MTP 12-12-13

PD1-TP5 standing at the TP5 southwest corner view to the north

PD1-TP5 standing at the TP5 southwest corner view to the east

PD1-TP5 standing at the TP5 southwest corner view to the south

PD1-TP5 standing at the TP5 southwest corner view to the west

PD1-TP5 standing roughly at the northwest corner view to the south southwest;

PD1-TP5 standing roughly at the northwest corner view to the north;

PD1-TP6 standing at southwest corner view to the north

PD1-TP6 standing at southwest corner view to the east

PD1-TP6 standing at southwest corner view to the south

PD1-TP6 standing at southwest corner view to the west

PD1-TP6 seasonal high water SHW#1

PD1-TP6 seasonal high water SHW#1

PD1-TP6 seasonal high water SHW#2

PD1-TP6 seasonal high water SHW#2

PD1-TP7 standing at northwest corner view to the north; obvious dominant fern ground cover with *Saururus* or lizards tail subdominant

PD1-TP7 standing at northwest corner view to the east; obvious dominant fern ground cover with *Saururus* or lizards tail subdominant

PD1-TP7 standing at northwest corner view to the south; obvious dominant fern ground cover with *Saururus* or lizards tail subdominant

PD1-TP7 standing at northwest corner view to the west; obvious dominant fern ground cover with *Saururus* or lizards tail subdominant

PD1-TP7 seasonal high water SHW#1 located north of TP7

PD1-TP7 seasonal high water SHW#1 located north of TP7

PD1-TP7 seasonal high water SHW#2 north of TP7

PD1-TP7 seasonal high water SHW#2 north of TP7

PD1-TP8 standing at northwest corner of tree plot view to the north

PD1-TP8 standing at northwest corner of tree plot view to the east

PD1-TP8 standing at northwest corner of tree plot view to the south

PD1-TP8 standing at northwest corner of tree plot view to the west

PD1-TP8 seasonal high #1 just outside tree plot about 10-15' from northwest corner; adventitious rooting line up good with stain line on adjacent *Ulmus Americana*

PD1-TP8 seasonal high #1 just outside tree plot about 10-15' from northwest corner; adventitious rooting line up good with stain line on adjacent *Ulmus americana*

PD1-TP9 standing at the northwest corner of tree plot view to the north

PD1-TP9 standing at the northwest corner of tree plot view to the east

PD1-TP9 standing at the northwest corner of tree plot view to the south

PD1-TP9 standing at the northwest corner of tree plot view to the west

PD1-TP9 seasonal high water mark utilizing adventitious rooting and stain lines; looking at mean stain line elevation adjacent exposed root structures seem to match pretty well

PD1-TP9 seasonal high water mark utilizing adventitious rooting and stain lines; looking at mean stain line elevation adjacent exposed root structures seem to match pretty well

PD1-TP9 seasonal high water mark #2

PD1-TP9 seasonal high water mark #2

PD1-TP9 Hummock A

PD1-TP9 Hummock A

PD1-TP9 Hummock B

PD1-TP9 Hummock B

PD2-TP1 standing along the east west transect at northeast corner view to the east into the myrsine habitat type

PD2-TP1 standing along the east west transect at northeast corner view to the south into the myrsine habitat type

PD2-TP1 standing along the east west transect at northeast corner view to the west into the myrsine habitat type

PD2-TP1 standing along the east west transect at northeast corner view to the north into the myrsine habitat type

Live oak located approximately at the PD2-TP1 northeast corner

PD2-TP1 view to the east along the east west transect line that also is the north boundary of the tree plot, understory dominated by wild coffee and myrsine with a few bay heads dominated by *Magnolia virginiana*

PD2-TP1 view to the east along the east west transect line that also is the north boundary of the tree plot, understory dominated by wild coffee and myrsine with a few bay heads dominated by *Magnolia virginiana*

PD2-TP2 standing at the southwest corner of tree plot view to the south

PD2-TP2 standing at the southwest corner of tree plot view to the east

PD2-TP2 standing at the southwest corner of tree plot view to the north

PD2-TP2 standing at the southwest corner of tree plot view to the west

PD4-TP1 approximately at the southwest corner view to the north

PD4-TP1 approximately at the southwest corner view to the east

PD4-TP1 approximately at the southwest corner view to the south

PD4-TP1 approximately at the southwest corner view to the west

MTP 12-16-13

PD4-TP2 standing at the southwest corner of tree plot view to the north

PD4-TP2 standing at the southwest corner of tree plot view to the east

PD4-TP2 standing at the southwest corner of tree plot view to the south

PD4-TP2 standing at the southwest corner of tree plot view to the west

PD4-TP2 view to the west – looking at the trail that runs through north portion of tree plot

