

MEETING CALENDAR

Monday, June 6: Conservation Committee Meeting, 6:30 p.m., Room 112B, Biology-Natural Resources Building, USU Campus. From 6:30 to 7:30, Bruce Pendery will conduct a discussion of his trip to the National Audubon Activists' Workshop in Washington, D.C., and of lobbying in general; the Conservation Committee Meeting proper will begin at 7:30. The discussion on lobbying will be very helpful in increasing the effectiveness of your individual lobbying efforts.

FIELD TRIP CALENDAR

Saturday, June 11: Green Canyon Birds. Leave at 8:00 a.m. from the Fred Meyer parking lot and return by noon. Expect to see orange-crowned warblers, black-throated blue warblers, warbling vireos, western tanagers, indigo buntings and some of the elusive flycatchers. We'll also spend some time identifying wildflowers.

Saturday, June 25: Wildflowers of the Wellsvilles. Leave at 8:00 a.m. from the Fred Meyer parking lot and return early in the afternoon. This is an easy walk along dirt roads and trails among the mountain maples and aspen, where you'll enjoy a profusion of wildflowers and some birding as well. BRING LUNCH AND WATER for this field trip.

SUMMER SCHEDULE

Beginning in June, the Bridgerland Audubon Society commences its summer schedule. Although the BAS

officers and committee members remain active during the summer, several meetings and other activities are suspended for the months of June, July and August. The Stilt This issue of the Stilt will be the last of the season; the next regular issue will appear in September. In the interim, if BAS officers or committee chairs need to contact members, they will do so through telephone calls or special mailings.

Monthly General Meetings: Regular meetings will be suspended until September. The September issue of the *Stilt* will carry information on the program for September.

Monthly Planning Meetings: Regular planning meetings will be suspended until September. Officers will disseminate information on interim meetings, should they be needed, via telephone or special mailings.

Conservation Committee Meetings: The Conservation Committee will meet during the summer this year. Meetings will be held in Room 112B, Biology-Natural Resources Building, USU campus. Meeting dates are June 6 (see announcement under the Meeting Calendar), July 6 and August 1. All meetings begin at 7:30 p.m.; the June meeting will be preceded by a discussion of environmental lobbying. If you have time to support the Conservation Committee during the summer, please contact Bruce Pendery.

<u>Field Trips</u>: BAS has a full summer schedule of field trips planned. Last month's issue of the *Stilt* carried a listing of these trips; if you don't have a copy, contact Tom Gordon.

AMALGA BARRENS FIELD TRIP

A good crowd of birders showed up to brave the breeze for the annual BAS freeze-out known as the Amalga Barrens Field Trip. Premature hopes for Spring left a few shouldering the April northerlies in shorts (but not for long—Ed.), while we watched shorebirds at a distance. A look through the scopes from the barrens road showed us a small group of Baird's sandpipers probing the mud, while a host of other water birds looked on. On the banks, several sandhill cranes danced, and a great blue heron stood firm against the wind, while avocets and stilts swept their bills through the murky shallows.

A short stroll into the barrens gave us a view of northern phalaropes spinning in the shallows, a willet, shovelers, pintail and cinnamon teal. A cormorant flew against the wind. When the wind abated, we could hear the calls of Canada geese, the willet, avocets and several others.

The wind picked up, blowing several watchers home, but a few stayed on for a look from the northern dike. With the wind at our backs, we got a close-up look at some uncommon Cache Valley birds. Snowy and semi-palmated plovers foraged on the mud flats with killdeer and yellowlegs. In the shallows a short-billed dowitcher and some 30 long-billed dowitchers probed the muck like little sewing machines. The north dike was also a good vantage point from which to see resting caspian terns and California gulls.

In spite of the wind, the birding at Amalga Barrens was good. Although bird numbers were not high, there was a good variety of species. Let's hope for calmer weather for next time.

- Scott Cheney

LOGAN CANYON UPDATE

As of mid-May, a "preferred alternative" for the Logan Canyon highway modifications has not been selected. Three agencies (Forest Service, Utah Department of Transportation and Federal Highway Administration) are still conducting their interval negotiations. The Draft Environmental Impact Statement could be produced in either later summer or fall.

