

Quincy Bog Notes



Spring 2005

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The President's Podium

by Bill Taffe

I've always been amazed by the large number of Painted Turtles basking in the sun all over the Quincy Bog. Maybe I just envy their apparent laissez-faire, not a care in the world as they snooze on logs or sedge hummocks. I wonder how many turtles live at the Bog? I also wonder what other species of turtle can be found there?

This wondering led me to buy the book "Maine Amphibians and Reptiles" (edited by Malcolm L. Hunter, Jr. et. al., University of Maine Press, 1999), which describes the turtles - as well as the salamanders, toads, frogs, and snakes - that inhabit our northern New England region. I started by looking at the photographs, range maps and habitat preferences of turtles, but then wandered into the sections on salamanders and frogs. The book has a CD of the calls of frogs and toads to help readers (listeners?) learn to identify these amphibians by their calls. This was sort of seductive, and I found myself spending more time than expected learning "frog calls". Armed with this new aural knowledge, I'm really looking forward to this spring and summer at the Bog listening to its frog and toad chorus. I might even have to wander the trails at night, looking for Spring Peepers (which can be deafening in early spring) and Grey Tree Frogs.

But what about the turtles? This spring, David Carroll from Warner, NH, gave a wonderful talk on turtles to the Pemi Audubon Chapter. I had read his book "Swampwalkers Journal: A Wetlands Year" and after the talk couldn't resist buying his "The Year of the Turtle: A Natural History". This wonderful little book follows a Spotted Turtle from birth to maturity and from spring emergence to winter hibernation. Although we're a bit too far north to have Spotted Turtles, the author's humanistic approach lifts all turtles from the realm of range maps and habitats to that of companions with whom we share the Bog. So while nights may be reserved for listening to frogs and toads, daytimes will provide good opportunities to look at all the turtles who bask in the sun (predominantly Painted Turtles) and search for the more secretive turtles (such as Wood Turtles) which may also inhabit the Bog and surroundings.



The Bog Nature Trail is open and in pretty good condition, and we have a wonderful new interpretive booklet on the ferns that abound all along the trail. For evening nature study, we offer the Ruth V. Fisher Summer Lectures, held on alternate Wednesday nights from June - August. This summer's programs are on a separate sheet that you can post appropriately. Please come; they're wonderful events! I hope to see you there.

GPS-What is It?

by John Sobetzer

One of the basic pieces of information we want to know at any time is where we are, how far that is from other places we value, and what routes are available to get to them. In a familiar setting this information can be intuitive, we use remembered movements, patterns and shapes, sounds, smells and more to get around, often without being conscious we are navigating. In the wilds, however, we may find ourselves in unfamiliar areas, without signs or knowledgeable people, areas where getting lost can have significant consequences. In the past, people needed some skill with topo map reading and instrument use, to get to their location. In turn they could determine the bearings and distances to different destinations on a hike. Such information would also be used in planning a hike or telling others with similar skills how to hike to those destinations. They still do, but now they can use a GPS (Global Positioning System) device to supplement those skills.

The GPS system consists of numerous satellites in stationary orbits continually beaming signals to the earth. The GPS devices receive those signals using the different locations of those satellites and the time it takes for the signals to reach them to compute a location in geographic space. These devices can also store other known locations, aka waypoints, that the user has uploaded into the device, or that the device has previously recorded. With this information the GPS can indicate the bearing needed to get to any one of those points, and the distance thereto.

They can be simple to use. Turn them on, give them time to find the satellites, and they can give you your location in degrees longitude and latitude. To find your vehicle or any other location or object on your hike, save a waypoint before leaving it, along with any significant turns along the way. To go back to it, use Go To and select that waypoint, or waypoints on the way, and the GPS will give you the bearing and distance thereto. Alternately you can leave the GPS on as you hike, recording a track, and then retrace that track to get back.

With a computer, and some simple software, you can plan routes or select waypoints on a map, and then upload them to the GPS. Many units will allow you to upload a topo or other map as well and display your location and waypoints correctly thereon. Or you can download the waypoints or routes you just collected to a computer. Then you can send these as a file (or the coordinates thereof in writing) to others to upload into their GPS to find the same locations. You can also display them on a digital map or photo.

Now that the government no longer introduces deliberate error, and with ongoing improvement in GPS antennas and

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**A Birdwatching Trip
by Al Ports**

My wife and I took a trip this winter (7 Jan – 7 Feb). Try to figure out where we were from the following list of birds we saw:

wild turkey, house sparrow, European starling, mallard, Canada goose, common redpoll, and rock pigeon (the ordinary living-under-the bridge kind of pigeon).

