Currents

• A Quarterly Newsletter of the Casco Bay Estuary Project •

Volume 2, No. 3 Summer 1993

NATIONAL PARK SERVICE OPENS BRUNSWICK OFFICE

Why is the Park Service opening an office in mid-coast Maine when the closest national park is Acadia? Because they want to help Maine residents who are working to protect rivers and establish trails.

Burnham Martin and Kate Hanson have been working out of Fort Andross in Brunswick since March. However, the work they do is not new to Maine. Through its River and Trail Conservation Assistance Program the Park Service has already worked with several groups, including Portland Trails, the Rockland Harbor Trail Coalition, and the Kennebec Valley Tourism Council in Jackman. Until now this assistance was provided from offices in Woodstock, Vermont and Boston.

"The opening of the Brunswick Office will give us a chance to work with more of the many groups interested in river and trail conservation" says Burnham. "We are eager to hear from people involved in local conservation efforts."

Burnham stated that his goal "is to support groups dedicated to trail development and river conservation. We focus both on building organizational strength and helping groups identify and achieve conservation objectives." He continued by noting that "different groups need different types of support and we tailor our approach to their requests." The assistance is in the form of staff time and can continue for up to three years.

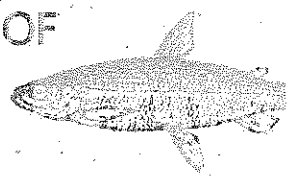
Help comes in many forms

A variety of help is offered. It may be to assist groups getting established - helping them as they define their organizational structure and identify issues and goals. The help may be in the form of developing communication strategies - setting up public forums, developing newsletters and planning other publications. Assistance may mean getting people involved in hands-on conservation work - organizing volunteer trail days or river clean-ups. Most importantly, the Park Service is able to provide the expertise of staffers who are familiar with creating and managing trails and protecting river corridors.

For example, the River and Trail Program's assistance to the Kennebec Valley Tourism Council includes working with them to build awareness of existing trails and create new ones. Together, they are encouraging communities to develop local trail committees, develop logos and uniform signing systems for trails, develop applications for funding of new trail construction, and create non-profit organizations to look after trails in the region.

see park service on page 4

PAULA ASHTON: CUMBERLAND COUNTY COORDINATOR OF COASTAL CLEAN-UP OCTOBER 2, 1993



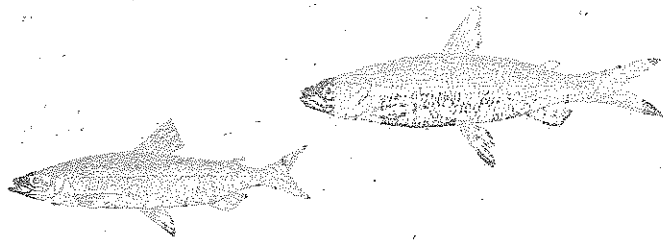
Saturday, October 2, is the day when thousands of volunteers will work to clean-up the coast of Maine. The coastal clean-up is Maine's largest volunteer event. Paula Ashton, a member of the Estuary Project staff, is coordinating this year's coastal clean-up of Casco Bay. If you're interested in participating in the Casco Bay clean-up, please call Paula at 828-1043. Call Nancy Griffin, the state clean-up coordinator, at 287-3261 for information on clean-ups outside of Cumberland County.

Paula Ashton

Last year 3,017 volunteers cleaned 165 miles of Maine shoreline and picked up 11.1 tons of debris, for an average of 134.6 pounds per mile. Cleanup volunteers picked up an unusual array of objects, including car engines and bumpers, pier pilings, a metal stove, lobster traps, chains and a barbecue grill. However, while these represent some of the more unusual trash, they were a small percentage of the total volume.

As usual, more than 60 percent of the trash picked up was plastic. Plastic is the most dangerous form of debris because it lasts for years and can be harmful to both humans and wildlife. Plastic can foul boat gear with the potential to endanger boaters. The Center for Marine Conservation in Washington, D.C., nationwide coordinators for the clean-up, estimates that many thousands of marine mammals, other animals, sea birds and millions of fish may be killed each year by entanglement in or ingestion of plastic debris. •

CASCO BAY ESTUARY PROJECT AWARDS PUBLIC OUTREACH MINIGRANTS



The Casco Bay Estuary Project has awarded eight groups in the Casco Bay watershed "minigrants" totalling $12,600 The grants help others to promote and educate the public about issues affecting the water quality, habitat and living resources of Casco Bay.

