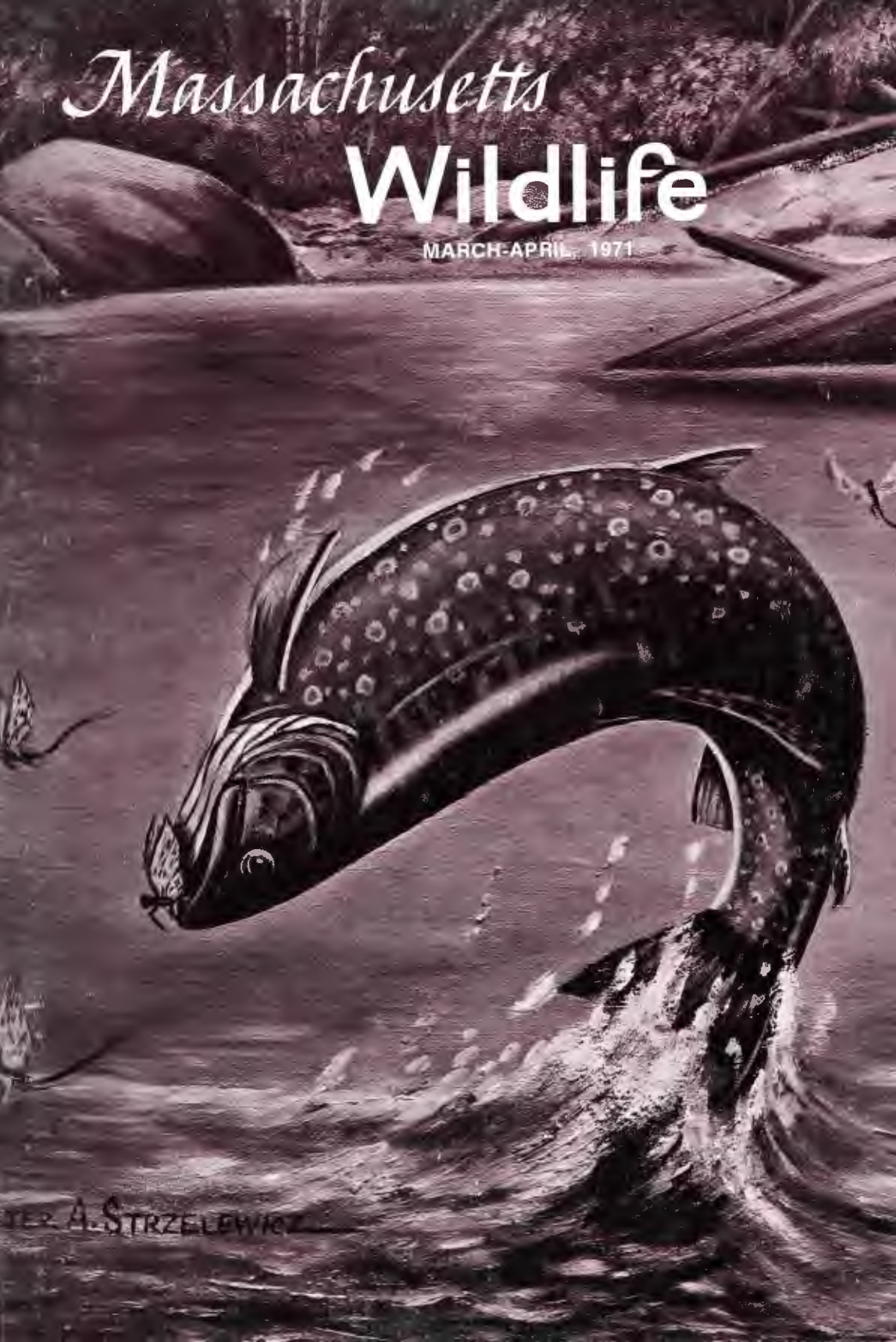
Massachusetts Wildlife

MARCH-APRIL, 1971



Massachusetts Wildlife

MARCH-APRIL, 1971 VOL. XXII NO. 2

IN THIS ISSUE

Editor's note: The list of stocked trout waters is available upon request from the I and E Section, Fish and Game Field Headquarters, Westboro, Mass. Please send a stamped, self-addressed envelope.

THE COVER: No, it's not upside down. This painting by Peter A. Strzelewicz, Webster, Mass., depicts a typical "backwards reentry" of a small brookie who's just launched himself into a May fly hatch.

MASSACHUSETTS WILDLIFE is published bi-monthly at Division of Fisheries and Game Field Headquarters, Information and Education Section, Westboro, Mass. 01581, and 8 Portland St., Worcester, Mass. Free subscriptions may be obtained by writing to the editor. Be sure to include ZIP code. Change of address must include old as well as new address and be received at least six weeks before effective date. The editors welcome donated manuscripts, photos and artwork on Massachusetts wildlife, hunting, fishing, trapping, conservation and related subjects. Permission to reprint is granted when proper credit is given.

PUBLICATION OF THIS DOCUMENT APPROVED BY ALFRED C. HOLLAND, STATE PURCHASING AGENT.

FORM FG-108-45M-3-71- 284554 Estimated Cost Per Copy: $.077

SECOND CLASS POSTAGE PAID AT WORCESTER, MASS.

WETLANDS FOR TOMORROW'S FISHING

A special four-page section on wetlands may at first seem oddly out of place in an issue traditionally devoted to fishing, and the fact that it usurps the space once occupied by the list of stocked trout waters may ruffle a few hackles in the fishing fraternity. However, the time has come for Massachusetts anglers to concentrate less on what's being done for them and more on what they can do for fishing. The fresh and saltwater fisheries of this state are ecologically riveted to wetlands and, unless something is done to check wetland exploitation, the day may not be far off when that stocking list won't be worth a six-cent stamp.

It is difficult to spend any time in the outdoors without developing a deep respect for Nature and to imply that the fisherman's universe begins and ends with fish would be unjust and naive. He would listen if we talked about waterfowl, herons, grouse, muskrats, mink, rabbits, deer or any of the countless other species that practically owe their existence to wetlands. But, since this is a "fisheries issue" let's examine wetlands from the fishery angle.

