

# BARRED ISLAND NATURE PRESERVE



Long-time favorite, the mile of trail takes you through some of the Island's most attractive maritime boreal fog forest, spruce trees hung with lichens. Botanist Dr. Ralph Waldron established a nature study lodge here in the 1940s and laid out the trails. Because of conditions set by The Nature Conservancy, owners until 2014, this nature preserve does not allow dogs.

You pass a most impressive mossy glade and a bald granite overlook with a panoramic view of the bay before reaching the sand bar that takes you to Barred Island itself. For about three hours either side of low tide you have plenty of time to walk around the little island. If you are too late for that, you may get to watch the zipper effect, waves lapping onto the bar simultaneously from both sides.

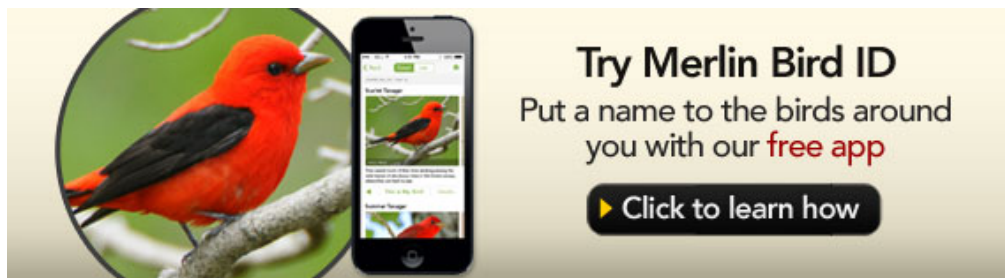
## Self-Guided Nature Trail

Look for **10 Points of Interest** signs along the trail.

## #1 Point of Interest



The one-mile trail to Barred Island is an excellent example of what is called boreal fog forest. Among the birds you will hear along the trail are Hermit and Swainson's Thrushes. The flute-like trills of the Hermit are among the most beautiful of bird songs. Black-throated Green Warblers sing zee-zee-zee-zoo-zee. Listen for Golden-crowned Kinglets' high-pitched whispery chickadee-like calls overhead in the spruces. You might want to use your web browser to call up the Cornell Laboratory of Ornithology site if you do not have a good bird app. See [www.birds.cornell.edu](http://www.birds.cornell.edu) or download their free app, see below.



The upturned spruces along the trail show how shallow-rooted the trees are here. The 16,000 or more years since the last glaciers have not been sufficient time for deep soils to develop.



## #2 Point of Interest



Trailside we can look for cinnamon ferns (*Osmunda cinnamomea*, above) in which the spores are on separate fuzzy cinnamon-and-sugar covered stalks. Its near look-alike, below, is interrupted fern (*Osmunda claytoniana*, below) with pendant clusters of dark brown spore-bearing structures interrupting the green leaflets.



### #3 Point of Interest

Take a moment to view the extensive carpet of mosses and lichens on the forest floor, noting the variety of colors and textures. The dominant moss here is Red Feather moss or Schreber's moss (below). It has a reddish midrib.



Sphagnum (below) or peat moss is an indicator of moist conditions. Every small basin in the granite is probably filled with sphagnum. A dozen or more kinds of sphagnum occur locally, each adapted to particular conditions. Commercial peat moss is dug from boreal wetlands where it has accumulated over centuries. Peat which has been further compacted is dug for fuel in the British Isles.



### #4 Point of Interest

The woodland trail climbs to higher ground here. The trail is relatively high and dry and the tree canopy is open enough to let in light. Several broad-leaved trees grow among the spruces, including White or Paper birch with sheets of peeling white bark (below)





or Yellow birch, recognized by its golden horizontal ribbons of bark (below).



The old trees here may not look classically yellow or white because they are so overgrown with various growths.

Of particular interest is the Lung lichen (below) growing on several Red maples.



The wildflowers along this section of trail are so well-adapted to growing on the acid soils of granite bedrock that they can be considered eco-indicators. Among them is bunchberry (below), a dwarf dogwood





as well as Mountain Cranberry (below),



Canada Mayflower (below),



and Twinflower (below).



See *deeri*Nature Almanac for more information.

In addition to three species of mouse, the most common mammals here are red squirrel, snowshoe hare, and red fox. You may spot their well-travelled trails crossing ours and you may



find their scats—foxes often deposit theirs on top of something so you can't miss their sign. Coyotes have recently been leaving their larger droppings as well. At the shore keep your eye out for mink.

### **#5 Point of Interest**



The small trees here under the power line are both spruces and firs. The photograph above shows white spruce on the left and red spruce on the right. Red spruce is common at this end of Deer Isle. Its needles are reddish brown while the white spruce needles have a bluish cast.

Balsam fir has flat soft aromatic needles. Fir seedlings flourish when released by light in areas of blowdowns. Balsam fir is the traditional favorite for Christmas trees and the aromatic needles are used in fir pillows. Spruce needles are sharp and surround the twig. See the top branch in the photo below. Fir needles, below in the same photo, form a flat plane and if you turn the branch upside down you will see a pair fine white lines on the undersides of needles. Remember Fir is Flat, Spruce is Spiny.



In autumn the sharp-shinned hawks come funneling down this peninsula and spiral over these woods looking for one more meal before they take off over the bay. In spring the returning warblers fill these woods, glad to reach land after their flight across the bay.



## #6 Point of Interest

Soon after the trail crosses a private road you will also notice remnants of stone walls. Stone walls provide a record of past land use. The land right here was probably not tilled, but may have been used for pasture. Much of Deer Isle was cleared for farming in the 1800s, as in this photograph looking across the head of Crockett Cove.