Thirteen proposals were received and eight projects were approved for funding. The selection was made by a committee made up of members of the Citizen's Advisory Committee and staff.

"This program has been very well received," said Victoria Powers who sits on the Casco Bay Management Committee as a representative of the Citizen's Advisory Committee. "We have funded many different types of programs and are starting to see results."

Victoria added that "the public outreach minigrant program is designed to support local groups in educating the public about issues relating to water quality. We applaud the creativity of all who applied". Powers is also a member of the selection committee.

The CBEP program will have another round of public outreach "minigrants" in March 1994. To be placed on the mailing list please contact the Casco Bay Estuary Project office at 207-828-1043 or Ann Rodney at 617-565-4424.

The projects funded this year are:

Cumberland County Soil and Water Conservation District $3000
Gorham

To provide contractors, engineers, road crews, associations and individuals with a handy, easy-to-use field guide on Best Management Practices.

Forest Lake Association $375
Gray

To present workshops on erosion control, septic system and road maintenance which include informational pamphlets and material.

See Minigrants page 4

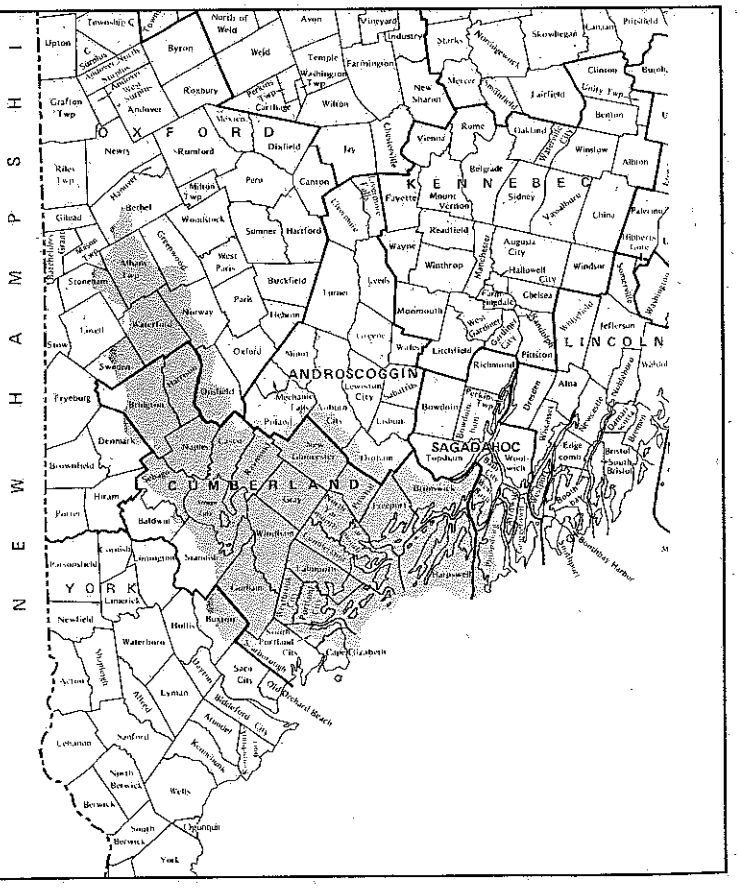
The Casco Bay Estuary Project is

a partnership between the U.S. EPA and the State of Maine. The project is directed through an open, consensus building approach that brings together the public, business, academic institutions, and local, state and federal agencies to develop a comprehensive conservation and management plan. The process is designed to insure that local needs and values are the foundation for that plan.

The project mission is
to preserve the ecological integrity of Casco Bay and ensure the compatible human uses of the Bay's resources through public stewardship and effective management. To accomplish this the

Casco Bay Estuary Project will:

- take steps to prevent and mitigate impacts from existing and potential pollution sources and habitat loss;
- support efforts to understand the Bay ecosystem, including natural processes and the impact of human activities;
- support public education efforts to instill a responsible sense of public ownership of the Bay, especially among coastal and watershed communities;
- develop the management framework to sustain the Bay's resources and benefits.



