



WATER RESOURCES RESEARCH GRANT PROPOSAL

Project ID: 2004ME33B

Title: Native and Invasive Aquatic Plant "Virtual Herbarium"

Project Type: Information Transfer

Focus Categories: Conservation, Ecology, Economics

Keywords: aquatic plants, bio monitoring, conservation, ecosystems, information

Start Date: 04/01/2004

End Date: 03/31/2005

Federal Funds: \$4,000

Non-Federal Matching Funds: \$15,500

Congressional District: 2

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Abstract

Extensive work is being done at the state and local level to prevent the spread of invasive aquatic plants into Maine's lakes, ponds and streams. While prevention of the spread of these organisms is the highest priority, the early detection of invaders offers the best hope for eradication, or successful management of an infestation. During the past three years, the VLMP has trained several hundred volunteers and agency personnel throughout Maine to identify aquatic invaders and to conduct screening surveys of lakes and ponds. The "Virtual Herbarium" will serve as an online tool for trained volunteers, students, agency personnel and the general public. The Herbarium will consist of photos, line drawings, and scanned images for eleven target invasive species, as defined under Maine law, as well as for native plants that are often mistaken for invaders and others that will likely be encountered during the survey process. The photos will include plants in situ, close-up shots, and micrographs of structures that are key to definitive identification. Factual information will be provided for each of the featured plants, including: species description, similar species, origin and range, habitat and yearly growth cycle, value in

aquatic communities (native species) and case studies of infestations and management strategies (invasive species). The site will also include links to survey maps and data collected by State agencies and volunteers. A dichotomous key will be provided to allow users to rule-out target species. The web site will link to PEARL, the on-line database for Maine lakes, providing additional value-added information for the data and educational activities of PEARL (<http://pearl.maine.edu>). PEARL is a collaborative of the Umaine Mitchell Center, VLMP and Maine DEP.