

WILLIAM OLSON

FIELD BOTANIST/BIOLOGIST

EXPERIENCE

Mr. Olson has experience in environmental sciences with an emphasis on threatened and endangered species, wetland delineation, wetland evaluation, wetland mitigation, natural resource evaluations, environmental impact analysis, natural community mapping, botanical, and ecological research. He specializes in field botany with an emphasis on identification, cataloging, monitoring and management of native flora. His additional experience includes the identification of difficult plant groups and rare plant and animal (vertebrate and invertebrate) inventories.

EDUCATION

A.A. Biology, Keystone Junior College, 1977

B.S. Biology, Slippery Rock State College, 1979

Master's Degree Program in Biology (Plant Ecology), Rutgers University, Camden Campus

EMPLOYMENT HISTORY

2008 - Present	Private Environmental Consulting
1992 – 2008	Maser Consulting P.A.
1988 – 1992	Najarian Associates
1987 – 1988	Bowman's Hill Wildflower Preserve
1985 – 1987	Winkler Botanical Preserve, Alexandria, VA.
1981 – 1985	Bowman's Hill Wildflower Preserve
1980 – 1981	Pocono Environmental Education Center

PROFESSIONAL AFFILIATIONS

Philadelphia Botanical Club
Torrey Botanical Club
New England Botanical Club
Long Island Botanical Club
Southern Appalachian Botanical Club
American Fern Society
American Bryological and Lichenological Society
International Association of Bryologists
Dragonfly Society of the Americas
Natural Areas Association
Society of Ecological Restoration
The Nature Conservancy
New Jersey Audubon Society
National Audubon Society
American Littoral Society

PROJECTS

Rare and Endangered Species

Mr. Olson has conducted botanical surveys in various sites in eastern North America. He is familiar with the entire flora of the area as well as with representative species of bryophytes

(mosses, liverworts and hornworts) and lichens. He has conducted field investigations to determine presence or absence of rare and endangered species for numerous projects. He has accomplished contract field surveys for the Commonwealth of Pennsylvania's Wild Resource Conservation Fund and for the New Jersey Natural Heritage Program as well as for U.S. Military bases and the National Park Service. Some of the species investigated include: Swamp Pink (*Helonias bullata*), Bog Asphodel (*Narthecium americanum*), Curly Grass Fern (*Schizaea pusilla*), Mud Sedge (*Carex limosa*), Oakes Pondweed (*Potamogeton oakesianus*), Robbins Pondweed (*Potamogeton robbinsii*), Blue Wild Indigo (*Baptisia australis*), Indian Plantain (*Hasteola suaveolens*), New Jersey Rush (*Juncus caesariensis*), Thread Rush (*Juncus filiformis*), Bogbean (*Menyanthes trifoliata*), Knieskern's Beak-rush (*Rhynchospora knieskernii*), Few-flowered Beak-rush (*Rhynchospora oligantha*), Small-headed Beak-rush (*Rhynchospora microcephala*) and Bog Bluegrass (*Poa paludigena*). Mr. Olson has dealt with many other species and is familiar with the entire vascular flora of eastern North America. He has particular interest in ferns, lycophytes, grasses, sedges and rushes as well as the violet and aster families. Qualitative as well as quantitative botanical surveys have been accomplished.

The Flora of New Jersey Project

Mr. Olson has been involved the more recent flora of NJ project since it started in February of 2004. He serves as the chairperson of the Nomenclature Committee and has agreed to work on the Aster family (Asteraceae), the Violet family (Violaceae), and the genus *Scleria* and part of the genus *Eleocharis* in the Cyperaceae. The project involves the creation of a webpage, a plant atlas and a manual to the flora of New Jersey.

Wetland Delineation and Assessment

Responsible for ecological work dealing with wetlands, including delineation, assessment, restoration and mitigation. Wetland delineation projects involve field delineation, data collection, technical writing, production of wetland report, and submittal to various regulatory agencies. Other responsibilities include field investigations and technical writing for environmental impact statements, natural resource inventories, rare plant and animal searches and native flora research projects.

Permit Applications

Prepared numerous permit applications for private residential, commercial, and industrial projects to the following agencies: U.S. Army Corps of Engineers, New Jersey Department of Environmental Protection and Energy (Land Use Regulation Program), New Jersey Pinelands Commission, and New York Department of Environmental Conservation. Permits applied for include: Individual and Nationwide Permits, Statewide Permits, and Transition Area Averaging Plans.

Environmental Impact Assessments

Prepared the ecological sections of numerous environmental impact statements and assessments for a wide variety of projects.

Natural Resource Inventory

Mr. Olson has been involved with the preparation of numerous NRIs. He has prepared the botanical sections as well as vegetation (plant communities) and rare species sections.

