

## Getting Results

### New Survey Confirms Environmental Benefits of the ACSP

Results of a recent survey to measure environmental outcomes of participating in the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP) provide strong support for the program's effectiveness. When queried on a number of measures to improve wildlife habitat, protect water quality, and reduce chemical use, ACSP members reported significant improvements in their environmental management practices, while not sacrificing playing quality or golfer satisfaction.

"As we move into our tenth year of the program, we wanted to obtain more than qualitative information about the results of program participation. Do golf courses that participate achieve the program's desired goal of enhancing and protecting the environment?" queried Larry Woolbright, PhD, Audubon International's Director of Research, who spearheaded the survey. "Information obtained from the survey is significant for *quantifying* results with hard numbers and statistics about how members have improved on a variety of environmental measures."

### Members improve wildlife habitat and reduce chemical use without sacrificing playing quality

Here is a sampling of the exciting results ACSP members have achieved:

- Since joining the program, members reported that, on average, acres devoted to providing wildlife habitat jumped from 40 to 70 acres per course—a 75% increase. 79% of ACSP members decreased the amount of managed turfgrass. 64% now monitor wildlife activity—compared with just 16% before joining the program.
- 86% of survey respondents reduced pesticide use and 92% reported using pesticides with a lower toxicity level since joining the program. 84% increased the percentage of slow-release fertilizers used.

In 1991, Audubon International, with the cooperation and support of the United States Golf Association, launched the Audubon Cooperative Sanctuary Program for Golf Courses (ACSP), an environmental education and assistance program designed to help golf courses play a significant role in enhancing and protecting wildlife habitat and natural resources. The ACSP provides an advisory information service to help golf courses conduct environmental projects and achieve positive recognition for their efforts.

Today, 2,140 courses throughout the United States are enrolled in the program and 280\* have achieved designation as *Certified Audubon Cooperative Sanctuaries* by implementing and documenting a full complement of conservation activities.

\*Includes international members



Pat Hennessey

Eagle Pines Golf Course in Lake Buena Vista, Florida, one of Disney World's five certified Audubon Cooperative Sanctuary golf courses, exemplifies how the ACSP can yield positive results for golf and the environment. Here, native plants and natural areas are incorporated around greens, tees, and fairways to provide distinctive character and natural beauty.

- Best of all, ACSP members achieved these results without sacrificing playing quality. Both playing quality and golfer satisfaction remained the same or improved for 99% of ACSP golf courses. 64% of ACSP participants also reported that job satisfaction improved as a result of joining the program.

The information compiled from the survey will be catalogued in Audubon International's Managed Lands Database, a database of wildlife habitats and environmental management practices on various types of properties. Results of the survey help to confirm that the program generates tangible environmental benefits in terms of increased wildlife habitats, decreased chemical use, and improved management practices.

"We applaud the courses who responded to the survey and who participate in the program," commented Ronald Dodson, Audubon International's President and CEO. "Not only are they contributing to improved environmental quality on golf courses, they are helping to spread the word that golf course superintendents can be excellent stewards of the environment."

# Audubon International Vision

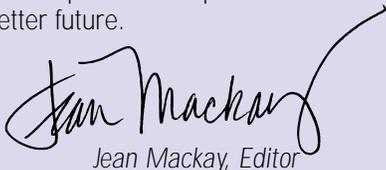
## Celebrating 10 Years of Stewardship

As the New Year carries us forward into 2001, Audubon International is honored to celebrate the Audubon Cooperative Sanctuary Program's (ACSP) tenth year of education and environmental stewardship. Thanks to you, our members, we are realizing our shared mission of sustaining the quality of our environment through individual and collective stewardship action.

What began as a program to register various types of land as Audubon Cooperative Sanctuaries has grown into a network of thousands of individuals and organizations that are making a striking impact as they enhance and protect the environment around them. More than a half-million acres are enrolled in our programs for golf courses, schools, businesses, and individual backyards.

Though dedication and hard work are the backbone of our collective success, it's the spirit of cooperation and shared sense of accomplishment that has been most meaningful to our organization over the years. When a golf course superintendent calls to tell us about the bobcat he saw on a fairway, or a teacher sends poetry written by students exploring their new nature trail, or a homeowner reports the birth of five baby bluebirds in a backyard nest box, we are honored to know that ACSP information and staff support have helped members make a difference. Further, by respecting the diverse experiences and opinions of our members and associates, we've replaced the contentiousness too often associated with environmentalism with positive, productive dialog and action.

As the new century unfolds, we'll keep right on providing information, ideas, and support to *help people help the environment*. Thanks for an extraordinary decade past and the promise of an even better future.



