gardens in prairie states and throughout much of the Northeast.

It's often difficult to determine what is native and what is not from reading a plant tag at a nursery. While some nurseries have highly knowledgeable staff who can help you make selections that are best for your property, many nurseries employ seasonal personnel that have little more than basic horticultural knowledge. Thus, you must do some research *before you shop* to find out what plants are native to your area.

In each ACSP new member packet, we provide a regional native plant list to help you get started. Plant lists for flowers that attract hummingbirds, butterflies, and songbirds, as well as lists of aquatic plants, are also provided. If you need another copy, don't hesitate to call us.

Review these plant lists to see what plants you are familiar with and what ones might be suited to your site. Refer to garden reference books to look at pictures of the plants and learn more about their growth requirements. This will help you to narrow the selection of potential plants for your site. When you visit a nursery, take your plant list along. Then you can seek out those that interest you, or take a first hand look at plants that are unfamiliar to you. In this way, you'll not only learn what's native, you'll be able to seek out the best plants available for your landscape.

l is a small suburban lot, a school courtyard, landscaped business park, or 200-acre stewardship opportunities and challenges we all share. Here are answers to our questions about providing valuable wildlife habitat.

I have several nest boxes up for birds—how often should I check them or clean them out?

USGA



Cleaning out old nests is an important part of yearly nest box maintenance.

During the mating and nesting season from early spring through the summer, open and check nest boxes as often as once per week. This won't make the birds abandon the nest, but it will enable you to spot problems such as predation or blowflies, and monitor and record the success of birds nesting on your property.

To check the box, first knock on the side to warn birds that may be inside of your presence. Then open the box, take note of the nesting material, and count eggs or young. Keep a notebook or simple chart to record what you find. Include information about the species of bird using the box, the number of eggs and young, and the approximate dates of nest building and egg laying, as well as when the young leave the nest. Note any problems you encounter. If a nest box goes unused for a year or two, try moving it to a new location.

You can remove the old nesting material after each group of young leaves the nest. Clean out each nest box in the fall. A small paint scraper is an excellent tool for lifting out the nest and scraping debris from the box.

Hot, dry weather is in the forecast for much of the country again this summer. How can I keep my plants growing, yet still conserve water?



Fair Hills & Five Lakes Resort, MN

Designate landscape zones to fine-tune irrigation. Naturalized areas, like this one at Fair Hills & Five Lakes Resort in Minnesota, require minimal watering once established.

Start by analyzing your landscape and defining distinct zones based on water needs. *Natural Habitat Zones* can survive on rainfall alone; *Low-Water Zones* are areas that can survive mostly on rainfall, but may require a little additional watering; and *Moderate Water Zones*, such as vegetable gardens, flowerbeds, and functional turf areas, will require regular watering during drought. Next, refine your irrigation system to put water only where you need it most. While a sprinkler system works best for lawns, use soaker hoses and drip systems to substantially reduce water use in gardens. Check hoses, nozzles, and sprinkler heads for leaks on a regular basis. In addition, use mulches in flower and vegetable gardens to retain moisture, reduce evaporation, and eliminate weeds.

Keep in mind that water conservation during drought years has a significant effect on ensuring that reservoirs and wells can adequately handle daily customer use, while maintaining capacity for emergency needs, such as fire. Conserving water also helps streams, rivers, lakes, and wetlands maintain sufficient water to provide healthy habitat and flush out pollutants. Every drop you save counts!

Malformed Frog Limbs Point to Environmental Insult

An extensive study of bone changes found in deformed frog limbs shows that both *time-specific* and *location-specific* environmental events might influence the development of these malformations. The research, highlighted in the upcoming issue of the journal *Teratology* (the study of biological monstrosities and malformations), helps shed light on the problem of frog deformities discovered at numerous sites across the country. Likely suspects include: chemical contamination, infection with the parasitic worm *metacercariae*, exposure to the sun's ultraviolet rays, physical trauma, or some combination of these environmental insults.

The study shows that frogs that have been found at the same sites are exhibiting the same types of malformations: most commonly, missing or multiple limbs. In addition, the malformations appear to be the result of environmental factors affecting frog limb development during the early tadpole stages as the amphibians change from tadpole to adult frog.

Currently, deformities have been documented in thirty-eight species of frogs and nineteen species of toads in forty-four U.S. states. Scientists now agree that current numbers of reported malformations exceed any norm and that the situation warrants urgent attention.