Inland wetlands act as sponges soaking up potential floods that would otherwise choke streams with silt, destroy spawning beds and, quite conceivably spill into the fisherman's living room. Then, during the dry months of summer, they recharge receding ponds and streams with cool, oxygen-rich ground water.

Wetlands reduce concentrations of certain toxic salts and pollutants in water entering ponds, lakes and public water supplies.

Finally, wetlands provide nurseries for young of both warm and coldwater species and areas adjacent to larger bodies of water serve as resting and feeding places for spawning fish and fish exhausted from fighting strong currents.

Present state agency organization notwithstanding, it is perhaps safe to say that, where geography permits, the Massachusetts angler is predominantly "anadromous." For the chronic fishing addict shifting to saltwater is roughly equivalent to a violinist shifting into C major. It is the rare freshwater fisherman who hasn't jigged mackerel, stalked stripers through grassy clam flats or chased blues along a twilight beach. However, without coastal marshes they could kiss their quarry goodby. Wetland-estuarine areas support complex food chains vital to two-thirds of the "useful" Atlantic fishes!

There is now a golden opportunity for Massachusetts anglers to ensure the future of their sport. *S780* — the Permanent Protection Wetland Bill — if it passes, will apportion funds necessary for the outright purchase of endangered wetland areas (see Save Our Wetlands, page 9).

So if you're a fisherman and want to buy a little life insurance for your sport, contact your legislator and let him know how you feel about S780, then pass this issue along to a fishing buddy.

—JAMES M. SHEPARD
Director

I would not urge the masses of mankind to take up fishing, any more than I would urge them to take up oil painting or sonnet composing. But only an uncivilized scoundrel would ever discourage the exploration of mystery and the contemplation of existence that is a part of angling. Is this simply "recreation," to be equated with bowling and motoring? Is this a "pastime" like bridge and sunbathing? Cards, balls and wheels are pleasant accompaniments to daily existence. But fish are part of life, and seeking them in mystic depths is part of Man's eternal search for himself.

— Don Saults, Missouri Conservation Commission

FISHING

In Massachusetts

By
A.I. "Pal" Alexander

-photo by A.I. Alexander, courtesy *Lawrence Eagle Tribune.*

NOT too long ago, I remember reading a where-to-go-this-time book that said in its opening paragraph on Massachusetts that we had some of the best salt-water fishing in the world and some of the world's worst fresh-water fishing.

Well, I can't take issue with the first part of the statement but I certainly can with the second part. As an ardent fisherman and an outdoor writer, I have covered a lot of water in Massachusetts over the years and my response to the second part of that author's statement is "baloney!" We have some great fresh-water fishing in Massachusetts.

In the course of a season — any season of any year — I would hate to count the number of times I have gone to other states or Canada in pursuit of fish that are supposed to be bigger and better, to end up with a catch of small fish the photo editors always caption, "Just right for the frying pan." Well, the heck with the ones that are frying-pan size, I like the ones that won't fit in. You can catch them in Massachusetts, too, but you have to go about it the right way.

First, you have to have a positive attitude. It's simply this: If you want to catch big fish, you have to be confident that you can and will catch them. If you don't have this faith, then you won't be prepared. Being prepared is an extremely important aspect of catching large fish. There is no question in my mind that many anglers each year hook big fish — even record breakers — and don't land them because they are not expecting the outsized fish and their tackle doesn't hold up. It is the same old story over and

Editor's note: A.I. Alexander is the outdoor writer for the Lawrence Eagle Tribune, *in Lawrence, Massachusetts, and is a frequent contributor to many national magazines. This article may be reprinted only with author's permission.*

over again; the hook straightened out, the line broke, the knot slipped, and all the other reasons that add up to the fisherman's folklore that, "The big one always gets away." The big one doesn't have to get away.

I fish with many expert fishermen each year and, in addition to being confident that they are going to do well, their tackle is right up to snuff. If the big one gets off, it will be due to "pilot error" and not "mechanical failure."

It is important to respool spinning lines frequently and examine the guides often. Monofilament line, particularly, is very abrasive and wears the guides quickly. Examine the guides with a magnifying glass and replace them if they are worn. On fly reels, make sure the line runs free and clear right to the arbor spool. You may not get on to the backing very often but, when you do, you don't want to find it hopelessly snarled so that the line can't run out.

While fly casting, make sure the leader matches the conditions. "Fine and far off" may be sage advice on a small trout stream but the worst advice you can get for bass in the lily pads or shad in the evening when considerable rod pressure will be necessary to keep the fish free from obstructions.

It goes almost without saying that leaders should be checked for wind knots. An overhand knot in your leader will reduce its strength by as much as 50 percent. Don't ignore it, it's important.

One last thing before we leave equipment, the pocketbook, naturally, will influence much of what you buy but be sure to buy the best you can, not just something that will get you by. You don't want the screws to jump out of the reel's pillar plate the first time a good fish starts running out line.

Okay, so your equipment is in good shape. Where do you fish? This, of course, is relative to what you are trying to catch but, no matter what you are after, you should try to get all the information you can.

The Division of Fisheries and Game has contour maps that give the depths of most of the important ponds and lakes in the state. These will save you hours of fruitless fishing. Frequently, road maps and maps put out by the local Chamber of Commerce will also help. The topographical maps sold by the United States Geological Survey, in Washington, D.C., are excellent for surveying the general area in which you are going to fish. Oftentimes the map will show a second pond that is close by that might be worth a try if the primary doesn't work out.

Most of the outstanding catches made during the year are reported by the Division of Fisheries and

Three calico bass caught through the ice by Roger Aziz — 3 lbs., 1 oz.; 2 lbs, 14 oz; and 2 lbs., 12 oz.

-photo by A.I. Alexander.

Game or the outdoor writers in the local newspapers. It is surprising how frequently the same water or same general area keeps producing outstanding fish. My fishing partner, Roger Aziz, and I keep track of these places and if a body of water or an area does better than average, we check it out. We also listen and talk to many fishermen from all over the state. There is a great fraternity among anglers and usually they are happy to supply information on how to get to some place and how to fish it. If you keep an open mind and ask a lot of questions, you can learn a lot.