From that list it doesn't look like we ever left Rumney, let alone New Hampshire, but we did! Now add these birds:

flesh-footed shearwater, sooty shearwater, Buller's shearwater, mottled petrel, Cook's petrel, red knot, ruddy turnstone, barred-tailed godwit, gray-tailed tattler, ring-necked pheasant, California quail.

Coastal California with trips out on the ocean for the pelagic species would be a reasonable guess, but it would not be correct! Now add these:

chaffinch, European goldfinch, greenfinch, skylark, dunnock, chukar, Eurasian blackbird, song thrush, yellowhammer.

Boy that throws a real hook, but there are some clues. The pelagic species are seen in California waters usually in the summer, and three of the four other species are Arctic breeders, and we saw them in the dead of winter. The birds in the first and last lists have been introduced, all but one from Europe, and that one is from North America, the wild turkey.

Now add the endemic species: tui, kokako, takahe, kea, kaka, weka, pukaka, and the national bird, brown kiwi. Yes, my wife and I spent 28 days on the ground in New Zealand this winter in one of the most fascinating trips we have been on. We spent 18 days on a guided birding trip with six other people and two guides. During that time we drove from Auckland through the southern part of the North Island, then the full length of the South Island, and beyond to Stewart Island. We hiked in the middle of the night up and down muddy trails to find a brown kiwi (which we did), fed albatrosses by hand, saw 8% of the of the world's remaining pure blooded black stilts, of which there are just 120, and in Waitomo one evening had dinner at the table next to Sir David Attenborough who was filming the

famous Waitomo Caves glow worms. Following the tour we spent the next ten days in a bed and breakfast three hours north of Auckland just outside the town of Keri Keri, on the Bay of Islands. From there we took day trips as far north as Cape Reinga the northern most point of the North Island, where the waters of the Tasman Sea and the Pacific Ocean meet.

The avian situation in New Zealand is of national concern. When the islands of New Zealand separated from the ancient landmass called "Gondwanaland" about 90 million years ago, two species of bats were the only endemic mammals. Without predators for millions of years, many bird species began living at ground level. Species such as the kiwi, weka, takahe, the penguin species, and the moa evolved flightless, while others like the saddleback and kokako developed only weak flight.

Then along came man! First the Polynesians about 1,200 years ago and with them came rats and dogs. Then in the 18th century the European explorers with their rats, cats and pigs. Then in the 19th and 20th centuries ferrets and brush-tailed possums were introduced in order to establish a fur trade. The toll on flightless and weak flying species was horrendous. Many species became extinct either through predation by animals or man.

But New Zealand is fighting back. Everywhere we went there were local and federal programs for eliminating predators such as rats, ferrets and possums. Traps were everywhere and shooting the critters on sight was acceptable. While visiting one place our 80-something host was riding around on a cart with a dead possum in the back. His 80-something wife had shot it earlier in the day.

In order to reestablish declining species the New Zealand government has taken a number of the uninhabited or sparsely inhabited islands and made them predator free (to get on to the islands we actually had to be quarantined for 15 minutes or so while we checked our packs for mice or anything else that might have hitched a ride with us.) To these islands were brought individual birds of the declining species. For a number of species, breeding has been so successful that individuals are being reintroduced to the mainland. Habitat loss

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additions like error correcting WAAS satellites, even hand-held GPS units can under optimum conditions locate or give one the bearing to one within several meters of their actual locations.

Can they replace the map and compass? No. To begin with, they may not even be able to provide an accurate location. Overhead foliage or atmospheric conditions can distort signals, land features can block them, especially for those in ravines or on the sides of high areas, or the configuration of the satellites at that time of day may mean few are above the horizon or well spread across the sky. The user's own body can even block signals. To save batteries they are often turned off until a point makes sense, but it can take a GPS under such conditions a while to find itself and then give a location and bearing.

GPS units generally do a poor job giving your heading as you move. After getting a bearing from the unit, it is usually best to use a compass to follow that bearing between stops. Following a simple bearing can be difficult in rough terrain or thick vegetation, so a map may be necessary to find a feasible route between points.

Like any electronic device they can fail, run out of batteries or be lost!

There are GPS units that can display your current location or stored waypoints on an included map, from which you might roughly determine bearings and distances to locations without waypoints. But their screens can be hard to read in rain or snow, sunny backlight or in cold conditions. The screen is small, and thus shows only a small map area that may be hard to visualize in the wider context. The maps currently available display at scales that provide much less information than a standard USGS 7.5 minute topo map. When they can display that USGS topo their value will increase, but even then that value will best be to help pinpoint one's location on that larger paper map.