While UDOT has apparently retreated considerably from their maximum development position, which they advocated last January, we have not seen any of this in writing. Some new and nebulous alternatives, such as "curb and gutter" for the narrow section of the canyon and a "relocation" of Beaver Creek have been contemplated but not yet evaluated.

If the Draft EIS is released during the summer while the Stilt is not being printed, we will notify members with a special mailing.

- Steve Flint

PROTECTION FOR KEY STRAWBERRY RIVER PARCELS

The wild Strawberry River, a beautiful and productive 18mile stream system in north central Utah, remains one of the most significant and pristine fisheries left in the state. The high-quality riparian habitat on this section of the river supports a variety of raptors, non-game species and large mammals. Last summer, Camelot Resorts announced its intent to subdivide some 2,430 acres-nearly six miles of stream-unless an alternative purchase could be worked out by July 15. Working with the Utah Division of Wildlife Resources and the Bureau of Reclamation, the Nature Conservancy's Great Basin Field Office helped negotiate the purchase of 700 Camelot acres in 1987, and secured an option to purchase the 1,730-acre balance. Closing on the second parcel has just taken place: the Conservancy's \$1 million expenditure to preserve this critical fishery is the organization's largest expenditure in the state.

The Bureau of Reclamation will draw on Central Utah Project mitigation funds, appropriated by Congress to pay for damages to other Utah streams and habitat caused by the CUP, to reimburse the Conservancy. Ultimately, BuRec will transfer the lands to the UDWR, assuring continued protection and public access to this outstanding wildlife area.

Nature Conservancy Great Basin Newsletter, Spring 1988/TJG

WHY NOT!?

An improvement of 0.1 mile per gallon in the U.S. automobile fleet would save the equivalent of 20,000 barrels of oil per day—roughly the estimated production rate from drilling proposed in the environmentally sensitive Georges Bank fishing grounds off the eastern United States. The estimated retail cost to achieve this improvement, according to energy analyst Arthur H. Rosenfeld, is about \$4 per new car.

- Science News 133, 19, p. 297/TJG

HOTLINE NOTES—SPRING

A few uncommon migrants blew in with Spring. The blue jays which were hotline regulars in December and January are back in Smithfield, preparing to nest. Look for them in and around Mack Park. In Newton you can hear the squeaky call of Northern Utah's only known common grackles. Rarities at the Amalga Barrens include short-billed dowitcher, snowy plovers and semi-palmated plovers. It may not be too late to stumble upon some cattle egrets along Valley View Highway, although they were reported early in April.

Perhaps of more note is the return of regular species which, for many of us, marks summer's return. Yellow, Macgillivray's and yellow-rumped warblers are common in eafing trees along the canal trails. Turn your ears toward the top of tall box elders for the black-headed grosbeak's flute-like song. There for the hearing as well are the songs and calls of the northern oriole and western tanager. All who are still putting out seeds have surely welcomed lazuli buntings back to their feeders, too. Sky watchers can now notice, high in the evening's pastel skies, the V-shaped squadrons of white-faced ibis and the shallow wingbeats of Franklin's gull.

These are just some of the species marking the season's change. Enjoy them while they stay, and as the energy of spring soon becomes summer's lethargy, don't let the hotline go cold: keep your binocs next to the lemonade and the telephone close at hand. Have a good summer.

- Scott Cheney

The sun sinks slowly below the horizon. bringing the first signs of twilight to the land. Crickets chirp their melancholy songs and a bullfrog grumbles quietly to himself while he rests in the marsh. Birds fly away quickly into the trees, trying not to have to greet the cold night. Deer move out into the clearing and near the pond for a cool drink. The night has finally fallen, and darkness closes in on the once silver-blue pond.

