

New England Botanical Club – Minutes of the 962nd Meeting

3 November 2000 Prepared by Don Hudson, Recording Secretary

The 735th meeting of the New England Botanical Club, Inc., being the 962nd since the original organization, met in the Main Lecture Hall of the Biological Laboratories, Harvard University, Cambridge, Massachusetts on Friday, 3 November 2000. President Lisa Standley called the meeting to order at 6:52 PM with 46 members and guests present. Guests were introduced, followed by the announcement of four new members, Robert Capers, Jesse Bellennare, Nancy Weiss and Nancy Murray. Following several announcements of imminent events in the greater Boston area, Karen Searcy rose to present the first in a new series of Special Publications of the Club: *The Flora of the City of Worcester*, authored by Dr. Robert Bertin, the evening's speaker. Those in attendance were offered the opportunity to sign up for either a hard copy or an electronic copy of the *Flora*. After dispensing with the reading of the minutes, and with neither old nor new business at hand, the meeting moved to gossip. Les Mehrhoff has found what he considers to be the hybrid between the oriental bittersweet, *Celastrus orbiculata*, and the native climbing bittersweet, *Celastrus scandens*, while botanizing in Newcastle, Maine. Several characteristics of growth habit, the inflorescence, and the fruit lead Les to the conclusion of a hybrid origin, and he asked whether or not anyone else has observed similar plants. Not a peep from the crowd.

Paul Somers rose next to report on plans for future meetings and to introduce the evening's speaker, Dr. Robert Bertin, Chairman of the Biology Department at the College of the Holy Cross, here to speak on "*Fifty years of change in the flora of Worcester, Massachusetts.*" Bob Bertin had something of a mid-life crisis several years ago while assembling his dossier. Would years of investigating sexual systems and plant reproduction survive the cruel knife of history? Would anyone know about his work? Worse yet, would anyone care? So it was that his examination of the flora of Worcester took shape. In a day and age when floristic studies are often overlooked or discounted, Bob recognized the inherent value of such work to colleagues, students, city planners, and conservation-minded citizens. The botanical landscape of Worcester was not very well known, yet the pressure of development was unrelenting. And, if he undertook the project, he would have ample time in the field – a botanist and ecologist's dream!

The City of Worcester lies largely in the watershed of the Blackstone River near the geographic center of the state. The western edge of the city sits atop a 1000' escarpment that falls to 300' in the east. Soils are underlain by till and some sorted glacial outwash material. Three bodies of water pre-date European settlement, Lake Quinsigamond, Bell Pond, and parts of Indian Lake. These have been added to by damming during the past 300 years. Forests, largely comprising black and white oak and hickory, have been reduced in total area and allowed to recover repeatedly over the centuries. The story for wetlands, on the other hand, is grimmer. Whereas 5% of Worcester was wetlands in 1830, less than 1% of it is today. Peat bogs remain in two areas, at Peat Meadow and Broad Meadow Brook. The latter is on land conserved by the Massachusetts Audubon Society. There were perhaps as many as 300 native Americans living in this area when Europeans first passed through in the early 1600s. Native people likely cleared some forest intensively for gardens, while using fire in other places to influence populations of game species. The permanent white settlement commenced in 1713, and the landscape of Worcester has changed dramatically since that time.

Fieldwork on the *Flora* began in 1994 with the collection of records at 77 sites throughout the city. Bob visited these sites, which included ponds, streams, vegetated wetlands, tracts of undeveloped lands, parks, cemeteries, power lines, and railroads to name a few, at different times throughout the year in order to catch plants at their several stages of development. A total in excess of 11,000 records forms the basis of the *Flora*. In addition, Bob gleaned historical information about the flora from the herbaria of Clark University, Harvard University, and the University of Massachusetts at Amherst. All tolled 1407 species have occurred within the city limits, of which 1154 were established. Bob has observed 1049 species since 1994. A flora comparable to that of Concord or Nantucket, half the species of Massachusetts are found in Worcester. Over the course of his investigations since 1994, Bob has discovered 83 county records – most waifs and adventives, though a few of these are native species. *Carex* has the most representatives in the flora with 72, followed by *Polygonum*, *Aster* (*sensu lato*), *Panicum*, *Viola*, *Solidago*, and *Juncus*, all with 13-19 species. Three species are state-listed and 6

more are candidates for the watch list. If the herbarium records are to be trusted, 17% of the flora has been lost (129 of 781 native species), which is a measure less than that of Staten Island, Middlesex Fells, and Nantucket, but more than that of Concord.

Bob reviewed the highlights of both the fieldwork and the finished *Flora* with a series of elegant slides. His story of botanizing in the rail yard was particularly compelling. Who would have imagined encountering a plant enthusiast from amidst a group of ironworkers?

Bob ended his presentation by thanking the Special Publications Committee for overseeing the printing of the *Flora*, and he encouraged others in the audience to take up the challenge of writing a local flora. The meeting adjourned to questions and refreshments at 8:05 PM.

Paper copies of Dr. Robert I. Bertin's *The Flora of the City of Worcester* will be available at the December 2000 meeting.

CD-ROM copies will be available at a later date. A sign-up sheet for interested persons will be at the December meeting.

Cost is \$15.00 for spiral bond paper copy and \$5.00 for CD-ROM copy.