Jean Mackay, Editor

## Sheltering Monarchs

*Morro Bay Golf Course provides a winter home to one of the largest populations of wintering Monarch butterflies on the Pacific coast*

By Tom Massey, Superintendent, Morro Bay Golf Course

Each fall, Morro Bay Golf Course, in Morro Bay, California, is home to one of nature's most spectacular sights: 25–30,000 Monarch butterflies descend on the golf course to spend the winter in a grove of eucalyptus trees. Located on the central coast of California and having a mild winter climate, our locale is perfect for the butterfly to spend the fall and winter.

The Monarch butterfly is one of North America's most familiar butterflies. People readily recognize it by its large size, distinctive orange and black color, and slow, drifting flight. This small creature is a long-distance champion, often traveling thousands of miles as it migrates to wintering sites each fall. While the majority of Monarchs spend the winter on a few mountain-top sites in Mexico, vast numbers of Monarchs also over-winter along the Pacific coast.

Begun in 1996, our *Monarch Butterfly Project* is a dedicated effort to enhance habitat for Monarchs on the golf course. The project is the natural outgrowth of stewardship efforts begun when we joined the Audubon Cooperative Sanctuary Program (ACSP) in 1992 and achieved status as a certified sanctuary in 1995. Spearheaded by our ACSP resource committee, our primary objective is to keep Monarch butterflies returning, year after year.



*Tens of thousands of Monarch butterflies spend the winter at Morro Bay Golf Course.*

## Enhancing the Site

To ensure that we continue to provide ideal conditions for Monarchs, our resource committee enlisted the help of Dr. Kingston Leong, an entomologist at California Polytechnic State University in nearby San Luis Obispo, California. Dr. Leong has studied the migration patterns of the Monarch butterfly throughout central

California for many years and has found only a handful of sites where Monarchs stop for the winter. Morro Bay is one of the largest sites he's found to date—some years sheltering as many as 150,000 butterflies.

The butterflies rest in a grove of blue gum eucalyptus trees located in the center of our golf

## Winter Haven for Monarchs in Mexico Receives Protection

In November 2000, a unique Mexican forest that serves as the primary winter retreat for all of the hundreds of millions of Monarch butterflies from east of the Rocky Mountains won habitat protection from a strong coalition of conservation organizations, local communities, and the Mexican government. Forty-four percent of the forest, located seventy miles west of Mexico City, has been damaged or destroyed since the roosts were discovered in the 1970s.

The migratory flight of Monarchs has been recognized by the World Conservation Union as an endangered biological phenomenon and the first priority in world butterfly conservation. The newly designated Monarch Butterfly Biosphere Reserve will protect more of the oyamel (balsam fir) forest where Monarchs live during winter months.

*(Source: Environmental News Service, November 2000)*

course. Dr. Leong surveyed the site and established grids to designate its boundaries. Because butterflies rely on the sun for warmth and to raise their body temperature in order to fly, we took steps to keep climatic conditions on the site favorable for Monarchs. First, we pruned eucalyptus trees on the southern border to increase the amount of sunlight that filters into the site. In addition, we planted a windrow of Monterey cypress trees to protect the site from prevailing northwesterly winds. Equally important, we protect the site by minimizing any golf course maintenance in this area and restricting pesticide use.

So that we may further enhance this habitat, Dr. Leong has applied for grant funds to purchase instruments to record and document weather patterns on site. We're excited by the possibility of generating research data that will further contribute to the conservation of this butterfly species.

## Golfer Response

The unique beauty and remarkable number of Monarchs on the course gives rare distinction to the game of golf at Morro Bay during fall and winter months. Golfers love to see the butterflies and the ladies' club even holds an annual Monarch Butterfly Tournament. I update our conservation efforts to the ACSP resource committee and the green

committee and provide information for them to take back to their respective clubs.

## Perspectives and Recommendations

My advice to others considering wildlife enhancement or protection projects is to surround yourself with intelligent, hardworking volunteers, such as a resource committee. These people can provide invaluable information and assistance to turn your ideas and goals into actions and outcomes. Though I initially feared that the Monarch project would increase my already-full workload, I found that having our ACSP resource committee and maintenance crew involved made all the difference.

Though efforts to increase or enhance wildlife populations do not happen overnight, the results are well worth the wait. To watch the population of butterflies increasing year after year and see first hand that our efforts are paying environmental dividends is most satisfying. Our Monarch Butterfly Project will continue to be a high priority for Morro Bay Golf Course for years to come.