The Casco Bay Estuary Project is working with the Muskie Institute and the State Planning Office to look at options for addressing regional issues. Many of the issues faced by Casco Bay do not follow city and town boundaries. The work now underway will explore the options available for addressing problems in a coordinated manner. A conference is planned for this fall to discuss the information developed by the Muskie Institute with a broad audience.

A primary focus will be to see where a cooperative approach might provide greater service, cost savings or other benefits. For instance, the forming of the Regional Waste System (RWS) is an example of such an approach. In this case four municipalities -- Portland, South Portland, Scarborough and Cape Elizabeth -- recognized a similar need to find an alterative to their landfills. They voluntarily banded together to form the RWS. Now 31 towns are part of this group.

Charles Colgan, Associate Professor and economist with the Muskie Institute at the University of Southern Maine will be preparing a paper that explores options for the priority issues identified by the CBEP. Some areas where cooperation might be effective include: implementation of water quality monitoring programs, maintenance and inspection of septic systems, review of development projects with regional impacts, protecting critical habitats, and providing assistance on local, state and federal regulatory requirements.•

"Every Time it Rains" and "Keeping Soil on Construction Sites: Best Management Practices" are the titles of two new videotapes that the CBEP has available to loan to you or your group.

The Natural Resources Council of Maine's new video "Every Time it Rains" provides an excellent 12-minute introduction to nonpoint source pollution, explaining what it is and how it impacts lakes, rivers, streams and Casco Bay. This is a good choice for home viewing or for a group interested in gaining a better understanding of the watershed-wide impacts of nonpoint source pollution.

"Keeping Soil on Construction Sites: Best Management Practices" is a training program on erosion control during construction that is ideal for use by local planning boards, code enforcement officials, and developers -- anyone who is involved with land development or alteration of any type. The video provides a practical approach to evaluating the erosion potential of construction sites and explains and demonstrates the most effective preventative measures beginning with the simplest techniques and moving on to more complex engineered solutions. The tape is divided into several segments that can be viewed independently depending on your level of interest and time constraints.

Did You Know?

HOW MANY GALLONS OF WATER ARE IN SEBAGO? - AND OTHER FUN FACTS!

1) How many gallons of water are in Sebago Lake?

2) How many gallons of water does Portland Water District pump in a day?

3) How many square miles in the Sebago Lake watershed?

4) How long is Sebago Lake?

5) How deep is Sebago Lake?

6) How many lakes and ponds are there in the Sebago Lake watershed?

7) How many people are supplied with water from Sebago Lake?

8) How many miles of shoreline are on Sebago Lake?

9) When were trout first introduced to Sebago Lake?

Answers:

Answers: 1) 1.1 trillion. 2) 21 million. 3) 361 square miles. 4) 12 miles. 5) 316 feet. 6) 86 lakes and ponds. 7) 171,000 people. 8) 105 miles. 9) 1972.

• *Information from the Portland Water District.*

Minigrants, continued from page 2

MEET ANNE MICHALEC, THE NEW CASCO BAY ESTUARY PROJECT PUBLIC OUTREACH COORDINATOR

The Casco Bay Estuary Project is pleased to welcome Anne Michalec of Falmouth as the new Public Outreach Coordinator. A graduate of the University of Maine, with a B.S. in natural resource management, she comes to the project with over ten years of environmental planning and public participation consulting experience in Maine. As Public Outreach Coordinator, Anne will be working with the Citizen's Advisory Committee to continue organizing public outreach and education, preparing newsletter and fact sheets, and building coalitions in the Casco Bay watershed to foster project goals. She brings to the program enthusiasm for public input and increased public awareness of watershed protection, and great interest in working with volunteers to conduct outreach efforts ranging from presenting educational information to communities and school groups to distributing fact sheets and posters. Anne urges persons interested in volunteering with public outreach efforts to contact her at 828-1043. •

Park Service, continued from page 1

How to apply for help

"We have a simple process for choosing the groups we work with," says Burnham. "Applications from groups are accepted each year until July 1st. The application is only a letter outlining the project," he explained. "Also, public support is important so we ask groups to send in letters of endorsement."