> — Lauri Freeman 7th Grade English Cache Middle School (with thanks to Margaret Pettis)

BOX-ELDER HOLLOW DECISION RELEASED

Dixie National Forest has released a Record of Decision and a Summary of the Final EIS on oil and gas leasing in the Escalante Known Geological Structure, which includes the Box-Death Hollow Wilderness, the Antone Bench area and the Phipps-Death Hollow Study Areas. Disastrously but not surprisingly, the preferred alternative, Alternative V, permits maximum development. It reads, "Offer New Leases for Oil and Gas and CO₂ for All Lands Available for Leasing and Recognize the Potential Development of Existing Oil and Gas Leases in the Known Geological Structure." This despite these EIS conclusions:

"no commercial hydrocarbon discoveries have been made in the KGS," (Summary, p. 13)

"If full development of the CO₂ and oil and timber harvest is undertaken, the average road density in the KGS will increase . . . [and] result in reduced habitat effectiveness on 18,925 acres within the KGS and the accompanying loss equivalent to 201 deer and 20 elk." (p. 14)

"Activities associated with the drilling of wells and construction of roads and facilities, as well as the facilities themselves, will create visual and auditory impacts within the Wilderness . . . the primeval, untrammelled character of the area will be lost." (p. 18)

There's more, mostly gloomy. If you'd like a copy of either document, contact Tom Gordon.

-TJG

A WEEK IN WASHINGTON

I spent the week before I went to Washington, D.C. in southern Idaho farm country. The significance of this is that the land and resources that can be protected or harmed by federal actions is the place to start when you think about Washington and environmental politics. Washington is where the rhetoric and fireworks are in many respects, but it is not where the land and the people affected by those actions are. I think its important not to loose sight of that.

With those thoughts in mind, I headed for Washington to participate in National Audubon's annual week-long activists' trianing workshop. Organized by National Audubon's grassroots coordinator, Connie Mahan (with a lot of help from staffer Mary Stuart McCamy), the workshop was attended by about 20 volunteers from throughout the couintry. We spent the first part of the week being briefed

by National staffers on current national issues and in learning effective lobbying techniques. Then, armed with the knowledge of how to lobby effectively, we did it: we went out and lobbied our respective local delegations.

Lobbying for reauthorization of a strengthened Clean Air Act and protection of Arctic National Wildlife Refuge (two of National's five priority issues; protection of ancient forests, the Platte River, and wetlands are the others) served as the focus of the workshop and lobbying efforts. Both issues were timely. Clean air legislation is, hopefully, being forced to action on both the House and Senate floors, and the Prime Minister of Canada was in town voicing his concerns about acid rain. Furthermore, oil development in Arctic National Wildlife Refuge is being pursued by oil and gas interests, and there was a subcommittee vote on this matter during the week. Fortunately, and thanks in part to Audubon's lobbying efforts, oil development has so far been stymied.

A significant part of the workshop dealt with developing effective lobbying techniques: ways that we could bring our concerns, both national and local, to the attention of our representatives. The bottom line on lobbying is this: do it. Lobbying doesn't depend on high-powered Washington firms, or even on Washington-based volunteers or staff. A letter is effective lobbying, and its something we all can do. More: its something we all should do; if we don't write the letters that keep environmental issues before politicians, the politicians forget those issues.

There was more on lobbying, of course, but this isn't the proper forum to discuss details. I will lead a discussion of lobbying techniques from 6:30-7:30 p.m. on June 6, just before the regular conservation committee meeting (see announcements elsewhere in this issue of the *Stilt*.)

By Wednesday we were armed with issues, information and training, and we set out to lobby. In addition to concerns about clean air and the Arctic National Wildlife Refuge, I took several local concerns to express to our Congressional delegation. These included acquisition of Stump Hollow in Logan Canyon, Idaho Wilderness legislation, designation of City of Rocks as a reserve, and reauthorization of the Central Utah Project (CUP) with formation of Utah Lake National Wildlife Refuge.

I had appointments with Representatives Richard Stallings, James Hansen, and Wayne Owens; as it turned out, I met with Owens' aide, Matt Durham. I also met with Senator Jake Garn and Sharon Matthews, aide to Senator Orrin Hatch. Reps. Stallings and Owens supported a strong Clean Air Act and protection of Arctic National Wildlife Refuge with varying degrees of enthusiasm. Rep. Hansen and Senators Garn and Hatch were most sensitive

to economic and public health concerns with regard to clean air and the Arctic Refuge, but none of them were very supportive of Audubon's positions on these matters.

