

FIELD REPORT FOR
HARRISBURG NW, NE, and SE

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INTRODUCTION

The Harrisburg 1:100,000 work areas are located in south-central Pennsylvania longitude 76°W to 78°W and latitude 40°N to 41°N. According to Bailey (1978)* these quads are in the Hot Continental Division, Eastern Deciduous Forest Province, Appalachian Oak Forest Section (2214). The major watersheds within the work areas are the Susquehanna and Juniata Rivers.

The aerial photographs covering the three work areas are 1:58,000 color infrared positives taken on six dates: 3-26-84, 4-12-84, 4-13-83, 4-26-83, 5-6-83, and 5-11-83. Despite the varying dates of photography, the signatures are fairly comparable and no problems were encountered.

The July 1985 National Wetlands Inventory mapping conventions were followed but with several exceptions. The seasonally flooded-saturated (E) water regime was utilized and with the Riverine System the Unknown Perennial (5) subsystem was used.

The objectives of the field trip were to:

- 1) correlate the photo signatures with field observations of aquatic plant communities and water regimes, especially emergent wetland signatures;
- 2) identify forested wetland subclasses and water regimes;
- 3) identify potential aquatic bed sites;
- 4) determine subclasses of Riverine systems;
- 5) determine water regimes of scrub shrub wetlands.

*Bailey, R. G. 1978. Description of the Ecoregions of the United States. USDA Forest Service. Ogden, Utah. 77 pp.

IN-FIELD AND PHOTO OBSERVATIONS

State College

SITE 1 - PEM1A--This wetland was located within upland that was very heavily grazed. The dominant plant is Sicyos angulatus. The signature is a dark spot in the field.

SITE 2 - A) PEM1C--The signature of this wetland is a gray color. It consists almost exclusively of Phalaris arundinacea and is located adjacent to a fairly deep cut stream.

B) PSS1C--Viburnum spp. and Cornus spp. dominate this site. On the photograph, this is a dark spot located on the inside of a stream meander.

Julian

SITE 3 - A) PEM1E--Typha spp. dominates with Veronica spp., Verbena spp., Eupatorium spp. and Phalaris arundinacea common. Has a grayish signature with darker gray areas scattered throughout.

B) PEM1C--This narrow arm of the previous wetland and extending toward the east is dominated by Veronica spp. and Verbena spp. The signature is a light gray with small patches of red showing.

SITE 4 - A) PSS1E--Cephalanthus occidentalis is the major shrub in this wetland with Carex spp., Glyceria spp. and Scirpus cyperinus being common.

B) PSS1E--Ilex verticillata dominates this site. Spiraea spp., Carex spp., Scirpus cyperinus, Pyrus melanocarpa, Bidens spp. and Onoclea sensibilis are also present. Deer trails were observed in this wetland and the one above. The signature of both these scrub shrub wetlands is a dark green color.

Pine Grove Mills

SITE 5 - A) PEM1Cd--The dominant vegetation at this site is Phalaris arundinacea. Also common is Typha spp., Verbena spp. and Carex spp. Has a greenish-gray signature.

B) PSS1Cd--Ulmus americana saplings dominated this wetland. Other common plants were Phalaris arundinacea, Carex spp. and Solanum spp.

SITE 6 - A) PFO1/SS1Eb--The dominant tree in this wetland is Ulmus americana and the major shrub is Alnus spp. Also present is Rosa palustris, Scirpus cyperinus and Carex spp.

B) PEM1E--This wetland is dominated by a dense stand of Typha spp. The other plants present, which are located mostly along the border of the cattail stand, are Carex spp., Juncus effusus, Spiraea

spp. Aster spp., Dipsacus spp. and Sphagnum spp. Epilobium spp. and Onoclea sensibilis are less common.

McAleveys Fort

SITE 7 - PF04E--The signature is a dark red color with dark green underneath. The dominant tree is Picea mariana with Tsuga canadensis common. There is a dense understory of Rhododendron spp. Sphagnum spp. is also present. Pools of standing water occur in this wetland. This is part of The Bear Meadows Natural Area.

SITE 8 - A) PF01/4E--Acer rubrum is the major tree at this site. Also present are Alnus spp., Spiraea spp. and Carex spp. Scattered Picea mariana and Tsuga canadensis are also found here.

