

Spend some time with us and discover why we love the islands of Maine.

NATALIE TODD

Down East Windjammer Cruises 3 Masted Schooner 38 passengers and 5 crew Hailing Port, Bar Harbor, Maine Captain Steven P. Pagels PO Box 8 Cherryfield, ME 04622 207-546-2927

ANGELIQUE

Yankee Packet Company 95' Ketch, built in 1980 31 passengers and 7 crew Hailing Port, Camden, Maine Captain Mike and Lynne McHenry PO Box 736 Camden, ME 04843 207-236-8873 or 1-800-282-9989

MARY DAY

Coastal Cruises 90' Schooner, built in 1962 28 passengers and 6 crew Hailing Port, Camden, Maine Captain Steve Cobb PO Box 798 Camden, ME 04843 207-236-2750 or 1-800-992-2218

ROSEWAY

Yankee Schooner Cruises 112' Schooner, built in 1925 36 passengers and 7 crew Hailing Port, Camden, Maine Captains George Sloane and Stephen Gold PO Box 696U Camden, ME 04843 207-236-4449 or 1-800-255-4449

AMERICAN EAGLE

Schooner American Eagle 92' Schooner, built in 1930 28 passengers and 6 crew Hailing Port, Rockland, Maine Captain John C. Foss PO Box 482 Rockland, ME 04841 207-594-8007 or 1-800-648-4544

HERITAGE

Schooner Heritage 95' Schooner, built in 1983 33 passengers and 10 crew Hailing Port, Rockland, Maine Captains Doug and Linda Lee Box 482 Rockland, ME 04841 207-594-8007 or 1-800-648-4544

ISAAC H. EVANS

Schooner Isaac H. Evans 65' Schooner, built in 1886 22 passengers and 4 crew Hailing Port, Rockland, Maine Captain Edward B. Glaser PO Box 482 Rockland, ME 04841 207-594-8007 or 1-800-648-4544

J. & E. RIGGIN

Schooner J. & E. Riggin 89' Schooner, built in 1927 26 passengers and 5 crew Captain Dave Allen Hailing Port, Rockland, Maine Box 571 Rockland, ME 04841 207-594-2923 or 1-800-869-0604

LEWIS R. FRENCH

Schooner Lewis R. French 64' Schooner, built in 1871 23 passengers and 4 crew Captain Dan Pease Hailing Port, Rockland, Maine Box 482 Rockland, ME 04841 207-594-8007 or 1-800-648-4544

NATHANIEL BOWDITCH

Nathaniel Bowditch of Cape Rosier Inc. 82' Schooner, built in 1922 24 passengers and 5 crew Captain Gib Philbrick Hailing Port, Rockland, Maine Nathaniel Bowditch, Harborside, ME 04642 207-326-4098 or 1-800-869-0604

STEPHEN TABER

Schooner Stephen Taber 68' Schooner, built in 1871 22 passengers and 5 crew Hailing Port, Rockland, Maine Captains Ken and Ellen Barnes 70 Elm St. Camden, ME 04843 207-236-3520 or 1-800-999-7352

TIMBERWIND

Timberwind Marine Services 70' Schooner, built in 1931 20 passengers and 5 crew Hailing Port, Rockport, Maine Captain Bill and Julie Alexander PO Box 247 Rockport, Maine 04856 207-437-2851 or 1-800-999-7352

ISLAND INSTITUTE

Publishers of the Island Journal



Sustaining islands and their communities

EXECUTIVE DIRECTOR
Philip W. Conkling

SENIOR EDITOR George Putz

MANAGING EDITOR Cynthia Bourgeault, Ph.D.

ASSOCIATE EDITOR
Mike Brown

EDITORIAL ASSISTANTS
Julie Ann Canniff
Caitlin Owen Hunter
Krisanne B. Rixon

ART DIRECTOR
Peter Ralston

DESIGN & PRODUCTION Michael Mahan Graphics Bath, Maine

PRODUCTION ASSISTANT
Caitlin Owen Hunter

SCIENCE & RESEARCH Richard H. Podolsky, Ph.D.

TRAIL DIRECTOR

David R. Getchell, Sr.

COMMUNITY SERVICES Julie Ann Canniff Annette S. Naegel

HOUSING SPECIALIST James B. Hatch

MEMBERSHIP DIRECTOR

Jody L. Cowan

COMPUTER SERVICES

Bruce C. Morehouse

FULFILLMENT Sharon M. Smalley

BUSINESS MANAGER
Barbara P. Benson

EXECUTIVE SECRETARY

Krisanne B. Rixon

PRINTING PenMor Lithographers Lewiston, Maine

PAPER Champion International Paper

BOARD OF TRUSTEES

CHAIRMAN Henry W. Taft Halifax Island, Maine

SECRETARY

Margery S. Foster, Ph.D.

Great Diamond Island, Maine

TREASURER Victoria Dyer Boothbay, Maine

Willard Boynton Monhegan Island, Maine

Donna Miller Damon Great Chebeague Island, Maine

Stuart O. Dawson York Harbor Island, Maine Devens Hamlen Islesboro Island, Maine

Horace A. Hildreth, Jr. Vinalhaven, Maine

> Elizabeth B. Noyce Bremen, Maine

Chellie Pingree North Haven, Maine

Molly P. Scheu Cliff Island, Maine

H. Jeremy Wintersteen Prouts Neck, Maine

CLERK
Sharon L. McHold
Dix Island, Maine

ISLANDS IN TIME

Editorials / p. 3 Log of the Fish Hawk by Philip W. Conkling / p. 5 Log of the Eider by David R. Getchell, Sr. / p. 8

ALONG THE ARCHIPELAGO

Skidder Skipper by Christopher Lyman / p. 10 Cruising the Gulf of Maine by Thomas D. Cabot / p. 16

ACCESS

The Six Percent Solution by David D. Platt / p. 21

FISHING

Men of the Iron by Philip W. Conkling / p. 26

COMMUNITY

Small Wonders: A Look at Island Schools by Julie Ann Canniff / p. 32 Thinking Like an Islander by Cynthia Bourgeault / p. 36

HISTORY

Down the Ways: Al Norton of Acre Island by Jane Day / p. 38

FOLIO: The Soul of a Working Boat / p. 41
Essay by Mike Brown
Photographs by Peter Ralston, Jeff Dworsky
Excerpts by George Putz

BOATS

Me\$\$ing About in Boats by Mike Brown / p. 56

NATURE

The Accidental Ark: Islands Help Unravel the Thread of Evolution by Kenneth L. Crowell /p. 60

POETRY

Woods After Rain by Hortense Flexner / p. 65 "La Grande Poétesse du Maine" by Carl Little / p. 66 Happy Island by Hortense Flexner / p. 68

LIGHTS

New Light from Old Towers by Deborah Davis / p. 70

RADIO WAVES: News from offshore

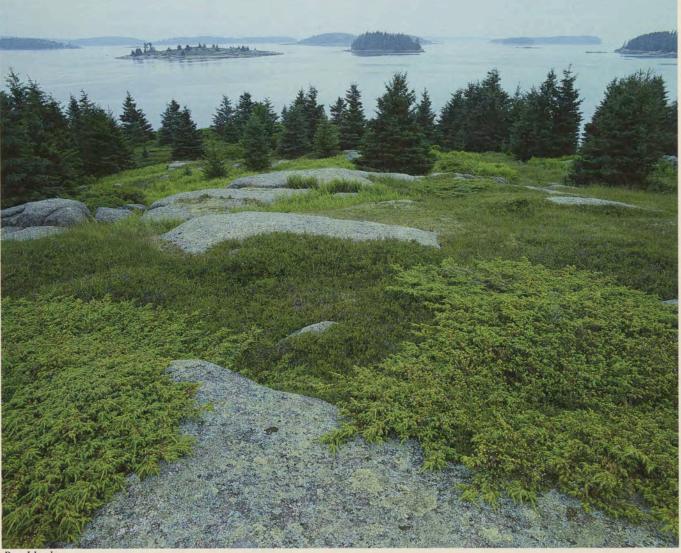
Contributions by Wayne Curtis, Tony Burkart, George Putz, David R. Getchell, Sr., Cynthia Bourgeault, Emily Muir, and Robin de Campi / p. 73

REVIEWS

by George Putz, Philip W. Conkling, and Peter Ralston / p. 82

MEMBERS AND SPONSORS / p. 84

COVER PHOTO: Isle au Haut Weir, by Peter Ralston



Russ Island

BLUE HILL HERITAGE TRUST

P.O. Box 222 Blue Hill, ME 04614 Contact: Mrs. Jean Nickerson 207-567-3214

BOOTHBAY REGION LAND TRUST

P.O. Box 93 East Boothbay, ME 04544 Contact: Mrs. Lois E. Barge 207-633-2659

CASTINE CONSERVATION TRUST

Steve Cole, Executive Director P.O. Box 421 Castine, ME 04421 207-338-2433

CUMBERLAND MAINLAND & ISLANDS TRUST

P.O. Box 591 Cumberland, ME 04021 Contact: Mr. Blanchard W. Bates 207-846-5716

CUSHING ISLAND CONSERVATION CORP.

Box 334, DTS Portland, ME 04112 Contact: Mrs. Diane Nolan 207-772-8806

Who Cares For Maine Islands?

Coastal Island Land Trusts Help Protect Maine Landscapes

FREEPORT CONSERVATION TRUST

47 Lower Flying Point Freeport, ME 04032 Contact: Mr. Andrew Cadot 207-774-2635

FRENCHMAN BAY CONSERVANCY

P.O. Box 76 Franklin, ME 04634 Contact: Mr. Weyman Billings 207-667-3636

FRIENDS OF NATURE

c/o George Schelling RFD 1, Box 1960 Bucksport, ME 04416 207-942-4644

GEORGES RIVER LAND TRUST

P.O. Box 133 South Thomaston, ME 04858 Contact: Ms. Cindy Lang 207-372-8906

THE GREAT AUK LAND TRUST

Bob Miller Box 29 Beals Island, ME 04611 207-497-2457

HARPSWELL HERITAGE TRUST

High Head Farm S. Harpswell, ME 04079 207-729-3667

ISLAND HERITAGE TRUST

P.O. Box 369 Stonington, ME 04681 Contact: Rowan Wakefield, Tony Landreau 207-367-5950

ISLE AU HAUT LAND CONSERVATION TRUST

c/o Frederick Eustis P.O. Box 1422 Boston, MA 02104

ISLESBORO ISLANDS TRUST

P.O. Box 182 Islesboro, ME 04848 Contact: Mr. Steve Miller 207-734-6907

KENNEBUNKPORT CONSERVATION TRUST

P.O. Box 28 Cape Porpoise, ME 04014 Contact: Mr. Thomas Bradbury 207-967-5673

MONHEGAN ASSOCIATES, INC.

Monhegan, ME 04852 Contact: Richard L. Farrell 207-594-2445

OCEANSIDE CONSERVATION TRUST

P.O. Box 10404 Portland, ME 04101 Contact: Mrs. Diane Nolan 207-772-8806

VINALHAVEN LAND TRUST

c/o Cindy Poole Roberts Harbor Vinalhaven, ME 04863 207-863-4629

This directory of coastal and island land trusts is presented as a community service of the Island Institute.

TOWARD COMMON ENDS

AST YEAR IN THIS SPACE which we devote to a gentle hectoring about the way things ought to be in this island world, we wrote about the need for Maine to develop a consistent and comprehensive set of island policies which recognizes the islands' unique and fragile value and helps guide their future. It is quite clear that in the absence of sustained efforts to create a different future, the fate of the Maine coast (and therein the fate of islands and island communities) will be

determined by the seasonal appetite for summertime fun and the attendant services that spring up in places where ever more people seek to enjoy an ever diminishing resource.

One of the reasons it is important to get the State to develop such a set of policies is that Augusta agencies wield a preponderant amount of influence over these isolated communities, which is a fact that the agencies themselves are not even conscious of and that islanders are loath to admit. In their actions, State government officials seem dominated by the idea that the islands are simply unbridged extensions of the mainland; no protocol, law, or process exists to suggest otherwise. But

in fact islands are highly stressed communities, both in the summer from the environmental load they must carry and in the winter from very narrow and highly vulnerable maritime economies.

For a time the dialogue went well with Augusta over creating a means to define a unified set of policies which would direct agencies like the departments of Education, Conservation, and Marine Resources (to name a few) to consider how their actions would affect islands and their communities. A proposal to create an advisory group of islanders to work with a group of agency representatives was drafted and received funding through a federal revenue sharing program set up through the Coastal Zone Management Act, which funds projects for coastal states.

But then in January of this year Maine's ballooning budget deficit burst across the newspapers and Augusta priorities were quickly rearranged. It is not surprising that islands and islanders fell off list of the State's priorities; they've been doing that for decades without any discernible political fallout. How can the needs of a mere 5,000 isolated individuals dispersed on 14 scattered islands in a dozen different legislative districts be taken seriously in Augusta? But for a short half year, it appeared that State government was prepared to try.

To choose but one example from among many of why collective voices are needed to sustain island life, take the case of island schools. Maine education law has long contained a provision for geographic isolation grants for

the benefit of rural Maine communities, where per pupil costs for education are disproportionately high. In 1989, for the first time ever, island schools received \$346,566 because a few islanders lobbied hard to get what the law had been designed to provide in the first place. But under the 1990 re-budgeting gun, the provision for continued support of island schools was proposed for deletion. Islands have a long history of being the last to benefit and the first to suffer from shifting State priorities.

Rather than dwell on the missteps of the recent past, we have decided that the Island Institute should continue to pursue the effort to define a common island agenda to sustain community life. We have created an Island Service Committee comprised of residents of the islands and members of our Board to pursue the specifics of how current laws and regulations need to be refined to address the unique circumstance of island life. Although the difficulties of creating a consensus are real, the stakes of failure are higher.

Another aspect of this commitment is reflected in the Institute's publications program. The *Island News*, which was

launched in 1988 in response to requests by many of our members for more news on island community and conservation issues, is emerging as a dynamic forum for interisland communication and information sharing. With a lively corps of island correspondents and a strong bent toward the vernacular, the *News* is being well received in a growing number of island homes where it is contributing measurably to a broadened local awareness of issues affecting the common weal. Already its hand has been felt in initiatives such as the Swan's Island affordable housing project and a watchdog effort now underway in Penobscot Bay to protect against oil spill disasters.

We proceed from the belief that one of Maine's — indeed the whole country's — most distinguishing land-scapes and lifeways is found in isolated maritime communities, which are special and specially stressed. These communities must be treated with more care, not less. The systems for such island services as education, transportation, sewage disposal, solid waste, and natural resource protection must necessarily be different from sensible systems designed by mainland communities. It is certain that if these communities are to remain intact, it is because they will avoid being made to be like everywhere else either from the effects of insensitive policies or by the appetites of the marketplace. And in the process, we think such island solutions will be beacons for this island earth.

Philip W. Conkling, Executive Director Cynthia Bourgeault, Managing Editor



Teel Island, 1989

Jane Dahme

CORPORATE FOUNDING MEMBERS

Apple Computer, Inc., Cupertino, CA Champion International Corporation, Stamford, CT Curtis, Thaxter, Stevens, Broder, & Micoleau, Portland Diversified Communications, Portland Spot Image Corp., Reston, VA Yamaha Motor Corporation, Cypress, CA

CORPORATE BENEFACTORS

Berman, Simmons and Goldberg, P.A., Lewiston Lasergraphics, Inc., Irving, CA L.L. Bean, Freeport Michael Mahan Graphics, Bath Samoset Resort, Rockport The Penobscot Salmon Company, Inc., Wellesley, MA

CORPORATE GUARANTORS

Conference Recording Services, Thomaston David Etnier Photography, Portland Flightwatch, Brunswick Jeff's Marine Service, Thomaston James W. Sewall, Co., Old Town Knight Marine Service, Rockland Landmark Technologies, Inc., Bucksport Packaging Products Corp., New Bedford, MA Prock Marine, Rockland TECTONICS, Cushing Tom's of Maine, Kennebunk The Works, Five Islands Spruce Head Marine, Spruce Head SYSTAT, Inc., Evanston, IL Wood Structures, Inc., Biddeford

CORPORATE DONORS

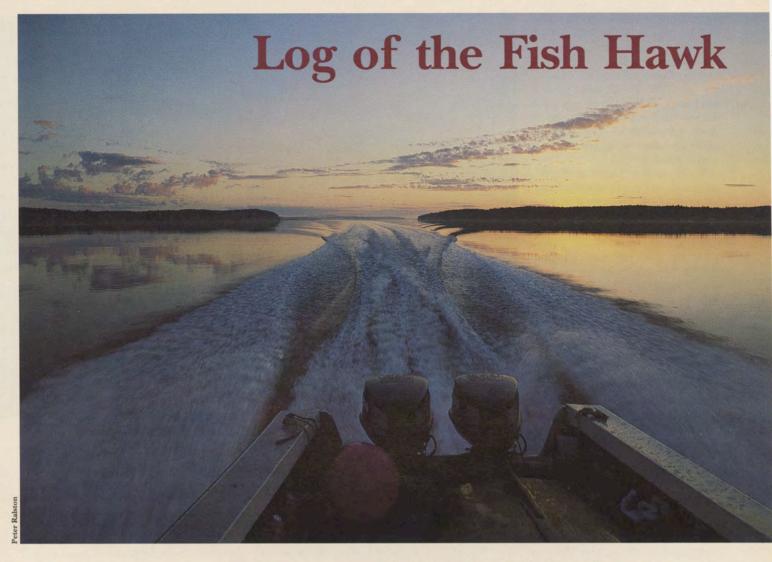
Avocet Systems, Inc., Rockport Bass Harbor Marine, Bass Harbor Bluenose Ferry, Bar Harbor Brooklin Boat Yard, Inc., Brooklin Camden National Bank, Camden C.R. deRochemont, Rockland

Finestkind Builders EPD Inc., Cliff Island First National Bank of Damariscotta, Damariscotta FMC-Marine Colloids Div., Rockland Just Black and White, Portland Maine Boats & Harbors, Camden Mariculture Products, Ellsworth Moonshell Inn, Peaks Island Pine Tree Shop and Bayview Gallery, Camden Pellett Foundation, Greenville, SC PenMor Lithographers, Lewiston Pulpit Harbor Inn, North Haven Island Sun Yacht Charters, Camden Tillinghast, Collins & Graham, Providence, RI Union Trust Company, Ellsworth W.H. Demmons, Inc., Portland

CORPORATE SUSTAINING MEMBERS

A.G.A. Correa Company, Wiscasset Akers Associates, Portland Bar Harbor Banking and Trust, Bar Harbor Bruce King Yacht Design, East Boothbay Camden Herald, Camden Camden Marine Radio, Camden Central Maine Power, Augusta Century 21 Seacoast Realty, Rockland Cod End Fish Market, Tenants Harbor Colburn Realty Company and Better Homes and Gardens, Boothbay Harbor Courier-Gazette, Rockland Cranberry Island Boatyard, Cranberry Isles Dark Harbor Agency, Islesboro Dark Harbor Boat Yard, Seven Hundred Acre Island Douglas Endicott Agency, Castine Down East Enterprise, Inc., Camden Ducktrap River Fish Farm, Lincolnville East Wind Inn, Tenants Harbor FineLine Construction, Portland Fisher Engineering, Rockland Fisherman's Wharf Inn, Boothbay Harbor First National Bank of Bar Harbor, Bar Harbor

Flye Point Marine, Brooklin Fox Island Inn, Vinalhaven Green's Landing Realty, Stonington Gambell and Hunter Sailmakers, Camden Hamilton Marine, Inc., Searsport Harbor Builders, Port Clyde Hartstone Inn, Camden Imagineering/Weatherend Inc., Rockland International Marine Publishing, Rockport Island Service Corporation, Meredith, NH Island Photographic Workshop, Camden Kimball Terrace Inn, Northeast Harbor Key Bank of Maine, Vinalhaven Knowles Real Estate, Northeast Harbor Lindenwood Inn, Southwest Harbor Lyman-Morse Boatbuilding, Thomaston Main Gem, Camden Maine Surveyors, Inc., Yarmouth Max Media, Orono Nathaniel Wilson Sailmaker, Boothbay Harbor National Fisherman/Journal Publication, Camden North Island Yarns, North Haven Ocean House, Port Clyde Ocean Products, Portland Old Town Canoe Co., Inc., Old Town Port Clyde General Store, Port Clyde Port Island Realty, Portland Portland Pilots, Portland Rockport Marine/Sail Loft Restaurant, Rockport Rockport Blueprint, Camden The Imagesmith, Bangor The Inn At Canoe Point, Hulls Cove Train Companies, Northeast Harbor Touch of Class Restaurant, Rockland True Hall Realty, Tenants Harbor Waterfront Restaurant, Camden W.C. Ladd and Sons, Inc., Rockland Wooden Boat Magazine, Brooklin Yankee Marina, Inc., Yarmouth



PHILIP W. CONKLING

OR A GOOD PART (the hard part) of the year, we reach the islands via the ferries, fishing vessels, mailboats, and airplanes that connect — on schedule or not — the islands to mainland points of transit. But come spring, as early as we dare, Fish Hawk is no longer just an icon in the Ocean Street parking lot, but is back on the vast watery highway that makes ports of all islands, either inhabited or wild, along 3,000 miles of thoroughfares, reaches, channels, passages, and one-squeaks that are collectively the coast's most distinguishing ecological characteristic.

Spring 1989 comes early or late, depending on who you listen to, as we coax Fish Hawk off the trailer, into Thomaston Harbor, and over to Jeff's Marine to replace filters, adjust the tiny needle valves of the carburetor, and humble ourselves before the unfailingly reliable Yamaha technology which conspires to operate in the hostile marine environment.

In early June we head east into a rising sun bound for Russ Island, one of 50 islands scattered like rolling stones off Stonington's notoriously indifferent working waterfront, to debate whether the Island Institute ought to acquire title to this particular center of the universe. In little knots of discussion be-

tween residents, trustees, neighbors, and fishermen, we stare intently into the foggy future. The conversation is desultory throughout these miniworlds, we sense in part due to the weather and in part to the delicate balance of interests we seek to serve through our acquisition of Russ Island. Will our access strategy serve to decrease the private insularity we, too, cherish; or to channel, as we believe, a growing number of sojourners to appropriate places?

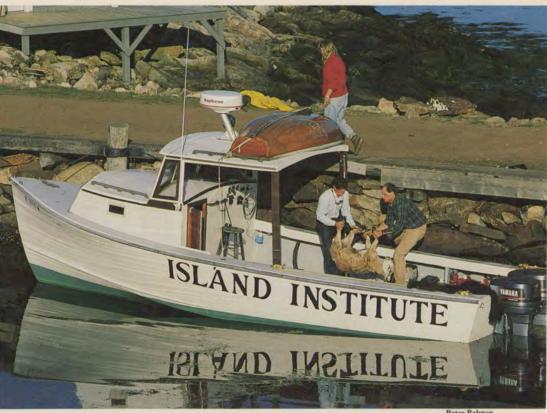
Before the July celebrations of Independence (with this year's rash of Bi- and Sesquicentennials in Penobscot Bay,) we are back at the Allen Island laboratory, in shirtsleeves, down and dirty, shearing 40-odd sheep and culling the spring wethers and durable ewes to start a new island flock on Butter Island, 40 miles north-northeast. With a baker's dozen of less than thrilled sheep penned in the stern of Fish Hawk, we set off — at some pain to get up on a plane - and head for the lee of the Muscle Ridge and then the northern islands. As Fish Hawk rounds up and throttles back at the southeast beach of Butter preparing to unload our mixed ruminant cargo, picnickers from a nearby yacht stare in growing disbelief. The sheep, it must be said, are not in peak form, just shorn and covered green inside and out from their sea voyage. The only possible debarkation is to get as close to the beach as possible and heave-ho, sheep by sheep — over the gunnel and into the brine as a proper and cleanly baptism into their new island life. Twelve wobbly wethers and ewes thus make their way out of the water and straight up through the cluster of pre-4th of July beach picnickers in search of higher and more certain ground.

By the end of June Fish Hawk is frequently on the waterways to Swan's Island to check the arrival of some 200,000 Atlantic salmon smolt which an upstart aquaculture company is undertaking to raise in net pens in Toothaker Cove off Swan's southeast shores. The operation has been delaved by a small but determined number of summer residents who have intervened through federal regulators to halt what they fear will be the ecological contamination of the cove. But reason (or risk-taking, depending on your point of view) has finally prevailed, the state and federal licences have come through, and now the salmon are arriving. No ordinary operation this, but one timed so that the

Everett Libby, the Swan's Island ferry, can be pressed into early evening service after her last passenger run of the day, to haul a pair of flatbed semi's loaded with huge fish tanks full of salmon, transported four hours from the hatchery in Bingham.

The day is thick, and as we round the west shore of Hat Island we can hear the Libby chugging away off our starboard beam. The salmon pens near Gooseberry Island make for a nice radar target, and just as they heave into view, a late afternoon hole in the fog materializes, into which the soft refracted sunlight and salmon ferry pour simultaneously. The natural beauty of the late afternoon we'll not soon forget, nor the lined faces of the fishermen and salmon biologists peering into the depths to see how many silver-sided salmon, their transfer to the ocean pens stretched a fortnight beyond the date when they should have left the hatchery, will survive the late saltwater shock. After the tanks have been emptied and we can see flecks of silver flashing in the gathered depths below, we wonder whether we are witnessing the birth of a new industry or another flash in the pan in the cycle of boom and bust to which the coast has so long been subject.

In persistent mid-July fog, we are headed for a midafternoon rendezvous at Northeast Harbor. Instead of making directly for Casco Passage from the east end of the Deer Isle Thoroughfare, we opt for a time-and-tide shot through the broody Black, Pond, Johns, and Opechee islands, a shoal draft prerogative. The high tide entrance to the slot between Johns and Opechee, marked this year by tiny Styrofoam floats, emerges out of the radar chatter, and we ghost into



Peter Ralston

another hole in the fog where the islands make just enough heat to part the vapors. This is seal country. The ledges are thick with russet, gray, silver, and tan pelages of more than 40 fat and grunting seal mothers, pups, and bulls. As we pick our way into the gut, they roll heavily into the water and pop up all around Fish Hawk staring with dark liquid eyes at the intruding two-motored two-leggeds. At some unknown signal, they begin to move easterly in unison. Slowly gaining momentum in the Johns Island aquarium, the fast males porpoise through the shallow channel at bursts of 20 knots in a sheer exuberant display of spray, spiral, and flipper slap. Just before we are about to throttle up at the end of the boulder-strewn mile underneath Black Island's shore, the radio crackles with a meeting ground message we strain to overhear, and in that moment we are spared a ruinous encounter with an uncharted rock just a seal's whisker beneath the surface. Captain and mate wink, knowing our number has been registered but not yet called.

At the end of July we are in home waters, in our backyard in Rockport Harbor, which both ecologically and architecturally resembles an island harbor with its saltboxes, Capes, and Greek revivals clustered on steep stony slopes around the water's periphery. All water, sanitary and otherwise, flows downhill into this harbor made famous by Andre the Seal, where now a sewage treatment plant has been proposed by town officials and approved by voters who have given up on getting linked into nearby Camden's underutilized treatment plant.

There is nothing like a backyard sewage treatment plant to make citizens confront environmental realities and trade-offs, and at the urging of some of our members, the Island Institute weighs into the fray not far ahead of the first bulldozers. There is also nothing like a late lawsuit in a local situation to remind you how thin the seemingly durable fabric of the local political weal can become when uninvited outsiders intrude. Although no glory and little reward will attach itself to the Institute, or our lawyer Jeff Thaler's labors, this is one fight that by the end of the year we will have won, after first Camden and then Rockport vote to approve the common economical and environmental wisdom of a single treatment system for the two towns.

In early August we are riding the easting down again - this time to Sutton Island in the loom of Mount Desert, where we spend a very foggy morning carefully tracking the politics of deer and spruce through the tangle of the coniferous mist-forest which has grown up all around John Gilley's old farm. The issue here, as on so many other islands, is delicate and philosophical: if you come to a Maine island for the seasonal purpose of worshipping a timeless natural order, and for creating sylvan places of reverence, what do you do when Nature herself produces things unruly, disordered? Here on tranquil Sutton, she has been running amok, uprooting old and lovely trees, producing ever more and smaller deer, ever fewer and less showy wildflowers. Is polite human intervention called for? Is it wise? These are matters that can't be decided in a season, or in some cases in a lifetime of seasons, because they tug away at the rocky underpinnings of a world view. How can a serious philosophy admit, in the face of the end of nature on a global scale, that here in our backyard islands, nature can be too much of a good thing? To admit as much risks placing ourselves back in the epicenter of the natural universe from which our western religions long ago extricated us, for better or worse. As you can see, this is pea-soup thick philosophy that mostly will have to wait for a weather change to provide clearer perspective.

Turning back to the west'ard into a rising and lowering sky, we pause off Long Ledge underneath Norumbega Mountain to watch the spectacle of a huge groundswell from a distant offshore storm roll up and curl over this massive shoal, with the wave tops peeled off by the mistral mountain winds. It calls to mind the mermaids of T. S. Eliot's poem: I have seen them riding seaward on the waves Combing the white hair of the waves blown back When the wind blows the water white and black.

The mermaids here are singing not just to each other but to the captain and crew of Fish Hawk.

Before returning to Rockland, we call at Isle au Haut where the news is increasingly dim for the hard-pressed year-round community. More young families will "remove" to the mainland at the end of the summer, and the prospects for their replacement are as remote as the talk of reclaiming the lobster territory lost to Stonington's aggressive fishing muscle. Isle au Haut seems all but certain to recreate itself as Maine's newest summer island community.

In mid-August we gear up at the Rockland Public Landing with a team from Maine Medical for an amphibious landing on Criehaven's remote eastern shore to drop a scientific party studying the dispersal ecology of the nasty Lyme tick that has spread a debilitating disease all along the northeast coast from its epicenter in Lyme, Connecticut. Because islands present different combinations of the warm-blooded mammals that carry the disease from tick to mouse to deer to man, they present scientists with ideal natural laboratories for such research. After an afternoon of setting rodent traps and a late evening effort of collecting a few of the rabbits that have been introduced to Criehaven, we tell island stories from our borrowed research camp overlooking Matinicus Rock Light Station. In making the rounds of the traps the next morning, it is apparent that ticks are firmly attached to all the specimens. However, the frightful Ixodestick is missing; good news for Criehaven and further grist for the research mill.

Before decamping we turn our backs to a different research priority. Some of the rabbits that have overrun Criehaven like a Biblical plague have crawled under the well cover and fallen into the water supply for the property we are camped on, rendering this historic well useless. With Sak-rete and the help of the best minds from Maine Medical, Harvard Medical School, and St. Lawrence University, along with some handy lumber from an abandoned nearby barn, forms are quickly built and the well is rendered, if not yet usable, at least rabbit proof. Next season

we promise to return, pump, and disinfect this cherished resource.

By the end of August the migrations are well underway and the seasonal winds have shifted decisively into the northwest. For months we have followed the unfolding case of Sheep Island, off Roberts Harbor on Vinalhaven's exposed easterly shore. For centuries Sheep Island has been used for pasturage and as a habitat for a vast variety of waterfowl, including eiders, gulls, terns, guillemots, migratory shorebirds, geese, brant, and migrating peregrine falcons.

Bold and treeless outer "heath" islands such as Sheep comprise not only significant wildlife habitat, but more to the point, in today's market they present unparalleled seascape views for the would-be islander. In Sheep Island's case, a building application has been winding its way through Vinalhaven's town approval process. Primarily on the basis of the fact that Sheep Island currently has no active seabird nests. the town's planning board narrowly approved (in a 3-2 vote) an application for a two-story house, a separate guest house, and large septic field. Because the Island Institute is considering joining an appeal of the decision with a local citizen's group and the Vinalhaven Land Trust, we want a firsthand

The day we choose for a site visit is blustery but bright, although a steep chop has developed in both West and East Penobscot bays. We're not sure we'll be able to land as we roll and plow our way down to the island, but there is a little lee at the north end of Sheep, where we anchor and launch the dink. Timing the landing on the slipperv rocks in the surge requires a combination of utmost patience and then a lickety-split scramble, but we manage to avert a swim. As we start to make our way up to the height of land, we can hear the murmurings of a flight of geese. Hand over hand and low to the ground we move like mink to a position where we can just make out the eyes of the sentry goose posted above the head-down feeding flock. The alarm is given in a crescendo of calls. Ponderously at first, but then in a rush of wings, 10, 20 then 30 calling Canada geese are stretching out into the steady wind, forming a long line of flight down over the southern end of Sheep before banking a slow turn back up the shore over our heads while we lie motionless on our rocky perch. They land a hundred yards down the island, re-post their sentries, and slowly return to their feeding among Sheep's thick, lush grass and heath cover.

When we finally stand up in the center of the proposed building site, the view out over to Isle au Haut, Saddleback, Brimstone, and back to Vinalhaven is undeniably impressive. The question is who or what should enjoy these pricey and priceless benefits. As we scramble down the hill under a gathering squall, we think it likely that Sheep Island will become another piece of environmental history, since Maine's courts will no doubt be called upon to decide whether "unnested"

island habitat can be legitimately withheld from private development.

September is destined to start with a bang — or in the case of 1989, two bangs, as both Monhegan and Vinalhaven will celebrate their official birthdays on the same day: 150 years in the case of the town (now plantation) of Monhegan, and 200 years for Vinalhaven. Although Fish Hawk can't be two places at once, she plans to straddle the day's parade on Monhegan and the evening's fireworks on Vinalhaven.

The parade among the rocky outcrops of downtown Monhegan is pure antic theater. All seven vehicles on the island have been pressed into service as floats, which lurch through a throng of humanity. At the start, it's hard to tell who is parade and who is audience, but soon there is no distinction; it's all parade. The motley crowd of island residents, tourists, daytrippers, and personalities is briefly thrown into pandemonium somewhere between the Fish Beach and the Spa when salvos of waterballoons are fired from the astonishing sea goddess float at the judges posted to make awards. After a ceasefire has been hastily arranged, hundreds gather in the heat of the day to honor the island elders and the twin spirits of dogged individualism and vigilant mutualism that have artfully infused Monhegan's polity since anyone can remember.

After participating in the blessing of the fleet - another half solemn, half antic parade, this one of boats in the harbor - Fish Hawk points northeast for the Vinalhaven festivities and makes Carvers Harbor at dusk. All the working frequencies are crackling with radio greetings, information, and directives from the fire department crew who have worked for over a year to raise serious funds to bring a world-class fireworks show to the bicentennial celebration. Fish Hawk has a guest mooring at the outer edge of the harbor just under where the mortar tubes are being dug in, but this is ground zero, and we opt for an invitation to join the Southport Island delegation on the second deck of the motel, which also offers a sweeping panorama of the entire harbor. We are not disappointed as the first salutes thunder across the harbor and the titanium starbursts silhouette 70 dignified lobsterboats at rest on their moorings beneath an exploding umbrella of light. For the next half hour, Monte Carlo never looked as splendid as Carvers Harbor under cobalt, copper, and trillium displays of shells within shells and salutes within salutes. Two hundred years of waterborn pride has culminated in a birthday worthy of recreating the earth's big bang.

Three weeks later, as Hurricane Hugo warnings are being repeatedly broadcast, we are reminded again of the difference between the quick and the dead (of boats) and reluctantly agree to call the season off early to become pedestrian island visitors again aboard the ferries, fishing boats, mailboats, and planes that connect us and a little of the islands to the rest of the world.

Log of the Eider

DAVID R. GETCHELL, SR.,

Trail Director, Maine Island Trail Association

Boats are an important tool to any island organization, and especially so to one like the Maine Island Trail Association that oversees a small boat waterway strung along hundreds of miles of coast. Our work covers everything from transporting VIP's and work crews, to making site inspections, to visiting private island owners on their own turf, to carrying loads of rubbish ashore, virtually all of it discarded plastic that has washed onto the beach. Since most of the islands on the Maine Island Trail have only natural landing areas (ranging from mud flats and beaches to slippery cobbles and weedcovered ledges), a lightweight boat with an all but bullet-proof hull is the only

For 10 years an 18-foot open aluminum skiff built by Lund Boats in New York Mills, Minnesota, has served me well for both commercial and pleasure uses. Powered throughout this period by the same 25 h.p. Mariner motor, the rig gives every promise of carrying on for many more years. However, during the first year of the Maine Island Trail in 1988, I put 1,500 hard miles on boat and motor, and this convinced me that the Island Institute should have its own boat for Island Trail work. Since the Lund and Mariner had proved so durable, I asked these companies for their support. As the result of their generosity, we took to sea in a brand new Lund Alaskan 18 and 25-horse Mariner early

in July 1989. Named Eider, the new rig is everything I hoped it would be, and excerpts from the log of her first season follow.

HE FIRST FEW RUNS with the new boat were a revelation. Built on the same hull as my old Lund, the Alaskan 18 has an open layout with deck and side storage seats covered with tough outdoor carpeting. The different interior design adds about 150 pounds of weight but results in a much stiffer and quieter boat—not unlike a fiberglass hull in this respect. *Eider* wasted little time in finding a niche in my affections.

Her first real outing came in response to a minor crisis. At the Atlantic Coast Sea Kayak Symposium at Castine in August, I received word that the owner of Sheep Island, off Deer Isle—the first privately owned island in the Maine Island Trail—had found used toilet paper hanging in the bushes behind the campsite, and was justifiably upset. Concerned that our "first" island might be the first one to be lost due to the



David Getchell

very thing we were trying to prevent, I called the owner, Ed Emerson of Camden, and arranged an inspection trip down there the following Tuesday.

On that day I left Rockland at 7 a.m., hoping also to visit several other of the most heavily used islands in the trail system south of Stonington. With me was Hawaiian Audrey Sutherland, a wiry, middle-aged solo kayaker whose sea ventures have made her internationally famous. A participant at the symposium in Castine, she was taking a busman's holiday to help me check the condition of the islands.

Our first stop was at Wheat, just north of Burnt off Isle au Haut. We scoured the island for signs of abuse, but other than some matted grass where a tent had recently been placed, the place was in fine condition without a trace of rubbish or other waste. The same held true for lovely Harbor Island a mile away. Among the most used in the entire trail system, Harbor's three or four acres produced the cellophane wrapper off a pack of cigarettes. A single tent was pitched

on a tiny point, but the owners had left the site looking as if they expected the Inspector General.

Steve Island, on the north side of Merchant Row, was equally clean. "I don't believe the condition of these islands," Audreyvolunteered. "You wouldn't be apt to find a campsite anywhere near as clean as these in Alaska — and they don't get anywhere near the use these do!"

Back on the water, we wound among the islands to Hell's Half Acre and then on to Little Sheep. The former is a popular local picnic spot as well as a campsite for those cruising in small boats. It, too, was obviously well cared for; the only sign of trash was a plastic oil bottle washed up by the tide. Little Sheep, rarely used, seemed as wild and untouched as ever. However, a quarter of a mile away lay Sheep Island, the main reason for our trip, and I approached its campsite beach with trepidation. Again, flattened grass indicated use, but if there had been waste or rubbish present, someone had already got to it. By the time we reached Ed Emerson's landing on Deer Isle a short time later, I was feeling better.

We visited with Ed and his wife Margaret, both avid seas kayakers, for nearly an hour. Ed laughed off

the toilet paper caper. ("I let others use the island; it might have been them.") In any event, two MITA members had been there the day before and cleaned things up, he said, and he had every intention of continuing to let the Association use his island.

The quick way home was via Eggemoggin Reach, particularly so since an afternoon southwesterly had breezed up and a whitecapped chop was building. We plunged into this at the western end of the Reach and started down the bay directly into the seas, but where my old and lighter boat would have been pounding unmercifully, Eider settled for an occasional Whump!, tossing the seas aside in great sheets of spray. My confidence in the boat grew as she rumbled along, and rather than cutting the trip short at Lincolnville Beach, I decided to stay on course for Rockland, 10 miles away. The chop eased as the sun neared the horizon and soon we were at top speed, finally racing around the Rockland Breakwater directly into a spectacular sunset.

Eidersettled down to work in the following

weeks. We trailered her to jobs in Muscongus and Blue Hill bays, and made additional trips to distant points in Penobscot Bay. In August she won a secure place in my affections on a three-day trip out of Jonesport. With state Bureau of Public Lands island coordinator Steve Spencer and Island Institute research scientist Ray Leonard as crew, we piled food and camping gear aboard and headed east past Cutler and Lubec into the powerful tidal currents of Passamaquoddy Bay. Our aim was to explore several New Brunswick islands owned by MITA member Bob Stewart, who had offered use of them to the Association.

We set up our base camp at impressive Barnes Island, just east of Deer Island, New Brunswick. Strong northwest winds were forecast for the next day, which proved to be a favorable slant for exploring east about 15 miles to Maces Bay. In fact, the high cliffs that dominate this coast sent the wind swirling far overhead, and we spent a pleasant day cruising just yards off jagged stone buttresses topped by gaunt, salt-plagued spruces. By mid-afternoon we were back near Blacks Harbour looking over a chain of attractive islands a mile or so up a protected estuary. Among their enticing charms were meadows of wild blueberries, where we stocked up for the next day's breakfast. By the time we were back in Jonesport following another night on Barnes, we were convinced that these New Brunswick islands would make a superb side trip to the Maine Island Trail.

Late September found *Eider* briefly on "garbage duty" in Casco Bay. Trash bags bulging with rubbish packed her forward half as I followed Steve Spencer's boat, equally loaded with trash, up the Royal River toward the Yarmouth Town Landing. It was September 30, a crisp sunny day, and we were about to unload our contribution to Coastweek, the annual national cleanup of the nation's coast.

Our cargoes, gathered by 15 members working on two of the loveliest islands in the bay, were composed of about one half plastic, cast from boats and washed up on the shores, and one half beer and soft drink cans and bottles, cast about by unthinking island visitors. For the moment it was depressing, but we were buoyed by the knowledge that times and ways are changing on the coast of Maine.

Earlier in the day we visited Crow Island off Great Chebeague, the first stop for anyone heading east on the Maine Island Trail. That tiny place, a popular picnic spot for islanders and a regular camping stopover for small-boat cruisers, was in beautiful condition with no trash at all. Even big and uninhabited Jewell, the largest state-owned island in the bay and also included on the Trail, was quite clean, most of the rubbish coming from beneath thick bushes along the walking trails and from where it had been thrown into the gun wells of the old coastal defense fortifications over the years. The balance of the trash had come from Basket, an island not far from the mainland and not in the Island Trail system, but even there, the party-goers had at least thrown their beer cans into a single pile. Progress is sometimes measured in small increments!

The last week in October was classic Indian summer, with temperatures in the 60's and 70's even on the water. On a solo trip out of Rockland, I visited Trail islands as far south as Elwell in the Muscle Ridge and then headed east to the south end of Greens Island near Vinalhaven. The 10-mile trip across the mouth of the bay was breathtaking: a few white lobsterboats made their rounds in the near distance while the Camden hills rose through a gray-blue haze into a brilliant blue sky laced with white cirrus clouds.

A few days later, Steve Spencer and I launched at Blue Hill. The bite in the air told of the coming winter, as did the vacant moorings in the harbor and the empty bay outside. The first life we saw were a couple of lobsterboats working Flye Ledge, but they passed quickly astern as we headed for our first stop, little Sellers Island between Hog and Harbor islands at the east end of Eggemoggin Reach. The rest of the morning was spent checking state and private islands on the east side of Deer Isle (including a brief tour of the Island Institute's first acquisition, lovely Russ Island), and planning work projects for the 1990 season.

At 18 feet in length and 650 pounds, *Eider* is a lot of boat for a 25 h.p. outboard motor, but the relatively light weight of the latter outweighs its disadvantages when it comes to landing on undeveloped islands. And even though the boat is not fast by modern standards, she still manages to cover 50–75 miles a day with two or three people and their gear. Thus, in a busy morning we had visited eight islands and still had half a day to accomplish one of our main goals — to visit Ram Island on the east side of Swan's Island and Black Island in Western Bay at the northeast corner of Blue Hill Bay.

Our route took us across Jericho Bay, close to the rocks of Hat Island, and behind Harbor Island for a quick look into Burnt Coat Harbor. A good sea was running in the Southwest Approach between Swan's and Long Island. We bounced past a couple of handsome lobsterboats and in behind the Sister Islands for a look at Ram, one of the few state-owned islands in this area. One could quickly see why the state still owned it — no one else would want it. Topped by a few spruces and a thatch of grass, its steep granite sides shed the great swells in long streamers of foam.

"I don't think I want to land there," said Steve, his hands gripping the grabrail as our little boat rose and fell in the uneasy seaway. In full agreement, I swung the boat on a course that would take us between Black and Placentia islands south of Mount Desert. By now, the tide was pouring out of Blue Hill Bay in full force, colliding with the swells sweeping in from the ocean. The result was high, steep seas which, fortunately, were just short of the breaking point.

Things quieted down as we entered the passage between Placentia and Black Island. Nothing was doing in Great Gott Harbor as we swung close in to this tiny gunkhole and then bore northwest toward Lopaus Point and up the west side of Mount Desert. There is a noticeable lack of small islands along this shore until one enters Bartlett Narrows. We stopped briefly at state-owned John Island and then pushed on to Black Island in Western Bay (yes, there are at least three Black islands in Blue Hill Bay!) to see if it might be usable in the Maine Island Trail. Owner Charles Yates had given MITA permission to land there, but said we should look it over since it has poor access.

He was right on that score! Most of the narrow island fronts the sea with high ledges and cliffs, but at the north end we found a tiny cove and a flat spot where a party or two might camp. Since MITA islands are few and far between in Blue Hill Bay, Black is ideally located for anyone traveling the inside route, so we will make final arrangements with owner Yates before including it in the Island Trail.

We pulled into Blue Hill Harbor late in the afternoon with the tide just beginning to flood. Having been in the same situation once before, I knew what we were in for. A quarter of a mile short of the launching ramp, we were aground even though we were drawing less than six inches with the motor up. A half hour later we were within 100 feet of the ramp, so I climbed over the side and walked ashore through the mud and backed car and trailer to the bottom of the ramp. Meanwhile, Steve uncoiled a 3/8inch anchor line, attaching one end to the bow ring on the boat and then slogging to the trailer with the other end and tying that to the trailer frame. The truck was at the top of the ramp before the boat started to move under pressure from the stretching nylon rope, but once underway she skittered across the mudflat and came to rest at the edge of the ramp. It was then a simple move to haul the boat onto the trailer and depart while the water continued its slow rise to the head of the harbor.

The season's last trip was on a crisp Sunday early in November when MITA member George Atwood and I made a run to Eagle Island for a brief talk with Bob Quinn. A major clearing project had been scheduled for the weekend on Butter Island, but the weather had forced postponement to the next weekend. Bob had agreed to help with his large boat and I wanted to let him know we'd try again. As it was, the weather shut that plan down, too, forcing us to wait until spring to complete the job — not a surprising result for a small-boat operation scheduled late in the autumn.

However, George and I did spend a glorious day cutting brush on the high hill above the southeast beach, as lovely a spot as one can find anywhere on the Island Trail. It proved a fine ending for the *Eider*'s first season.



Armed with a skidder, barge, and tugboat, Andy Arey and his island lumberjacks are opening old vistas

CHRISTOPHER LYMAN

At a time when dozens of coastal communities, hundreds of private property owners, and the Maine Department of Environmental Protection have been struggling over efforts to tighten tree cutting provisions in the state's Minimum Shoreland Zoning Ordinance, it might seem odd that the Island Institute would publish an article seeming to champion large scale tree cutting and land clearing on islands. The State's case for tighter restrictions and increased setbacks in the shorline zone rests not only on the potential for disturbance to the shoreline's sensitive natural communities, but also on the notion that the impact of 30-foot-wide swaths for every 100 feet of coastline has cumulatively marred the scenic value of the undeveloped coastal landscape.



Beach boom, Allen Island

As with so many other issues, what makes good sense for the mainland is not necessarily so for islands. In the matter at hand, we believe that commercial tree harvesting for agricultural and forest management purposes is decidedly in the public interest, because such efforts can lead to a different set of economic conditions, which in turn encourage islands to be managed for their natural resource values, pasture and timber, rather than for their development value. Therefore, what may from a mainland point of view look like forest destruction is often for the island situation a means to maintain traditional landscapes and small island service businesses at the same time.

HEN I JUMP DOWN from Andy Arey's log skidder with a couple of cameras strapped to me, Chris Haiss flips the stop switch on his saw and its clamorous chatter dies out. "Come to take some snapshots of us murdering trees, did ya?" Chris quips. In an era of increasing concern about deforestation, woodcutters may be understandably a little defensive when they find themselves in front of a camera. But it's a long way, both geographically and environmentally, from the rainforests of Brazil or Borneo to this 300-acre island in Penobscot Bay where I've just alighted.

Twitch road, Butter Island. Photo by Christopher Lyman

"Some of these folks who've just jumped on the environmental bandwagon can sure getself-righteous," Andy complains. "I mean, you ask them to take a look around them. How many things in their apartment are made of wood? And where do they think the paper their environmental newsletters are printed on came from?"

The woodcutting operation on Butter Island is Andy's pet project. Three years ago Andy was first mate on a large corporate yacht, steaming the world's oceans to meet its owners for day cruises in exotic locations. He was tiring of the rootlessness of the life and began to cast about for a scheme that would allow him to make a living where he grew up on the coast of Maine. That's when he came up with the idea of cutting wood on



Modern technology on an island scale

islands and hauling it by barge to buyers on the mainland.

On one of his brief visits home from yachting, Andy dropped in for a visit with his mother and stepfather. Helene and Bob Quinn live on Eagle Island, as their families have for several generations. Sitting around the big table at the farmhouse on Eagle after supper, Andy sketched out his idea for island woodcutting. Bob, once a fisherman and now a contractor on the islands in Penobscot Bay, is no stranger to boats or chainsaws. Caution slowly gave way to rising excitement as he and Andy weighed the merits and pitfalls of Andy's plan. "Well, I can see you might make it work," was Bob's conclusion "the only way you're going to find out is by trying it."

