

# ISLAND HERITAGE TRUST

The Conservation Land Trust of  
Deer Isle and Stonington, Maine, and Surrounding Islands



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## Pine Hill Preserve: Serpentine Laboratory for a COA Scientist

To the casual visitor, Pine Hill Preserve on Little Deer Isle may serve simply as a high platform from which to enjoy stunning, bird's-eye views of the surrounding land and seascape. However, to Dr. Nishanta Rajakaruna, Professor of Botany at College of the Atlantic in Bar Harbor, the serpentine outcrop of Pine Hill represents an outdoor laboratory, one in which the relationship between an extreme habitat and the unique species it supports can be closely observed and examined. Although serpentine appears throughout the world and has been widely studied, sites in the northeastern coast of the United States have been significantly under-explored, according to Dr. Rajakaruna, a deficit the enthusiastic professor has been ameliorating through his ongoing studies at Pine Hill and his extensive publications.

Serpentinite, the rock found at Pine Hill, is metamorphic, that is, it has been formed by exposure to temperature and pressure extremes within the earth's crust. It is composed of ultramafic rock such as peridotite, which has a high iron and magnesium content, and is distinguished from other rocks, in part, by its high concentration of heavy metals. Serpentine soil itself is shallow, rocky, low in nutrients such as potassium and phosphorous, and is unable to hold much moisture, offering a very challenging and fragile environment for plant life. It is precisely the kind of environment that draws Dr. Rajakaruna, whose scientific pursuits focus on "understanding the role extreme ed-

aphic [i.e., soil] conditions play in generating and maintaining plant diversity." Of particular interest to Dr. Rajakaruna's work at Pine Hill have been the vascular plants, bryophytes (true



Tanner Harris, student and co-author, confers with Dr. Rajakaruna on Cadillac Mountain

Photo courtesy of Dr. Nishanta Rajakaruna

mosses) and lichens that are found there.

For more than six years, he has brought his students to Pine Hill as well as to Settlement Quarry, where they have conducted studies about how plants have adapted physiologically to their habitats. With Dr. Rajakaruna's help and encouragement, students have gone on to publish six studies, all involving the IHT preserves, thus enlarging serpentine studies world-wide.

Among the plants Dr. Rajakaruna has observed at Pine Hill is *Asplenium*

trichomanes, a fern found throughout New England, but rare at Pine Hill. In fact, he was able to locate only one plant at the site. While indentifying and recording species is a significant aspect of the Pine Hill studies, various theories, such as those having to do with ecological evolution, for example, can also be tested and surprising discoveries made. In one study, Dr. Raja-

karuna and his students compared plants at Pine Hill to those at Settlement Quarry (composed of granite). They found yarrow at both sites that, to the naked eye, appeared identical in every observable regard. Subjecting the plants to further tissue studies, however, revealed significant differences at the cellular level. To Dr. Rajakaruna, such a discovery suggested that the plants were at a "stage of speciation," that is, perhaps in process of becoming different plants, adapting to their respective, specific habitats.

(Cont. p. 7)



## From the Executive Director

Getting people connected to nature is not spelled out in IHT's mission statement, but that is the primary thing we do. The preserves we own and manage are open for the public to walk and enjoy. Whether you are a birdwatcher, an exercise stroller, or a family that simply wants to get out and breathe the fresh air - IHT's lands are for you.

Which is your favorite preserve? I am partial to Scott's

Landing for its great mix of habitats and birding sites. We each have our own special place outdoors. Maybe it is not a public space, but that quiet spruce grove behind your house or that special boulder on the shore. Through conservation easements, IHT protects many such special places by preserving open space and habitat for many species, and providing restful vistas for our eyes.

Ever wonder why that open space near your house has not been developed? Perhaps its owner had the foresight to protect it forever with an easement

given to IHT or some other land protection entity. Land under easement remains in private ownership and on the town tax rolls, but may not be developed. These easements come in many shapes and sizes, each one being crafted to fit the wishes of the property owner - a collaboration between the property owner and IHT. Have a special place you would like to protect? Come into the IHT office; I'd be glad to talk to you about how a conservation easement might work in your situation.