To find out more about the Monarch Butterfly Project or other environmental projects at Morro Bay, contact Tom Massey at (805) 772-6390, or email at: [tmassey@co.slo.ca.us](mailto:tmassey@co.slo.ca.us).

## ACSP Member Colonial Acres Golf Course Wins NYS Pollution Prevention Award

ACSP member **Colonial Acres Golf Course**, in Glenmont, New York was among the recipients of the 2000 Governor's Awards for Pollution Prevention for its outstanding environmental protection efforts. Spearheaded by superintendent **Pat Blum**, the nine-hole, semi-private facility was recognized for its work with Audubon International to use organic and biological products for the control of pests to reduce the amount of synthetic pesticides and petroleum-based products on its fairways and greens.

"Being the first golf course in NYS to win this award was huge to me," says Blum. The highly involved application and verification process thrust Colonial Acres into the state-wide and national spotlight. Still, Blum's motivation for doing all he can to protect the environment remains much closer to home. "The reason why I pushed so hard to do what we did was for my daughter, Samantha," Blum explains. "Doing it for your own child means doing everything you possibly can. You can't cut corners and then look into your child's eyes knowing that you haven't done your job to provide a better future."

The Governor's Awards recognize pollution prevention practices that exceed the legal requirements of environmental protection and successfully reduce or eliminate the generation of pollution at its source. The awards are given each year to organizations representing small, mid-size and large businesses; federal, state and local governments and educational institutions; and trade associations or other business/industry groups.

Colonial Acres won the award for small businesses; the course has been a certified Audubon Cooperative Sanctuary since 1998.



*Pat Blum (left) accepts the Governor's Award for Pollution Prevention. The award recognized his exceptional commitment to environmental stewardship on the golf course.*

## Many Thanks To The Toro Company

Audubon International extends its utmost gratitude to **The Toro Company** for its generous donation of \$10,000 in support of our programs. Audubon International was selected as Toro's year 2000 conservation recipient for the company's *Saving the Environment, Yard-by-Yard* campaign.

We applaud The Toro Company for its many efforts to form cooperative partnerships and support important environmental



programs. Our special thanks to **Dirk Lenie**, Director of Marketing and Sales at Toro, for his personal sense of commitment and professionalism, and to Toro's many vendors

who sold irrigation systems in support of the *Saving the Environment* campaign.

Check us out online at:  
[www.audubonintl.org](http://www.audubonintl.org)

*Find out more about our organization, programs, and educational resources, or browse our online store!*

## New Stewardship Signs Now Available!

Three attractive signs are now available from Audubon International to help members communicate their commitment to stewardship with the public. The 11.5" x 15" signs are made of 100% recycled thermoplastic *Enviropoly*, with dark hunter green lettering engraved in a tan background. Suitable for outdoor or indoor use, the signs are available in three word choices:

- "This area has been naturalized to provide food and shelter for wildlife."
- "This shoreline is being managed to protect water quality."



- "This property has been designated as a Certified Audubon Cooperative Sanctuary."

The sign also bears the Audubon International logo, along with "A proud member of the Audubon Cooperative Sanctuary System" printed at the bottom. Each sign is long lasting and maintenance-free. Order several to highlight your accomplishments on the

golf course, at school, or at your business or home.

Signs may be purchased for \$65 via our web store at [www.audubonintl.org/store/index.htm](http://www.audubonintl.org/store/index.htm); or contact us by phone at (518) 767-9051 extensions 10 or 11. Color photos of the signs may be viewed online.

## Look for us at GCSAA's Conference and Show in Dallas—February 11–18, 2001

We'll be offering several educational seminars this year, as well as staffing an informational booth in the Allied Association area. Please stop by and introduce yourself to our staff. We look forward to seeing you there.

### Seminars & Presentations:

- 2/13 ..... Wildlife Management and Habitat Conservation, Instructor: Jean Mackay
- 2/14 ..... Integrated Environmental Management, Instructor: Jean Mackay
- 2/14 ..... Developing an Environmental Plan, Instructor: Joellen Zeh
- 2/17, 2:30 P.M. .... Rooting Course Management in Environmental Stewardship, an ACSP and USGA Update, Presenter: Ron Dodson

### Trade Show:

2/15 through 2/17 . Information Booth #6207 in the Allied Association Area adjacent to the Member Lounge

### Book Signing:

2/15, 3–5 P.M. .... Ron Dodson, President of Audubon International will be available in the GCSAA Bookstore to sign copies of his book *Managing Wildlife Habitat on Golf Courses*.

