

Peoria Audubon Society

Newsletter

NO. 7

A CHAPTER OF NATIONAL AUDUBON SOCIETY

JUNE 1988

FROM THE PRESIDENT

By the time this message is printed and mailed the migratory season is pretty well behind us. Our spring field trips and the Illinois Migration Survey are over. Now we have one task left and that is our summer chores to survey our assigned blocks for the Bird Breeding Atlas work in Woodford and Marshall counties. All blocks have been assigned. If you are not working this year in these two counties, you may still want to upgrade your blocks in Peoria, Tazewell, Fulton, or Mason counties, which were done during the past two years, or you might want to do one of the blocks not covered in prior years. Please, let me know and we can come to terms. I will mail you maps, instructions and forms. We would love to have you on board. Otherwise, I wish you a happy summer with much good birding wherever you go and I hope to see you all again in September for our brand new fall programs.

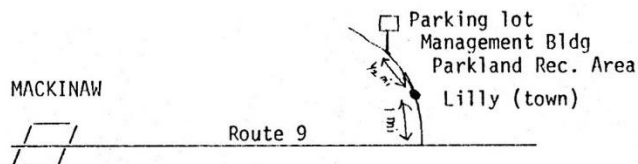
L.H. Princen, President
Peoria Audubon Society

NEXT MEETING

Wednesday, SEPTEMBER 14th at 7:30 p.m. at Lakeview Museum

FIELD TRIP!

SATURDAY, JUNE 18 - PARKLANDS RECREATION AREA, TAZEWEEL COUNTY, under the direction of Dr. Dale Birkenholz, Professor of Biological Sciences at ISU. This is a new area under development by the DOC and amidst some dispute as to its ultimate uses. This trip will highlight nesting species and unusual flora of an important natural area in Central Illinois and is a new area to our group. The group should meet at 8:00 a.m. at the parking lot. Call Mike Shekeleton if you plan to attend at 686-2088.



PEORIA TO HOST PRAIRIE CONFERENCE

The Second Central Illinois Prairie Conference will be held September 24-25, 1988, at beautiful Wildlife Prairie Park, just outside of Peoria. The conference will cover a variety of topics related to prairie ecology and management techniques, utilizing formats such as group sessions, workshops, roundtable discussions, expert speakers, and field trips to local areas of interest. Dr. Virginia Kline, Director of the University of Wisconsin Arboretum, has been scheduled to deliver the keynote address.

The \$20 advance registration fee will include all conference materials and programs, admission to and lunch at Wildlife Prairie Park, and eligibility to attend scheduled field trips. Discounted admission to Wildlife Prairie Park will be available to non-attending family members accompanying conference registrants.

The conference is being organized by Grand Prairie Friends of Illinois in conjunction with several other state, regional, and local organizations. Program brochures, registration packets, and exhibitor information may be obtained by writing: Grand Prairie Friends, 1988 Prairie Conference, P.O. Box 9059, Peoria, IL 61614.

AUDUBON TELEVISION SPECIAL

An Audubon Special to air on national television is "Message From the Birds" narrated by Martin Sheen. This program is about birds as indicators of environmental degradation and has a special focus on shorebirds. It will appear on Super-Station TBS on June 27 at 10:05 p.m.

AUDUBON SPECIALS LIGHT UP SUMMER SCREEN

Can 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 7 p.m., includes this season's four new programs as well as four specials from the previous year. The schedule is

JUNE 26	GRIZZLY AND MAN: UNEASY TRUCE
JULY 3	ON THE EDGE OF EXTINCTION: PANTHERS AND CHEETAHS
JULY 10	WOOD STORK, BAROMETER OF THE EVERGLADE!
JULY 17	WHALES!
JULY 24	MESSAGES FROM THE BIRDS
JULY 31	GALAPAGOS: MY FRAGILE WORLD
AUGUST 7	COMMON GROUND: FARMING AND WILDLIFE
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, or call 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.

Activists Are Tough On Issues!

Audubon Activists are TOUGH BIRDS! They read the Audubon Activist bimonthly newsletter 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 up-to-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.