## Tour Historic Mark Island Light

As part of Maine's Lighthouse Weekend, September 17 and 18, IHT's own Mark Island Light will be open for tours. During Lighthouse Weekend visitors may travel to Mark Island on their own or sign up for Guided Island Tour's ferry service, operated by Walt Reed. Space is limited so be sure to contact Walt early to reserve your seat (348-6789).

Officially identified on nautical charts as the Deer Island Thorofare Lighthouse, Mark Island Light was entrusted to Island Heritage Trust in 1998, when it assumed responsibility for the care and upkeep of the building.



Elke Dorr



Ann Flewelling

The Coast Guard then estimated that \$2,500 was needed for basic annual maintenance. IHT has established a dedicated Lighthouse Fund for maintenance costs and we are looking for additional donations now to cover much-needed renovations to the historic masonry structure.

Take advantage of this unusual opportunity to visit the lighthouse and please consider a donation to help us keep this beloved icon shining for generations to come. For more information on Mark Island Light, see Marnie Reed Crowell's "Mark Island Light," available at the IHT's Nature Shop. All proceeds from sales of this book will go to the Lighthouse Fund.



### ISLAND HERITAGE TRUST NEWSLETTER

The mission of the Island Heritage Trust is to conserve significant open space, scenic areas, wildlife habitats, natural resources, historic and cultural features that offer public benefit and are essential to the character of the Deer Isle area.

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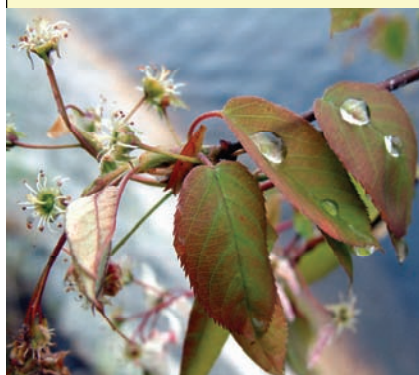
# Veteran Volunteers

JoAnne Greiwe and Nancy Dontzin have been volunteering at IHT for 21 and 12 years respectively. JoAnne, who spends summers on Little Deer Isle, recalls the days when “there was no such thing as a Nature Shop,” and the Trust was located on the dock in Stonington in a room off Atlantic Hardware. In the market for free or low cost space, IHT then relocated to a downstairs room at the (then unheated) Opera House, before being given favorable terms for its home on Deer Isle’s Main Street.

## Work Crews Needed!

Volunteers sought to help spruce up preserves. Bring work gloves, wear sturdy boots, and please call the office (348-2455) to let us know what date(s) you plan to help. All work shifts are 8:30-11 AM; meet at the preserve.

**Pine Hill** – Wed., June 1  
**Lily Pond** – Thurs., June 9  
**Bowcat & Causeway Beach** – Tues., June 14  
**Scott’s Landing** – Thurs., June 23  
**Shore Acres** – Wed., June 29  
**Reach Beach** – Fri., July 1  
**Settlement Quarry** – Tues., July 12  
♦♦♦♦♦  
**Island Clean Up** – Sat., June 18  
Boats and volunteers needed;  
FMI call us at 348-2455



Burnish on a spring shad *Ann Flewelling*

Moving from the Deer Isle village location, where limited storage restricted the shop’s expansion, JoAnne was “concerned we would lose a lot of drop-in traffic” but was “pleasantly surprised people still find us, and a good number come in to sign up for trips.” Most visitors “have an environmentally aware background.” Throughout her decades-long tenure, JoAnne notes that the walking trails map showing preserve locations has consistently been the single most sought-after item.

Since she started to help in 1990 when the organization was staffed, managed and operated entirely by volunteers, Greiwe notes IHT’s growth with satisfaction, including its ability to take on paid staff and its focus on “winning over the community.” She finds its “hard work to integrate the organization into acceptance of local folks who earn a living” on Deer Isle particularly gratifying.