A brochure explaining the application process is available. Other questions can be answered by calling either Burnham or Kate at (207) 725-4934 or by writing to National Park Service, Suite 210E, 14 Maine Street, Brunswick, ME 04011. •

Highland Lake Association Inc. $1750
Falmouth

To produce printed material for property owners and to communicate to residents the results of dissolved oxygen testing in Highland Lake.

Maine Audubon Society $3000
Falmouth

To produce a permanent interpretive sign which will feature text and illustrations of characteristic species.

Maine Coast Heritage Trust $2225
Brunswick

To map open space in 12 towns in the Casco Bay area and to produce a manual on how to conduct an open space inventory.

South Portland High School $790
South Portland

To map wetlands using a computerized satellite image and to present the results at public meetings.

Windham High School student $675
Windham

To revise a computer program on septic systems to apply to septic systems located in Maine.

Harpswell Conservation Commission $875
Harpswell

To produce a video about water quality issues facing the Bay.•

KIDS PROGRAMS EXPAND IN ESTUARY

This has been an eventful spring for KIDS (Kids Involved Doing Service) programs in the Casco Bay watershed. With help from the Casco Bay Estuary Project, the pilot projects in Portland and Bridgton/Naples have completed their first (academic) year and plans are underway to continue and expand upon projects in the upcoming year. The purpose of these projects has been to further develop the KIDS model for integrating academics with community service by involving schools in the real issues and problems faced by their communities, many of which are environmental.

In the pilot projects' first year, some interesting environmental projects have been undertaken by teachers and students. These include projects such as water quality testing at Capisic Brook, developing trails in the Fore River estuary, designing and building the Mirada/Adams playground, a walkathon benefiting Friends of Casco Bay, and mitigating erosion at the town beach in Sebago.

In addition to these projects in the original pilot communities, KIDS will be developing projects in Brunswick/Topsham in cooperation with the Beacon School Project there. This means that three school districts in the watershed will be developing KIDS projects next fall, increasing the momentum for implementing the KIDS model throughout the watershed. For more information about the KIDS program in these communities or to learn more about the KIDS model, contact the KIDS Consortium at 871-0302.•

"A Heavy Blue Commotion..."

by Tatiana Bernard, Fish and Wildlife Biologist, Gulf of Maine Coastal and Estuary Project, U.S. Fish and Wildlife Service

Pogies Everywhere

In the Gulf of Maine region we usually call them "pogies," but the Atlantic menhaden (Brevoortia tyrannus) has over thirty other names south of Cape Cod including "mossbunker" and "fat back." So many names are a good indication of the extent of the Atlantic menhaden's range, which extends from the coastal waters of Nova Scotia to Florida and even as far south as the shores of northern Argentina. The Gulf of Maine is the northern limit of this range.

Menhaden travel in schools of literally thousands of individuals, arranged closely together in tight rows and tiers. They often look like they are swimming in unison and are especially easy to see when they suddenly come to the surface to feed on microscopic plants and animals, breaking the water with their heads, fins, and tails and causing a "heavy, blue commotion" well known to fishermen in Casco Bay and throughout the Gulf of Maine. Pogy schools usually surface on warm, calm, and sunny days, staying in deeper water during bad weather.

Traveling Pogies

The menhaden is a member of the herring family and is green, brown, or blue-gray on its back, with a series of spots behind its gills. It has a large, scaleless head, a deeply forked tail, and small fins on its sides. Adult menhaden are usually between 12 and 15 inches long, and weigh between two-thirds and one pound.

Menhaden usually spawn off the coast of North Carolina from November through March, as adults begin to move northward for the summer. Spawning can continue as fish migrate toward coastal New York. An average female may produce from 40,000 to 360,000 eggs, which float and then hatch in two or three days, unless they are eaten by seabirds or fish. Generally, only between 2% to 45% of the eggs survive to hatch. These menhaden larvae enter estuaries close to where they hatched between one and three months of age - usually between May and October.