The data represent 180 frogs collected at sixteen sites in three states—Maine, Minnesota, and Vermont—over a two-year study period. The findings are the result of a large multi-agency effort involving the USGS National Wildlife Health Center, University of Wisconsin Department of Anatomy, National Institute of Environmental Health Sci-



Minnesota Pollution Control Agency

ences, Minnesota Pollution Control Agency, Vermont Agency of National Resources, and the U.S. Fish and Wildlife Service.

As a member of PARC, Partners for Amphibian and Reptile Conservation, Audubon International is following research trends related to frog protection and encouraging members to get involved in local conservation projects. This recent research points to the need for all of us to stay informed on this emerging environmental issue and continue environmental management practices that enhance and protect amphibian habitats.

To find out more about what you can do, contact AI Information Specialist Kate Vejvoda at (518) 767-9051, extension 24, or e-mail: kvejvoda@audubonintl.org, to request a copy of "Fantastic Frogs," a fact sheet on frog conservation.

Floating Habitats

Turtles and waterfowl love to bask in the sun. Unfortunately, many ponds don't provide ample natural basking sites, such as partly submerged rocks, downed trees, or limbs. Ted Andresen of St. Petersburg, Florida set out to create a structure that would serve as an attractive basking site for a variety of creatures. The floating platform he designed has now been tested at a number of sites and offers a welcome refuge for turtles as well as birds, including herons, ducks, cormorants, and more.

You can build your own floating platform for local wildlife. The floats provide waterfowl and turtles a safe place to rest, forage, or bask in the sun. People like floating turtle platforms because turtles and waterfowl use them almost immediately. Plans and instructions are available at Andresen's website: <http://members.aol.com/tjacmc>.



Ted Andresen

Visit Audubon International's website and on-line store for educational resources, books, videos, nest boxes, flags, and more!

<http://audubonintl.org>

Birds on the Links

Audubon International's *North American Golf Course Birdwatching Open 2000* turned up 337 different species of birds on the fifty-three golf courses that participated in this year's event. Held on May 13th to coincide with International Migratory Bird Day, the friendly competition among certified Audubon Cooperative Sanctuary golf courses gathers data over a 24-hour period and raises awareness of bird conservation on the links.

Eagles Landing Golf Course in Maryland turned in this year's highest number of species recorded: eighty-five. Birders at **Olympia Fields Country Club** in Illinois sighted eighty-two species and **Top of the Rock Golf Course** in Missouri came away with eighty species, to place second and third respectively.

The results of the Open show that golf courses play a valid role in bird conservation and can be important for wildlife in general. The diversity of species overall and the number of birds recorded per site reflect both the geographical spread of golf courses across North America and the wide range of habitats found on and around these sites.

In the end, the greatest challenge of the Birdwatching Open is not in counting the most birds, but in calling all golf courses



Harbour Ridge Yacht & Country Club, FL

to take account of wildlife and other environmental aspects of management. When properly maintained, golf courses can make a valuable contribution to the rich diversity of avian species across North America.

USGA Grants \$95,000 To Club Managers Association of America Funds to support Environmental Performance Audit developed by Audubon International

The United States Golf Association recently awarded a \$95,000 grant to the Club Managers Association of America (CMAA) to assist with the implementation of its full facility environmental audit for clubs. In cooperation with Audubon International, the U.S. Environmental Protection Agency, and the Golf Course Superintendents Association of America, the USGA has provided the grant to further initiatives to preserve and enhance the environment.

The voluntary self-audit allows club managers to assess all aspects of the club operation strategically in terms of its environmental impact on the community in which it is

located. The audit checklist addresses areas throughout the club, including dining facilities, parking lots and roads, maintenance facilities, and recreational amenities. It is also the vehicle by which the club supervisory employees can identify challenges in their environmental practices and set a working strategic plan to enhance those practices. *For more information about the USGA Foundation Grants Program, contact the USGA grants office at (719) 471-4810. Information about the CMAA audit can be obtained by calling Kathy Driggs at CMAA at (701) 739-9500.*

New Kids Gardening Web Site Launched

A new resource for people who garden with kids is now available from the National Gardening Association, a non-profit organization dedicated to the advancement of gardening knowledge and resources. The site is an interactive hub where anyone who gardens with children—in schools, communities, or homes—will find inspiration, ideas, and resources. We hope the site will prove a useful tool for ACSP members who garden with kids. The website can be accessed at <http://www.kidsgardening.com>.