Nancy Dontzin’s earliest memories of volunteering with IHT date to the Main Street location in Deer Isle. Before the move she recalls covering the phone and selling the odd map or card, but now, she says, “the greatly expanded offerings in the Nature Shop make things more interesting.” A widow who lives alone, she joined the Trust and began participating “to meet people and be more a part of the community.” She keeps coming back because “it has been fun, meeting people from all over the U.S.” She enjoys the small world aspect of some encounters, like the time a couple came in saying, “You’re from Rochester [NY]!” They knew because they had rec-

ognized the dealer name on her Subaru parked outside the office.

An avid student, Nancy takes advantage of the Lifelong Learning Institute at Rochester Institute of Technology and is now studying Ovid’s *Metamorphoses*, the Latin narrative poem in fifteen books describing the history of the world. Her natural curiosity and diverse interests enrich encounters she has with visitors from all over who are drawn to IHT seeking maps, books and information about wildlife sightings. She enjoys fielding visitors’ questions, answering those she can herself, and referring the rest to Mike. Tracking down information adds to the appeal of volunteering, as she says, “I myself have learned things because of people asking questions.”



Nancy and her family *Courtesy of Nancy Dontzin*

More than a shop minder or fact finder, she is an ambassador for the Trust, suggesting visitors sign the guest book and become members. She states, “I love Deer Isle. I do not have a lot of money but I can give time.” A summer resident who looks forward to being on Deer Isle through Labor Day, she proclaims “people are there because it’s beautiful and one of the reasons it’s beautiful is because of organizations like Island Heritage Trust.”

If you would like to learn more about volunteering at IHT, indoors or out, please contact Marissa at 348-2455.

# A Conservation Tale

Many years ago, after a number of summer visits, Ms P bought 40 acres of rugged, wooded land on the shore in Deer Isle, including a small island. She built a simple summer house and enjoyed the quiet and untamed forest surrounding her small cabin for many summers. She liked the idea of the land remaining in its wild state after she was gone, so put the entire property under a “forever wild” easement: the strictest possible; no interference whatsoever with the land’s natural state is permitted. The easement, in place now for about 50 years, does allow for one other dwelling and garage to be built. Upon Ms P’s death, the property went to her two young nieces, who visit very year or so, and rent the seasonal cabin to friends. Someday, perhaps that second house will be built.

Meanwhile, the property remains pristine, providing excellent habitat for deer and denning foxes; ospreys nest in the towering spruces and several small vernal pools provide breeding habitat for salamanders and wood frogs. Mollusks flourish in the flats skirting the 1,200 feet of

shore. Recently, two neighbors have placed easements on parts of their property, creating an even larger zone of undisturbed habitat, and an untrammelled view from the water that will always remain in its natural state. A forever wild easement, especially on a property of this size with this much shoreline, is a significant ecological asset to the island: wildlife, vegetation, freshwater and marine life flourish without human disturbance.

Were this easement to be drafted today (with the intervening lessons brought by 50 years of experience), it might include a “building envelope,” which is intentionally *not* subject to easement restrictions. This would give both the existing cabin and the yet-unbuilt house a surveyed patch (or 2 patches) of property within which improvements might be made without conflicting with the terms of the surrounding forever wild portion of the property. The owners might also consider adding a public ROW (right-of-way) to the shore along one edge of their land for purposes of clamming. This access and its proper use would be

clearly spelled out in the easement (attached to the property deed and filed with the Registry of Deeds). A land trust or governmental body provides stewardship to be sure that the easement terms are kept in perpetuity. In other words, IHT or a similar organization would monitor the use of the ROW, seeing to it that it is not abused, as well as ensuring that the “forever wild” part of the property remains so.