Politicians' positions on local concerns were the most interesting. Rep. Stallings strongly supported creation of the North Mt. Naomi Wilderness, a proposed extension of the existing Mt. Naomi Wilderness here in Utah. He didn't support creating either Cache Crest or Cache Peak Wilderness Areas, two other wilderness areas proposed just north of the Utah-Idaho border. He also held out little hope for creating City of Rocks National Reserve in this Congress; opposition to the City of Rocks bill comes from Senator McClure, who is concerned about water rights.

Of the Utah delegation, Rep. Hansen has supported attempts to acquire Stump Hollow. He wrote Rep. Sydney Yates' Subcommittee on Interior and Related Agencies asking for funding to acquire the tract. Rep. Hansen will also support, or at least go along with, strong mitigation measures coupled to reauthorization of the Central Utah Project. Unfortunately, he may not support creation of Utah Lake National Wildlife Refuge, which is increasingly viewed as necessary mitigation for CUP. This is particularly disturbing because he was the person who originally introduced legislation to create it. I suspect Hansen is getting cold feet because Senator Garn opposes formation of a federal refuge and because he is up for re-election this fall, but there could be other factors.

Rep. Owens has been a leader in getting strong mitigation measures attached to CUP, and he deserves tremendous credit for this effort.

Senator Garn has been and remains steadfastly opposed to forming a National Wildlife Refuge on Utah Lake. He did indicate, however, that he might consider an alternative designation so long as it did not involve federal control or management. Sharon Matthews, Senator Hatch's aide, largely echoed the same concerns as Senator Garn about forming the refuge.

Besides lobbying, we met with two high-ranking agency officials: Lee Thomas, director of the Environmental Protection Agency, and Bob Dawson, associate director of the Office of Management and Budget (OMB). Our meeting with Thomas was cordial, and I almost got the feeling that he is a little embarassed about having to defend President Reagan's policy on acid rain. But defend it he did, in a metered, carefully-worded southern drawl that is quite disarming.

If Thomas was likable, Bob Dawson was a cold fish. He's cordial enough (although he does take an occasional jab) and also speaks in a fine southern drawl . . . but he's lifeless. He defended the President's environmental

policies in dull monotone, as if by rote. But make no mistake about this: OMB may be the most important agency in the executive branch because they review all legislation, agency rules and budgets for consistency with the President's policies. Brock Evans, Audubon's National Issues Vice-President, said that our visit to OMB was a visit to the inner sanctum. The agency certainly gives that impression. There's the power of the agency, its quarters in the beautiful, palatial Old Executive Office Building, and the security check required to get in, all of which combined to make our introduction to OMB the most disquieting of all the week's activities.

But as far as I'm concerned, the biggest impact of the week came from the people of Audubon, both the staff and the other volunteers participating in the workshop. National Audubon's Washington staff is an extremely hard working and talented group, including people like Liz Raisbeck, Vice-President for Government Relations, a consummate Washington pro, very classy, very knowlegeable, and very committed to protecting the environment. Hope Babcock, Chief Counsel, a tough lady with a degree from Yale, which didn't seem surprising. Brock Evans is the epitome of an environmental gunslinger: he's been heavily involved with creation of North Cascades National Park and in the Alaska lands bills. Pat Baldi (Director or Population Issues) and Fran Spivy-Weber (Director of International Issues) have largely created their own international program by securing outside grants. They seemed especially interested in spending as much time with the volunteers as possible, which was flattering.

The list goes on: Wildlife Specialist and former activist with Utah Audubon in Salt Lake City, Jim Pissot, Director of Water Resource Programs, Ed Pembleton, Deputy Council, Ann Strickland, Audubon Television Producer, Chris Palmer and Wildlife Specialist, Cynthia Lenhart—they're an outstanding group. And there was Connie Mahan, our nervous hen-mother for the week, who did a great job organizing the program. She seemed to have a hard time accepting that the volunteers were basically comfortable with the idea of lobbying and that as a group we had no intention of sleeping very much since that would cut into tourist time (the Jefferson Memorial at 3 a.m. is nice).