When Roger and I start out on an early morning fishing jaunt, we look like we are going for a week or more. We bring plenty of equipment with us because we want to be prepared for all eventualities. Our primary pond for the day may not work out well and we may have to rearrange our plans. For example, if a wind comes up too stiff for our liking on a large trout lake, we may pull out, check the map, and head for a small sheltered pond where we can fish for bass. This means a complete change of fishing tackle and tactics, as a rule, plus a change of motors on the boat sometimes. It is not easy loading the boat on and off the car rack and carrying all our gear back and forth, but many times we find success only after we have moved once or twice.

Find the Fish Weight

Here's a way to calculate the weight of a fish in case you want to be fairly honest and have forgotten your scale: multiply the length (from tip of nose to tip of tail) by the girth squared, and divide the result by 800. For instance: a 15-inch bass measuring 10 inches around the middle would be roughly two pounds.

— Colorado Outdoors

-photo by A.I. Alexander

Stringer of nice trout from a small Cape pond.

On Cape Cod, where many good ponds are close together, we have had days when we have fished in a tidal river or two with waders on and then put the boat into as many as four or five ponds, fishing for both bass and trout. These are long hard fishing days, to be sure, but many times we have found some extraordinary fishing by moving from one pond to another, and often when everyone else has given up and gone home.

Roger and I enjoy every type of fishing. We fish fresh water and salt water, summer as well as winter, and, while we get skunked once in a while like everyone else, we also catch more than our share, particularly of big ones, by following the few basic precepts I have set forth here. Give it a try because Massachusetts has some great fishing and great fish. Someone is going to catch them — if they're ready — and it might as well be you!

EARTH DAY HONOR ROLL

by TED WILLIAMS

IN any survey of this breadth it is, of course, impossible to be fair to every party contributing information. We've done our best and regret oversights, but fairness in and for itself has not been our primary concern. We have tried to keep the series brief and to the point, giving credit wherever possible but sacrificing it where repetition could serve no useful purpose. Together the four sections comprise a detailed index of Earth Day ideas, a catalogue of what was and can be done. It is our hope that "Earth Day Honor Roll" has not been interpreted as a simple series of back pats, but as a practical tool for planning programs for another Earth Day. Young people carry much of their education home to their parents these days and if Earth Day and the values that go with it are ever to be permanently established in this society, it is very likely that the groundwork will be laid in our schools.

— the Editors

EARTH Day highlights at *Framingham's public schools* included a fashion show that featured "mod gas masks" (the "sophixicated" look), a narration entitled "Dear Diary" — the last thoughts of a young girl facing death by pollution, films of the Sudbury River sarcastically underscored by the *Blue Danube Waltz,* a canoe trip down the Sudbury River, and a "sideshow slide show" on the Framingham incinerator and Sudbury dump.

-information provided by
Director of Secondary Education, Framingham

Editor's note: The complete Earth Day series is available to any Massachusetts teacher as long as our supply lasts. Contact I and E Section, Fish and Game Field Headquarters, Westboro, Mass. 01581.

An energetic program in the *Ipswich Elementary Schools* combined clean-ups, debates, lectures, poster campaigns and field trips to attack the environmental crisis at its roots. Sixth-graders at the *Winthrop School* scored high in Earth Day originality by participating in "Pollution," a game developed by the Wellesley Curriculum Committee, Town of Wellesley. Up to 20 players can compete at one time. The game is similar to "Monopoly" with parts, pieces and equipment designed to show how a town can become polluted and the steps residents can take to alleviate the situation.

-information provided by
Mary M. Evans, Director of Elementary Education, Ipswich Public Schools

-courtesy Spaulding Memorial School, Townsend.

"If you're not part of the solution, you're part of the pollution," was the snappy title of an environmental pamphlet prepared and distributed house to house by 80 students at *Hamilton-Wenham Regional High School.*

Featured in the pamphlet were quotes from great conservationists, poems and facts about the environment, laundry tips to housewives, and 45 suggestions as to "what *you* can do" to rescue the land we live in.

-information provided by
Walter A. Tompkins, Hamilton-Wenham Regional High School, Hamilton

Starting in March, sixth and seventh-grade students at the Sylvester School in Hanover participated in a conservation "mini-course" under the direction of faculty member David Casoni.

Meeting twice a week until the close of school, the pupils worked on field projects which included making soil and water tests and observations as well as helping to develop the School Department's outdoor nature site.

Interest evidenced by students has led to the establishment of a local ecology curriculum committee.

-information provided by
Philip J. O'Neil, Sylvester School, Hanover

Young scientists at *Marlboro High School* took a technical approach to Earth Day getting down to basics with a Hach Water Analysis Kit. Bioassays on local water systems included counts in coliform, fecal strep, BOD (biochemical oxygen demand) and DO (dissolved oxygen).

-information provided by
Edward J. Clancy, Marlboro High School

Lexington's Harrington School has extended its environmental study program to include "Pollution," a course originally developed by the Hamilton, Ontario Public School System. At present six classes are making litter surveys, burning sample bits of litter, burying trash and recording rates of deterioration, and conducting a number of other tests to determine how Man affects the environment.

-information provided by
John E. Jacobus, Harrington School, Lexington

Following their Earth Day assembly, students at *Lawrence High* in Falmouth split into groups of 20 and, for the balance of the day, discussed environmental problems and possible solutions with representatives from the Oceanographic Institute and the Department of Agriculture.

-information provided by
R.B. Marshall, Lawrence High, Falmouth

Newton High students marched on City Hall and presented the Mayor with a petition protesting the Newton incinerator problem. The next day, funds were appropriated to improve the situation.

Students also participated in a vigorous information campaign warning local residents about the environmental hazards posed by the SST and urging them to protest its funding. Seventeen nature films were shown and, in addition to clean-ups, outdoor activity included a "Charles River Bike Hike."

-information provided by
Virginia L. Adler, Newton High School

On Earth Day morning, less than a dozen cars darkened the parking lot at *Gloucester High*. Most of the student body walked or rode bicycles to school in protest of the filth and noise that plagues a people married to the internal combustion engine.