B) PF04E--Picea mariana dominates with Tsuga canadensis common. Rhododendron spp. is present but scattered. Sphagnum spp. is found here too.

Madisonburg

SITE 9 - PEM1Cx--This is an excavation in a cornfield. At the bottom of this 15 foot deep pit is a dense stand of Polygonum spp. Various debris and piles of rocks are found on the sides of the pit. Signature is a dark open water.

Woodward

SITE 10 - PEM1C--This wetland is grazed with Scirpus atrovirens and Scirpus cyperinus co-dominant. Juncus effusus and Carex spp. are common. Signature is a dark gray tone.

Hartleton

SITE 11 - PEM1E--The dominant emergent vegetation is Scirpus cyperinus with Carex spp. and Sphagnum spp. Deer trails and a mineral lick occur in this wetland. Signature is a lime green color.

Danville/Shamokin

SITE 12 - A) PSS1/EM1C--The major shrub species is Betula nigra with Spiraea latifolia and Cornus spp. less abundant. Scirpus cyperinus and Carex spp. comprise the understory.

B) PSS1/FO1C--Betula nigra dominates with Populus tremuloides, Salix spp., Spiraea latifolia, Cornus spp. and Cephalanthus occidentalis common. Several depressions containing black water stained leaves and with no growing vegetation are present in this wetland. Signature is green trees with dark standing water underneath.

Nuremberg

SITE 13 - PSS1/EM1E--Alnus spp. dominates the shrub community which is also composed of Ilex verticillata, Vaccinium spp., Spiraea latifolia and

various other species of less abundance. Typha spp., Carex spp. and Scirpus cyperinus are the common emergents. Signature is a bright white color underneath dark shrubs.

SITE 14 - A) PEM1E--The major vegetation is Scirpus cyperinus with Carex spp. also common. Signature is a white color with some dark standing water.

B) PSS1E--A very dense stand of Alnus spp. predominating in this wetland.

SITE 15 - A) PSS1E--Alnus spp. is the most abundant shrub species with Ilex verticillata, Vaccinium spp., Spiraea latifolia also present. Signature is a dark green tone and rough textured.

B) PSS1/F04E--Alnus spp. and Pinus strobus are the most observable vegetation in this wetland. Signature is a dark green color with a rough texture and red toned trees scattered throughout.

C) PEM1E--Scirpus cyperinus dominates with Carex spp. also abundant. Signature is a bluish-white color.

Minersville

SITE 16 - A) Upland--This blue colored signature found adjacent to a stream is the tailings that remain after coal is cleaned. The area is sparsely vegetated with Betula populifolia most abundant with Andropogon spp. and other grasses present.

B) PEM1C--Vegetated by Scirpus cyperinus, this wetland located in the coal tailings area has a dark black signature.

Swatara Hill

SITE 17 - A) PEM1F--Dulichium spp. and Typha spp. are co-dominates in this wetland plant community. Other common plants are Carex spp., Polygonum spp., Bidens spp., Cephalanthus occidentalis, Scirpus cyperinus, Sparganium americanum and Nymphaea spp. Signature is a dark cloudy standing water.

B) PSS1E--This shrub wetland is dominated by Cephalanthus occidentalis with some Alnus spp. also growing here. Polygonum sagittatum and Onoclea sensibilis are found amidst the shrubs. The signature shows tightly packed shrubs with dark standing water underneath.

C) PF01/SS1C--Acer rubrum is the dominant tree species with Cephalanthus occidentalis, Cornus spp., Alnus spp., Sambucus spp. and Spiraea latifolia about equally abundant. This wetland is white below the trees and shrubs.

Harrisburg West

SITE 18 - L2AB3H--Nelumbo lutia densely covers this lake almost exclusively. It has a cloudy-white blue open water signature.

SITE 19 - PEM1F--Leersia oryzoides is dominant with Typha spp. also abundant. Standing water is under the emergents. The signature is a bright white color.

Steelton

SITE 20 - A) PEM1E--A very dense and matted stand of Phalaris arundinacea constitutes the plant community of this wetland. The soil is mucky with a thin layer of standing water. Signature is a bright white color.