PD5-TP1 standing at southwest corner view to the north

PD5-TP1 standing at southwest corner view to the east

PD5-TP1 standing at southwest corner view to the south

PD5-TP1 standing at southwest corner view to the west

PD5-TP1 seasonal high water SHW#1

PD5-TP1 seasonal high water SHW#1

PD5-TP1 seasonal high water SHW#2 –utilizing a mean stain line height in the area

PD5-TP1 seasonal high water SHW#2 –utilizing a mean stain line height in the area

PD5-TP1 Hummock D

PD5-TP1 Hummock D

PD5-TP1 Hummock C – good representation of average size here

PD5-TP1 Hummock E – has a stand of red maple with one laurel oak

PD5-TP1 Hummock E – has a stand of red maple with one laurel oak

CEK 12-17-13

PD1-TP3 southwest looking northeast

PD1-TP3 southeast looking north

PD1-TP3 shrub northeast looking southwest

PD1-TP4 northwest looking east

Photo of representative hummocks within PD1-TP4. Note that they are essentially small islands of higher grounds supported by the roots and supporting many species of vegetation

Photo of representative hummocks within PD1-TP4

Photo of representative hummocks within PD1-TP4

Photo of representative hummocks within PD1-TP4

PD1-TP4 southeast corner looking northwest

PD1-TP4 shrub

PD1-TP4 shrub

CEK 12-19-13

Representative photo of PD10-TP2 taken from the northeast shrub plot corner facing west

Representative photo of PD10-TP2 taken from the northeast tree plot corner facing southwest

PD10-TP2 representative photo of the tree plot taken from the northeast corner facing west

Representative photo of PD10-TP3 taken from the southeast corner of the tree plot facing west

Representative photo of PD10-TP3 tree plot taken from the southeast corner facing north

Representative photo of the canopy for PD10-TP3 taken from the center of the tree plot facing southwest

Representative photo of PD10-TP3 shrub plot taken from the northwest corner facing southeast

Representative canopy photo for PD10-TP1 taken from the northwest corner facing south

Representative photo of PD10-TP1 taken from the northwest corner facing southeast

Representative shrub photo for PD10-TP3 taken from the northwest corner of the shrub plot facing southeast

Representative photo of the shrub plot in PD10-TP3 from the northwest corner facing east

MJR 12-23-13

PD18-TP1 northeast corner looking north

PD18-TP1 northeast corner looking west

PD18-TP1 northeast corner looking south

PD18-TP1 northeast corner looking east

PD18-TP1 northeast corner shrub looking west

PD18-TP1 northeast corner shrub looking north

PD18-TP1 northeast corner shrub looking east

PD18-TP1 northeat corner shrub looking south

PD18-TP1 seasonal high water on the west side of the plot close to the southwest corner on a popash tree in between the stain line and moss collar

PD5-TP9 northwest corner looking south

PD5-TP9 northwest corner looking east

PD5-TP9 northwest corner looking north

PD5-TP9northwest corner looking west

PD5-TP9 northeast corner shrub looking south

PD5-TP9 northeast corner shrub looking west

PD5-TP9 northeast corner shrub looking north

PD55-TP9 northeast corner shrub looking east

PD5-TP9 seasonal high water based off moss collar

PD5-TP9 picture taken to show the extent of hummocking within the wetland; hummocking is higher in density on west side of transect where standing water was observed during monitoring event

PD5-TP7 facing north

PD5-TP7 facing east

PD5-TP7 facing south

PD5-TP7 facing west

PD5-TP7 northeast corner shrub looking west

PD5-TP7 northeast corner shrub looking south

PD5-TP7 northeast corner shrub looking east

PD5-TP7 northeast corner shrub looking north

PD5-TP7 seasonal high water as indicated by adventitious roots and lower extent of moss collars