The first winter after Andy quit yachting he bought a log truck — "a straight-job with an arm and grapple for loading logs" — and a skidder. This giant, tractor-like vehicle, the workhorse of any professional logging operation, has four equal-sized wheels and steers by flexing in the middle. It has a winch on the back, the cable from which can be attached to a bundle of tree-length logs which it then drags behind it. With these two pieces of heavy equipment Andy established himself in the wood business.

The next year he began to work on the logistics for cutting on islands. Through the Island Institute, Andy met his first client. Betsy Wyeth, wife of painter Andrew Wyeth, owns Allen Island in Muscongus Bay and wanted some of the island cleared. After a great deal of fingernail biting and calculator work, Andy's island woodcutting operation finally got under way in mid-summer 1989.

"The wood business is like everything else in the late 1980s," Andy explains: "It all comes down to numbers and margins. The guys I'm selling to aren't even buying wood; they're buying fiber for paper making. As it turns out, island spruce — perhaps because of the tortuous, wind-thrashed life it leads — has particularly good, long-stranded fibers. So I can get a pretty good price for what we cut as pulp. We get some saw logs for milling too, but they're just the frosting — the cake is pulp."

Despite the good market for the wood, at least at the outset, the factor which pushes the operation into the profit margin is the desire of island owners to see land which was recently open fields restored to that state. In addition to receiving stumpage (the right to cut and remove wood), Andy is also able to charge his clients for the clearing itself.

"When you look at the big boys we're up against," says Chris Haiss, the first string saw jockey on the crew, "you see they're the ones who give us wood cutters a bad image, and they make us work pretty hard just to make a living, too. You oughtta see them 'fellerbunchers' (shears) they use; they're like an extra-large skidder with something resembling a huge pair of scissors on the front. They drive up to a tree that's several feet around at the base, get that scissors thing around it, and snip it off right above the

roots; then a clamp over the shears grabs the trunk and holds it while they do the same thing to another tree. They get as many as five trees like that before they have to unload, and when they do unload, they do it into a machine that delimbs and debarks the tree and cuts it all into lengths. As if all that weren't enough, they run this whole operation from inside a heated and air-conditioned cab with a stereo tape machine. If you got \$150,000 you can have one of them, too." Chris's disgust seems to triumph over his envy as he concludes, "And you oughtta see the land when one of these monsters gets done: wheel ruts as deep as your waist; any tree too small to sell just knocked down and left there; brush all over - it's a mess."

By contrast, Andy's crew starts out their operation on a dock in Rockland. There are two skidders and a tracked excavator with a grapple to pick up logs on the end of a hydraulic arm, which is ordinarily equipped with a bucket. There is also a device called a "boom," which consists of logs fastened together in a chain, each end of which is anchored on land to make a floating corral inside which timber can be stored; and there are four moorings made up of granite anchor rocks weighing several tons apiece, and many fathoms of chain, each link of which is almost as big as your foot. In addition, there are all kinds of tools and supplies - because if you forget something, or something breaks when you're working on an island, a day or more can be lost just in travel time. So there is extra chain, shackles, and other hardware; acetylene welding and cutting equipment; steel cable, sledge hammers, spikes, bolts, and spools of heavy rope - not to mention chainsaws, helmets, gas cans and cans of chain and bar oil, and all the other tools and parts which are necessary to keep a chainsaw running in the woods.

All of this is loaded onto a 50-foot by 100foot steel barge using a ramp made out of a piece of steel grating from a highway bridge. Then Andy comes alongside in the Kennebec II, a 50-foot tug built for tending log rafts on the Kennebec River. He ties up to the side of the barge and tows it alongside the tug (known as "hipping"). This gives greater control than towing it behind the tug, but the barge stands 11 feet above the surface of the water, and from the wheelhouse of the tug you can't see over it. So Paul Dorr, Andy's first mate and a veteran of four years on a U.S. Coast Guard buoy tender, runs along on the blind side of the barge in a small outboard boat and talks to Andy via radio.

When the barge is empty and light, her 11 feet of freeboard serves as quite a formidable sail area. If there is a headwind, it is all the *Kennebec II* can do to keep her moving forward at three knots. If there is a breeze from either side, then the whole rig moves at a diagonal to the direction of its heading, rather like an enormous crab. Going in and out of Rockland Harbor amid the busy traffic of summer sailors, many of whom are a little shaky on rules of the road and on the

control of their craft, can be a real test of a tug skipper's nerves.

After hours underway, when they arrive at the island destination, they have to set moorings for the barge and tug, place the ramp between the barge and shore with the excavator's hydraulic arm, and then drive the skidders onto the island. In the case of Allen Island, this proved to be no mean feat. "Of course there isn't a beach anywhere on the island," Andy says wearily. "The entire shore is rocky, mostly cliffs — not like the sheltered islands up inside the bay. Allen Island is right out there in the ocean swells. There just isn't a decent place to land, and when it blows, there isn't even a possible place to land. It was a nightmare."

Butter Island, which belongs to Bostonbased industrialist Thomas Cabot, is much more forgiving. There is a pebble and sand beach on its eastern side, sheltered from the ocean swells to the southeast by Eagle Island and only really vulnerable to a wind from the due north

There is no place for the crew to bunk out at night (the historic farm and resort buildings which once stood on the island were all taken apart and moved elsewhere by boat during the 1930s and 1940s), but Andy's mother and stepfather have offered hospitality on Eagle, less than a mile away. A certain irony in the situation is not lost on Chris. "We come to this idyllic place which people from the city put a lot of effort and money into visiting, and then we spend the whole day listening to the scream of a saw, only to fall dog-tired into bed at the end of the day," he observes, adding wryly, "At least we get to see the sunrise ...as we go to work."

After commuting over to Butter by outboard and tugboat, Andy and Paul start the day by rigging the log boom while Chris and his brother Bill, who rounds out the crew, head into the woods to begin cutting. The boom requires a great deal of attention before it is ready to be put over the side of the barge. Every link between boom logs must be checked, and reinforced or replaced if found wanting — torches and sledge hammer spring into action on chain links and spikes. Then, and frequently again throughout the process, there is discussion between Andy and Paul, weighing the advantages of one approach against another.

With the plan at least provisionally figured out, Andy begins lifting the boom logs into the water using the hydraulic arm and grapple. He picks up each one as smoothly as you might lift a pencil from the table with your thumb and index finger, and deposits it neatly alongside the barge. As soon as the hydraulic arm releases a boom log and moves away, Paul moves in with the specially reinforced and equipped yard-boat. After shackling each log to the preceding one, he tows them into place with the yard-boat. Lines and cables constantly demand adjustment, and finally, when enough logs have been added to the chain, the ends must be anchored securely. By midday, the boom is set. Chris and Bill have meanwhile been cutting

the road along which the skidders will haul logs to the beach. Each bundle of logs is referred to as a "twitch," and the act of hauling them is called "twitching." (The road, naturally enough, is called the "twitch road.") The job on Butter Island, which is being conducted under review by the Island Institute, calls for reestablishing what were until the late 1950s open fields. It entails cutting only certain areas, marked off with flags, and the intent is that the impact be otherwise minimal. The twitch road must therefore be cut to very exacting specifications with often only a foot or two of clearance beyond the width of the skidder.

In the "cutting" (the area being cleared), Chris and Bill work with methodical efficiency. Chris does most of the felling of trees; they both limb and cut off tops. Bill fells smaller trees and hauls and piles brush. Andy hooks up chokers, lassos of steel cable that go around the ends of logs. These, in turn, are winched in behind the skidder to become, in aggregate, the twitch. He hauls them to the "yard" on the beach, unhooks the chokers, and measures off barge-width lengths of log, which he cuts with a chainsaw. By the time he returns to the cutting, Chris and Bill have felled and limbed another twitch of trees. If Chris and Bill fall behind, Andy will use the "brushrake," a toothed blade on the front of his skidder, to move the brush into piles. If Andy falls behind, Chris will join him in twitching with the second skidder. As the tide rises, the logs yarded on the beach float off into the boom.

For all his self-deprecating humor, Chris goes about his work with focus and dedication. After checking the angle at which a tree stands and the weight and orientation of its limbs, he makes the "scarf," or notch, on the side of the trunk in the direction toward which he wants the tree to fall. Then he steps around the tree and and cuts in from the other side. As this "back cut" bears down on the apex of the scarf, the tree leans; then, with a loud cracking noise, it begins to fall. A hinge of remaining wood between the back cut and the scarf controls the direction of the fall. As soon as the tree has come to rest, Chris walks up the now horizontal trunk, limbing as he goes. If it is a big tree, he will first cut the limbs on the underside of the tree from a position standing on the ground. This is tricky, for the whole weight of the tree bears on these limbs, which can snap with considerable force - enough to break an inattentively placed leg — or else pinch the

Limbs are of denser, pitchier wood than trunks, and thus dull chains faster. Periodically during the day, Chris stops and files the teeth on his chainsaw back to a keen edge. To cut with a dull chain increases the likelihood of "kickback," where the force of the saw's own rotation can throw the saw back at its operator with lightning speed — and sometimes devastating effect.

Chris's is not a job for the hesitant or physically weak, but with his knowledge and precision, he is able to cut as many as 20 "With knowledge and teamwork, a well-run, small-scale logging operation can cut 20 cords a day. By comparison, with large lumbering corporations high-tech industrial equipment can cut 100 cords a day; a team of men with an axe and crosscut saw used to be able to cut two cords a day."



Truckin' on down the bay

"When you look at the big boys we're up against, you see they're the ones who give us wood cutters a bad image..." cords in one day. By comparison, a "feller-buncher" of the kind he described earlier can cut as many as 100 cords a day; a team of men with an axe and crosscut saw used to be able to cut two cords a day.

When 80 cords have been felled, limbed, twitched, and yarded, Andy and Paul begin to load the barge. Any logs above the tide line are pushed into the water with the skidders. Paul then uses the yard boat to push rafts of logs across the area enclosed by the boom to the side of the barge. The yard boat has a tube just behind the stem. A long steel spike is inserted into this tube. Gunning the boat's outboard engine, Paul runs the bow up onto a log until the spike makes contact, and boat and log begins to move slowly forward with the water churning in the engine's wash. After Paul moves the logs up the side of the barge, Andy picks them up several at a time with the hydraulic arm's grapple and deposits them aboard the barge in a neat stack.

That evening, Andy listens intently to the weather service channel on the marine radio. The forecast is for a smart northeasterly breeze and a soaking rain. The breeze rules out towing the barge to Rockland. As nervous as leaving it exposed to the sea makes him, Andy says that if the rain is soaking enough, it will be a good chance to begin

Peter Ralston

burning the accumulated piles of brush.

We end up getting plenty of rain, but with it comes a gale of wind from the due north—the one direction from which the barge is vulnerable. "Nothing to do but nothing," Andy muses philosophically. I have obligations ashore that day, and as I head out from Eagle with spray flying, I can see a lone figure pacing the beach, watching the barge shrug into the sea.

The next day dawns clear and flat calm with an extra high, full moon tide coming at midmorning. More ideal conditions for towing the barge are unimaginable. I accuse Andy of having made a pact with the devil, but Bob, always fair, suggests that Andy has already paid for this chance with the job on Allen Island.

However he came by it, Andy is not about to let this one get by him. The crew are in motion with the first light, and by the time the bright sun is visible above the horizon, they are pumping the barge's bilge and preparing to drop the mooring. With the sea so calm, Andy heads out with the barge in tow behind, and that is how he still has it when they disappear from view behind North Haven Island — 80 cords of wood reduced to dot on the horizon.

When I arrive back in Manhattan a few days later, I have dinner with a friend who is

a producer for one of the network news shows. She has just finished a story on the controversy over old growth logging in the Pacific Northwest and Alaska. I am surprised to find someone in the urban culture who shares my interest in logging, and together we ponder the issues involved. Short growth timber crops like the spruce and fir which Andy's crew has been cutting, reach a usable height and girth in as little as 35 to 40 years, and it seems reasonable to consider them a renewable resource. The ancient forests in the west have taken as long as 500 years to reach the point at which they are now being cut. They are certainly not to be renewed while any of us are still living. Even more permanent is the horror of rainforest cutting followed by erosion of thin topsoil which prohibits any forest regrowth.

There are so many other issues of ecology posed by the forest industry. I think of Chris's description of a several-hundred-yearold maple forest in inland Maine falling to make wood chips for "hog fuel" generators so that urban dwellers can microwave popcorn and watch television. Perhaps Andy is right that among these urbanites are the very environmentalists who are fighting hardest to prevent the continued cutting of old growth forest. For my part, I strongly support their fight. At the same time, I can't help but think that the complexity and abstraction of the ascendent "information age" have made it very difficult to understand the subtleties of the choices that lie ahead. Andy and his crew are living out a reality which is invisible to most Americans, but on which our lives still depend.

Writer, photographer, and sculptor Christopher Lyman has lived on various islands in Penobscot Bay. He has worked in the woods since he was a child and has often relied on boats as his primary means of transportation.

Island Spruce Management: The Big Picture

RICHARD H. PODOLSKY

he images on this page were created at the Island Institute using GAIA (an acronym for Geographic Access, Information and Analysis), a computer software application developed by the Island Institute and described in the 1989 Island Journal. GAIA displays and analyzes satellite images of the earth's surface on an Apple Macintosh II computer.

The large area shown at right extends from Pemaquid Point on the western edge of Muscongus Bay to Port Clyde on the Bay's eastern side. The image below details the local environment around Benner and Allen islands in the Georges Islands.

The most significant aspect of GAIA is that it allows

us to get precise answers to questions about the Maine coastal landscape which could previously only be approximated. For instance, how many acres of mature spruce are found on the islands of Muscongus Bay? How are meadows and agricultural lands distributed on the coast and islands? How many acres of wetlands are there in a given region?

For the analysis shown here, we have taken

the data from a SPOT satellite image and assigned dark green to distinguish old-growth spruce forests. Note that mature spruce is found predominantly on the islands and the tips of mainland peninsulas. In fact old growth spruce is found on approximately 900 acres of Muscongus Bay islands. Light green corresponds to hardwoods, such as maple and oak, which are found more inland. Old fields and agricultural lands are bright yellow and also predominate on the mainland. Shallow water marine environments including clam



flats are colored light blue and marshes and wet meadows are highlighted in orange.

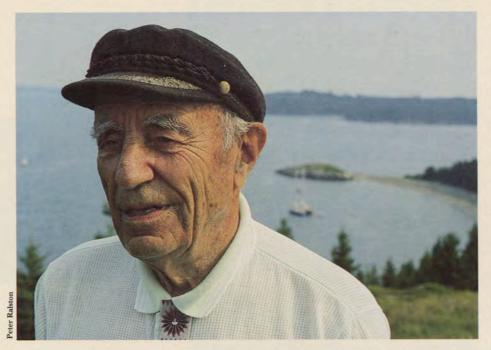
All over the world satellite images analyzed by field ecologists, conservationists, foresters, town planners, and policy makers are contributing significantly to our understanding of remote natural communities and our impact on them.

The Island Institute has acquired a suite of seven SPOT images that cover the entire coastal strip of Maine from Ogunquit to Cobscook Bay, totalling 5,000,000 acres of marine and terrestrial habitats. Institute staff ecologists use this data for a wide variety of consulting projects for landowners, land trusts, and coastal towns.

Fields/Agricultural
Spruce-Mature
Spruce-Pole
Mixed Wood
Hardwood-Mature
Hardwood-Scrub
Wetland/Wet Meadow
Water-Deep
Water-Shallow
Mudflat-Intertidal
Forest Blowdown

Images copyright [1988] CNES, provided by SPOT Image Corporation, Reston, VA.





Scion of a world-ranging New England merchant family, Tom Cabot hoisted sail and headed downeast.

Cruising the Maine among readers young and old alike for the rest of this century and beyond. GULF O

THOMAS D. CABOT

WAS BORN in the spring of 1897 and spent my early summers at Grandpa's house, high on a promontory over Massachusetts Bay. Those were the days of sail and on the porch, mounted on a tripod, was a large telescope for watching the passing vessels. Grandpa and his three unmarried sons were partners in J. B. Moors & Sons, a private bank engaged in financing imports and exports. They knew the vessels, their cargoes, where they were from or whither bound, and even the captain and the supercargo. We children soon learned the different rigs: the full-rigged ships - the barks and the barkentines, the brigs and brigantines - and the fore and aft rigged schooners, the newer ones with five or six masts and the big Thomas W. Lawson with seven. The square-riggers and larger schooners brought goods from the ends of the earth: hides and grain from the River Platte; tea from Shanghai or Calcutta; wool from Punta Arenas, Sydney, or Christchurch; sugar and molasses from Havana; bananas from Cortes or Port Antonio; rubber from Manaus; coffee from Rio, Santos, or Cartegena.

The smaller coastal schooners, operating in cabotage where foreign ships were banned, brought lumber from Bangor, Machias, and Calais; or granite from Stonington and the nearby islands; or cotton from Savannah and Charleston. When a clear fresh northwest wind followed a couple of days of easterly storms, we could see at least a hundred great sailing ships coming or going from the ports of Massachusetts Bay in a single day.

To our uncles the news of ships arriving was the first thing to look for in the Boston Herald or the Evening Transcript. Is it any wonder that we came to feel some of the same excitement, even when we were too young to think of running off to sea? We had heard our parents tell of how ancestors had made fortunes in the China trade, or become ship captains by the age of 20, or sought adventure whaling in the southern seas, or sailed as privateers and taken rich prizes. Our library was full of books on seas adventure, books like Treasure Island, Robinson Crusoe, Twenty Thousand Leagues beneath the Sea, Two Years before the Mast, The Riddle of the Sands, Moby Dick. There was non-fiction

Part 1: The Early Years: 1919 - 1931 as well: Sailing Alone Around the World, and

in "big" history provides an excellent

counterpoint to the rendering of "little" history, the sort that everyone creates in

their own lives. It is a kind of magic that will reverberate along the coast of

It is a little known fact that Thomas Cabot has owned more Maine islands than anyone else in the 20th century. For one thing, he's been at it most of his 94 years. In conversations with him discussing the future of Maine's islands when we have found him out in his various anchorages and redoubts along the shores of the Gulf of Maine, we have also found a rich store of nearby history not covered elsewhere, including in his impressive autobiography, Beggar on Horseback. Because we do not underestimate the value of personal experience in times that are remote for most of us and which recede further everyday, we asked him to put down some recollections of the islands and coast of Maine that he has known in this century. Cabot's participation

books of exploration by Nansen, Amundsen, Peary, Shackleton, Steffanson, and Frobisher. By the time I set to sea, I already had salt water in my blood.

As a small boy, living in Cambridge except during the summer, my closest friend was Delano Potter, son of the chief librarian at Harvard. He, too, was brought up on seafaring tales and some of his enthusiasm rubbed off on me. By the age of six or seven, we were both begging nickels from our parents for the streetcar ride to "T" Wharf in Boston where the fishing schooners docked. It was easy to get permission to board the ships and hear from the sailors about storms and how to weather them. Delano was so entranced by sea tales that he ran off to sea and served before the mast on a square-rigger, later becoming skipper of vessels under sail freighting lumber from the Maine coast to south-

By the time we were 10, we had made boats of wooden boxes which we paddled into deep water. In those days wines, soap, and other household commodities came packed

Momentos of seven decades of cruising in Maine waters...



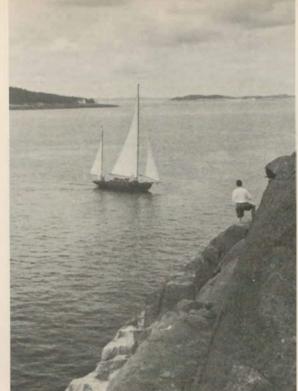
Carver's Harbor, Vinalhaven

in sturdy wooden boxes; the age of paper cartons had not yet arrived. We had these box boats first in Cambridge on the Charles and later on the North Shore at Beverly Farms. It was not long thereafter that my older sister, Eleanor, and I put our pennies together and managed to buy a canoe, which we paddled up and down the Charles.

My father did not approve of yachts and my own first experience with sailing and cruising was with my cousin Elliot Cabot, whose father Charles had a knockabout. My cousin's family had a Norwegian choreman, Chris, who had spent many years as an able seaman on Norwegian square-rigged vessels. He taught us the rudiments of sailing including sailmaking, splicing, and rigging, which were priceless skills later when I had a vessel of my own.

Occasionally in those schoolboy years, I had a chance to race at Cohasset with my maternal uncles, who were charter members of the yacht club there. By the spring of 1910, when I was about to have my 13th birthday, one of my uncles evidently thought I was old enough to have a sailboat of my own. He persuaded my grandmother to give me a Manchester one-design knockabout as a birthday present. It was the happiest day of my young life.

The previous year, my mother had given me enough money to buy some wood from a lumber store and I had built, with a little help from Chris, a 12-foot skiff. I had taken the design from a handyman book for boys and had scaled it down a bit from a 14-foot design. I didn't know enough about boat design then to realize that I should have



Jordan's Delight



Monhegan passage

scaled down the length more than the width. As a consequence, the skiff was too narrow and rather cranky. But with this skiff as a dinghy for my new yacht, I felt competent to cruise anywhere.

To be sure, my yacht was only 17 feet on the waterline, but it had a self-bailing cockpit and a cuddy with two wooden bunks. I named the vessel Tulip and put out a mooring for it off West Beach in Beverly Farms where we were spending that summer. In early July, during a northeast storm, the screwshackle connecting the mooring chain to the pennant let go, and, to my dismay, the vessel came in on the beach where the surf banged it to the point of breaking two ribs and some of the planking. My mother put up the money to salvage the vessel and have it repaired. It was a lesson I never forgot. In a lifetime of sailing I have, of course, had other vessels grounded, but this is the nearest I ever came to a complete shipwreck.

In subsequent years, my family continued to rent houses in Beverly Farms and later bought a house near the railway station. Soon *Tulip* became the boat to beat in the Manchester fleet. We also raced at Marblehead during the race week and occasionally sailed across the bay to Cohasset to race there. I still have in my cellar a collection of the mugs we won in those days.

The worst wind I ever encountered in Massachusetts waters was at the start of my sophomore year in college, during a stay with the Billings family at Vineyard Haven. A somewhat older friend had chartered a large catboat with a one-cylinder engine. A group of about a dozen of us sailed it to Menemsha for a picnic, while a couple of parents came touring by car. By 4:30 in the afternoon there were heavy black clouds approaching, and it was decided that all the girls would return to Vineyard Haven with the parents

by auto. The male members of the party then set out into the Sound with three reefs tied in the sail. When the storm hit us, it was far worse than we had expected and we had to lower the sail and tie it down. We started the engine, but it overheated and gave up. It was an open boat with no shelter, and the raindrops were so large and the wind so strong that we were taking a terrible beating. We huddled together under the furled sail. Spindrift and rain started to fill our vessel, and soon waves, too, were coming aboard. We bailed for dear life. We couldn't see and had no idea where we were. The engine having cooled, we managed to start it again, which enabled us to heave to so we were taking on less water. Our light clothing was soaking wet. We were cold and exhausted from bailing. After a few hours our engine

By midnight the wind had abated some, but we had no idea where we were and could see no lights. Shortly after midnight we were blown onto a beach. We pulled the vessel up out of the surf the best we could and planted the anchor to keep it from drifting off. Some of us were trying, with no success, to light a fire of driftwood when there was a cry that they'd seen a light off to the right. We all ran to it and found a big house. We pounded on the door and a servant came to let us in. Soon the owner, Senator Butler, came down in a dressing gown and immediately ordered hot buttered rum for all hands.

We were told it had been a tornado and that we were on the beach at Lambert Cove, near West Chop. Many houses had lost their roofs and no telephones were operating. Soon the servant was sent a on a bicycle to Vineyard Haven to let the people there know that we were safe. By dawn, men with axes had cleared the roads and cars had come to take us home.







Monhegan

When the United States entered the war in April 1917, my father was immediately commissioned in the Navy, and my brother and I went to a flying school near Buffalo, New York, founded by the Glenn Curtis Company. My vessel Tulip was not commissioned in 1917 or 1918, but as summer approached in 1919, I found myself with a few weeks free before summer school started at Harvard (I was hurrying to complete my degree so that I could get married), and with my college roommate, Alec Bright, I cruised eastward in Tulip from Beverly Farms as far as Frenchman's Bay in midcoast Maine. It was a memorable trip. I polished my skills at piloting and celestial navigation and learned a lot about the perils of anchoring and how to avoid dragging the anchor if the wind freshened. We also had lots of experience finding the way in dense fog.

To prepare *Tulip* for the trip, we had a large wooden box nailed down to the cabin sole in which we stored our provisions, cooking utensils, a small Primus stove, and our spare clothing. We had a kapok mattress which roughly fitted the cockpit, a sailcloth awning to stretch over the furled sail at night and tie down to small cleats on the gunwale at either side, and another piece of sailcloth and a couple of blankets to sleep under. All of these were stored below decks during the day.

With a fresh breeze at our backs, we set off from Beverly Farms late one afternoon and rounded Thatcher Island off Cape Ann before dark. We passed to seaward of the Isles of Shoals and Boone Island with its tall lighthouse. Shortly after midnight, the wind being aft, we were carrying the spinnaker and mainsail. While I was napping, with Alec at the tiller, he suddenly let out a yell and put the helm hard down. He thought he had seen breakers ahead. The spinnaker came

aback and we had some difficulty getting it down. While we wallowed in the sea with the mainsail flapping, we peered ahead, but I could see no sign of breakers so we resumed our course toward the northeast.

Between 1:00 and 2:00 a.m. it began to rain. In pitch dark we put on our oilskins. The wind began to slacken, and by dawn it was a flat calm. Our vessel was rocking severely in the remaining waves and we sat there, cold and mildly seasick, eating only a few bites of cold biscuit for breakfast. By noon the seas had subsided. We were still miles offshore and there was still no wind. We decided to try to tow our boat toward the land with the dinghy. With one of us at the helm and one rowing, we took turns at towing shoreward. We could see no recognizable landmarks on the shore and didn't know where we were. It was nearly dark before we got close enough to shore to identify some lobsterboats moored in what looked like protected water, and it was quite dark by the time we got among them and were able to anchor. We had only a small kerosene ship's lantern with Fresnel prisms, which gave too little light for us to find anything much to eat or to bother with cooking. Having been awake for 36 hours, we had no trouble sleeping.

The next morning, fishermen told us we were in Pott's Harbor (near South Harpswell). It was a bright day with a good breeze and we sailed eastward around Cape Small, inside of Seguin Island, and came into Port Clyde in the late afternoon in plenty of time to cook some canned stew for dinner and have a walk ashore before dark. The next day we sailed on through the Muscle Ridge Channel to North Haven for the night, and the following day through the Deer Isle Thoroughfare to Burnt Coat Harbor on Swan's Island. We went ashore for some

... from a Cabot family album



Garden Point, Burnt Coat Harbon

fresh milk and bread at the small store on the shore near the wharf, which is now the fishermen's cooperative. The two following nights were spent in Northeast Harbor with a full day's sailing among the Porcupine Islands in Frenchman's Bay. We returned by way of Eggemoggin Reach, where we spent a night anchored off the north shore of Deer Isle, not far from where the large suspension bridge now serves that island.

There was thick fog the following day. We missed a buoy and got lost. We found ourselves among ledges and hit one lightly with no damage. We tacked into a light southwesterly wind all day in the fog, not knowing where we were but occasionally seeing an island shore, and finally anchored in the lee of a wooded island for what proved to be a rather restless night. It began to rain shortly after dark and by midnight the wind was freshening into a storm. We had only about 15 fathoms of half-inch hemp rope for our anchor, which was the old fisherman's type. None of the modern patented anchors had yet been invented. The depth of water was much greater than we had anticipated, and although we were close to the shore, there was very little more than enough rope to reach bottom. About midnight we realized that our anchor had dragged and we were adrift in deep water.

The longest rope we had was the peak halyard so we unrove it, attached it to the anchor rope, and got the vessel head to wind again, but we couldn't be sure in the dark whether or not we were still dragging.

By dawn it was still raining but the fog had cleared. After some study of the chart, we



Roque Island

found our position to be between Great Spruce Head Island on the west and the Barred Islands on the east. There was a large house on the northeast corner of Great Spruce Head Island, and we decided to row to it.

All our clothes were soaking wet and we were miserable and cold. We wrung what water we could out of our wet underwear, put on oilskins with nothing but underwear beneath, and in short order made it to shore. It was about quarter of seven in the morning, and a young boy and a girl our age were playing ping-pong on the screened porch. They asked us in, lit a fire in the living room, and invited us to stay for breakfast. It was the Porter family from Chicago. It was Nancy, the oldest, who had been playing ping-pong against Eliot, her brother. Two younger brothers, Fairfield and John, soon appeared with the parents. We were much embarrassed, having only underwear under our oilskins, so before breakfast we rowed out to our vessel, got some more wet clothes on, and rowed back for a meal. We wound up staying all day and spent the next night in the shelter of their harbor, leaving the following morning to sail to Tenants Harbor.

That was our first cruise of Maine. I can't possibly remember the scores of cruises we had later and all the places we anchored, but I can clearly remember some of our misadventures and many of our favorite harbors and gunkholes.

That fall I sold *Tulip*. After Christmas I moved to West Virginia to start my apprenticeship in the gas business and the following May I married Virginia Wellington of Weston, Massachusetts. It was five years before I had a chance to sail again with regularity. In the meantime, I occasionally crewed for others or acted as navigator in offshore races.

During those years, three sons were born and started growing up as sailors.

In the spring of 1931, hoping to improve the helmsmanship, seamanship, and racing abilities of my sons, I purchased three 8-foot sailing skiffs known as "rookies." These had originally been designed by the architect, Harry Shepley, for his own children. We were able to get three of them built at a price of \$35 each including the sails and oars. A fleet of these rookies came into being at Cohasset and also at Marion, and for several years there was an intense annual competition between the two harbors in which the Cohasset team, with three Cabots and one other lad, managed to beat a four-boat team from Marion for several consecutive summers. Meanwhile, as our sons matured, we began racing against adults in the very competitive knockabouts of the Cohasset Yacht Club.

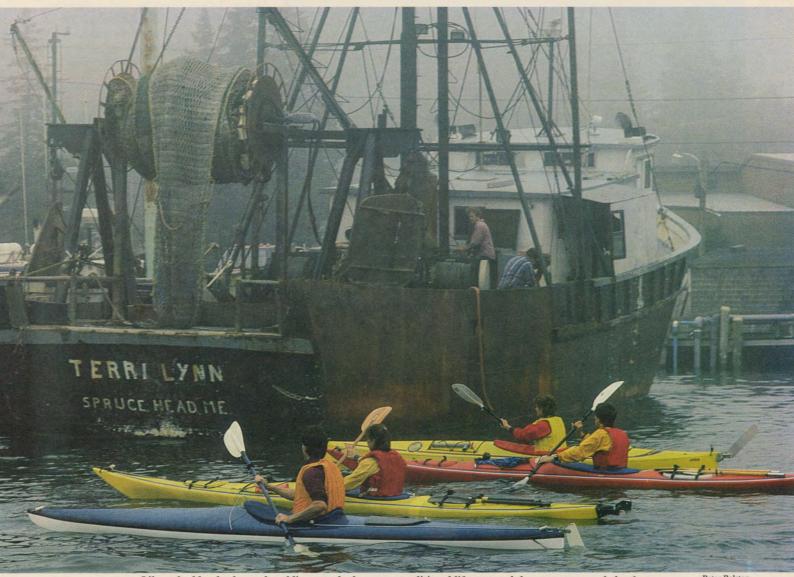
These rookies were light enough to carry on the roof of an automobile, and each year when school started we would bring them to our winter home in Weston for sailing and racing on a nearby pond. Once while sailing in a rookie with niece Lissa on Lake Cochituate, we met another tornado. We got our sail down in plenty of time to row ashore, but had to lie flat in the open amid rain to avoid the danger of lightning and falling branches.

In the late 1920s, I also had several sails in Maine, first with Dr. Alex Forbes in his large schooner *Black Duck*. I was mate of the port watch, with Sam Morison as mate of the starboard watch. He later became professor of history at Harvard and a rear admiral in the Navy. On that first trip, we sailed from Portland to Hadley's Harbor on Naushon Island, and on a later voyage I sailed with him around Jeffrey's Ledge and back to Gloucester.

It must have been about 1928 when Alex Forbes asked us first to visit with him in Maine on Harbor Island of Burnt Coat Harbor. We took a night boat to Rockland and the *John T. Morse* to Swan's Island. A number of friends had visited him there during the war and post-war years, and he had organized these friends as the Harbor Island Club. On this visit he asked me to become treasurer of the Club, a position in which I served for several years. Visits there gave our children a real love of that coast and some of their first experiences sailing in the fog and in vessels larger than a rookie.

Actually, our first family cruise in a larger vessel along the Maine coast was in the summer of 1931 when we chartered the schooner Porque No, a vessel out of Camden. On the first day we sailed over to Great Sprucehead Island and anchored in the private harbor of the Porter family. Before dark, John Porter came alongside and told us that there was a radio prediction of high winds before midnight and that he thought we would be less exposed if we anchored in Barred Island Harbor nearby. He offered to pilot us there. It was low tide and twilight. On entering the harbor we hit on a sunken ledge halfway between the northernmost island of that archipelago (then called by the fishermen Peak Island but now called by the family Escargot) and Western Barred Island. We were soon off the ledge and anchored in the harbor for the night. It was our first night on the vessel and there were only four berths below deck. There being five of us, Tom, Jr. was nominated to sleep on deck. He had a mummy-shaped sleeping bag with no zipper. He was only eight and not a strong swimmer. About 2:00 a.m. I was awakened by a call. I thought he had called in his sleep but a moment later I heard splashing. I rushed on deck. The rising tide was streaming by the vessel, and in the wake I could see astern something on the water. I dove for it; when I came up, I had only an empty sleeping bag. In a panic I started yelling hysterically. While the rest of the family swarmed on deck, I splashed around trying to find my son. After what seemed like hours, someone heard a faint cry from the bow of the vessel and there was Tom, Jr. hanging onto the bobstay, the only part of the vessel that he could get a hold of from the water. He and I were both pulled on deck with his wet sleeping bag, and he was put in my warm bed below deck while I was relegated to sit with dry clothes on the deck for the rest of the night. The afterthoughts of that near drowning haunted me. From terror or cold, I'm not sure which, I shivered through the remainder of the night. In the beautiful dawn, I was near weeping with emotion. It seemed the most beautiful dawn I had ever witnessed and I resolved then and there to try to buy the surrounding islets.

In the 1991 Island Journal Tom Cabot recounts how he commissioned the yacht Avelinda and made good on his vow.



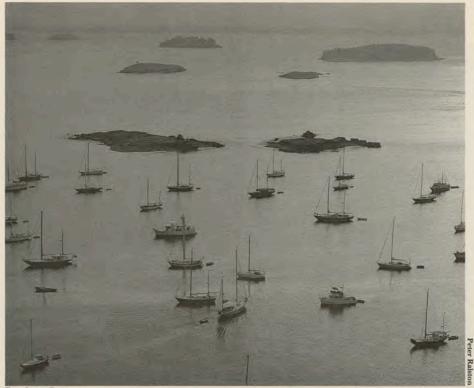
Like a double-edged sword, public access both ensures traditional lifeways and threatens to overwhelm them.

Peter Ralston

THE SIX PERCENT SOLUTION

With 94 percent of the Maine coast privately owned, is there enough to go around?

DAVID D. PLATT



Penobscot Bay

CCESS to the shore.
Commercial fishermen require it.
Swimmers, recreational boaters, tourists, and the general public want it. People with deeds to shorefront real estate get nervous when you bring it up.

Only five of the 96 access points available to commercial fishermen on Vinalhaven are actually owned by the town. The rest are in the hands of private owners. On Swan's Island, the situation in Burnt Coat Harbor is much the same: one public landing, everything else at the whim of private owners, most of whom are summer residents. "If we lose this place," says Swan's Island Fishermen's Cooperative manager Bruce Colbeth of the pier the co-op owns itself, "we've got the quarry wharf (the public landing) and that's it — access is getting eaten up."

There are, of course, other ways of looking at this large and complex subject. "The number of people who try to use it is incredible," says Jean Scudder, a Vinalhaven summer resident who makes her private pier available to several lobster fishermen but doesn't allow other public use. To her, access is a "very sensitive issue." Her shorefront property, incidentally, was once home to a lobster dealer.

Your view of access is likely to be a personal one, deeply held, conditioned by your own circumstances and interests.

If your concern is the natural environment, you cast a jaundiced eye at encroaching hordes: in some places the mere presence of humans is enough to keep birds from their nests, and the effects of tramping feet on thin island soils aren't difficult to imagine. State-owned islands that support about 20 different species of nesting seabirds are off limits to the public between

April 1 and August 15. The Nature Conservancy, whose 40 island properties make it the largest private holder of islands in Maine, allows no overnight camping and promotes "minimum impact" use in hopes of protecting fragile areas in a relatively natural state. During the bird nesting season, some Conservancy-owned island are off limits, too. "It's not The Conservancy's focus to provide access," says Julie Henderson, associate director of science and stewardship for the organization's Maine Chapter. "Our focus is to protect rare and endangered species." Alan Hutchinson, who directs the Maine's endangered wildlife program, expresses similar sentiments where state-owned nesting areas are concerned.

LIMITED ACCESS

"Public access is limited," declares Sidney St. Francis (Pete) Thaxter, the Portland attorney who successfully argued Maine's most celebrated recent court case concerning the public's right to use the shore. "That's the way Maine law has always been. Access has always been a matter of local tolerance." Thaxter's clients in the so-called Moody Beach case were shorefront property owners who insisted they had the right to keep the public off the beach in front of their houses. The basis of their claim was twofold: the property rights embedded in English (and American) common law, and the Colonial Ordinance, the 1641 Massachusetts law that augmented and clarified them.

The Colonial Ordinance reserved to upland property owners the right to exclusive use of the intertidal zone, except that the public was entitled to use the area for "fishing, fowling, and navigation." Massachusetts law became Maine law at statehood in 1820, and the ordinance is still in effect.

The legal question in the case was deceptively simple: were the public's rights limited to the "fishing, fowling, and navigation" referred to in the Colonial Ordinance, or had they been broadened by custom over the years to include recreation — the primary purpose of beaches in Maine in the late 20th century?

The court took the strict view, holding that the Colonial Ordinance meant what it said and that private property was still private property. "For islands," says Thaxter, "the significance of the decision is that you won't have people crawling all over them saying 'we want to be there' — it means public access is limited."

The State of Maine, which entered the Moody Beach case in hopes of establishing a strong legal precedent for public access to the coast, presented evidence that the intertidal zone had, in fact, been used for a variety of public purposes for centuries, the Colonial Ordinance notwithstanding — and that past courts had recognized broader public rights there. The two courts that heard the Moody Beach case weren't persuaded, however, and sided with Thaxter.

"Our law court pretty much shut the door to the coast for the people of the State of Maine," says assistant attorney general Paul Stern, who argued the Moody Beach case for the state. "All the court left for us to do was to go out and buy or negotiate for access."

Perhaps. But as a variety of organizations and agencies are demonstrating, there are ways short of purchase to provide public access to the shore.

Seventeen hundred people signed the guest book at Damariscove Island in 1988. The actual number of visitors may be twice that, says Julie Henderson of The Nature Conservancy, which received Damariscove as a gift in 1966. Forested in the 17th century but treeless today, the island has a snug little harbor, a varied population of migrating and nesting birds, and a rich human history. All of these factors, plus the island's location not far from busy Boothbay Harbor, make Damariscove a popular destination for boaters. For The Nature Conservancy, with its interest in protecting the rare and endangered, the numbers present a problem that must be dealt with, presumably somewhere short of an outright ban on visitors.

Therefore, management: in summer, The Conservancy stations two caretakers on the island who welcome visitors, explain the rules, and answer questions. No camping is allowed. Fires are permitted, but only below the high tide mark. Dogs are allowed on Damariscove, but only on leashes. Visitors who want guided field trips can arrange them in advance. Except for a few trails and signs, there are no facilities for visitors. The lack of even an outhouse highlights the difference between this place and the usual public park, although the number of visitors might be comparable. Damariscove is "pretty well done," says Pete Thaxter, the advocate of limited access to the Maine coast's private property. Except for the caretakers - only

five Conservancy-owned Maine islands have them — and the dogs (totally banned elsewhere), The Nature Conservancy follows the same pattern on all of its coastal preserves.

The Maine Island Trail, a sort of steppingstone arrangement for coastal travelers in small boats, exemplifies a different approach where the people who are using the islands take care of them. "We call it user management," says Dave Getchell, the one-time newspaper editor who developed the trail for the Island Institute. "Surprisingly, it's working." Encompassing 45 state-owned islands and nine private ones between Yarmouth and Machias, the trail's idea is to direct use toward areas that can stand it and away from places where public access might become a problem. Members help clean up the islands as well as monitor use for management purposes.

Sixty-five percent of the trail's users are sea kayakers, Getchell says. Rules cover fires (none allowed above high tide), camping (permitted most places), trash (carry out what you carry in), and permissible times for visits. "One owner says 'watch for his Hinckley,' "Getchell says — when the boat's on its mooring, the owner is in residence and not welcoming visitors. About half the islands in the system get "moderate" use, by which Getchell means approximately 300 "userdays" per year. The rest, he says, are used less than that. The private islands in the system are open only to members of the Maine Island Trail Association, a 1,400-member



Biddeford Pool

group whose members (for a \$25 fee) get a guidebook and a newsletter in addition to their access privileges. Members help clean up the islands as well as monitor use for management purposes. Whether a system like the Maine Island Trail can handle heavier use in the future is anyone's guess, of course, but Getchell likes what he has seen so far. "Right now we're staying ahead of the crowd," he says.

How successful can these private management efforts hope to be? According to Susan Woodward, a Stonington-based biologist

and consultant whose work takes her to many coastal islands, success depends on constant monitoring. Information about the islands in the system must be updated each year, she says, and then someone has to follow up. If bald eagles nest on an island where camping is allowed, for example, managers can't let the camping continue. When eagles moved onto Crow Island near Deer Isle in 1989, it was withdrawn from the Maine Island Trail. "Dave's been very, very good about that," Woodward says.

Still, there can be problems. "People don't always know where they are," Woodward notes. There's the possibility that the Island Trail is bringing more visitors. Not everyone who visits an island is a member of the Maine Island Trail Association or The Nature Conservancy. Still, Woodward supports the concept. "Increased use was coming anyway," she says. "They're trying to address problems of conflicting use on islands."

A Case of Access: Tide Mill Farm, Whiting

hat's access worth? It depends on where it is, says Bob Suminsby, a veteran Maine real estate appraiser who helped negotiate a major conservation easement earlier this year. The easement, granted to the State of Maine by the Bell family of Whiting, covers seven miles of shorefront on Cobscook Bay in Washington County. The transaction was a first for Maine because it included the right of public access. Generally, Maine conservation easements have included only development rights.

Representing the Land for Maine's Future program, Suminsby had the job of putting a value on the right of access to the Bell property. In the case of Tide Mill Farm (the Bell property), the state wanted access for both recreational and traditional commercial purposes — the right to build trails to two mountains, the right to hunt, fish, or hike as well as the right to reach the shore to launch a boat or dig for clams. Enhancing public use is a cornerstone of the Land for Maine's Future program, which until the Bell easement had concentrated on outright purchases of land.

Suminsby chose not to value access sepa-

rately from development rights. For "back land" distant from U. S. Route 1, he arrived at a value (including both development and access rights) of \$150 per acre. A portion of that — \$20 — represented access, he says, "but don't turn that into a percentage, because things have a way of becoming rules of thumb." For shorefront land on Cobscook Bay, the total value was \$1,534 per acre, including access. Suminsby says he made "no attempt to break out access separately" for the shorefront land.

Generally, he says when asked how a dollar value is placed on access rights, "I'd expect to be paid more for access through my front yard than through my back yard." Where the access lies, in other words, has a lot to do with its monetary value.

The Tide Mill Farm easement provides for public recreational access to much of the Bell land west of U. S. Route 1, and allows the state to develop parking and improve access to Whiting Bay, an arm of Cobscook Bay. Traditionally, a spot near the bay called "Little Augusta" has been used by clammers and duck hunters. The easement formalizes that arrangement and allows the state to improve the site if it chooses to in the future.

DEFINING THE PROBLEM

In 1988 residents of Vinalhaven became sufficiently concerned about commercial and recreational access to undertake a study of the matter. The resulting 95-page report identified 157 access points in the town, nearly all of them privately owned, and made recommendations. (Not all of the places listed in Vinalhaven's report are on salt water; a few provide recreational access to inland sites such as quarries.) Overall, the report recommends that Vinalhaven monitor changes in land use or ownership, consider certain changes in the town's zoning ordinance, and develop a priority list for commercial access points.

For recreational access sites, the report recommends that the town take steps to protect scenic and natural areas through its zoning ordinances, start a reserve account for land purchases, and consider using the Maine Municipal Bond Bank for larger recreational purchases. The report also proposes steps — conservation easements or



"Access will remain a
meeting-place of private and
public rights, a point where
privilege encounters
obligation, where the rights of
individuals and the needs of
society come together and
occasionally clash."

outright purchases — to ensure public access to several specific sites. Sites were considered important, according to the report's authors, if they "currently play a significant role in providing access to the shore," if they are believed to be important sites "for the long term preservation of access to the shore," and if they're threatened in some way.

Included in Vinalhaven's access study is a list of "hay landings" dating from Vinalhaven's farming and quarrying days. Some of the landings and roads leading to them were accepted as public ways in the 19th century. Most fell into disuse in more recent times. It would be difficult to establish a public claim to many of them, the access report's authors admit, but at least a few of the landings offer potential as access points. The report includes a priority list, based on both commercial and recreational considerations.

BUILDING A CONSTITUENCY

When Caroline Norden of the Maine Coast Heritage Trust managed a nature preserve in northwestern Connecticut, she had an experience land managers frequently dread: Modern Maturity magazine listed "her" Pre-decision Moody Beach

Moody Beach Doesn't Settle All Issues

DONNA MILLER DAMON

hen the Maine Supreme Court decided the public had no rights on Moody Beach, many coastal property owners interpreted this decision to mean that all of the coast not owned by the State of Maine or by local governments was off limits to the public. They interpreted this to mean that they and they alone could decide who could use the intertidal zone in front of their property. Signs were posted where none had been before, and formerly hesitant land owners began confronting people walking along "their" shore.

In the much publicized Moody Beach Case, the Court upheld the Colonial Ordinance of 1641-47 which gave the intertidal zone to the upland owner, leaving only fishing, fowling, and navigation rights to the general public. For better or worse, the question has thus been answered at Moody Beach, but what are the implications for the remaining 3,499 miles of Maine's coastline plus the thousands of islands? Do all upland owners have the right to erect No Trespassing signs, eject people from the shore, or have their dogs chase people away? The

preserve as "the best country walk in the USA."

"I must confess to a less-than-gracious gut reaction," she recalls. "Oh no — here comes the public!" They came, from all over the country. But when the summer ended and everyone left again, the disaster Norden had worried about hadn't happened. "My worries turned out to be groundless," she later wrote. "Nobody got seriously lost, nobody sued, the trails survived in fine shape, and nobody carved their name in the cliff. What's more, in our registration box were the names of dozens of people who expressed appreciation of the local land trust concept and were eager to contribute...."

With a little help from *Modern Maturity*, Norden had built a constituency for the preserve. Public support is as important in Maine as it was in Connecticut, she believes — and providing access is one way to build support. In a slightly different sense, well-designed access to places the public wants to reach is also a good defense in an age where vandalism is increasingly common. "You're better off providing some sort of access," Norden says. "Otherwise the public make their own." Where access is inappropriate for some reason — where the land is too fragile or provides habitat to rare or endangered species, for example — then it must be managed. "The biggest problem," Norden says, "is uncontrolled use — it can get the better of you."

BUYING ACCESS

Managing access in the face of growing crowds is critically important, but in a state

answer may startle many who gloated in the wake of the Moody Beach decision; it will surely gladden the hearts of people who have traditionally enjoyed the shore. In many cases the upland owner does not own the flats — despite the language of recent deeds. A very thorough title search, going back hundreds of years is often necessary to determine the actual ownership of the intertidal zone.

Maine was originally the Massachusetts frontier, and many of its earliest towns were established by proprietors who had been given grants of land by the Commonwealth specifically for this purpose. The proprietors laid out the lots, dedicated common lands, and placed restrictions on the land as deemed necessary. In 1727 the proprietors of one southern Maine town granted 10-acre lots on the shore subject to "leaving three rods at least in front of their lots...open for use and accommodation of the whole town, forever." In 1743 the proprietors, who had retained the flats and the majority of the islands in the town, granted to "the inhabitants of the town the flats, ledge banks, mussel beds and other conveniences whatsoever of the said town lying and being below high water mark." This town now consists of seven municipalities, one of which is researching the public's rights granted by the proprietors.

In the language of the colonial ordinance, properties that conveyed the flats described the boundaries in terms such as "to low water," "to the water side," or "by the tide water," while descriptions such as "by the shore," "to the bank," and "to high water mark" did not include the flats. This interpretation of language was supported by the 1810 Supreme Judicial Court decision Stover vs. Freeman in Cumberland County, Massachusetts (now Maine!). There are numerous examples both before and after 1810 of coastal properties that were originally conveyed "to the water side," only to be later transferred "by the shore." Within the last few decades, as coastal properties have increased in value and privacy is worth a great deal, the same deeds now have been changed to read "to low water" or "any rights, if any, to low water mark." Because of such discrepancies, property must be carefully researched before upland owners assert rights that they might not possess.