B) PEM1A--Solidago spp. is the dominant emergent with Verbena spp. and Allium spp. common. It has a grayish signature.

SITE 21 - A) PAB3H--Peltandra virginica is the major plant species with some Lemma spp. observed. The signature is a cloudy blue color.

B) PEM2F--The major vegetation in this wetland is Sparganium americanum. The signature is a gray color in standing water.

C) PAB3/SS1Fx--This is the remnants of an old canal dominated by Peltandra virginica with some Cephalanthus occidentalis also common.

Palmyra

SITE 22 - A) PSS1/EM1E--Cephalanthus occidentalis is the dominant shrub and Phalaris arundinacea is the major emergent. This wetland has a blue standing water signature with shrubs showing.

B) PF01C--Fraxinus spp. is the major tree species and Platanus occidentalis is also common. Carex spp, Phalaris arundinacea, Polygonum spp., Cornus spp., Lindera benzoin and Allium spp. are also present. Underneath the trees is a dark signature

Bethel

SITE 23 - PEM1E--Phalaris arundinacea is the most abundant plant in this wetland with Leersia oryzoides, Polygonum spp. and Juncus spp. common. Less common plants are Verbena spp., Solidago spp. and Epilobium spp. Signature is gray with some darker areas and a little pink.

Bernville

SITE 24 - PEM1E--Carex spp. and Juncus spp. are both equally abundant and Phalaris arundinacea is common. This wetland is grazed. Signature is a whitish-gray color.

Sinking Spring

SITE 25 - PSS1/EM1E--Acer rubrum saplings dominate this wetland. Clumps of Carex spp. are in the understory with soft mucky soil between them. Also common are Polygonum spp., Phalaris arundinacea and Onoclea sensibilis. The Acer rubrum saplings are not visible on the photography and the signature is a greenish-white color.

SITE 26 - PEM1/F01C--Phalaris arundinacea is the dominant emergent with Carex spp., Juncus spp. and Solidago spp. common. Scattered trees are present, comprised of mostly Acer saccharinum. The signature is a white color.

Womelsdorf

SITE 27 - PEM1C--A dense matted stand of Leersia oryzoides and Polygonum sagittatum are equally dominant in this wetland. Carex spp. and Phalaris arundinacea are common. Less common is Scirpus cyperinus. Signature is a dull white.

Summary

During this field trip, it was observed that the general wetland conditions were fairly dry. Several Typha spp. areas were dry. Also, some Cephalanthus occidentalis, which generally grow under very wet conditions, were dry.

The most conspicuous emergent wetland photo signatures vary from shades of gray to white. Most PEM1C wetlands are dark gray to whitish-gray and dull white. PEM1E wetlands are generally a bright white tone or bright white with dark green mixed in. Lime green is also a tone that represents an emergent seasonally flooded saturated wetland. However, the distinction between PEM1C and PEM1E is often difficult to make since there is some similarity in photo signature between the two water regimes. Temporarily flooded emergent wetlands (PEM1A) are either a faint gray color with spots of red showing through or a dark spot in either a cultivated field or pasture. Very few semipermanent emergent wetlands are represented as field check sites. For the sites represented, the signatures are a dark cloudy standing water, a gray color in standing water and a bright white color.

Forested wetlands are present as two subclasses, F01 and F04. The needle leaf evergreen subclass with a seasonally flooded-saturated water regime is fairly conspicuous with red crowns and dark green underneath. The PF01 sites have green crowns with either white or a dark understory and are classified as seasonally flooded.

All scrub shrub wetlands are broad leaf deciduous and usually have a seasonally flooded-saturated water regime. The signature is a dark green color and rough textured.

The aquatic bed wetlands are distinguished by a cloudy white color in blue open water.

The lower perennial riverine system is characterized by low gradient, slow water velocity, and much meandering in a well-developed floodplain. The upper perennial riverine systems are located in forested, mountainous areas. The gradient is steep and the water velocity is fast with little floodplain development. The unknown perennial subsystem has fairly fast water velocity, a gradient intermediate between upper and lower perennial, and there is some floodplain development.

APPENDIX

Partial plant community list for Harrisburg NW, NE and SE.