After Earth Day, students helped develop a nature study area on a nearby plot of land. Volunteers were excused from study periods to work with student leaders and teachers. The area was graded, planted and cleared of trash. Gloucester's School Department and the Department of Public Works provided the necessary trucks and heavy equipment.

-information provided by
Francis Speck, Gloucester High School

At *Pioneer Valley Regional School* in Northfield, students chose from a wide selection of Earth Day activities. At 9:30 and 12:15, buses left for the Northfield Mountain Pumped Storage Project, the Greenfield Sewage Treatment Plant, and the Yankee Atomic Plant in Rowe.

Persons who elected to remain at school could choose between all-day pick-ups and pollution surveys.

The program was particularly strong on the audio-visual level. Included in the 16 films seen that day were: "People by the Billions," "Yours is the Land," "Silent Spring," "Man and His Resources," "The Community," "Everglades," "Pioneering With Power," "The River Must Live," and "White Water Canoeing."

-information provided by
John A. Peters, Pioneer Valley Reg. School, Northfield

During the academic year, students at *Chicopee Public Schools* devoted much of their time to ornithology. Science classes were often held outside so resident and migrant birds could be observed and counted. Students also constructed a large number of bird feeders and erected them around the school grounds.

-information provided by
Mrs. Charla Bidwell, Chicopee Public Schools

-courtesy Ellen R. Hathaway School, New Bedford

Although programs at the following schools were energetic and well organized, the activities themselves — clean-ups, discussions, lectures, etc. — have already been reported on in detail and repetition could serve no useful purpose. Suffice it to say that the contribution of these schools has been equal to that of the schools mentioned above and that sheer copy length is no criterion for measuring excellence: Ellen R. Hathaway School, New Bedford; Northampton High School; Bromfield School, Harvard; Richardson School, Attleboro; Weston High School; Otis Consolidated School, Otis; Faolin Peirce School, Florence; Quincy Public Schools; Hyannis West Elementary School; Lincoln School, Attleboro; Washington School, Attleboro; Kittredge School, Hinsdale; Williamstown Elementary School; Amherst Junior High; John R. Briggs Elementary School, Ashburnham; South High School, Framingham; Pierce Junior High School, Milton; Lunenburg High School, Lunenburg; Annie Fales School, Westboro; Lincoln Junior High School, Framingham; South School, Andover; Hopedale Junior-Senior High School; Mt. Everett Regional School, Sheffield.

EARTH DAY IDEAS WORTH NOTING

IN the opinion of the Editors the following Earth Day activities were particularly effective:

1. Construction and erection of wood duck boxes. —Auburn Junior High (July-Aug., p.15).
2. Purchasing and planting of 2,000 pine and spruce seedlings in an abandoned section of the town dump. —B.F. Brown Junior High, Fitchburg (July-Aug., p.16).
3. Preparation of films contrasting modern "progress" with natural settings. —East Longmeadow High (July-Aug., p.16).
4. Construction of an outdoor classroom with greenhouse, rabbit hutch, shrubs, trees, and small pond stocked with frogs, fish, newts, turtles and aquatic insects. —Greylock School, North Adams (July-Aug., p.16).
5. Bioassay survey of local water systems. —Hadley School, Swampscott (July-Aug., p. 16); Marlboro High (this issue).
6. Recycling demonstration using rubbish collected around school to make anti-pollution posters. —Tiffany Elementary School, Attleboro (July-Aug., p.18).
7. Two-day field trip along entire length of Merrimack to observe pollution damage. —Belleville School, Newburyport (Sept.-Oct., p.12).
8. Three-day field trip to Granville State Forest. —Granville Public Schools (Sept.-Oct., p.12).
9. Petition to town selectmen. —Hudson High and Hudson Catholic High (Sept.-Oct., p.13).

—Continued on page 13

SAVE OUR WETLANDS

MOTHER Nature, who is constantly being "triumphed over" by her ungrateful son, Man, has the inconsiderate habit of leaving hub caps along the expressway of progress. For example, after we have finished draining and filling a particular wetland area, converting a "useless swamp" into "Happy Acres, a thriving new community," we find to our dismay that things are not as they should be, or at least as we intended them to be. The houses and apartments we have carelessly slapped on the face of the still sticky earth start to settle. Foundations crack. Sewage bubbles up around septic tanks or finds its way to nearby wells. Flash floods sweep away the redds of spawning trout in a dozen local streams, then surge through cellar windows in a hundred homes.

"Happy Acres" stagnates under a midsummer sun. Ponds and lakes recede. Polluted wells dry up. Poison salts seep slowly into public water supplies to mix with clouds of evil-smelling algae.

Suddenly, the remaining woods are sterile, devoid of pheasants, grouse, rabbits, deer, fox. Even the songbirds have declined noticeably. Fishermen give up in disgust and shotguns rust in corners.

More floods. Taxpayers stamp on the Senate floor. The Government commits millions in relief. Finally, the Army Corps of Engineers is called in to build dams in the name of flood control.

Fertile flood plains disappear. Dying rivers languish at the feet of concrete giants. But, miraculously, there are fewer floods. Once again Man has "triumphed over Nature."

Of course there's an alternative to this costly and complicated procedure — preserve our wetlands in their natural state. This year, Massachusetts residents have a unique opportunity to do just that. S780, a bill now before the General Court, would allow the Division of Fisheries and Game to acquire wetlands (by eminent domain if necessary) using General Fund monies. Adjacent upland habitat needed for proper management of wetland acquisitions could be obtained using funds appropriated under S780, but only through amiable purchase. Lands presently under the ownership of sportsmen's clubs, conservation agencies, farmers or the public would not be affected by the bill.

The gauntlet now lies at our feet and we must pick it up or admit that what has been heralded as a universal awakening in our society is, in reality, nothing more than "an environmental kick."

Editor's note: The pictures illustrating the various classifications of wetlands, and the unusual photograph of "ducks in sunlight" were contributed to Massachusetts Wildlife *by Rick Smardon, Department of Landscape Architecture, University of Massachusetts. Dr. Edmund B. Olchowski of Greenfield sent us the picture of the nesting woodcock.*

(1) A *Wooded Swamp* at high water. Definition of *Wooded Swamp*: Soil is usually waterlogged during the growing season, and is often covered with as much as six inches of water.