If the upland owner does not own the flats, to whom do they belong? One southern Maine attorney involved in the Moody Beach case stated that he had found as many as 50 people with inherited rights to a parcel of flats (unrelated to Moody Beach). He persuaded them all to sign away their rights without compensation "because they weren't worth anything." Quite to the contrary however, their interest in the flats gave them and their assigns access to that shore. In light of the recent real estate appraisal in Wells which estimated the intertidal zone at mile-long Moody Beach to be worth \$6,500,000, the flats are worth money as well as access! Minority interests in the flats, if acquired by state and local governments, could reopen sections of the coast to the public, but if these rights are signed away to upland property owners, the opportunity for public access could be lost forever.

Most people assume that shoreland belonging to landowners' associations is off limits (big houses mean stay out!), a position which is usually endorsed by the association members with little or no research on their part. In one recent case, a developer on Chebeague Island laid out the lots in his subdivision to the top of the beach and deeded each lot owner a right to use the shore. The developer then gave the town of Cumberland nearly 1,000 feet of shoreline from 10 feet above high water (the bottom of the bank) to low water mark. None of the deeds in his subdivision mention a "town beach." Rights to the shore, including the remaining frontage not given to the town were obliquely conveyed in the phrase "to the full extent of the grantor's right to do so. a right to use in common with others legally entitled thereto...." This vague language gave the upland owners the impression that they had a private beach while protecting the developer if it was proven that he didn't have title to the flats. It also gave him the option to grant shore rights to whomever he wished. This case is even more ambiguous because only the most recent deed referred to low water, and subsequent title searches have shown the intertidal zone to be of questionable ownership. The present owners of some of these lots interpret the situation differently; a few of them persistently ask people to leave the beach, while one owner actually demanded that moorings be moved — and sad to say, two people did move their moorings from the coastal water of Maine to avoid further harassment.

Example after example could be cited to support the thesis that each parcel of land on the Maine coast should be studied on an individual basis to determine if the flats were conveyed with the upland. The Moody Beach case should not be interpreted as a blanket exclusion of the public from the entire intertidal zone - which, contrary to the four justices' interpretation, the people of Maine have used for centuries for recreation (a definition which must be as varied as the number of people who engage in it). Even the land owners at Moody Beach are now rethinking their position and despite the hundreds of thousands of dollars spent on all sides, are negotiating a "recreational license" for no monetary compensation.

The moral of the story is this: Although people on the coast may feel intimidated by legal jargon, it is important to get involved in local disputes regarding the intertidal zone. Time-consuming though legal research may be, even a novice can unearth vital information through a thorough title search at the Registry of Deeds, the town archives, and the local historical society. In fact, in some cases research may prove that people whose ancestors have lived in a place for generations may control disputed flats rather than the upland owner who might not have any rights at all — what an irony!

Native islander **Donna Miller Damon** is President of the Chebeague Island Historical Society and a member of the Island Institute Board of Trustees

where only 6.4 percent of the coast is publicly owned, buying more access is important, too. Improving the public's access to the coast is a priority of the Land For Maine's Future program, established three years ago with a \$35 million bond issue for land acquisition. Program director Jim Bernard cites five purchases - Western Head in Cutler, Shackford Head in Eastport, Tide Mill Farm in Whiting, Sandy Point Beach on Penobscot Bay, and Dodge Point on the Damariscotta River — as examples of the program's commitment to access. Recreation was the driving force in most of these cases - Sandy Point Beach is a popular windsurfing spot, for example - but Tide Mill Farm will provide access to Cobscook Bay for commercial wormers and clam diggers. In the future, the program will be looking for more prop-

erties providing commercial access — "traditional Maine livelihood-type access," as Bernard puts it. One possibility: a "package" of four or five coastal properties, assembled with the help of the state Department of Marine Resources to "achieve a variety of access goals." How many access goals can be achieved, of course, will depend on money and priorities: the Land For Maine's Future program is under tremendous pressure to buy waterfront property all over the state.

HOW WE WANT IT TO BE

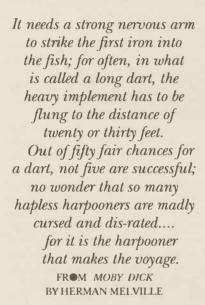
As long as we consider the islands and waterfronts of the Maine coast to be valuable, we'll debate who can use them. Access will remain a meeting-place of private and public rights, a point where privilege encounters obligation, where the rights of individuals and the needs of society come together and occasionally clash. Increasingly as we sort out these historic rights and needs, we will be obliged to take new ones into account: the public's right to use a beach for recreation, for example, or the need of nesting seabirds or bald eagles to be left alone. "In a way, controlling access to islands where seabirds nest is easier," says Jim Bernard of the Land For Maine's Future program. "It's easy to say 'no, you can't go on a seabird nesting island' and make it stick. It's not easy to say 'sorry, there's not enough parking space to go clamming.' Maine's in transition here, and Mainers are going to have to come to grips with how they want it to be.'

David D. Platt is the Executive Editor of the Maine Times.

MENOF THE IRON

The Elite Harpoon Boats from a Handful of Maine Harbors Form a Culture All Their Own

PHILIP W. CONKLING



uly 9, 1975, 4 a.m.
Pigeon Hill Harbor, Steuben
In predawn silence Jim Salisbury, then a young lobsterman, and his mate row a squeaky skiff out to Salisbury's 34-foot lobsterboat, Jesse, a faint outline in the darkness among the dozen or so other work boats in Pigeon Hill's tiny harbor. Jim Salisbury has spent all his spare time this past spring rigging the Jesse up with a 20-foot tower or crow's nest, which rises over her pilothouse, and a bow pulpit that leans 8 to 10 feet out over the water. With these modifications and with a pair of harpoons handcrafted from two ash trees from his woodlot, Salisbury has got it in his mind to find and strike an iron into the giant bluefin tuna offshore.

All spring long the commentary among the other fishermen moving traps around the lobsterpound wharf has simmered just below scorn, since no one has ever, as far back as memory and therefore history goes, harpooned a tuna from Pigeon Hill Harbor. Mostly they think it's just like some college-educated fool to go wasting time and money way offshore on fish that aren't there instead of sticking to the certain business of making money from the inshore lobster grounds. What I know, from Jim Salisbury himself, is that the giant blue-fin are indeed out there somewhere, because the day before Salisbury struck harpoons into two giants and tailed them until darkness overtook the boat and the chase

Close, but now an immense ocean away.

January 9, 1990, Noon Port Clyde

Lexi Krause spins his elegant, 38-foot Arco Felice into Barstow's wharf in Port Clyde, loads a few bags of groceries and a couple of coils of lines, and is quickly underway for Monhegan on a mild winter's day. Lexi and his partner Shermie (actually Sherman Stanley, Jr., to distinguish him from his father, Sherman Stanley, Sr.) during the course of a few months of fishing in 1989, have harpooned and landed more giant bluefin than any other fishermen along the coast of Maine, and have thus earned themselves an enduring place among fishermen's most elite

ranks in the Atlantic: the men who seek and slay tuna with harpoons. Now, a week past the frenzied activity surrounding Trap Day, the opening of Monhegan's winter-only lobster season, Lexi and Shermie agree to take a deep breath and tell a tunastory or two before turning back to their winter hauling grounds.

July 9, 1975, 7 a.m. Mount Desert Rock

In the first faint hint of dawn, we cross over the legendary shoals around the Petit Manan Barand lay a course 30 miles south-southwest where we will begin searching for an abstract point on the chart: the place a pair of Loran coordinates cross where the struck tuna were last seen.

The day breaks over an oily gray ocean swell 30 miles offshore as the Jesse rounds up under the furthermost rocky outpost off the Maine coast—the magnificent lonely sentinel of Mount Desert Rock. Salisbury scrambles aloft into the tuna tower and begins running hour-long transects away from the Rock, scanning the surface where low sky meets rolling sea, looking for an orange buoy that may still be attached to one of the two giant bluefin he ironed the day before.

After three or four hours of anxious silent searching, Salisbury puts the helm over sharply. Looking out in the direction of our new heading, Salisbury's mate, Al Richardson, and I are aware of the faint outlines of gray gulls darting and wheeling over the gray ocean surface. [im quietly calls Al to the helm in the crow's nest while he moves quickly, catlike, down to the deck to check the bronze-tipped harpoon and the 150 fathoms of line attached to the buoy that have been carefully rigged and stowed aft. Al has slowly and steadily opened the throttle to run down on the area where the birds are hovering and dipping. He must try to get a sense of whether there are tuna beneath the gulls, and if so, which direction they're traveling, so he can maneuver the esse to come in behind the fish. Meanwhile, Jim has moved into the bow pulpit with the long harpoon and stands leaning slightly forward, arms raised, silhouetted in the pose of a fisherman holding the most ancient and honored weapon for catching the largest fish in the sea.



In the wake of a giant bluefin tuna

January 9, 1990, 2 p.m. Monhegan

Lexi has radioed Shermie who is out hauling gear aboard Desperado, and we'll all meet at the end of the afternoon at the fish house. After putting Arco Felice on her mooring, Lexi invites me up to his house for coffee and over the kitchen table he shares his recollections of his beginning days as a harpooner. He pays special tribute to Carl McIntire of Perkins Cove, Ogunquit, who taught many young fishermen much of what they know about giant bluefin. "Carl McIntire took out all the guys my age and younger who turned into good harpooners. Everybody learned from him either directly or indirectly. Jim Salisbury too. Many thought enough of Carl when he retired that they had a silver dart cast and presented it to him on a plaque."

Although modest about the last few years of his success with the harpoon, Lexi is proud that he started out in an era before the hallmarks of the bluefin fishery came to be its highly specialized technology and the astronomical prices the Japanese will pay for certain fish. At up to \$30 per pound as the vessel price for the 300-1,000-pound Atlantic bluefin tuna, the enterprise of catching tuna has recently become the ultimate in the global fish business which for two months each year is headquartered in the Gulf of Maine. To put a finer point on the arithmetic, the market could pay a fisherman up to \$30,000 for a single fish. However, 1,000pound bluefins are rare, and the average price paid to fishermen is probably closer to \$15 per pound...still, you get the idea that honor aside, skill is richly rewarded.

Although there are 250 harpoon boats be-

L. Krause collection

tween Cape Cod and Mount Desert that rig up for the tuna season, and another few thousand boats in the general commercial category (not to mention additional thousands of rod-and-reelers, handliners and other sport fishermen), Lexi figures that roughly a dozen boats catch 90 percent of the tuna during the short, highly regulated season in the Gulf of Maine. The elite harpoon boats from a handful of Maine harbors form a culture all their own. From ports such as York Harbor, Perkins Cove, Small Point, West Point, and Five Islands, harpoon teams not only obsessively compete with each other, but also share the thrill of the chase in this deadly serious enterprise that is more like hunting than fishing.

The highline boats move peripetically from port to port trying to figure where roaming schools of giant bluefin will surface "Finding fish 10 to 15 feet underwater when no one else can see them, then hurling the harpoon down into the water with enough force and accurate compensation for the angle of refraction in the water while moving in a choppy sea at speeds of 20 or more knots — it is easier to write about than to do."



Lexi Krause and Shermie Stanley, Monhegan, 1990

during their legendary migration through the Gulf of Maine. During the season, the successful boats must try not only to disguise their whereabouts from each other, but also to stay closely in touch with their sales representatives who are responsible for moving prime fish from any given wharf, in specially designed wooden crates called coffins, directly to the Tokyo tuna auctions. To accomplish these mutually exclusive tasks, the highline tunamen use multi-channel scanners, a variety of secret frequencies, and elaborate codes to discuss where they're at and what they've seen or struck.

With over 70 giant bluefin between Lexi's and Shermie's teamwork in 1989, the pair had what you might call a good season.

July 9, 1975, 11 a.m. Gulf of Maine

Al has pushed the throttle up to its maximum so that the Jesse is making 14 or 15 knots and has closed with the flock of gulls 40 or 50 yards ahead. On the flat gray ocean surface both he and Jim detect the slight ripple of a wake — the telltale sign that there are giant bluefin tuna here, six to eight feet below the surface. In the next few minutes lim and Al, two fishermen closing down on this slight ripple, must concentrate on a single thought without talking; two minds, one vision. Because where there is one bluefin, there is likely to be a school of anywhere between 15 and 50 individuals varying in size between 300 and perhaps 1,000 pounds, and it is rare that a harpooner will get a second shot. Skill and judgment are required for the two fishermen, one in the tower and one in the bow, to pick out the same fish to dart after, since if one individual giant is ironed, the rest of the school will assuredly sound and be long gone.

With Jim now pointing the harpoon at a single bluefin, Al tries to follow the giant slalom course of the school still traveling at a fraction of the speed of which they're capable. The fish nearest the surface are only a boat length or so away, and even I can see in the green-gray depths the flashing silver sheen of their immense sides. As likely as not when such a school of bluefin is traveling through the water, the individuals nearest the surface are out in front of the main body of fish, and there will be more underneath that run back at lower depths. But this we didn't know until later.

January 9, 1990, 4 p.m. Monhegan

Lexi says he got the tuna fever growing up summers on Monhegan. "Bit by bit, by the process of going through the years," says Lexi over coffee, "you develop the eyesight. You learn to pick up the signs; to recognize color difference, or occasionally bird movement. A bunch of tuna looks like a cloud shadow, but you have to be able to tell them from real cloud shadows...." His voice trails off, and he adds, "Really it becomes another sense..."

You get the idea that Lexi's and Shermie's skill comes after years of experience. Finding fish 10 to 15 feet underwater when no one else can see them, then hurling the harpoon down that far into the water with enough force and accurate compensation for the angle of refraction in the water while moving in a choppy sea at speeds of 20 or more knots is easier to write about than to

"They spook awful easy," continues Lexi, "so you have to decide how you're going to 'get up' on the fish. Either you come up very quietly from behind or you can 'fly' on them," Lexi explains, which means taking a shot head-on as a boat intercepts a school from out in front. "When you're throwing

the harpoon, you guide it with your lower hand and launch it with the other. But when you see a big fish, you have a tendency to think you need to hit him harder and overshoot."

In 1982, his first season, Lexi landed nine tuna and in the next five years his boat averaged 30 or so fish per year. "We carved a name for ourselves in those years," says Lexi.

July 9, 1975, 11:10 a.m. Gulf of Maine

There's no time for Jim to yell anything to Al as the lead bluefin is now out there just beyond the end of the pulpit near the surface. In one graceful motion, Jim launches the harpoon and an instant later we know he's ironed a giant because the 3/8-inch line is disappearing overboard in a highpitched hum. Listening to that sound I expect to see smoke coming from the tub of line uncoiling like a sprung spring. On deck Jim scrambles back aft to make sure the line doesn't foul on anything, as Al heads the Jesse in the direction of the disappearing line. Within a very short period of time, all 150 fathoms of line ending in a buoy are making a broken field pattern across the water's surface. Jim quickly begins rigging another harpoon in the event we intercept a second school, while Al heads off to follow the international orange buoy being towed by the harpooned fish.

January 9, 1990, 4:30 p.m. Monhegan

Before heading down to the harbor to meet Shermie, Lexi pays tribute to these giants of the sea that he has chased in their element, and his, for the better part of the last decade. "Tuna have the ability to do more than any other fish in the ocean. They change depths and move through different water temperatures faster than anything alive. They can change directions 90 degrees in any plane, including upwards, in an instant while traveling at bursts of 40 knots."

To the scientists who have studied the biology of these truly international wanderers, the evolutionary adaptations of the giant bluefin are equally remarkable. Like few other fish in the sea, bluefin tuna are warmblooded, which accounts for their remarkably fast reflexes and for their ability to travel rapidly from one temperature layer to another within the vast reaches of the North Atlantic without losing heat and therefore speed. Their hydrodynamically tuned bodies, shaped like a howitzer shell, are further refined by retractable fins and are driven by a higher ratio of muscle tissue to body weight than is found in any other fish in the sea.



Lexi's largest weighs in at 900 pounds.

Because a tuna cannot fan its gill covers like other fish to supply it with oxygen while stationary, the tuna must swim or drown. It has a small swim bladder in relation to its size, which means that unlike other fish, it must also relentlessly swim to keep from sinking. Collectively these adaptations mean that bluefin have evolved to be one of the fish kingdom's most superb swimmers and predators. It is estimated that a giant bluefin will consume up to 10 percent of its body weight per day in mackerel, herring, and bluefish during its summer feeding frenzies in the Gulf of Maine. And while not feeding it simply swims ceaselessly through the ocean void, traveling 100 to 150 miles per day. A 15year-old tuna, in middle age, will have traveled through an estimated 1,000,000 miles of ocean.

July 9, 1975, 2 p.m. Gulf of Maine

After three hours of Jim's and Al's combined efforts, most of the 150 fathoms of line have been hauled back on deck and the darted bluefin is careening from port to starboard quarter in its last bursts of effort. Al carefully handles the boat to avoid letting the line get near the propeller, and after another quarter of an hour of skill versus instinct and muscle versus muscle, the bluefin is gaffed alongside. Jim deftly reaches in and cuts the gill artery,

an important consideration not only for landing the tuna, but for the highly discriminating Japanese palate which can tell not only a well-bled fish, but the fat content of its flesh.

The iridescent sheen of this great creature alongside transfixes all of us in a moment of transcendent pride and humility.

January 9, 1990, 5 p.m. Monhegan

As darkness is gathering in, Lexi heads down toward the harbor to meet Shermie, who has by now finished a day's hauling. On the way downhill, conversation swings to the mention of markets and prices paid a world away that have remolded tuna fishing from a subcultural curiosity to a global business.

Starting in 1982, the international body that regulates the harvest of bluefin tuna (International Commission for the Conservation of Atlantic Tunas, or ICCAT) banned Japanese fishermen from the Gulf of Mexico, where their voracious boats had been long lining thousands of tons of spawning bluefin tuna, which, in combination with the increasing international fishing effort, had caused a precipitous decline in tuna stocks. Gradually as stocks were rebuilt and quotas were tightened through conserva-

tion efforts, the simple laws of supply and demand have required the Japanese to pay fabulous prices for a fish that on the U.S. market has been chiefly used as catfood. Yet as anyone who has been to a sushi bar or eaten sashimi knows, well prepared fresh tuna is worth paying for, although it is hard to conceive that New Englanders would ever be content to spend the \$55 per pound that Japanese consumers pay for the epicurean experience.

© 1990, John A. Olsen

The changes the Japanese market has wrought on the harpoon fleet in Maine in a few short years are truly stupefying. Lexi explains that to stay competitive among the top 40 or 50 Gulf of Maine harpoon boats, he took most of the 1988 lobster season off to rig up a new faster, larger, and quieter boat for the tuna chase. The modifications Lexi made to the Arco Felice include such features as a high horsepower diesel engine capable of propelling her through the water at an unheard of 25-26 knots, a through-hull temperature monitor to help locate tuna habitat, and a spare-no-detail effort to muffle the noise of the large engine since, as Lexi puts it, "One little noise can lose you \$5,000."

In addition to the radios scanning on secret frequencies, spotter planes have become significant factors in the sophisticated arsenal of today's tuna business. But the Color prints of these photographs may be ordered from the photographer, Paul Murray, 4971 N. 80th Palm Beach Gardens, FL 33418



"A giant bluefin may consume up to 10 percent of its body weight per day during its summer feeding frenzies in the Gulf of Maine. And while not feeding it simply swims ceaselessly through the ocean void..."

latest piece of "must-have" technology is an electrified harpoon line so that according to Lexi, after a tuna is harpooned, "you hit the button and it's all over." This device, called a shocker, started coming into the fleet several years ago and is by Lexi's description, "a very, very expensive black box you're not allowed to look in." Shockers send a voltage surge down the electrified harpoon line and into the fish, which means that fewer fish are lost during the chase and the struck tuna are more valuable because they don't build up

the lactic acid in their muscle tissue during a long chase which affects taste. In a moment of good humor Lexi says, "We call ours Frank Zapper."

Gulf of Maine, 4 p.m. July 9, 1975

Jim, back up in the tower, slowly puts the helm over and points the Jesse back in the direction of land. We have on board not only the giant bluefin harpooned today, which will dress out between 400 and 500 pounds, but also one of the two tuna har-

A FISHERY TO BE SAVORED, NOT SQUANDERED...

SPENCER APOLLONIO

Bluefin Tuna appear in the Gulf of Maine each summer as an interlude in an awesome migration that may include much of the North Atlantic sea beyond.

Our tuna are found in the North and South Atlantic oceans and on both sides of the oceans. While it appears that there are distinct stocks off Europe and North America, tagging studies show that there is some intermixing. At least some giant bluefins apparently make the ocean crossing in summer; younger fish prefer a winter transatlantic migration. One giant bluefin was tagged off Bimini and was recovered off Patagonia — a minimum travelling distance of 6,600 miles — four year later and 250 pounds heavier. The winter whereabouts of those that do not cross the oceans is not known.

The fish arrive in the Gulf of Maine by mid or late June after a migration from the Caribbean and the Straits of Florida. They are generally gone from the Maine coast by late September. Tuna may be found in season in most areas of the Gulf of Maine, but by far the greater abundances are in the near shore waters where their favored food are concentrated, particularly from Race Point, Cape Cod, around the shore to Casco Bay, and again off the southwestern coast of Nova Scotia. While bluefins may be found off Passamaquoddy Bay and in the Bay of Fundy, they are not usually numerous in those waters, in spite of food abundances, perhaps because temperatures are too low. And similarly, tuna do not seem to favor the deeper, offshore waters of the Gulf of Maine, visiting them only as a matter of necessity in passage to other areas.

While in the coastal waters of the Gulf of Maine, tuna feed heavily, especially on schooling species like mackerel, herring, silver hake, and squid. They may also feed on decapod crustacea or occasionally on bottom fish species.

Bluefins have few predators in the gulf but are preyed upon by killer whales off Massa-

chusetts and Newfoundland, and in the Straits of Florida.

Our tuna mature at about six years. Depending upon adult size and age, they may produce 5 – 32 million eggs that are buoyant and drift with the currents. They do not appear to spawn in the Gulf of Maine but do so in the Mid Atlantic Bight and in waters farther south.

Tuna may live 20 years and sort themselves by age and by size, traveling together, apparently in migratory patterns, in space and seasons characteristic for each age. Juvenile or "schoolie" tuna may weigh 5–70 pounds, medium fish weigh 70–270 pounds, and giant bluefins weigh more than 270 pounds.

Bluefins are related to our mackerel and, of course, to other tunas such as bonitos, albacore, and skipjack tuna, all of which occur in the Northwest Atlantic. But bluefin is the only tuna of any abundance in the Gulf of Maine, and it is by far the largest bony fish in the gulf. A bluefin may grow to 14 feet or 1,600 pounds; fish of 1,000 pounds are — or were — not rare. It is exceeded in size by basking sharks — perhaps 40 feet long — which are not uncommon in our waters, and by the occasional white shark.

Bigelow and Schroeder, the authorities for Gulf of Maine fishes, wrote: "When tuna are at the surface, as they often are, they are proverbial for their habit of jumping, either



pooned yesterday, which is larger yet. With over 1,000 pounds of tuna aboard, worth perhaps \$2 a pound, it's been a fine tuna day for fim and Al. These fish will no doubt cause some silent reassessment of Jim's tuna enterprise back at the Pigeon Hill Wharf where, as at all Maine wharves, the ultimate measure of a fisherman's stature is in the thickness of his wallet.

In the late afternoon sun we are provided a rare bonus. A huge humpback whale surfaces near the Jesse and while we throttle back to drink in the spectacle, in no hurry to go anywhere, the humpback, repeatedly raises its massive white flukes clear of the ocean and then smacks them down emphatically on the surface. Called "lobtailing" by whale biologists, it is a most emphatic means for announcing "whale here."

Out here beyond the shadow of the rim of the mainland where the ocean drops off to secret shoals and rolling feeding grounds, we feel in another realm. Shearwaters and petrels are more common than gulls and terns, and the creatures of the deep rise to meet us ineluctably in the awe and doom of man's world.

singly or in schools; they may do this when swimming about or harrying smaller fish, or less often, when traveling in a definite direction, in which case all that are jumping do so in the same direction" — an inspiring sight becoming ever less common.

In earlier years tuna (then often called "horse mackerel") were considered a nuisance by fishermen because they followed herring or mackerel into traps, which they then damaged or destroyed in their efforts to escape

In the late 1950s and 1960s, purse seining for tuna by U.S. and Canadian vessels and long-lining, particularly by Japanese vessels, began in earnest in the western North Atlantic. Both giant and smaller tuna were taken. In 1972 - 73 the Japanese market discovered the excellent quality of the giant bluefins in the Gulf of Maine, and the price jumped from 5 cents to \$1.20 per pound. The fishery rapidly expanded. Fishermen took bluefins by traps, hand lines, harpoons, purse seines, long lines, and rod-and-reel. As a result, catches and tuna abundances have sharply declined. Maine landings reflect the trends. A maximum of 910,000 pounds were landed in 1963, early in the expansion of the fishery. Catches subsequently were less than 300,000 pounds; in 1988, 83,000 pounds were landed

European landings from Norway to the Mediterranean have experienced similar drastic declines; the species is considered seriously threatened. It is now managed in U. S. waters by a complex quota system administered by the federal government under international treaty obligations, and in cooperation with state enforcement agencies in coastal waters. In 1989 the federal government issued 1,943 permits to Maine boats to take bluefins. Not all of them did. Foreign vessels continue to take bluefins on long lines — up to 30 or 40 miles long — set for other species in international waters outside the Gulf of Maine.

Whether the present quota system will permit tuna to recover from the serious overfishing of the 1960s and 1970s is not known. The depletion or demise of bluefin tuna can only contribute to the destabilization and unmanageability of other fish stocks in the Gulf of Maine. Such large, longlived, wideranging species are immensely important to the integrity of marine communities and contribute to the natural regulation and stability of our fisheries ecosystems. The bluefin tuna is the only such stabilizer the Gulf of Maine has. Its extinction would be an irreparable tragedy.

Commissioner of the Department of Marine Resources under the Longley and Brennan administrations, **Spencer Apollonio** is one of Maine's most knowledgeable commentators on fisheries-related topics. Monhegan Fish House, 6 p.m. January 9, 1990

There is a slight burnished glow on Shermie's forehead in the warm lantern light that also outlines the barrels, lobster crates, and effluvia of one of Monhegan's last fish houses. A few other fishermen have gathered at the end of the day to sit around to catch the byplay of the mildly insulting banter between Shermie who has been out hauling and Lexi who has not.

It is clear that Lexi and Shermie are a wellmatched team of seasoned fishermen. "We've done stuff together for about 20 years," says Shermie, "and we know how each other's going to react to something without having to break our concentration to talk about it." Beyond all the technology, catching tuna gets down to unspoken teamwork between Lexi out on the bow and Shermie aloft on the helm. Unspoken teamwork and, of course, the harpoon. Lexi's and Shermie's harpoons are no longer fashioned from ash, as they once were, but from a deft and secret combination of light and heavy metals aluminum, lead, stainless steel, and bronze. To see one up close is to look at the ultimate sleek weapon of the sea, adapted from a design as old as fishing itself.

The banter has given way to talk of next season. You sense that just thinking about the bluefin brings Lexi's and Shermie's blood a beat closer to the surface. They talk of getting together with other highliners from West Point, Small Point, Perkins Cove, and the Cape to voluntarily delay the opening of the harpoon season so that bluefin newly arrived after a long migration (and called 'racers' by the fishermen) will have a chance to fatten up in the bountiful Gulf. Such a delay would be very good for business for Maine's harpooners, since of all the criteria the Japanese markets consider in auction bidding for bluefin, none is more richly rewarded than the fat content of the tuna's immense flanks.

As the fire burns down in the fish house stove, the fire lights up the evening's storytelling as Lexi and Shermie recall one of the last days of the 1989 tuna season. All the other boats were chasing small groups of bluefin that were thrashing on the surface as they fed on mackerel. Lexi's and Shermie's spotter pilot was trying to coax them away from these tuna, which are difficult to get an iron into anyway, and toward another spot a half hour farther offshore. Over the radio, he couldn't say why, but when they arrived at this new area, the sight was like nothing they'd ever seen before. "You could see 400 or 500 tuna on the surface, with maybe another 1,000 bluefin below," says Lexi. "It was just like Niagara Falls: the water was foaming." And then leaning back to cradle his harpoon in the crook of his arm, Lexi says dreamily, "You live for one or two days like that every summer."

Author's note: Jim Salisbury is currently the Regional Attaché for Oceans and Fisheries Affairs, U.S. Department of State, Tokyo.



Small Wonders

Although separated by miles of water, island schools are bound together by their common isolation — and their uncommon importance

JULIE ANN CANNIFF

Julie Ann Canniff has been director of the Maine Island Schools Project since its inception in 1985. She, along with the eight members of the Island Schools Advisory Committee, has worked to provide a variety of opportunities for island schools to interact with one another.

In search of a wider perspective for island education, she incorporated a one-week visit to the Outer Hebrides during her vacation in Britain in July 1988. She spent five days visiting on the island of North Uist, 20 miles to the west of the Isle of Skye, where islanders hold fiercely to their traditions of fishing and farming and to their native Gaelic tongue. Most of her conversations were with teachers and administrators who spoke eloquently about the joys and frustrations of teaching in these isolated island schools. These conversations proved to have a remarkably familiar ring.

ORTH UIST, SOUTH UIST, BENBE-CULA, THE OUTER HEBRIDES, SCOTLAND JULY 24–27, 1988. We huddled in the ticket office until the last possible moment while a 40-knot gale whipped and whined around the building, drenching everything in gusts of rain. The cars began to move forward onto the boat, while those of us on foot hunkered down and ran for the gangway leading to the passenger cabins. Once aboard, people separated into different sections of the large vessel to dry off and settle in for the hour and forty-five minute crossing to the island.

The boat was already an hour late leaving so, with the innate sense of "island time," those who were familiar with the drill set aside their plans for arrival and passed the time talking, sleeping, or reading.

Within minutes of settling in, and in spite of the heaving and rolling of the vessel against the gale, I fell fast asleep. I awoke to a calmer sea and the view of great, craggy shapes of islands marching alongside the ferry. All rose vertically out of the ocean, completely treeless, covered with grasses, heather, and peat. I could see small villages at the head of coves, and when we got close enough, I observed flocks of sheep covering the hillsides.

Just as we arrived in port, the sun appeared illuminating the beaches and granite ledges running up onto the land into the distance. The village was built all around the harbor, with boats on moorings and gear stacked near the wharves. I was met by Maryann MacDonald, a schoolteacher on the island of Barra. She had accurately guessed the ferry would be late.

My first impression of the island was how wild and beautiful it was — almost exotic with peat bogs, white sand beaches, and turquoise water. The communities are small, the people elderly, existing on tourism, simple farming, salmon aquaculture, and fishing.

During the next four days I visited the primary and middle schools of the three islands and talked with William MacDonald, Head Teacher for the whole district, about some of the critical issues facing his schools. The most poignant discussion was about the closing of the primary schools in the outer communities, forcing the youngest children to be bused and boarded at the single consolidated school on the largest island. Further frustration was the lack of housing for teachers, another the struggle to maintain island culture and identity in the face of television and VCR's.

MacDonald was very clear about the place of the school in the community. "The school is the soul of our island. It keeps the villages vital and growing," he said. "Every child at one of the village schools comes from a fishing family... The closing of the schools means the loss of the community's very existence, as there are no other public build-

Since all the buildings, and most of the homes, on the Scottish islands have been owned for generations by the same noble families, when the village school closes, the residents lose their school, meeting hall, and recreation center. The young families soon follow and the vitality goes out of the community.

I left feeling a strong kinship with Maine and a disturbed comfort in familiar things.

All island communities are different from one another, and the same holds true for their schools. Nevertheless, these schools have a number of common needs that result from being geographically and culturally isolated from mainstream/mainland education. What is true for the island schools of the Outer Hebrides of Scotland is equally true in the 14 island schools that still remain off the coast of Maine.

Teachers face the complex tasks of preparing students for the modern technological world while responding to the community's desire to pass on the local island culture and traditions. In most cases. they teach in one- or two-room schools with a mix of ages from kindergarten to 8th (or 6th) grade. They are isolated from exchange of theory, methods, and materials with their peers for months at a time; they struggle, alone, to meet state and federal requirements for curriculum and services; they are forced to adapt to a capricious and constantly changing school population; their students often experience low self-esteem in comparison with their mainland peers; the teachers are often set apart within the community and find it hard to belong; and they frequently are unable to secure permanent year-round housing while employed at the

FRENCHBORO, NOVEMBER 11, 1987:

November is a risky month to go island school visiting, but the ferry to Frenchboro runs only once a week, and you have to take the invitation when you get it. I boarded the boat at Bass Harbor, bound for Frenchboro for my first visit to the one-room school, which in November 1987 boasted a healthy population of nine students, ages five to 14. The ferry made its way past Black Island and Swan's before heading down the long passage into Frenchboro harbor. The sky was gray and the wind cold; snow and ice covered the town in patches. I walked up the hill to the school, unmistakable with its new cedar shingled, pyramid-style roof and prominent elevation.

Inside, teacher Annie Pye and children were competing with one another to answer trivia questions, ranging from geography to "The school is the soul of the island....The closing of the schools means the loss of the community's very existence."

American presidents. Soon each "class" was busy working on math assignments while the teacher huddled with the kindergarteners to test their counting skills.

After a busy day which included practicing the songs for the Christmas program, I took a walk over to see the homesites which would soon house seven new families. The families were coming to live year round on Frenchboro under a creative "homesteading" program, initiated by the Frenchboro Future Development Corporation. Their goal was to strengthen the year-round population of the island and safeguard the future of the school by guaranteeing a steady supply of children for years to come. The yearround and seasonal residents of Frenchboro recognized that without a stable, ongoing school population, the community would die within a few years. The risks were great - would the newcomers find satisfactory jobs; would they fit in; would they accept the isolation; would they support the one-room school, and be willing to send their children to the mainland in the ninth grade? It will be a few years before these questions are answered, but in the meantime, Frenchboro serves as a model for other island communities looking for ways to grow.

I woke the next morning and looked out the window of the Parsonage where I was staying. The wind was howling. It was starting to snow, and the radio stated that the ferries up and down the coast were not running. Like most mainlanders, I was anxious to return to shore to get on with my "normal activities." As luck would have it, we were able to locate a boat going ashore. A father needed to pick up a birthday present for his son and figured that since it was too nasty to go fishing, he would take a run into Bass Harbor. I signed on, and for the next hour "rode" that lobsterboat like a contestant in a rodeo. I kept my eyes glued to the horizon whenever I could find it, while the captain lounged against the wheel and carried on a lively conversation with his crewman and a variety of voices over the radio. We bounded into the wharf. I wobbled up the steps to uncover my car and steered it home through a gathering blizzard.

The experience taught me my first lesson about working with island communities. Nature keeps her own schedules.

Maine island communities have not escaped the repercussions of today's transient society. All over America, the traditional community is a vanishing phenomenon. Today people live, work, and play in different towns and are willing to pick up and move every three or four years following career or schooling opportunities. Like most other rural areas, the stability of an island community is directly tied to economic opportunity and diversity.

Just before World War II, most of the yearround islands were self-sufficient, grewvegetables, raised livestock, fished, and provided for education and recreation within the community. After the War, and as families began to recover from the Depression, island communities began to turn more consistently to the mainland for their services. Boats became larger, faster, designed for longer distances and equipped with technology to provide for safety in any weather. More of the basic necessities could be brought from the mainland, reducing the dependence on local suppliers. As homes came up for sale, outsiders bought them, slowly reducing the number of year-round residents to maintain mail service, stores,



schools, and churches. As the economic diversity dwindled to one or two occupations, families began to move off the island, affecting school enrollment sometimes seasonally, sometimes permanently.

The population trend today is different for each island, but achieving a stable economic base so that young families can settle on the island, finding permanent housing and productive jobs, is a critical issue for most of them.

SWAN'S ISLAND, MARCH 8, 1988:

My first impression of Swan's Island was how welcomed I felt — everywhere. With 50 students enrolled for the 1989/90 school year, Swan's is one of the largest K-8 island schools in the system. There are three teachers for the eight grades, Kim Colbeth, Janice Staples, and Helen Sanborn, along with a special ed teacher and aides. Principal/teacher Kim



Colbeth, who works with the 3rd, 4th, and 5th grades, explained some of the more exciting projects, including the whole language reading and writing program, and the new home economics and woodworking classes. All three teachers cooperate closely on integrating units with each age group.

The Swan's Island Fisherman's Co-op is a major player in providing for the long-term stability of the community. In addition to supporting a healthy lobster fishery, the Coop, in partnership with Mariculture Products, Ltd., is diversifying the economy by raising Atlantic salmon. Co-op manager Bruce Colbeth, who until this past March doubled as a town selectman, is also looking into the affordable housing requirements of the island. With morale riding high, the community has embarked on building a \$1.5 million school, scheduled for completion by late August 1990. The new building will serve the burgeoning educational needs of the students and teachers, but it will also provide recreation and social space for all of the island's residents.

Before I retired for the night, I was treated to a videotape showing of the history of Swan's Island, written and performed by the students in Helen Sanborn's 1986 6th-8th grade class. It made a strong impression. Those students will always remember with pride the story of their island and the people who settled there. I am saddened to know that there are no textbook or history lessons that give similar information on the other year-round islands in the Gulf of Maine.

"The Island Institute became involved with island schools in 1985. The issue then was communication and it still is."

The next day I walked out to Burnt Coat Harbor light and surveyed the view from the point. I stayed a long time just breathing in the peace. As I turned to go, a lobsterman, returning from haul, leaned out of his boat and waved.

The Island Institute became involved with island schools in 1985. The issue then was communication — and it still is. Each school is part of a consolidated school district, school union, or community school. Most of them report to administrative offices on the mainland. Two of the schools, Matinicus and Monhegan, are part of the Unorganized Territories of Maine, and are served by state agents. The three high schools in Penobscot Bay are organized into two SAD's and one community school.

Up until the first island school conference in 1985, most of the island schools did not communicate with one another. When a few parents, teachers, and superintendents expressed a desire to meet with their counterparts on the other islands, a conference was scheduled on North Haven. From that experience the conferences have continued each fall and spring, bringing teachers, school board members, parents, administrators, and students together to share common experiences.

In doing so, the conferences have sparked yet another form of communication—school exchanges. During the past two years students from Frenchboro, Great and Little Cranberry, and Isle au Haut have traveled to one another's islands for classes, games, and overnight fun. These exchanges have been facilitated enormously by the *Sunbeam*, mission boat of the Maine Seacoast Missionary Society. The Mission has a 95-year history of service to the Maine islands, and support of island teachers continues to be a mainstay of its ministry.

STONINGTON & ISLE AU HAUT, JUNE 6–7, 1988:

I am not a morning person, so meeting a 7:00 a.m. departure time at the Stonington dock requires a big pep talk at about 4:00 a.m. The mailboat didn't look large enough to accommodate 15 Cranberry Isles students, four teachers, plus me and any other unsuspecting passengers bound for Isle Au Haut that spring morning. Nevertheless, with all the gear piled three feet high in the center, and people arranged port, starboard, and stern, we headed for the island, passing the remains of granite quarries with their stone monoliths sitting in quiet endurance around the empty harbors.

Upon arrival we walked the short distance to the school, dropped our gear, and waited impatiently for the day's schedule. The children were assigned to silent reading and journal writing while the adults quietly exchanged news about students and staff concerns. The rest of the morning we spent with the older children touring the island with a visiting geologist, while the younger children played games at the ball field.

Getting right into the spirit of the thing, Isle au Haut parents and residents set up a sumptuous potluck supper at the community building and extended the invitation island-wide. The beautiful June evening ended with a bonfire on the beach behind the school. The fire provided just enough light to find a comfortable spot to sit and watch the last of the sun, sing familiar songs, and listen to a few stories before dividing up for bed. The younger children camped down in



34 Island Journal

the school, while a few of the adults and the older children made their way back to the community building and a couple of rented movies. I fell asleep before they figured out which one to show first.

I sland teachers are never without resources, and generally earn their stripes by learning how to adapt everything in their universe to serve their goals. However, teachers turn over at a rapid rate in these isolated schools — on average every two years. Innovative units for teaching science, math, history, writing, or geography to a class of 10 children, kindergarten through 8th grade, are often put in boxes and stored in the attic after the teacher leaves, never to be shared or developed.



The most recent program to benefit the staff and curriculum development of island teachers was initiated by the University of Maine, College of Science Education and the Island Institute. The first Summer Island Teachers Institute was held on Islesboro Island, June 24 to July 1, 1989. This program was made possible by grants from Title II Funds for Science and Mathematics, the Innovative Grant Program of the Maine Department of Educational and Cultural Services, and the Clarence and Anne Dillon Dunwalke Trust.

ISLESBORO, JUNE 24, 1989:

It had been raining for a week — not unusual for Maine in June. As I boarded the ferry in Lincolnville, I watched the clouds fight for position with the sun. The prospect of a week of rain for the 18 teachers about to start the first Summer Institute was not auspicious.

The ferry landed and a caravan of cars headed for Dark Harbor. Just as I turned down the driveway to the Clason home, our headquarters for the week, the sun came out and bathed the house's long wrap-around porch in brilliant sunlight. Almost at the same time early arrivals emerged from indoors to spread out on the porch and welcome the newcomers.

The next few hours were spent learning about one another as we met, chose bedrooms, rearranged furniture, checked out where the showers were, poked around the kitchen, and discovered the beer and soft "Island teachers are never without resources and generally earn their stripes by learning how to adapt everything in the universe to serve their goals."

drinks. By dinnertime we had a pretty good take on the situation and headed out through the woods toward the school for our evening meal.

We were met by Superintendent Bill Dove and some of the Islesboro teachers also enrolled in the Institute. Picnic tables were set up outside the cafeteria door and dinner was served buffet style.

Back at the house everyone gathered in the living room to hear Dr. Michael Brody and Dr. John Peterson outline the program for the rest of the week. The schedule didn't leave much time for goofing off, with lectures in the morning, field research in the afternoon, and a curriculum design class in the evening. Confident that things were off to a running start, I left the next day with plans to return on Friday, the last night of the program.

Driving up to the house on Friday afternoon, and after a week of perfect sunny weather, I noticed a very different feeling around the porch. People were lounging, reading, or writing, but the pairings were different. A couple of teachers came jogging up the road having done their daily route. The living and dining rooms looked well used, with piles of books and papers everywhere.

I was given a tour of the science lab at the school, where I inspected rows of saltwater aquariums, each filled with marine creatures resting on the bottom or climbing up the sides. Pride of ownership was evident as each teacher showed me his or her aquarium.

The evening session back at the house was very different from the first one, with people joking and teasing one another mercilessly. After concluding remarks by Dr. Brody, I asked the teachers individually to tell me why they had come, what they had learned, and what suggestions they might have for next time. Some of the common threads were:

- It is good to study with other teachers who teach in the same environment.
- It was great not to have to commute; to stay in one place and focus on the course.
- It was a chance to really get to know people while not in a teaching role to be with peers.
- It was a chance to work things through, follow through on ideas, and reality-test with other teachers doing the same thing.
- I thought I might leave teaching. This made me want to stay.
- It's all right in front of me. I don't need a bag of tricks, just the confidence to use

simple things to expand my students' knowledge — and my own.

• It was good for the soul.

The Summer Institute will be held again in 1990. Teachers will once again get to work on a science curriculum focusing on the environment, or they can sign up for a two-year course to develop a core curriculum of Maine Island Studies, 1880 to 1980, including history, family life, music, art, literature, rites of passage, legends and myths, architecture, immigration, and the military.

What is the future for Maine island schools? Ask rather, what is the future for the year-round Maine islands?

In the mid-1940's, Criehaven Island slowly disintegrated as a year-round community. The lobstering was exceptional, but the focus was no longer on the island; it was toward the mainland. Family houses were sold to outsiders. The store and mail service were offered only seasonally, then not at all. Finally the island could no longer afford to hire a teacher and the school closed. The mothers moved off the island to put their children in a mainland school, and eventually the fathers followed. A once vibrant village was turned into a seasonal fishing station. And such it has remained ever since.

That was more than forty years ago, and from then until now the 14 year-round islands remaining have managed to keep their heads above water. But the specter of community collapse remains a real one, and many Maine islands are grappling with the complex questions it raises. How can they provide enough housing for young families to come and settle? Some islands have an abundance of unfilled jobs and no workers. Other islands need to provide additional — and more diverse — job prospects. Once a commitment is made to provide options for growth in an island community, the school then becomes the means for perpetuating the vision.

By its very centrality in the community the school has a major influence on children's values and expectations, and here it can play two important roles: First, it can recognize the profound worth of the community and commit itself to the community's preservation. Second, it can help students clarify their values, expose them to options in the outside world, and support their choices either to leave the island, or to stay.

Teachers in isolated island schools need ways to interact with one another. They need an educational support system that validates their unique teaching assignment, and provides continued training for those who choose to work in small, multi-graded schools.

The great philosophical debate over the quality of America's educational systems will go completely unnoticed by some of the country's tiniest schools. The 14 island schools of Maine are engaged in the simple task of teaching children — about their community, their world, and themselves. And they do it very well.

Thinking Like An Islander

"Why is it that when people from away move to Maine, they immediately start changing things around to look just like the places they moved here to get away from?"

MARK D. STANLEY, 28, SWAN'S ISLAND, MAINE

CYNTHIA BOURGEAULT

ocally famous as "Marky's Law," this trenchant observation was called forth by a meeting of the Swan's Island Planning Board a few years back, when overzealous newcomers tied up the floor for hours agitating for island-wide zoning, a comprehensive growth management plan, and tighter regulations on the ferry line. "If the reason these people came here was to get away from red tape," Mark pondered, "why do they bring the red tape right along with them?"

For newcomers to island living, Marky's law is usually experienced in its inverse form, as acute frustration and disappointment. Time and again on Maine islands, the same scenario plays out. New full-time residents arrive, full of motivation and energy. They've almost always left urban places; they know what's waiting for islanders just down the pike, and they want to get involved. But in their efforts to champion progress, they almost inevitably encounter resistance. Island infrastructure is something like a turtle: the more you try to poke it, the more it draws into its shell. So after several months of fruitless poking, most newcomers get frustrated and retire into apathy or cynicism. And that's a real loss, because the vision and expertise are needed. But the communication patterns are a real red flag.

It's a truism, of course, that islanders and non-islanders think in different ways. But I was vividly reminded of its basic wisdom in a small incident three winters ago. Swan's Island, February 1987: a frosty morning with the sun just peeking over the horizon, and my husband John and I are in our ancient VW van racing up-island to make the 6:45 ferry. For those of you who've ever driven an old VW, I don't need to elaborate on the marvelous inadequacy of its heating system. We are peering out at the road through a peephole we've scraped, which is now rapidly filling in. We come around the main bend, hit the sun head on, and are stopped dead in our tracks; the world is just a blinding glare. John gets out of the van with his scraper, knowing we've got about five minutes to make the boat. He scrapes so furiously that the scraper snaps in half.

A little Honda comes scooting around the bend. Stops. Out gets Jocelyn, new fulltime resident. "Hello!" she says cheerily. "Do you have a problem? Is your engine broken? Oh, your windshield is all fogged up. If you

have another scraper, maybe I can scrape, too. You know, I was looking through my Sharper Image catalogue the other day and saw this nifty little gadget. You just plug it into the cigarette lighter and it defrosts your windshield in 10 minutes. I'd be happy to loan you the catalogue — anytime, just give me a call." She glances down at her watch. "Oh, it's almost ferry time. I have to hurry. Bye! Have a nice day!" Quick as a flash the little Honda disappears.

A minute or so later a pickup truck comes screeching around the bend at about 60 miles per hour. Brakes slam on; the truck skids to a stop; out gets Sam J., island lobsterman. He takes a quick, dubious look at the situation, pulls a can of de-icer from his tool carrier, and sprays it all over our windshield. Then, without so much as a "good morning," he gets back in the truck and roars off. Within a few seconds the windshield is clear, and we arrive at the ferry with about 30 seconds to spare.

As our two Samaritans infallibly demonstrate, the heart of the difference between island and non-island processing modes is a very different comfort level with the power of words. Jocelyn was terribly articulate. She analyzed the problem, brainstormed, came up with several helpful suggestions — and left. Sam didn't give a damn about the verbal machinations, or the nice-guy image, either. He simply solved the problem and went about his business.

Nearly always when newcomers move to islands, they are terribly concerned about making a good impression. They smile, they're friendly, they want to be thought of as nice guys, they want to be "accepted" by the natives. So they join island organizations, and they start talking. Islanders just wait it out. Before these newcomers get a crack at real participation, people want to see what's behind those smiles and nice words.

There are three things a newcomer will usually be checked out on. The first is purely logistical: How long are you here for? No point in interacting with you if you're just passing through, no matter how much you claim to love the place.

After it's been watched awhile and noted how long and to what extent you're around, a closer observation gets underway. The second question: How useful are you? Is there any substance behind the words?

People notice a couple of things in particular. Prompt bill paying is always a definite plus — in fact, it's probably the single most important thing a newcomer can do to put a good foot forward. There are others as well. How handy are you with your hands? Do you have any kind of comfort level with the physical world? Can you keep your own act together, or are you one of those people who leaves a mess behind for others to clean up?

Finally, and perhaps most important, how contained are you? Invariably newcomers from urban intellectual backgrounds set a high store on their ability to speak effectively. But islanders are far more impressed by people who are able to keep quiet effectively. In fact, Maine Seacoast Mission Pastor Tony Burkart gives the following piece of advice to young ministers just starting out in island parishes: "It's best if you don't arrive with any burning visions of how you're going to change the world. But if you have one, don't say a thing about it for at least a year, 'til you've proved you can keep you mouth shut." Islanders value people who can watch a process unfold and deftly assist rather than jumping in and trying to dominate. Above all, they value people who don't betray confidences in order to gain points and power.

So it's watched very carefully how you conduct yourself in public dealings. Sometimes this checking out can go on for years, until a sense finally emerges that you're OK. During this time, there may be numerous requests to perform small, concrete jobs. Can you bring a plate to the covered dish supper? Sign up for the CPR class? People watch what you do with these small assignments, to see if you're really capable of giving service. If you are, you may gradually be invited to enter more deeply into the island infrastructure, working your way up to positions of power and accountability.