Commercial Fishing Nets Drown Thousands of Seabirds

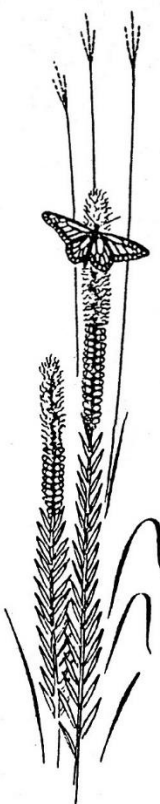
When the public learned in the late 1960s that thousands of porpoises were being drowned in tuna seines, the reaction was strong enough to force passage of the Marine Mammal Protection Act of 1972. According to an article in the Winter 1987 issue of American Birds, there should be a similar outpouring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

In western Greenland, salmon gill-nets may have taken 200,000 thick-billed murrelets 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 murrelets 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. □



SPRING BIRD COUNT

Thank you to all participants and compilers of the May 7th count!

Fulton (F) Virginia Humphreys
Mason (M) Dick Bjorklund
Peoria (P) Louise Endres
Tazewell (T) Eleanor Voeste
Woodford (W) John Todd

	F	M	P	T	W
1	2	1	-	1	-
132	14	16	14	9	-
12	15	9	17	-	-
4	-	3	1	5	-
4	7	2	-	-	-
235	-	122	85	41	-
34	91	32	16	34	-
42	83	45	67	47	-
30	42	13	4	10	-
-	2	14	-	-	-
2	-	-	-	1	-
1	-	-	-	-	-
9	-	-	-	-	-
24	19	9	3	4	-
-	1	1	1	-	-
1	1	1	2	3	-
9	4	11	2	2	-
-	-	1	4	2	-
7	38	8	1	15	-
40	41	10	2	8	-
1	-	-	-	-	-
1	-	-	-	-	-
7	50	15	148	11	-
-	-	-	-	93	-
32	6	-	-	5	-
44	26	18	19	21	-
15	24	-	1	-	-
8	38	2	-	4	-
10	7	1	1	8	-
12	10	-	-	5	-
-	-	1	-	-	-
-	72	-	-	-	-
1	13	-	-	8	-
79	16	-	-	5	-
21	10	7	25	4	-
8	-	10	8	3	-
21	47	45	74	80	-
109	63	83	50	64	-
1	1	2	1	-	-
1	1	4	1	-	-
-	-	1	1	-	-
1	2	1	1	-	-
3	3	3	6	-	-
-	-	2	-	-	-
55	12	7	-	-	-
-	34	2	19	52	-
-	-	2	10	1	-
5	1	2	10	6	-
39	28	10	12	22	-
29	25	10	10	12	-
-	-	-	-	1	-
29	20	15	8	11	-
5	3	4	1	3	-
34	27	25	17	114	-
4	2	-	-	-	-

F	M	P	T	W
4	9	10	1	4
-	-	-	-	1
6	5	1	1	1
31	1	3	2	2
17	39	10	8	12
31	9	4	4	8
34	37	29	27	172
57	18	13	90	23
34	23	22	17	35
30	98	19	6	22
68	3	9	21	37
37	-	-	-	-
203	110	77	-	-
133	143	134	45	82
56	22	54	83	66
73	24	57	31	29
30	25	47	48	30
33	12	15	27	18
57	4	44	5	19
57	55	41	-	1
2	4	1	41	68
5	3	5	1	7
40	30	10	-	8
-	2	1	4	-
1	-	-	-	1
1	2	3	3	-
3	10	11	1	6
394	225	264	422	490
18	36	23	15	31
34	33	15	16	29
1	1	10	-	18
1	-	-	-	-
428	312	194	359	287
-	2	-	2	-
12	1	2	-	3
25	29	10	4	24
6	1	3	3	6
-	-	1	-	-
-	2	1	-	1
5	24	37	2	5
-	12	-	10	5
2	12	1	1	4
1	1	11	3	2
5	10	-	-	-
1	13	-	-	-
-	2	-	-	-
21	8	5	13	11
3	4	1	-	2
20	-	-	-	3
1	-	1	-	-
-	-	3	-	-
-	5	3	3	1
-	4	2	-	-
-	2	-	-	-
5	3	-	-	1
26	-	-	-	5

