

New England Botanical Club - Minutes of the 1007th Meeting 20 May 2005

Karen Lombard and Janet R. Sullivan, Recording Secretaries

The 780th meeting of the New England Botanical Club, being the 1007th since its original organization, was held on Friday, May 20th, 2005, at Garden-in-the-Woods, New England Wild Flower Society, Framingham, MA. There were 36 members and guests in attendance.

President Art Gilman opened the meeting by thanking the New England Wild Flower Society (NEWFS) for allowing the NEBC to hold its May meeting at Garden-in-the-Woods for the third year in a row. The garden was at its peak spring bloom, and members and guests enjoyed walking the paths before settling down for the evening presentation. The new Executive Director of NEWFS, Gwen Stauffer, welcomed the Club to the Garden. Vice President Karen Searcy then introduced the evening's speakers: Dr. Nancy Eyster-Smith, the Club's Corresponding Secretary and a professor in the Department of Natural Sciences at Bentley College, and Dr. Janet Sullivan, Editor-in-Chief of *Rhodora* and an adjunct faculty member in Plant Biology at the University of New Hampshire. Their talk, "Journey of Discovery: 200 Years After Lewis & Clark," was the second of two presentations on the Lewis & Clark Expedition hosted by the Club this spring.

The speakers began by explaining that they have both traveled parts of the Lewis & Clark Trail in recent years, and wanted to share some of their experiences in celebration of the bicentennial. Nancy currently teaches a science elective on the Lewis & Clark Expedition and has done sections of the Trail as part of her course preparation; Janet traveled the Trail from St. Louis to the Oregon coast last summer as part of a Humanities Program summer course. Nancy and Janet structured their talk as a "tag team" presentation, moving the group from east to west and incorporating images and anecdotes on the landscape, plants, animals, monuments, and the experiences of the Corps of Discovery.

The first images gave a geographic overview of the Trail with present-day cities and state boundaries, as well as the physiographic provinces the Trail passes through. The evening's journey began in the Eastern Deciduous Forest with a visit to Cahokia, Illinois, where Janet visited an interpretive center depicting the culture of pre-historic Mississippian people. They were mound-builders, and the group was offered contrasting images of two types of monuments: the huge plateau mound constructed by the pre-historic Indians and the Gateway Arch in St. Louis, completed in 1965. Nancy's inclusion of aerial photos (from a text) were a further reminder of how the landscape has changed since 1805.

The speakers moved the group up the Missouri River through Tall-grass Prairie and river bottoms, with images of the monuments at Council Bluffs, Iowa (where the Expedition first encountered members of the Oto and Missouri tribes), Sioux City, Iowa (where Sargent Floyd, the only casualty, was buried), and Pierre, South Dakota (where the Expedition had its negative encounter with the Teton Sioux). Nancy passed around her souvenir-replica of a Jefferson Peace Medal, many of which were given as gifts by Lewis & Clark to the chiefs of the Indian tribes they encountered. Also in this section of the trip, Meriwether Lewis first collected *Maclura pomifera* (Osage orange), and recorded the details of the collection and preparation of species such as *Psoralea esculenta* (wild turnip), a staple in the diet of the plains Indians. It was also on this part of the Trail that Janet encountered a group, composed of descendants of the original Corps of Discovery, that is reenacting the expedition over the three-year period of the bicentennial.

Photos from Fort Mandan and the Knife River Indian Villages north of Bismark, North Dakota provided another chance to compare the similarities and differences between the Corps and the native people they encountered, in this case the Mandan and Hidatsa. While their quarters were quite different in the winter of 1804-1805, the people of both cultures spent their time over the winter months in similar ways. One common thread was the men's use of tobacco – social for the Corps and spiritual for the Indians. Lewis mentioned the cultivation and mild flavor of *Nicotiana quadrivalvis*, a species new to science, in his journal. His specimen is part of the Lewis & Clark Herbarium at the Academy of Natural Sciences in Philadelphia. It was also during the winter of 1804-1805 that the members of the Corps were introduced to the corn, or maize, cultivated by the Mandan.

