

New England Botanical Club – Minutes of the 941st Meeting

2 October 1998 Prepared by Dr. Paul Somers, Recording Secretary

The 714th meeting of the New England Botanical Club, being the 941th since the original organization, met on Friday October 2, 1998, at Harvard University's Biological Laboratories with 47 members and guests present.

Business of the meeting included introduction of six new members who had joined the Club since June and the announcement that Maggie Bogle would be retiring from her position as Managing Editor of *Rhodora*. After much applause for Maggie and her contributions, we learned that her replacement, Dr. Toni Hartgerink, would be starting work soon. President, Dave Conant, then introduced the evening's speaker, Dr. Lisa A. Standley, the Club's Vice President, to speak on the topic "Beyond the Brooks Range--Flora and Fauna of the Arctic National Wildlife Refuge".

Among Dr. Standley's many activities, we learned, is going on Sierra Club outings. Twice in recent years, she has enjoyed ten-day backpacking trips to the Arctic National Wildlife Refuge in northeasternmost Alaska. Both trips were in mid-June and started with flights into Fairbanks and transfer to smaller planes that flew them through passes in the Brooks Range to the Romanzof Mountains and the coastal plain of the Beaufort Sea, a couple hundred miles north of the Arctic Circle. The area hiked was between two rivers, the Jago and the Aichilik, which flow northward from the mountains, crossing the coastal plain to the sea. The Refuge is contiguous with Indian lands and National Parks, which add to the wilderness landscape. It is home to the caribou's Porcupine Herd calving grounds and their migration routes to the mountains. Fortunate for us, Lisa was armed with a good camera and the ability to use it well. We were treated to excellent images of the region's plant life interspersed with those of the often present and possibly curious caribou. Also, landscape shots illustrated some of the Refuge's varied habitats and unadulterated beauty. The hiking area ranged in elevation from near sea-level to around 5000 ft. Most of the landscape is devoid of tall trees, although some of the narrower valleys supported white and black spruce in sheltered areas. Low willows were the more typical woody vegetation. The narrow valleys generally run east-west while larger river valleys run north--south. Precipitation is surprisingly low there with only about 10 inches per year, Standley said. The few glaciers seen while crossing the Brooks Range were relatively small and not growing, evidently remnants of earlier times with higher rates of precipitation.

The slide images gave a good sampling of the dominant plant families in the Refuge and the Arctic region, in general. The Cyperaceae, a family Standley knows especially well because of her research on the genus *Carex*, is one of them. Sedges were well represented and tussocks of cottongrass were frequently underfoot, making hiking difficult. More frustrating for Lisa than the tipsy tussocks, perhaps, was that nearly all the sedges present in June were flowering rather than fruiting, making identifications very challenging. Another family well represented was the Salicaceae. A favorite for Standley was *Salix minima*, which stood less than an inch tall with catkins of reddish flowers. The Saxifrage family was represented by several species of *Saxifraga*, including *S. oppositifolia*, a

circumboreal species present in New England and the very unusual *S. eschscholtzii* with its tiny cushion-like rosettes of succulent leaves only 2 mm across. Jumping to the Rose family, we saw *Potentilla hypartica* [or *P. nana*, in some books], a close relative of New England's federally endangered *Potentilla robbinsiana*. Also representing the Rosaceae were both species of *Dryas*. The hikers liked seeing *Dryas*, because it meant they would be walking on gravel substrate and not wobbly tussocks. Ericads were also represented in the tundra by white flowering *Cassiope* [or *Harrimanella* in some references], pink flowered *Rhododendron lapponicum* described by Standley as weedy everywhere, and *Loiseleuria* seen at around 5000 ft. elevation.

Also, illustrated by Standley were a *Douglasia* species in the Primulaceae which is endemic to Alaska and the Yukon, a *Hedysarum* in the Fabaceae which has aromatic, edible roots eaten by grizzly bears, and yellow poppies which trap heat and attract flies in cup-like flowers that tilt toward the sun, which in June's Solstice sky shines for 24 hours per day. Other highlights included nitrophilous, orange-colored lichens that grow on rocks where birds perch, caribou trails in the tundra made in the 1940's, caribou skeletons used for drying wet socks, musk oxen simulating "fringed sofas" swaying in the breeze, aerial views of river meanders revealing a hundred or more years of geomorphology, vertical Jurassic formations with marine fossils, cliffs with gyrfalcon nest sites, sloping bogs at 4000-5000 ft., and a grizzly bear sow with cub about a thousand feet away.

Questions followed about bears, fossils, endemics, and references for arctic Alaska. Standley recommended Pielou's *A Naturalist's Guide to the Arctic* and Armstrong's *Guide to the Birds of Alaska*. The meeting then adjourned for refreshments.