Environmental Education

Has been involved in numerous seminars, workshops, slide presentations, etc. dealing with environmental topics such as plant identification, wetland community types, as well as other ecological and botanical subjects. Botanical seminars have been conducted at Bowman's Hill Wildflower Preserve in Bucks County, PA on the subjects of grasses, sedges and rushes and for violets. The Pinelands Preservation Alliance has had Mr. Olson teach their Pinelands Rare Plant course in 2005, 2006 and 2007. A plant family course was co-taught by Mr. Olson in 2006 on all the plant families of the pinelands of southern New Jersey.

Mr. Olson has taught the Rutgers Continuing Education Wetland Delineation Course in Vegetation Identification and Winter Vegetation Identification in 2010 and 2011. He has developed the two day course with presentations in the class room as well as in the field. Locations visited included the Lord Sterling Park, the Great Swamp National Wildlife Refuge, Hacklebarney State Park and Allaire State Park.

Herbarium Development

Has developed of a vascular plant, lichen and bryophyte herbarium collection associated with the Rutgers Creek Wildlife Conservancy, part of the Brandwein Institute in Orange County, New York. This work involves the collection, identification, documentation, pressing, mounting, and curation of the specimens.

ADDITIONAL EXPERIENCE

Conducted floristic inventory of vascular plant species historically, as well as presently, found at Bennett Bogs Preserve, a Coastal Plain intermittent pond community, located in Cape May County, New Jersey.

He has conducted plant and ecological community inventories for a 337-acre site in Cape May County, and a 90-acre site and 182-acre site in Sussex County, New Jersey for the New Jersey Chapter of The Nature Conservancy.

A survey of Wreck Pond in Monmouth County, NJ was conducted in 2005 for wetland plants growing in the vicinity of the five ponds which makeup the Wreck Pond complex. An aquatic plant survey was conducted in 2006 for the same five ponds.

Rare plant surveys have been conducted in the Delaware Water Gap National Recreation Area. Surveys for rare species are mandated by the Federal Government any time there is new construction or repair of existing structures. In addition, for the construction of the handicap assessable McDade Trail, plant surveys were conducted for the proposed route from the north end of the park to the south terminus.

A presence/absence survey was conducted for the Smaller Whorled Pogonia (*Isotria medeoloides*) on a site in northern Sussex County, New Jersey which was adjacent to a Natural Heritage site which contained the plant. A thorough search of the property was accomplished and a report was prepared for the U.S. Fish and Wildlife Service which reported that the target species was not observed and it was the investigator's professional

opinion that the species did not exist on the subject property. This allowed the property owner to construct a driveway to his proposed house.

Have conducted search in the Delaware Water Gap National Recreation Area in order to update the botanical database for the park. Each year, Mr. Olson has found new plant species for the park. In addition, search have been conducted for bryophytes and lichens in the park. A survey for odonates (dragonflies and damselflies) has been conducted for the National Park Service from 2007 to 2010..

Mr. Olson has years of experience with rare butterflies in New Jersey and surrounding areas. Species surveyed include: Falcate Orangetip (*Anthocharis midea*), Arogos Skipper (*Atrytone arogos arogos*), Northern Metalmark (*Calephelis borealis*), Brown Elfin (*Callophrys augustinus*), Juniper Hairstreak (*Callophrys gryneus*), Henry's Elfin (*Callophrys henrici*), Eastern Pine Elfin (*Callophrys niphon*), and Hoary Elfin (*Callophrys polios*).

Botanical surveys have been conducted in New Jersey, Pennsylvania, New York, Massachusetts, Vermont, New Hampshire, Maine, Connecticut, Delaware, Virginia, West Virginia, Georgia, Florida, and Louisiana.

PUBLICATIONS

Olson, William. 1992. The Flora of Bennett Bogs Preserve: Past and Present. Bartonian No. 57: 75-81.

Kekes, Jean Y. and William Olson. 2003. *Campylopus carolinae* Grout in New Jersey. Evansia.

Ferren Jr., Wayne R., William F. Olson Jr., Russell Juelg and the Class of 2005. 2005. Rare Plants of the New Jersey Pine Barrens and Vicinity: A Methodology for the Nomenclature of Rarity in Plants. Prepared for the course, "Rare Plants of the New Jersey Pine Barrens". A course offered by the Pinelands Preservation Alliance Southampton, NJ. Published privately.

Olson, William. 2010. Survey of the Odonate of the Delaware Water Gap National Recreation Area. Prepared for the National Park Service.

CONTACT INFORMATION

William Olson
1005 Lakewood Farmingdale Road
Howell, New Jersey 07731-8904

Phone (732) 961-1946

Email wolson3@optonline.com