# Audubon International Welcomes New Staff

Audubon International is proud to announce four recent additions to our staff. We are excited by the expertise and enthusiasm they bring to our organization and feel confident they will open new doors for our members. *Please welcome:*

- **Jennifer Fink**, *Membership Secretary*, Audubon Cooperative Sanctuary System (ACSS)—Those of you who have already met Jennifer over the phone know that she radiates organization, enthusiasm, and a friendly demeanor when assisting ACSS members. Prior to joining the ACSS, Jennifer worked as receptionist and attended business classes at Hudson Valley Community College.
- **Alicia Oller**, *Project Manager/Senior Scientist*, Environmental Planning Department of the Audubon International Institute—Based in Orlando, Florida, Alicia will use her vast experience in project management, ecological restoration, wildlife surveys and management, wetlands assessment and monitoring, and environmental permitting to assist members of the Audubon Signature Program. Alicia has a M.S. in Ecology from

the University of Tennessee and twelve years of experience working in research and ecological consulting associated with risk assessment, wetlands, wildlife, and environmental impact assessment.

- **Carol Thompson**, *Staff Ecologist*, Audubon Cooperative Sanctuary System—With several years of experience in both environmental research and teaching, Carol is eager to help ACSS members translate their commitment to environmental stewardship into effective action. She earned her B.S. in Environmental Forest Biology from SUNY College of Environmental Science and Forestry in New York and her M.Ed. from the University of Vermont.
- **Alicia Karas**, *Database Manager*—Alicia's creative eye for layout and design, as well as her diligence in data entry and managing research data will provide a great asset to Audubon's administrative staff. She is working toward her A.A.S. degree in Computer Information Systems from Hudson Valley Community College.

## Who's Who at Audubon International

### Audubon International Headquarters (518) 767-9051

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Jennifer Fink, Membership Secretary, [jfink@audubonintl.org](mailto:jfink@audubonintl.org)

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Linda Snow, Administrative Assistant, [lsnow@audubonintl.org](mailto:lsnow@audubonintl.org)

### Audubon International Institute

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Alicia Oller, Project Manager/Senior Scientist, [aoller@audubonintl.org](mailto:aoller@audubonintl.org)

#### Research Department (518) 783-2451

P.O. Box 170, Ballston Spa, NY 12020

Larry Woolbright, Director of Research, [lwoolbright@audubonintl.org](mailto:lwoolbright@audubonintl.org)

# Naturalizing The Golf Course

Property Name:	Edgewood Country Club
Location:	Rivervale, New Jersey
Project Coordinator:	Paul Dotti, GC Superintendent
Type of Course:	Private 27 Holes
Habitats:	26 acres woods, 25–30 acres meadow, 3 wetland areas totaling 3 acres

Edgewood Country Club is a private, 27-hole golf course set on 185 acres in Rivervale, New Jersey. Within close proximity to dense residential and commercial development, the course serves as one of the larger remaining open spaces in the area. A predominant natural feature of the property is its many large oak and beech trees, complemented by a diversity of trees and shrubs associated with the Appalachian Oak Forest ecological region.

Once highly manicured in the same fashion as many “typical” country clubs, Edgewood began to alter many of its maintenance practices as a result of participation in the ACSP, begun in 1996. One of the most dramatic changes can be seen in many of the formerly mown golf course roughs—which now boast a striking array of wildflowers and native grasses. Indeed, the course naturalized nearly thirty acres of formerly mown turf, improving both aesthetics and wildlife habitat throughout the course.

“With rapidly diminishing open space due to increasing land development all around us, it is our duty as superintendents and stewards of the land to preserve wildlife,” reflected Paul Dotti, Edgewood Country Club’s Superintendent. “Our wildlife has seemed to increase greatly now that we have created new habitats and preserved the original ones.”

Maintenance staff and golfers alike note increased hawk and fox activity, more goldfinches and butterflies in the wildflowers, and a growing number of bluebirds nesting in bird boxes placed in the natural areas. Dotti also reported a decrease in Canada geese activity—mainly due to Edgewood’s dogs—but with nighttime assistance from their now resident foxes.

## Gaining Member Support

“At first, it was kind of a tough sell,” explained Dotti, “our members are conservative and liked a more maintained appearance. So I tried naturalizing one spot at a time, adding more here and there as support grew. We have a very tight layout, so I have to pick and choose areas carefully.”