Eastern Wood-Pewee
Acadian Flycatcher
Least Flycatcher
Eastern Phoebe
Grt. Crestd Flycatcher
Eastern Kingbird
Horned Lark
Purple Martin
Tree Swallow
No. Rough-wing Swallow
Bank Swallow
Cliff Swallow
Barn Swallow
Blue Jay
American Crow
Black-cap Chickadee
Tufted Titmouse
Wh-breast Nuthatch
Carolina Wren
House Wren
Ruby-crwned Kinglet
Blue-gray Gnatcatcher
Eastern Bluebird
Veery
Gray-checked Thrush
Swainson's Thrush
Hermit Thrush
Wood Thrush
American Robin
Gray Catbird
No. Mockingbird
Brown Thrasher
Water Pipit
Cedar Waxwing
Loggerhead Shrike
European Starling
White-eyed Vireo
Solitary Vireo
Yel-throated Vireo
Warbling Vireo
Philadelphia Vireo
Red-eyed Vireo
Blue-winged Warbler
Golden-wgt Warbler
Tennessee Warbler
Orange-crn Warbler
Flashville Warbler
Northern Parula
Yellow Warbler
Chestnut-sd Warbler
Magnolia Warbler
Cape May Warbler
Yel-rumped Warbler
Blk-chr Grn Warbler
Blackburnian Warbler
Yel-throated Warbler
Pine Warbler
Prairie Warbler
Palm Warbler
Bay-breasted Warbler
Blackpoll Warbler
Cerulean Warbler
Blk-6-wht Warbler
American Redstart

F	M	P	T	W
9	14	-	-	-
-	4	1	2	-
-	4	2	-	-
1	3	-	-	-
32	29	26	12	42
-	-	1	-	1
-	-	2	-	-
-	-	-	-	1
13	10	5	2	1
116	61	130	51	65
57	99	18	14	23
49	57	27	14	34
17	33	2	-	5
6	52	12	10	9
30	46	44	35	86
30	43	27	13	32
-	2	1	1	5
6	17	1	-	2
2	2	1	1	2
3	26	2	1	10
37	26	26	26	43
1	-	11	4	-
2	21	4	4	3
6	25	8	-	28
128	32	25	35	30
645	501	266	434	832
62	48	45	49	411
13	6	-	-	3
828	369	562	315	838
155	74	70	34	115
3	6	6	-	1
113	92	53	25	34
4	-	4	-	-
98	71	90	85	115
590	289	240	290	1100
16	27	1	1	-
-	-	-	-	-
-	-	1	-	-
-	-	4	-	2
-	-	-	-	1
-	-	-	-	7
1	-	-	-	-
1	-	-	-	-
1	1	-	-	-
1	1	-	-	-
-	25	-	-	-
124	131	118	96	113

Prothonotary Warbler
Ovenbird
Northern Waterthrush
Louisiana Waterthrush
Kentucky Warbler
Common Yellowthroat
Hooded Warbler
Canada Warbler
Yellow-breasted Chat
Summer Tanager
Scarlet Tanager
Northern Cardinal
Rose-breasted Grosbeak
Indigo Bunting
Dickcissel
Rufous-sided Towhee
Chipping Sparrow
Field Sparrow
Vesper Sparrow
Lark Sparrow
Savannah Sparrow
Grasshopper Sparrow
Song Sparrow
Lincoln's Sparrow
Swamp Sparrow
White-throat Sparrow
White-crowned Sparrow
Bobolink
Red-winged Blackbird
Eastern Meadowlark
Western Meadowlark
Common Grackle
Brown-headed Cowbird
Orchard Oriole
Northern Oriole
Pine Siskin
American Goldfinch
House Sparrow
Eurasian Tree Sparrow
Junco
Bl-throated Blue Warbler
House Finch
Connecticut Warbler
Turkey
Snow Goose
Canvasback
Alder Flycatcher
Clay-colored Sparrow
Blue Grosbeak
Northern Warbler
Chuck-will's-Widow
Red Crossbill

TOTAL SPECIES SIGHTED
FOR EACH COUNTY

SPRING BIRD COUNT NOTES
MASON COUNTY

Ten persons in four parties detected 131 species, down sharply from 151 in 1987. A combination of late arrival of several commonly seen summer residents and spring migrants, and the draining of Negro Lake near Havana, usually a good site for wetland species, is probably responsible.

Four of us camped at Sand Ridge Forest on Friday night and enjoyed the "arguments" of a pair of barred owls and the calling of the chuck-will's-widow, as well as an early morning "coyote chorus". One of the coyotes came out on Sand Ridge Road after sunrise.

Have you ever wondered where the birds at your feeder come from, where they go when they leave, and why bird numbers change from year to year? Do you want to know what birds come to feeders in different parts of North America? Project FeederWatch is a new continentwide survey of bird feeders designed to help answer questions such as these, and you are invited to join.

