A BOG AT WALDEN POND: SERENDIPITOUS BOTANICAL HISTORY

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The American writer Henry David Thoreau (1817-1862) is best known for his famous work, "Walden Pond" (Thoreau, 1854), an account of his two idyllic years spent living in the wilds of Massachusetts. While Thoreau's works and his association with Walden Pond are well known to most people who attended high school or college in the USA, they are probably at most distant memories for those who are many years out of college. Even though I was fortunate to be born and raised in Massachusetts, I never visited the historic Walden Pond site until I was sufficiently inspired by the carnivorous plants and orchids reported to be found thereabouts.

That inspiration came from a paper called "Biogeochemistry of Thoreau's Bog, Concord, Massachusetts" (Hemond, 1980) and a site notation in a book called "Bogs of the Northeast" (Johnson, 1985). The authors of these works described the history of "Thoreau's Bog" and the many botanical wonders found there. The recent date of the research indicated that perhaps this bog might still be extant. Hence, on a rare trip home in 1995, I decided to follow-up on this information with a trip to Walden Pond in search of this bog.

I realize now that my first visit to the area was what could be described in the Thoreauvian tradition as "sauntering" (Smith, 1997). I simply wanted to see just what the Walden Pond area might have to offer. Orchids such as *Cypripedium acaule* and *Goodyera pubescens* were especially abundant, but few carnivorous plants were seen and the quality of their habitat appeared to be quite marginal. Although at the time I thought that I had found Thoreau's Bog (also known as Gowing Swamp), I now know better. Why? Because after much additional research I have realized that Thoreau's Bog never was at Walden Pond! I am not unhappy about the misguided energy I spent looking for a bog near Walden Pond—surely my wanderings provided a good chuckle for the dearly departed transcendentalists buried on Author's Ridge at Sleepy Hollow Cemetery.

Indeed, my serendipitous journey would be especially fitting as it was noted by one local historian that part of Thoreau's legacy was "the joy of the search" (Brooks, 1975), and another author described Thoreau's walks as "his mode of discovery" (Paul, 1958). Searches of his journals are not conclusive about his knowledge of this boggy area in the mid-1800s, but he did comment on "good cranberries" there, and later said "I had no idea that there was so much going on" in Heavenly Meadow¹ (Broderick, *et al.*, 1981-2002).

Heavenly Meadow is a site near Walden Pond, and indeed, there is "much going on" there. Let us take a trip through just a few examples of Thoreau's appreciation of wetlands and their denizens. For as noted by another grand bog man (James A. Larson) who used Thoreau as a benchmark for dedication and perseverance, "Studies of the life of northern swamps and bogs in sufficient detail to result in knowledge of scientific significance required the fanatical dedication of a Thoreau" (Larsen, 1982).

"No other plant, methinks, that we have is so remarkable and singular." This was Thoreau's comment on the "sidesaddle-flower" (*Sarracenia purpurea*) in Volume III of his journals (Broderick *et al.*, 1981-2002; Torrey & Allen, 1906). Indeed, even today the discovery of this plant in the wild often evokes the same response from even well traveled botanists! Thoreau noted pitcher plants at Conant's Grove near Fairhaven Bay and in Gowing Swamp. Eaton's Flora (1974) lists it as "rather common", although it is probably found at only two or three sites in Concord today.

¹Due to the sensitive nature of this site, its name has been changed to the fictional "Heavenly Meadow" to minimize any possible undesirable intrusions.

Sundews (*Drosera intermedia* and *D. rotundifolia*) are noted in at least two of Thoreau's journals, where he refers to the former as *D. longifolia* or the "spatulate sundew" (Gleason, 1975). Eaton (1974) lists both *D. intermedia* and *D. rotundifolia* as being "common", but has no mention of any other species from this area. Certainly Thoreau's travels to Canada and as far west as Minnesota were sufficient that he might have also seen *D. anglica* and *D. linearis* just as he had seen *D. filiformis* (perhaps on Cape Cod) (Thorndike, 1987).

Bladderworts (*Utricularia*) are noted in several journal entries. Eleven species have been reported in this area (Eaton, 1974), and Thoreau noted several of these in his travels to Flint Pond, Fairhaven Bay/Pond, Sudbury Meadows, and Heavenly Meadow (Torrey & Allen, 1906). I have seen only one species which appeared to be *Utricularia macrorhiza* at Walden Pond, but certainly others could be expected wherever habitat persists. Currently there is research in progress using Thoreau's data on flowering dates of *U. macrorhiza* and other species to see how global warming has apparently increased initial and peak flowering times at Walden Pond (Miller-Rushing & Primack, 2004).

Several orchids were noted by Thoreau in the Walden Pond area, and as noted earlier, at least two—*Cypripedium* and *Goodyera*—are still abundant. I have seen *Calopogon tuberosus* in Heavenly Meadow and certainly *Pogonia ophioglossoides* or *Arethusa bulbosa* could also persist there despite the description of these orchids as "may linger somewhere" or simply "?" in Thoreau's journal entries (Torrey & Allen, 1906). *Platanthera blephariglottis* would not be a surprise given the presence in the area of its frequent companions *Sphagnum*, *Sarracenia*, and *Drosera*.

The cranberries (*Vaccinium macrocarpon* and *V. oxycoccos*) noted earlier by Thoreau (Torrey & Allen, 1906), Eaton (1974), and others have certainly persisted with the modest sphagnum mat found here. The *Vaccinium macrocarpon* probably contributed greatly to the Heavenly Meadow Cranberry Sauce that was served at a Thoreau Society Symposium in 1962 honoring the 100 year anniversary of Thoreau's death (Maynard, 2004). The possibility of finding podgrass (*Scheuchzeria palustris*) or Labrador tea (*Ledum groenlandicum*) here must be considered by anyone fortunate enough to penetrate this wilderness. The former was found to be abundant in Gowing Swamp by Thoreau in 1855 (Torrey & Allen, 1906) and later was seen by Eaton in Harrington's Swamp in the 1950s (Eaton, 1974). Unfortunately, only five sites have been documented for this species in Massachusetts since 1978 (Anon., 1998). *Ledum* was said to be once found in a single location in Concord that has now been destroyed (Eaton, 1974).

Several other boggy or aquatic species of note from the Concord area such as *Menyanthes trifoliata*, *Eriophorum* spp., *Carex* spp., *Lycopodiella inundata*, *Kalmia polifolia*, and *Chamaedaphne calyculata* were initially listed in Thoreau's fourteen journals. Additional information on these species or others of interest can be found in Eaton (1974), Gleason (1975), and Angelo (2001).

Obviously my discovery of Heavenly Meadow and my subsequent research has been a curious trip through botanical history, sauntering through the countryside, and connecting generations of botanical travelers to Thoreau, and also to those of us who have followed his voluminous works.

Herbert Gleason (cited in my list of references), was Thoreau's photographic bibliographer, and he met John Muir in California in the 1900s (Beckman, 1975). However, Muir did not "meet" Thoreau until he visited his gravesite in 1893 (Maynard, 2004). Gleason and I have much in common as we have both traveled extensively in the footsteps of Muir from the Sierras of California to Alaska, and also as we both have journeyed transcontinentally in our effort to catch up with the great saunterer—Henry David Thoreau.

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