Dotti used a monthly newsletter column and various

## Setting Goals

*Before naturalizing, Edgewood staff set goals and communicated with club committees and members to increase support for the project.*

### Edgewood’s Goals:

- Return the golf course to a more natural look
- Create wildlife corridors and protected habitat areas
- Increase bird nesting sites
- Reduce pesticide and water use
- Reduce labor and fuel use



Paul Dotti

*Naturalized areas break up the golf course and take players eyes off of neighboring holes. The project has allowed Edgewood’s maintenance crew to reduce rough mowing by almost 16 hours per week.*

► *Before: Despite treatments to control grubs and weeds, rough areas were dead and heavily infested with weeds following a drought period. This area was targeted for naturalization with wildflowers and native grasses.*



Paul Dotti



Paul Dotti

▲ *After: Large wildflower areas are rototilled five to ten times over a three-week period in early spring. Superintendent Paul Dotti sows wildflower seed between March 15 and April 1, then mulches with salt hay or Penn Mulch. The areas produce beautiful results by June.*

committee meetings to communicate about the project and respond to questions and concerns. As the natural areas bloomed, so have compliments from guests, neighboring superintendents, and members themselves.

But for Dotti and his crew, the increased wildlife activity and greater diversity on the golf course are equally satisfying. "That's my favorite part of it," reported Dotti. "Seeing the

foxes, hawks, and bluebirds, and knowing that we're doing the right thing for golf and the environment is really great."

For more information, contact:

Paul Dotti, Superintendent  
(201) 666-1204 Ext. 234  
[edgepaul@hotmail.com](mailto:edgepaul@hotmail.com)

## On the Cutting Edge—Results of Edgewood's Naturalization Project

- **Improved habitat** by naturalizing thirty acres of formerly maintained turf.
- **Increased native and naturalized plantings** by planting bunkers and tee banks with more than 8,000 plants, including little bluestem and weeping love grass, grown in Edgewood's greenhouse.
- **Increased bird populations** by adding thirty bird boxes. Edgewood saw no bluebird activity in 1996, the first year the boxes were placed on the course. By 2000, bluebirds occupied twenty of the boxes, tree swallows occupied five, and wrens nested in three.
- **Increased wildlife activity**; noted increases in species, including foxes, hawks, butterflies, and songbirds.
- **Improved aesthetics** and added diversity and interest to the golf course.
- **Reduced maintenance time**; reduced rough mowing by nearly 16 hours.
- **Eliminated chemical use** to control pests in formerly maintained turf areas.
- **Saved water**; eliminated approximately 250,000 gallons of water a year due to naturalization. Installation of quick coupler valves and additional part circle heads also enable staff to irrigate turfgrass areas more precisely.
- **Financial savings**: Edgewood saves about \$10,000 annually on pesticides, fuel, labor, and equipment wear and tear from its initial investment of \$4,500 for labor, seed and mulch.

# Making a *Leap* for Frog Conservation

In 2001, Audubon International is launching a new initiative to conserve frogs and other amphibians from significant population declines. Working closely with the **United States Geological Survey (USGS) North American Amphibian Monitoring Program (NAAMP)** and **Partners in Amphibian Reptile Conservation (PARC)**, the initiative will involve **collecting valuable data** about amphibians and **educating ACSP members** about conservation activities that enhance and protect habitats for frogs and salamanders.

Throughout the year, *Stewardship News* will keep you informed about critical issues and offer project ideas to help you get involved. In addition, the **National Fish and Wildlife Foundation Wildlife Links Program** is actively considering our proposal to fund educational information specifically designed to help golf course managers and designers take part in conservation and research activities.



Dan Dineili

*A combination of education, research, and habitat protection is needed to conserve frog populations throughout North America.*

## Why Frogs?

To most people, frogs are neither terribly endearing nor highly visible. They sing, though not always sweetly, and, one could argue, they're slimy. So why should we care about frogs? Why should we focus attention on frog monitoring and conservation?

Since the 1970s, scientists from around the world have noted disturbing, sometimes catastrophic declines in frog populations. At the same time, gross physical deformities—extra limbs, missing limbs, misplaced limbs, deformed eyes, tails and legs, to name a few—have been documented in numerous frog species in the United States. Ask yourself: why would a highly adaptable animal that has survived for 100 million years, lived through the extinction of the dinosaurs, ice ages, and widespread alteration of its habitats, now be having reproductive problems and deformities?

Because of their complex life cycle and moist, permeable skin, frogs are exposed to both water and land pollution during their lives. Likewise, their unshelled eggs are directly

exposed to soil, water, and sunlight. Local threats to frog populations include habitat destruction, disease, and chemical contamination. Likewise, frogs also may be adversely affected by global environmental phenomena, such as acid rain, pesticides in surface run-off that enters water from the air or ground, and increased UV rays from ozone depletion.

Reduction and loss of amphibians adversely affects the ecosystems of which they are an integral part and may indicate larger problems within broader ecosystems. Rather than view frog declines as *one more* environmental concern, there is ample evidence to suggest that frogs are one more piece of a complex puzzle of interconnected environmental problems.