Project FeederWatch is a cooperative research venture of the Cornell Laboratory of Ornithology and Canada's Long Point Bird Observatory, and is in the midst of a successful pilot year with 4,000 participants from all across North America. The project is modelled on a survey run successfully in Ontario for the past 11 years, which has shown that male Evening Grosbeaks winter farther south than females, Black-capped Chickadees are found in low numbers when Evening Grosbeaks are abundant, and numbers of many species at feeders parallel those found on Christmas Bird Counts.

Sound interesting? Project FeederWatch needs thousands of additional observers across the continent to help answer questions about feeder birds on a broad geographic scale. You need not be an expert birder to take part--the project concentrates on common species, and baffling rarities can be ignored. Although counts are made over a one- to two-day period of your choice every other week from November through March, you are not obliged to watch every time, nor must you watch continuously on count days. All observations are recorded on computer-readable forms so that detailed summaries can be provided to participants promptly each season and to insure that the data are readily available for further analyses.

In return for your observations, Project FeederWatch will send you an annual newsletter and report on the season's results, plus 2 issues of "Birdscope", the Laboratory of Ornithology's research newsletter. If you can't take part but would like to receive these publications anyway, you may subscribe to them separately.

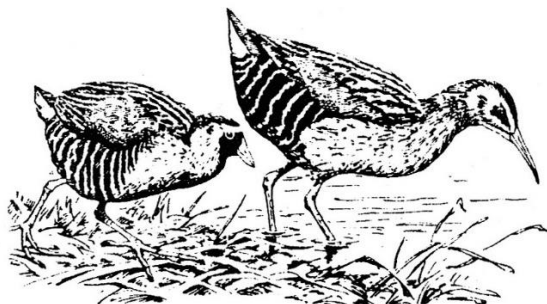
Project FeederWatch requires an annual registration fee of \$9, which helps to pay for data forms, analysis and preparation and mailing of reports and newsletters. To join, write to Erica Dunn, Coordinator, Project FeederWatch, Cornell Laboratory of Ornithology, Sapsucker Woods, Ithaca, NY 14850. Include your name and address, state whether you wish to contribute observations from your feeder or just receive reports, and enclose your check for \$9 (made payable to 'Project FeederWatch'). Please sign up right away, to help them plan how many forms to print and to avoid mailing delays. You will receive all materials and instructions just before the season begins in mid-November, 1988. Help make Project FeederWatch a truly continental survey by representing our state!

CHAUTAUQUA FIELD TRIP REPORT

On Saturday, March 19, ten Audubon members braved late winter conditions (20 mph winds, hazy to overcast sky following early morning sun and 20-45°F temperatures) for the traditional early spring tour of the Illinois River valley south to Havana on the east side of the river and return on the west side.

Although many of the early spring migrants usually encountered on this trip were not yet present, 66 species of birds were seen. Waterfowl were present in goodly numbers and excellent diversity (Canada geese and 19 species of ducks). Turkey vultures had returned, bald eagles displayed aerial courtship, red-tailed hawks at Clear Lake were being mobbed by crows, and rough-legged hawks and American kestrels were also seen. We especially enjoyed seeing a red phase of the eastern screech owl sleepily peering from a wood duck box at Spring Lake. Other noteworthy species included a kingfisher, eastern bluebird, red-breasted nuthatch and red crossbill in the same tree at Sand Ridge Forest. Among early migrants, towhees and fox sparrows were noted along with the winter residents, evening grosbeak and purple finch. Viewing conditions were generally good despite wind and cloudiness.

Dick Bjorklund



FIELD TRIP REPORT

On April 24th 4 people attended the Johnson Sauk Trail State Park field trip. Among the 61 species found they saw 63 cormorant, green heron, black-crowned night-heron, ruby-crowned kinglet and a barred owl.