J. Mackay

membership

NEWS

New Golf Members

AUSTRALIA

Klub Golf Rimba Irian, Cairns

SCOTLAND

Gleneagles—Kings, Auchterarder, Perthshires
Gleneagles—Monarch's, Auchterarder, Perthshires
Gleneagles—Queens, Auchterarder, Perthshires

ARIZONA

Palo Duro Creek Golf Club, Nogales

CALIFORNIA

Scholl Canyon Golf Course, Glendale
Braemar Country Club, Tarzana
Valencia Country Club, Valencia
Spring Valley Lakes Country Club, Vickerville
Shadow Ridge Golf Club, Vista

COLORADO

Aurora Hills Golf Course, Aurora

FLORIDA

Grenelefe Golf & Tennis Resort, Haines City
Lely Resort Golf & Country Club, Naples
Naples Lakes Country Club, Naples
The Strand, Naples
MGGI—Hidden Creek, Navarre
Presidential Country Club, North Miami Beach
IGM—The Major's Golf Club, Palm Bay
Camp Creek, Panama City Beach
45 CES/CEVP United States Air Force,
Patrick Air Force Base
MGGI—Walden Lake Golf & Country Club,
Plant City
Burnt Store Marina & Country Club, Punta Gorda
MGGI—Shalimar Point Golf & Country Club,
Shalimar
Eagle Ridge, Summerfield
Old Memorial Golf Club, Tampa
Vero Beach Country Club, Vero Beach

IOWA

Brigs Woods Golf Course, Webster City

ILLINOIS

Idlewild Country Club, Flossmoor
Glenview Park District, Glenview
Tamarack Golf Club, Naperville
Mission Hills Country Club, Northbrook

INDIANA

Betsy Lane, Zionsville

KANSAS

Ironhorse Golf Club, Leawood
Deer Creek Golf Club, Overland Park
Meadowbrook Country Club, Prairie Village

KENTUCKY

Indian Hills Country Club, Bowling Green

MASSACHUSETTS

The New England Country Club, Bellingham
Ballymeade Country Club, North Falmouth
The Orchards Golf Club, South Hadley

MARYLAND

Bay Hills Golf Club, Arnold
MGGI—Tantallon, Ft. Washington
MGGI—Patuxent Greens Country Club, Laurel
MGGI—Marlborough Country Club, Upper Marlboro

MISSOURI

Prestwick Plantation, Cape Girardeau

MICHIGAN

Tradition Hills, Bloomfield Hills

MINNESOTA

The Links at Northfork, Ramsey

MISSISSIPPI

River Bend Links, Robinsonville

NORTH CAROLINA

TPC at Raleigh, Raleigh

NEW JERSEY

Valley Brook Golf Club, River Vale

NEVADA

Mt. Falls Golf Course, Pahrump

NEW YORK

Colgate University Seven Oaks Golf Course, Hamilton
Long Island National, Riverhead
Brook-Lea Country Club, Rochester
Richmond Country Club, Staten Island

PENNSYLVANIA

Applebrook Golf Club, Malvern

SOUTH CAROLINA

Port Royal Resort—Robber's Row, Hilton Head Island
Brays Island Course, Sheldon

TENNESSEE

Three Ridges Golf Course, Knoxville

TEXAS

Whitestone Golf Club, Benbrook
Diamond Oaks Country Club, Fort Worth
South Padre Island Golf Club, Laguna Vista
Pinnacle Country Club, Mabank
Quail Valley Country Club, Missouri City
Waterview Golf Club, Rowlett
Whispering Pines Golf Club, Trinity
Cottonwood Creek, Waco

VIRGINIA

MGGI—Birkdale Golf & Country Club, Chesterfield
MGGI—Montclair Golf, Tennis & Swim Club,
Montclair
MGGI—Kiln Creek Golf & Country Club,
Newport News
MGGI—Prince William Golf Club, Nokesville
MGGI—Broadbay Country Club, Virginia Beach