“Forever wild” is the most restrictive type of easement and, even with a building envelope, may feel too restrictive for some. In every case, the land owner works with the land trust and their respective attorneys to draft easement language that matches the owners’ intentions: managed forestry (selective cutting, timber sales, etc.), farming, or firewood cutting, for example. The usual motivation for conveying an easement is to protect property from future development. It may make financial sense, too. An easement reduces tax burdens by eliminating unwanted development value, especially as it affects estate taxes. Further financial advantages ensue when public access is built into the easement. But most importantly, an easement is a means to secure the fate of a place that you love.

The easement described here is one of the first on the island. We are constantly learning about how to craft more effective and flexible easements that conserve what we value about the island, without unduly restricting present and future landowners. One particularly fine resource is “Conservation Options: A Guide for Maine Landowners” published by Maine Coast Heritage Trust. Pick up a copy at the IHT office or download it at <http://www.mltn.org/resources/>.



A wild shore

Ann Flewelling

# Member Survey Helps Set Priorities

A diverse and active membership is crucial to IHT as it evolves, strengthening its capacity to achieve its mission. To this end, Ellen Rowan has been named to chair a newly-formed Membership Committee, charged with both growing IHT's membership and broadening its base to be more representative of island residents as a whole. Just as IHT relies on the support of its members, the latter need to feel that IHT's mission and activities correspond with their values and vision for the future of the Island, and that they have a voice in shaping that future.

In an initial effort to learn how it could better serve the Island community, the nascent committee targeted a survey to those members providing email addresses. Rowan noted that of the 304 people receiving the survey more than 50% responded. "We are delighted with the response. It's very gratifying to get both feedback and ideas direct from our members in this way."

Respondents offered a number of excellent suggestions for new directions for IHT and ways to expand its base. Many emphasized the importance of working closely with other Island organizations and ensuring that IHT's activities help to sustain traditional (and threatened) livelihoods like clamming and fishing by seeking greater shorefront access. Not surprisingly, 40% of the respondents identified protecting the shorefront as of major importance while an almost equal number, 38%, considered the islands a top priority. Maintaining community access to tra-

ditional picnic spots on the islands, which can be lost when an island changes hands, was seen as an IHT mandate. Preserving ecological variety, the woodlands, hiking trails, and archeological sites, was also highlighted as important.



**Ellen Rowan, Chair of** *Anne Sigmund*  
**Membership Committee**

Rowan noted that survey respondents skewed toward members who are older, part-time residents. But she feels very strongly that for IHT to carry out its work conserving the Island's beauty, legacy and resources over the long-term, it must broaden its membership to include local residents and young families, the generation in whose hands the future of the Island rests. Rowan indicated that a number of interesting ideas for doing so had surfaced as a result of the survey, including special youth memberships with reduced fees and more activities geared to families and young people. Another proposal emerging from the survey was to set up "satellite IHT stations" around the island during peak visitor months where volunteers could explain IHT's programs and sign up new members.

Many of the respondents saw their support for IHT as part of an integrated effort with other non-profits to enhance life on the Island. They indicated that they provided financial support to other Island organizations such as the Island Food Pantry, PERC, local fire departments, Island Community Center, and the Island Nursing Home. There seemed to be an almost universal belief among survey respondents that IHT was, first and foremost, a local organization rooted in Island life and, as such, needed to broaden its base significantly among life-long Islanders. They wanted to see IHT work closely with both towns and more effectively communicate the benefits of its work on the local economy.

Encouraged by the good response to the survey, Rowan felt that the Committee was ready to begin introducing new initiatives that would reflect some of the priorities and creative ideas respondents had suggested, with a view to broadening IHT's demographic. She welcomes the continued input of IHT members and can be reached at [mainesails@gmail.com](mailto:mainesails@gmail.com) or 348-2777.