Which brings me to the great group of people I spent the majority of the week with, the other volunteers. Ages ranged from about 30 to 70 and people hailed from Mexico to Alaska, from the Everglades to Long Island. Some are running for political offices: County Commission and U.S. House of Representatives. One representative from a year-and-a-half old chapter is engaged in a \$500,000 (!) fund raising effort to protect local natural areas. The directors of Audubon's nature

camps in the west (Wyoming) and the east (Maine) attended. One of the leaders of the rebellion over staff cuts in the regional offices that rocked Audubon last year also attended. All in all I felt privileged to spend time with and learn from these very dedicated people.

There was more, of course: press conferences, acid rain protests, the National Zoo, the Botanical Gardens, meetings with "key" Senators and Congressmen . . . but there simply isn't room for all of it here. If you want to know more, and I hope you do, I encourage you to apply for this environmental activists "bootcamp," as Audubon's president, Peter Berle, called it.

And finally, I want to thank Bridgerland Audubon Society (thats all of you) for paying my airfare and making it possible for me to attend this outstanding workshop.

- Bruce Pendery

And Then There Were... Twenty-eight?

I fall goes well, by the time you read this, there will be a new addition to the population of captive California condors at the San Diego Wild Animal Park: condor number 28—the first ever bred in captivity.

The good news began at exactly 2:04 p.m. Pacific Standard Time on March 3, when a female condor laid an egg, a first for the captive birds. "The egg was removed from the condors' nest box and placed in an incubator that same day," reported Audubon's condor biologist Linda Blum. "The folks at San Diego Wild Animal Park, who have successfully incubated and hatched 15 of the 16 California condor eggs that were brought in from the wild since 1983, say that the new egg is large even by condor standards," she noted at the time.

A few days later, the egg was "candled," or held up to a bright light, and found to be fertile. The anticipated hatching was expected to happen sometime between April 27 and May 2. Following the egg laying, the condor pair was said to have begun copulating again, raising hopes that a second, "replacement" egg would ensue.

[POSTSCRIPT: For those who haven't heard, there is a 28th California Condor. Molloko was hatched—with considerable help from the San Diego Wild Animal Park "step-parents." The significance of this particular hatching is not so much that it occurred in captivity, although that is exciting, but that it is the first hatching conceived in captivity. That's essential to restoring the wild California condor popoulation.]

Acid Rain Is Falling in Your Own Backyard by Dorene Bolze, Audubon Environmental Policy Analyst

Acid rain is now reaching far beyond the Northeast. Data from the Audubon Citizens' Acid Rain Monitoring Network is confirming that unnaturally acidified rainfalls and snowfalls occur throughout much of the United States—and could be falling in your own backyard. Acid rain damages lakes, soils, and forests, and erodes buildings, statues, and bridges. The air pollutants that cause acid rain create and aggravate respiratory problems for millions of people.

Precipitation is normally acidic, with a pH value of about 5.6, because of naturally occurring weak acids, such as carbon dioxide. (The lower the pH value, the more acidic the substance.) "Acid rain" refers to precipitation that has a pH of 5.0 or lower. Coal-burning power plants, factories, and motor vehicles are the major sources of sulfur dioxide and nitrogen oxides, the primary air pollutants that react in the atmosphere to acidify rain, snow, sleet, and fog.

Acid rain has already caused widespread acidification of aquatic ecosystems in the northeastern United States, as well as in Canada, Norway, Sweden, and England. More than 200 lakes in the Adirondack Mountains of New York are too acidic to support fish. Between the 1930s and 1975, the average lake pH dropped from 6.8 to 4.8, a hundred-fold increase in acidity. Even though other regions of the United States have not shown such dramatic increases, the continuous onslaught of acid rain has reduced the natural buffering capacity of lakes throughout the country.

Acidification profoundly affects lake ecology. At a pH of 6.5, snails and tadpoles begin to die. Lakes with a pH of 5.8 are too acidic for salmon, trout, and bass. Fish eggs cannot survive in water with a pH of 5.4, and lakes with a pH of 3.5 are devoid of fish.