VERMONT

Rocky Ridge Golf Club, St. George

WISCONSIN

MGGI—Silver Springs, Menomonee Falls

WYOMING

Devils Tower Golf, Hulett

Newly Certified Audubon Cooperative Sanctuary

Golf Courses

Chenal Country Club
Little Rock, AR

Glen Annie Golf Club
Goleta, CA

Saddle Rock Golf Course
Aurora, CO

Fox Hollow at Lakewood
Lakewood, CO

Amana Colonies Golf Course
Amana, IA

Elgin Country Club
Elgin, IL

Knollwood Country Club
Granger, IN

Holly Hills Country Club
Frederick, MD

Eagle Springs Golf Course
St. Louis, MO

Minisceongo Golf Club
Pomona, NY

Glens Falls Country Club
Queensbury, NY

Gaillardia Golf & Country Club
Oklahoma City, OK

Airport Golf Course
Cheyenne, WY

Powder Horn
Sheridan, WY

Re-Certified Golf Courses

Amherst Country Club, Amherst, NH
Baker National Golf Course, Medina, MN
Bonita Bay: Creekside, Bonita Springs, FL
Bonita Bay: Island Course, Bonita Springs, FL
Bonita Bay: Marsh, Bonita Springs, FL
Chester Valley Golf Club, Malvern, PA
Eagle's Landing Golf Course, Berlin, MD
Edgewood Country Club, Sissonville, WV
Flossmoor Country Club, Flossmoor, IL
Forest Highlands Golf Club, Flagstaff, AZ
Forest Hills Country Club, Rockford, IL
Fox Hills Country Club, Plymouth, MI
Gustin Golf Course, Colombia, MO
Lakewood Country Club, Lakewood, CO
McCormick Woods Golf Course, Port Orchard, WA
Minikahda Club, Minneapolis, MN
Morro Bay Golf Course, Morro Bay, CA
Palmetto Hall Plantation, Hilton Head, SC
Panama Country Club, Lynn Haven, FL
Persimmon Country Club, Gresham, OR
Portland Country Club, Falmouth, ME
Pottawatomie Golf Course, St. Charles, IL
Prairie Dunes Country Club, Hutchinson, KS
River Hills Country Club, Valrico, FL
Robert Trent Jones Golf Club, Gainesville, VA
Royal Oaks Country Club, Vancouver, WA
Schuyler Meadows Club, Loudonville, NY
Silver Lake Country Club, Orland Park, IL
Somerset Hills Country Club, Bernardsville, NJ
Summit Country Club, Owensboro, KY
Tampa Palms Golf & Country Club, Tampa, FL
TPC at Heron Bay, Coral Springs, FL
TPC at River Highlands, Cromwell, CT
TPC at Summerlin, Las Vegas, NV
TPC of Tampa Bay, Lutz, FL
Valderrama Golf Club, Cadiz, Spain
Widji Creek Golf Club, Bend, OR
Winged Foot Golf Club, Mamaroneck, NY

New Business Members

FLORIDA
Bay Colony Community Association, Naples

MASSACHUSETTS
Canyon Ranch in the Berks, Lenox

PENNSYLVANIA
Villanova University, Villanova

Newly Certified Audubon Cooperative Sanctuary

Businesses

Griffin Industries (Butler)
Butler, KY

New School Members

MASSACHUSETTS
Burgess Elementary, Sturbridge

MISSOURI
Rolla Jr. High, Rolla

NEW YORK
Iroquois Central School, East Aurora
Elma Primary School, Elma
Marilla Primary School, Marilla

VIRGINIA
Rawls Byrd Elementary, Williamsburg

Newly Certified Audubon Cooperative Sanctuary

Schools

Salem Elementary
Salem, MI

Sanford Avenue Elementary
Eufaula, AL

New Backyard Members

CALIFORNIA
Mahala Burton, Cambria

FLORIDA
Ms. S. Jayne Simon, DeBary
Ms. Marsha Greenhut, Longwood

MARYLAND
Ms. Sarah Gyger, Cumberland

MICHIGAN
Mr. Ed Pierce, Livonia

MINNESOTA
Ms. Lynne Schoenborn, New Hope

NORTH CAROLINA
Marsh Smith & Paige Burns, Carthage

NEW YORK
Ms. Phyllis L. Rauch, Woodmere

TEXAS
Mr. & Mrs. Michael & Joey Kuhlman, Kingwood

VIRGINIA
Ms. Catherine Waterhouse, Orlean
Mr. Curt G. Bluefield, Warrenton

Newly Certified Audubon Cooperative Sanctuary

Backyards

Ms. Shari Beale-Hasenmueller
Hamlet, NC

Ms. Linda E. Wilken
Westerlo, NY

Learning And Sharing Help Put Stewardship Into Practice

Scott A. Martin,
National Coordinator, ACSSC

Summer is finally here and I hope you are all getting a chance to get out and enjoy it. Personally, I am using every opportunity to take my new baby daughter outside into the garden to teach her about bugs and birds and native plants. I know she can't understand my

words yet, but soon enough, she'll be recognizing robins and cardinals, and collecting critters of all varieties. I'm sure that I will learn a lot from her in return.