- SITE 1 - PEM1A. Sicyos angulatus.
- SITE 2 - A) PEM1C. Phalaris arundinacea.
B) PSS1C. Viburnum spp. and Cornus spp.
- SITE 3 - A) PEM1E. Typha spp. Veronica spp., Phalaris arundinacea.
B) PEM1C. Veronica spp. and Verbena spp.
- SITE 4 - A) PSS1E. Cephalanthus occidentalis, Carex spp, Bidens spp.
B) PSS1E. Ilex verticillata, Spiraea spp, Carex spp., Onoclea sensibilis.
- SITE 5 - A) PEM1Cd. Phalaris arundinacea, Typha spp., Carex spp.
B) PSS1Cd. Ulmus americana, Phalaris arundinacea.
- SITE 6 - A) PF01/SS1Eb. Ulmus americana, Alnus sp., Scirpus cyperinus.
B) PEM1E. Typha spp., Carex spp., Juncus effusus.
- SITE 7 - PF043. Picea mariana, Tsuga canadensis, Rhododendron spp., Sphagnum spp.
- SITE 8 - A) PF01/4E. Acer rubrum, Picea mariana, Tsuga canadensis, Alnus spp.
B) PF04E. Picea mariana, Tsuga canadensis, Rhododendron spp., Sphagnum spp.
- SITE 9 - PEM1Cx. Polygonum spp.
- SITE 10 - PEM1C. Scirpus atrovirens, Scirpus cyperinus.
- SITE 11 - PEM1E. Scirpus cyperinus, Carex spp., Sphagnum spp.
- SITE 12 - A) PSS1/EM1C. Betula nigra, Scirpus cyperinus, Carex spp.
B) PSS1/FO1C. Betula nigra, Populus tremuloides, Salix spp., Spiraea latifolia.
- SITE 13 - PSS1/EM13. Alnus spp., Ilex verticillata, Vaccinium spp., Typha spp., Carex spp., Sphagnum spp.
- SITE 14 - A) PEM1E. Scirpus cyperinus, Carex spp.
B) PSS1E. Alnus spp.

- SITE 15 - A) PSS1E. Alnus spp., Ilex verticillata, Spiraea latifolia.
 B) PSS1/FO43. Alnus spp., Pinus strobus.
 C) PEM1E. Scirpus cyperinus, Carex spp.
- SITE 16 - A) Upland. Betula populifolia, Andropogon spp.
 B) PEM1C. Scirpus cyperinus.
- SITE 17 - A) PEM1F. Dulichium spp., Typha spp., Carex spp., Sparganium americanum, Scirpus cyperinus.
 B) PSS1E. Cephalanthus occidentalis, Alnus spp., Polygonum sagittatum.
 C) PF01/SS1C. Acer rubrum, Cephalanthus occidentalis, Cornus spp., Alnus spp., Fraxinus spp.
- SITE 18 - L2AB3H. Nelumbo lutia
- SITE 19 - PEM1F. Leersia oryzoides, Typha spp.
- SITE 20 - A) PEM1E. Phalaris arundinacea.
 B) PEM1A. Solidago spp., Verbena spp., Allium spp.
- SITE 21 - A) PAB3H. Peltandra virginica, Lemna spp.
 B) PEM2F. Spiraea americanum.
 C) PAB3/SS1Fx. Peltandra virginica, Cephalanthus occidentalis.
- SITE 22 - A) PSS1/EM1E. Cephalanthus occidentalis, Phalaris arundinacea.
 B) PF01C. Fraxinus spp., Platanus occidentalis, Carex spp., Phalaris arundinacea.
- SITE 23 - PEM1E. Phalaris arundinacea, Leersia oryzoides.
- SITE 24 - PEM1E. Carex spp., Juncus spp., Phalaris arundinacea.
- SITE 25 - PSS1/EM1E. Acer rubrum, Carex spp., Polygonum spp., Phalaris arundinacea.
- SITE 26 - PEM1/FO1C. Phalaris arundinacea, Carex spp., Acer saccharinum.
- SITE 27 - PEM1C. Leersia oryzoides, Polygonum sagittatum, Carex spp., Phalaris arundinacea.