Rain and snowfall are generally the least acidic in the winter, yet in March Audubon's monitoring network found that the precipitation in 23 states (more than half of the states sampled) had an average pH below 5.0. This abnormally acidic rain fell in every state east of the Mississippi, except for Florida, and in Wyoming and Utah. Twelve of these states had pH averages at least ten times more acidic than normal (pH 4.6 or below): Massachusetts (less than 4.0), New Jersey (less than 4.0), Kentucky (4.0), Connecticut (4.1), Indiana (4.2), West Virginia (4.2), Pennsylvania (4.2), Maine (4.3), Maryland (4.4), Ohio (4.5), Alabama (4.6) and New Hampshire (4.6).

Since the Citizens' Acid Rain Monitoring Network was launched in July 1987, the ranks of dedicated monitors have steadily swelled to more than 200 volunteers in 43 states—and are expected to cover all 50 soon.

The rapid and scientifically reliable reporting of the acidity of rainfall by the network plays a pivotal role in Audubon's campaign to control acid rain. The results are circulated widely to media and government officials. National Audubon believes that increased public awareness will pressure Congress and the Reagan Administration to pass badly needed legislation to curb air pollution that not only causes acid rain, but also urban smog. air toxics, deterioration of our national parks, and unhealthy ozone concentrations in our cities.

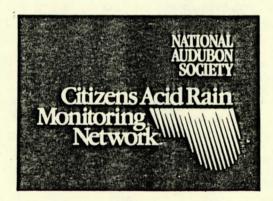
Acid Rain Monitoring Network Needs Your Help

The Citizens' Acid Rain Monitoring Network, launched by National Audubon Society in July 1987, has more than 200 dedicated volunteers measuring the acidity of rainfall in their area. The monitoring network plays a pivotal role in Audubon's campaign to control acid rain. The results are circulated widely to the press and Congress by National Audubon through monthly press releases. Many monitors have had local news coverage. Some even have their pH readings reported as part of the local weather reports.

In order to complete our nationwide coverage, the network still needs dedicated volunteers in your state. The responsibilities of an acid rain monitor include:

- collecting rain samples and measuring their acidity
- reporting the data via the HOTLINE (a toll-free number)
- contacting your local media and congressional representatives every so often
- a one-year commitment to the project
- ♦ \$25 to cover the cost of the Acid Rain Test Kit.

Join the network today. Contact: Eileen Brown, National Audubon Society, 950 Third Ave., New York, N.Y. 10022, or call the HOTLINE: 1-800-832-RAIN.



THE TWO-PERCENT SOLUTION by Peter A.A. Berle President, National Audubon Society

It is lamentable that the candidates for president of the United States have said little about improving environmental quality while insuring economic health. No one should seek to be the most powerful leader in the world without articulating a vision about how to achieve both. No voter should permit a candidate to conduct a campaign without addressing these issues.

The next president of the United States should establish as a national goal the improvement of energy efficiency by two percent a year. This means that we should burn fewer energy units per dollar of Gross National Product in each successive year. The goal is clearly achievable. In 1973 we burned about 26 thousand BTUs of energy for every (1985) dollar of GNP. In 1985, the figure had been reduced to about 20 thousand BTUs. While our conservation measures have been significant and inflicted through the marketplace with only minor pain, we are far more inefficient than our trading partners or competitors. In Great Britain, BTU consumption per dollar of GNP is about 12 thousand and in Japan it is about 10. Stated differently, if the United States used energy as efficiently as Japan, we would cut our annual fuel bill by \$200 billion, allowing us to be more competitive on world markets. In contrast, the Soviets consume three times as much energy per dollar of output than the Japanese.

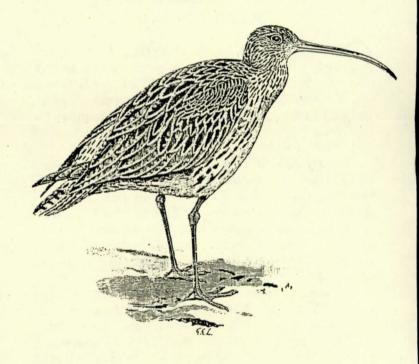
While the economic arguments for increased efficiency are compelling, the ecological case is even more vital. Energy production and use—especially the burning of fossil fuels—is a primary source of pollution. The more conservatively we burn coal and oil, the less acid rain and choking smog we produce. Also, according to the Worldwatch Institute, a worldwide, two-percent increase in energy efficiency could help us avoid environmental catastrophe through the "greenhouse effect"—climate warming due to carbon dioxide buildup in the atmosphere.