The young fish grow and develop into juveniles in shallow river shoals and at the head of tidal creeks. During high tides, young-of-the-year and yearlings move out over the surface waters of marshes. They shift from a visual feeding strategy to the non-selective, filter-feeding mode (swimming around with their mouths open and filtering water over their comb-like gillrakers) they will use for the rest of their lives. As adults, menhaden are capable of filtering between six and seven gallons of water every minute. Phytoplankton (microscopic aquatic plants) are their most important food, they also eat small worms and shrimp-like animals.

The abundance of these microorganisms in the coastal habitats of bays and estuaries is a major factor in bringing menhaden inshore. Adults move inshore and northward and separate by age and size, becoming part of the vast nutrient-rich estuarine systems of the Atlantic coast.

From August through November, juvenile menhaden that have been living in the estuaries begin to congregate into dense schools and move offshore. During their first year, however, menhaden generally do not migrate very far and those larvae that enter estuaries late in the season may remain there, emigrating only after they are a year old. The oldest and largest fish, however, migrate the farthest north to the Gulf of Maine.

The menhaden's greatest predators are bluefish, who follow them around the Gulf of Maine throughout the summer months and are thought to contribute to the periodic and at times overwhelmingly pungent strandings of menhaden on the shores of numerous coves and bays along the coast.

Fishing for Pogies

Although pogies are important food for other animals, and are eaten by whales, porpoises, sharks, swordfish, tuna, and striped bass, menhaden generally are not harvested for direct human consumption, but instead are processed for fish meal, oils, and solubles. Menhaden fish meal is used for aquaculture and as components in livestock and pet food. Oils from fish are used in margarine, water resistant paints, and cosmetics.

Menhaden fishing originated in New England in the early 1800s and flourished to such an extent that four fertilizer factories were built in 1890 to handle the more than 90 million fish that were harvested in the Gulf of Maine that year.

Menhaden fishing has advanced with new technologies. After World War II, major innovations included spotter planes, radio communication, nylon nets, hydraulic power, and larger carrier vessels. Recorded catches increased from the 1940s to the early 1960s, when they declined rapidly. Fishing has improved since the 1960s. At the present time, landings average about 300,000 metric tons per year. Collectively by weight, menhaden currently comprise the largest commercial fishery in the United States.

Protection of migratory birds, seabirds, anadromous fish, and endangered species in the Gulf of Maine is the responsibility of the U.S. Fish and Wildlife Service. The Service established the Gulf of Maine Project in Portland, Maine to protect and restore the watershed's ecosystems and habitats by providing a bridge among all Service programs in the Gulf of Maine and build partnerships among state and federal agencies, local organizations, and private citizens working to improve coastal habitats. The Gulf of Maine Project participates in EPA's National Estuary Programs in Massachusetts Bays and Casco Bay, Maine, providing information on fish and wildlife habitat needs in order to promote thorough consideration of living resources in the management planning process. •

Illustration by: Josephine Ewing © 1993

Casco Bay Estuary Project

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GET INVOLVED!

Looking for ways to get involved with protecting Casco Bay and its watershed? Help one of the following organizations with water quality sampling! They rely on volunteers to collect water samples from Casco Bay, the Royal River and the Presumpscot River, and help with other activities such as data entry, boat maintenance, administrative tasks, and bulk mailings. For more information call:

- Friends of Casco Bay:(799-8574)
- Friends of the Royal River: Dan Emery (846-0989)
  Gil Birney (846-5759)
- Presumpscot River Watch: Susan Webster: (773-1896)

The Casco Bay Estuary Project has provided funding to the Friends of Casco Bay and the Presumpscot River Watch to assist in developing and expanding their programs. •

WE'RE LISTENING!

The public is invited to attend Citizens's Advisory Committee (CAC) meetings to help us develop a Comprehensive Conservation and Management Plan which not only works for the resources of Casco Bay and its watershed, but for the people, too. We need your input! Attend our next CAC meetings:

September 15 - Casco Bay Ferry Terminal conference room, Commercial Street, Portland (workshop session)

October 5 - Yarmouth Community House, 57 East Main St., Yarmouth

December 1 - Yarmouth Community House

All meetings will be held in the evenings from 7:00 - 9:00. For more information or to receive a copy of the preliminary Comprehensive Conservation and Management Plan, call Anne Michalec at 828-1043.

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