



UNIVERSITY of NEW HAMPSHIRE
Professional Development & Training

December, 2011, through August, 2012, Workshops

that can be used towards the

Wetland Delineation Certificate Program

These workshops are listed on our website at:

<http://www.learn.unh.edu/pcw/pd/sched.php?id=49>

Ferns and their Allies

6 CEHs for Wetland Scientists; also 1.75 CEUs for Surveyors, 3.5 CEUs for Foresters

Durham Kingman Farm: *CRN 999300, July 20, Friday, 9 a.m.-4 p.m., .6 CEUs, \$175, lunch included*

This fern identification workshop will be held at the Kingman Farm on route 155 in Durham. It is intended to teach natural resource professionals the skills necessary to positively identify the ferns of northeastern New England. A combination of indoor and outdoor instruction will be used to teach participants about basic fern terminology, morphology, reproduction, hybridization, and ecology. These skills will then be employed to identify ferns in the field using a fern key. Highlights include strategies and suggestions for identification within some of the more difficult fern groups, and a thorough discussion of the challenges presented by fern hybridization. During the field portion of the course participants will see many of the most common local species of ferns discussed in the lecture, and gain experience keying in situ. Participants of all experience levels are encouraged to attend. The required text is: *Fern Finder: A Guide to Native Ferns of Central and Northeastern United States and Eastern Canada* by Hallowell & Hallowell. Students are asked to purchase this text themselves from their preferred bookseller and bring it with them to the workshop. (This is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Leslie Adams, Ph.D., is a plant systematist who specializes in ferns, grasses and the floristic diversity of New Hampshire forests. She has taught botany, ecology and soil science at UNH and a variety of public and private institutions since 1995. She also teaches several plant identification workshops through UNH Cooperative Extension and has a broad knowledge of the New England flora, plant natural history, and conservation biology.

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Grasses for Beginners

6 CEHs for Wetland Scientists and 3 CEUs for Foresters

Portsmouth: *CRN 306212, June 8, Friday, 9 a.m.-4 p.m., .6 CEUs, \$175, lunch included*

In this workshop, designed for wetland scientists, you will learn to identify the ecologically important family of grasses (Poaceae) and recognize the most common early-season wetland and upland species in this large, diverse and challenging group. You will also focus on tools for identification—understanding plant structures and terminology. A good hand lens is essential. We will spend part of the day in the field, weather permitting. (This is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Lisa Standley, Ph.D., is an expert in the systematics of the sedge genus *Carex*. In addition to her many publications on the systematics and ecology of this group, she contributed to the treatment of *Carex* and several grass genera in *Flora North America*. She has taught courses in grass and sedge identification in New England for over 20 years. She is Chief Environmental Scientist for the consulting firm Vanasse, Hangen, Brustlin, Inc.

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Identification of NH Trees and Shrubs

6 CEHs for Wetland and Soil Scientists, 1.75 CEUs for Surveyors and 3 CEUs for Foresters

Portsmouth: *CRN 304212, June 15, Friday, 9 a.m.-4 p.m., .6 CEUs, \$175, lunch included*

This intensive, hands-on workshop will focus on dendrology and field identification of common shrub species in New Hampshire. You'll learn keys and characteristics of identification—leaves, fruits, twigs, bark and habitat—to apply in professional fieldwork, such as surveying, mapping, and wetland delineation. A hand lens is recommended for this workshop. Also recommended is the text, "A Field Guide to Trees and Shrubs" (Peterson Field Guides Series), by G.A. Petrides. Please dress for outdoors. (This is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Bob Prokop, M.S. in Wildlife Ecology, is a wildlife biologist, NH Certified Wetland Scientist, and professional wetland scientist (SWS), and owner of Wetland Consulting Services.

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Identification Skills for *Carex*

6 CEHs for Wetland Scientists.

Portsmouth: *CRN 305212, June 22, Friday, 9 a.m.-4 p.m., .6 CEUs, \$175, lunch included*

This workshop is designed for practicing wetland scientists who have experience with graminoid identification and can recognize the genus *Carex*. We will focus on tools for identification—understanding plant structures and terminology—and use of a technical key. Bring a good hand lens, a millimeter ruler, and your favorite field guide. We will spend part of the day in the field, weather permitting. (This is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Lisa Standley, Ph.D., is an expert in the systematics of the sedge genus *Carex*. In addition to her many publications on the systematics and ecology of this group, she contributed to the treatment of *Carex* and several grass genera in *Flora North America*. She has taught courses in grass and sedge identification in New England for over 20 years. She is Chief Environmental Scientist for the consulting firm Vanasse, Hangen, Brustlin, Inc.