(2) A *Fresh Meadow* in Provincetown dunes, an extremely rare situation. Definition of *Fresh Meadow*: Soil is usually without standing water during most of the growing season but is waterlogged within at least a few inches of its surface.

(5) Canoeing on a *Deep Fresh Marsh.* Definition: Soil is covered with six inches to three feet or more of water during the growing season.

(6) A *Shallow Fresh Marsh.* Definition: Soil is usually waterlogged during the growing season and often covered with six inches or more of water.

(10) A *Shrub Swamp* with a heavy growth of buttonbush. Definition of *Shrub Swamp*: Similar to *Shallow Fresh Marsh* except vegetation includes alders, buttonbush, willows, dogwoods, and swamp-privet.

(9) Lotus blooming on a *Deep Fresh Marsh.*

(3) A more typical *Fresh Meadow.*

(4) A *Bog Mat.* Definition: Soil is usually waterlogged and supports a spongy covering of mosses. A *Bog Mat*, unlike a *Bog*, only partially surrounds a body of water.

(7) A *Fresh Meadow* with typical growth of cattail and arrowhead.

(8) Miller's Swamp in Otis, a good example of a *Wooded Swamp.*

(11) Beaver house on a *Deep Fresh Marsh.*

(12) Water lilies blooming on a *Deep Fresh Marsh.*

THE INLET

Soft waves still sweep along the cattail sea
And break against a distant hardwood shore.
Now sultry August drugs the droning bee,
And darning needles arch their copper tails
To couple in their double dance of love.

The dying maple's last two girdled roots
Still frame a sleeping muskrat's whiskered face.
And nestled under tallow beech fern shoots,
A bullfrog tenses with a solemn blink,
Then splatters purple whirligigs like ink.

Beyond the bridge a redwing blackbird breaks
The timeless silence with a sudden squawk.
And now the inlet briefly stirs and wakes,
But soon cicadas sing it back to sleep
From rooty shoals where rigid herons creep.

An osprey leaves the distant cliff and climbs
Above the inlet winding through the haze
Of once remembered meadows lost in time.
A shadow sweeps across the pickerelweed
To vanish with the ghost of boyhood dreams.

— Ted Williams

— *Continued from page 8*

10. Pesticide round-up. —Summer Street School, Lynnfield (Sept.-Oct., p.14). Note: DO NOT attempt pesticide disposal yourself. Read instructions (*in italic*) on page 14 of the September-October issue.
11. Camping trip to Canton's Ponkapoag Outdoor Education Center. —Pierce School, Brookline (Sept.-Oct., p.15).
12. Week of study at Cape Cod National Seashore. —Sharon Junior High and Intermediate School (Sept.-Oct., p.15).
13. The Environmental Death March in tribute to the 150 species that have become extinct as a direct or indirect result of the human population explosion. —Monument Mountain Regional High, Great Barrington (Nov.-Dec., p.6).
14. Plant identification using number tags and answer sheets. —Bourne Schools (Nov.-Dec., p.17).
15. Laboratory simulation of erosion and contour plowing. —E.B. Newton School, Winthrop (Nov.-Dec., p.7).
16. Hartsuff Park face-lift. —Esten Elementary School, Rockland (Nov.-Dec., p.13).
17. Investigation of environmental damage through specialized studies — i.e. world history/a survey of land abuse through the ages. —Silver Lake Regional Vocational High, Kingston (Nov.-Dec., p.13).
18. Campaign to save the timber wolf. —Shrewsbury Schools (Nov.-Dec., p.13).
19. The secret suspension of janitorial duties — "Crud Week." —Westboro Junior High (Nov.-Dec., p.14).
20. The game "Pollution." —Ipswich Elementary Schools (this issue).
21. The march on City Hall in protest of the town incinerator problem. —Newton High (this issue).

Answer to Crossword

BIT OFF MORE THAN HE COULD CHEW

Pictures and story
by
Alan M. Hansen, Woburn

I had gone down to Great Meadows Refuge in Concord to use up a roll of film, when I heard a splashing behind me. Turning to investigate, I saw a horned pout being pulled out by a common water snake (*Natrix sipedon*). The fish was very much alive, but close inspection of picture No. 1 will show that there was something wrong with its head.

The snake held the fish for about 30 minutes until his intended victim was close to death. He'd start by grabbing the fish's head (picture No. 1); then he'd stretch his mouth over most of the head (picture No. 2). Three times he stopped and tried a different angle (picture No. 3) but always wound up back at the head.

I finally left to get some other shots of the area and when I checked back one half hour later the snake was still at it. Some time after that he gave up.

SHAD SUBURBAN STYLE

by Ted Williams

BEFORE us lay the Connecticut, quiet yet awesomely powerful — a timeless ribbon of green boiling down from the mountains of the north and now winding through the green-shaded tobacco land of the Connecticut Valley — the Connecticut, abused for years and eager to lose its sorrow in the sea, but still proud and carrying with it the very essence of New England.

Today was more than just another fishing trip. For Russ Cookingham, Assistant Director of the Massachusetts Division of Fisheries and Game, and Lyle Thorpe, former Fish and Game Director of Connecticut, it was a semi-serious "judgment day", a personal, purely unscientific evaluation of years of restoration effort.

The prospects of fishing with such high brass had unsettled me somewhat, but right now the only thing on my mind was whether or not my wispy ultralight spinning rig could unsettle a sassy five-pound shad.

Lyle looked over his shoulder as he backed the trailer down the launch ramp just below Connecticut's Enfield Dam. His weathered face broke into a grin and he yelled at Russ and me who were busy guiding the boat into the cement wall. We made it, however, with inches to spare and in a moment we were bobbing on the river. The little Mercury coughed, then purred obligingly and Lyle headed the 15-foot aluminum pram upstream toward the dam.