On the other hand, this means that a lot of highly qualified people sit on the benches for a while. We have a classic example on our own island. About five years ago a fellow moved on, a very successful retired investment banker, who wanted in the worst sort of way to be on the planning board. Seems he'd been on the planning board back in Connecticut, knew all about how to fix ordinances so there were no legal loopholes. Town fathers detected just a trace of arrogance in some of his assertions, and he

didn't make it onto the board that season - or for several seasons after. By now it's become a terrible vicious circle. The more frustrated he gets at seeing things he could solve easily remain hopeless muddles, the more arrogant and angry he becomes. And the more arrogant and angry he becomes, the farther he gets from a chance ever to play the game. For the hard truth is that islanders will prefer, hands down, to appoint or elect to office people who may muddle through, but who will do so with sensitivity to the goals and values of the community.

For that's really the heart of the matter. What counts on islands, finally, is that a community has to work together. Island life is rigidly communal; the people you squabble with one day may save your life the next. When your car goes into a ditch, or your outboard quits halfway down to Mount Desert Rock, or you awake with chest pains in the middle of the night and need to get to the mainland fast, it's your neighbors who will bail you out. And you will do the same — not just out of neighborli-

ness, but because a refusal to help threatens the safety of the entire community.

Decision making on an island reflects this communal dimension. It's consensual, almost invisible. And the way consensus arises is through chatter: on the lobstermen's CB's, in the ferry line, at the post office waiting for the mail. The real decision making goes on at this informal, conversational level. Residents who decline to participate, who save their oratory for the official meetings, frequently find that the show is already over.

Is this a good way to make decisions? After 10 years as one of the overarticulate by-standers, I still have deeply ambivalent feeling about the decision making process in island communities. There's an awful lot of slippage and a fair number of scams. On the other hand, my own island, with all its muddled and myopic ways, has come up with some remarkable coups.

Twenty years ago, with a developer bearing down with a plan to put 134 one-acre house lots on a back shore that everyone had formerly thought was useless, Swan's Islanders pulled together almost overnight and enacted a subdivision ordinance that went on to become a model for the state, complete with two-acre minimums, setback and clearing restrictions, mandatory open space, and other forward-looking provisions. In 1984, in a move long considered impossible in the rigidly territorial waters of Maine, Swan's Island lobstermen lobbied successfully for the state's first legal trap limit, to conserve the resource and restore prosperity to the fishing community. As the limit comes up for renewal this fall, most island fishermen feel that it has dramatically fulfilled its goals.



"It's not that islanders don't know how to plan; they don't know if they want to plan."

Again just last year, Swan's Island made headlines when it became the first community west of Passamaquoddy Bay to open its doors to salmon aquaculture. This joint venture between the Swan's Island Fishermen's Co-op and Mariculture Products, Ltd., rests on a groundswell of community support, eloquently summarized by Co-op manager Bruce Colbeth: "If our children are going to be fishermen, not cooks and caretakers for the summer people, we have to do everything we can to strengthen our commercial fishery."

My increasing sense is that a lot of us self-styled helpful types don't really identify the problem right. We tend to think that the problem with islanders is that they don't know how to plan. The real problem is that they don't know if they want to plan. Marky's law again: planning, as conceived and promulgated by experts from the mainland and newly arrived resident prophets is inescapably urban in its verbal matrix. A tool created in urban environments, by and for urban intellectuals, its inevitable outcome is to attract more urban intellectuals.

A case in point on Swan's Island: Toward the end of summer 1988, members of the Swan's Island Sailing Club, representing the resident recreational boating population, met with the selectmen to talk over mutual concerns. The problems were obvious and typical: fishermen and recreational boaters were both occupying the same corner of the

harbor. As the number of yachts expanded each year, the fishermen were getting more and more cramped.

So we sat down together, and within an hour we saw clearly what could be done. The town owns a wharf and some shore frontage on the east side of the harbor, with adequate parking ashore and adequate mooring space and holding ground to accommodate the summer yachting crowd. All you'd have to do is to develop a facility over there - a float, gas dock, and some moorings - and it would take the squeeze off the fisheries district and begin to zone the whole harbor. Well, the selectmen said, yup, this could be done. But then they slowly voiced what was really on their minds. If you build a facility over there, they said, you're not going to decrease usership of the fisheries district; you're just going to attract a lot more recreational boaters to come visit Swan's Island. And the one thing islanders know for sure is that the more of these city types you

for Luoma get on board, the harder it is for traditional island values to hold out. So there's a strong tendency simply to close down: not to plan at all (which acknowledges that the problem is here to stay), but just to stay put, be slightly unfriendly, and hope that the whole population explosion will miraculously bypass the islands and head straight on down to Canada.

Call it passive aggressive planning if you will. But on the other hand, I find myself being struck time and again by the power of the values that islanders bring with them. When you think back to that checking out process I mentioned earlier, notice the character traits at stake: stability: how long are you here for; service: what good are you; humility: how well can you contain yourself? The only other context I know of where these values are deliberately and consciously cultivated is in monastic circles; in fact, "stability, service, humility" could be a classic monastic vow.

I'm not trying to glorify the "quaint natives" and say that islanders are monks on top of everything else that people say they are. But there is some distinguishing depth and staying power to these values. I think that's why, when islanders finally rise and act, they do so with a power far beyond what one can do with mere words. The value system of an island community ruthlessly strips away the words that people hide themselves behind and exposes the person — to wither or grow. If you survive on an island, you may quiet down but you grow in depth. And that depth, as stubborn and mighty as the ocean itself, is there when it's needed.

This article was adapted from a talk originally given at the Sixth Annual Island Institute Conference, September 1988.

With salt water
in his blood
and engine grease
under his nails,
Al Norton
of Acre Island
helped shape the
golden age of
yachting on
Penobscot Bay



Al Norton, circa 1917, at the wheel of the sloop Acushla, Camden

DOWN THE WAYS!

JANE DAY

HEN AL NORTON was a schoolboy in Camden, he haunted boat and machine shops all over town. He was barely eight years old in 1920, and life in Camden then was a heady experience for an engine-crazy kid.

As soon as school let out for the day, Al bolted for the machine shop near Knox Mill where Henry Howes worked on cars. Then he'd dart over to the Bayview Street Garage, and on to E. P. Lamb's at the waterfront. Here Fred Merchant, "a darn good machinist," worked on a lathe. "If he was doing something, he'd show me how. I could go anywhere. And I was learning everywhere I went."

Boats, of course, were simply part of family life. Al was a wiry six-year-old when he rowed his first skiff across to Curtis Island where his grandfather Aldiverde Norton, for whom he is named, kept the light. And from the time he could hold a bucking iron, Al helped his father Sidney Norton cut copper rivets on the yacht tenders he built during winters.

"I still have that old bucking iron." It spans Al's whole lifetime with boats — tinkering with their engines, yachting on Islesboro, and for close to 40 years, building

and repairing boats at the S. B. Norton & Son yard on Seven Hundred Acre Island.

Sidney Norton established the yard in 1920—or more accurately, he transplanted it. Having acquired a piece of property on Seven Hundred Acre Island shortly after the war, he bought out Ambrose Hatch's boatyard above the Gooseberry Nubble on the west side of Islesboro. Al says his father moved a building more than 40 feet long by sections from Hatch's place. "Sawed it up roof and all, then towed it over to Acre Island and put it together again."

Initially, the yard did repair work, mostly on the fleet of sailboats owned by the affluent summer colony at Dark Harbor. Crews came from Camden and Deer Isle to work at the boatyard as soon as it warmed up in spring. The late Willis Rossiter, a yacht captain on Islesboro and longtime foreman at the Norton yard, remembered those days when the crew hauled boats in their cradles with a capstan, "walking round and round...in clay up to their knees. They hauled the whole damned fleet that way."

It was customary for Al's family to spend their summers on Acre Island and the school year in Camden, where Sidney had built a house on the corner of Bayview Street and Chestnut Hill. Al enjoyed being around the yard and learned early how to paint boat bottoms, sand, and varnish. When he was no more than 10 or 12, he built his first boat, a 14-foot centerboard model that he got the plans for out of an old *Rudder* magazine.

During high school he had a 20-foot inboard. He pulled the engine on it just about every year, moving up from a two-cycle Eagle to a Model T.

The Model T let him down one September morning when the fog was "thicker than mud." Al wanted to stay on the island when school opened and had talked his father into letting him and his sister commute to school in the boat — about a 45-minute run, he figured.

"We came out the south end of the island, got out into the bay about a mile and a half, and the transmission went dead. Set screws came apart. No power." Fortunately he had sails on board, and a brisk southerly breeze had brought him almost to Gibson's point when he saw his father's workboat coming to search for him. "That was the end of going to school in the boat," he says ruefully.

During his four years at the University of Maine, Al went yachting to help pay his tuition and worked in the boatyard at night. He had planned to go to Detroit and build engines, but when he graduated in 1935, at the height of the Depression, "engineers were a dime a dozen." His best job offer was \$18 a week. His mother had died that spring and there were a lot of family medical bills. His father needed a hand at the yard so Al signed on expecting to stay about six months. But business started picking up, and Al found he liked it.

The next year, he married Dorothy Jones, his high school sweetheart. Dot started running the office at the boatyard and learned how to handle a boat so well she could take over for Al on trips to Florida. Al and his father formed a partnership, S. B. Norton & Son, and Al gradually took over and ran the yard until 1970. Al's and Dot's two sons, David and Anson, both of them now fishermen, grew up in the same way as their father, with summer apprenticeships in the boatyard.

The years preceding World War II were the heyday of sailboat racing on Islesboro. As many as 60 boats competed in organized classes — one class of Dark Harbor 12s and two of Dark Harbor 17s. The 17s were Crowinshield design and built by Rice Brothers in East Boothbay for the Islesboro fleet. "About the time I got through school," says Al, "they got a 20-foot design — 16 or 17 of 'em." These were designed by Sparkman & Stephens and built by George F. Lawley (of Neponset, Massachusetts). "There was no money — it was the Depression. They built those boats, I think, for \$2,500. I built five after the war for about \$3,500."

The 20s were sloops with small cabins, 20 feet LWL and 30 feet LOA. William Chanler, who lived on Acre Island at the time, owned and raced *Mafalda*, one of the 20s Al built. Chanler recalls that Al fabricated a brick furnace to melt lead for the keel of the 20s,



Three Dark Harbor 17s hauled out at the Norton yard, circa 1926

which had a 41/2-foot draft. "Al built better boats than Lawley because he used rust-proof fastenings," Chanler opined.

When the first 20s arrived, Al says the Islesboro fleet sold off a lot of the 17s. "They went everywhere; Northeast Harbor, Boston, some to North Haven. The average price was \$300 to \$400. That wouldn't even pay for the lead."

Dudley Howe, a longtime friend on Islesboro, was the first to buy one of the Lawley 20s and requested Al's help in bringing it Down East. "He says, 'You got to get up to Boston and tow us down." Al went to Boston in a 38-foot secondhand Matthews and took the 20 in tow. The next day out they were off Monhegan where the engine quit cold.

"That 38-foot Matthews had a 200 h.p. Sterling Petrol in it it. So we had to bend sails on the 20 — never been on — and tow the Matthews into Tenants Harbor." Al found that rivets had sheared off the fiber gear on the cam shaft. He was sure he could fix it if he could get to Snow's in Rockland. So he made a pattern, took a taxi from Tenants Harbor, and came back with a piece of steel plate and a handful of boiler rivets and gaskets. They got to Islesboro before dark. "We towed the sailboat that time. You couldn't do that today. It was just the way that old Sterling Petrol was built. Couldn't get a taxi to Rockland today for \$5 either."

The nature of the yard changed radically during World War II. Like other small yard owners on the coast, Al Norton went after government contracts for support vessels. "I was hiring everybody I could find," he says. At one time he had about 30 men building 35-foot plane re-arming boats. They were



In the yard, 1935



Al's grandfather Aldiverde, with Smut, on Two Bush Island, circa 1898

built to carry two standard torpedoes inside the boat, and some had racks for smaller bombs on top. Their hulls were double-planked plywood, mounted with big fenders all around to run alongside the seaplanes. All had 115 h.p. Chrysler crown engines. The Norton yard built 83 of these boats and ran them to Rockland where they were loaded on railroad cars and shipped to California. The yard also built 10 buoy boats with wooden hulls covered with 10-gauge steel, one-eighth inch thick, and a four-cylinder hoisting engine in the front end. They were a Lighthouse Service design and used to tend submarine nets at the entrance to harbors.

Robin Quimby of Islesboro, later first engineer on the ferry *Governor Brann*, worked for Al for 12 or more years before, during, and after the war and recalls in detail the building that was specially erected to handle the Navy contract work. "Al designed it. It's 40 by 60 feet and not a post in the building. All trussed." Quimby was one of two "set-up men" on the Navy boats. "Laid the keel, put the timbers and deck on — ready to put the plywood on." Of Al Norton he says, "There's none better. He never had a man that didn't do a day's work for him."

After the war, the yard went back to working on yachts, but Al's interest in boatbuilding continued. In 1947–48 he built the five Dark Harbor 20s and a 28-foot sailboat, the

Widgeon, designed by Geerd Hendel of Camden. Over a period of time, he also built several power boats from his father's and his own designs.

The first two were built from half-models Sidney made. "He always worked from half-models. That's the way he did it. After he died (in 1950), I had to do it myself. We always made a half-model. You can make that model so there's no imperfections. You can't see 'em, but run your hand over it, you can feel the place. Hold it up to a mirror so you can see the whole boat."

The first powerboat was the *Nom.* She was 32 feet LWL, 35 feet LOA with a 10 1/2 foot beam, and was cedar planked over oak frames with a pine deck. The second boat was the *Nomad*, which was sold to a New York owner. Al used the *Nom* himself, and also as the committee boat for the Dark Harbor 20 races held several times a week.

"I designed a rig that can take lines off a half-model just as nice as can be. When Willis Rossiter and I lofted the *Norn*, we took the lines off, put them down on the floor, and the biggest correction we had was 3/16th of an inch."

Al's rig is a wooden frame with graph paper on its face that he positions at a 25-degree angle above the model. He takes the hull dimensions with a slender rod inserted through holes in the frame. As he moves the

rod, a marker on top records the line on the graph paper. "The only one I heard of who had a rig like that was old Nat Herreshoff."

Al sold the Norn in about 1971 to John Allen of Camden, who renamed her the Arcturus and used her with great pleasure until he died a few years ago. His son Curtis, owner of Atlantic Marine, a Camden boat service, continues to use the Arcturus. He was about 12 when his father bought the boat, and he and his brother, Steve, would help their father work on the boat at Al's yard that first summer. "We'd pound over to Acre Island every morning in a 15-foot outboard of Al's and spend the day sanding, scraping, and painting," says Curtis. "Al's the one who got me started in boats. He taught me how to sand and paint, even how to row a peapod."

Another Norton powerboat, named the *Katie D.*, was built for J. J. Emery of Acre Island. Al designed the boat and made the half-model. Both are now owned by Carol and Mike MacCaulay at Dark Harbor Boat Corporation, the former Norton yard. The *Katie D.* was used by Carol's father, Lloyd Dyer, when he was Emery's caretaker and the Dyers were the only year-round family on the island. She was built with stainless steel sheathing on the bow as protection against ice, and she's still in service. "She's a strong boat," says Carol. "I trust that boat a lot more than others."

When Al shut the yard down a couple months in winters because of heating costs, he and Willis Rossiter would build skiffs in the loft of Al's garage in Camden.

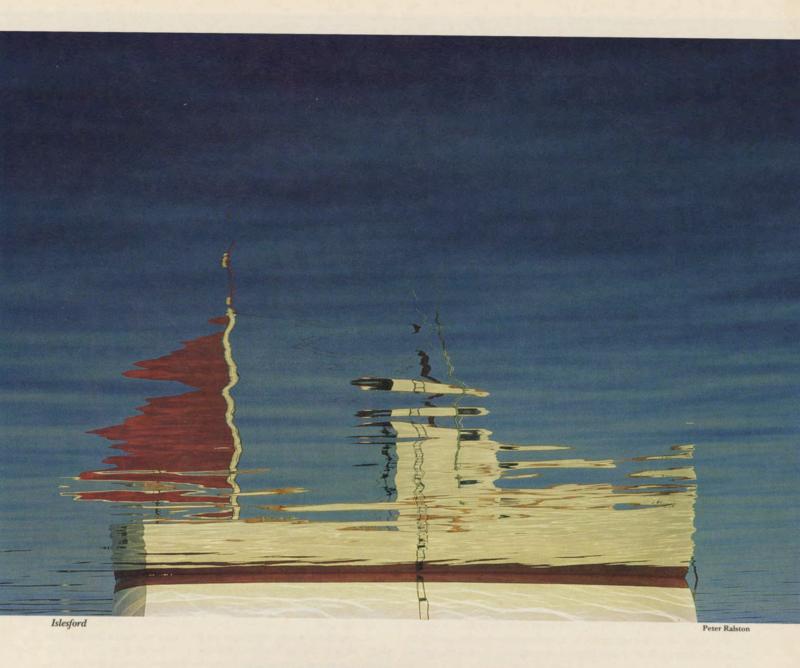
"We'd rack 'em up, seven or eight of 'em every winter. Monroe skiffs, all Willis's design. They were 16 feet long and had an 18-horse motor. All mahogany trim, some beautiful work."

Willis died several years ago and Al no longer works in his shop. But the pungence of cedar shavings and motor oil still lingers. And on the work bench, worn hand tools and dusty stacks of *Rudder* magazines speak to the flavor and character of those island years.

Al says he never kept a record of the number of boats built at the S. B. Norton & Son yard. But he's pretty sure which was the last. He and Willis started it along the lines of the *Katie D.*, but stretched it out a bit. "Whenever we didn't have too much to do, we'd work on it. They'd ask me when I was going to get it done. And I'd say, 'some day.' Then somebody put *Someday* on the stern. Mrs. Emery came over and said, 'That's a fine name.' By Golly, Jack Emery came over and bought it. Guess *Someday* was the last one built."

Once Al Norton got his feet planted on Seven Hundred Acre Island, the hankering for engine building in Detroit never surfaced again. "I'm glad I stayed here. I had a lot more fun."

Jane Day is a freelance writer from Camden, Maine, and a frequent contributor to Island Institute publications.

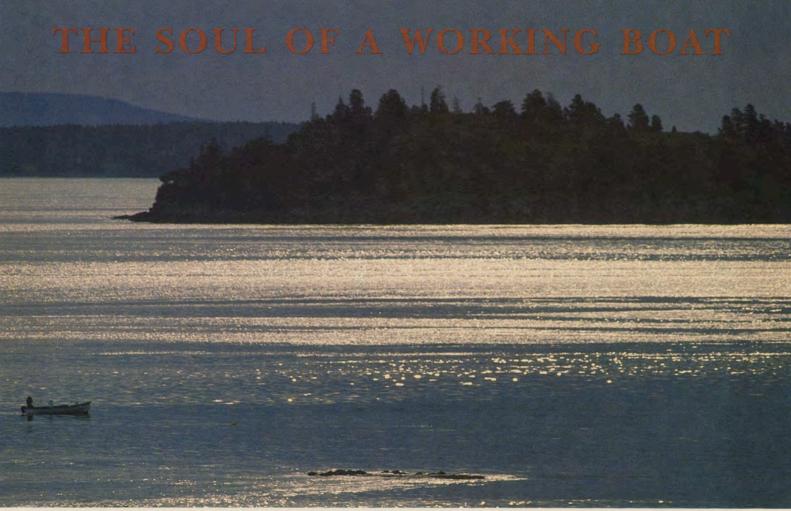


THE SOUL OF A WORKING BOAT

"Boats, boats, boats. We damn them, we love them...
They carry our hopes, our sorrows, a platform
for our short lives on this water planet."

Quotations accompanying the photographs are from *Headstay*, a novel in progress by George Putz, Senior Editor of the *Island Journal*.

The following special Folio addition is again made possible by a generous grant from the Charles Englehard Foundation.



From Oak Hill

MIKE BROWN

Peter Ralston

HE SOUL OF my first boat appeared 20 years before I was born. Silently, a cedar seed dropped from a conifer forest on the south side of Bird Hill in Northport, Maine. Fate ushered the myriad predators of cedar seed past my boat-to-be until the warm rain of autumn gave it legs to penetrate the needle carpet of the forest floor. Come spring, my boat-tree was

It would be four and twenty years before Oscar Drinkwater would fell my boat with his crosscut saw and double bit axe and haul it with a team of horses named Ike and Bite to the hillside road banking. There, my tree-boat joined others in their journey to Dan Robinson's mill to be sawn into layered boat boards.

My father, the fisherman, had said one night sitting on our herring weir pocket frame, one night when the fish shimmered in rare abundance in the heart of our weir, my father said that night that every boy fisherman needed a boat of his own. I was six years old.

The Bird Hill cedar eventually came to Harold Martin's boat shop on the Belfast waterfront. And there, in the corner by the double drum stove, my father would work on my boat when the herring were not running.

She was a punt, she was. Higher than my Gram's apple pie and looking about the same, pointy stem to meat loaf stern.

My memories of my punt a' building are smothered in the sight and smell of cedar shavings. On Saturday afternoons, tide and fish permitting, my dad and I would walk to the boat shop along the shore from our house. It was not the quickest and easiest way of getting to town for fishermen who didn't own a car. But it was the familiar character of the shore that made the five miles more tolerable.

We would tote a supper of biscuit sandwiches, shortbread, and jam dessert. Drink was strong coffee from a blue agate pot atop the

oil drum stove. The late afternoon walk and biscuits made for a sleepy boy. I would curl up back of the stove in a boy nest of cedar shavings and wake only when the calloused hand of father fisherman shook me. My punt was completed between such naps.

We rowed her home, my punt, my dad, and me. On a going river tide. Punt foreman Harold gave me a christening gift. A cedar scoop. On her maiden voyage along the Battery Shore, I thought my punt was doomed. I scooped until blisters. But she came to life, my punt did, and swelled her seams shut with all the subtle grace and power she used growing tall and straight on the south side of Bird Hill.

I had a punt with no name for years. She just finally wore out. One fall day my dad said punt wouldn't make it through another fishing year. We burned her that night on the Northport shore. In the morning, I gathered her crematory bones of clenched nails and dug a hole by the big rock and buried them where they are today.

Harold Martin's boat shop was midwife to two dories born into our fishing family, both kin cedars to punt, but with ribs and stem and stern of high hill white oak. No shaving naps this time. I was apprentice boat builder - steaming, sawing, planing, nailing, and at day's end, the puter-away.

The character of a boat starts early. From the tree if you cut it; from the first piece of sawn wood at the latest. We sailed out first dory home with a sprit sail borrowed from Harold and a steering oar threaded through her stern scull hole. She scudded home to Little River like a homing pigeon. And there on her first mooring night, she filled with clear, blue-cold Penobscot Bay water to her gunnels as my father said she would. But sunk as tidewalker, her snout and oaken stern stood proud and high. We scooped her dry in the morning and she never leaked a drop from that day. Christ, that dory had character.



We named her Dory Full. She would carry a load of any choosing from nets to herring to leader brush of white birch. She rowed with ease from bow or stern, from thwarts or not, and sometimes when the day was done, I sculled her to shore like a one-horse motorboat. She liked that.

Dory Full was built to fit people. Fishing days off, me and my dad would row her to the flounder cove and sit back, bow and stern like rocking chairs and handline big gobs of fat clams for a supper of flatfish. And sometimes, tethered to a fishing grappel and weathervaning to a soft, warm, gentle southerly, Dory Full would join father and son in a water nap.

The storm came at midnight. Crashing, slashing, pelting. It backed around to the compass course of east and straight into our cove. We stood on the shore in our oilskins coated with spindrift and stared into the thrashing cauldron that was our fishing cove for sight of Dory Full. We saw her whole once. She danced across the storm light horizon like a roped steer. And then fell into darkness. We could do no more.

In the morning, Dory Full's remains were among the storm's leavings. Her ribs and planks, her eyed stem, her transom so fit, were scattered along the storm tideline. Heart and soul, Dory Full was dead.

Dory More was born soon after. She came home on a truck and was launched in the cove brook on a slippery bed of eel grass. She leaked only a little. A bad sign said my father. The eye of the fisherman.

Dory More was a wooden slut, a water

bitch. An alley cat. She took neither to paint or fish or nets. She would ship not a teacup of water one week and the next morning be sunk. She rowed like a goddamned log scow and she sculled in maddening circles. Flounder fishing bow and stern, my dad and me got splinters in our asses.

In the worst storm of the century, we played cribbage all night by the Clarion kitchen stove knowing full well in the morning that Dory More, the bitch, would be, ha-ha, kindling wood. By dawn's early false light, the weir was nearly flattened. Our pile driving work scow was missing. But there on the mooring was that bitch, Dory More, riding the afterwaves like a Hawaiian surfer rubbing her ugly face across our misty eyes.

My dad finally sold the whore. He just couldn't stand her anymore.

One of our weir customers who bought five bushel of mackerel every summer to spice down for winter said he had a little sailboat in his garage that he never used. Thought my dad might take a look. It was a 16-foot Swampscott dory. I fell in love and told my father that I would work for nothing for that boat.

I don't know where in hell dad got the money for that boat, but he gave it to me for my 12th birthday. I named that boat Spike. It was a summer of pure water happiness. After a couple of father lessons, I was on my own. Spike and me were inseparable. On the slightest breeze, we cut that cove to foamy ribbons. We would heel centerboard high up and down the weir leader like a Greyhound along a dog kennel fence. We tacked, jibed, we ran before the wind like a sled on a bed of snow.

And one day, when the wind was not even an ember of air, I wrapped Spike's mainsheet around my wrist, lay down on his slatted floorboards and fell rock-a-bye to sleep.

I remember a sharp tug on my wrist. I remember falling into the water. I remember bobbing in a pool of Spike debris and wondering what pagan god had taken over the laws of gravity. The embarrass-

ment of dumping Spike on her beam ends was nothing compared to taking the hoary hand of my father who pulled me into his rescue dory. Fisherman fathers have a language all their own that they use on fisherman sons. It's not spoken. It's felt.

Spike was gathered together and de-watered and we had many more sails together. But on calm days, the mainsheet would lie loose as a goose.

We sold Spike to get a weir workboat and it felt like taking my dog to the lay-away vet the day the man came for Spike. He asked if I wanted one more sail and I said I sure did. Spike and me attacked the weir. I had nothing else to vent my anger on. On one pass I came too close and Spike's sail stuck to the brush weir like flypaper. They had to come and peel us off, my dad and the new owner. I thought it was the biggest brotherly love omen I could think of. But Spike left and the new/old workboat came.

Pelican looked like one. She was all forward as most Novi boats are. They are wake-less, duck-ass from midships aft. She had some kind of bastard engine trademarked as Lunenburg native. She was built typical Novi with lumber that Americans use for orange crates. A cacophony of trees: Hackmatack and yellow birch and juniper knees and knotty spruce for finish work.

That goddamn Pelican had character. She was workaday proud. A commie proletarian, for sure, but she gave better than she got. She never asked for much. We painted her Sears Roebuck, caulked her sisal, and had her Lunenburg overhauled by the town drunk.

Pelican ran like a bluegrass filly, way past the pasture where most of her uppity American cedar cousins lie a'molding in the grave.

Pelican was the last family boat. It was the last herring weir. The time had come for my fishing dad to gather his memories, his life and his son together and bid us all forever goodbye.

I shipped aboard sardine carriers. They reminded me of old work shoes plowing fish-deep through the water with just their pilothouse laces showing. Christ, do sardine carriers have soul and character. Everybody loves sardine carriers. Like the UPS man. They are always bringing us good things.

The factory whistles blow, the sardine packers scurry, the weirman closes his nets, the herring men with cove shutoff twine count their hogshead money. All for the coming of the sardine boats.

Sardine boats are two-man boats. The captain and the other guy who goes with the captain. He's always called — he goes-with. If you spend a summer working aboard a sardine carrier, you will sail about three feet past, over, around, and sometimes on every rock and ledge on the Maine coast. Strong-hearted wooden shipbuilders who build sardine boats, or used to, armor them for just that rocky voyage. Sardine boats go through keel shoes like kids through cheap sneakers.

Shipping on a sardine boat will probably mean about two days ashore a summer. One captain I was going-with lived on an island. Under the sly guise of "looking for fish," we would be in the vicinity of the captain's home island every Friday night. The foc's'le living of a sardine carrier is spartan at best, a smelly fish packing box at worst.

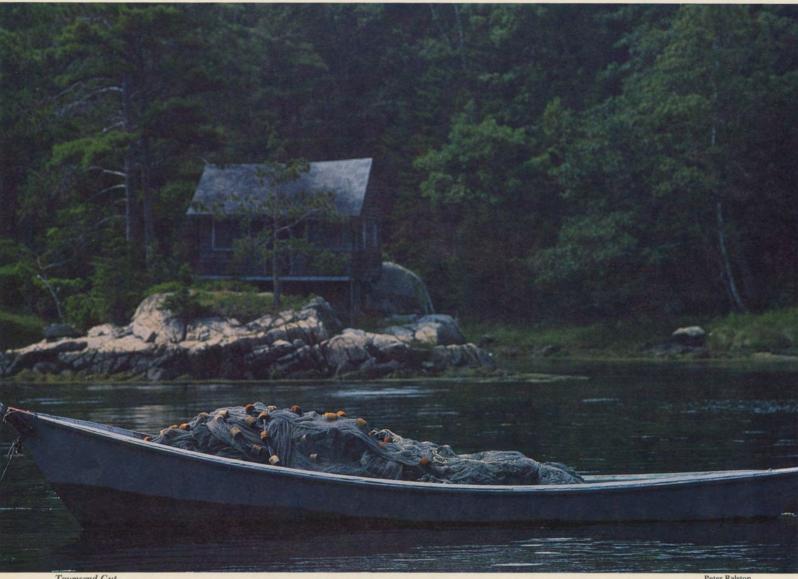
The plus side of island stranding, as a going-with whose captain is ashore making family love, is that sardine boats carry a deck load of granulated gold which can be bartered for anything from a gunny sack of short lobsters to the village virgin (or close enough). Fish salt, may you be mined forever.

Boats, boats, boats. We damn them, we love them, we build them of precious wood, of mountain ore and barrels of foreign oil refined to bolts of glass cloth. We sail them, we motor them, we row them, and sometimes we just sit the hell on them and let the rest of the goddamn world float by.

Whatever else they are, they are personal friends to be damned if we wish, but beware the stranger who blasphemes our boats. They carry our hopes, our sorrows, a platform for our short lives on this water planet.

And sometimes, sometimes, we die together with them wrapped around us in loyalty to the end.

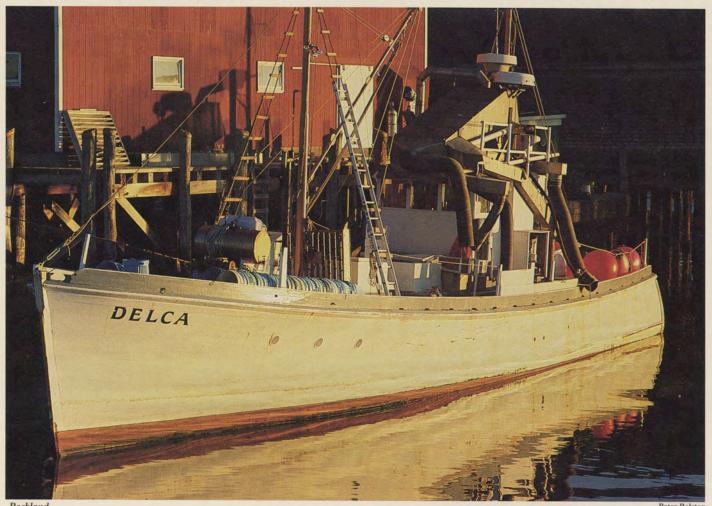
Mike Brown is a syndicated columnist on maritime topics and a longtime observer of the Maine waterfront.



Townsend Gut

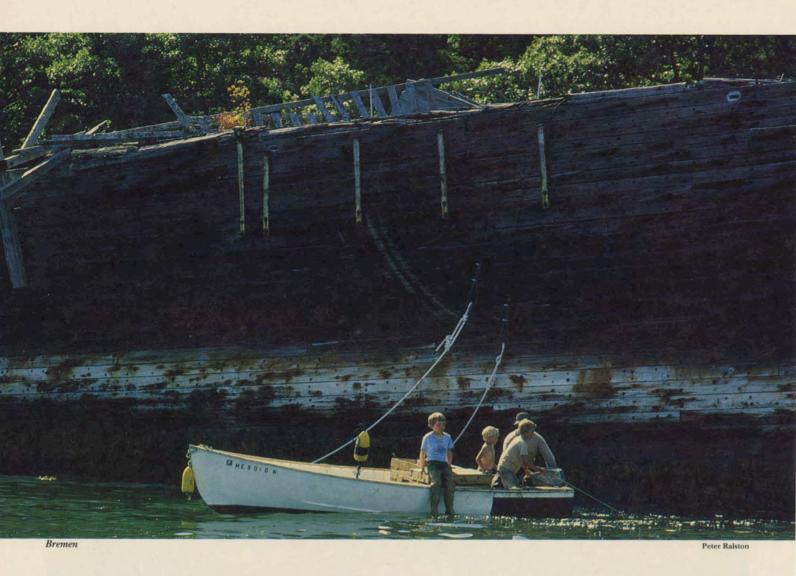
"When I was ten and badly wanted my own boat, I inquired about getting hold of one, with the notion that I could fix it up and make it my own. But the boat that captured my heart happened to be a 'claim dory', indicating a gang's exclusive rights over the cove in anticipation of the herring that might one night feed there. While appearing to all the world like a boat, that dory was in fact merely a sign — intransigent as a ledge.

Not until some years later did I parse out the fine points of this mystery when as owner of a distressed outboard boat with an elderly 6 h.p. Mercury — I ventured around the shore to various stop-twine shut-offs, and eventually overnighted at Freddy's uncle's camp, located on a pretty good herring cove. "This is Blaine's cove," said Freddy's uncle. "I know," I said, in wisdom hard won, age 12, staring out at the still wonderful, desirable old seine dory... In later years I had the good sense never to trust any notions of ownership, whatever."



Rockland

"They always caught you off-guard. Whatever I was doing on the water, a smack would appear in some picture-perfect composition among the shoals and islands. There was no such thing as bad light. They were always perfect until it came time to negotiate with their captain, who usually wanted only a few hogshead, and not until 2 a.m., for the bait market. Thus I learned how to sit around and kill time without complaining, and like many a young man, it was in the fo'c'sle of a smack that I first learned to drink rum."



"How could any man — or woman so far as that went — not see what is so plain before your face: that the water is free open space, that you do not have to stand in line, that you can stop and look and fish and check things out as much as you want, that you and other kids with boats are better than kids without boats? How could any father who ever loved a kid have missed this — if not for his kid, then for himself?"

"Half my life belonged to rowboats.

Skiff, punt, flatty — they reveal their true colors slowly.

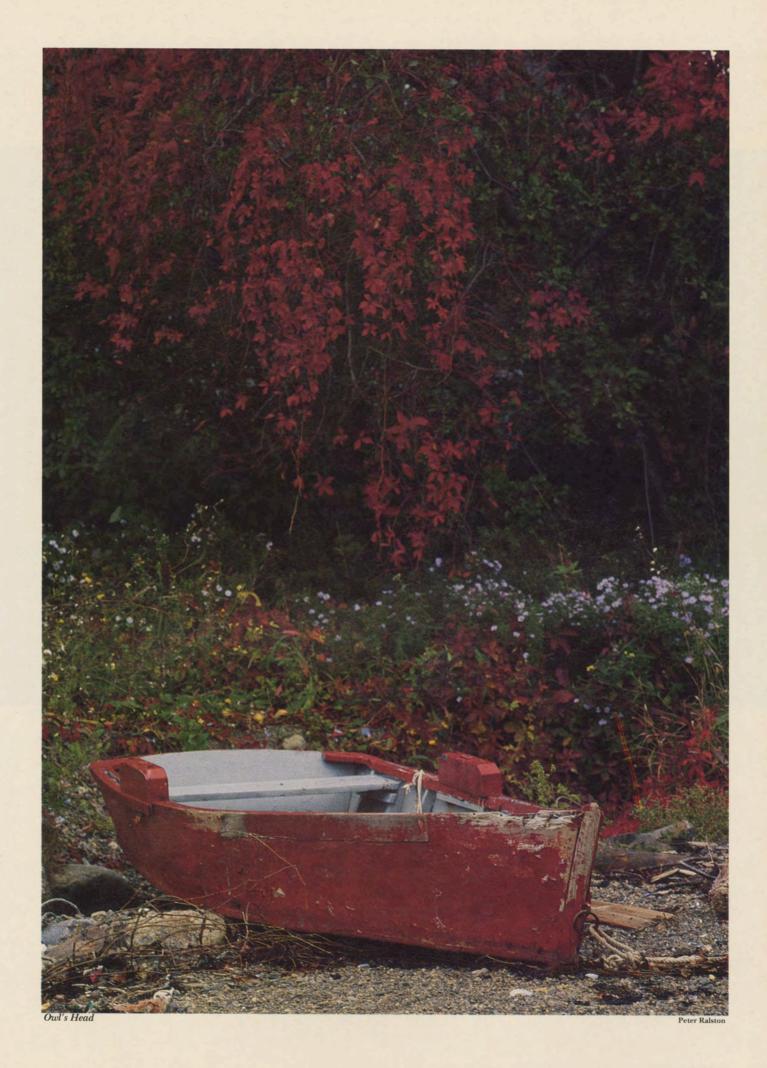
A pristine dog of a skiff usually dies under the scorn heaped atop it in a few seasons.

A ratty, battered scow may be loved and tortured through a half century. The test of how things go for a skiff is told not by its condition, but by how it is used and by its colors.

If regularly patched and puttied, and painted something garish or unique, and certainly if named, then it is a good punt and has a future.

If it has been spread with wider thwarts, and painted gray, it has alienated any affections it may once have enjoyed.

Good skiffs, not bad ones, become planters in fishermen's dooryards."

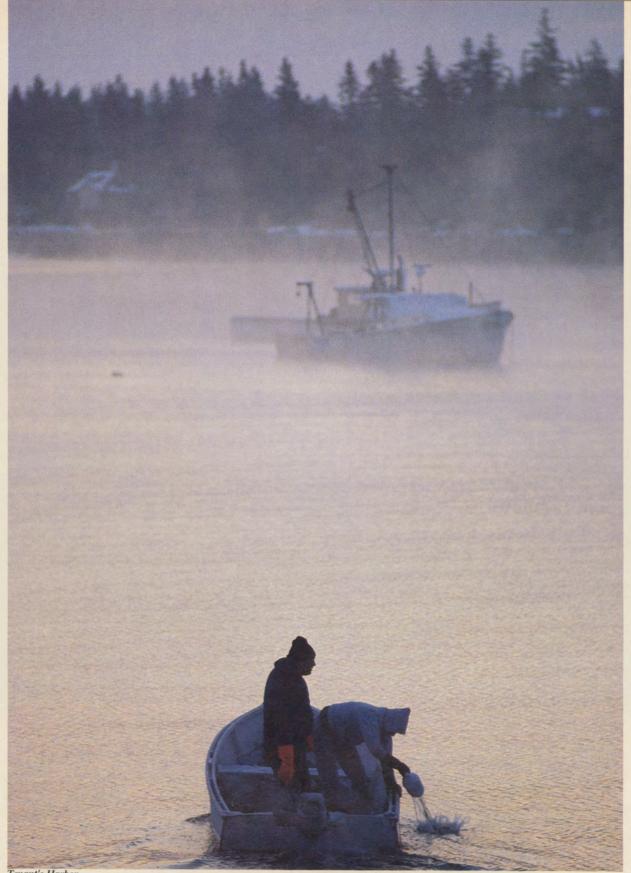




Stonington Peter Ralston

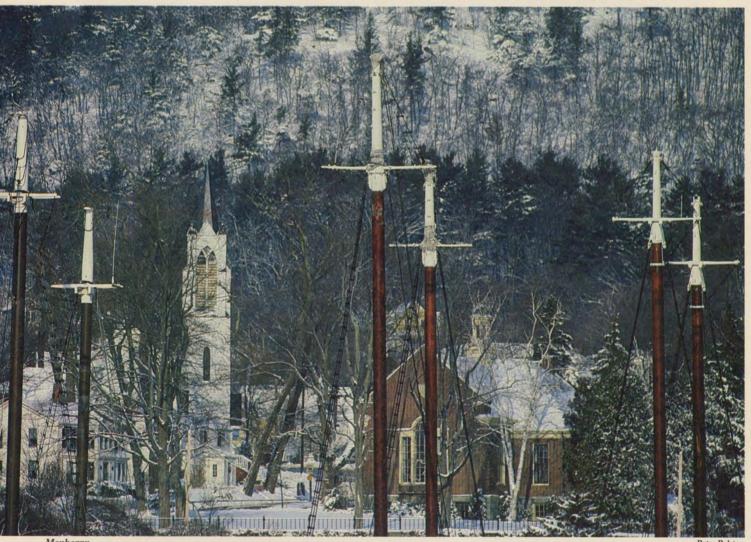
"I never admitted to the toll this business takes — at least not 'til lately when I inventory absent friends who haven't died. There's always worry — what's owed at home, on the boat and gear, how you're doing and the price it gets, problems on your mind.... But ashore it's worse. It is.

Out here when everything is working right, and nothing's broken, and there's some money coming aboard, and the radio station's coming in clear, and things seem okay at your house and mine, and maybe next year you'll have your own boat — God, it can be fine sometimes!"



Tenant's Harbor

"There is much temptation to stay away from home, the truth of which true men avoid by going out no matter what. The worst of it is not in gale or storm but when it is plainly severe and the cold: early mornings when sea smoke works its way into every man's and boy's blood and bone. At least a dozen compulsive work days a year it creates a dwarf world where those on the water work in clouds, and those ashore watch mastheads come and go like dorsal fins of extinct fish. From shore it is cold and interesting. On the water it is cold. And stupid."



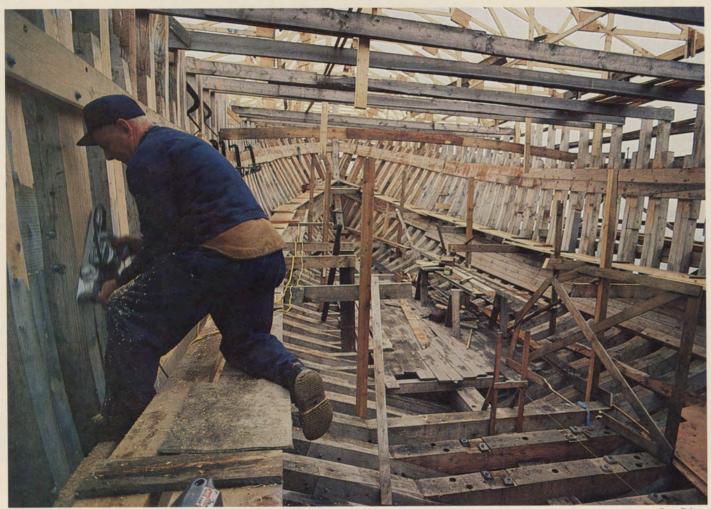
Monhegan

"We all understand that whenever a boat conducts itself on the most rational course possible, a circle, it signals a peculiar event to which attention must be paid. Either something is very busy, or very interesting, or very wrong.... What else circles in the sea? Whales corraling fish behind a bubble curtain, seagulls swooping over a shoal of fish; what else? On boats, almost always it means a fisherman working alone, usually fixing or adjusting something. Mariners scrutinize a boat going in circles... to be sure that things are well enough and that her captain is still aboard. Many harbors date their eras in part by unmanned boats found going in circles."



Camden

"They are all here, except maybe Lutherans: Calvin, Wesley, the Presbyter, Puritan fathers, Episcopal bishops, the Holy See. But beneath this host of denominational tongues, the breast of every New England mariner beats with the same message. The most agnostic, atheistic among them is steeped in belief. He feels that even if coastal pastors are half nuts half the time, that Calvary sways in every harbor nevertheless, and that if the Savior may not be there for him at any one time, his own cross always is..."



Thomaston Peter Ralston

"Each of us who labored on her tacitly acknowledged that wooden craft share structure and mortality with people.

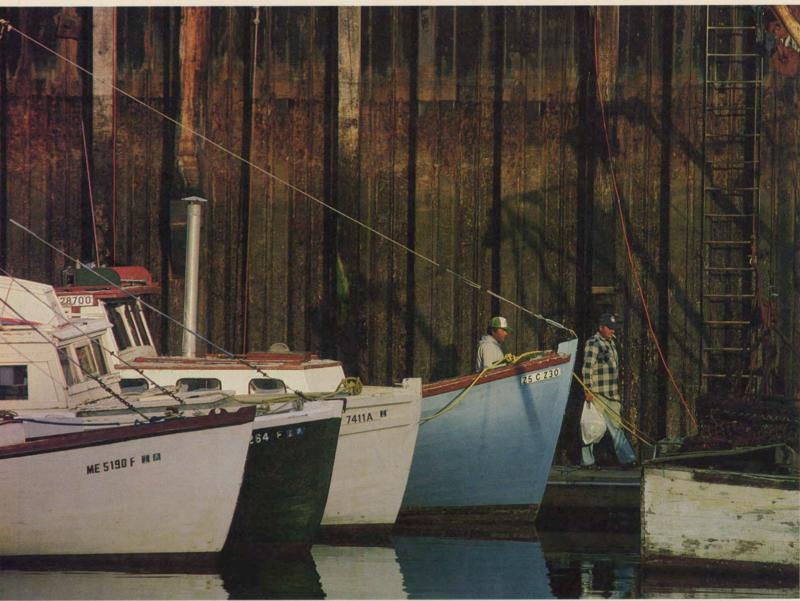
Keel and frames are backbone and ribs.

They all have personalities and character, and all become ashes and dust. How transfixing the building of that ship was!

I watched for hours a man contentedly giving birth in this world, completely absorbed."



"There is no mystery why boats are called 'she'.
Run your eye along the surface and feel your inner response.
Boats are prurient, illicit, impetuous —
mistresses at least, spouses at best."



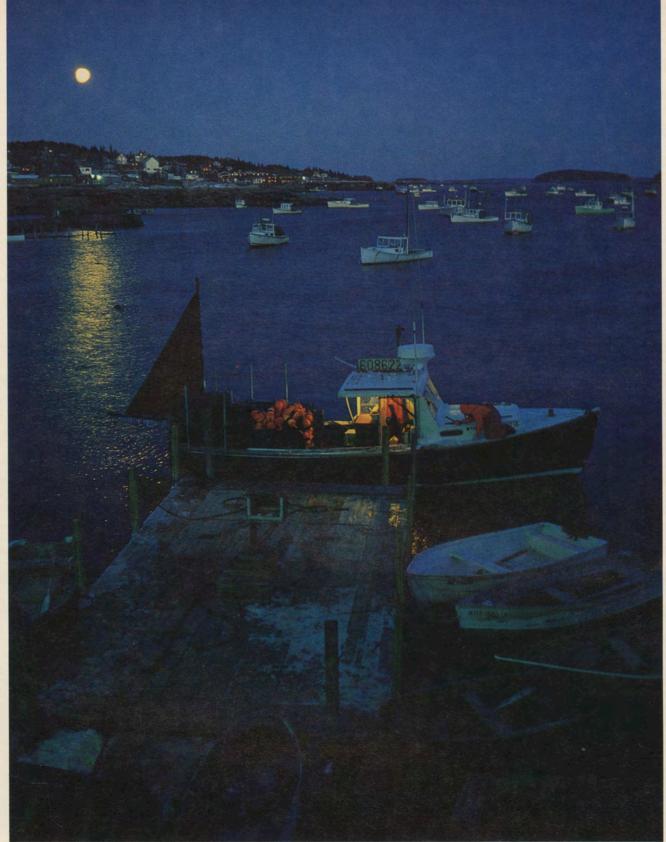
Eastport Peter Raiston

"Times inland were an undiagnosed disease.

Salt water in the blood wants salt water nearby, often, and of course tides — the more tide the better. Tides are the confirmation of illimitable energy beyond the scope and control of all which surrounds us...

a means to cleansing and revenge and... molluscs.

Neither science nor sport, it's life's incredible power controlled by celestial bodies and the pulse of vast oceans against continents. It is the gift of gods and prolonged absence is betrayal."



Stonington Jeff Dworsky

"Why should I not be superstitious?

Too often perfect conditions yield poor fishing, bad conditions are followed by more of the same, and the good fishing has no pattern.

It's the moon.

It's the tide at daylight, and feed in the water that blooms after rain, snow, or weather-breeders —

the still, clear times when a hush falls over the sea and islands like a crystalline sheet. Boat then becomes cave, a place to house anticipation, nocturnal watching, and fussing added to its usual store of gear and hope."



Megayacht contestant 560303, with colorful native fishing craft, off Little Spruce Key



ME\$\$ING ABOUT INBOATS

MIKE BROWN

HE MORNING OF August 4, 1994, broke over the Fox Island Thoroughfare as a masterpiece of God. Radiant golden shafts of Eastern Maine sunrise bounced off burnished copper captain's chairs and acres of teak rails of the assembled golden waterlily fleet mirrored in the placid, blue water. Sentinel fish crows sat squat and awed in satiny black feathermail as they surveyed the slumbering fleet. Early riser seagulls lined every flatfooted perch. Even the majestic osprey was entranced before the royal assemblage.

Two years in strategic global planning and with representation from 40 countries, including Washington, D.C., the long-awaited Armegaddon had finally arrived. The Maine sunrise and its denizens welcomed the First Annual International Megayacht Megatta.

What an incredible sight! As far as the osprey could see, hundreds of megayachts displaced the thoroughfare mark twain between Big and Little Spruce Key (as Vinalhaven and North Haven had been renamed by the U.S. Coast and Geodetic Survey for this multi-nation water extravaganza), cocooned like giant butterflies in safe anchorages waiting for the effect of the metamorphic sun to awaken them. The age of megayachts on the Maine Coast had arrived.