## **Recent grants awarded to IHT:**

**Virginia Wellington Cabot Foundation** \$10,000 for general operations

**Margaret E. Burnham Charitable Trust** \$2,000 to help fund Stewardship Director

**Next Generation Foundation** \$9,380 to support the School Program by underwriting an intern

◆ **Save the Date! Annual Shore Dinner – Sat., July 30, 2011** ◆

## George Fields, IHT's Stewardship Director



George Fields has a passion for the outdoors. In his role as stewardship director for IHT, outdoors is where you're likely to find him as he manages the woodlands, bogs and shoreline of the preserves and easements under the Trust's care. That passion also revealed by George's educational background in geology, GIS mapping and soil science, as well as his work as a "near surface geophysicist . . . identifying groundwater sources, buried waste sites, and unexploded ordnance." For over twenty years, his job took him throughout our own country and around the globe, including to Japan and Iraq.

Originally from Illinois, George moved to Maine in 2004 with his wife, Pam, for the beauty and way of life to be found here. In 2008 he became IHT's first paid stewardship director, a half-time position funded by an anonymous donor. Although the position is described as half-time, the work itself could well occupy George full-time as he clears blow-downs - increasingly seen as island forests reach maturity - conducts on-going maintenance of trails and addresses vandalism on IHT's extensive and varied acreage. One of his greatest concerns, in fact, is vandalism, which George characterizes as "a lack of respect . . . toward the land and environment." He points out the significant costs incurred by IHT, both in time and money, to repair the damage caused by those who spray-paint, litter and use vehicles prohibited on preserves.

Increasingly, George finds himself devoting more time to paperwork, much of it required to meet the terms of IHT's easements and in preparation of the Trust's potential future effort to seek accreditation on the national level. George cautions that we need to "keep on top of . . . each easement as properties are sold or deeded to others. We must be especially diligent to ensure nothing slips through the cracks." Doing so includes "establishing a baseline" for properties, which involves creating a visual history in addition to the legal documentation. George has taken on the role of photographer, sometimes taking and cataloguing dozens of photos for a particular easement.

When not fulfilling his many responsibilities as IHT's stewardship director, George enjoys snowshoeing, kayaking and gardening - activities that keep him outdoors, the place he most enjoys and where his work is focused.

*"The earth is common ground and...gradually the idea is taking form that the land must be held in safekeeping, that one generation is to some extent responsible to the next..."*  
- E.B. White

### Dog Rules

These rules apply to both IHT properties and properties that IHT may care for, but does not own. In the latter case, the owner, i.e. The Nature Conservancy, stipulates the rules. For IHT-owned properties, rules are set by our Stewardship Committee which takes into consideration 1) the restrictions placed on the property by the donor, 2) fragile plant or bird life (esp. breeding season), 3) traditional use, and 4) the needs of both dog owners and non-owners, attempting to provide a balance amongst conflicting interests. Not an easy job! Your comments and feedback are welcome, but you can be sure that however you feel, someone else feels exactly the opposite. . .

### No Dogs Allowed:

On islands, at *Crockett Cove Woods* (The Nature Conservancy), *Barred Island* (The Nature Conservancy), *Scott's Landing*.

### Dogs Allowed:

*Causeway Beach* - On leash or under voice control; year round.

*Reach Beach* - On leash or under voice control; year round.

*Shore Acres* - On leash or under voice control October 1-April 30, on leash only May 1-September 30.

*Settlement Quarry* - On leash or under voice control October 1-April 30, on leash only May 1-September 30.

*Tennis Preserve* (State of Maine) - On leash year round.

*Lily Pond* - On leash year round.

*Mariner's Park* (Evergreen Garden Club) - On leash year round.

*Holt Mill Pond* (Town of Stonington) - On leash year round.

(Cont from p. 1) In addition to plant studies, Dr. Rajakaruna will undertake another study this spring in which he will identify and examine the insects at Pine Hill, with particular focus on their metal content, since the plants on which the insects feed contain high levels of metal.

Serpentine studies such as those in which Dr. Rajakaruna and others are engaged may also aid scientists in developing soil remediation practices, precisely because both soil and plants are metal rich. In one study, he and his colleagues noted that “plants associated with serpentine soils are not merely biological novelties . . . they also hold great potential as tools for the restoration of metal contaminated sites around the world,” such as those formerly used for mining, for instance. For Dr. Rajakaruna, the site at Pine Hill represents an opportunity for ongoing, long-term study. “Pine Hill,” he says, “is a great resource for me. It’s a natural lab.”