History hung over the river like a mist and, as I sat in the bow setting up my tackle, the Connecticut's message drummed into my consciousness in the same way the Mississippi must have whispered about the South to Huck Finn and Tom Sawyer. We passed the eddies where farmers had waded out into the current with pitchforks and filled their oxcarts with Atlantic salmon fertilizer — a pretty costly brand today. And we bobbed through the rapids where, three centuries earlier, bargemen had strained on their poles as they forced their bulky, fur-laden crafts upcurrent in defiance of the river's will. It must have cost a

Cut off from their historic spawning grounds, shad mill below Holyoke Dam. Seven fish are visible in picture.

Three centuries earlier, bargemen had strained on their poles as they forced their bulky, fur-laden crafts upcurrent in defiance of the river's will.

good man plenty of sweat to do that. I couldn't help feeling we'd grown pretty soft as we churned along sipping cold drinks. Occasionally, we'd knock against a rock and Lyle would grin as the rubber clutch on the driveshaft squealed.

The hardwood leaves, barely out, lined the banks on either side with an incredibly vivid mantle of green, and sunlight filtered through broken clouds, trailing brilliantly to earth. Off to our left a red-tailed hawk rode an updraft. Everything about us basked in the glory of May, but if we lowered our eyes, the color of the water brought a tinge of remorse.

The Connecticut was filthy. There was no getting around that, but Russ pointed out that it's now the cleanest it's been for 20 years. In addition, spring runoff had improved the water quality considerably.

I tossed out the anchor just below the dam and the boat swung down with the current, then jerked like a lassoed steer. Lyle's tackle box slid off the seat and hit the metal deck with a bang. He fumbled after it, gathering up clusters of tangled lures.

Noble intentions dissolved as I watched our boiling, ten-foot wake. I bit the yellow shad dart off my ultralight and retreated to the security of a heavier two-handed rig I'd used on school stripers. If I couldn't hang a "big herring" on that, I might as well fish for pollywogs.

Although Russ and I have lived in Massachusetts for about 20 years, neither one of us had ever fished for shad. Being 23, I had more of an excuse, but right now we were more than ready to cross swords with a shad and see if all the rumors we'd been hearing about them were true.

Deer Biologist Jim McDonough nets a nice shad for Channel Seven's Major Mudd.

As I trailed the dart 50 feet behind the boat in a stationary troll, I was confident, even cocky. I held the rod in one hand and jigged as I bragged to Russ and Lyle about the striper I'd taken on it the season before. There were other boats in the area and everybody seemed to be catching fish. To our right a stocky bulldog of a man in a captain's hat reached down with a long-handled net and scooped up a two-foot slab of silver. I jigged and reached for a tonic.

Just as my fingers closed around the cold can my rod snapped back against the seat, bending nearly double as line screamed off the reel. I was caught in a ridiculous "spread eagle" position. In the stern, Lyle smiled smugly.

In a few minutes I had things partially under control and actually seemed to be gaining on the fish. My confidence had almost returned when the shad made another run, more powerful than the first. By this time he was 100 yards downstream and there was a real danger of a break-off in the second rip or a cross-up with another fisherman.

I worked on him for another ten minutes getting nowhere fast. If anything, the fish seemed to be gaining. My arm and wrist throbbed and I was blushing from exertion and embarrassment. I jabbed my stomach with the rod butt and pumped, gaining and losing line in an almost comical exchange of tit for tat. Russ and Lyle were enjoying themselves immensely. Then came the wisecracks, thick and pelting like a spring shower.

"Have ye got bottom?"

"Gad what a production . . . "

"Cut the line."

Finally, I had the fish alongside the boat (by this time it was not altogether clear who was playing who). Lyle stabbed with the net and miraculously drew up a glistening six-pound female, fresh from the ocean and plump with roe. I slumped back on the seat and with trembling fingers, pulled the tab on the drink I'd reached for 20 minutes ago.

A loud grunt echoed from the boat on our right and I turned to see Captain Bulldog lean back on his marlin rod and horse a three-pound buck. His eyes gleamed hungrily and in that instant I knew that all shad fishermen, myself included, were mad.

Five merciful minutes passed with no action, then Russ hooked and landed a medium-sized female. It was a murderous fight but at this point we were prepared for anything. Then it was my turn again and I played a nice fish for about five minutes before the line snapped.

"I don't bother with anything under six pounds," I muttered lamely and knotted on another dart.

In the next hour we hooked, played and lost eight consecutive fish. Some battles, particularly the latter ones, concluded in loud snaps of monofilament and louder oaths.

Finally, we began taking fish again, but scoring on only about one

Everything about a shad is unpredictable and sometimes one will jump or take off across the water on his side like a runaway surfboard.

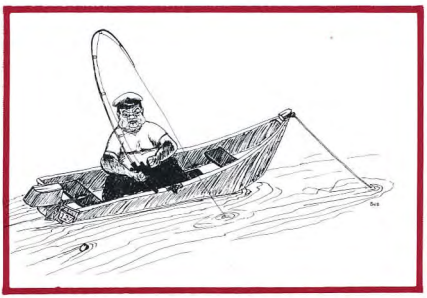
out of five. This apparently is par for the course. Shad have butter-soft mouths and keeping them on, especially in wrenching current, takes real finesse.

The shad fights like a juiced-up jack crevalle, wedging every square millimeter of his broad side between you and the current. Usually, he just slugs it out, occasionally sounding or making long, determined runs. But everything about a shad is unpredictable and sometimes one will jump or take off across the water on his side like a runaway surfboard. One fish I hooked leaped high out of the river and, shaking like his warm-water cousin, the tarpon, sent the dart whistling back at my head.

Four-year-old males and five-year-old females ascend the rivers in the spring when the water warms to about 41°. In Massachusetts, the run usually begins in the second week of May and continues through the end of June. After open water spawning, fertilized eggs are swept downstream, bouncing along the bottom until they at last lodge in crevices. The few eggs that manage to survive predation usually hatch in four to six days. The larvae absorb their yolk sacs in about a week and immediately begin to feed on plankton. They spend the summer in the river growing rapidly, then migrate to the sea and the cycle begins anew.