## We need you!

The aim of Audubon International's focus on frog conservation is two-fold: collect more information and begin taking actions that will benefit amphibian populations.

"We know enough to know that we need to do something about this problem—right now," says Larry Woolbright, Director of Research for the Audubon International Institute. An amphibian expert himself, Woolbright stresses the need to collect more widespread data about the type and number of frog species in a wide range of locations to assess the scope and magnitude of the problem fully.

At the same time, he urges people to take action to enhance and protect the habitats that frogs need to survive. "If a significant number of people participating in the Audubon Cooperative Sanctuary Program get involved in this effort, we will not only generate some very important numbers, but have a valuable impact on the frog populations living on the land we manage," Woolbright states.

## Calling Surveys

During the breeding season many male frogs call to attract mates and defend territory, just as birds do. Each type of frog makes a unique and identifiable call that is easy to learn. By listening for these calls and recording each species heard, volunteers generate valuable data about which species of frogs are present in a given area.

Volunteers, like you, make NAAMP and Frogwatch USA calling surveys happen. Volunteers receive training in how to identify each calling frog species in their area, how to conduct a frog call survey and the protocol behind the survey technique.

## How You Can Help

Throughout 2001, *Stewardship News* will report on a variety of habitat enhancement and monitoring activities you can do to help frogs on your property. In our first edition of this series, we focus on ways to figure out what types of frogs you have on your property and how to contribute to nationwide research. Information about what species are present or absent will help you plan the best ways to improve your site and contribute to frog conservation efforts.



George Coulter

*Scientists suspect that frog declines and extinctions are a serious wake-up call to improve the quality of our environment.*

### Here's what to do:

- LEARN** the life history and vocalization of local frogs and toads. Audiocassettes and field guides commonly available in bookstores and libraries can help you get started. Don't feel that you need to be an expert to begin monitoring. Both USGS NAAMP and Frogwatch USA provide educational materials to help you. A local nature center or college also may be able to direct you to local amphibian experts who would welcome your participation in spring monitoring.
- MONITOR** your site. There is a short window of opportunity each year to monitor frogs. For most regions, this occurs from March through June for calling surveys. If you would like to participate in surveys this year, it is important to contact NAAMP or Frogwatch USA to receive monitoring information prior to the end of February so that you are ready for this season's migratory and mating period.
- CONTACT** Audubon International to let us know you are interested in frog monitoring. We can direct you to the best monitoring method for your site and answer questions you may have. We also ask that you submit findings to us, as well as to NAAMP or Frogwatch USA.

## Useful Resources

In 1991, the **Declining Amphibian Populations Task Force (DAPTF)** was founded to generate widespread baseline information about amphibian populations on a global scale. DAPTF is charged with determining the nature, extent and causes of declines of amphibians throughout the world, and to promoting means by which declines can be halted or reversed.

### DAPTF

Phone: (202) 357-2620

<http://www.open.ac.uk/daptf/>

The **USGS North American Amphibian Monitoring Program (NAAMP)** is the North American component of the international DAPTF initiative. NAAMP and **Frogwatch USA** have developed standard procedures, instructions, and monitoring forms for anyone wishing to participate in calling surveys and contribute data to national monitoring research.

### NAAMP

<http://www.mp1-pwrc.usgs.gov/amphib/>

### Frogwatch USA

Phone: (301) 497-5819

<http://www.mp2-pwrc.usgs.gov/FrogWatch/>

**Partners in Amphibian and Reptile Conservation (PARC)** is a national consortium of scientists and governmental and non-governmental organizations organized to address amphibian conservation issues in a coordinated way.

<http://www.parcplace.org>

# membership

## NEWS

### Audubon Cooperative Sanctuary Program

#### New Members

#### Golf Program

##### SOUTH KOREA

Ritz-Carlton Country Club, Kyunggi-Do

##### CALIFORNIA

Diablo Country Club, Diablo  
Dove Canyon Country Club, Dove Canyon  
Pittsburg Delta View Golf Course, Pittsburg

##### COLORADO

Pelican Lakes Golf Course, Windsor

##### FLORIDA

Grand Pines Golf Course, Springhill  
Broward County Parks & Recreation, Ft. Lauderdale