The gold leaf trailboards announced hailing ports only dreamed of by the regular mundane thoroughfare travelers. "Godamighty, Alfy," exclaimed Ralphie Philbrook to his sternman as they Chevrolet-sixed past Iron Point to their lobstering grounds off the Drunkard, "ain't seen such a raft of floating money since the rum runner ran his ass aground on Snort Bugger Ledge."

"You got ya boots on the right feet there, Ralphie," said Alfy, stuffing bait bags with slime eels, the only lobster bait Ralphie and Alfy could afford in 1994. The Maine location of the Megayacht Megatta had, of course, received much coverage in the international press because of its glittering array of participants. President George Bush had agreed to be Master of Watermonies, not so much because he was President of the United States, but because he was a Cigarette boat skipper of some renown.

Sometime around noon of the Megatta, the Sixth Fleet was to surround the Spruce Keys. There would be a fly-over by two Stealth Bombers which could be heard but not seen. This security show would be followed by President Bush's arrival at the wheel of his Cigarette, the George & Gorby. Famous megayacht captains were too numerous to mention. However, the committee yacht, the only one equipped with an on-deck fleet of Chrysler New Yorker limousines, was skippered by Lee Iacocca because of his consummate piloting skills gained through years of maneuvering large, heavy objects through the crowded thoroughfares of Detroit. Mr. Iacocca's first mate, chosen for her extensive knowledge of local waters, was a Maine native and former Steamer Clam Festival princess runner-up. Maine's Tim Sample was the committee boat steward and galley clown.

The first stirrings on Megatta morning were about 10 a.m. when the national anthems of 40 countries were played from the stern deck of the 175-foot *Calliope V* by the Boston Pops under the direction of Maestro Duke Dukakis. (This took a while and was the only deficit portion of the whole Megatta.) The American flag and 40 flags of 40 nations were automatically hoisted up a 100-foot silicon pole by a new IBM color computer chip invented just for the occasion.

There was some concern when the chip confused the very similar tricolors of France



A failed contestant in the island jumping event...

and Italy and the Italian orange flapped higher than the French blue. But the mild protest was noted and accepted in the congenial international spirit of the Megatta.

Incidentally, there had been speculation that dirty terrorists might try to disrupt the Megayacht Megatta and that was one reason in changing the location name to the Spruce Keys to confuse any terrorists, who would probably be diverted to Florida. But the name change was really academic when President Bush assigned the First Marine Division to the Spruce Keys for the weekend. He called the Marine exercise "The 1,000 Points of Horsepower."

The Megatta breakfast, consisting of champagne and melon balls big as your head, was held aboard *Big Apple Flamingo*, the 310-foot megayacht owned by Donald Trump. Its skipper, Ed Koch, positioned the *Flim Flam Pome* (as Trump's megayacht had been nicknamed by Captain Koch) so that the breakfast deck would be in the sunshine.

Breakfast and lunch lasted until nearly one in the afternoon, when the events of the Megatta were scheduled to begin. The first contest was island jumping. The area around Mark Island had been cleared of dangerous lobsterboats and other non-megayachts by the First Marine Division, Sixth Fleet carrier F-14 fighter planes, and two invisible Stealth Bombers. President Bush arrived in the George & Gorby just before the jumping contest.

An unexpected but pleasant surprise was the President's boat buddy, Vice President Danny Quayle, who had taken the wrong flight after attending the Greenland Flower Show and landed in Bangor, Maine, instead of Washington, D.C. The Secret Service didn't want him just hanging around Bangor with nothing to do and where he didn't know anybody, so they ferried him in Marine Helicopter One to Monhegan Island, where the President stopped and picked him up.

The previous record for island jumping was by *G Whiz*, which came over from Brook

Marine in England in a chartered Greek freighter for the 1990 jump. It cleared the 400-yard-wide Grassy Key in the Florida Keys by a good 20 yards. Four Bertrams and eight Hatteras megayachts were wiped out on that jump.

The International Megayacht Association seriously considered outlawing island jumping after Grassy Key because of the accident that occurred there. The Flying Camel, owned by Charley Karim Omar Sanddune, the playboy Sultan of Ompah, was killed when he misjudged the width of Grassy Key and wiped out the Winn-Dixie supermarket. Megaperts said that Charley had enough horsepower to clear Grassy Key, but Charley jumped too soon. Charley's daring perception will be missed on the megacircuit.

Four megayachts entered the jumping contest. Two, *Press The Flesh* and *Tea For Two*, crashed mid-island and the crews were airlifted safely off by Marine helicopters. One megayacht, *Night Moves*, completely missed the island and is still missing. The winner was *Poop Along*, which was queen of the 1992 Genoa Boat Show. The modest megayacht is 163 feet long and powered by a pair of 17,600 h.p. gas turbines for island jumping and twin Deutz 2,054 h.p. diesels driving Riva Calzoni waterjets for mackerel trolling.

The Megayacht Jumping Trophy was presented to *Poop*'s owner by trophy chairman Chuck Yeager. It was a solid gold Champion spark plug. The oversize gap held a 300-carat diamond.

The fun main event that everybody entered was the Megayacht Lobster Buoy Slalom. Because of the sensitiveness of wantonly wiping out a string of Maine lobster traps, a native negotiating committee headed by old settler Foy Brown of Little Spruce Key had worked for weeks with local fishermen on a price for a string of traps.

Brown was interviewed by the megamagazine for megayachting, Power and Motoryacht.

PM: Mr. Brown, did you have much difficulty selecting a sacrificial lobsterman?

FB: Shucks, call me Foy, everybody does. Yep, toughest job I've ever taken on. Not counting the plugged holding tank of the *FlimFlamPome*, of course. That was one load, let me tell you.

PM: Yes, yes, but getting back to the sacrifice. How did you ever pick a sacrifice? Those lobstermen must be all friends of yours. Family, boat mortgages, gas bills. Jeepers creepers, it must have been tough.

FB: Goddam right, salts of the earth, the whole bunch. But it was for the good of the Megatta. I told them right up front. Somebody has to go.

PM: And you had to accomplish this sacrifice within the Megatta budget, right?

FB: Christ yes. I'm a businessman. I know how to cipher. And sure, \$2 million was little light for a string of Maine-made oak lobster traps. But inflation is hurting everybody these days.

PM: Well, Foy, how the dickens did you choose the candidate? Our megamagazine goes all over the megayacht world and our



...and another

readers would be extremely interested in the Maine logic on sacrifices.

FB: Well, tell you, megareporter, we drew clam hoe handles. Short one was it.

PM: C'mon Foy, you're putting me on aren't you?

FB: Yea, thought I could get one past ya. Nope, what we did was we all sat around the stove and talked each other out of it. Ralphie Philbrook couldn't do it. His wife wouldn't have him around the house all day. Amos Calderwood don't want to jeopardize his social security. Stump Dyer wanted \$3 million. Asa Hopkins ain't finished school yet. Things like that went on for a week.

PM: Oh, the suspense is crushing my grapes! WHO finally caved in?

FB: Me.

PM: You! You Foy! Oh my sweet Perrier, that's beautiful, man. Gave up your whole string for a measly \$2 mills, huh? I must say, this is our first time in Maine, but I sure as fudge love the character of you people way, way up here.

FB: Shucks, that's good of you to say that. PM: So, Foy, the Megatta Slalom course is your string of traps down at the end of Little Spruce Key?

FB: Yep. Those 10 traps down there are the course for today.

PM: You're a beautiful, beautiful man, Foy Brown.

The first megayacht through the course wiped out buoy two. It sucked the buoy straight into its starboard gas turbine and blew the whole fan works. Foy Brown's contract called for two replacement buoys so the slalom event continued until all 12 buoys got sucked up and the course disappeared.

Chuck Yeager called the event a tie and awarded all entries that were floating a Champion sparkplug tie tack with a ruby in the gap.

The slalom event went non-stop because the Megacommittee had contracted with the Exxon *Valdez II* to anchor carefully off Big Spruce Key as a refueling station. She sailed around five o'clock lighter than a dried smelt.

Several natives had inquired if they might attend the Megayacht Megatta Dinner that

evening. Commodore Iacocca megafaxed a long reply to Little Spruce native Tom Watson that he could come with one guest if they didn't dress up which took care of the native quota attendance rule which is written into every Megayacht Megatta.

President Bush decided not to try and Cigarette around Monhegan in the dark so stayed for the Megaluau held aboard the new aircraft carrier USS Barney Frank which was queen of the attending Sixth Fleet. He sent Danny Quayle back to Kennebunkport with the George & Gorby. Danny didn't want to go alone so Tim Sample volunteered to keep Danny company and tell Maine ayah stories the whole way.

The Megaluau was an awesome affair. The Saudis brought sand, figs, and palm trees. The Russians brought vodka. The French donated mustard. The English contributed stout ale. The Brazilian Megayacht Club supplied dancing girls. The Canadians brought the ice, and various other megayacht clubs donated international good will through megainterpreters.

The main entree of the evening was Big Spruce Key stainless shaft-roasted pig. Forty-two of the wild, native pigs were rounded up, slaughtered, and de-haired by the Big Spruce Key Fishermen's Co-op under the direction of Punt Carver who is a big game guide on Big Spruce Key. Punt knew right where to find most of the big, fat pigs on Big Spruce Key.

The luau continued throughout Sunday evening with after-dinner games of blackout Zodiac bumper boats, high spin diving from rotating Kelvin Hughes radar antennas, and pinning the tail on Danny Quayle, who was not there but nobody noticed.

The spent megayacht convoy left Sunday afternoon preceded by the Sixth Fleet, First Marine Division, and Foy Brown in his dory, who piloted the whole mess clear of Penobscot Bay. As the *USS Barney Frank* steamed passed Ralphie and Alfy who were setting lobster traps beside two sunken megayachts, Ralphie said to Alfy, "Hope they come back next year, Alfy. Be hard to imagine life now without megayachts in the Maine Keys."





Illustrations by Jon Luom

Islands help unravel the thread of evolution

KENNETH L. CROWELL

HYARE THERE no native mammals on oceanic islands such as Bermuda or Hawaii? Why does Ireland lack not only snakes, but most land mammals? Why does Newfoundland have only one third as many mammal species as the smaller province of New Brunswick or the state of Maine? In short, what is it about islands that causes them to be populated by unique assemblages of plants and animals?

While these questions are important in their own right (and can be answered by simple analyses of island biogeography, as we'll see shortly), more important still is the underlying principle. Because islands are isolated and have fewer species than comparable areas on the mainland, they offer themselves as natural laboratories in which to study such processes as population growth and regulation, competition between species, predator-prey interactions, and speciation. The unique fauna and flora of islands helped Charles Darwin and his contemporary, Alfred Wallace, to formulate their theory of natural selection. Today, islands continue to have an important part to play in shaping modern ecology and conservation practices.

The land masses of the earth can be divided into three classes: continents, continental (or landbridge) islands, which were once connected to a continent; and oceanic islands, which have always been isolated. By comparing the number and kinds of species on these different land masses, biogeographers can make inferences about how animals reach islands and how they respond to the insular environment.

Picture a volcano rising out of the sea. How soon will life appear on this oceanic island? This natural experiment has taken place during the past century with the eruption of Krakatua, 15 miles off the coast of Java in the South Pacific, in 1883. After just three years, 11 species of fern and 15 flowering plants had become established on Krakatua, and after 50 years there were not only 271 plant species, but also seven kinds of reptiles (one crocodile, a python, and five lizards), 28 birds, three species of bats, and a rat. From studies of similar-sized Philippine islands, we know that 10 species of terrestrial mammals can eventually be expected. However they cross the water barrier, additional animal species will certainly continue to colonize Krakatua over the millennia until its ark is full.

Now imagine a small peninsula near Borneo in Southeast Asia in the late Pleistocene era when sea levels were much lower than at present. Slowly the sea rises as the glaciers and polar ice caps melt. One day our peninsula becomes an island. On that day some 50 mammal species are represented. At first the water is very shallow, so a tiger or a herd of elephants leave; but some species avoid the water and others are unaware of their increasing isolation. Noah's ark not withstanding, two of a kind is not enough, and over the years most species die out. Large carnivores such as the leopard cannot find sufficient prey; ungulates such as the rhinoceros may find the shrinking habitat inadequate. Gradually, through selective extinction, the mammals on this landbridge island approach a sustainable and balanced community consisting of half a dozen kinds of rodents and some combination of other mammals, such as a shrew, tarsier, monkey, deer, or perhaps a species of small cat.

How different are the histories of these two islands! Yet biogeographers believe that given sufficient time, oceanic and landbridge islands of equal area will ultimately support the same number of species.



CROSSING THE WATER BARRIER

The first question most people ask is how do animals get to islands? Clearly wings are a big advantage, and bats, like birds, are well represented on islands — even on isolated islands like Bermuda, Hawaii, and New Zealand, which lack other native mammals. Nonetheless, the fact that non-flying mammals do occur on oceanic islands is incontrovertible evidence that they do cross water barriers. Natural modes of immigration include both the active means of swimming and crossing ice bridges, and passive dispersal by rafting on vegetation or ice floes.

Many mammals reach islands by swimming. Aquatic species such as the North American beaver, mink, and river otter are found on islands as far as 25 miles offshore. White-tailed deer and moose are frequently observed swimming between the coastal islands of Maine. The many Bear islands off the coast of Maine imply by their name that black bear once traveled freely among the islands. (Likewise, deer, elephants, and hippos were once found on the islands in the Mediterranean and Japan seas.)

Mice and shrews are common on small coastal islands. Indeed, mice have been observed swimming distances of almost half a mile between islands in the frigid waters of Labrador. Keeping warm is a problem — just as it is for humans swimming the English Channel — so water temperature and distance are limiting. Because small objects have a relatively greater surface area, small mammals lose heat faster. Thus Finnish researchers found that larger species of shrews were able to reach more distant islands in lakes.

There is, however, another method which enables small animals to traverse longer distances: rafting. Mammalogists at the University of British Columbia have proposed that rafts of timber unleashed by landslides along the rugged northwest coast might transport animals to islands. On Cape Breton Island in the Gulf of St. Lawrence, the late Austin Cameron of McGill University observed "islands ... of vegetated soil carried seaward on floating ice" when overhanging

bluffs gave way during spring thaws. He attributed the presence of small mammals on such isolated islands as Anticosti and Newfoundland to this process. The most impressive evidence for the efficacy of rafting is the presence of several forms of rice rat (many now extinct) on the Galapagos, 600 miles off the coast of Equador.

Ice rafts and ice bridges provide another means of dispersal in northern regions. The arrival

of arctic fox and polar bear on the northeast coast of Newfoundland by ice floe has been witnessed, and it is presumed that arctic hare, ermine, timber wolf, and just recently, the eastern covote also reached the island in this way. In the sheltered bays of coastal Maine, ice bridges several miles wide form every decade or two, allowing such species as red fox to cross to the larger islands. In the Thousand Islands region of the St. Lawrence River, between New York State and Ontario, University of Arizona researcher Mark Lomolino tracked mammals on ice and found that in the spring as many as 13 species, including small shrews, moles, and rodents, traveled distances of more than half a mile. Again, metabolic demands are limiting, and Lomolino found that the larger species, such as coyote and deer, were able to travel farther.

Circumstantial evidence for the importance of swimming and crossing ice bridges is the uniform absence of certain species from islands. Among animals that shun water — at least the cold water of the North Atlantic — are the porcupine, the gray squirrel, and surprisingly, the raccoon. Hibernating species, such as the woodchuck, striped

skunk, and eastern chipmunk, are also absent from all but the least isolated of the islands of eastern North America, suggesting that their winter sleep prevents the use of ice Highway bridges. bridges constructed in this century to the large Maine islands have allowed colonization by the porcupine, skunk, and raccoon. This demonstrates that, once there, these species can multiply on islands, but they will not cross the water barrier by swimming or crossing ice.

The rate of colonization can sometimes be determined from historic records. On the Maine islands, I documented rates at which new species became established during the past 100 years at distances ranging from 100 yards to 5 miles. For such species as the white-footed mouse, beaver, whitetailed deer, black bear, and red fox, the average rate was one species every 50 years. For longer time periods the minimum rate of colonization can be estimated by dividing the number of known native species (including extinct forms documented by fossils) by the age of the island. Thus, the 12 land mammals native to Newfoundland can only have arrived there after deglaciation 12,000 years ago, making the mean colonization rate about one species per 1,000 years. In the more isolated West Indies and Philippines, which are tens of millions of years old, colonization rates have been estimated to be only one every 250,000 to 1.5 million years.

LANDBRIDGE ISLANDS

In contrast to oceanic islands, which must rely on dispersal across the water barrier, landbridge islands inherit a legacy of species from their past. Once part of the mainland before they were isolated by rising sea levels or crustal movements, these islands possessed as many species as any comparable continental area. In the Gulf of St. Lawrence, Cape Breton and Prince Edward islands lie close to mainland Nova Scotia and were connected to it in post-glacial times. Mainland Nova Scotia has 38 kinds of terrestrial mammals, and these landbridge islands support 24 and 31 species, respectively; whereas we have seen that the much larger oceanic island of Newfoundland has only 12 native mammals. Similarly, the West Indian landbridge island of Tobago has nine living non-flying mammal species while most of the oceanic Lesser Antillean islands have none.

The fauna of landbridge islands are more diverse than the meager, unbalanced assemblages of oceanic islands. For example, the Irish fauna consists of a frog, a salamander,



and 11 species of mammal, including the hedgehog, a shrew, the Arctic hare, red deer, and stoat. This is far too extensive and balanced a community to be accounted for by immigration, and Ireland must therefore have been connected to Britain by a land bridge in early post-glacial times. The fact that Ireland possesses only 40 percent as many vertebrate species as Britain may indicate that it was cut off from Britain before the latter was severed from continental Europe.

The distribution of larger animals is usually limited by island size. On the Sunda Shelf of Malaysia, the number of carnivore species is related to island size, with elephants, rhinoceros, and tapirs absent from all but the three largest islands (Borneo, Sumatra, and Java). Similarly, of the 25 islands in the Sea of Cortez (Gulf of California), only the four largest landbridge islands have the jack rabbit, deer, coyote, and grey fox. This scarcity of large mammals on islands is primarily a result of their larger home ranges. Large animals require more energy and therefore greater living space; this is especially so for carnivores at the top of the food chain. Larger home ranges mean that it takes a larger area to support a viable population, and larger areas also offer a greater variety of habitats. Hence there is a direct relationship between the size of an island and the number of species it can support. Several lines of evidence indicate that this is the primary reason for the selective extinction over time of large and specialized species from smaller landbridge islands.

As we shall see later, this phenomenon of area-based extinction has important implications for conservation biology. It was first described by James Brown of the University of New Mexico, who was not studying oceanic islands at all but the mountain tops of the American southwest. These forest-clad mountains of the Basin-and-Range region are separated by inhospitable desert, making them functionally islands. Brown observed that the smaller ranges boast fewer species and deduced that these are relictual populations that have been isolated since the Pleistocene, when the climate was cooler and wetter. Since that time each range has lost extinction-prone species (those with larger body size, especially carnivores), just as on the landbridge islands discussed above. Bruce Patterson, of the Chicago Field Museum of Natural History, noticed that if the mountains are ranked in order of decreasing area, species drop out in a predictable order, and he found the same to hold for true landbridge islands such as those of the Sea of Cortez. Thus the structured fauna of landbridge islands contrast with the sweepstakes fauna of oceanic islands.

THE ISLAND EQUILIBRIUM THEORY

Ecologists have long recognized that there is a direct relationship between number of species and area, and this holds for whole continents as well as mountains and islands. The late Robert MacArthur of Princeton

University, and E.O. Wilson of Harvard University, recognized the complementary roles of colonization and extinction in the formuation of their landmark Island Equilibrium theory. This theory predicts that because small islands will have higher rates of extinction than larger ones, they will support fewer species; and because distant islands will have lower rates of colonization than less isolated ones, these will also have fewer spe-

cies. At some point the rates of colonization and extinction will become equal, and the number of species will stabilize. Over time the particular species on an island may vary, but, given stable conditions, the number of species will remain approximately constant.

The significance of this theory is that it provides an explanation for the species-area effect and a new paradigm for studying the distribution of plants and animals. Like all good theories, both its power and its shortcomings lie in its simplicity. By exploring situations in which the theory's assumptions are violated or its predictions fail, ecologists have broadened their understanding of the processes controlling species diversity.

It is now apparent that immigration plays a dominant role in determining the composition of oceanic islands, whereas extinction predominates on landbridge islands. Because of the low dispersive ability of mammals, most oceanic islands are "depauper-- i.e., their ark is not yet full; while because of their recent origin, landbridge islands may still be supersaturated with species. Furthermore, we have seen that for mammals the processes of colonization and extinction require very long periods of time. Therefore, environmental conditions may well change before equilibrium is attained. That is, climactic or geologic changes may alter the rules before the game is over, so mammals may really achieve equilibrium only on small coastal islands like those of Maine.

UNIQUE SPECIES AND RELIC POPULATIONS Mammalian speciation is still taking place on isolated islands, and subspecies or geographic races of mammals are recognized on islands throughout the world. Older or more isolated islands, such as the Antilles and Philippines, often have their own endemic or unique species. For example, almost three quarters of the mammals native to the Philippine island of Luzon are endemic. Differentiation is more frequent on distant islands because there is less gene flow from other populations. Indeed, on oceanic islands the rate of speciation may exceed the rate of colonization by new species.



How rapidly does evolution take place? By studying the house mouse on islands throughout the world, R. J. Berry of the University College of London found that populations only 40 years old were as distinct as those founded 200 years ago. In northern latitudes distinct subspecies have evolved on islands which date since the last glaciation 12,000 years ago, but the formation of full species may require five to ten times that long. The primary cause of differentiation in insular populations appears to be the "founder effect" — the fact that they are derived from only a few individuals endowed with a biased sample of genes.

Populations smaller than a few hundred individuals tend to lose genes randomly through the process of genetic drift. In studying insular populations of 11 species of rodents, C. W. Kilpatrick of the University of Vermont found that genetic diversity averaged 40 percent less than in larger mainland populations. Islands thus serve as laboratories in which to study processes of population genetics and their relevance to the conservation of rare and endangered species.

The species-poor insular community provides a major impetus for new adaptations. The normal pressures of predation and interspecific competition are greatly lessened, but at the same time, restricted space puts a premium on innovation, most often expressed as behavioral niche shifts. For example, fresh water habitats are often scarce on islands. On Damariscove Island and the Isles of Shoals the muskrat, a marsh species, has invaded upland habitats — apparently filling the niche of the absent rabbit. With time, such behavioral adaptations may be accompanied by morphological changes.

The most striking evolutionary change in insular mammals is change in size. J. Bristol Foster was the first to note that on islands worldwide small mammals, especially rodents, tend to become larger, while large ones, which are apt to be grazers and carnivores, are generally smaller than their mainland counterparts. The usual explanation offered is that in the absence of the mam-

malian predators, small mammals may find large size advantageous in thwarting attacks by birds of prey; it also permits them to handle a more varied diet. Larger animals, on the other hand, are limited by their total caloric intake and would find smaller size an advantage.

The now-extinct Pleistocene fauna of the islands of the Mediterranean demonstrate both these trends in giant rodents and dwarf elephants, hippos, and deer. According to P. Y. Sondaar of the Geological Institute in Utrecht, Netherlands, there were "rabbitsized mice, pony-sized elephants, and pigsized hippos." The smaller stature of the elephants and hippos reduced their requirements for food and home range, allowing more individuals to be supported. Absence of predators permitted shortening of the limbs, which facilitated exploitation of upland habitats on the mountainous islands. These changes clearly occurred on the islands, not in the mainland ancestors; and because their limbs were too short for swimming, subsequent ability to disperse was lost. The fact that similar changes took place on several islands indicates that natural selection is responding to similar environmental pressures or opportunities. In effect, we have replicate experiments which yield similar results, indicating a common mechanism.

Many forms of life have persisted on islands after they disappear from the nearest continents. Tarsiers, nocturnal primates that feed on insects, are now restricted to the islands of southeast Asia. Most landbridge islands are of relatively recent origin, but a few islands and the island continents are of ancient origin and may harbor "living fossils." Two species of Solenodon, a shrew-like insectivore, are today found only on the Greater Antillean islands of Cuba and Hispaniola, but fossils reveal several species of Solenodon and a closely-related form were also once found on Puerto Rico and several other islands. In a controversial hypothesis, Bruce MacFadden of the Florida State Museum has proposed that these animals did not reach the islands by swimming or rafting, but are descended from ancestors separated from mainland populations by tectonic movements of the earth's crust. That is, they were already aboard protoislands when sea-floor spreading decoupled the Caribbean and North American plates in the early Cenozoic era, some 50 million

Certainly the presence of marsupials in Africa, Australia, and South America can be explained by continental drift after the breakup of the supercontinent Pangaea about 100 million years ago. Before the emergence of the Central American landbridge less than 10 million years ago, the fauna of South America included an array of marsupials and archaic ungulates. The opportunistic Virginia opossum is one successful descendent from this epoch.

Isolated on Australia, marsupials radiated into an array of niches which on most continents are occupied by placental mammals.

This development of ecological equivalents in unrelated forms is called convergent evolution. Madagascar, which broke away from Africa over 75 million years ago, is the largest oceanic island in the world. Its endemic families of lemurs and tenrecs have also undergone convergent evolution. In New Zealand mammalian niches were filled by birds. Why New Zealand inherited no marsupials from Gondwanaland is a mystery.

INTRODUCED SPECIES

It is ironic that islands, which have so few species to lose, have lost many of their unique forms to accidental or shortsighted introductions. One third of all extinctions taking place during historic times have been on islands, and most of these have been caused by introduced species. Although mammals are poorly represented on islands, their introduction has wreaked havoc on insular ecosystems — precisely because other forms of life have not evolved normal defense mechanisms in the absence of mammals. Plants which lack spines and toxic compounds are exposed to over-browsing by sheep, goats, rabbits, and deer. Groundnesting birds are vulnerable to trampling by pigs and predation by rats, stoats, ferrets, and mongoose. In the West Indies the mongoose was first introduced to Jamaica in 1872 to control snakes in sugar cane plantations. It is now found on all but two of the major islands and has been responsible for the extirpation of several species of endemic birds and lizards.

In an attempt to control introduced rabbits, the New Zealand Department of Agriculture released ferrets between 1867 and 1897, along with weasels and stoats. By 1890 native birds had disappeared as stoats and weasels appeared in wild areas where rabbits were unknown, while rabbits still abounded in the release areas.

The Spaniards often introduced pigs and goats — and inadvertently, rats — to uninhabited islands to provide food to shipwrecked sailors. Thus populations of groundnesting birds on Bermuda were decimated decades before its colonization by the British in 1609. But not all introductions were made by Europeans. During the past 2,000 years the Polynesians have carried cats, dogs, pigs, and the Polynesian rat throughout the South Pacific, with disastrous consequences for the native fauna and flora.

While most efforts to remove introduced species have failed, or merely compounded the problem, an impressive effort in restoration ecology has succeeded on Santa Cruz Island, the largest of the Channel Islands off the coast of the California. After acquiring the island in 1978, The Nature Conservancy removed hundreds of feral goats, allowing a remarkable recovery of the island's unique plants and animals. When dealing with fragile island ecosystems, an ounce of prevention is truly worth a pound of cure. Yet in recent years, white-tailed deer, raccoon, snowshoe hare, and muskrats have been in-

troduced to Maine's offshore islands, with consequences that hardly seem auspicious.

PARKS AS ISLANDS

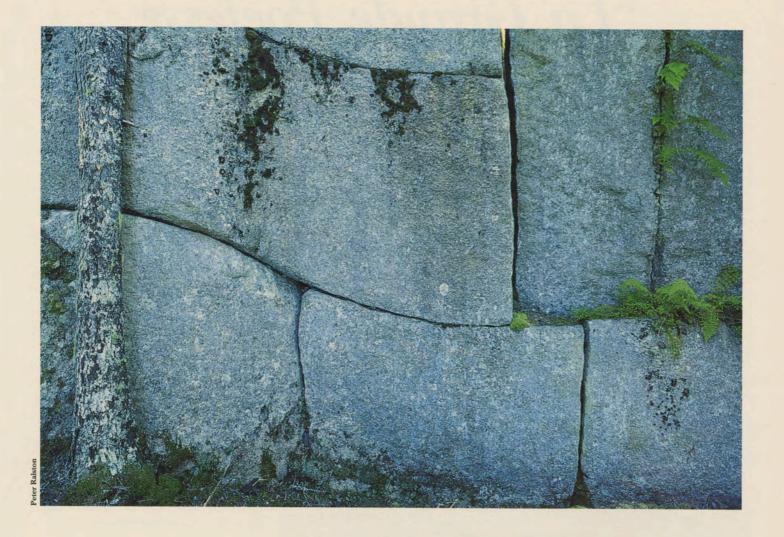
The previously cited work of Brown and Patterson on species loss in the isolated mountain ranges of the American southwest was especially significant because these are not real islands, yet desert proved as formidable a barrier to dispersal as ocean. Island effects have also been described for such diverse systems as invertebrates in caves, fish in Canadian lakes, and birds in forest fragments around the globe. In each case habitat islands are isolated by inhospitable environment.

William Newmark has just completed a study on the mammals of the parks of western North America. Fourteen parks located in seven states and two Canadian provinces ranged in area from 56 to 8,000 square miles and contained from 33 to 59 species. Not surprisingly, there is a strong correlation between the number of species and park size, but Newmark has been able to document extinctions occurring since the establishment of each park. On the average, each park has experienced one extinction every two years, but the rate of extinction was greater in smaller parks and also in older ones. The rarer species, those with lower population densities, are most likely to be lost. These are usually the larger or more specialized animals - precisely the ones most in need of protection. These losses confirm the predictions of island biogeographers that parks are like landbridge islands, and once isolated by human exploitation of surrounding areas they will inevitably lose species.

These findings present serious challenges for the future management of even the world's largest nature preserves. Forms of human disturbance such as roads or clearcuts have been shown to inhibit movement of mammals, thus reducing recolonization of isolated habitats. As parks become increasingly isolated by a matrix of agriculture, housing, or asphalt, park managers will have to be alert against the inroads of invasive species, feral pets, and disease. At the same time, they will also have to bolster populations of rare species through periodic reintroductions in order to maintain both numbers and genetic diversity.

Islands are often regarded as having isolated and unique environments, but today biologists return from them with valuable insights into the continental ecology and the conservation of biodiversity and the evolution and distribution of plants and animals throughout the world.

Dr. Kenneth L. Crowell, Professor of Biology at St. Lawrence University, is always interested in information and anecdotes on island animals. He can be contacted at Department of Biology, St. Lawrence University, Canton, New York 13617, or Sunset, ME 04683. This article is reprinted with permission of Encyclopedia Britannica.



WOODS AFTER RAIN

Hortense Flexner

The damp trail through the woods Becomes more lost each year, Runs over rocks and roots, Through waves of deep-piled moss, A static sea, Land-roll of the forest floor.

Here once for a loaf of bread,
I took an enchanted way
Through path turned pebbled stream,
And brought back shoes
Wet with the overflow
Of twig and berry, rock-drip,
Some touch of sea,
Or ooze of blackened pools
Where leaf and dead ferns rot.

Darkness held off,
But silence closed me round,
For birds had hidden away;
The crowding trees, vivid with lichen's jade
On ink black trunks,
Made a green gloom,
A tunnel for a ghost.

I might have felt alone,
Yet walked companioned, friended,
As if I, too, shared the rough mothering
Of island earth,
Fed as a root on scanty nourishment,
And drew from her wild marriage with salt wind
Close kinship, strange adoption —
My own foot-fall
Now native here.

"La Grande Poétesse du Maine..."

Hortense Flexner of Sutton Island

CARL LITTLE



The distinguished French writer Marguerite Yourcenar (left), converses with Hortense Flexner in the garden of "Petite-Plaisance," Yourcenar's home in Northeast Harbor, in 1964. Fondly describing her diminutive friend as "souris noire qui trotte dans le gris, souris grise qui trotte dans le noir" — "black mouse who scurries in the gray, gray mouse who scurries in the black" — Yourcenar thought highly enough of this comparatively unknown Maine poet to publish a bilingual edition of her work and prepare a film documentary in her honor. Photo courtesy of LaRue Spiker

N 1984, AT AGE 81, Marguerite Yourcenar, the distinguished Belgian-born author, made a film with her friends Jerry Wilson and Sabine Mignot about Mount Desert Island, her home from 1950 until her death three years ago. Co-produced for the Société Radio Canada and French television, "L'Ile Heureuse" ("Happy Island") includes footage of the Rockefeller gardens, Bar Harbor, the Cranberries, Birdsacre (a bird sanctuary in Ellsworth), and Yourcenar's house in Northeast Harbor, "Petite-Plaisance," where she completed many of her finest works.

The film's title, "L'Ile Heureuse," comes from Yourcenar's translation of a poem, "Happy Country," by Hortense Flexner (1885-1973); indeed, this travelogue is as much an homage to Flexner as it is to the coast of Maine. One of the first scenes in the film shows the elderly but spry Yourcenar visiting the graves of Flexner (whom she calls "la grande poétesse du Maine") and her husband, the well-known cartoonist Wyncie King (1884-1961), in the wood-surrounded Sutton Island cemetery. Much of the narrative consists of Yourcenar reciting her own French renderings of Flexner's verse. Yourcenar thought highly enough of this comparatively unknown Maine poet to prepare a bilingual edition of her work in 1969, published by the distinguished French house Gallimard under the title *Présentation critique* d'Hortense Flexner, suivie d'un choix de poèmes.

Yourcenar was particularly taken with "Poems for Sutton Island," a group of 13 lyrics inspired by the third largest of the Cranberry Isles, which was Flexner's summer retreat for more than 30 years. According to Sutton Island historian George Lyman Paine, the house that Flexner and her husband lived in once belonged to Rachel Field, one of Maine's foremost authors, who had moved to California around 1940. The house was bought by Walter Kahn, who, according to Paine, "invited his friends Wyncie and Hortense Flexner King to pass their summers there." And so they did, year after year, until King's death in 1961. From then until her own death more than a decade later, Flexner returned periodically to her beloved island for brief visits.

In her introduction to the *Présentation critique*, Yourcenar provides the following poignant portrait — probably dating from the late 1950s — of Flexner and her husband "clinging to the rocks of Sutton Island":

. . . These two elderly people remained well into the season of autumn to listen to the Atlantic north wind shake the boards of the house lent to them by a friend. Wyncie, now nearly blind, and the petite Hortie — black mouse who scurries in the gray, gray mouse who scurries in the black - set foot on the landings that more or less stretched from their summer cottage . . . or on the slippery rocks, lugging their grocery bags along the uncertain paths obstructed here and there by trees uprooted the year before. They loved this world of moss and bark almost maniacally, the gray lichens, the heron at the edge of the tidal pool, the peculiar detritus floating on or flowing under the water . . . Come winter, Wyncie and Miss Hortie left to search for an amiable ambiance and economic living conditions; the following spring found them once again disappointed and perched on

In "L'Ile Heureuse," Yourcenar remarks at one point that Sutton Island, "île presque éternelle," was a "refuge" for this couple whose existence had been so disrupted by "all the tragedies of our century," from the first and second World Wars though McCarthyism and Vietnam. Elsewhere, describing conversation on the veranda on Sutton, Yourcenar relates a brief commentary by Flexner on the indifference of the masses to the danger of atomic war. "What's absurd ... is that they imagine that an event of this kind

would be one of those catastrophes of which one can read a report the next day in the *New York Times*. They forget that in order to read the newspaper you need to have hands and eyes."

The few facts about Flexner's life that can be gleaned from Yourcenar's critical edition are fleshed out by material kindly provided by the Bryn Mawr archives. According to a biographical notice written by her Bryn Mawr classmate Alice Hawkes, Flexner was born in Louisville, Kentucky, the daughter of Jacob Flexner, and the niece of Abraham Flexner, the famous educator, and Simon Flexner, the renowned research physician (Flexner's "cool regard certainly seems inherited from an ancestry of doctors and physiologists," writes Yourcenar). Flexner spent only one year at Bryn Mawr (1903-1904) - "due, ostensibly," according to Hawkes, "to the insensitivity with which her already prolific writing was received by the Bryn Mawr English Department." She transferred to the University of Michigan, where she earned her B. A. (1907) and M. A. (1910).

After college, Flexner worked for a time for the *Louisville Herald*, where she met her future husband. The couple later moved to Philadelphia when King took a job with the *Saturday Evening Post*. Flexner found an editing position with the same firm and continued with her own writing, publishing her first volume of poetry in 1920. Both Flexner and King were active in the women's suffrage movement in the first quarter of the century. Flexner lobbied actively for ratification of the 19th Amendment, while her husband drew caricatures of anti-suffrage legislators.

Flexner eventually gained a teaching post at her alma mater, Bryn Mawr. She taught English and poetry there from 1926 to 1940 before moving to Sarah Lawrence, from which she retired around 1950. In 1962, following her husband's death, she returned to Louisville to be near her brother, Dr. Morris Flexner and his family. She died there in October 1973 at the age of 88.

Flexner published three thin volumes of verse, Clouds and Cobblestones (1920), The Stubborn Root (1930), and North Window (1943), before her equally slender Selected Poems appeared in 1963, published by Hutchinson of London. In his introduction to this book, the eminent postwar British poet Laurie Lee described the poems as "cold and clear as drops of water ... Here is a poetry which truth has reduced to the bone, and which has the bare beauty of such en-

durance." Despite their traditional prosody, these poems, for Yourcenar, "belong ... to the grand movement of poetry and art that one calls modern, in that they eliminate myth or traditional conventions in favor of a beauty and a horror less immediately perceptible to the human senses."

Flexner's poems appeared in a number of the top journals of the day, including *Harper's*, *The Atlantic, The New Republic*, and *The New Yorker*. She also wrote several children's books, illustrated by Wyncie King, and some plays. A second *Selected Poems* came out the year after her death, published by the University of Louisville, which had awarded Flexner an honorary degree of Doctor of Literature in 1971.

"Of the few verses of Hortense Flexner that I've had the opportunity to read up till now," wrote Yourcenar in 1969, "I have loved above all some poems consecrated to the landscape of Sutton, where her sense of mineral and wood substances worn and hardened by their resistance to bad weather and time asserted itself." In Yourcenar's view, the Sutton Island poems are "the obverse (but not at all opposite)" of Flexner's other work, characterized, as they are, by a "simplicity" built out of "very complex elements." She goes on to compare the art of these poems to that of Japanese haiku, "capturing in a few words the 'Ah!' of things ... via a slow sensitization that transforms everything.'

Some of the Sutton poems consist of pure observation, as in the brilliant inventory of a tidal pool that Flexner gives in "Low Tide"; others, like "Sea-Fog" and "High-Sea," deal with timeless Maine coast subjects, yet from a wholly fresh perspective. The poet's metaphoric prowess is everywhere apparent, whether she is comparing an old sea captain to a "creepered oak," or, in the following splendid simile from the poem "Old Pier," pinpointing the action of waves on an ancient landing:

Low waves on barnacles Work up and down Like an old man's stubbled jaws.

The darkness and sometimes acerbic sensibility that reign over so much of Flexner's work are still present in the Sutton Island group (Yourcenar once characterized Flexner's poems as "fragments which seemed carved in the black night"), but a gentler, more hopeful presence is felt as well. For instance, after a rather frightening descrip-

tion in the poem "Woods after Rain," in which "The crowding trees .../ Made a green gloom,/ A tunnel for a ghost," Flexner comes to a very positive, life-generating conclusion:

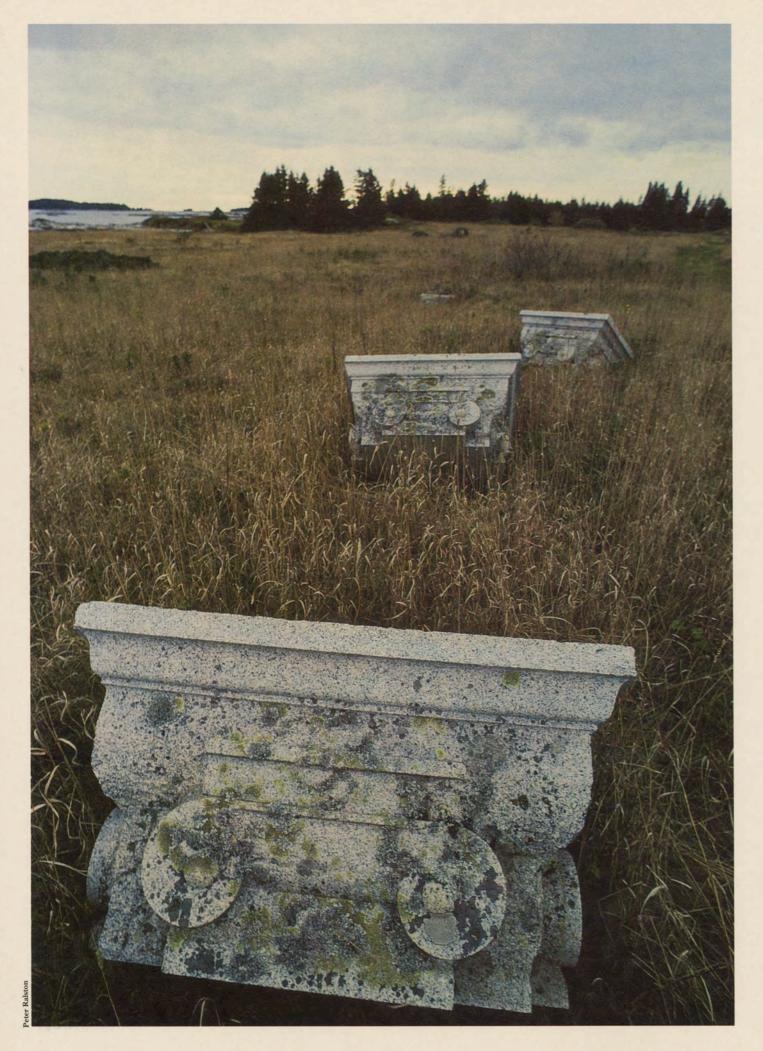
I might have felt alone,
Yet walked companioned, friended,
As if I, too, shared the rough mothering
Of island earth,
Fed as a root on scanty nourishment,
And drew from her wild marriage with salt wind
Close kinship, strange adoption —
My own foot-fall
Now native here.

Considering Flexner's attachment to Sutton, it's no wonder that Yourcenar took the liberty of translating "Happy Country" as "L'Ile Heureuse." (It should be noted that the poems are equally beautiful in their French versions, especially as read by Yourcenar.) "The poor island is momentarily the happy island," Yourcenar's introduction concludes; "the elderly lady, slightly pale, walking along a path on the edge of the sea finds once more, as the Master Yuan-Wu put it, the original countenance of her being."

Author's note: In her Présentation critique d'Hortense Flexner, Marguerite Yourcenar states that of the 13 lyrics that make up "Poems for Sutton Island," some were written during Flexner's extended stays on the island, some in the course of brief revisits after 1961, and some from memories of the place. One poem, "Death of a Sea-Bird," appeared in The Atlantic Monthly (March 1956) under the title "Messenger"; five were published by the Now and Then Press in New York in 1961 (a non-commercial edition); and the remaining seven were printed for the first time in Yourcenar's gathering. A limited editon of Poems for Sutton Island, illustrated with photographic prints by Claude Houston, was published by High Loft Press, Seal Harbor, Maine, in 1983.

The author wishes to thank Yannick Guillou and Gallimard for granting permission to reprint Flexner's poems. I am also grateful to Leon Driskell, Professor of English at the University of Louisville, who shared many warm recollections of Flexner including an evening at her home with J. D. Salinger.

Nephew of the painter William Kienbusch who first introduced him to the Cranberry Islands, Carl Little is a poet, writer, and former Associate Editor of Art in America magazine. He now lives in Somesville, Maine, where he is assembling an anthology of Mount Desert Island literature.



HAPPY COUNTRY

Hortense Flexner

There is no history here,
No royalty but trees,
Nor chronicle but what the gulls can read
Of sea at war with rock;
This island was not worth a king's possessing —
Its harsh, fog-dripping face set to the north
Warned mariners off.

We never know on what uncertain land
Our houses rest, until we see the great spruce overturned
With rings for eighty years, its green life fed
By little dangling roots that came away
When the hurricane pushed.

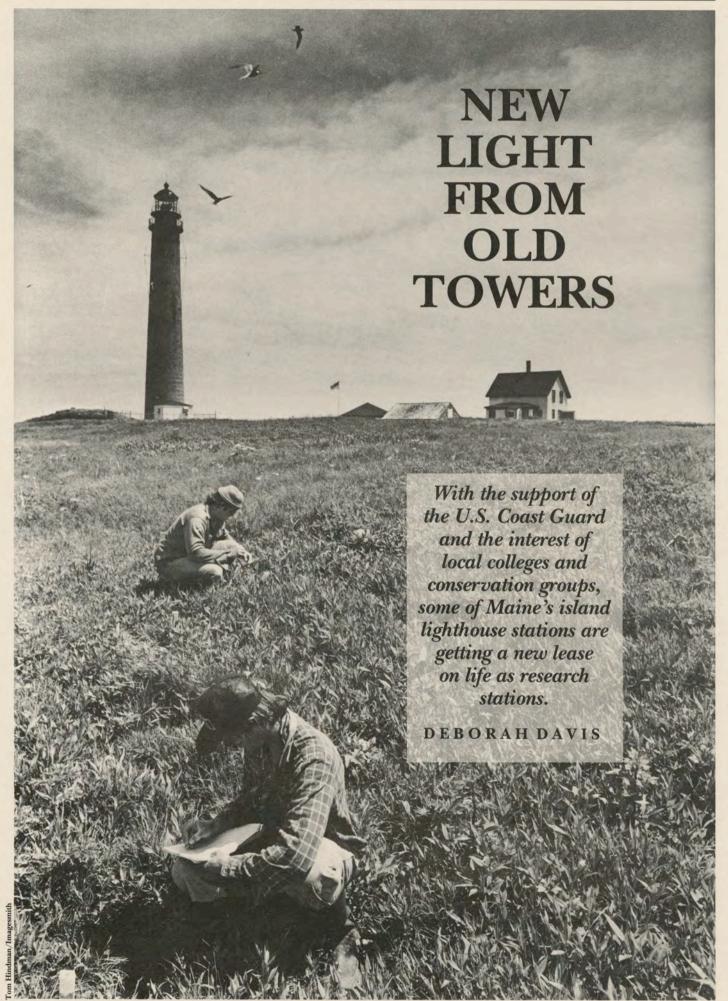
Stern country — all too poor for man's contentment. The Indian did not stay but left his path Close to the shore, narrow for single file, Uneven, steep as when the moccasined feet Stole soundless by.

Scarce marked on the map, the island flew no flag, But lay unwanted as a prickly burr
On silk, in the lap of tides,
Growing at center forests roped with vines
Where whirlwinds circled and high walls of surf
Pressed inland, out of bounds.
Here sea-birds built their nests,
The shy blue heron bringing silvery fish
To raucous throats, and diving osprey
With a double task
At hatching time.

But in the end came summer's men to play
And build their houses, anchor toy-like floats
In an unwilling sea.
They asked but what was here;
Gazing on lopped trees, hurling waves and rock,
They saw more gold
Than all the explorers had set out to find.

Here they took root, claimed home,
Forgot, as lovers, all that went before
And was to come;
And drew fresh life
From grudging earth,
That answered to their love without a sign
Save its own rarity,
Its private golden beauty or whistling rage.

And here at last, To the island's secret self, They gave their bones.



Petit Manan: tern nest inventory

ROM THE TOP of Petit Manan's 123foot gray granite lighthouse tower,
United States Fish and Wildlife
Service researchers peer through a
high-powered scope and binoculars at the
unique mixed community of rare seabirds
that nest on the 15-acre island. The tower,
built in 1817 to help ships navigate along
one of Maine's foggiest stretches of coastline, now serves as an ideal bird-watching
blind.

Twenty miles out to sea on Matinicus Rock, members of the National Audubon Society also work to preserve rare seabird colonies. Their efforts continue a tradition dating back to 1900, when the Society hired the Matinicus Rock lighthouse keeper to protect nesting birds from plume hunters.

And on Mount Desert Rock, also 20 miles offshore, researchers with the non-profit group Allied Whale sight whales and other sea mammals from the 90-foot lighthouse tower. Their findings contribute to an international whale identification and cataloguing project that aims to protect threatened and endangered species.

The towers on each of these islands also continue to aid navigators along the Maine seacoast. But U.S. Coast Guard personnel are no longer stationed on these or any other island lightstations in Maine. As of 1989, the Coast Guard had automated all Maine lighthouse stations and removed all lightstation personnel. While other, more accessible lightstation facilities in Maine and in other states are being converted to use as museums, bed and breakfast establishments, educational centers, and other profit-making as well as non-profit endeavors, some offshore island lightstations are instead being used for environmental monitoring and research.

"It's the most beneficial and appropriate type of use of offshore stations," says Lt. John Brooks of the U.S. Coast Guard. Brooks estimates that about 25 island lightstations are now used nationwide for wildlife research and management purposes. "Because of their remoteness, there wouldn't be any use of those islands at all without the researchers leasing them," he says, "and they'd be susceptible to vandalism."

Remoteness is part of what accounts for the presence of tern, puffin, and other seabird colonies on these islands, as well as the nearby presence of whales. But equally important has been the existence of lightstations on these islands, with their accompanying personnel. A human presence has played a decisive role in the tenuous though persistent survival of puffins, terns, and other native birds in the Gulf of Maine. Ninety-two percent of the Gulf's arctic tern population is concentrated on three lightstation islands: Matinicus Rock, Petit Manan, and Machias Seal Island. Why are these rare birds there and not elsewhere? "People like terns and puffins more than they do gulls," explains Tom Goettel, refuge manager for the U.S. Fish and Wildlife Service. "So lighthouse keepers were the first to reduce gull disturbances of tern and puffin populations." Gulls and plume hunters would have long ago decimated the nesting colonies, as occurred on most other Maine islands, if lighthouse keepers hadn't helped to protect the more vulnerable nesting birds.