In the spring of 1805, the Corps started off across North Dakota and Montana. In his journal, Lewis mentioned *Opuntia*, the prickly pear cactus, which the members of the Corps found to be “extremely troublesome.” Janet illustrated why, with a picture of the low-growing plants concealed by the grasses on the High Plains. Visitors on this part of the Trail can paddle canoes or kayaks to see the White Cliffs near Fort Benton, or take a ride in a power boat to see the Gates of the Mountains, north of Helena. A visit to the Great Falls may prove disappointing, however; the interpretive center there has interesting exhibits about the Expedition and the natural history of the region, and is worth the stop, but the falls are now controlled by a dam and are periodically “turned off” to regulate water levels. In June, Janet’s class found the prairie dotted with the blue flowers of *Linum lewisii* (collected by and named for Capt. Lewis) and several species of *Penstemon*.

Images from the Rocky Mountains included wild and scenic views along the river and the peaceful site the Corps called Travelers’ Rest, as well as the altered landscape at Lolo Springs, where Nancy found signs advertising RV camping, an in-ground pool, and Lewis & Clark Bumper Boats. Plants such as *Lewisia rediviva* and *Clarkia pulchella* can be found in the mountains; the plant genera were named for the leaders of the Expedition. Nancy reminded us that the explorers encountered and described animal species, also, with her photos of mountain goats, grizzly bears, Lewis’s nutcracker, and Clark’s woodpecker. From Packer Meadow, located at Lolo Pass, the speakers showed slides of *Camassia quamash* in bloom and in fruit. The group was reminded of Jim Reveal’s talk last month, where he told of the digestive problems suffered by the members of the Expedition when they ate the quawmash (or blue camas) after descending from the snowy Bitterroot Mountains in the fall of 1805. On the return journey, Lewis related the experience of seeing the Weippe Prairie in full bloom and from a distance mistaking the field of deep-blue flowers for water. The journals of both Lewis and Clark include detailed notes on the collection and preparation of the bulbs, which were one of the most important foods and trade items of the natives of the Northwest at that time.

Moving west through Idaho and into eastern Washington, the Corps traversed the Palouse Prairie, dominated by *Artemisia* and *Purshia* (sagebrush and antelope bush, respectively) with scattered *Quercus garryana*. The Expedition moved through the region on the Snake River, and thence the Columbia. Nancy and Janet highlighted some of the scenery and interpretive centers of the Palouse and Columbia Gorge: the Nez Perce National Historical Park (where an original Peace Medal is on display), Hat Rock (noted in the journals), the Columbia Gorge Discovery Center (featuring displays on the scientific aspects of the Expedition), Mt. Hood and Mt. Saint Helens (both visible from the river and indicated on an 1803 map), the Oneonta Gorge Botanical Area, and Beacon Rock (so-named by William Clark). Native American families still have fishing rights along the Columbia, and their wooden piers are reminders of journal entries describing the Wishram fishermen spearing fish from the river’s banks. Though the river levels have been altered by the Bonneville Dam and Cascade Locks, tour guides today point out features relevant to the Expedition such as documented camp sites.

As they approached the Pacific coast, the Corps moved into Temperate Rainforest, where they spent the winter of 1805-1806 at Fort Clatsop. Tours of the reconstructed fort introduce today’s visitors to some of the plants collected and first described by Lewis and Clark, such as *Gaultheria shallon* (salal, the “surup” of which Clark described as “pleasant”). Nancy and Janet shared images that included scenes of Ecola State Park (north of Cannon Beach, where a beached whale attracted much attention in January 1806), the re-creation of the Salt Works in Seaside, and the “End of the Trail” monument on the boardwalk at Seaside. Despite coastal development, remnant patches of dunes vegetation and the fog rolling in with the waves are reminders of the scenery described in the journals 200 years ago.

Although they had many more slides to show and stories to tell, Nancy and Janet ended their presentation with encouragement to travel at least some portion of the Trail, as a way to share the experience of this rich part of our nation’s history. The group adjourned for conversation and refreshments, which unfortunately did not include the Prickly Pear Ale or Lewis & Clark Lager advertised in one of Nancy’s slides.