Shad don't feed in fresh water but they'll hit a small, bright lure (if it's not too busy) for the same reason an Atlantic salmon hits a fly — "pure cussedness." During the run, most sporting goods stores carry "shad darts" and if you're spinning, these are the best medicine.

If you happen to be a fly-rod addict, choose a stiff-action stick, preferably over seven and a half feet, with a heavy duty reel, fast-sinking line and plenty of backing. Small, gaudy trout streamers like the Mickey Finn or Parmacheene Belle are



A loud grunt echoed from the boat on our right and I turned to see Captain Bulldog lean back on his marlin rod and horse a three-pound buck.

real poison. Cast 45° to upcurrent and retrieve the line slowly, in short sweeps as it drifts downstream. If the current's fast, as we found it to be, lures and flies can be weighted and simply trailed behind the boat.

If you're a gourmet, shad fishing will be time well spent. Fried shad is delicious, but riddled with tiny bones. However, if you've had any experience with perch or pickerel you shouldn't have any trouble picking your way through. Shad roe is a real delicacy and, in most fish markets, it's more expensive than lobster. My six-pound female provided me with about half a pound — more than I was able to eat at one sitting.

The shad has suffered along with other fish on the long, mad march of "progress." However, because it spawns in open water and is relatively tolerant of pollution, it has not been as severely affected as other species. Early dams reduced the fishery drastically and most restoration efforts failed until 1955, when the Holyoke Water Power Company and the U.S. Fish and Wildlife Service developed a fish lift that carried a few shad over the 80-foot dam in style. However, research has indicated that the device is only partially successful.

The biggest factor in the restoration program has been the joint efforts of the members of Committees

for Fisheries Management of the Connecticut River Basin: The U.S. Bureau of Sport Fisheries and Wildlife, the U.S. Bureau of Commercial Fisheries, and the four Connecticut River Basin states — Massachusetts, New Hampshire, Vermont and Connecticut.

Right now, shad fishing in the river is perhaps the best it's been in a hundred years. In this age of people, pollution and noise, fast fishing for hard-fighting fish is getting pretty hard to come by. Shad, however, offer the New England sportsman a cheap way out of his pressurized labyrinth of modern living.

As Russ, Lyle and I relaxed in Lyle's "sportingized" livingroom, we felt pretty pleased with ourselves. Lyle's big black Lab slept contentedly by the fire and twitched his paws as he flushed mallards from the corners of his mind. We were fighting shad in ours. It had been a perfect day and somehow we felt better about our supposedly "doomed" planet after an exhausting six hours of battling ocean-fresh game fish, within a backcast of a bustling business district.

From mid-May to mid-June the Connecticut usually offers excellent shad fishing from Enfield north to Holyoke, Mass. Here's how to get to it:

Turn right off the Mass. Pike (Exit 4) just after you cross the Connecticut. Follow Rt. 5 toward Holyoke. Start looking for landings immediately. There are three in the area — Crowley's Marina off Rt. 5, East Bank in Chicopee (on Medina St. off Rt. 116) and Bondi's Island in West Springfield (on the right after Rt. 5 crosses the Westfield River).

The most productive fishing is usually found in the quarter-mile stretch just below the Holyoke Bridge.

Shad can be caught from and around the Willimansett Bridge in Holyoke (just below the Holyoke Bridge).

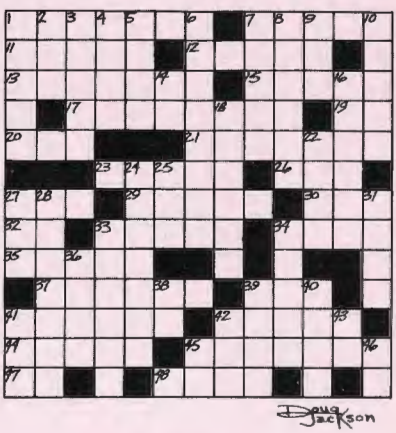
Runs also occur in the Palmer, North and Indian Head Rivers. The hot spot on the Palmer is just below Shoe Factory Pond in Rehoboth. The confluence of the North and Indian Head Rivers also provides exceptional shad fishing.

ACROSS

1. Belonging to a most famous bear.
7. Growth of small trees and shrubs.
11. Lifeblood of the earth.
12. Heron with long plumes.
13. Feeler of an insect.
15. Harmless snake: Puff_____.
17. Asian has small ears; African, large flapping ears.
19. Right End (abbrev.)
20. A "good" golf score.
21. Eight-tentacled mollusk.
23. Hunting or fishing.
26. A young seal.
27. A fish with a toothy snout.
29. Fertile area in a desert.
30. Mountains (abbrev.)
32. Illinium (abbrev.)
33. Insect-eating bird. Eggs are white, sparsely speckled with brown/black.
34. Stinging insect. Stinger is not barbed like bee's.
35. A large thin-shelled hickory nut.
37. Author of one of first English books on enjoyments of nature and angling.
39. Strategic Air Command (abbrev.)
41. The fiercest whale.
42. Claw of an eagle, falcon or owl.
44. To present.
45. Female sage grouse.
47. Am, are.
48. Rail with short yellowish bill. Found mostly in marshes.

DOWN

1. Wet, spongy land vital to wildlife.
2. Responsible for the abuse of natural resources.
3. Aquatic mammal. Its home is in the bank of a stream or lake.
4. Part of vessel that gives it stability.
5. A sea eagle.
6. Only fish that holds its head at a 90° angle from the backbone. Length: 4"
7. Small, dark-colored wild goose.
8. Edible mushroom.
9. Up-to-date (abbrev.)
10. Unlike rabbits, they're born furred and with eyes open.
14. Initials of a long, lean game fish rare to Massachusetts.
16. Casts forth smoke, lava, etc.
18. Moving parts of a rifle or shotgun.
22. Mountain lion.
24. Popular hunting dog.
25. Implement for propelling a boat.
27. To gut a fish (British).
28. Small anadromous fish of herring family.
31. To cast with monofilament.
33. Dale, dell, gulch, dingle or glen.
34. Largest animal that has ever lived.
36. A young whale or hippo.
38. Owner's Risk (abbrev.)
39. A legend or story.
40. Silver Salmon.
41. Large antelope with elongated horns. The waterbuck.
42. A sailor (colloq.)
43. Compass direction.
45. Initials of a worm-eating, noctural bird. See Jan.-Feb. issue.
46. Do owls have poor daylight vision? See Jan.-Feb. issue.