FIELD NOTES

- March 31 - Shorebirds: 4 pectoral sandpipers, several golden plovers and greater & lesser yellowlegs were seen by Brenda Onken and party near the "Old Audubon Waterhole", "Cat" property & Mr. Hayes & Schielein property. These sightings were first reported by Louise Augustine who also saw a cattle egret and many blue-winged teal and shovelers and some wood ducks.
- Marie Welty had a yellow-bellied sapsucker at the Old Hites property on April 5th but she was thrilled the most by a sandhill crane that was flying NW overhead as her party was watching the 20+ Smith's longspurs on "Cat" property March 31 and east of Mossville School.
- Mr. & Mrs. Woodrow White saw a pileated woodpecker at Spring Lake on April 7th.
- The black scoter spotted at Spring Lake on April 9th by some of the MSD birders was gone April 10th but the eared grebe was seen by Louise Augustine again.
- April 10 - Two hermit thrushs and a yellow-rump warbler were seen in Woodford County by Brenda Onken.
- Louise Augustine saw a mature avocet at Clear Lake (Mason Co) and one at Big Lake (Fulton Co).
- Two beautiful black-bellied plover were seen at Clear Lake by Louise Augustine and one at Big Lake.
- The Peoria Nature Center has been good for warblers this spring. Connecticut and mourning warblers were seen on May 23rd by Louise Augustine. Also earlier a worm-eating warbler was seen.
- Brenda Onken's black-throated blue warbler (male) was great, too, at Roanoke Park.
- May 21 - A black-necked stilt was seen by Louise Augustine at Mendenhall.

Virginia Humphreys

PREDATOR PREJUDICE IN WISCONSIN DNR

The following is adapted from an article in the March issue of the Chicago Academy of Sciences' newsletter, Newcasts, by Mark Spreyer, Director, Chicago Peregrine Release.

For years I have been lecturing on behalf of owls throughout the Midwest. Four permanently injured owls aid in my educational lectures. Three of these birds are state endangered species.

The other endangered species I work with is the peregrine falcon.

Recently, the Wisconsin Department of Natural Resources decided that it needs to kill great horned owls in order to protect its peregrine reintroduction program. I think such a regrettable approach sets back the cause of raptor conservation and reflects poorly on the Wisconsin DNR, particularly their endangered resources bureau, which is initiating the "owl control" program.

The state-supported owl shoot is not a secret. The story has been featured, prominently in the Milwaukee Journal. What is the state saying to its public when it describes owl predation as "villainous" or distorts the facts with information such as, "They feed on rodents, mostly, and other small birds, when infant falcons are not available"?

Owls feed primarily on rodents, rabbits, skunks, squirrels and other species that pose potential economic risks to farmers. They only feed on falcons when humans are careless and release young, parentless falcons in an owl's territory.

Owl problems can be anticipated. You simply survey the area during the winter months when the owls are actively hooting and mating and generally are more visible. Had the Wisconsin DNR planned and surveyed appropriately, they would not have located their falcon release site in the middle of owl territory.

In addition, hacked peregrines seem less wary around potential threats than do falcons raised by wild parents. Perhaps the captive breeding program needs to be redesigned so that young falcons learn early on what trouble looks like.

The Wisconsin DNR is committing a grave error in killing the predator to favor the prey. Another cause of mortality among young peregrines is aggressive adult peregrines. The DNR certainly is not going to "control" these adult falcons.

Peregrines are rare, but that does not make me value owls less. Predators and prey each play their role. The owls are not the problem. In Wisconsin, uninformed management is the problem.

You can send comments regarding the owl shooting program to the Wisconsin Department of Natural Resources, Bureau of Endangered Species, Box 7921, Madison, WI 53707.

(In March 1988 issue of the Chicago Audubon Newsletter Compass.)

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.

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.

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.

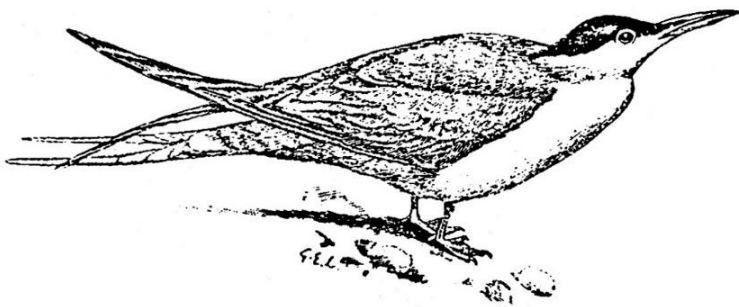
The reason for this decline may not be as simple as direct predation by bluefish, however: The prey's behavioral response to predation seems largely to account for their disappearance. Two principal favorites of terns, anchovies and sand eels, give clues to how prey respond. In years of low bluefish 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.

Any member is welcome to contribute articles to this newsletter. Have you seen any unusual birds at your home or in the field? Have you been to any meetings, conferences, or camps that you'd like to tell us about? Write it up or call the Editor.

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