Petit Manan was turned over to the U.S. Fish and Wildlife Service and designated a wildlife refuge in 1972. "We weren't set up to maintain it," recalls Goettel. "We had no boats, and it was one of the first island properties Fish and Wildlife had received. But due to the importance of the seabird colony, we were not going to turn it down."

Petit Manan supports a mixed tern colony: common terns, arctic terns, and about 50 pairs of roseate terns. "Usually there's



Bird count on Matinicus Rock

only one species per island," says Goettel, suggesting by way of explanation that Petit Manan Island offers a variety of habitats to suit each species' different feeding needs. There are upwellings, bars, and ledges for the roseates; bays for the common terns; and plenty of offshore area for the arctic terns. "And all the other islands are taken up by gulls," he adds.

Common eiders and a rich assemblage of song birds also use Petit Manan, and it is a waystation for migrating land birds. Goettel and his staff have observed close to 100 species, including peregrine falcons and other raptors, during spring or fall migrations.

"Half of what we do is management," says Tom Goettel. "We could be sitting in lawn chairs or painting the buildings—that alone would help protect the terns," he says. Goettel's crew does active management, however, which includes removing some of the predatory gulls each year. Other management measures include monitoring tern nest productivity, and color banding and weighing tern chicks. "Protecting what's there is the bottom line," says Goettel, "but management is what gives us the opportunity to do some important research as well."

Research activities on Petit Manan focus on retrapping banded adult terns on their return to nest. This allows the researchers to estimate the survival and longevity of the birds, some of which are at least 20 years old. More important, it gives a rough idea of the birds' intercolony movements — findings which strengthen the argument for island diversity, Goettel says.

The staff on Petit Manan have attended to the island's historic as well as natural resources. Refuge staff applied for and were granted National Historic Register status for the lightkeeper's dwelling. Vacant for 10 years before Fish and Wildlife staff began to use it, the inside of the building was "pretty desperate looking," recalls Goettel. "We're fixing it up gradually."

The lightstation facilities are a boon to the refuge project. The 123-foot tower is "within the ideal range for observatory purposes," Goettel says, as it "allows the staff to observe the birds without disturbing them." From the tower, researchers can see two of the island's 15 acres in great detail using a spotting scope or good binoculars. Staff live in the old keeper's house and use three of the outbuildings for storage. They transport themselves, their equipment, and their supplies to the island from an office in Milbridge.

Goettel and one other person staff the refuge program year round, supervising not only the project on Petit Manan but three other wildlife refuges as well. Each summer, two people are assigned to carry out biological management and research projects on Petit Manan, with an additional one or two hired as their assistants. In 1989 the project added two other staff members to do carpentry, repairs, and restorations on the historic buildings.

"The opportunities for education and training are part of what keeps the project going," says Goettel. "Petit Manan is a training ground for field biologists. They get to know the physical and mental costs: weather, dampness, the difficulties of transportation, of not having a phone. It's an island experience in bird observation that lends itself to training students."

Matinicus Rock is a 35-acre lightstation island. Its varied habitat includes boulders, cliffs, meadows, and grasses of varying heights. Like Petit Manan, Matinicus Rock supports a unique group of seabirds: the most southerly mixed colony of razor bill auks and Atlantic puffins, as well as the largest arctic tern population on any United States island. Here, too, protection of the endangered birds is the researchers' first priority.

Audubon staff limit the size of the herring gull and black back gull populations by removing some birds and breaking up gull nests. They monitor the tern population through nest checks, feeding studies, and telemetry studies: putting radio transmitters on adult birds and tracking their inter-island movements by airplane. Their research on leach and storm petrels adds to nearly 40 years of ongoing studies of those birds.

Ever since 1900, when the Audubon Society first hired the Matinicus Rock lighthouse keeper as a wildlife warden, it has had a continuous succession of staff and volunteers on the island during the summer months. When lighthouse personnel were removed in 1983, Audubon began leasing the lightstation facilities. Today the island is a designated



Banding puffin chicks on Matinicus Rock

seabird nesting sanctuary and is managed and protected by seabird wardens employed by NAS. The Coast Guard maintains all aids to navigation and makes any necessary capital improvements to the lightstation facilities.

Four Audubon field staff live from May to August in the old keeper's house, a granite dwelling built in 1854. They also use the smaller house and the boathouse, and they count birds from the top of the stone lighthouse tower.

What is the impact of the work of four people on a small, rocky island 20 miles off the coast of Maine? Audubon naturalist interpreters talk with the few hardy tourists each summer who come by tour boats from Rockland to view the wildlife on and around Matinicus Rock. When bird and whalewatch boats approach the Rock, Audubon staff members row out to meet them, board the boats, and give a short talk about the proper protocol for appreciating and protecting the natural resources of the island.

Information gathered on Matinicus Rock has other outlets as well. One is the Gulf of Maine Tern Working Group, a group of biologists concerned with conserving the tern population. Audubon's findings are also presented to (and recently published by) the International Congress on Bird Preservation (ICBP). Dr. Steve Kress, who manages Audubon's seabird sanctuaries, speaks highly of the Congress and those who contribute to it: "It takes a lot of bird counts and a lot of people watching to understand the trends," he says. "The Congress brings together people who would otherwise work in isolation."

On Mount Desert Rock, research and management efforts focus on sea mammals, not sea birds. This 3.5-acre island (five acres at low tide) is devoid of vegetation and does not support the same colonies of birds found on the other two islands. Sighting and photographing whales is Allied Whale's primary research activity on Mount Desert Rock. This non-profit whale research organization, which is based at the College of the Atlantic

in Bar Harbor, carried out its first whalewatch from the Mount Desert Rock light-house tower in 1972, fiveyears before the lightstation was unmanned. The group compiles and maintains the central catalogs for the North Atlantic populations of humpback and finback whales

On a clear day Allied Whale project workers can see up to 10 miles out to sea from the 90-foot stone tower. When whales are sighted, the researchers launch two 14-foot inflatable rafts to motor out to photograph the whales. Staffin the boats communicate with the tower by radio. If the whales are hump-

backs, the researchers photograph the animals' tails. If they are finbacks, the researchers focus on the blaze and chevron patterns on the head and dorsal fin, and on any discernible scars. Depending on the weather and sea conditions, photographing can take minutes or hours, reports Kim Robertson, director of the research project. The photographs are used to identify individual animals. Photos of identified whales then are included in the catalog.

More than 4,000 individual humpback whales have been catalogued since the record-keeping project began in 1976 with one of the first matches from Bermuda to Mount Desert Rock, Robertson says. More than 220 organizations and individuals from the Caribbean to Iceland have contributed to the humpback catalog.

Another special focus of Allied Whale's efforts is now on the finbacks. "Little is known about them," says Robertson. "Where do they winter? Where and when do they breed and calve? We know that humpbacks go to the Caribbean, but we don't know where the finbacks go."

Allied Whale began counting and identifying finback whales in 1985. Roughly 500 finbacks have been identified to date. A few hundred photographs await cataloguing, says Robertson, and those sightings are from the Gulf of Maine only. In addition to the photographs taken by Allied Whale, about 10 other groups or individuals have contributed photographs to the central catalog.

Allied Whale puts eight researchers at a time on the Rockthroughout the four month research season: four staff and four volunteers. The volunteer program, which began five years ago, allows students to spend one or two weeks on the Rock. They learn research techniques (including how to identify and count different species of birds, seals, whales, and dolphins), record data, and catalog photographs of whales. They also watch for boats, noting what type they are — fishing, tour, or pleasure — and whether they have a noticeable impact on the whales.

The group uses the tower daily, except on foggy days when the fog horns blare. They also use the boathouse for storing boats, fuel, nets, and other items. The 10-room lighthouse keeper's dwelling serves as both staff residence and office.

Conditions on Mount Desert Rock are not unlike those the lightkeepers encountered. There is still no plumbing, and the weather, of course, is the same. There are differences, however. The first floor of the house has electricity, installed in the early 1980s. It runs more than lights: a computer helps with cataloguing the whales. And while the early lightkeepers' resupplies of food and fuel had to last several months, Allied Whale researchers receive fresh supplies every two weeks, weather permitting. Robertson recalls 20-foot waves washing over the island during Hurricane Gabrielle in September 1989. Due to rough seas, a helicopter had to bring in supplies and evacuate stranded volunteers with pressing responsibilities ashore.

What else is different? Isolation? "No, that's the same," says Robertson. "But the food's probably better! And we have a greenhouse." Lighthouse keeper families used to haul burlap sacks of soil to the rocky island and plant flowers and vegetables between boulders. These spotty gardens lasted only until the next raucous sea scoured the island. In 1982 Allied Whale constructed a small greenhouse where staff members now grow flowers for color, and vegetables for freshness in their diet.

Mount Desert Rock may be remote, but it is not unvisited. Educating the public is another important part of what these researchers do. "We have crazy days," says Robertson, "days when 20 boats are on one whale. We give them guidelines from the National Marine Fisheries Service so they know how much distance to keep between themselves and the whales, how to approach the animals, and the maximum number of boats that should be on one whale at a time."

The researchers' presence on Petit Manan, Matinicus Rock, and Mount Desert Rock is likely to continue for some time. The Coast Guard is pleased to have them there, and no one doubts the importance of their work. The researchers hope to add new studies and management projects to their current efforts, when and if funding becomes available.

"Without the terns, you'd be missing something," says Tom Goettel. "Terns have an economic use: they attract tourists. But you don't have to make an economic argument for everything. Human beings are at a point where we should recognize the value, from a sociological or psychological point of view, of having all species around." Two hundred years after Maine's first lightstations guided the way, these remote ones continue to aid in safety, survival, and welfare — not just for mariners and a few endangered species, but perhaps, in the long run, for us all.

Deborah Davis, author of the children's novel The Secret of the Seal, lives in Camden, Maine.

RADIO WAVES

Notes from all over ... from all seasons

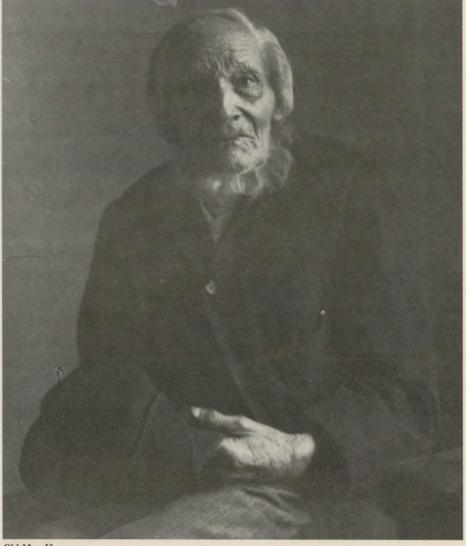
The photographs in this year's Radio Waves section are presented as a tribute to a remarkable group of individuals who have over the years gone far out of their respective ways to preserve a considerable portion of Maine's 20th and late 19th century history. Indulging their personal fascination with our recent past, they have amassed a handful of important, and for the most part largely unknown, collections of photographs and written archival materials.

The private collection from which these images come, epitomizes some of the best of this private initiative. Not professionally associated with any specific museum or historical society, these collectors are motivated by pure historical initiative and curiosity, at considerable personal expense.

Join us in celebration of these dedicated archivists of our family, town, island, and state legacies. Theirs is a pursuit of truth, interest, and beauty. Time has bestowed many of these images with a special grace which elevates them well beyond the status of just "old snapshots"; indeed there is often real art hidden away in the dusty attic boxes, crates, and trunks. Those individuals who quietly but resolutely labor to preserve these treasures are all too seldom given the applause they richly deserve.

Salute them with us and enjoy a tiny sample of one of these wonderful private collections — a vintage portfolio of Vinalhaven at the turn of the century. Captions are taken directly from the handwritten originals on the photographs.

Peter Ralston, Art Director



Old Man Hasaan

WINTER

Lobsters on the **Auction Block?**

WAYNE CURTIS

A story was circulating around the Portland waterfront in January about a lobsterman who arrived at his dealer's wharf with a few crates of lobsters. As usual, the dealer tendered a price, and, as usual, the lobsterman didn't think too highly of it. But this time the lobsterman allowed as how he was inclined to take his catch down the waterfront and offer it at auction. "In the blink of an eye," according to the storyteller, the dealer raised his boat price 50 cents per pound.

Not much of a story as stories go. But for a lobsterman, this slight anecdote speaks volumes, reflecting the potentially dramatic change underway in the relationship between those who catch lobsters in Casco Bay and those who buy them wholesale. Starting in January 1990, the Portland Fish Exchange opened its floor to lobster sales for the first time ever, establishing the nation's only open, full-display lobster auction. But more important, the auction has created an unprecedented new market for the bay's 300 or so lobstermen. As one Casco Bay lobsterman put it recently, " 'Bid' is a new word in the lobsterman's vocabulary."

Bidding for lobster at open auction marks the end of yet another Maine Coast tradition. But the tradition of accepting the price offered by lobster dealers, with little recourse other than grousing sotto voce, is one that many lobstermen seem as happy to say goodbye to as hauling in lobster pots by hand. Although it's still too early to tell whether the changes in the market will be subtle or sweeping (or fleeting if the exchange falters), all involved in the lobster trade will be keeping an eye on how this experiment in market economics fares in the coming months.

Getting lobsters onto the auction floor has been a complex process, with acrimony among the chief by-products. The idea first came up several years ago when the Portland Fish Exchange's board of directors was looking for ways to help cover operating costs. The exchange, created to boost the local marine economy, has been plagued with chronic financial difficulties since it opened up in 1986. Marketing lobsters was seen as one option to help bring volume up to the 16 million pounds the exchange must move from boat dock to truck dock every year to break even.

This initial attempt to sell lobsters was supported by local lobstermen, but they lacked the clout to overcome the strong and well-organized opposition from Portland's established lobster dealers. "Lobstermen, being utterly disorganized at best, couldn't counteract the dealer force," recalls Portland lobsterman Greg Griffith.

That disorganization ended after the Great Boat Tie-up of 1989. By mid-summer last year, boat prices for lobster had gone through the floor. In the first week of August, dealers were paying only \$1.75 per pound to the lobstermen at wharfside. One major Casco Bay lobsterman calculated that it cost him around \$1.70 to catch each lobster, once he figured in all his expenses, making for a thin profit.

Explaining the low prices, dealers talked about a glut. Lobstermen talked about collusion. Some suggested darkly that it seemed more than simple coincidence that the year's biggest harvest was due just days after prices plummeted. In response, lobstermen tied up their boats for five days, refusing to provide their dealers with lobsters until the

In theory, a market economy provides buyers and sellers a choice of where to buy and sell products. Adam Smith's "invisible hand" of competition then helps set the price. In Portland, for instance, lobster dealers compete with one another for their raw supplies, so a lobsterman unhappy with one dealer's price can try another wharf for a better price. It all evens out as the market finds its balance.

That's the theory. But with only four dealers controlling the Portland market, some lobstermen say that the competition among them is less than cutthroat. Griffin claims that on three occasions last year, his dealer openly called other dealers before arriving at his boat price. "Instead of competing with one another, they get cozy," Griffin says, calling the dealer system "antiquated and lethargic.

Other harbors often have lobstermen's cooperatives, which are marketing groups organized and owned by the lobstermen



North Haven - Vinalhaven ferry, circa 1910

themselves. Lobstermen hire a business manager, who has to answer to the owners for the boat prices he pays. The idea is that lobstermen can be assured of a fair price, and local dealers would have to work to match it. Cooperatives never caught on in Portland (one was attempted some years ago, but expired from chronic personality conflicts), leaving lobstermen without an effective alternative to the dealer network.

When prices sank to \$1.75 in August, the lobstermen knew that the boat tie-up would be only a short-term answer. A group got together and hired Al Caron, a Portland marketing consultant, to help devise a longterm strategy. Caron suggested that effective change would come about only if lobstermen got organized and came up with what he called "an offsetting mechanism" for dealer prices. They formed the Maine Lobster Marketing Group. Then instead of forming a cooperative, they resurrected the idea of getting lobsters on the exchange.

After the idea was reintroduced, the Portland Fish Exchange board of directors established a committee to listen to the arguments of dealers and lobstermen. Generally speaking, supporters said that bringing in lobsters would increase the exchange's overall volume and help it become profitable. Opponents said that the capital cost in accommodating lobsters could never be recouped, and the exchange would be saddled with further losses. After three months of hearings and meetings, the board approved the idea. On December 11 the Portland Fish Authority, which oversees the exchange, gave the board the final go-ahead to sell lobsters. In January the first lobsters came on the

Unlike commodities and stock exchanges, in which the frenzied floor traders impart a sense of high drama, the Portland Fish Exchange is about as mundane and low-key as a regional mall at midweek. Located among idling tractor trailers and steel fences in the southern end of Portland's waterfront, the fish exchange is housed in a windowless corrugated steel building that boasts little tradition and even less charm.

During a midweek auction last February, about 25 bidders representing seafood dealers stood around the chilly and cavernous auction room in heavy jackets and insulated boots, stomping their feet and mumbling into cordless phones. Dozens of crates of sole, haddock, and other finfish were stacked around the room; crates of lobster were piled on pallets near the bidding board. Harsh overhead lighting buzzed loudly, like lights in a high school gym. The auctioneer sang out bids, coaxing prices gently upward.

Lobsters were added to the exchange during the midwinter lull when only small volumes are traded, so that the kinks could be worked out of the system while the pressure was off. In January only 4,600 pounds of lobster were sold, an amount some lobster dealers might sell in a day during the summer season.

So far, many of the objections voiced by the dealers at the hearings have not been borne out. Among them: capital and labor costs to accommodate lobsters would break the exchange, and that the lobster mortality rate would be unacceptable. The exchange avoided the high start-up costs by adopting a dry-storage method, using existing refrigerated rooms and ice, rather than more costly saltwater tanks. To date, the mortality rate has been low, although that could change for the worse during warmer weather and shedder season.

But other concerns linger on. The most

pressing issue among dealers today is that the price realized for lobsters at the exchange will be artificially high, setting a benchmark price that private lobster dealers can't expect to match. Dealers point out that the exchange is a quasi-public entity that receives tax benefits and other advantages such as wharf lease fees waived by the state. "As a businessman, I couldn't match their price," says Peter McAleny, a Portland dealer.

Some dealers also note that the smaller amounts of lobster being sold at the auction will skew the prices artificially upward. "You can always find someone who will buy a few crates of lobster at a higher price," says Loyall Sewall, a lobster dealer in Bremen, who calls the auction "disruptive, pricewise."

As reports of higher prices fetched at the auction ebb and flow along the coast, longstanding relationships between lobstermen and their dealers could also be disrupted. "We have this ridiculous tradition that we sell all the supplies to lobstermen at cost, and provide them with parking and access to the waterfront," says Sewall. These benefits add to his operating costs and must be factored in to the amount he's able to pay for lobsters at wharfside. Sewall says if one of his lobstermen decided to sell a boatload of lobsters at auc-

tion, he'd refuse to sell him supplies in the future. "I think there are going to be some growing pains," he says.

McAleny agrees. "If some fishermen want to treat this more as a business, fine," he says. "But they should remember that they have extra costs, like taking three or four hours out of their day to sell their lobsters." He wonders whether the higher prices will offset these added costs.

Greg Griffin, the 36-year-old Portland lobsterman who now heads up the Maine Lobster Marketing Group, is willing to take his chance that higher lobster prices realized on the exchange will cover his costs, and then some. He currently sells every lobster at auction, paying all his business expenses himself. That includes the ignominy of paying more to park his truck at the wharf than to tie up his boat. He hopes it's worth the price. "It's time for my generation to become businessmen," Griffin says.

The auction board of directors will review how the lobster experiment is working starting on July 1. If lobsters aren't paying their own way, they'll be dropped. That's what Peter McAleny, the Portland dealer, suspects will ultimately happen. "These schemes come and go," he says, referring to past attempts to sell urchins and shrimp on the exchange.

Greg Griffin hopes that won't be the case. Because then it will be back to the old system, where he felt that he was at the mercy of the dealers. "I hadn't been excited about being a lobsterman in years," he says. "I am now."

Wayne Curtis is a freelance writer from Peaks Island and a regular contributor to the Casco Bay Weekly and Down East magazine, as well as to our own Island News.



Calderwood Brothers-Cyrus, Johnathan, Mark; Calderwood Neck Farm

Cabin Fever Season

Winter Chronicles of the Maine Seacoast Mission

TONY BURKART

We are often asked by summer visitors what we do during the winter. Far from the hibernation which is assumed, the members of the Mission staff find winter their busiest season. The following account, compiled from the monthly reports of the mission's seven staff ministers (stationed on the various islands and aboard the mission's 64-foot vessel, the *Sunbeam*) begins to paint the picture

"The January thaw lasted only one day this year and now we are right back in the deep freeze. The first Sunday of the new year greeted us with temperatures in the -21-degree F range. Our worshipping congregation dwindles as the temperature drops, but as we huddle together in a smaller space, we seem to be closer in a spiritual sense as well as physical. You still have to come early to get a back row seat!" "During the cold spell, we

burned an average of nine gallons of fuel a day. I have heard of some folks on the island using up to 11 a day so I guess we did better than some." "This morning I opened the road for the third straight day; it was plugged with drifts over two feet deep. Tomorrow we are promised clearing weather. I wonder how deep clearing will be?" "It has been quite a month. First we were buried in wet, sticky snow. We were plowed out for the next

two storms. The next storm left us without power for 36 hours. The parsonage water and heating pipes were saved by the small wood stove in the study just off the kitchen. The pipes in the cellar were saved as I managed to install a 'school house' type stove by 11:30 p.m. on that Saturday. Feeding both stoves and draining pipes kept me on my feet for 32 hours. I noticed, too, that 11 hogs drink a lot of water when it is obtained by melting snow." "Cabin fever has people snapping at one another and provides excuses for some out-ofthe-way behavior. How good it is to see February again! Folks hereabout reason that the second month of the year is the shortest because we could not stand it any longer. January was so long, I thought it would never end.'

While snow and cold hamper the members of the staff who are based in coastal communities, wind and tide

threaten the Sunbeam as she makes her rounds: "We were due to leave for Matinicus, but 10-foot seas there prompted us to wait another day. So, at 6 a.m., with a smart northwest wind, we left for Isle au Haut. The run across Blue Hill Bay put on three to four inches of ice, and Isle au Haut Harbor looked like a haven so we stayed there. They were also blocked in with ice over the whole Thoroughfare. We broke out that harbor three times, started for Matinicus, and turned around. Two more hours of freezing spray would have been too great a hazard. We broke another path for the mailboat and headed for Swan's Island to see what their ice conditions were. We broke ice there for an hour, knowing that it might freeze up again. We got word that Frenchboro Harbor was shut down tight, so we started for there and spent two hours chopping up the sheets of ice and freeing the lobster boats.

An island pastor filed this report of his icebound parish: "Winter can be beautiful with its postcard pictures of snow draped trees, sun sparkling on ice, children bundled up in bright colored apparel, and all the other attractions that poets like to describe. But what happens when islanders are bound in by 14- to 18-inch-thick ice, when the oil barrels are down to the final supply and the dealer has no more, and still the tempera-



Crockett River School. Alica Salls, R. Kimball, sister, Dyers, Woosters, Yorks

tures hover around the zero and below mark for days and weeks on end? What can be done when the ferry contracts engine trouble and parts are not available? This is the time to have the mail delivered by plane. It is the time to depend on the *Sunbeam* to break up the ice so that a tanker is able to unload its supply of oil, and for the Coast Guard to deliver groceries and supplies to the island stores."

It is at this time of year that our staff ministers are busiest; their reports reveal many crisis situations:

"February is a deadly month. Cabin Fever, late winter blues, and illness seem to be common fare. Numerous trips to the Ellsworth Hospital became routine for the month. February is somewhat like 2:00 in the morning, when people's resistance is at its lowest ebb, and that usually produces more opportunities for personal counseling. My counseling sessions have increased remarkably this month. This is partly due to the time of year that always opens a Pandora's box and partly due to the involvement with the drug and alcohol program at the high school. Besides our once-a-month meetings, we have started a twice monthly morning meeting to talk about specific cases."

Another pastor filed this report: "Winter has once again brought terror in the night; a fire that completely destroys. A church family lost their home last Thursday. It burned to the ground on the coldest night in years. For hours they watched it burn, noticing no cold in a wind that brought the temperature to -35 degrees. The fire hoses were frozen. No one was injured, physically, for which we give thanks. The psychic injuries

are not so obvious. The community has rallied round with gifts of clothing, money, food, and the little things that count: replacement records, a new sewing machine, duplicate photographs, new dish towels. The Mission supplied bedding and furniture and even a new cat!"

Special efforts are made to break winter's grip. Family night suppers are scheduled along the coast: "We felt the need to change the mood of people after this time of grief. We planned a family night supper and held it when scheduled, even though a snowstorm arrived during the day. A 15-piece band played the old favorites while some 80 islanders ate and sang and danced and exclaimed over the fine new appointments. There were white tablecloths and red candles, and some of the women wore feathery long gowns. It was an encounter with good memories and the romance of a good time in the old town — just like the old days." The Sunbeam provides its own special variety of supper: "The big news of the Sunbeam for this month is the annual February banquet aboard the boat at Isle au Haut and at Matinicus. We have our annual banquet and gettogether there in our attempt to help the islanders over the worst of the Cabin Fever threat. Totally prepared by Betty Allen, our steward, the menu includes scallop chowder, vegetable soup, and six kinds of pie. Forty-two people came aboard to enjoy the food and the fellowship. The same thing happened at Matinicus on the 14th, with 33 of the residents aboard. The leftovers from the banquets were taken to shut-ins as I made a number of pastoral visits at both islands."

The pastor on a remote island describes his adventures as a pizza chef: "We had pizza coming 'out of our ears.' Not being a very experienced shopper, I had trucked out to the island 16 pounds of pre-made, frozen bread dough and it turned out that we needed about half of that. With 14 fifth through eighth graders participating, the event was a great success. We began by playing some nonsense games, did some sharing about ourselves and what we would like to do with the group in the future, and then dove into the dough. Everyone took turns helping and all went smoothly. We ended the evening with a friendship circle and prayer and vowed we would re-gather soon again."

Yet another member of the staff decided that fishing was a good solution: "Our scouting program has been busy this month. Since our cub scout troop had made ice fishing traps as a project, one Saturday we went ice fishing at Meadow Pond, the one freshwater pond on the island. We were fishing for pickerel and caught 26 or 28. One of the boys came late. He baited his trap with a fish, put it in an open hole, moved it by jiggling his line, and hooked a fish. As he pulled the line in, the fish came off at the edge of the hole. Instead of going to the bottom, the fish seemed to be trying to get out of the water. We used our ice scoop, put it between the fish and the side of the hole, and flipped the fish up on the ice. The girls from the junior girl scout troop were along with us. We had worked on the assumption that fishermen should not skate, but one young lady skated between the times she was catching fish. When she finished, she had caught seven fish."

If January and February are long, dark, and dreary, the coming of March and the beginnings of the climb "up the March hill" bring rays of hope. Here is one pastor's description: "As one anxiously looks for signs of spring, one would think of the snow's going, buds of trees coming out, warmer weather, etc. I feel the seafaring community and the month of April shared other signs of spring this year. I could hear the change in the seagull's call and notice them beginning to pair up. Two gulls could be seen on a buoy where during the winter only one would be seen. I could hear the lobstermen and the 'deep water' men tuning the engines of their boats. I could hear the activity in the boatyard and the hammering sounds of repairing the traps. I heard the excitement of many of the island families as they anticipated the arrival of the boats and crews returning from southern waters. It was good to hear the boat horns as they entered the harbor, announcing their arrivals. Spring arrived not only by sight, but also by sound."

The Rev. Tony Burkart has been Missionary Pastor with the Maine Seacoast Mission since 1985, as well as a consultant in rural ministry for the Bangor Theological Seminary and the United Church of Canada. When not ministering to his far-flung watery parish aboard the Sunbeam, he lives with his wife and young son in Franklin, Maine.

Between a Rock and a Smart Place

".. Winter is icumen in, Lhude sing Goddamm ... " - Ezra Pound, Ancient Music

GEORGE PUTZ

Monhegan is a hard place just across from a rock (Manana Island). Its citizens are purposeful, and its harbor is terrible, for reasons just described. Beautiful, friendly, and stressed in many ways, this unique island nurtures eccentricity as an elemental domestic art, and no one with art in their head, heart, hands, or soul comes away from the place unchanged.

You get there, and leave, by boat; preferably your own boat. You can stay in hotels, B & Bs, and rental cottages, almost mandatorily reserved months in advance. You do this from mid-spring until mid-autumn. The rest of the year belongs to the year-round residents and their friends.

Months after the earnest painters and enthusiastic couples have folded and removed their easels, palette boxes, and very good cameras - leaving the inns to their chilled and desultory winter hibernations, the true residential art of the place emerges. On or soon after the first day of January, when every fisherman of the island is healthy and ready, it is "Trap Day." This is the day when

the entire fleet sets its lobstering gear for a proprietary six months of hard fishing in the surrounding waters, a six-month schedule of territorial fishing that is unique to Monhegan. It constitutes not only intelligence (fishing when the price is highest), but also an effective conservation measure for the resource, and it allows the participants to engage in non-marine service enterprises during the warm season. Pretty slick. Except for one thing...

It's the dead of winter off the coast of Maine, in the North Atlantic Ocean! Almost every lobstering fleet along the coast has its men who go offshore to fish during the winter months, but only the Monhegan gang fishes exclusively and entirely during this time. Think of it! These crazy Monheganites!

But who is it that's really crazy?

During the warm months the season is highly variable in regard to the behavior of lobster; indeed, after the "spring spurt," when, some years, quite a few lobsters are caught as they crawl inshore to breed, catches fall off precipitously. The valuable crustaceans go into hiding to shed, breed, and regain new protective shells. Fishing is lousy through July and most of August. Then, once the "shedders" emerge in their new size and abundance, the price plummets first because the supply is so great, and then because the Canadians unleash their supplies to the American market in the early fall. Meanwhile, the warm summer air moves over the not-yet-warmed waters of the Gulf of Maine, creating foggy days between June and August; and all the while boat bottoms foul and a welter of lobstering gear threatens to become entangled in the wheel. Too, as the Maine waters finally do warm up, the various baits used in the business become prone to pestiferous theft and plain rotting. Finally, all the part-time fishermen, including school children, join the fray in the summer, adding unwelcome competition to the already harassed fishery...

So, who's nuts? In the winter-cold Monhegan waters the bait stays intact, and the gear fishes the deep channels used by lobsters since the Ice Age to travel offshore and return to breeding waters. There is no competition, the ocean surface is clear, and the boats are slow to foul.

But it is Old Ocean in wintertime. The callous gray-green seas of the place have no relation to the friendly blue things of summer, and the winds have a force and heft to them with no relationship to their ostensible speed. True, there are those dead-still magical winter days, when the ocean is like a still pond, but most of the time it is straight up and down, pounding boat and kidneys 'til hell won't have it!

The ice and snow make it visually impressive; it is beautiful on the island in the winter. Indeed, it is the brag of all island residents that the true nature of the Maine archipelago is undeniable once experienced. Some of this has to do with the light — the way winter light plays on the ocean surface and through the forest, across yards and fields and through the working gear of the fisheries along the shoreline. The postcard pictures of summer become trivial, here, now, in this light.

Trap Day is much more than the opening of a season. This is Monhegan's day, and the culmination of a social contract that involves honor, justice, fairness, patience, and frank fellow-feeling. It represents a lot of hard work ashore, so that a lot more hard work can be performed at sea. It is all the traditional Yankee values rolled into one delayed gratification, honest labor, dogged persistence, and the rest of the inventory combined with manifest individual prowess and community elan. It is a very, very special and fine time, and these people are not crazy.

George Putz's tribute to Monhegan off-season first appeared in Maine Boats & Harbors, winter

SPRING

The Schoodic Carry

DAVID R. GETCHELL, SR.

In prehistoric and colonial times Maine's Indians and early settlers traveled the coast in canoes and other small boats. Much of their cruising was in protected waters, but there were also long peninsulas that served as major barriers to easy passage, forcing the small boats to navigate past them through rough waters. In order to avoid having to wait, sometimes for days at a time, for calm weather so that they might round these dangerous points, the Indians developed portages, or carries, short overland routes leading from one sheltered place to another and located safely back from where the great swells of the Atlantic perpetually hammered against unvielding rock.

With the development of the Maine Island Trail in 1988, small boat cruising along the Maine coast once more become an accepted way of travel. But while the 325-milelong waterway is designed specifically for small boats such as canoes, sea kayaks, sailboats, and motorboats, the lightweight, selfpropelled craft face the same problems as those of our forebears - rough water off the tips of the great capes.

The Maine Island Trail Association Guidebook lists six such barriers between Casco Bay and Machias Bay, and warns in no uncertain terms to regard these headlands with caution. One of the most treacherous (and one that merits the respect of all coastal mariners) is Schoodic Point, a magnificent bastion of pink granite and black basalt topped by a parapet of gnarled spruce forest. Schoodic Point is the center of attraction in the Eastern Division of Acadia National Park, and is the nemesis of sea kayakers and canoeists attempting to travel this section of the coast. Geologically, the point is composed of two islands, Big Moose and Little Moose, and no doubt the Indians once ducked through the shallows behind them in order to avoid unnecessary risk. Unfortunately for the modern cruiser, the sea and highway builders have combined forces to fill in the passage between Big Moose and the mainland, thus effectively eliminating a safe route for small boats.

Since no traditional carry existed farther up the peninsula, the Trail Association informally studied all the possibilities in and around Schoodic Point in the fall of 1988, searching for a way behind or across this popular recreation and tourist area that is visited by hundreds of thousands of people annually. They also sat down with Acadia Park Superintendent Jack Hauptman and his staff and detailed their problem. The response of the park administration was both positive and supportive, and by late autumn a tentative carry trail had been flagged from West Pond on the Frenchman Bay side of Schoodic, to the existing

Alder Trail and on to the Blueberry Picnic Area on the east side, a total distance of about one mile.

In what was a surprising and welcome gesture from a staff beleaguered by some of the heaviest use of any national park in the country, Acadia officials agreed to put in a small emergency campsite halfway across the new carry trail.

On one of the first mild weekends in April 1989, 18 Maine Island Trail Association members met at Schoodic, and in a day's hard work both cleared the new section of the trail and widened the Alder Trail. A crew returned this past spring to carry out its informal agreement with the park to maintain the entire route.

The Schoodic Carry Trail in Acadia National Park, of course, is open to everyone, but there are very definite strings attached to staying at the small emergency campground. As noted in the Trail Association Guidebook: "Use of the Schoodic campsite is limited to boaters in hand-powered personal watercraft under emergency conditions only. Situations such as severe weather, health problems, equipment malfunction, exhaustion, hypothermia, or situations of similar nature would constitute an emergency. Any persons requesting use of the campsite must make contact with the Schoodic ranger upon their arrival...Length of stay is for the duration of the emergency only."

Since travel on the difficult eastern section of the Maine Island Trail is still light, very few Association members have made use of the Schoodic Carry Trail to date. But the knowledge that a safe, if toilsome, route is available makes the ever-present "Schoodic Challenge" more bearable to consider.



Harry Young with white bandana on neck

A Swan's Island Memorial Day

CYNTHIA BOURGEAULT

The rest of the country may celebrate Memorial Day on the last Monday in May, but here on Swan's Island the observance lasts for three weeks. I'm not talking about the official ceremonies, of course. As in most small communities, the actual ceremonies are short and sweet, observed with a combination of nostalgia and slightly awkward pomp. There's usually a veterans' parade, but our three Vietnam vets don't tend to muster, and each year our dwindling contingent of World War II and Korea vets looks a little older. We don't have a highschool band - no high school, even - so the star attraction is the new fire truck, which rolls along ceremoniously, its crew in full regalia, over the quarter of a mile distance from the fire station to the wharf of the fishermen's Co-op. Grade-school kids, some 30 strong, march behind it in slightly raggletaggle rows, waving little flags and hamming it up for a roadside audience of moms, offisland cousins, and early summer people. After a brief stopover at the Civil War monument to place a wreath, the procession continues down to the wharf, where the militia fires off a couple of volleys over the water and a couple of seagulls squawk back. The whole show is over in less than half an hour.

For the better part of the month, however, the real Memorial Day observances have been going forward at the other end of the island — right across the road from our house, at the town cemetery. For most of the year this is a quiet, out-of-the-way place — a classic country graveyard, complete with lilac bush and white picket fence, tucked half a mile down a dirt road. But for a few weeks each May the cemetery becomes the focal point of intense community interest.

Sometime in late April or early May spring suddenly sets in hard and voracious. The early daffodils give way to tulips and lilac buds, and the grass starts growing with passionate abandon. At that point, unmistakably, there is a slow gravitation of interest toward our part of the island. One day, coming home from work, we'll hear a pair of lawnmowers buzzing away over at the cemetery and know that this year's Memorial Day season is officially underway. For the next two or three weeks there will be a steady stream of traffic down our road as work begins on fixing up the family plots.

On Swan's Island people do not set much store by plastic flowers or even custom floral displays. Fixing up the family plot is strictly a homegrown gardening operation, as individual and eclectic as the island personalities themselves. A pickup pulls in, offloads rakes, hedge clippers, several boxes of geraniums and pansies, and a truckload of Staples or Joyces in gardening clothes. For the next few hours there is a quiet, purposeful bustle of clipping, raking, and planting - with a moment here and there just to sit and be. Children and grown-ups work studiously, side by side, planting flowers that were started on the kitchen windowsill back in the dismal days of March. When the flurry of activity subsides, there may be a geranium border around Uncle Cecil's grave, a slightly crooked row of pansies for Gram.

These purposeful visits to the cemetery are not part of some community project; it's not at all a civic-minded spring cleanup. It is private, inward. And as with so much of island life, there are unspoken rules. People come in small clumps, family groups, rarely more than one family at a time. One hears a car depart, and a few minutes later another will arrive. The timing is exquisite.

So it goes, right up until Memorial Day itself. After the parade, and before the picnics that round out the day, there begins a common migration to our end of the island as people converge on the cemetery to view their collective handiwork.

The handiwork is indeed extraordinary. Plot by plot the cemetery has been transformed into a garden — or more accurately, into dozens of mini-gardens, each utterly individual and yet somehow constituting a whole, like a gigantic floral patchwork quilt. One widow has combed and cajoled the grass around her husband's grave into a veritable putting green, bordered with marigolds. Another family has lugged bucketful upon bucketful of popplestones from the beach to form a border, and then planted the center in a riot of pink, white, and purple phlox. Even the heirless are not forgotten. Before a lonely, unkempt grave someone will have shared a pansy or sprig of ivy. The whole cemetery is a sea of tulips and hyacinths, marigolds, and violets. The rows of departed Trasks, Stanleys, Spragues, Le-Moines, Joyces, and Staples suddenly come alive, decked out in an impetuous rush of spring.

Memorial Day may be celebrated a bit like this in other places, I suppose, but somehow on the island it seems particularly apt and elemental. Perhaps this is because the elemental is really all we've got out here. We don't have the resources for floats and fancy parades. Nor the inclination. Instead, we turn directly to the deeper currents of life that underlie all ceremony. At Memorial Day, those currents run hard and strong. Suddenly the earth is awake again, the sun is reaching its zenith, and the throbbing of the life force is so vibrant that it burrows its way into the very white-picketed sanctuary of the dead. At this season, on this island, it somehow seems that the only thing to do is to go garden for a while, right at the heart of the matter, affirming that for this brief time of spring's explosion, six feet under is not utterly dead and final, but momentarily a twoway street. Like so much of island life, the roots of this annual ritual are remote and perhaps even unrecognized. But make no mistake: in this granite garden it is roots both individual and collective - that are nourished, shared, affirmed, and most importantly, felt, during this annual island ritual of remembrance.

This article originally appeared in Down East magazine, May 1988.

SUMMER

Coastin' Down to Stonington

Deer Isle in the Days before the Bridge

EMILYMUIR

It startles me to think that my memories of Deer Isle go back so far — farther than most people's, even though I'm not a native. Cal Ames used to tell me I'd never be a native until I learned to eat slack-salted fish. After seeing the maggots enjoying this delicacy hanging in Cal's shed, I have never become a native. But I do go back to 1918 and have been reminded, since 1989 was Deer Isle's Bicentennial year, that a few of my memories might be of interest to others.

I have two versions of that first trip across the bay from Rockland on the little Governor Bodwell: my mother's and mine. Mother said the smokestack shipped water first on one side, then the other. Mother was no sailor. Mine begins with getting off the Boston boat at 4:30 a.m., boarding the little steamer, and watching the freight rumble down the gang on handtrucks braked by bronze-torsoed, sweating stevedores. I can still feel the thrill of the Bodwell's deep-throated whistle go down my spine, and smell the oil from the puff of black smoke. The ship began to vibrate, there was a rush of sound as the dirty harbor water churned astern, a deckhand tossed the heavy lines ashore, someone emptied a bucket of orts out the galley porthole, and water appeared between ship and shore. Slowly the distance widened. The ties with land stretched and broke, and we were off into the fresh winds of the bay. I was a sailor from that moment on.

In the brisk breeze Mother and my brother retired to the shelter of the saloon, but it took the breakfast gong to entice me from the open deck.

The dining saloon had a big glass skylight from which hung a forest of potted ferns. The tables, covered with clean, white nappery, were right next to the big glass windows. I felt as though I could reach out and touch land as the ship ploughed her way through the Fox Island Thoroughfare.

Crowning that first journey was the appearance of Mark Island Light, a white tower rising from warm granite ledges and set against dark green spruce, an island worn like a jewel on the breast of a blue sea. (I spent the night on Mark Island once when Ed Parsons was substitute lightkeeper, and remember wakening to the pistol-shot sounds of sails coming about right outside my window in the upstairs bedchamber of the keeper's house.)

Then we were waving at the passing boats speeding close by as the waters narrowed between Crotch Island with its quarries and the shipyard on Moose Island. We came in against a strong breeze, whistle blowing, gay

pennants strung from stem to stern snapping in the wind. There, beyond Green Head, was the town of Stonington strung along the shore and clambering up the stony hill behind.

The Governor Bodwell sidled in along the old Eastern Steamship Landing, and I watched portly Reuben Cousins adjusting the rusty, heavy chains that set the gang in the level of the steamer's hold.

If I remember correctly, there were two automobiles on the island at that time, one of which was a Model T belonging to Ben Raines of Sunset on which our trunk was loaded. In those days, before such abbreviated clothing as bikinis and wash-and-wear garments, one traveled with a trunk. Lashed to the back of the Model T, it gave the impression of sitting down on its hind legs and pawing the air with its front hoofs. Again if I remember correctly, we didn't tackle Russ Hill but went around the Sand Beach road. Even the short hill approaching Green Head presented a real challenge to the laboring Ford.

Another year we came by car. There was no Route 15 then; as we approached Deer Isle from the north, the first harbinger of our island summer-to-come was the little bridge across a stream entering the long, twisted arm of the Bagaduce River on what is now Route 172. It was then a narrow, dirt road winding up and down hill and around wooded curves. At the foot of the blueberry barrens was another little bridge which no longer rumbles under the wheels of our speeding conveyances to call a child's delighted attention to a stream of clear water chattering along its stony bottom. There is only the smooth uninterrupted pavement with guardrails at its edge.

The barrens themselves were green, with just a hint of blue as though a thin, cool mist had settled in the fields. Why barrens, I wondered, when they yielded such a lush, mouth-watering fruit?

At the top of the hill my father stopped the car. We paused to look east — across the blueberry fields to the Bagaduce, reflecting an island of oaks and the mountain beyond — and then to look west, where the land unfolded itself in rocky outcrops and biblical hills, in green slopes dotted with lakes, ponds, and brooks that caught the gleam of sky like diamonds.

And then came the end of the Bagaduce, which isn't a river at all but an arm of the bay that cuts the peninsula into jagged, beautiful fragments of land. Only a narrow strip of low, flat earth lies between its head and the head of the Benjamin River (which is also not a river). After climbing the hill beyond Punch Bowl Farm with its handsome old barn already starting to crumble away, it was downhill to the sharp corner and the first glimpse of the Reach, after which there was nothing in anyone's mind but "Will the ferry be in and waiting?" In Sedgwick my father would start blowing the horn — just in case.

The Scott's ferry was a three-car scow towed by a fishing boat. If it were in on the

Sedgwick side, it would be pinned to the sandy beach by a crowbar through a hole in the short gangplank. As you drove aboard, the car's front wheels would rise, and the rear wheels would follow with a resounding bump. The attendant would toss a couple of chocks under the wheels, and you were underway, yawing around at the end of a stout line at the whim of wind and tide — providing Mr. Scott didn't wait for a full load before casting off.

Somewhere around the middle of the Reach another life was born. The city with its noise and bustle, the long months of school, my young life with all its vicissitudes... were blown away like chaff before the wind, and the long days of an island summer opened up before me.

Emily Muir is a well-known architect, painter, and environmentalist, and a good friend of the Island Institute. Her donation of half the value of Russ Island enabled the Institute to acquire this beautiful wooded island on Deer Island Thoroughfare, directly across from her studio-home, in summer 1989.

FALL

Hitchhiking to Criehaven

ROBIN DE CAMPI

In late October, striking out for Ragged Island without a boat ride pre-arranged for the final briny miles was courting the odds. It called to mind an elder lobsterman's occasional invocation when time, tide, or weather conspired against the best laid plans — "Put on your Jesus boots!"

But, having just resigned a pressure cooker job in aerospace, I determined that the liberated woman would try for a mid-autumn assault on her beloved peak, which is some 20 miles southeast of Rockland, midway on the jagged coast of Maine. My family forgave me such a departure, knowing my affliction for that hunk of granite and spruce that lodges just far enough off the coast to make getting there from southeastern Pennsylvania an adventure unto itself.

It's been about 15 years since the 80-foot, wood-hulled Mary A. ferried passengers and supplies to nearby Matinicus Island and, earlier still, had serviced Criehaven, the "village" of Ragged Island, named for Robert Crie (pronounced "Cree"), who originally owned the island. The Mary A. was official carrier of the U.S. Mail and infamous to her passengers for an ungainly ability to roll at the slightest provocation. Passengers were of lowest priority and fitted themselves around the cargo: leaking crates of bait, piles of lumber, gas tanks, and the stacks of groceries earmarked for Clayton Young's general store on Matinicus. On occasion of a calm passage, a car or pickup truck might

be transported amidships, forward of the cabin, and requiring Captain Norris Young to open both its passenger and driver doors to climb though to collect fares. Since then, summering on Ragged Island has become as exclusive as "you can't get there from here"; and hitchhiking has become a semi-honorable profession among island-bound souls.

On this trip, I'd made the 12-hour drive to Thomaston and stayed overnight at my father's house, where a nor'west wind was scouring St. George Bay. I telephoned around to scout out the comings and goings of the Criehaven lobstermen. Once their children are back at school, they commute to the island for the week's fishing and return to the mainland and their families for the weekends. Summer compliants trying to extend the season are on opposite cycle, so arriving mid-week was foolhardy. But I was relishing the odds and prepared for the worst — i.e., being so close yet not able to attain the island.

The following morning broke clear and bright, though the wind continued to whip. With no luck in ferreting out a passage by sea, I phoned Penobscot Air Service to check on what was up, or rather, what could go up. Penobscot flies to Matinicus Island, and Ragged Island is one mile beyond — so I figured that at least I'd be inching closer. Subsequently scheduled for a 2:45 p.m. flight, I called Louise of Thomaston Taxi to arrange for a ride to the airport in Owls Head. She has delivered us to and rescued us from various ports of entry over the years, and I've never learned her last name. She responds like a reliable friend at the end of the line, and when the same honestly used station wagon pulls alongside, I feel as if time were on hold.

Meanwhile, the winds had dropped and a fine rain was now sifting down. Reaching the airport, I was advised by one of the pilots that there'd be a slight delay: the high-winged plane that can put down at Matinicus was off to another island, retrieving a pregnant woman who had gone into labor.

An ambulance with crew pulled onto the runway tarmac. Shortly the little plane touched down and taxied in, and the womanalmost-with-child was rushed off. By then, a young girl bound for Matinicus had joined me, allowing us to split the fare (as was the custom as seats were filled). We were to wait until another, larger Penobscot plane was airborn for Vinalhaven and its radio report was received on weather conditions in the direction of Matinicus. In this kind of weather, fog banks stalk off Matinicus Rock Light, out beyond Ragged Island, and they can sneak in momentarily.

Nowadays, the actual flight time to Matinicus is all of 10 to 15 minutes, depending on the wind. High-winged planes are employed since they are less likely to act like hedge trimmers on the encroaching vegetation, for the landing strip on Matinicus is the width of a single car lane running down the middle of a meadow on the island's north end. Composed of packed dirt and gravel,

the strip is uphill or downhill depending on which direction the landing takes, offering the equally terrifying prospects of either impacting a rising terrain or being propelled over the edge into an aqueous solution.

For this flight we waited in the shack by the gas pumps at the Knox County airport until an encouraging radio report was received. Our pilot hastily loaded the plane; we jumped in; and the little plane consumed runway until we were lighter than that moist air. We'd had "a window" which, as we climbed, gave way to good visibility following a rain squall line. The view in miniature of the fingered coast, toothpick boats, and dollhouse islands was absorbing as ever. No sooner had we achieved altitude than we began to descend. It was to be a downhill landing - consolation being that if the plane didn't come to a halt in time, at least the island wouldn't be littered with a rusting airframe. Yet for anyone who's known the islands only from sea level, this arc of flight is surprisingly short and sweet, when the rugged coastline is momentarily tamed.