Santa Rosa Golf and Beach Club, Santa Rosa Beach

##### GEORGIA

Jekyll Island Golf Club, Jekyll Island

##### IDAHO

Prairie Falls Golf Club, Post Falls

##### KENTUCKY

Oldham County Country Club, La Grange

##### MASSACHUSETTS

Dennis Pines Golf Course, Dennis  
Dennis Highlands Golf Course, Dennis

##### MARY LAND

TPC at Avenel, Potomac

##### NORTH CAROLINA

Bermuda Run Country Club, Bermuda Run

##### OKLAHOMA

Indian Springs Country Club, Broken Arrow

##### PENNSYLVANIA

Scranton Country Club, Clarks Summit

##### TENNESSEE

Legends Club of Tennessee, Franklin

##### TEXAS

Grand Prairie Country Club, Grand Prairie  
April Sound Country Club, Montgomery  
Troon North Golf Club, Austin  
Las Colinas Country Club, Irving  
Shaddy Valley, Arlington  
Club at Carlton Woods, The Woodlands  
La Paloma Golf Club, Amarillo

#### Business Program

##### INDIANA

Coffee Creek Watershed Conservancy, Chesterton

##### NORTH CAROLINA

Zachary/Tolbert House, Cashires

#### School Program

##### ILLINOIS

Lions Perk Elementary, Mt. Prospect

##### OREGON

Cascade Middle School, Sisters

#### Backyard Program

##### ALABAMA

Sarah Bennett, Dothan

##### CALIFORNIA

Donna Ryser, Fortuna

##### COLORADO

Julie Buchanan, Denver

##### ILLINOIS

Vince & Shari Gullo, Lake Zurich

##### MINNESOTA

Frederick J. Haas, Eden Prairie

##### NORTH CAROLINA

Robert L. Searle, Highlands

##### NEW JERSEY

Dewitt Alexander, Bedminster

##### VIRGINIA

Helen & Manfred Angerman, Roseland

#### Recently Certified Audubon Cooperative Sanctuaries

#### Golf Program

Spyglass Hill Golf Course, Pebble Beach, CA  
The Colony Golf & Country Club, Bonita Springs, FL  
Eagle Pines Golf Course, Lake Buena Vista, FL  
Palm Golf Course, Lake Buena Vista, FL

IGM—Aquirina Golf Club, Melbourne, FL  
Magnolia Golf Course, Lake Buena Vista, FL  
Osprey Ridge Golf Club, Lake Buena Vista, FL  
Winding River Golf Course, Indianapolis, IN  
Superior National at Lutsen, Lutsen, MN  
Innsbrook Resort Golf Course, Innsbrook, MO  
The Players Club at St. James Plantation, Southport, NC  
Blue Heron Pines Golf Club, Cologne, NJ  
Golden Oaks Golf Club, Fleetwood, PA  
Port Ludlow Golf Course, Port Ludlow, WA

#### Business Program

Brick Utilities, Brick, NJ  
Roselawn Cemetery Association, Pueblo, CO

#### Backyard Program

Donna Ryser, Fortuna, CA  
Paul S. Stead, Newark, DA  
Vince & Shari Gullo, Lake Zurich, IL  
Dewey & Gigi Corley, Shreveport, LA

#### Re-Certified Audubon Cooperative Sanctuaries

Colonial Acres Golf Course, Glenmont, NY, Certified Since 1998

### Audubon Signature Program

#### New Signature Members

Ace Golf Club, Lafayette Hill, PA  
Dos Mares S.E., San Juan, Puerto Rico  
Lake Powell Golf Club, Jupiter, FL  
The Links at Half Moon Bay, Olympia, WA  
San Elijo Hills Golf Course, Carlsbad, CA

#### Recently Certified Signature Sanctuaries

Haymaker Golf Course, Steamboat Springs, CO  
Tierra Verde Golf Club & MLK Jr. Sports Complex at the Reserve (Phase I), Arlington, TX  
West Bay Golf Club, Estero, FL

### Audubon International Membership Fees

Audubon International has held its ACSS membership fees level for nearly a decade since the programs were instituted. Inflation and expanded services under the programs have steadily increased our costs, however. Unfortunately, we can no longer maintain our current fees without jeopardizing the quality of the programs and their value to members. To preserve the integrity of the ACSS, we must raise fees for the Golf Course, Business, and School Programs. Beginning January 1, 2001, the new membership fees will be:

#### Audubon Cooperative Sanctuary System

*Effective January 1, 2001*

Program for Golf Courses	\$150
Program for Businesses	\$150
Program for Schools	\$150
Program for Backyards	\$ 35

#### Audubon Signature Cooperative Sanctuary Program Current Fees

##### Bronze/Basic Level Membership

Program and Registration Fee	\$12,000
Annual Renewable Membership Fee	\$ 500

##### Silver Level Membership (*Resource Management and Education Projects*) and Gold Level Membership (*Sustainable Development Projects*)

Program and Registration Fee	\$9,000
Annual Renewable Membership Fee	\$ 500

The program and registration fee does not include services provided by the Audubon International Institute, such as the development of the *Natural Resources Management Plan*, technical reports, site surveys, or employee training.