Virtually all of Deer Isle has been cut over several times, much of it for pulpwood during World War II. The Barred Island forest may be less than 100 years old; but because they grow slowly on the thin soils, individual trees are older than you might guess from their size.

## # 7 Point of Interest



Limited by underlying granite ledge, this clear area has changed little in 50 years. Over many years, lichens have gathered nutrients which allow plants like upland cranberry and bunchberry to get a foothold; these are slowly being displaced by Bracken fern and Huckleberry. The dominant lichen is Reindeer lichen, which carpets much of the sub-arctic tundra. There are several other related species of *Cladonia* lichens.

The trail next winds along the edge of a cliff. For years Dr. Ralph Waldron had a split log bench here so lodge guests - and eventually preserve visitors - could pause to admire the scene. Barred Island Nature Reserve is a good place to learn to recognize the common mosses. The expanse of moss carpeting the forest floor is almost entirely Shreber's, the Red Feather moss you met at the beginning of the trail.

Here and there are easily recognized white mounds of moss - Pincushion moss of course (below)





The mosses that look as if they have been windswept or combed are Broom moss (below).




With a little study you can learn to identify the most common moss species from a car window and impress your friends. We suggest of course that getting out of your car and walking the trail is a much better option. Note especially the wisps of Old Man's Beard on the spruce branches. The richness of lichens and mosses on this point is due fog borne by the prevailing southwesterly breezes, making our boreal coastal Fog Forest.

## #8 Point of Interest

Frederick Law Olmsted's summer home - he named it Felsted - lies further along the shore here. For some years later it was a hotel.

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Visible only from the water, the Victorian shingled Cottage-style home again became a private residence. The additions were removed and the once-again-handsome home subsequently served as the set for Mel Gibson's movie, *Man without a Face*.





### **#9 Point of Interest**



The stretch of trail leading up to the Overlook has taken us through a variety of microhabitats. We find rushes and cinnamon ferns at every small watercourse and puddle. On the sunny

hillside we find trailing blackberry species, an upland cranberry, crowberry and bayberry bushes. Tiny brown elfin butterflies (above) claim the area on the first warm days of April. As with so many of our Island treasures, you must be at the right place at the right time to see them. Chance favors the prepared naturalist, to paraphrase microbiologist Louis Pasteur.



The view from Barred Island or from the Overlook, reached by a short side trail, stands to look the same in years to come because protective arrangements - outright ownership by Acadia National Park, Island Heritage Trust, and Maine Coast Heritage Trust and conservation easements - are in effect for Isle au Haut, Mark Island Light (behind Second), Scraggy Island, Second Island and The Fort. Bald eagles seem to know that since they nest on several of these properties.



## #10 Point of Interest



The square of stones just as you walked out onto Stinson Point is what remains of what local people thought of as the shack for storing salt for drying fish. The Olmsted girls called it their changing room for their picnic excursions. Part of Frederick Law Olmsted's personal philosophy was that nature was meant to be enjoyed equally by all members of society. If you are here at approximately 2 ½ hours before high tide you can watch the waters close over the bar from both sides - a picturesque zipper effect.



Characteristic of seashores bordering much of the Gulf of Maine are high tides and steep rocky faces. Not only do creatures living here have to tolerate alternating periods of being wet and dry, they also sort themselves in response to competition and predation. While our tide pools here are not as spectacular as some in other places, Barred Island is an excellent place to study vertical zonation.

For further details see the *deeri*Nature Almanac.





Warning: the tides here are strong. The bar at high tide is covered by about 6 feet of water. Plan your trips out to Barred Island accordingly. You have about 3 hours either side of low tide to safely make the trip and return

From the outermost point of Barred Island you can look south to a wildlife area that is federally recognized as a national treasure. You see the same view as from the Overlook: Isle au Haut, Second Island, (Mark Island is behind Second) and Scraggy.

Now turn and look west at the Camden Hills. From their profile (below) you can read the action of the glaciers as the ice sheets came bearing down from the right and plucked away the rock faces on the left, leaving a steeper slope. North Haven, Vinalhaven, and Eagle Island lie in the middle of the bay, and in the photo below you see Barred Island at high tide and the mouths of Crockett Cove and Burnt Cove.



Your walk around this small island is a lesson in geology. Amid the pink granite bedrock are rocks small and large that are clearly different in appearances. Geologists call the ones left by the ice glacial erratics. They were transported to Barred Island by the continental ice sheet that invaded Maine about 30,000 years ago and retreated from Penobscot Bay about 15,000 years ago. The smaller rocks have tumbled in the sea and been rounded and smoothed and washed ashore. Unless you look at very thin slices of them under a microscope you cannot be certain of your identifications, but you can make some good guesses about whether you are looking at Stonington granite or Ellsworth schist.



Stonington granite (above) underlies Stonington and many of the small islands of the archipelago off the town.



Ellsworth schist (above) makes up much of Deer Isle's bedrock.



The intrepid Olmsted sisters rowed amazing distances in their forays around the bay. Not much escaped their scientific curiosity. (Margaret was an astronomer well before many women made their way into that field.) A garnet-studded boulder was one of their favorite discoveries. Did the glaciers bring it here from the Canadian Shield, where this kind of Precambrian bedrock is exposed?



We hope you have enjoyed your outing. Maps for all IHT preserves are available at the Island Heritage Trust Office in Heritage House in Sunset.

**SELF-GUIDED NATURE TRAIL downloads for all our preserves and  
The Nature Species Almanac download  
and Nature Activities  
available at  
[www.deerisle.com](http://www.deerisle.com)**

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