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Independent Study: Wetland Maps Portfolio—

Creating a Wetland Delineation Map (1 to 6 maps)

35 CEHs per map for Wetland and Soil Scientists

Durham Offsite: *CRN 801212, meeting times to be arranged with instructor, 3.5 CEUs, \$675*

These are independent study projects designed to assist you in gaining experience in wetland delineation map development. In each independent study you will do one map. You can enroll in one or more independent studies (up to a maximum of six), but you have to complete one map before you can register to start another map. In each independent study you will use the Region 1 ACOE Protocol to complete a wetland delineation map on an area that is five to 15 acres. You will complete one transect (upland and wetland plot) using comprehensive methods. All choices are Palustrine Systems that include forested and wet meadows sites. The instructor will help you select the site and has final approval of it. You will work on your own time at your own pace, but you will meet with the instructor three times during each map project—for an initial two-hour meeting, for a second two-hour meeting when 50% of the map is completed, and for a three-hour meeting to review the final map. (Expect to spend about 28 hours on your own time working on a map.) When your final map and supporting data is approved, it will be stamped by a designated NH Certified Wetland Scientist. These independent studies will provide valuable instruction that will aid you in your profession as a wetland scientist. Cost is \$675 per map. Upon registration, you will be contacted to arrange a meeting time with the instructor. (The wetland maps are prepared for the UNH Professional Development program, and any subsequent use of the maps as part of an application for state or other entity wetland scientist certification may or may not be acceptable for experience requirements.) (For more information about this offering, please contact Kay MacMillan at (603) 862-1739, Kay.MacMillan@unh.edu.) (Map #1 is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take these maps.)

Instructor: Sid Pilgrim is an adjunct professor of soil science with over 30 years of experience with the U.S. Soil Conservation Service in National Cooperative Soil Survey.

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Introduction to Field Indicators of Hydric Soils in the U.S., Version 6.0 (2006) *6 CEHs for Wetland and Soil Scientists; also 1.75 CEUs for Surveyors and 3 CEUs for Foresters*

Portsmouth: *CRN 302212, April 20, Friday, 9 a.m.-4 p.m., .6 CEUs, \$175, lunch included*

Field Indicators of Hydric Soils in the United States is a guide to help identify and delineate hydric soils in the field. Indicators are not intended to replace or modify the requirements contained in the definition of hydric soil. In order to properly use the Indicators, a basic knowledge of soil-landscape relationships and soil survey procedures is helpful. These national indicators are designed to be regionally specific. The description of each indicator identifies the land resource regions (LRRs) or major land resource areas (MLRAs) in which the indicator can be used. This course will focus on National Indicators used in New England as part of the revised 1987 ACOE Wetland Delineation Manual. Course work includes both lecture and field exercises. Students are strongly encouraged to obtain information prior to the class by ordering the field indicators from the National Soil Survey Center, USDA, NRCS Room 152, 100 Centennial Mall North, Lincoln, Nebraska 68508-3866 or on-line at <http://soils.usda.gov/use/hydric/>. (This is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Sid Pilgrim is an adjunct professor of soil science with over 30 years of experience with the U.S. Soil Conservation Service in National Cooperative Soil Survey.

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U.S. Army Corps Wetland Delineator Methods

37.5 CEHs for Wetland and Soil Scientists; also approved by the NH Joint Board of Licensure for 20 CEUs for Foresters and 10.5 CEUs for Surveyors

Portsmouth: *CRN 800212, April 27-May 25, Fridays, 8:30 a.m.-5 p.m., 3.75 CEUs, \$675, lunch included*

This 37-hour training course is based in part on the U.S. Army Corps of Engineers Wetlands Delineation Manual, 2010 Supplement for Northeast Region (<http://www.usace.army.mil/CECW/Documents/cecwo/reg/tre109-19.pdf>). Version 7.0 (2010) NRCS Hydric Soils of U.S. is the basic soils reference. The factors of Hydrology and Vegetation follow protocol of the 2010 Supplement. Individuals who complete the program will receive a Certificate of Training. (This is part of the UNH Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Sid Pilgrim is an adjunct professor of soil science with over 30 years of experience with the U.S. Soil Conservation Service in National Cooperative Soil Survey. **Instructor:** Bob Prokop, M.S. in Wildlife Ecology, is a wildlife biologist, NH Certified Wetland Scientist, and professional wetland scientist (SWS), and owner of Wetland Consulting Services.

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Wetland Classification *6 CEHs for Wetland and Soil Scientists; also 1.75 CEUs for Surveyors and 3 CEUs for Foresters*

Portsmouth: *CRN 303212, June 1, Friday, 9 a.m.-4 p.m., .6 CEUs, \$175, lunch included*

This one-day workshop will focus on how to classify wetlands following the U.S. Fish and Wildlife Service method for classifying wetlands and deepwater habitats of the United States. The ability to classify and accurately describe wetlands is an important component when preparing reports for state and federal permit applications, wildlife habitat analysis, and wetland mitigation design. Dress appropriately for outside fieldwork. (This is part of the Wetland Delineation Certificate Program, but you do not need to enroll in the program to take this workshop.)

Instructor: Bob Prokop, M.S. in Wildlife Ecology, is a wildlife biologist, NH Certified Wetland Scientist, and professional wetland scientist (SWS), and owner of Wetland Consulting Services.

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