MTP 1-21-14

PD5-TP2 southwest corner view to the east

PD5-TP2 southwest corner view to the north

PD5-TP2 seasonal high water #1 – utilizing mean adventitious root height in area

PD5-TP2 seasonal high water #1

PD5-TP2 seasonal high water #2 – stain line

PD5-TP2 seasonal high water #2

PD5-TP4 southeast corner view to the west

PD5-TP4 southeast corner view to the north

PD5-TP4 seasonal high water #1 -

PD5-TP4 seasonal high water #1

PD5-TP4 hummock 12x6x35" height variety of trees growing on top including Dahoon holly, Laurel oak, American Elm and Blackgum; also has *Blechnum serrulatum*

PD5-TP4 example of *Osmunda regalis* hummocks; somewhat prevalent throughout tree plot; range from 1-3' by 1-2' and about 18" in height

PD5-TP4 example of *Osmunda regalis* hummocks; somewhat prevalent throughout tree plot; range from 1-3' by 1-2' and about 18" in height

PD5-TP4 another example of *Osmunda regalis* hummocks; this one is about 2 ½ feet tall by 1 ½ feet wide by 1 ½ feet long

PD5-TP4 hummock #4 roughly 7 feet by 3 ½ feet; about 4 ½ -5 feet from the substrate to top of hummock; dominated by *Blechnum serrulatum; Woodwardia virginica subdominant;* Dahoon Holly trees

PD5-TP4 seasonal high water #2 - stain line on red maple ~ 5" above surface water

PD5-TP4 seasonal high water #2 – stain line on red maple ~ 5" above surface water

MTP 1-23-14

PD5-TP10 standing at the southwest corner view to the east

PD5-TP10 standing at the southwest corner view to the south

PD5-TP10 seasonal high water #1 as evidenced by stain lines

PD5-TP10 seasonal high water #1 as evidenced by stain lines

PD5-TP10 seasonal high water #2 adventitious rooting on *Cornus foemina*

PD5-TP10 seasonal high water #2 adventitious rooting on *Cornus foemina*

Hummock with *Blechnum serrulatum* on top; good representative sample of types of hummocks on this tree pot

Hummock with *Blechnum serrulatum* on top; good representative sample of types of hummocks on this tree pot

PD5-TP13 standing at northeast corner view to the south

PD5-TP13 standing at northeast corner view to the west

PD5-TP13 seasonal high water #1; adventitious rooting on Nyssa or Elm

PD5-TP13 seasonal high water #1; adventitious rooting on Nyssa or Elm

PD5-TP13 seasonal high water #2; adventitious rooting

PD5-TP13 seasonal high water #2; adventitious rooting

PD5-TP13 Hummock #1; has some *Woodwardia virginica* for herbs on it and Red Maple Trees

PD5-TP13 Hummock #2; has Red Maples on top with some lizards tail and some Axonopus and Hydrocotyle for herbaceous species

PD5-TP13 Hummock #3; has Red Maples for trees pretty much void of herbaceous vegetation

MTP 3-3-14

PD5-TP3 standing at northwest corner view to the west; water levels are about waist deep on MTP and CFP

PD5-TP3 standing at northwest corner view to the east; water levels are about waist deep on MTP and CFP

PD5-TP3 Hummock 1; has ferns on it mostly *Blechnum*; two trees on it are maple and pop ash

PD5-TP3 Hummock 2

PD5-TP3 Hummock 3

PD5-TP3 Hummock 4

PD5-TP3 seasonal high 1

PD5-TP3 seasonal high #1

PD5-TP3 seasonal high #2

PD5-TP3 seasonal high #2

PD5-TP5 northeast corner view to the west

PD5-TP5 northeast corner view to the north

PD5-TP5 northeast corner view to the south

PD5-TP5 seasonal high #1; seasonal high evidenced by moss collar

PD5-TP5 seasonal high #1; seasonal high evidenced by moss collar

PD5-TP5 seasonal high #2; seasonal high evidenced by moss collar

PD5-TP5 Hummock 1

PD5-TP5 Hummock 2

PD5-TP5 Hummock 3

PD5-TP5 Hummock 4; example of the smaller *Osmunda regalis* hummocks that are prevalent within this tree plot.