## Winter Habitat

By Scott A. Martin,  
National Coordinator, ACSSC

By now, we are all knee-deep in winter—quite literally for most of us. Even though it is cold and snowy outside, there is still much work and planning you can do to develop and improve your sanctuary.



Scott Martin

Woodpeckers and other insect-eating birds eat high protein foods such as suet and sunflower seeds to survive our Canadian winters.

## Offering Food

Feeding birds is one of North America's easiest and favourite past-times. While not necessarily inexpensive, considering how much seed the birds and squirrels seem to go through, offering seeds and suet is an excellent supplement to a bird's wild diet. It also allows us to study our feathered friends and gain better understanding of their habits and needs.

## Adding Water

Access to clean, open water is equally critical to wildlife in winter. The best way to provide birds with water is in a birdbath. Any standard size and shape birdbath will do, but you must have a method of keeping the water from icing over. The most reliable method is an electric birdbath heater. Some come with the heating element built into the tub of the birdbath, while others are placed directly in the water. Whatever model you choose, make sure that it, and your extension cord, is properly grounded and shielded to avoid any electrical mishaps.

## Providing Shelter

Besides food and water, birds and other wildlife also need shelter. Winter shelter may come in the form of an evergreen hedge, a brush pile, or a discarded 'live' Christmas tree. Many birds use natural tree cavities and nest boxes as shelter from winter snow, cold and winds. Leaving your nest boxes up for the winter can supply the shelter that many birds and other wildlife need to survive the extremes of winter. Just be sure to clean out the nest boxes before the new nesting season in spring.

## Planning Your Garden

With snow blanketing the ground and winter winds whipping, not too many of us think much of our gardens. Yet, this is the perfect time to research and plan new sanctuary projects for the

spring. Order catalogues of native seeds and plants now so you can research what you want to grow. Place your orders early, to be sure you get the seeds and plants you want. You can start germinating seeds of most native plants indoors in March or April, but most perennial seeds require "cold treatment" or *stratification* before they will germinate (*see photo*).

## Seeking Resources

Use some of the extra time you have in this season to study, plan, build, and develop projects to give your sanctuary a head start come spring. Once the grass starts growing and the flowers start sprouting, you'll want to spend your time outside. Should you need project fact sheets or certification information, please don't hesitate to call or email me at (705) 429-2277 or [acss@cois.on.ca](mailto:acss@cois.on.ca).



Dan Dinelli

To mimic natural conditions and have greater germination success, many perennial seeds need to be "stratified." Before sowing, mix seeds in a lightly moist sand and peat mix, put the mix in a sealed plastic bag, and place in the refrigerator for two weeks to three months, depending on the species. If you are ordering native plants from a specialty grower, try to give them at least two to three months notice, so they can stratify, germinate, and grow the plants you need.

## Membership News

### New Golf Members

Quebec  
Golf Manitou, Mont Tremblant

### New Backyard Members

British Columbia  
Paul Hambruch, Golden  
Ontario  
Stacey Hickman-Kirkland, St. Catharines  
Dara Richardson, Port Colborne

Quebec  
Chantal Boutin, Sherbrooke

### New School Members

Manitoba  
Rod Martin School, Moose Lake

### New Supporting Members

Bronze Level  
D&G Enviro Group Inc., Montreal, QC

## In This Issue Getting Results



Quail Run Golf Course, OR

Learn more about how members of the Audubon Cooperative Sanctuary Program are improving the quality of the environment for people, wildlife, and the natural systems upon which we depend.

# STEWARDSHIP news

Audubon International publishes *Stewardship News* six times a year. Inquiries, contributions or letters to the editor should be addressed to:

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c/o Audubon International  
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Selkirk, NY 12158

Or sent via e-mail to: [jmackay@audubonintl.org](mailto:jmackay@audubonintl.org)

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The Audubon Cooperative Sanctuary System (ACSS) and the Audubon Signature Program provide environmental education and technical assistance to facilitate voluntary environmental stewardship on private and public lands.

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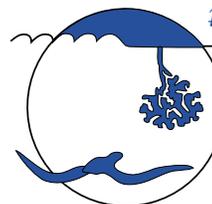


**S**ink a tree! Place your Christmas tree in the middle of a frozen pond. When the ice melts and the tree sinks to the bottom, it will provide good underwater shelter for fish and other aquatic creatures.

## ACSS QUICK TIP

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*Helping people help the environment*



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