Answer on Page 13

Man and The Balance

". . . somewhere in all that mass of wires, cables, plastics, concrete, bricks, metal and glass . . . there is an animal, a human animal, a primitive tribal hunter, masquerading as a civilized, super-tribal citizen and desperately struggling to match his extraordinary new situation. If he is given the chance he may yet contrive to turn his human zoo into a magnificent human game-park. If he is not, it may proliferate into a gigantic lunatic asylum, like one of the hideously cramped animal menageries of the last century."

— Desmond Morris, *The Human Zoo*

AN ALTERNATIVE

Seven years of research directed by William E. Sopper, Penn. State University, indicate that it is feasible for small cities to dispose of sewage effluent from abatement facilities by irrigating forests. One hundred and twenty-nine acres of wooded area will dispose of one million gallons per day. Test wells and other monitoring devices indicated that there would be no threat to groundwater supplies and, even more encouraging, 90 percent of the discharge reached the water table in purified condition and proved to be a significant factor in maintaining the groundwater level.

No problem build-up of nutrients and salts was found in the soil. Growth of red pine (a dry-site species) was decreased, while white spruce, white pine and various hardwood growth increased dramatically.

Presently, most pollution abatement plants dump their treated water into streams and rivers and, even with expensive tertiary treatment, there is some pollution. Perhaps the use of forests as living filters will eventually prove to be the answer to our present predicament and at the same time boost timber production.

Trees are also of considerable value in absorbing pollutants in the air we breathe. Saul Rich, Plant Pathologist at the Connecticut Agricultural Experiment Station, reports that trees, even though damaged in the process, are quiet, effective purifiers, scrubbing the air of ozone, carbon dioxide and other pollutants. An acre of forest has a four-acre surface of leaves which can absorb the ozone produced by eight autos in 12 hours of commuting. In that same 12-hour period, the same acre can absorb the carbon dioxide produced by 50 autos.

Trees also play a big role in controlling climate. Anthony Federer, a U.S. Forest Service Meteorologist, prescribes more trees for city dwellers presently trapped in the hot, radiating surfaces of concrete and asphalt. One tree, he points out, will evaporate 100 gallons of water per day and in the process, do as much cooling as five room-size air conditioners. Studies show that green plants and trees are responsible for keeping the country 10 to 15 degrees cooler than the city during an average summer day.

Another U.S. Forest Service Meteorologist, Raymond Leonard, reports that trees are also important in reducing noise pollution. In a series of tests, trees proved to be the best surfaces for reducing loud noises (trucks, traffic, etc.) in cities. Dense strips of trees, 100 feet deep, reduced noise levels 6-8 decibels. That's the difference between uncomfortable sound and bearable levels.

A WASTED RESOURCE

Each year Americans throw away 30 billion bottles and jars, 50 billion cans, seven million cars and trucks, 100 million tires, four million tons of plastics and 43 million tons of paper. The damage this does to the environment is appalling and any Freudian satisfaction we may experience when we hear our ashcans empty chromatically into Mr. Jones' rubbish truck is ridiculously expensive. Much of this "waste" can and should be recycled but, inevitably, there is some material that cannot be used, at least at present.

The answer to our dilemma is not another dreamy-eyed proposal submitted by idealistic stargazers; it is within the definite grasp of our present technology. A Japanese invention of a year or so ago crushes solid waste under immense hydraulic pressure at the same time sidestepping visual pollution, and noxious fumes caused by incineration. The compact blocks can be used to fill scars in the landscape or, when sheathed in steel, cement or plastic, can serve as high-quality building material for ordinary construction.

FISHERWOMAN WITH PATIENCE

"THE old lady in the bathtub," is what youngsters around the perimeter of Idlewood Lake, Wenham, call Miss Barbara Edell, 56, of Beverly. She is a fisherwoman with a patience as long as the string of trout she caught in that lake last year.

Miss Edell is a nurse at the Danvers State Hospital where she has worked for 18 years. Because she works nights, Barbara spends many daylight hours fishing in Idlewood. She fishes from a small plastic boat that she carries in the trunk of her car.

"She's strong, too," Paul Hallet told me. "Sometimes she is out there four of five days a week. Don't know how she does it in that little craft."

I borrowed a boat from Paul and rowed out to interview her, and get a photo of her holding up one of the two trout she had caught. I didn't want to interrupt her fishing.

"My hair needs combing, but what the heck. Here, I'll hold up the biggest trout," Miss Edell said as she kept one eye on the two rods she had over the side. The fish she displayed was about a three-pounder. "I've caught five, two pounds or better, since the season began, and this is my 79th fish out of the lake this year. With the weather and water cooling, I expect to catch many more before it gets too cold," she said.

Now there is a lady that must be a fine nurse. She has a lot more patience than I could ever muster, day after day. She fished salt water when she was young, but with the age of retirement creeping up, she likes the quiet of the fresh water lake.

— Photo and story by Ernie Tucker, Beverly Times

Division of
FISHERIES and GAME
Field Headquarters
WESTBORO, MASS. 01581

Second Class
POSTAGE PAID
at Worcester, Mass.

MASSACHUSETTS WILDLIFE

Like what you read?
Become a subscriber!

Massachusetts Wildlife magazine is a quarterly publication packed with award-winning articles and photos on the environment, conservation, fishing, hunting, natural history and just about everything relating to the outdoors in Massachusetts.

Subscribe online through our licensing system: mass.gov/massfishhunt **or mail subscription requests to**:

Magazine Subscription
Division of Fisheries & Wildlife
251 Causeway St, (9th floor)
Boston, MA 02114

Please include the following with mailed subscription requests:
1. The name and mailing address of the subscriber.
2. A check payable to Massachusetts Wildlife Magazine. You will be billed if a check does not accompany your request. We cannot accept credit card payments by mail.

1 year subscription (4 issues) $6.00
2 year subscription (8 issues) $10.00