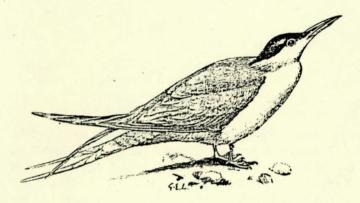
The two-percent solution must be an important goal for the next president; it would help our economy and our environment. It is time for voters to demand that environmental and conservation goals be an important part of the presidential campaign.

Activists Are Tough On Issues!

Audubon Activists are TOUGH BIRDS! They read the Audubon Activist bimonthly newsjournal to stay on top of crucial environmental issues. They get Action Alerts from Audubon's Washington, D.C., office when an issue needs their immediate help. They write to their congressmen and congresswomen to promote the conservationists' cause. They call the Audubon Hotline for upto-the-minute news. They eat their vegetables.

Become one of the TOUGH BIRDS today! Join the growing Activist Network. Write for a free sample copy and order form: *Audubon Activist*, 950 Third Ave., New York, N.Y. 10022.





Audubon Specials Light Up Summer Screen

an people learn to coexist with grizzly bears? A new Audubon Television Special takes viewers to bear country—from Yellowstone National Park to Alaska—to find the answer to this question. The program, which includes fascinating footage of grizzlies, examines the controversies surrounding efforts to save North America's largest land carnivore.

"Grizzly & Man: Uneasy Truce," narrated by Robert Redford, opens this summer's series of Audubon television programs on PBS. The specials are co-produced by Audubon, Turner Broadcasting System, and WETA/TV and underwritten by a major grant from the Stroh Brewery Company. The summer PBS series, Sundays at 8 p.m., includes this season's four new programs as well as four specials from the previous year.

The summer schedule is: June 26—Grizzly & Man: Uneasy Truce; July 3—On the Edge of Extinction: Panthers and Cheetahs; July 10—Wood Stork, Barometer of the Everglades; July 17—"Whales!"; July 24—Messages from the Birds; July 31—Galapagos: My Fragile World; August 7—Common Ground: Farming and Wildlife; and August 14—Ducks Under Seige.

Videocassettes of these programs for schools and libraries are available, along with a teacher's guide. For information, contact WETA/TV, Education Activities, Box 2626, Washington, D.C. 20013; 1-800-346-6600. The companion book to the Audubon specials, *Life in the Balance*, is available in bookstores for \$29.95. Companion computer software will be available in June.

Audubon Study Reveals Feeding Problems of Seabirds

Until recently, most studies of seabirds have focused on their breeding site requirements. But a series of investigations being conducted by Audubon research biologist Carl Safina begins where others have stopped: at the water's surface.

For several years, Carl has been studying the relationship between common terns and the fish community in the Atlantic Ocean off Long Island, New York. His aim is to understand what food and foraging-habitat resources a population of terns requires in order to remain healthy. Working from an 18-foot outboard dubbed Ternabout, Carl follows terns commuting to and from a large breeding colony near Fire Island Inlet. When terns gather in large feeding flocks, he measures fish abundance, density, and average depth, as well as the terns' prey-capture rate. He also uses sonar to get a computer printout of fish school profiles. "Trying to study what's happening under the surface of the ocean while you're collecting data aboard a small boat can be difficult; it's like studying forest ecology by flying over and taking pictures," he says. Nonetheless, the technique proved effective.

Safina has found that, in general, prey fish are less abundant in summer than in late spring. Like terns, these fish are migratory, arriving off Long Island in May. In an average year their numbers increase through May, peak in early June, and then decline.

Another apparent reason for the seasonal decline in the terns' prey is the appearance of predatory bluefish in late May and early June. Terns are strongly attracted to schools of feeding bluefish, which chase prey to the surface. But the relationship is a double-edged sword, because the arrival of the bluefish corresponds with dramatic reductions in prey populations.