**Pine Hill**

*Ann Flewelling*

Clearly, IHT’s preserves figure as more than simply places of recreation or meditation. They also serve to maintain habitats, protect and preserve species and enlarge our understanding of the natural world. Moreover, they can also serve as outdoor laboratories for scientific study and may even help us ultimately to restore damaged and degraded parts of our planet.

**Welcome Windfall. . .**

Donations usually come in one at a time. How gratifying it was to get *several* checks in one envelope with this lovely note:

*Dear Stewards of Island Heritage Trust,*

*We, seven ladies from New Mexico, had a most extraordinary journey to your region of the Maine Coast last fall. We thank you for the pristine beauty of land and sea and all the kingdoms of critters and plant beings that brought us joy and healing.*

*Thank you for your devotion and commitment to preserving this eco-heritage.*

*Most Gratefully,*

*The Group*

**Island Heritage Trust Membership**  
 I/we want to help IHT preserve the natural beauty and way of life on Deer Isle  
 now and for future generations  
 Enclosed is my tax-deductible membership donation  
 \_\_\$250 Conservator \_\_\$100 Sustaining \_\_\$50 Family \_\_\$35 Individual

Name \_\_\_\_\_ Telephone Number \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zipcode \_\_\_\_\_ Email \_\_\_\_\_

Summer Address \_\_\_\_\_

Please send this print newsletter by e-mail in future

Please keep me informed about IHT activities and news with brief, monthly e-mails

I want to volunteer – please contact me about what I can do to help.

*Please mail form to: Island Heritage Trust / PO Box 42 / Deer Isle, ME 04627*  
 A remarkable 70% of IHT’s operating budget comes from member donations – Thank you  
 for joining that effort!

**Wings, Waves  
& Woods**



Birding by land,  
by sea  
and by art

**May 20-22, 2011**  
**Deer Isle, Maine**

<ul style="list-style-type: none"> <li>Art Reception</li> <li>Warbler Walks</li> <li>Birding for Beginners</li> <li>Guided Puffin Boat Trips</li> <li>Bird Photography Workshop</li> </ul>	<ul style="list-style-type: none"> <li>Eagle Spotting</li> <li>Local Foods Supper</li> <li>Owls &amp; Peepers Evening</li> <li>Bluebird House Workshop</li> <li>Birding with Bob Duchesne</li> </ul>
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[www.deerisle.com](http://www.deerisle.com)

Sponsored by the Deer Isle - Stonington Chamber of Commerce, Downeast Audubon Chapter, Penobscot Bay Press & Island Heritage Trust. 207-348-2455

## Fifth Annual Weekend of Birding and Art

This weekend, packed with activities, mostly free, has something for everyone, from art exhibits and demos to guided birding trips on land and by sea. Have you ever “called in” an owl at dusk? Seen a dozen kinds of warblers in an hour? Watched an eagle’s nest with a high powered spotting scope? Been close enough to a live raptor to touch it? Traveled out to Seal Island to see the puffins?

We are fortunate to have Bob Duchesne, founder of the Maine Birding Trail, on hand all weekend to share his enthusiasm and knowledge, including “Habits and Habitats,” an evening slide talk designed to help you better recognize birds right in your backyard. Families and beginners are especially welcome to participate. Check out the full schedule on IHT’s website or stop into the office to pick up a brochure.

Thanks to Deer Isle-Stonington Chamber of Commerce, Downeast Audubon and Penobscot Bay Press for collaborating with us to offer this fun, informative experience of our habitat and all its denizens!

Thanks to IHT member Jane Rosinski who contributed her winter wren to this year’s poster!



**ISLAND HERITAGE TRUST**  
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Address Service Requested



Apple blossoms at Scott’s Landing *Ann Flewelling*