There are other complexities. For instance, geographic space isn't actual space, we use coordinate systems and datums to approximate actual space. If you leave your GPS in WGS 84 and its display of coordinates in degrees lat/long, others using those will find the same location. But your topo map shows UTM zones in the North American 1927 datum so map coordinates are in meters from each zone's central axis, not lat/long degrees. You can change your GPS to display UTM coordinates to match to your topo, but you need to choose the correct datum and zone or your readings may be way off.

For a ton of information on the GPS system and units, their uses and limitations, and costs and benefits of different models, check out the following web site: <http://gpsinformation.net>, or run a Google search on GPS and follow the promising links and see what you might find!

(Ports, continued from page 2)

is also critical to the demise of many species, but this, too, is being addressed, by both national and local governments and individuals. Our hosts at the bed and breakfast had a sixty acre tract they had been bringing back to native growth over the past 40 years and from our bedroom at night we could hear brown kiwi calling, probably not more than 30 yards from the house.



Parrots and penguins, kiwi and albatrosses, mountains to almost 12,000 feet, and 15,000 miles of coastline with only four million inhabitants (most all of whom must leave the country during summer vacation) meant virtually empty beaches. That was New Zealand, a truly magnificent birdwatching experience.

Bog Volunteer Notes 2005

by Pat Barker

About this time in the early spring, we start thinking about spending time at our Quincy Bog. We are looking forward to seeing the flowers blooming, hearing the chirp of the frogs and birds, and enjoying the antics of the chipmunks and squirrels; hopefully we will have a resident moose once again!

The Bog Ladies and Bog Gentlemen Volunteers at the Nature Center enjoy all these pleasures once a week for two or three hours per session in July and August.

We are asking for new Volunteers this year as we have lost three loyal Nature Center greeters. If you would like to be a Quincy Bog Volunteer please contact: Pat Barker at (603) 536-2401.

Edith "Bunny" Finkle – Our Quincy Bog Volunteers and Friends of the Bog were saddened to learn that Bunny had passed away this past winter. Bunny acted as a Bog Lady for many years, and she will be missed. She especially loved the birds. Her daughter told me that she could identify a bird by its song or after only the most fleeting glance. We will be remembering Bunny this summer!

please!

*Be a Friend
of Quincy Bog*

Sunbathing Before the Shade

by Scott Bailey

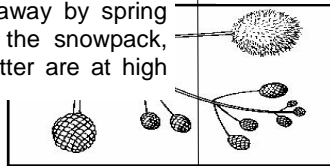
Have you ever noticed that certain wildflowers are rarely found in the woods? Goldenrods and daisies, for example, thrive in the full sun of old fields, but do not photosynthesize efficiently enough to survive in the light-starved habitat of the forest floor. However, there is a group of wildflowers that require full sun, but are only found in the shady environments of dense forests. How do they do it?

These wildflowers, known as spring ephemerals, live their entire seasonal cycle, from sprouting, to flowering, to setting seed, and senescing in the few weeks between snow melt and leaf-out of the forest canopy. If you try to find them in the summer, you won't find a trace, unless you use a shovel to locate their hibernating bulbs.

Around the neighborhood of Quincy Bog the spring ephemerals you are most likely to find include the showy brilliant yellow of the trout lily, the tiny lacy white flowers of dwarf ginseng, and the pink highlighted white flowers of spring beauty. In richer soils of some sugar maple stands, the forest floor can be entirely covered by a green carpet of the above species, in addition to less common species, including Dutchman's breeches, squirrel corn, and wild leeks.



Although consisting of very small plants that spend only a few weeks above ground, scientists hypothesize that the spring ephemeral community performs a vital function to the ecology of our forests. Termed the vernal dam, this hypothesis maintains that spring ephemerals capture nutrients that would otherwise be washed away by spring rains. After a winter of composting under the snowpack, nutrients released from last autumn's leaf litter are at high



levels. But leafless trees are not yet awake enough to utilize this store. However, by the time that the spring ephemerals have completed their yearly cycle, trees are leafing out and hungry for these nutrients that are now released by the decaying ephemeral plants.

So before the green curtain (and black flies) appear, get out and enjoy the brief show afforded by the trout lily and squirrel corn, and perhaps pause for a moment to contemplate how well the various parts of our forest work together.

Early Spring Bog Observations

Three large, fat and healthy beavers watching us as we wrap heavy wire around our white birch trees. Hopefully we spoiled a future meal.

Two male Canada geese fighting over territorial rights to the Bog while their lady friends looked on. Appeared to be a fight to the death, in the water and on the ice, but one eventually surrendered and flew off with his partner.

Otter eating fish on the ice, then finding a horned pout head near the house apparently left by a crow scavenging the remains of the otter's meal.

A turkey vulture scavenging a fish on the ice, only to be chased off by a great blue heron, which in turn was scared off when the turkey vulture returned with a friend.

Two otters being chased by a great blue heron.



Please!

Be a Friend

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