Wetland Delineation and Classification Assignment
WFS 536: Advanced Wetland Ecology

Objective

The objective of this assignment will be to intimately expose students to USACE and USFWS wetland delineation and classification protocol via field experiences.

Instructions

Teams of 2 students (back of handout) will be required to delineate and classify one wetland. Edges of wetlands should be determined using USACE delineation protocol. After delineating the wetland, you will need to classify it to subclass and indicate the water regime modifiers using the USFWS Classification System (Cowardin et al. 1979). Students must provide evidence of wetland conditions using field indicators or direct measurements of soil, hydrology and plants. It is recommended that at least one transect is traversed per cardinal quadrant (for delineation) and one plot inspected per wetland subclass (for classification) to assess wetland indicators and measure relative dominance of plants. Voucher specimens of each dominant plant species should be mounted and provided with the final report. In addition, a short video (5 minutes maximum) with commentary that illustrates wetland characteristics will be required. Video equipment can be acquired from and video editing assistance provided by the UT Hodges Library Studio (see below). If any deepwater classifications are present, they should be noted. Palustrine, riverine or lacustrine wetland and deepwater systems can be used for this assignment. All teams should assume that delineation is occurring at low annual water level. Other assumptions made should be stated also. Lastly, you will need to map and estimate the area of each subclass using GIS technologies or the grid system discussed in class.

Required Products (1 hardcopy and digital copy per team)

1) Vicinity map following specifications in USACE ENG Form 4345 with soil types.
2) Map of wetland and deepwater classifications with scale, north arrow, and field transects and plots (2 maps recommended). Provide a key to classification codes.
3) Evidence of wetland indicators (USACE Routine Delineation Form, plants, video).
4) Written discussion of wetland location, field methods used for delineation and classification, and the types of wetland and deepwater systems that were present.
5) Table of wetlands and deepwater habitats separated to subclass with acreage and percent coverage estimates.

Field Equipment

You may checkout the following field equipment temporarily ($\leq$3 days) to help make field assessments of wetland conditions and size: soil probe, meter and dbh tape, clinometer, compass and GPS unit. Please see Roberto Brenes (rbrenes@utk.edu) or Dr. Hagy to check out equipment.

Video Equipment (http://www.lib.utk.edu/studio/)

You can check out (3 days maximum) video equipment (Sony HDR-HC 9 miniDV Camcorder) from The Studio in UT Hodges Library. Prior to checking out, online camera certification needs to be completed (see website). It is recommended that video equipment is reserved several weeks in advance to ensure availability (974-6396). You will need to purchase a mini-DV tape ($3) or SD memory card for recording. After making your video, you should edit it so that only salient portions are included (5 minute maximum). Text and photos with transitions between video clips can be added to help illustrate features. It is recommended that an introductory course on how to edit video using iMovie is taken through The Studio. You can inspect dates and register for available courses at their website. Some online resources also are available at The Studio website. There are 10 workstations at The Studio for editing video and there is a Help Desk. Storing edited video can be done on a mini-DV tape, memory card, or external hard drive. Storage space (15 GB) also can be requested from The Studio for 3-week intervals. Final drafts of video should be exported (.m4v, .mp4, .mov) and burned to a DVD. In addition, your assignment should include an electronic (MS Word) and hard copy of your written report. Your report can include photos for illustration. Voucher plants can be submitted with your report.

Randomly Generated Teams

Group 1:	O'Connell, Stephenson	Group 3:	Vander Yacht, McClanahan
Group 2:	Harnage, Troxler	Group 4:	Osborn, Cao

Due Tuesday, 1 November 2011