In the field, a relative crowd (seven men, one German shepherd, two pickup trucks, and a battle-scarred car) was waiting as we emerged from under the wings. As I was carting my gear to the field's edge, three men and some serious equipment were being wedged into the plane. I stopped to watch as the tail of the plane was pressed to the ground by the load. The pilot began switching around passengers and baggage like game pieces to reallocate the weight. I took advantage of the attentiveness of the onlookers to query, "Is anyone heading down to the harbor?" A large, long-haired and bearded man in folded-down hip boots spoke right up, "Shoe-wah!" I waited while the loading drama took its course, disclosing only that I was hoping to get to Criehaven that day.

My rescuer was "Puff," at that time the lobster buyer for Art's Lobsters, which is based in Tenant's Harbor. With him was a young fisherman named Mark, who owned the magnificent cream-colored shepherd dog. The men stowed my baggage in the bed of a pickup truck. When the dog could not be persuaded to join my baggage, Mark gave the animal a boost over the bedside. The three of us humans shared the bench seat of the trick, though I had the distinct feeling I'd taken the dog's place. I meant to feel ill at ease braced between these two strangers, but in truth I was feeling closer to home and in very good company. One truly loves islands only when one realizes that the people to whom the islands belong the year round are a good part of that feeling.

To my surprise, Puff didn't take the turn to the harbor but instead drove us to a neat new house, built of wood shiplap and overlooking Old Cove. I was invited in by expectation — that I would follow along as surely as their conversing with me led to the door. I didn't want to appear hesitant but was momentarily thrown off-course. My plight and its solution were not discussed; their form of reassurance was their having taken custody



Boatshop

of me. While they eagerly checked out the performance of the big television set following repair of the satellite dish, I learned that the house belonged to Mark and his young family, who were ashore.

I was offered some rum as they poured for themselves, but I kindly declined, admitting that I intended to raid the cabinet once I reached the Criehaven house. With the final leg of the journey still to be accomplished, I wasn't ready to let my mind curl up with the spirits. The men were drinking from coffee mugs. I'd sat down in a comfortable chair, my L. L. Bean gum shoes up to their tongues in shaggy carpet, to await what unfolded. It was a far cry from drafty lobster shacks I have known!

We had already reviewed just which Criehaven lostermen had been over that day to sell their catches. Earlier the plane had transported a part for Anson Norton's electric generator, but he'd already sailed over to claim it.

Sipping from his mug, Puff picked up the microphone on Mark's VHF radio and was putting in a call. I couldn't catch the name of the person he'd reached. For me, Maine accents breaking over the airwaves are transmissions almost in another language. A boat engine usually rages in the background, and the Maine way of detonating sentences is a pinball game. On this volley, I could retrieve only words that were left hanging next to a silence. Puff was teasing the respondent about not showing to sell his day's haul, accusing him of holding back for a better price another day. The shorthand conversation suggested that the man was at his mooring, washing down and tidying up his boat. They grumbled together about the weather, having had enough of a persistent wind that had been limiting the fishing. They were chewing on another less identifiable topic whereupon Puff let slip: "Well, yeh, we got a lady here — Doc Watson's daughter — who needs a lift ovah to Criehaven. Would'ja be able to fetch her?"

That rascal Puff had distracted the man with idle chiding and chatter, neatly orchestrating an overture on my behalf. It was Gerry Brown in Criehaven harbor after a long, chilly day's work, to whom the mission was charged. To this day, I admire his gentlemanly response, without hesitation or hint of his innermost thoughts: "Be ovah soon's we finish cleaning up." "You reckon 'bout half an hour?" "More like half ta threequahters." "We'll keep an eye out for ya."

From Mark's snug house we had a good view of the route Gerry would take. It was high tide, so he would run from Ten Pound Island, where Cliff Young used to graze his sheep each summer, toward the gut between Wheaton's Island, which forms one side of the harbor, and Matinicus. This is the shortest way, sort of a back door to Matinicus Harbor and navigable only in good water. As we looked out on the fiddling sea, we talked about Matinicus as I knew it and as they know it now. I soon came to realize that Mark was the son of a contemporary of mine, who'd attended Criehaven community suppers (baked beans and lobsters) and dances (slowand square-) which had been held in "our day." I still pictured his father as a boy himself! Then again, when I'm near the island, I regard myself as a girl - as if age is spelled by periods of contentment.

Time was easing away, and Puff felt we should start toward the harbor, just in case Gerry had slipped past us while we jawed. At the head of the wharf, Puff asked Mark to

hold his mug while he maneuvered the truck to back down the length of the wharf (Maine reasoning being that it's better to exercise skill than have to lug anything farther than necessary.) Though it was once an old, wide, granite-based ferry wharf, now the structure retains only a cement lane down the center. It is barely a car width, and the dedication with which Puff shot his pickup backwards required great self-confidence on Puff's part and much trust on the dog's since the latter faced the most immediately terrifying prospect. Near the lip of the wharf, the truck abruptly stopped, and I looked over my shoulder at the Atlantic.

After all their forbearance, I was anxious not to detain my samaritans any longer than necessary and assured them I'd be happy to wait on my own. Puff wouldn't hear of it. I believe he wanted to see the accomplishment of his sleight of hand. On all accounts, the observance of my departure seemed a natural conclusion — like the furling of a flag at day's end. Soon we sighted Gerry's black-hulled boat, its bow cutting the water into white lapels. It was about 4:30 p.m. The light was evenly chrome and cold; the lining of the sea had turned green.

Gerry sidled up to the wharf with calm acknowledgments. I suppose to him it was like having to drive to the airport after work to pick up a neighbor. To me, it was far more momentous. With the *Lean Bette* plowing toward Criehaven, I was appreciating that the adventure of reaching the island had already been as much a tonic as would be the idyll of the next few days.

When not encamped on (or en route to) Ragged Island, **Robin de Campi** is a writer and poet from Chester Heights, Pennsylvania.

REVIEWS

Selves, by Philip Booth. Viking, New York, 1990. 75 pages, hardcover. \$17.95.

Reviewed by Philip W. Conkling

Philip Booth's slim new volume of poems, Selves, arranges in its sparse white pages to tell us things about our many selves that we already know but don't know how to say. The voices that Booth hears are the deep and profound voices of isolation; voices from within those places where the tide pulls at the limbs from underneath and where the real light shines from tiny windows of the mind before dawn. This is Booth's gift; his genius.

The collection of 43 poems begins with "Garden," one of the most acutely tuned pieces for the inner ear that Booth has yet produced, and goes on from there to record other voices from the far provinces of his concern. They are all neighbors, some near, some distant. Through Booth's art we hear a family man's hymn of grace, a boatbuilder's curse for a hexnut, a paralyzed woman's silent scream, and an old lover's most secret song.

Those of us here on the Maine coast are especially lucky to be able to count among our many other treasures Philip Booth's ear as he ceaselessly wanders Castine's rocky outer shores and quiet inner streets. Philip Booth, among his many other distinguished achievements—Rockefeller and Guggenheim fellowships, the Lamont Prize and the Academy of American Poets Fellowship for Distinguished Poetic Achievement—is clearly Maine's Poet Laureate.

Different Waterfronts, Stories From the Wooden Boat Revival, by Peter H. Spectre; illustrated by William Gilkerson. Harpswell Press, Gardiner, Maine, 1989. 242 pages; hardcover. \$22.95.

Reviewed by George Putz

Room the beginnings of the Island Institute and the inception of the Island Journal, our friend Peter Spectre has admonished us that both the organization and its annual attract publicity to the islands of Maine, and so contribute to their stress through notoriety. Some of the Island Institute members feel this way, too, and so here we review not only a friend, but also a compatriot of the pessimistic scrutinizers. If you think that we don't worry about this, have another thought...

Peter Spectre has been an editor and writer on the coast of Maine for 20 years — editor for International Marine Publishing Company and for *WoodenBoat* magazine, writer for many national nautical and regional publications. His books include co-authorship of the now classic seven-volume *Mariner's Catalog* series, the *Down East Companion*, and *On the Hawser* (a beautiful volume about tugboats). This present book is a selection of his writings from *WoodenBoat*, some slightly revised, about the extraordinary renaissance in wooden boat construction and appreciation that has transpired during the past two decades.

Caring for Maine islands is an act both aesthetic and conservation-minded, a virtual analogue to caring for wooden boats. The rock-bound toughness of the islands is illusory. Anyone who lives on one, even visits one seriously, knows their fragile, ever-changing nature. Older islanders speak of the island of their youth as a distant, extinct thing, in much the same way that mariners speak of their natal nautical craft — and often with the implication that neither island nor boats are as satisfactory now. Both sentiments are easily poohpoohed by contemporary mariners and islanders, especially by families who make their living on the water. But the still-vivid memory of intact island communities with healthy indigenous economies and a tradition of craftspeople who turn trees into boats

and use them for their daily bread, exceeds nostalgia. It remains desirable and worth working toward in the modern world. Maine islands and wooden boats go together, and if the urge to combine them has passed from work to recreation, so be it.

The 18 chapters of this book are devoted to the human side of the splendid art and passion that goes into, becomes, and happens on and around wooden boats, both here and abroad. Introduced and concluded by insightful and humorous offerings on the history of the wooden boat revival, here is a bouillabaisse of heroes in the movement (Howard Chapelle, John Gardner, Dynamite Payson, and others), tales of sacrifice and hardship in service to the boatbuilding gods and demons, wooden boat cruises idyllic and interesting, and details of the wood arts that surprise and delight.

Up and down the coasts people struggle to keep their old wooden boats together and functional. In a chapter about Gary Weisenberger, a builder who makes sailing whitehalls, we discover how \$15,000 becomes a reasonable contemporary figure to pay for such a craft. We peer into the lives of Melbourne Smith, designer and creator of municipal windjammers on three coasts; Simon Watts, a true journeyman's craftsman; a half-dozen English boatbuilders who doggedly resist the surges of history and technological change; two shipcarvers; a furniture-grade speedboat restorer and builder; and Jim Brown, multihull designer and altruistic genius taking cutting-edge wood boat construction technology to the Third World.

The special beauty of wooden boats is self-evident. In this good island read, we discover not only that their demise is much exaggerated, but also that information and adventures toward their understanding and care are in many good hands.

We do not worry that Peter Spectre is endangering the objects of his affections by writing about them so well.

Hurricane Kitchen, How to Cook Healthy Foods for Large Groups and Institutions, by Rick Perry; illustrated by Douglas Alvord. Lance Tapley, Publisher, 1988. Indexed, 171 pages. \$21.95.

Reviewed by George Putz

R ick Perry directs the kitchen at the Hurricane Island Outward Bound School, and in this capacity has been Official Feeder of the Island Institute from the time it took its first bite. This graceful book is a summation of more than two decades of study and care about nutrition, food, cooking, eating, and people.

In a review that appeared in both the *Whole Earth Review* and the *San Francisco Chronicle*, I said this: "The very designation 'institutional food' conjures horrific visions and... dread. All in cruddy browns, tepid grays, and covered with nutritionally balanced slimes, set before us blindfolded so that we can't tell (by the taste) whether we are at school, camp, in the hospital, or a federal penitentiary. Yuk!

"With this excellent book, people who are responsible for the conduct of institutions and/or the care and feeding of groups can tell that hairnetted sourpuss who runs the kitchen to stuff its Number Ten tin cans where the sun don't shine and leave aboard the scrofulous camel it rode in on. Rick Perry is famous for his wonderful food at the Hurricane Island Outward Bound School, in Maine, where a handful of cheerful cooks serve a couple thousand meals a week to ravenous wilderness experiencers. He does this using real whole fresh foods, including some luxurious ones, on a budget smaller than that for other institutional kitchens with similar responsibilities. The most cynical detractors against 'health foods,' seed and bushes-haters, come away from his table thrilled and amazed, their attitudes altered forever.

"The first section of the book discusses a bit of general nutritional philosophy without posturing, piety, or rancor, then goes on to outline principles of menu planning, food handling, kitchen gear, and how to set up a grain room. The rest of the book is devoted to recipes that knock your socks off."

The book's relevance here goes beyond a work that simmered-up on a Maine island in the pots and pans of a friend. It has to do with Members of the Island Institute, whose involvement with the organization signals citizenship of a special kind, one that goes beyond a particular geographical or environmental concern. Institute Members are also members of, and volunteers to, other groups and organizations, including those that must feed large groups of people. Private schools, youth and special interest camps, hospital programs, church and civic groups, and clubs are part of the daily life and good purposes of many people. This book belongs in the scrutiny of every dietician and kitchen planner at every one of them. One copy in the hands of one of them is worth more than the 8,000 times this review will be printed for this issue of Island Journal.

Maine Speaks, An Anthology of Maine Literature, by the Maine Literature Project. Published by the Maine Writers and Publishers Alliance (in conjunction with the Maine Council for English Language Arts), 1989. Indexed, author biographies, 466 pages. \$17.95.

Reviewed by George Putz

his book is the product of frustration and hard work — frustration in the education community over the longstanding lack of a good general affordable reader of Maine writing available for classroom use; hard work in the excruciating task of deciding what should appear in such a collection. People who love literature tend to regard their favorite selections much as they do their own children. Children generally are important and nice. My children are wonderfully mandatory. Everyone will find some of his or her children missing, but in excluding them the editorial team did what had to be done and must accept their Purple Hearts and Silver Stars for Bravery with honor and distinction. We have to be grateful, even as we mumble.

The collection is balanced and first rate. It is divided under the sectional rubrics of Identity (self-awareness and self-discovery as Mainers); Origins (excerpts, renderings, and interpretations of native American, explorer, pioneer, and settler history and historiography); Work (woods, river, sea, shop, cottage, and factories); Nature (places and ecosystems, plants and creatures great and small, wild and domestic); and Communities (wit, wisdom, description, and events about people together). Proper examples of every kind of literate prose are included, and lots of effective poetry. The bounty of poetry reflects not only enthusiastically embattled poets on the editorial staff, but also the fact that Maine abounds in a good poets, and always has.

Islanders find sympathetic choices. Nautical, marine, coastal, and a few island entries are mixed through the selection - Jewett, Ogilvie, and Coatsworth move and shake; Moore, Booth, Coffin, King, and others focus; Hall's "The Ledge," and Baker's "Island Girl" (first published in our Killick Stones) wait in devastating ambush. Start to finish, the book charms and instructs. Inveterate island readers will wonder why a passage or two from Gerald Brace was omitted. I suspect it has something to do with the current war against sentiment being waged by Maine's literary community, which sacrifices lucid imagery and certain points of view for hard-nosed expertise and altercations currently required by academic position and professional attentions. It is curious that Kenneth Roberts was excluded (even though recommended) for reasons of excerpting difficulty. "Trending into Maine" was made for brief citing. His ironic portraits of early Arundel citizens and the essay on the history

of drinking in Maine come to mind. On the other hand, some of the included prose by contemporary Maine authors on the editorial board is very good.

What's important is that the must-have authors and examples are here, waiting for our pleasures, whenever we want. No other group of editors or results would, could be better. This anthology belongs in island homes and cottages.

The Practical Pilot, Coastal Navigation by Eye, Intuition, and Common Sense, by Leonard Eyges. International Marine Publishing Company, Camden, Maine, 1989. 244 pages, softcover. \$19.95

Reviewed by Peter Ralston

sure wish I had been gifted with this book when first messing about in boats. Leonard Eyges' (pronounced E'-Jus) concise and clearly presented commonsense piloting techniques put The Practical Pilot in a class entirely by itself. There are other, more ponderous tomes available which are the heavyweight champs of sheer technical data — but when was the last time you really needed to know the light configurations of a 300-foot Great Lakes grain barge or the intricacies of yacht club commissioning ceremonies? The subtitle promises advice on "Coastal Navigation by Eye, Intuition, and Common Sense" - and the book more than delivers on its promise. These three innate personal resources, refined by a steadfast pursuit of Eyges' 28 short chapters, will virtually guarantee a competent coastal pilot.

Mercifully, Eyges is not a subscriber to the "pain is gain" school of instruction. There is just enough handholding here to help even the most mathematically impaired would-be navigator through such usually deadly topics as magnetic theory, gravitational differential, arc length and circumference angle ratios, COP's and LOP's, deviation curves and vector addition. The author charitably introduces the latter as "not exactly a sexy subject" - or "in short, dull, dull, dull." There is a keen and consistent humor at work within these pages, which makes for an entertaining passage through a good deal of potentially heavy going.

By the time I forced myself through the first few "problematic" topics, I began to realize that the inadequacies were mine and not Eyges'. Made gun-shy by exposure to these subjects in less lucid books, I was tempted to skip a page here, a chapter there. But I stuck with those first few difficult sections and BINGO! - it all began to fit together. Eyges paces his instruction well, and the reader who sticks with him through the usual intimidating spots will pass into clear light as if emerging from a dead-thick fog. Speaking of fog, Eyges has an obvious affection for Maine, and a number of the book's well-conceived illustrations are situated in our waters. There is even a chapter about "Sailing among Islands."

Those who have fished the same bottom for years, or those others who rarely venture far beyond the outermost harbor buoys, may demur about the need for further study of seemingly basic piloting techniques. But Eyges makes a strong case to skippers of all persuasions (sail or power) and all levels of achievement: complacency is dangerous; competence equates directly to safety. He gently debunks the frustrations and problems of coastal piloting without cheapening the gravity of the subject. The reader quickly realizes that Eyges' wry humor and his obvious self-sufficiency would make him, or (failing a personal presence) this book, a great onboard companion whether at anchor in a tranquil harbor or pounding around in the stink, half lost. His admirers aboard Fish Hawk look forward to meeting this eminently practical and entertaining pilot one day.

ISLAND INSTITUTE MEMBERS & SPONSORS

ISLAND ASSOCIATIONS AND CONSERVATION ORGANIZATIONS

Atlantic Center for the Environment Audubon Ecology Camp in Maine Baxter Memorial Library **Bustins Island Village** Castine Conservation Trust Chebeague Island Council Chebeague Island Historical Society Chebeague Parents Association. Chewonki Foundation, Inc. Cliff Island Corporation Cumberland Mainland and Islands Trust Cushing's Island Conservation Corp. Friends of Nature Friends of Seguin Island The Housing Foundation Hurricane Island Outward Bound Institute of Island Studies Island Heritage Trust Islesboro Land Trust Islesboro School Jackson Memorial Library Kennebunkport Conservation Trust Long Island Civic Association Louds Island Realty Trust Maine Aquaculture Association Maine Lobsterman's Association Maine Marine Alliance Maine State Planning Office Marine Environmental Research Institute Monhegan Memorial Library Natural Resources Council of Maine The Nature Conservancy North Haven Historical Society Old House Journal Pemaquid Watershed Association Petit Manan N.W.R Rackliff Island Association Squirrel Island Library Thorndike Library Town of Swan's Island

Trust for Public Lands FOUNDATIONS

E.P. and Patricia Casey Foundation Charles Engelhard Foundation Dillon Fund Fore River Foundation Island Foundation Libra Foundation Maine Community Foundation Rosamond Thaxter Foundation O'Donnell Iselin Foundation Thomas J. Watson Foundation Weld Foundation Anonymous (2)

FOUNDING MEMBERS

Roger Berle Mr. and Mrs. Thomas D. Cabot Mr. and Mrs. Michael Dingman Susan and Thomas Godfrey Rosamond Frost Howe Mr. and Mrs. Richard Krementz Peter J. Marcelle George H. McEvoy Emily Muir Elizabeth B. Noyce Sally Engelhard Pingree Mr. and Mrs. Charles W. Pingree Mr. and Mrs. Peter Ralston Frank Simon II Mr. and Mrs. Thomas J. Watson, Jr. Peter O. Willauer H. Jeremy Wintersteen Mr. and Mrs. Andrew Wyeth Anonymous (4)

SUSTAINERS

Mr. Horace Hildreth, Jr. Robert and Robyn Metcalfe Dave Newbold

BENEFACTORS

Richard and Sally Bartley
Peter P. Blanchard III
Mr. and Mrs. Albert Creighton
Margery S. Foster
Mr. and Mrs. Paul Gleason
Mr. and Mrs. Lawrence Gralla
Mr. and Mrs. John Guth
Mr. and Mrs. Francis W. Hatch
Mr. Horace Hildreth, Jr.
Mrs. Caroline Morong
Mr. and Mrs. Nathan Saltonstall II
Joan P. Tilney
Mr. and Mrs. Foster Whitlock

PATRONS

Louis W. Cabot Mr. and Mrs. William C. Elliot Mrs. John Kenefick Mr. and Mrs. Richard S. Morehouse Harvey and Jean Picker Mr. Peter Quesada Mr. and Mrs. C. Lawson Reed Molly Potter Scheu Mr. and Mrs. Henry W. Taft Anonymous (3) Harvey A. Smith III In Memoriam

GUARANTORS Mr. Alan C. Bemis

Sophie Cabot Black Elizabeth and James Boylan Tony and Sally Capodilupo Conkling Family Jeff and Brinna Dworsky Mr. and Mrs. Richard Gilder, Jr. Kate Ireland Stacy Lloyd Sarah S. Meacham Phoebe Milliken Elizabeth Meyer Mr. and Mrs. Peter Nitze Mr. and Mrs. Sumner Pingree Mr. and Mrs. Jefferson D. Robinson III Mr. and Mrs. David Rockefeller Mr. and Mrs. Edward Philip Snyder, Jr.

Mr. and Mrs. Harold F. Soederberg

Mrs. Stuart Symington Mr. James T. Wallis Robert Frederick Woolworth

DONORS

Mary Ann Beinecke Rick and Ann Bresnahan Charles C. Cabot, Jr. John S. Carter Philip Conkling and Jamien Morehouse Mr. and Mrs. Charles Dana Gregor and Susan Davens Mr. Charles Dickey, Jr. Mr. Douglas Dillon Mr. Richard Emmet Dr. Peter Farmer Thomas C. Haible Devens and Margery Hamlen Elinor B. Jenny, VMD Betsy Krementz Mr. and Mrs. John Lincoln Mr. and Mrs. Richard C. MacKenzie Mr. and Mrs. John Macomber Dorothy Manon Richard McGuinness Jr. Ranlet and Elizabeth Miner, Jr. Mr. Harry R. Neilson, Jr. Mary L. Niles Mr. C.W. Eliot Paine Barbara S. Paul Charles and Rochelle Pingree Mr. and Mrs. Robert S. Pirie Mr. and Mrs. Philip Price, Jr. Mr. and Mrs. Peter D. Prudden Mr. and Mrs. W.F.H. Purcell Mrs. James C. Rea, Jr. Dr. Richard Rockefeller and Ms. Nancy Anderson Mr. and Mrs. Rodman Rockefeller Ted and Dana Rodman Mr. and Mrs. J. Peter Scott-Hansen Susan Shaw David Stein and Mary Soyer Mr. and Mrs. Holmes Stockly Donald B. Straus Cynthia Stroud Mrs. George Underwood Dr. and Mrs. Joseph Valloti Dr. and Mrs. Thornton Vandersall Mr. and Mrs. Mason Walsh, Jr. Mr. and Mrs. Frank Weil Mr. and Mrs. Frank P. Wendt Mrs. Douglas Williams

CONTRIBUTORS

Frank G. Akers
Mr. and Mrs. Richard Alden
David G.P. Allan
Mr. and Mrs. G. William Allen
Mr. Philip K. Allen
Mr. and Mrs. John A. Amory
Mr. and Mrs. James R. Anderson
Donald Barbato
David P. Becker
Richard and Barbette Behm
Mr. and Mrs. Todd Bewig

Mr. and Mrs. William Blair Mr. and Mrs. A.L. Bolton, Jr. Mr. and Mrs. Nathaniel Bowditch Mr. Dura Bradford Ms. Barbara Brannen Mr. Richard P.S. Bryan William T. Burgin P.R. Burman II Dr. and Mrs. Joshua B. Burnett Patrick Burns John and Ellen Buzbee Dr. and Mrs. Edmund B. Cabot Charles R. Callanan Dr. Janet W. Campbell Manu Chatterjee Mr. and Mrs. John D. Chiquoine Dr. M.F. Coffin Mr. and Mrs. J. Marshall Cole Mrs. Francis Coleman Henry Conklin R. Preston Conklin Timothy F. Conkling Allyn and Joan Coombs John R. Cornell and Family Jean M. Curtin Mr. and Mrs. Richard B. Dalbeck Carl F. Danielson Mr. and Mrs. Leverett B. Davis Robert and Barbara DeWitt Stacy Loucas Dimou Grace and Janette Dingee Mr. Alexander Dingee Mr. and Mrs. F. Eugene Dixon, Jr. Mrs. Rogers M. Doering Magruder C. Donaldson John Drury and Lucy McCarthy Peggy Dulany Mr. and Mrs. Alan J. Dworsky Mr. and Mrs. Frank Eberhart Ruth Marie and William Elcome Benjamin R. Emory Peter M. Enggass Mrs. Henry W. English Mrs. Charles H. Erhart, Jr. Douglas Erickson Mr. and Mrs. Frederic A. Eustis II Mr. and Mrs. A. Robert Faesy Alex E. Fava Marcia B. Fenn Mr. and Mrs. Norman Fletcher Daniel Fogelberg Mr. and Mrs. Walter B. Ford II John and Maggie Foskett Dr. and Mrs. Girard Foster Mr. and Mrs. Clay Fowler Dr. George J. Friou Mrs. Helen Fusscas Ruth K. Gannaway J. L. Gardner James R. Garrett Ms. Susan A. Gay Mr. and Mrs. Martin Gellert Chandler Gifford, Jr. Guido Goldman

Space precludes individual thanks to all those whose additional donation made our 1989 Russ Island and Annual Fund Campaigns a great success.



ISLAND INSTITUTE STAFF (from left to right): Philip Conkling, Julie Ann Canniff, Peg Hook, Caitlin Owen Hunter, Sharon Smalley, George Putz, Dorrie Getchell, Dave Getchell, Barbara Benson, Krisanne Rixon, Annette Naegel, Jody Cowan, Richard Podolsky, Peter Ralston, Bruce Morehouse. MISSING: Cynthia Bourgeault, Jim Hatch. Photo by Susan Murphy.

Mr. and Mrs. David Goodwin Wilson Greatbatch Mr. Paul Growald Mr. and Mrs. John Gummere Martin Haase Mr. William C. Haible Mr. and Mrs. Charles Hamblett A. Brooks Harlow, Jr. Deborah Weil Harrington Mr. Christopher M. Harte Mr. and Mrs. Peter Harwood Mr. and Mrs. Warren Hayes Dr. and Mrs. Robert Hiatt Deborah W. Hildreth Walter and Catherine Hill David and Iris Hoffman Ruth Hoffman Paul and Betsy Horovitz Mr. Robert Horowitz Mr. and Mrs. James R. Houghton Mr. and Mrs. Joseph M. Hughes Alex and Francis Imlay Pete and Sue Jaques Mr. David Jeffery Mr. and Mrs. A. Wilson Jones Mrs. Alice C. Jones Richard C. Kennedy Winston and Christina Kipp Charles E. Koch Mr. and Mrs. Robert H. Krieble Jeffrey and Alison Kuller Mr. Charles Lakin Mr. and Mrs. Corliss Lamont Michael and Mary Landa Macy Lasky Mr. David Lawrence Mrs. Rodney M. Layton Mr. and Mrs. George Lewis Peter C. Lincoln Samuel Lipman Ellen A. Little Mrs. Laurence M. Lombard

Mr. and Mrs. George R. Lucas Nigel MacEwan F.B. MacKinnon Mr. and Mrs. Edward Madeira James and Alice Madix Anthony Manheim Barbara and Bill Marshall James S. Marshall, M.D. Paul A. Martino Mr. and Mrs. Eldon C. Mayer, Jr. Mrs. Katharine Gates McCoy Mr. Alan McIlhenny, Jr. Dr. and Mrs. Keith McKay Dale McNulty Lucinda W. Mehran Mr. and Mrs. Hamilton Meserve Mr. and Mrs. Joseph Messler, Jr. Mr. and Mrs. M.B. Metcalf Betsy S. Michel Pat and Vicki Miele Larry B. Miller Mr. and Mrs. Ty G. Minton Mrs. Elinor W. Montgomery Mr. and Mrs. John More Constance Morgan Eric S. Murphy Mr. Henry R. Myers Myers Foundation Benjamin Neilson Dr. and Mrs. Neil A. Newton Mr. Andrew Nichols Elizabeth Nichols and Allan Chesney Rev. Denis T. Noonan III Philip Y. Normandie Michael P. O'Flaherty Peter and Barbara Offenhartz Anne and Fred Osborn Mr. and Mrs. Roberts Owen Linda Papkee Dave and Carolyn Parks Malcolm D. Perkins

Mr. and Mrs. Roswell Perkins Michael J. Perry Mr. and Mrs. Alvin Podolsky Mr. and Mrs. Robert Porter Dr. Paul H. Potter Dr. and Mrs. Thomas C. Putnam Peter W. and Alice H. Rand Daniel and Elizabeth Reardon Russell Rehm Andre and Sarah Rheault Mr. and Mrs. Jay R. Rhoads, Jr. Ency Richardson and Neville Doherty Rev. Charles K. Riepe Mr. and Mrs. William Riley John M. Robinson Mr. and Mrs. David Rogers Mrs. Paul D. Rosahn R.D. Ryder Dr. and Mrs. Richard Salb Frank and Brinna Sands R.N. Sayler Mr. and Mrs. Edward C. Shotwell Mr. and Mrs. Ralph Siewers Sherwood and Mary Small Mr. and Mrs. E.T. Smith III Mr. & Mrs. Langhorne B. Smith Mr. Philip W. Smith, Jr. Helen Spaulding John J. Stephens III, Ph.D. Joel W. Stevens Mr. Robert K. Stewart Mr. and Mrs. Byron Stookey Mr. James W. Storey David and Jean Strater Deborah Strom Corrin Peter Strong George H. Taber James L. Taft Nancy O. Talbot Kenneth K. Talmage Philip and Felicity Taubman

Mrs. Hubert Taylor Gladys R. Thomas Mr. and Mrs. David H. Thompson Carl W. Timpson Barry S. Timson Mr. and Mrs. H. Frank Trautmann Judith and Robert Tredwell Bruce Trembly Mark Umbach Dan Wallace and Marilyn Heinrich Beverly W. Warner Mr. and Mrs. Ted Weiselberg Peter A. Wentz Nathaniel and Kyra West West Bay Rotary Club Mr. and Mrs. John W.L. White George and Charlotte Whiteley, Jr. Charles D. Whitten James Russell Wiggins Mr. and Mrs. Paul Windels, Jr. Mr. and Mrs. Richard S. Wolfe Kathleen Wright Mr. and Mrs. Norbert W. Young, Jr. Mrs. Allyn B. Forbes In Memoriam William Vaughan In Memoriam

SUBSCRIBERS

David Acton
John and Brooks Axelson
Mr. Richard Abbondanza
Gordon Abbott, Jr.
Seth A. Abbott
Robert S. Abernethy
Mr. and Mrs. Charles Abrahamson
James Acheson
Mr. Stephan Achilles
Emory W. Ackley
Mr. and Mrs. William T. Adam
Dr. and Mrs. David L. Adams
Nancy B. Adams
Frank Adshead

Peter A. Agelasto Mr. and Mrs. William C. Agnew Dorothy Ahlgren John Albertini and Valerie Passler Sylvia Alberts Mr. and Mrs. Rodney Albright John and Mary Alden Mr. and Mrs. Robert E. Alden Mr. and Mrs. Charles B. Alexander Ruth Alexander The Alexanders S.C. Allain C. Russell Allen Mary and Gordon Allen Mel Allen Phoebe Allen Agnes C. Allen Wilson S. Alling Harold and Lillian Alpaugh Thomas Ambler American Antiquarian Society Mike and Donna Ames Bill and Joan Amory Mr. and Mrs. Thomas Amory Ioan and Dan Amory Roger Amory J. Bruce Amstutz David Anderson George H. Anderson Jean Harvey Anderson Robert and Barbara Anderson Ross Anderson Mr. and Mrs. Sherwood L. Anderson Roz and Mark Anderson Andrew Anderson-Bell Dr. and Mrs. Edward Andrews, Jr. Ed M. Andrews Fredric L. Andrews Stockton A. Andrews Mr. Gilman Angier, Jr. Bruce Anore Mr. and Mrs. Spencer Apollonio Douglas Archibald Jean Archibald Mr. and Mrs. Alexander Armentrout Robert W. Armstrong III Terry Armstrong Mr. and Mrs. Thomas Armstrong Thomas M. Armstrong, Jr. Meric Arnold Michael P. Asen Esq Peter and Oxana D. Asher Mr. and Mrs. Carleton Ashley Ralph Ashmore Lise Aubry Mr. and Mrs. Douglas Auchincloss Auciello Family Ahti Autio Ron Axelrod Kenneth and Roberta Axelson Peter Bachelder Ann C. Bacon Mrs. Theodra Bagg Margaret A. Bailey Douglas and Margaret Baird Jack Baker Madge Baker Vernon B. Baker Mr. and Mrs. Walton A. Baker Mr. Henry P. Bakewell Jr Catherine M. Ball Sam Ballard Timothy A. Ballard Abigail Banker Mr. Peter Banks Mr. Maxwell Bardeen Mr. and Mrs. Channing Barlow Mrs. L.A. Barnes Robert and Natalie Barnes Daniel Barnett Sam and Virginia Baron

Mr. and Mrs. Richard Bartlett Allen H. Barton Robert K. Barton Mr. and Mrs. William Bartovics Betsy Bass Linda Bassett Mr. and Mrs. Leslie L. Baston Blanchard W. Bates George W. Bates Stephen and Rachel Baumgartner James Phinney Baxter Mr. Seward Beacon Carole R. Beal Earlon O. Beal John F. Beale Holly Bealmear Ellen Beattie Eileen M. Beattie Alfred Beck Mr. Fred Beck Mr. and Mrs. Bernard Beckerlegge Michael Beebe Mr. Larry Belkov Christopher S. Bell David Bellows Andrew Bendheim Dr. and Mrs. Harry Bennert, Jr. Robert H. Bensing Barbara P. Benson Dr. and Mrs. Edgar A. Bering, Jr. Will Berliner Berman and Stephens Russel S. Bernard Arnold Berndt Steven and Sheryl Bernhard Dr. Jane Bernier, D.D.S. Mr. Henry Berry III Mr. Andrew Berry Mr. Howard Bertkau Annie Bertland Dr. Robert Berube Pam and Tom Bethea Thomas N. Bethell Mrs. Eliot Beveridge John and Carol Bianchi Anne G. Biddle John Bigelow Mr. Alfred Bigelow Mr. David Binger Jacqueline Binnian John and Mary Alice Bird Paul and Mollie Birdsall Mr. and Mrs. John H. Birkett Sarah Birkett J. Warren Bishop A.F. Bishop Mrs. Alfred Bissell Stewart W. Bither Pete and Ann Bixler Mr. and Mrs. Robert Black Black Friar Inn Pamela and John Blackford Dorcas and Chandler J. Blackington W.C. Blacklock Mr. Clyde Blackwell Mr. T. Whitney Blake Benjamin S. Blake Richard M. Blaney Marguerite Blattner John and Caroline Bliss Robert Block Christopher Blossom James and Elizabeth Bock Mrs. G.S. Bogart Thomas L. Bohan and Rhonda Berg Mrs. C.W. Bok Alan J. Bolman Charles S. Bolster Alfred Bonney Mr. and Mrs. Robert Boody Mrs. Howard Boone Philip and Margaret Booth Mr. Robert Booth J. Roger Boothe Mr. and Mrs. Charles Borda III Mr. and Mrs. D.T.B. Born Weldon Bosworth

May P. Bartlett

Cynthia Bourgeault Patricia and Neal Bousfield Kenneth C. Bovee, D.V.M. Bowdoin College Library Richard H. Bowen, Jr. Ms. Bowers-Moore Bob Bowie and Ruth Adams Ann and Paul Bower Robert B. Bowman Bill and Nicky Boyd Douglas and Alice Boynton Dr. Willard Boynton Mr. and Mrs. John W. Boynton Jay Braatz Mary W. Brackett Hubert Bradburn, M.D. Richard Bradleyand Ellen McCarthy Jane and Frank Bragg John W. Brainerd Mr. and Mrs. Robert H. Brandow Mary K. Brandt Maynard and Anne Bray Susan N. Breen Mr. William Brengle Mrs. Charles G. Brennan Barrett Brewer Mr. Jim Briggman H. Day Brigham, Jr. Stanley Bright G. Renfrew Brighton Mr. and Mrs. Walter Bringolf Mr. David Brink William and Dorothy Brinley Stephen Brock John and Mary Brock Gary Brookman and Tatyanna Seredin Steven P. Brookman Harvey Brooks Philip A. Brooks Henry G. Brooks Diane Brott Courant Dr. and Mrs. Broussard Robert and Sally Brower Mrs. Barbara W. Brown Barney and Liz Brown Cindy Makin Brown Mrs. Chester Brown George M. Brown James P. Brown Mr. and Mrs. Lewis H. Brown Mr. and Mrs. Arthur Brown Mrs. Francis S. Brown Mr. and Mrs. Jonathan Brown IV Stanley N. Brown Williard W. Brown Penn Brown Mr. Jonathan Brown V Janet and Dean Brown Mr. and Mrs. David Brown Helen Brownell Alfred C. Bruce, Jr. Donna Hallen and Joe Bryan Captain and Mrs. Carleton Bryant George E. Bryant John W. Bryfogle, M.D. Janet F. Brysh Mr. Donald Buckingham Jr. John S. Buckley Sherry and Norman Bunin Mr. Burbank and Ms. Larrivee Bureau of Public Lands Mr. and Mrs. Roger Burke Mr. Nicholas R. Burke David E. Burmaster Jeffrey S. Burnett Martin Burnette and Carole Mitchell Roland A. Burns Mr. and Mrs. R. Page Burr William F. Burr Richard H. and Lee Burt Clara R. Burton Mr. and Mrs. Jonathon Bush, Jr. Mr. John Bush Dorothy Butler Mr. and Mrs. E. Farnham Butler Robert M. Butler John W. Butler

Frank and Gladys Butterworth

Mr. and Mrs. Charles R. Butts Bill Buzbee and Lisa Chang David Cantine Agatha Cabaniss Thomas Cabe Mrs. Paul C. Cabot, Jr. Harry and Sandi Cabott B. Bartram Cadbury Andrew A. and Lindsey Cadot Dr. Samuel A. Calagione, Jr. George M. Callard, M.D. Diane and Bob Campbell Judge and Mrs. Levin Campbell Peter M. Camplin Jean Camuso and Eric Brown Mrs. Ralph M. Candage Elizabeth D. Canning Julie Ann Canniff Mr. Steve Canter Lydia and Robert Cantwell James B. Capron Harold F. Carey Mr. and Mrs. Charles Carlisle John and Mary Elizabeth Carman Nancy T. Caron Houghton Carr Mr. and Mrs. Peter Carr Ed and Jan Carrier Eric Carson Leo and Alice Carter Martha M. Carter Mr. and Mrs. Raymond Carter Sally Cartwright Dick Carver Richard and Nans Case Mr. and Mrs. Phillip D. Case Mr. and Mrs. Paul M. Castle William P. Cedfeldt Center for Rural Studies Cynthia M. Costas Centivony The Rt. Rev. and Mrs. Edward Chalfant Mr. Richard Chalmers Katherine Chamberlain Tom and Patience Chamberlin Bill and Jenny Chamberlin Mr. and Mrs. Nathan Chandler Peter and Liza Chandler Philip Chanin and Jacqueline Smethurst Ronald G. Chapman Mr. and Mrs. H.J. Charles Linwood R. Chase Mr. and Mrs. Bill Chenoweth Theo and Susan Cherbuliez Mr. and Mrs. Alan D. Chesney Iim and Barbara Chesney Laurie Chester Mr. and Mrs. Frazier Cheston Mr. and Mrs. Morris Cheston Morris Cheston, Jr. Rachel Child Thomas Chittick Dr. and Mrs. Walter R. Christie Jill Citrin Roger S. Clapp Bronson Clark and Harriet Warner Mr. Chapman Clark Mr. and Mrs. David W. Clark John Clark, Jr. Mrs. Van Alan Clark Robert L. Clark Family Mr. and Mrs. Stephen Clark Susanne G. Clark Thomas R. Clark Ms. Cecily Clark Eric T. Clarke Sally Clason Jane and David Clemens Mr. John Clemens Mr. Alan P. Cleveland David Clevenson Peter Clifford Patricia Cliney Lawrence Clough Robert C. Cobb, Jr. Sara Cobb O.B. Cobb Mr. and Mrs. Jon Coble Dr. and Mrs. Jonathan Cohen

Richard Barringer

Thomas C. Barron

Mr. and Mrs. James F. Barron, Jr.

Captain and Mrs. C.T. Bartlett

Rufus Barringer

Roland Barth

James Bartlett

Ralph L. Cohen and Susan Chase Cohen Theodore Cohn Ms. Elizabeth Cole Morril Cole Mr. and Mrs. Edward J. Collins Mr. Stephen Collins Gerald L. Collins Fletcher and Margaret Collins Anne F. Collins , M.D. Mr. and Mrs. Doug Compton Concepts in Comfort Mr. and Mrs. Robert B. Congdon Mrs. William Conklin Joanne Conn Mr. Jim Connell Connie and Dee Dee Conover Oliver B. Conover Robert and Kellie Coombs Hayden and Helen Coon Mr. Stephen Cooper Virginia P. Corsi Ms. Ann Cort Marilyn L. Cottle Mr. Richard Couch Alice C. Coughlin W. David Coughlin P. Kent Coughlin Eugene Coughlin Lee W. Court Bill and Jody L. Cowan Bob Cowan and Ellie Stein-Cowan Mr. and Mrs. Horatio C. Cowan, Jr T.A. Cox Laurie and Thomas Cox Mr. Hyde Cox Sam and Lee Cox John Coyle Mr. and Mrs. James C. Cram Mrs. Mary M. Cramer Fred Crane, Jr. Mr. Peter Crary Mr. and Mrs. G.B. Creelman Bigelow and Jeanne Crocker John Crocker and Agatha Littlefield Constance B. Crocker Clark Crolius and Victoria Nolan Miss Irene Crosby John E. Crouch W.R. Crouss Mr. and Mrs. Kenneth L. Crowell John S. Crowley Mark Crowley Mr. and Mrs. Matthew Cullen, Jr. Henry L. Cullen Anvilla P. Cunningham Mr. and Mrs. Huntington Curtis Dr. A.P. Curtis Dr. and Mrs. D. Joshua Cutler Dr. Clifford Dacso Robert L. Dale George F. Dalton Mr. and Mrs. Cotton Damon Donna Damon Barbara Damon Mrs. John L. Danforth Ms. Lyn Danforth Lee and Jeffrey Darrell David Dash Mr. and Mrs. Thomas Dasson Mrs. John Davenport Jerry and Penny Davidoff Robert Davidoff and Davida Carvin Ms. Anne Davidson Mr. and Mrs. Darwin K. Davidson Mary B. Davidson J. Staige Davis Janice Davis Mr. and Mrs. Joel P. Davis Mr. and Mrs. Kenneth E. Davis Mr. and Mrs. Leverett B. Davis, Jr. Mr. Arthur E. Davis Sheppard H. Davis Mr. and Mrs. Endicott Davison, Jr. Betsy Dawkins Stuart and Ellen Dawson Frances P. Day Howard W. Day

Dr. and Mrs. Robert Day

Dr. Charles De Sieyes Kate S. Debevoise Robin DeCampi Ed Deci Richard Deeran Roger M. Deitz Stephen and Susan DeLay Rev. and Mrs. Robert Dennett Paul W. Dennett Mr. Leland Dennett Peter and Marilyn Deraney Janet H. Derby Joseph deRivera Paul M. Dest Jesse C. Deupree DeVault Family Peter DeVries John and Margaret Dice T.W. Dick Co., Inc. Larry Dick Walter and Karen Dickes Mr. and Mrs. S. Whitney Dickey Herbert R. Dickey III Brenton H. Dickson Mary M. Dietrich, M.D. Dick Dill Sally Dillon Eva K. Dimond Ms. Adrienne Dingee Mr. and Mrs. Bruce Dining Mr. Timothy Dining Mr. and Mrs. Henry Disston, II Mrs. Horace C. Disston Mr. and Mrs. T. Henry Dixon Mr. Carlton Doane Diane Doig Mr. Benjamin Doliber Georgia B. Dominik Peter J. Donahue Mr. and Mrs. Henry T. Donaldson Lorraine Donaldson Valerie L. Donham Mr. and Mrs. Jos. C. Donnelly Mr. and Mrs. Donald Dorsey Mrs. Sanford Doughty Theodore Dourdeville and Karen Moore James Dow and Mary Whiting Mr. and Mrs. Christopher B. Dow Mr. and Mrs. C.B.Tertius Downs Louis Drapeau Mrs. Ford B. Draper, Jr. Mr. John B. Drisko Mr. and Mrs. William R. Driver Mr. and Mrs. William Drury Will and Elaine Drury Mr. Richard Duddy Mr. and Mrs. Charles F. Dunbar, Jr. Mr. and Mrs. Donald C. Duncan Roger and Mary Duncan Jim and Cindy Dunham Ann and Ken Dunipace Chesley M. Dunlap Jack and MaLeRoy Dunlap Jeanette Dunlap Michael Dunn T. Phillip Dunn Mr. and Mrs. A. Hunter Dupree Clare and Lincoln Durst Eliza Earle Muffy Eastman Ms. Lorrie Eastwick David and Jean Eaton David Eden and Raymonde Herskowitz Mait Edey Jane E. Edwards Mrs. Emmet Edwards Barbara Eggert Rabbi and Mrs. H. Bruce Ehrmann Mr. and Mrs. Otto Eifert Mr. Avner Eisenberg Mr. and Mrs. Eisenstein Dr. K.R. Eissler Sue Eldrege Stanley Eller Ruth B. Ellis Mr. and Mrs. Ray G. Ellis Timothy B. Elllis

Bennett Ellison

James D. Ellsworth Mr. and Mrs. Lance Elwell Dr. and Mrs. Kendall Emerson Mr. and Mrs. Edward W. Emerson Willie M. Emerson Mr. Stephen H. Emmons Carl and Margaret Engelhart Bill and Carolyn Epton Mr. and Mrs. David Erdman Peter V. Erickson Mr. and Mrs. William G. Erickson, Jr. Jan R. Erikson Mr. and Mrs. Ralph E. Eshelman Irving and Cathleen Esleeck, Jr. James J. Espy Mr. Robert Estell Doug Estrich Mrs. Theodore Evans Rosemary Hall Evans Charles and Margaret Evans Mr. and Mrs. William M. Evarts David Evelyn Mrs. G.P. Ewing Explorers At Sea Eye Care and Surgery Center of Maine Dr. Paul C. Fagan Landon Fake Family Institute of Maine Richard J. Fanning Edith S Farnum Mr. Cyril Farny Mr. and Mrs. John Farr Mr. and Mrs. H. K. Faulkner James and Nancy Faulkner Dr. Felix Favorite James Fay Dorothy F. Fay Marion Fear Ellen D. Feld Mr. and Mrs. Warwick A. Felton Mr. and Mrs. Whitney Ferer The Ferlic Family Dr. Gary Fessler Daniel E. Field Russell W. Field, Jr. Mr. and Mrs. David Field Mr. and Mrs. Peder O. Field Peter Fifield Woody Filley Arthur Fink John H. Finley III Tatiana and Julian Fischer Mr. and Mrs. F. Wood Fischer Mr. Joseph J. Fischer Audrey S. Fisher Mrs. Virginia S. Fisher Lee and Jean Fisher William G. Fisher H. Benjamin Fisher Mr.and Mrs. William Fiske Betsy Fitzgerald Paul Flagg Robert Fleming Kent Fleming John O. Flender Mr. and Mrs. Bradford Fletcher Abbot Fletcher Mr. and Mrs. R.T. Fletcher Mr. and Mrs. P. G. Fletcher Paul H. Flint LuAnn Florio Kathie Florsheim George B. Flynn Eleanor I. Fochesato and Family Caleb Foote, M.D. William E. Foote, Jr. Mr. A. Irving Forbes Amy E. Ford Joseph A. Forest Dari and Paul Forman Louise R. Forrest George Fosque Mr. William S. Foss Burton and Beverly Foster Mr. and Mrs. William G. Foulke Gary Fountain Mr. Douglas Foy

Dan Fox Melanie Fox Christopher Fox and Ellen Remmer Diane Francis Mr. and Mrs. Douglas A. Frank Jerry Frank John M. Frankovich Elsie and Jonathan Freeman Stanley L. Freeman Mr. and Mrs. John B. French Mr. and Mrs. Stanley G. French Mr. and Mrs. William C. French Craig Freshley and Carol Nelson Mrs. George Fricke Mr. and Mrs. Peter Friedel Ed Friedman Peter Friend Robert and Elizabeth Friou Frye-Dunklebarger Family Peter and Marilyn Fuchs Shirley and Adolph Fueust Felice Fullam Anne S. Fullerton Thomas B. Fulweiler Rita Furlow Robert E. Furtney David and Kathy Gage Suzanne Gabriel Guy G. Gabrielson, Jr. Robert W. Gage Charles L. Gagnebron Janet Gagner Mr. and Mrs. William Galey Dr. William Gallagher Peter Gallant Mr. Richard Gallant Louise S. Gamache Ian and Lisa Migliorato Gamble Wendy Gamble John F. Garber Thomas Gardiner Ms. Ann Gardner Mr. and Mrs. Wyatt Garfield Mrs. Darius W. Gaskins Gail Chandler Gaston Christopher Gates, M.D. Mr. Gregory Gates John O. Gates Diana R. Gay Mr. Charles Geer Anne W. Geier Shirley G. Geoffrion Robert G. Gerber Cheryl H. Gerding Robert L. Gerling Peter Gerquest Dr. M. Gerrie and Veronica Sarausky James F. Gerrity Geraldine Gerry Mr. R. Carey Gersten Mr. and Mrs. Karl E. Gerstenberger Dwight Gertz and Virginia Welles Judge and Mrs. G Gesell Dave and Dorrie Getchell Mr. and Mrs. E.L. Getchell Geoffrey C. Getman John Getz Dr. and Mrs. Edgar T. Gibson Mr. and Mrs. Charles Gifford Mrs. Carl J. Gilbert Thomas T. Gilbert Stuart P. Gillespie Mrs. A. Gillies William Ginn and June Lacombe Ann Ginn Mr. John J. Glessner III Riva Glushakow Ms. Clare Gnecco William S. Gober, Jr. Mr. and Mrs. Richard Goddard Peter Godfrey David and Sara Godine Peter A. Goffin Howard and Marion Gold Miss Marion Goldbach Henry Goldberg Elizabeth Deupree Goldsmith Lawrence Goldsmith

Russell Goldsmith Charles Goldstein Mr. Mark R. Goldweitz Robert Gonvea M.D Barbara M. Goodbody Terry Goodhue Robert and Jeananne Goodhue Stanley R. Goodnow Paul S. Goodof Mr. John Goodrich Mr. Stephen Goodrich Francis B. Goodwin Mr. and Mrs. Clyde Gordon Mr. Peter Gorer Michael E. Goriansky Jonathan and Nina Gormley Norman A. Gosline Lester W. Gott Mr. Stephen R. Gough Mr. and Mrs. Lyttleton Gould, Jr. Roger H. Gould Dorothy and Rudy Graf Linda and Ward Graffam David Graham Harriet Gray Mr. Eric Green **Edward Greenberg** Mark E. Greene Mr. and Mrs. Joel P. Greene Ms. Phyllis Greene Mr. and Mrs. Lawrence P. Greenlaw Mr. and Mrs. Willard P. Greenwood Dr. Clark Gregory Linda Gregory Mrs. Zulma S. Grey Mr. Evertt W. Grey Hilde Grey David B. Griffith John and Susan Griggs, II Anne and Gordon Grimes Frances R. Grindell Merle B. Grindle Stan and Toni Griskivich John Groman Grace and Steve Gross John and Nancy Gruen Joseph Guaraldo Elizabeth Guest Mr. Samuel Guild, Jr. Catharine W. Guiles Ms. Jane R. Guthrie Don Guy Mr. and Mrs. Robert Habig Randall A. Hack John and Betty Hadden Mr. Hamilton Hadden, Jr. Mr. and Mrs. Hamilton Hadden III Mr. and Mrs. William K. Hadlock Mr. and Mrs. F.P. Haeni Stan and Sally Hager David Hall Mary M. Hallman Mr. Samuel M. Hamill, Jr. B.W. Hamilton Robert and Dagmar Hamilton William and Susan Hamilton A. Loring Hamlen James Hamlen Arthur and Marianne Hamlin Joanne L. Hammar Robert A. Hammond Donald and Holly Hammonds Edward R. Hampson Morris C. and Linda Peyton Hancock Mr. John R. Handrahan Albert G. Hansen Stephen and Christine Hansen Kathy Hanson Sherry Hanson Chalmers Hardenbergh Mr. and Mrs. Ralph Harder Robert and Diana Harding Mrs. Suzanne Harding Kevin Harding Montgomery Hare Jim Harford Gordon Hargraves

Muriel Harper Mr. and Mrs. Charles Harriman Mr. Bruce Harriman Denis Harrington Deborah and John Harrington Bob and Pat Harris John C. Harris Richard H. Harris Ross J. Harris Mr. and Mrs. Pegram Harrison Marshall C. Harrison Mrs. William G. Hart, Sr Mrs. George Hart Ed and Janet Harte Mr.and Mrs.William Hartmann Rolf D. Hartmann Harriet Harvey John B. and Aileen Harvey Theresa Harwood Sherman and Sarah Hasbrouck Mr. and Mrs. Harry G. Haskell, Jr. Dr. W.W. Haskell Mr. Benjamin Haskell Mr. and Mrs. Matthew T. Hastings Jim Hatch and Pat Jennings Margaret T. Hatch Melissa Hatch Mr. and Mrs. Francis Hatch III Mr. and Mrs. George W. Hatch Ms. Victoria Hatch Ms. Pamela Hattem Mr. and Mrs. John R. Haug Philip C. Haughey William A. Haviland John C. Hawley Mrs. Raymond Hawtin Mr. and Mrs. John Hay Alden H. Hayden Malcolm and Jennifer Hayden Mr. and Mrs. Donald C. Hayden, Jr. Martin and Anne Hayden James E. Hayden Katherine A. Hayes Robert and Priscilla Hayes Charles and Mary Haynes Haystack Mountain School of Crafts Benjamin N. Hayward, Jr. Mr. and Mrs. Robert P. Hazzard Mr. and Mrs. Fred Heanssler Andrea Heap and Gavin Watson Mr. and Mrs. David Heap William J. Hearn, Jr. P. Heaslip Fred and Bobbi Hecklinger Mr. and Mrs. Morrison H. Heckscher Mrs. Otto Heddericg Willy Heeks T. Heidenreich III T. E. Heidenreich, Jr. Mr. Frederick Heilner Mr. Joel Helander George and Laura Heller Suzanne Heller Mr. C. Helmboldt Booth Hemingway Faryl Henderson Mr. Hendrick Robert W. Henkens Ruth G. Hennig Frank Henry Heritage Printing Company Nancy Herman Irene D. Heroux Mr. and Mrs. James W. Hesselgrave Michael L. Hetzel Jean J. Hewitt Charles Higgins Alison Hildreth David M. Hildreth Mr. and Mrs. Charles Hildreth Marjorie J. Hill Mr. Anthony Hill Claudia B. Hill

Carl Hiller

Henry R. Hilliard, Jr. Albert C. Hills

Helen J. Hiltner

Mr. and Mrs. Charles F. Hilly, Jr.