Sharing our knowledge and enthusiasm for the natural world is such an important part of creating and spreading awareness and appreciation for our environment. That is really what the

Audubon Cooperative Sanctuary Programs are all about. Audubon staff are here to help you learn and put that new knowledge into practice. In turn, you have wonderful opportunities to teach others around you about what they can do to be environmental stewards. Here are a few examples of the exciting ways that ACSSC members are doing just that.



The Mount Royal Cemetery in Montreal, Quebec, encourages people to visit and enjoy the wildlife and quiet beauty of the cemetery grounds. By providing brochures, checklists, and signs, management and staff create interest and raise environmental awareness.



Staff and volunteers of Whitlock Golf and Country Club in Hudson, Quebec, take their message to a local environmental fair. Creating a display is an excellent way to inform people about your stewardship efforts.



St. Thomas Golf and Country Club in St. Thomas, Ontario, invited local students to help build and place birdhouses on the golf course.

A pond in the backyard of Ann and Don Gloin of Kitchener, Ontario, attracts many different species, including birds that come to shower under the waterfall. Don and Ann enjoy sharing their wildlife-friendly yard with their granddaughters, neighbours, and friends, and offer to help others create their own natural landscaping. ►



Membership News

New Golf Members

Alberta

Ironhead Golf and Country Club, Wabamun

British Columbia

Big Sky Golf Club, Pemberton

Eagle Pines Ranch Golf Course, Invermere

Hirsch Creek Golf and Winter Club, Kitimat

Ontario

Angus Glen Golf Club, Markham

London Hunt and Country Club, London

Wellington On The Lake Golf Course,
Wellington

Quebec

Pinegrove Country Club, St-Luc

New Backyard Members

Ontario

Bob Gollinger, Prescott

Don Turner, North York

Gulshan Lalani, St. Davids

Hillary Jackson & Mark Delorme, Kenora

J. Bremner & P. Cowing, Lakefield

John O'Neill, Baltimore

Irene Bouris, Sparta

Marion Thorpe, Moffat

Theresa Henderson, Azilda

New Business/Corporate Property Members

British Columbia

William Head Institution, Victoria

Ontario

Laughing Dog Herbs and Organics,

Lunenburg

The Haven, Nepean

New School Members

Ontario

Cameron Street Public School, Collingwood

Mowing Smart

Did you know that frequently mowing your lawn can promote a denser stand of grass? Scalping grass every week or two, as many people do to avoid mowing, weakens the grass plant, causes bare spots, and invites openings for weeds to get established. Instead, mow more often and raise the mowing height so that no more than one-third of the grass blade is removed with each cutting for a more even, dense, and healthy lawn. Plus, there's no unsightly mass of clippings to rake or remove. Especially in spring and fall, when grass is growing rapidly, stepping up the frequency of your mowing can help you keep pace with your lawn and take advantage of natural growth cycles to enhance the health of your turf.

STEWARDSHIP news

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EDITOR, Stewardship News
c/o Audubon International
46 Rarick Road
Selkirk, NY 12158

Or sent via e-mail to: jmackay@audubonintl.org

EDITOR: Jean Mackay, Education Director

Contributors: Ted Andresen, Beth Black, Ronald Dodson,
Rick Geise, Branton Kenton-Dau, Jean Mackay,
Nancy Richardson, Katie Vejvoda

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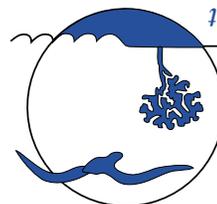


Stepping Towards
Sustainability

SPECIAL
Issue

Helping people help the environment

c/o Audubon International
46 Rarick Road
Selkirk, New York 12158
518•767•9051
Web Page: <http://www.audubonintl.org>
e-mail: acss@audubonintl.org



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