The reason for this decline may not be as simple as direct predation by bluefish, however: The prey's behavioral response to predation seems largely to account for their disappearance. Two principal favorites of terns, anchovies and sand eels, give clues to how prey respond. In years of low bluefish numbers, anchovies remain in the ocean, but when bluefish numbers rise, anchovies flee to the inner reaches of nearby estuaries, where they spend the remainder of the summer in shallow, murky water, largely safe from detection by bluefish and terns. Likewise, sand eels are content to feed on ocean plankton all summer, but if predation pressure becomes too high, they are capable of retreating into sand burrows for weeks at a time.

Carl's studies have been partly funded by the South Shore and Moriches Bay Audubon chapters.

Commercial Fishing Nets Drown Thousands of Seabirds

hen the public learned in the late 1960s that thousands of porpoises were being drowned in tuna seines, the reaction was strong enough to force passage of the Marine Mammal Protection Act of 1972. According to an article in the Winter 1987 issue of *American Birds*, there should be a similar outpouring of concern for seabirds.

In western Greenland, salmon gill-nets may have taken 200,000 thick-billed murres a year in the 1970s. Off the Aleutian Islands, driftnets up to 20 miles long drown an estimated 75,000 to 250,000 seabirds annually. Observers aboard fishing vessels counted 21 species commonly found dead in the nets, including auklets, puffins, shearwaters, and ruddy ducks.

Conservationists are pressing the Department of Commerce to regulate U.S. and foreign fishing fleets under the Migratory Bird Treaty Act, Marine Mammal Protection Act, or other laws, but so far neither the agency nor the courts has done much to alleviate the problem. California agencies, by contrast, moved to protect seabirds in the Gulf of the Farallons, where murres have declined drastically due to gill-net fishing.

A bill Congress passed last year requires foreign fishing vessels operating in U.S. waters to allow onboard observers, and sets up a system to track abandoned driftnets, which can go on killing for years. Conservationists were disappointed that a provision to set a seabird protection zone around the western Aleutian Islands was dropped from the final legislation.

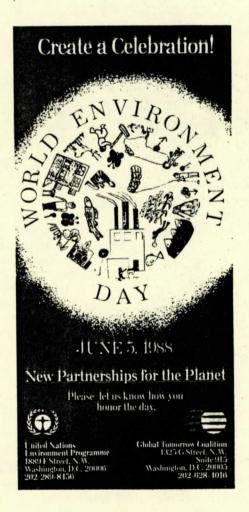
For a copy of *American Birds* containing the article on the effects of gill-net fishing on seabirds, send \$5 to *American Birds*, National Audubon Society, 950 Third Avenue, New York, N.Y. 10022.

Pelagic Trips

Readers of Audubon magazine know about last year's American Birds pelagic trips from Frank Graham's entertaining article in the January 1988 issue. This year, American Birds announces four different four-day trips to various points off the Atlantic Coast. Trip leaders include Susan Drennan, Kenn Kaufman, Guy McCaskie, and Peter Harrison. Trip dates: May 26–30; June 1–5; August 24–28; September 7–11. Price: \$400. Contact: Whales and Seabirds, 2378 Rt. 97, Cooksville, Md. 21723.

Birding Workshop

A merican Birds, the ornithological field journal of the National Audubon Society, will be offering a weeklong birding workshop again this year from June 18 to June 24, at Elk Lake Lodge in upstate New York. Last year, participants were treated to views of nesting black-backed woodpeckers, ruffed grouse, and boreal chickadees, as well as to comprehensive seminars by top experts. This year's workshop leaders include Susan Roney Drennan, ornithologist and editor of American Birds, and Geoff LeBaron, editor of the Christmas Bird Count. The accommodations are comfortable and convenient; the surroundings, breathtaking—the boreal forest, lakes, and mountains of the Adirondack Preserve. The all-inclusive price is \$650. Contact: Elk Lake Lodge, North Hudson, N.Y. 12855; (518) 532-7616.



National Audubon Society C H A P T E R

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Complete the following application and enclose a check for the amount for the appropriate type of membership. Send it to:

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Chapter Membership Data Center
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The editor of The Still invites submissions of any kind, due on the 15th of each month. Send to 718 N. 200 E., Logan, UT

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