David and Ann Hilton Mr. and Mrs. John W. Hincks Mr.and Mrs. Michael D. Hinkle Thomas L. Hinkle Stephen and Grace Hinrichs E.I.Hirst F.P. Hitz Anne R. Hoagland Elizabeth N. Hobby Mr. Melville T. Hodder Beverly R. Hodges Iov Hoffman Mark L. Hoffman Anne E. Hoffner Mrs. Robert S. Hoguet Ms. Elaine Hokansson Dr. Harry S. Holcomb Dwaine Holden Franklin B. Holland Mrs. William M. Hollenback Mr. Fred Holler George and Nancy Holmes Robert and Virginia Holmes Lloyd Holmes Rosalind S. Holt Juergen Homann Margaret E. Hook Roger and Ann Hooke Robert C. Hooper Douglas Hoople Quentin M. Hope Alfred H. Hopkins, Jr. Ms. Alix W. Hopkins
Stephen C. Hopkins
Ms. Lindsay Hopkins-Weld
Mr. and Mrs. William Hoppin
D. Brock and Helaine Hornby Mr. and Mrs. Jed Horne Mr. and Mrs. John W. Hosmer Mr. and Mrs. John Hosmer,Jr. Mr. and Mrs. Wm. Houldin, Jr. Mr. Kelley House Katie Housman Gary D. Howard, D.M.D. John Howard Mr. and Mrs. James B. Howard Mr. and Mrs. R.R. Howard Elizabeth Howe Mrs. Lawrence Howe Anne S. Howells Douglas A. Howen, M.D. William H. Howison John and Cynthia Howland Charles E. Hoyt L.H. Hoyt M.D Amber Hsueh Edgar and Anne Hubert Julie Hudson Mr. & Mrs. R.D. Hudson John and Jinx Hufnagel Lawrence Hughes Mrs. Samuel Hughes Mr. Steven H. Hughes Sophie A. Hugo Edward and Joan Hulbert Joan Hulburt Ann Humphrey and Aaron Glazer Gene Doris Humphrey Romilly and Elizabeth Humphries Horace H. and Elva Hunt Caitlin O. and Bradley J. Hunter Malcolm Hunter Stuart W. Hunter John R. Hupper Frank E. Hurley, M.D. Ann Hussey and Michael Nazemetz Elizabeth A. Huston Nancy K. Hutchinson Harriet W. Hutchison William R. Hutton George M. Hyde Mr. and Mrs. William Ingalls Norman D. Ingalls John and Patricia Ingham Lawrence Ingrassia Mrs. R.R. Inman lay and Lea Iselin Mr. and Mrs. Lewis Iselin

Island Resource Foundation Isle of Springs Assoc., Inc Mr. and Mrs. M.R. Iszard Margaret C. Ives Margaret H. Ives Rev. Robert E. Ives Catherine Ives August T. Jaccaci Mr. David P. Jackson Mr. Charles Jacobs Bruce Jacobson Dr. Robert Jacobson K.W. Jacoby Dick Jagels Edward Jager Stephen W. James Ellen F. Jamison Ron and Shirley Jarvella Costikyan Jarvis Mr. and Mrs. John A. Jenkins Mr. and Mrs. F.W. Jenness M.V. Jennings George and Elizabeth Jennings John P. Jennings Nicholas F. Jenny William M. Jewell David and Marsha Jewett Freeborn G. Jewett, Jr. Frank S. Jewett Curtis T. Jodrie Mr. and Mrs. John Johansen Edmond Johnson Elizabeth B. Johnson G. Walter Johnson Dr. and Mrs. Irving S. Johnson Louise Johnson Mr. and Mrs. Richard W. Johnson Paula Johnson Pegram Johnson Ralph Johnson Vera Johnson Mr. and Mrs. Daniel Johnson Bruce Johnson Beverly and Stephen Johnson Christian Johnson Jennifer Johnson Dorothy and Harry Johnson David Johnson Robert C. Johnston Katharine Mayer Johnston Mrs. Elizabeth J. Jones Howard E. Jones Mr. and Mrs. Rendle A. Jones Virginia Crowell Jones William and Elizabeth Jones R.N.De Jong, MD Philip and Sheila Jordan Fred Briggs Jordan Donald J. McCrann, Jr. Steve Kahl Auram Kalisky Michael N. Kalliotzis Mr. and Mrs. Jerome S. Kalur Judith Kaminski Mr. and Mrs. Kaminsky Mrs. George Kaplan Bruce R. Katz Geoffrey Katz Elizabeth H. Kaufman James O. Kayler Anne C. Kazanjian Mr. and Mrs. J. T. Kazenski John and Suzanne Keach Anita Kearns Bryan Kearns Stafford W. Keegin Mr. and Mrs. Henry Keene Mr. and Mrs. Albert Keidel, Jr. Michael Keller Morris C. Kellett Lionel D. Kelley Rusty and Betsy Kellogg Mr. and Mrs. John Kellogg Ned Kendrick Marilyn Kenison Mr. and Mrs. Thomas W. Kennedy Linda Withelm and David J. Kennedy Dr. Charles Kensler

Philip M. Harmon

Simon and Joan Keochakian Jim and Martha Kerney Mr. and Mrs. Glenn Kersteen Thomas Kessenich Mrs. George T. Keyes Colleen Khoury and David Karraber Mr. Thomas Kiley Mr. and Mrs. Robert D. Kilmarx Gary Kimball Richard A. Kimball Mr. George Kimball Edie Kimberling James B. Kinane Bruce and Jane King Paul S. King Mary Anne King Mrs. Howard T. Kingsbury N.W. Kingsbury James J. Kinnealey Elizabeth Kinnicutt Karen Kiokemeister Deryl P. Kipp Ellen Kirch Dr. and Mrs. Dunham Kirkham Margaret Kirkpatrick Mr. and Mrs. Charles E. Kitchin Charles C. Kline Johnsia N. Knapp Mr. Gerald Knecht Christopher Knight Mr. and Mrs. Richard Knight Mr. Robert Knight Jean G. Knight Marcus P. Knowlton Dr. and Mrs. Stephen Knowlton Dr. and Mrs. Mason Knox III Sigurd A. Knudsen, Jr. Sandra Kocher Maryan Koehler Austin V. Koenen Vicki Kofender Jurgen Kok Mrs. Elizabeth Kolm Dr. and Mrs. Neil Korsen Donald R. Korst, M.D. Dr. Daniel F. Kostishach Lea Kouba Mr. and Mrs. James N. Krebs Mr. and Mrs. Arthur Kressly Alan J. Kretz Jack and Ruth Kruysman Kenneth H. Kuenster Mr. David Kuhns Catherine Kulka Mr. and Mrs. Philip B. Kunhardt, Jr. Mr. and Mrs. P.B. Kunhardt III Peter and Suzy Kunhardt Steve Kvarnberg Mr. and Mrs. Eugene Taylor Benjamin and Linda Labaree Penelope Lachmann Gary A. Lacoste Mr. and Mrs. Edward R. Ladd Mrs. C. Haven Ladd Curtis Laffin Jo Ann Lally Mrs. Hubert W. Lamb Capt. Harold Lamb Mrs. A. Bodine Lamont Carleton G. Lane William and Betsy Lane Lucinda Lang
Dr. and Mrs. Bruce Langford Mary Minor Lannon Mr. and Mrs. David Larochelle Roy Larsen Henrietta Larson James B. Lasoff Kenneth P. Latham Robert R. Laughlin Peter Lawlor Mr. and Mrs. John R. Layton Thomas LeaMond Mr. and Mrs. Charles Lee David Lee

Eugene and Brooke Lee

Mr. Walter Leis

Mr. and Mrs. Winthrop H. Lee

Mr. John LeMole James F. Lentowski John S. Leonard Robert and Gwen Leonard Val and Jim Lester Tory Leuteman Robert Levey and Ellen Goodman Robert A. Levin Barry Levine Nancy Levine Mr. Kenneth L. Levinsky Richard P. Lewis Mr. and Mrs. Geoffrey Lewis Mr. and Mrs. Donald S. Libby Ed and Sylvia Libby W.D. Libby Dr. and Mrs. W.A. Lieber Ronald S. Ligon Lincoln County Planning Office Bruce Lincoln Jonathan and Priscilla Linn and Family Gregg Lipton and Sara Crisp Burnham Litchfield Elizabeth A. Little Henry P. Little Mr. Carl Little Gerald T. Littlefield Barbara L. Lockwood Hamilton Lockwood Ward Logan James M. Lombard L.C. Lombard Marian H. Long Zachary M. Longley Mrs. John H. Longmaid Mr. Stanley Longstaff John Lopez Mr. and Mrs. Frederick W. Lord Mr. Richard Lord David B. Losee Mr. and Mrs. B. Lounsbury David Lovejoy Mr. Charles R. Lowell Mr. and Mrs. David H. Lowell Drs. Iran and Susan Lowenthal Nancy Lubin Robert S. Ludwig Ed Luetje Hack Luikart Mr. Paul Luke Michael Paul Lund Mr. Robert Lundstrom James W. Lunt Mr. and Mrs. R. Gordon Lutz Richard and Jing Lyman Theodore Lyman William and Clair Lyon Diane MacArthur Charles L. MacDonald, Jr. John MacDuffie Merwin A. Mace David MacKenzie Charles MacKenzie Ms. Joan MacLesse George MacLeod Robert S. MacNeille Mrs. A.J. MacRae Doug MacVane Henriette MacVane Mr. Peter Madden Audrey R. Madden John and Catherine Madeira Mrs. Constance Madeira Bob Maher and Kate Chambers Mr. Thomas Mahony Maine Dept of Transportation Mr. Christopher R. Makins Stephen Malcolm Allan Mann Mrs. Wilfrid Mann Robin and Fred Mann Captain T.D. Manning Rob Manter Hal and Marge March Joe March

Harry Byron Marcoplos

Parker Marean

George Marnik

Murlin and Robert P. Marsh Mr. and Mrs. Edward W. Marshall Mr. and Mrs. Robert T. Marshall Alan and Helen Marston Mr. and Mrs. Gordon Martin Peter and Hannah Martin Douglas and Cynthia Martin A. Peter and Morea Martocchio Kenneth and Cherie Mason Mrs. Robert C. Mason Eleanor A. Mattern David Matthews and Kendra Farrell Dr. Stephen Matthews Daniel Mattox Gail M. Mau Charlotte Maurer Mr. and Mrs. Nicholas Mavodones Richard D. May Doug and Sue Mayer James Mays Rosemarie Mazzei Dr. and Mrs. George McAdams James C. McAdoo Steven and Ursula McAllister The McBean Family Philip and Jane McCarthy Alan J. McClelland Ms. Lynn McComiskey Elizabeth McCormack Mr. and Mrs. McCormick Gertrude L. McCue Mr. and Mrs. W.A. McCuskey Mr. Marc McDonnell James McDonough M.D. James and Judy McDonough David and Nancy McDowell Georgia Lee McElhaney David E. McGiffert Dr. Russell C. McGregor Mrs. John McInnes III Doug and Alegra McIver Patricia McKay James and Helen McKendry Ann P. McKendry Richard McKenney John R. McLane, Jr. Elisabeth McLane-Bradley Preston and Beverly McLean Kevin McMahon Barbara McMahon Mr. and Mrs. Kevin McManus S.S. McMillan, III Joan P. McNamara Richard A. McNeill Peter and Barbara McSpadden William C. Meade, M.D. Mrs. Winthrop Means Dr. and Mrs. Thomas F. Mehalic Henry Meigs Mr. Charles Meigs Rev. Steven Melamed Linda Melenbacker Greg and Jennifer Melkonian Robert H. Memory Thomas Menaker Ms. Susan Mendenhall Mr. Edward Mendler David Mention James and Liza Mercereau Mr. Normand Mercier Mr. Dwight H. Merriam Paul D. Merriam Marshall G. Merriam Newton P.S. Merrill Aidin Merrow, M.D. Richard Mersereau Mr. and Mrs. Robert Meserve Mary K. Metcalf Peter F. Meyer Pete and Marianna Mickelson Andrea J. Mietkiewicz Mr. William R. Milam Frank Miles, Jr. Mr. and Mrs. G. Maccullouch Miller II David P. Miller Paul L. Miller Richard Guy Miller Rob Miller

Shelby and Joanne Miller Julie Miller Ms. Patrica Miller Mark and Bonnie Miller Jim Miller Peter Milliken Jim Millinger Bob and Libby Mills R.W. Miner, Jr. Elizabeth C. Minot Caren A. Minzy Mrs. Douglas Mirk Mrs. Ruth H. Mistark Don and Sheila Mitchell Donald G. Mitchell Emily M. Mitchell Mr. and Mrs. John Mitchell Mr. and Mrs. James R. Mitchell Mr. and Mrs. Peter Mitsakos Mr. Charles Mixter James and Ruth Modisette Kenneth and Christiane Moller Mr. Lloyd Momborquette Mrs. G. Gardner Monk Hugh Montgomery David Montgomery Mr. and Mrs. Charles F. Monzeglio, Jr. Mr. and Mrs. William Moody Dennis Moonan and Pam MacBrayne Mr. and Mrs. H.A. Mooney Mr. and Mrs. Michael Moore Peter and Louisa Moore Gregory Moore Leon H. Moore, Jr. Mr. and Mrs. Christopher Moore Mrs. John R. Moot Mrs. James T. Morahan Bruce and Anne Morehouse Cynthia T. Morehouse Mr. and Mrs. A. Perry Morgan, Jr. John Christopher Morgan Dr. Leonard Morgan, Jr. Mr. and Mrs. Dodge Morgan Rhidian M. Morgan Mr. Daniel Morganstern Jack Morris Jean G. Morrison Mr. and Mrs. Norman Morse Mr. and Mrs. Fessenden Morse Wells Morss Duryea and Peggy Morton Frederick S. Moseley III Peter and Elizabeth Moser Mr. and Mrs. George Moss John K. Moulton T.J. Mueller Shirley and Donald Muirhead Richard W. Muise John H. Murphy Jean S. Murphy Meredith Murray Mr. and Mrs. Edward A. Myers Stanley and Margaret Myers Annette S. Naegel Gary Naegel Jean E. Nagel Mrs. Anne H. Nalwalk Elizabeth C. Nelson Mr. and Mrs. David Nelson Edward and Deborah Nelson Mr. Peter Nelson Mr. and Mrs. Peter Nesbeda Adolph Neuber New York Yacht Club Library Mr. and Mrs. H. LeRoy Newbold John and Cornelia Newell William and Louisa Newlin Frank Newlin Dr. and Mrs. Edwin B. Newman Mr. and Mrs. Jack Newman Lorraine Nichols Mr. and Mrs. H. Gilman Nichols Polly and Henry Nichols Mr. and Mrs. John T.G. Nichols W.S. Nicholson Bruce G. Nickerson Robert and Susan Nielson Anne Nieman

Mr. David Nissen Ms. Diane Nolan Mary W. Norris Mr. and Mrs. H. Donald Norstrand Anson H. Norton C. McKim Norton Lawrence B. Novey James Novce Mr. and Mrs. James L. Noyes Mr. Nicholas B. Noyes John H. Noyes Ann Nuesse Peter Nutting Mr. John J. O'Leary, Esg Tom and Joan O'Brien Roderick J. O'Connor Colum P. O'Donnell Achsah O'Donovan Margaret N. O'Hara Mr. Thomas O'Leary Bill O'Neal Sarah L. Oakes Ocean Resources, Inc. Mr. and Mrs. Michael Odom Mary J. Ogden Elisabeth Ogilvie Gail Ogilvie Anne and Vincent Oliviero Kathryn Olmstead Richard and Doris Olney Robert and Catherine Olney Mr. and Mrs. Jon H. Olson Robert P. Olson Judith Olszewski Richard and Ann Omohundro John Orcutt Rebecca Waterman Otten Harold and Sally Owen Elizabeth and Bob Owens Dr. and Mrs. William B. Owens, Jr. Mr. and Mrs. Peter Packard Gertrude P. Paddock Arnold Paine John G. Palache, Jr. Michael A. Palmer David J. Pape Mr. and Mrs. Charles E. Pardoe Dr. and Mrs. Victor Parisien David and Jorjan Parker Henry and Ruth Parker, Jr. Mr. and Mrs. Henry W. Parker Mr. Henry Parker III George W. Parker F.P. Parker Mr. Albert C. Parker Capt. W.J. Lewis Parker Francis Parkman, Jr. A.L. Parks Ted and Kalo Parmelee Mary G. Parmley Donald Parson Stephen Parson Robert H. Patten Mr. and Mrs. James Patterson J. Folsom and Deborah Paul Paul's Lobster Co. Ms. Cathy Pawelczyk Dr. and Mrs. Robert Pawle Mr. John Pawlina, Jr. Melissa J. Payson Eliot Payson Mrs. M.S. Peabody Mr. and Mrs. Stephen Pearson Ronald H. Pearson Alan and Marnie Pease Frederic and Lillian Pease Mr. and Mrs. Ronald F. Pease Mrs. Ruth Pease Hilda N. Peirce Clayton Penniman Robert M. Pennoyer Mindy Pennybacker John B. Pepper Mr. and Mrs. George Pepper Pequot Yacht Club

Mr. and Mrs. Donald Perkins Mr. and Mrs. Thomas H. Perkins Mark Perlberg H. Bradlee Perry Rick Perry Dr. Stefan Peters Gerald and Doris Peterson Patricia Peterson Melva Peterson Lois and Henry Petty Anne Peyton Robert S. Pfaffmann Dr. Jane L. Phelps Frank H. Philbrook John C. Phillips Walter H. Phillips Richard D. Phippen George and Katrin Phocas Marjorie Phyfe Jeffrey R. Pidot George G. Pierce Katherine C. Pierce Dr. Richard N. Pierson, Jr. Mr. and Mrs. Stewart Pierson Winslow S. Pillsbury Janet Pingree Molly Pitcher Cynthia R. Pitts David and Deborah Pixley Dr. Joseph M. Plukas Pamela P. Plumb Jean-Daniel Pluss Dr. Charlotte Podolsky Richard H. Podolsky Susan Polans Bruce L. and Jane C. Poliquin Edward and Isabel Polk Mr. and Mrs. Robert Pomeroy III Mr. and Mrs. Henning Pontoppidan Mr. Todd Poole Ruth Pope Mr. and Mrs. Fredrick Popp Mr. and Mrs. Michael Porter Mr. and Mrs. John F. Porter Stephen Porter Susan Porter Mr. Bruce Porter Mr. Charles A. Porter Woodbury and Judy Post Mr. and Mrs. Ralph E. Post Diana Post Judith G. Pott Dr. Benjamin E. Potter Mr. and Mrs. Fourtin Powell Judith A. Powers and Nancy Hanrahan Mortimer W. Pratt T. Dennie Pratt and Margery Stafford Richard Preston Mr. and Mrs. Robert T. Pritchard William L. Pritchard, M.D. Jane Protzman Deborah Pulliam Wayne Purnell Mr. and Mrs. Francis Putnam Mr. and Mrs. George Putnam Bob and Sheila Putnam Erik Putz George Putz Betty Pyatak-Monaghan Mrs. H.R. Pyne Jane Kimball Quesada Peter S. Quinn Dr. and Mrs. Edward F. Rabe Sharon V. Radford Saul Radin Mr. and Mrs. David E. Radka Mr. and Mrs. Peter Radzinski David A. Ralston Sonia S. Ralston Cathy L. Ramsdell John and Sally Rand William M. Rand, Jr. Mrs. Royce Randlett

Royce and Terry H. Randlett, Jr.

Molly Rawle

Mel Read

Russell C. Raynor

Abbie and Bart Read

Joel M. Reck David E. Redmond Mrs. J.W. Redmond Earle D. Reed Martha Reeve Leonard S. Reich Jay Reighley Mr. Don Reiman Barbara Reimers Susan D. Rein Daniel and Jacqueline Reiner John Remington Patrick and Joan Requa Mabel J. Reynolds Charles A. Rheault, Jr. Mrs. Barbara G. Rhoad Rev. and Mrs. Edward Rice Harry F. Rice William and Elsie Rice Kenneth M. Rich, Jr. James Richards Bradley Richardson J.C. Richardson Mr. Philip Richardson Fred and Eve Richardson Mr. and Mrs. James Righter Richard B. Riley Robert and Diann Ring Mallory Rintoul Krisanne and Mark Rixon Mr. Frank Roach Harold Robbins Kenneth and Shaunagh Robbins David and Mary Roberts Ken Roberts Douglas Robertson Mr. Paul Robie Drs. Robinson Hannah L. Robinson Mimi Robinson Mr. and Mrs. James Rockefeller Nathaniel Roe John and Martha Roediger Ralph W. Rogers Mr. Paul Rogers Charles Rogers Ruth Rohde John and Annie Romanyshyn David Rosemiller Dr. and Mrs. Stephen Ross Catherine and Charles Ross Betsey A. Ross Peter and Susan Rotch Robert A. Roth Mr. and Mrs. Robert Rothschild Douglas Rowan Eleanor Rowan Benjamin Allen Rowland D.B. Rowland Philip G.P. Rowling III Peter R. Roy Mr. and Mrs. Willard A. Ruliffson Mr. and Mrs. Robert Russ Jonathan Russo Judith Rutter Barry T. Ryan Elizabeth Ryan and Caroline Foley John Ryan and Jenny Potter Scheu Polly Pitkin Ryan William F. Ryan Donald Rybold Carole A. Ryder Mr. and Mrs. David A. Shaw Edwin and Hope Sage DeWitt L. Sage, Jr. Mr. John S. Saladino David Saltonstall William L. Saltonstall Ralph Saltus Joan and Scott Samuelson David Sandmel and Janet Raffel Mr. David Sanford Albert F. Sargent John and Karen Saucier Laura S. Saunders Wallace E. Savory Richard Sawyer Mr. & Mrs. Kenneth E. Schaller

Edward Scharf Aaron and Jane Scharff Dr. and Mrs. Joseph Schenkel Patricia A. Scheuerman Kenneth Schmidt Mr. and Mrs. H.E. Schleicher Peter A. Schmid Mr. and Mrs. E.W. Schmidt Joseph D. Schmoter MD Leslie S. and Gardiner Schneider Roger H. Schneider Susan Schnur George Schonewald Mr. Karl Schrag Ellen Schroeder Susan E. Schubel Mr. Tom Schubert Shelby Schuck John Schuettinger Paul Schulze Nikki Schumann Peter Schwalbenberg Carl Schwarzer Frederic N. Schwentker Bill Schwicker Mr. and Mrs. William Schwicker Peter and Holly Scott Dr. and Mrs. David Scott Curtis and Cornelia Scribner Ms. Jean Scudder David B. Scully John A. Scully George and Susan Scully Mr. and Mrs. N.P. Seagrave Donald C. Seamans Mrs. Campbell Searle Robert M. Secor Mr. Peter Seeger Charles Seib Philip Seib Maurice Selinger III Mr. Welles T. Seller Peter Sellers and Lucy Bell Ken and Lynn Senne The Sergeants Jane Sewall David F. Sexton Andrew E. Shacknove Samuella Shain Peggy and Henry Sharpe William P. Sharpe Joanne M. Sharpe Carol Shaw Mr. and Mrs. Joseph Shaw David Shaw Kim Shedd Joan Sheldon Mr. and Mrs. Peter Sheldon Mr. and Mrs. Robert Shepard Dr. and Mrs. Joseph L. Sheridan Priscilla J. Sherwood Mr. and Mrs. Joseph Shillington Reverend Harry Shirley Myron A. Shoffner Mr. Marvin Siegel Anita Siegenthaler David W. Siktberg Rebecca A. Silliman Ronald D. Silva Mr. and Mrs. Richard Silven Walter C. Simmons Mr. Peter H. Simpson Carol Eisenberg and David Simpson Mr. James Simpson James Simpson Lucile C. Sims Peter and Nancy Skapinsky Wickham Skinner Mr. and Mrs. Robert S. Slawson Beverly Merchant Sloatman Small Schools Network Keith and Cheryl Smalley Sharon M. Smalley Mr. and Mrs. S. Bruce Smart, Jr. Alan and Isabel Smiles Sam Smith C. James and Karen Smith Dr. and Mrs. Gardner W. Smith

David J. Perkins

Charles R. Perakis, D.O.

Gail Clawson Smith Gregory J. Smith **James Smith** Janna and David Smith Judith Smith Michael M. Smith Mr. and Mrs. J. Somers Smith Mr. and Mrs. Neal Smith Pat Smith Robert L. Smith Robert P. Smith Tat Smith Timothy G. Smith Mary and Henry Smith Mary Anne Smith Janet Smith Mr. Daniel Smith Judith A. Smith Mr. and Mrs. William Smoot Joseph L. Snider Elizabeth B. Snow Andrew Snyder James E. Solberg Mr. Joseph L. Soley J. Ritchie Solter Mr. and Mrs. Steven Somes Joan W. Sorensen Mr. and Mrs. David Soule Margaret W. Soule Mr. and Mrs. John Spahr Mr. and Mrs. I.E. Spalding William F. Spang Edward and Lydia Sparrow M. Spencer Marshall S. Spiegel William T. Spock Phineas and Joanna Sprague, Jr. James Springer Alton L. Sproul Debra Spurling Mr. Douglas St.Clair James A. St. Pierre Mr. and Mrs. John P. Staman, Jr. Dr. and Mrs. John Stanbury Jane Standen Laurie Standish William Stanhope Mr. and Mrs. Ralph Stanley Dr. Donald Stanley JoAnn Stanwood Mr. and Mrs. John H. Staples Milton Staples Rick and Mimi Steadman J. Stebbins Theodore Stebbins Phoebe S. Stebbins Mr. and Mrs. Colin Steel Timm Steele Mr. and Mrs. Kenneth Steeves Lael Stegall Gordon Stein Ms. Joan Steinberg Mrs. Mary C. Stelle Dr. and Mrs. T. Douglas Stenberg James A. Sterling Marshall A. Stern Mr. Robert Stern William F. Stevens Ellen P. Stevenson Mr. Bill Stewart E.J. Stewart Mr. Alden Stickney Mr. and Mrs. Ernest Stockwell. Jr. Mr. and Mrs. John F. Stockwell Katherine J. Stoddard Bayard and Enid Stone Roger D. Stone Lauren E. Storck Mr. and Mrs. James M. Storey Donald Stover Dr. and Mrs. Frederick Strammer Ms. Joan Strathern Ann W. Stratton Gloria Strazar Mr. Henry Streeter

Dr. and Mrs. Warren Strout

Mr. & Mrs. Thomas Struble

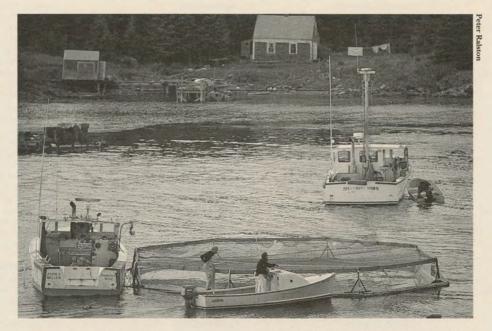
Ms. Judith Strout

Thomas G. Struthers Mr. and Mrs. Daniel K. Stuckey Perry M. Sturges Mr. and Mrs. Charles Sullivan Nancy Sullivan Anne Marie Sullivan Margot Sullivan Mr. Rick Sullivan Geoffrey and Laura Summa Frank V. Summers Mr. and Mrs. J. Sukaskas Mr. and Mrs. Eugene Swan S. Roy Swanholm Scott Swann and Anne Handley David S. Swanson Robert W. Sweet, Jr. William and Melissa Sweet Philip and Ann Swett Mary H.D. Swift Carol Swiggett Mr. and Mrs. Eugene Szopa Dr. William C. Tannebring, Jr. Charles A. Tarbell Deborah Taylor Kay and Gene Taylor Yvonne Taylor J.Daniel Techentin Mr.and Mrs. H.C. Tedford Conrad Terkelsen James L. Terry Anthony Thacher Isabel F. Thacher Mr. and Mrs. Thomas Thacher Jeffrey Thaler Thaxter Family Sandra Thaxter The Quoddy Tides Christopher Thing Charles C. Thomas John and Randall C. Thomas Mrs. Landon Thomas Richard H. and Beverly B. Thomas Stephen P. Thomas Mr. Dana L. Thomas Mr. George Thomas Barbara H. Thomas George Thomas and Lynn Zimmerman David S. Thompson Mrs. F.C. Thomson James L. Thomson Mr. Jack C. Thorton III Clarence Thulin W. Bernard Thulin Mr. and Mrs. Gilbert Tierney Lucille E. Tigges Henry G. Tilden R.P. Timothy, M.D. Mr. and Mrs. Stanley G. Timson Mr. John Todd Ms. Virginia Torney Dr. and Mrs. Richard Tousey Phelps C. Tracy Mr. and Mrs. Albert S. Traina Mr. and Mrs. John Trask Sharon Treat Foster L. Treworgy Harvey and Cynthia Triplett Mr. and Mrs. John F. Tripp Mr. and Mrs. Robert W. Trone Sue and Michael Trotter Margaret and Gordon Trower Barbara J. Trudeau K. and J. Trueblood Philip W. Trumbull Mr. and Mrs. Charles A. Tucker Edith Tucker Mr. and Mrs. Christopher Tupper Tux Turkel Sturgis Turnbull
Ms. Marlee Turner Gary Tuthill Iane Tyler John L. Tyler Dr. and Mrs. Cornelius J. Tyson, Jr Mr. and Mrs. Konrad Ulbrich Dr. Catherine Upton Mr. and Mrs. William Valentine Peter Valentine

Biz Van Gelder Sue Van Hook B.M. Van Note Meredy Van Syckle Mr. and Mrs. William J. Van Twisk Jerry Van Wormer Doris Corey Vander Ms. Patricia VanWagoner Newell F. Varney May L. Vaughan Zoe M. Veasey Hugh Verrier Charles Verrill Martha Verrill Nancy R. Versaci Ms. Cathy Viele Heather Viera Dr. and Mrs. Philip J. Villandry Victoria Vinton John C. Virden, Jr. Visual Image, Inc. Von Huene Family Lisa Von Schelegell Peter Vorkink II Pat and Andrew VorKink Dr. and Mrs. J.P. Vrolsk Edward Walworth, M.D. Harold H. Wade, Jr. Leith Wadleich Mr. and Mrs. Charles E. Wadsworth Peter C. Wahn Parker and Carolyn Waite Mr. and Mrs. David S. Wakelin Mr. and Mrs. Wm. Wakelin, III Kenneth M. Walbridge Charles and Jane Walcott Larry and Robin Walden Dorothy K. Walker Earl B. Walker Mr. and Mrs. Franklin Walker Ian and Diane Walker Louise and Warren Walker Nicholas M. Walker Robert A. Walkling Capt. and Mrs. Homer A. Walkup Mr. Richard Wall Mr. Bryon Wall Mrs. Roger Ward Caroline F. Ware Craig M. Warren H. Stanley Warren, M.D. Mr. and Mrs. R.E. Warren Thomas D. Warren Deborah and Peter Warren John L. Washburn John W. Washington Erica M. Wasilewski Dr. Philmore B. Wass Edward Waterman Robert L. Watts Mr. James Waugh Mr. William Waugh Olivia R. Way Mr. David Webb Joseph and Sarah Weber Mr. William Weber C. S. Webster Steve Wedlock Bob and Diane Weggel Gary E. Wehrwein Dieter and Christa Weigman Mr. and Mrs. Robert P. Weiler Jane Weinberger Mr. James E. Weir David and Sandra Weiss M.J. and E.C. Welch Margaret H. Welch Mr. and Mrs. P.B. Welldon Anna and Owen Wells Mr. Richard E. Wengren Mr. and Mrs. Mark B. Werner Mr. and Mrs. Nils Y. Wessell Robert and Sarah West Mr. and Mrs. Tor Westgaard Elkins Wetherill Ralph and Laure Weymouth

Robert L. Wheeler Richard C. Wheeler

Frank C. Wheelock William Whitaker Barry White David F. White Henry and Marian White Jeffrey H. White Robert B. White Susan White Willard D. White, Jr. Elizabeth and Robert Whitman Florence Whitney Ann Whitney Mr. and Mrs. Frederick Whitridge Dan and Paula Whittet Stephen M. Whittlesey Dr. and Mrs. Walter A. Wichern, Jr. Mrs. Walter O. Wick John C. Wigglesworth Linda Wilcox Mrs. F.F. Wilder Katrinka Wilder Ms. Marcia D. Wiley Mike Will Susanne Willard Dick and Liz Willard Alice H. Willauer Mr. and Mrs. W. Bradford Willauer Julie Willcott and Dave Bell Mr. and Mrs. Al Williams Rachel A. Williams Ralph and Margaret Williams Roderick and Dorothea Williams Susan and John Williams Betsy Williams Mr. and Mrs. C.P. Williamson, Jr. Laurie and Tom Williamson Alden C. Wilson Charles R. Wilson Claire P. Wilson George and Marily Wilson Jill C. Wilson Mr. and Mrs. John Wilson Mr. and Mrs. Lawrence Wilson Mr. William Wilson Lyle and Marilyn Wimmergren Mr. and Mrs. Addison L. Winship Mrs. J.S. Winship Marge Winski Dr. and Mrs. Dennis Wint James M. Wintersteen Dr. and Mrs. F.L. Wiswall, Jr. Mr. David B. Witherill Mrs. C.B.R. Withington Louisa and Nicholas Witte Mr. and Mrs. Walter L. Wolf Dr. and Mrs. Loren Wolsh Clara Wood Woodard and Curran, Inc. Anne and Robert Woodbury Mr. and Mrs. R.C. Woodman, Jr. Alfred and Susan Woodworth Margot Woolley B. Conley Worcester, Jr. Ruth G. Wright Mrs. Joan A. Wright Carolyn Wyeth Charles and Clarice Yentsch Mr. and Mrs. Joseph A. Yovino Thomas Yoder, Jr. Donna M. Yohonn Edith Yonan George and Louise Young Mr. and Mrs. Howard Young Sara E. Young Mr. and Mrs. George A. Young Mr. David Zellar Mr. and Mrs. David Zeller Mr. Edward L. Zellers Jan Zeller Mrs. Elsa J. Zelley George Zentz Bill and Sally Zierden Lorraine Zimmerman Mr. and Mrs. William H. Zuber Rose Zuckerman



WHAT IS THE ISLAND INSTITUTE?

The Island Institute is a membership-based, non-profit service organization that advocates the balanced use of Maine islands by supporting year-round and seasonal communities, by promoting conservation of the beauty and uniqueness of these islands, and by gathering and offering information and services in regard to the community, cultural, environmental, economic, historic, and recreational resources of island life. The Island Institute carries out the above goals through publications, research, resource management, and community service programs.

ISLAND INSTITUTE PROGRAMS & SERVICES

COMMUNITY SERVICES fosters interisland communication, resource sharing, and planning strategies to support the 14 year-round island communities.

- Island Schools Project is a collaboration between the Island Institute and the 14 year-round island schools and their teachers, administrators, and parents. The project provides a newsletter, inter-island student exchange programs, conferences, and grant writing assistance for island teachers.
- Island Defense Fund ensures that development occurs in an environmentally responsible manner. Advocacy efforts at the state level focus on the special environmental needs of the islands.
- Consulting Services provide on-site assistance to communities and act as a clearing house of information for special

community needs of year-round island residents such as:

- Affordable housing
- Economic development
- Solid waste
- Transportation and tourism
- Publications
- *The Island Journal* this nationally acclaimed, 92-page full-color annual publication covers all aspects of Maine island life.
- The Island News a quarterly 16-page news roundup featuring current island issues and commentary.

ECOLOGICAL SERVICES provide land management assistance to property owners, towns, conservation and state agencies, with emphasis in the following areas:

- Forest and Pasture management
- Low-impact development
- · Wetlands, wildlife, and habitat protection
- Natural resource inventories
- Groundwater protection methods

SCIENCE AND RESEARCH PROGRAMS develop and apply technology to island

conservation and management. Current research projects include:

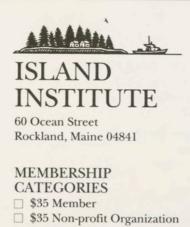
- Water quality and pollution studies
- Satellite imagery for land planning
- Island-scale aquaculture
- Island sheep management
- Critical seabird population identification

MAINE ISLAND TRAIL ASSOCIATION

maintains a 325-mile-long waterway for small-boat owners and provides a steward-ship presence for the public and certain private islands.

FOR MORE INFORMATION

Call or write:
The Island Institute
60 Ocean Street, Rockland, Maine 04841
207-594-9209.



☐ \$50 Subscriber □ \$100 Contributor □ \$250 Donor ☐ \$500 Guarantor ☐ \$1,000 Patron □ \$2,500 Benefactor ☐ \$5,000 Sustainer □ \$10,000 Founder

☐ Other

ISLAND

60 Ocean Street Rockland, Maine 04841

☐ \$50 Subscriber ☐ \$100 Contributor □ \$250 Donor ☐ \$500 Guarantor ☐ \$1,000 Patron ☐ \$2,500 Benefactor ☐ \$5,000 Sustainer □ \$10,000 Founder

☐ Other.

INSTITUTE

GIFT MEMBERSHIP CATEGORIES □ \$35 Member

☐ \$35 Non-profit Organization

MEMBERSHIP

PERMANENT ADDRESS			
CITY &STATE			ZIP
PHONE			
Please check method of payment:	□ СНЕСК	□ VISA	MASTER CARD
CARD NUMBER			EXP. DATE
SIGNATURE			
			see other side
GIFT MEMBERSHIP			
RECIPIENT'S NAME			
PERMANENT ADDRESS —			
CITY & STATE			ZIP
YOUR NAME			
PERMANENT ADDRESS			
CITY &STATE			ZIP
PHONE —			
Please check method of payment:			
CARD NUMBER			EXP. DATE
SIGNATURE			
			see other side

ISLAND

60 Ocean Street Rockland, Maine 04841

GIFT MEMBERSHIP CATEGORIES

\$35	Member
\$35	Non-pro

on-profit Organization

☐ \$50 Subscriber

☐ \$100 Contributor

□ \$250 Donor

☐ \$500 Guarantor

☐ \$1,000 Patron

☐ \$2,500 Benefactor ☐ \$5,000 Sustainer

☐ \$10,000 Founder

□ Other □

GIFT MEMBERSHIP

RECIPIENT'S NAME PERMANENT ADDRESS CITY & STATE ZIP. YOUR NAME

PERMANENT ADDRESS

CITY &STATE

PHONE -

Please check method of payment:

CHECK

VISA

MASTER CARD

CARD NUMBER

EXP. DATE

ZIP

SIGNATURE

see other side

MEMBERSHIP BENEFITS FOR ALL MEMBERS INCLUDE:

The current issue of the *Island Journal*, the Island Institute's award-winning annual publication featuring beautiful photographs, art, and writing about Maine islands.

The quarterly, *Island News*, a newsletter filled with timely issues and information about the islands.

10% discount on publications.

Color decal for your car.

FOR CONTRIBUTIONS OF \$100 OR MORE

The percentage of your donation previously used for additional gift membership benefits (in the form of books and posters), will now go directly towards the funding of the Island Institute's newly established Island Schools Scholarship Fund.

Are you presently a member of MITA? \Box Yes \Box No

ALL CONTRIBUTIONS ARE TAX DEDUCTIBLE

MEMBERSHIP BENEFITS FOR ALL MEMBERS INCLUDE:

The current issue of the *Island Journal*, the Island Institute's award-winning annual publication featuring beautiful photographs, art, and writing about Maine islands.

The quarterly, *Island News*, a newsletter filled with timely issues and information about the islands.

10% discount on publications.

Color decal for your car.

FOR CONTRIBUTIONS OF \$100 OR MORE

The percentage of your donation previously used for additional gift membership benefits (in the form of books and posters), will now go directly towards the funding of the Island Institute's newly established Island Schools Scholarship Fund.

Are you presently a member of MITA? \square Yes \square No

ALL CONTRIBUTIONS ARE TAX DEDUCTIBLE

MEMBERSHIP BENEFITS FOR ALL MEMBERS INCLUDE:

The current issue of the *Island Journal*, the Island Institute's award-winning annual publication featuring beautiful photographs, art, and writing about Maine islands.

The quarterly, *Island News*, a newsletter filled with timely issues and information about the islands.

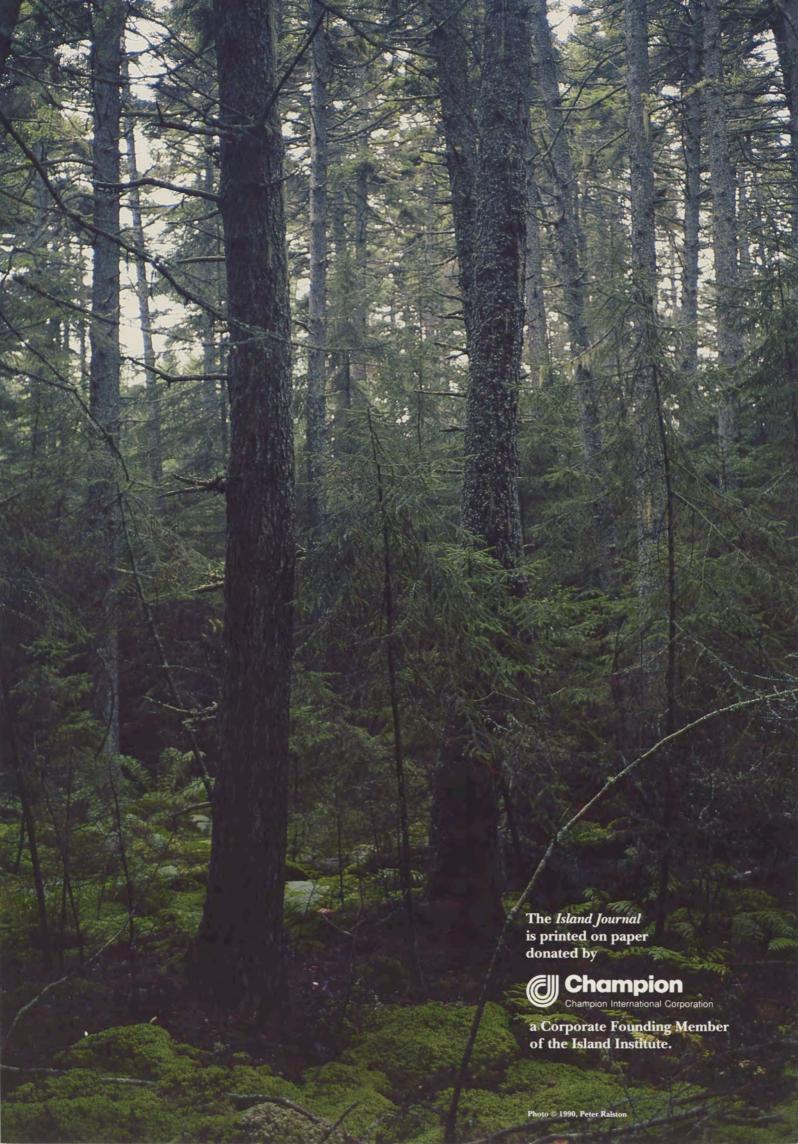
10% discount on publications.

Color decal for your car.

FOR CONTRIBUTIONS OF \$100 OR MORE

The percentage of your donation previously used for additional gift membership benefits (in the form of books and posters), will now go directly towards the funding of the Island Institute's newly established Island Schools Scholarship Fund.

ALL CONTRIBUTIONS ARE TAX DEDUCTIBLE





Morning with a hot fire in the stove, listening to the radio at breakfast and watching the day come across the land and the water through frost-laced windows. A walk through the woods to town, past dories and piles of snow covered lobster traps. Sitting in the one-room general store, nursing a coffee and listening to the drone of the old men speaking of the fishing, stories I had heard before and would hear again and again. Powerful, almost mythical stories of great schools of herring caught or lost. Or stories of the hard winters past, of '36 and '38, when the ocean itself froze out to the islands, eleven miles offshore, and the foolhardy drove their cars across, and all up and down the coast the steamers couldn't land and the passengers had to walk out over the saltwater ice far from shore to get aboard.

And when at last we'd slip out, walk back in the cold, snowy dusk, happy to make it to our own house, it was good and it was enough.

Amaretto, by Joe Upton, 1986 International Marine Publishing

ISBN: 0-942719-00-X ISBN: 0-942719-09-3 ISSN: 0892-3434