MJR 3-3-14

PD1-TP2 picture #2 showing results of pedon; pedon taken just outside the western boundary of the tree plots due to it being the only place that was not inundated with water

Results of soil pedon taken from PD1-TP2; pedon was taken slightly outside western boundary due to it being the only place not inundated with water

PD5-TP1 soil pedon 1; taken on the northwest corner of tree plot; this picture is depicting the profile from 0-24”

PD5-TP1 results from the pedon collected in the northwest corner depicting the profile from 24-28”

PD5-TP2, pedon #1, portion of soil profile from 0-24”

PD5-TP2, pedon #1, looking at 24-48”

PD5-TP3, pedon#1, looking at 24-48”

PD5-TP3, pedon #1, looking at 0-24”

PD5-TP7, soil profile from 25-36”

PD5-TP7, picture of soil profile from 0-24”

PD5-TP6, photo of partial pedon, conditions are difficult for obtaining soil profile due to 3-4' high water with no places to take pedon

PD5-TP5, partial pedon due to deep water

MTP 3-6-14

PD5-TP14 view to the west standing at the northwest corner of tree plot

PD5-TP14 view to the south standing at the northwest corner of the tree plot

PD5-TP14 east standing at northwest corner of tree plot

PD5-TP14 seasonal high #1

PD5-TP14 seasonal high #1

PD5-TP14 seasonal high #2

PD5-TP14 seasonal high #2

PD5-TP14 Hummock #1

PD5-TP14 Hummock #2

PD5-TP14 Hummock #3; mature *Nyssas*, swamp bay and *Ilex* atop with a variety of fern mostly swamp fern

PD5-TP14 Hummock #3; mature *Nyssa*, swamp bay and *Ilex* atop with a variety of fern mostly swamp fern

PD5-TP14 Hummock #4; mature red maple on top with ferns mostly *Blechnum* and also some *Thelypteris*

PD5-TP5 seasonal high #1 marked between newer adventitious rooting and the base of the moss collar

PD5-TP5 seasonal high water #2 at the base of moss collar

MTP 3-11-14

PD5-TP16 southwest corner view to the north

PD5-TP16 southwest corner view to the east

PD5-TP16 southwest corner view to the north-northeast

PD5-TP16 Hummock #1 has laurel oaks, elms and cabbage palms on top with a little bit of *Eleocharis* and *Dichanthelium*; otherwise bare with leaf litter

PD5-TP16 Hummock #2 has red maples, elms and cabbage palm on top with some *Lyonia* shrub

PD5-TP16 Hummock #, one of the smaller varieties with some wax myrtle and red maple on top

PD5-TP16 Hummock #4 has laurel oaks, red maple and American elm on top with some cabbage palm shrub cover

PD5-TP16 seasonal high water #1; adventitious rooting on a Carolina willow

PD5-TP16 seasonal high water #1; adventitious rooting on a Carolina willow

PD5-TP16 seasonal high water #2; adventitious rooting on a Carolina willow

PD5-TP16 seasonal high water #2; adventitious rooting on a Carolina willow

PD5-TP15 northeast corner view to the north

PD5-TP15 northeast corner view to the west

PD5-TP15 northeast corner view to the south

PD5-TP15 seasonal high water #1, adventitious roots

PD5-TP15seasonal high water #1, adventitious roots

PD5-TP15 seasonal high water #2, adventitious rooting on button bush and also mean stain lines in the adjacent button bush

PD5-TP15 seasonal high water #2, adventitious rooting on button bush and also mean stain lines in the adjacent button bush

PD5-TP15 Hummock #1

PD5-TP15 Hummock #2, with some red maple, blackgum , swamp bay and some *Lyonia spp.* on top

PD5-TP15 Hummock #3 with red maple on top, mostly just bryophytes

PD5-TP15 Hummock #4 with some willow, wax myrtle and some *Woodwardia virginica* on top

PD5-TP15 Hummock #5 - *Blechnum serrulatum* hummock prevalent throughout this system, at least this tree plot

PD5-TP8 northeast corner view to the south

PD5-TP8 northeast corner view to the north

PD5-TP8 northeast corner view to the west-southwest

MTP 3-12-14

PD5-TP8 southeast corner view to the west

PD5-TP8 southeast corner view to the south

PD5-TP8 southeast corner view to the north

PD5-TP8 Hummock 1; one of the many fern hummocks with *Osmunda regalis* and *Blechnum serrulatum* as dominant top species

PD5-TP8 Hummock #2, the bigger one of the two recorded; has maples, *Fraxinus*, *Blechnum serrulatum,* button bush, *Ilex cassine*

PD5-TP12 southeast corner view to the north

PD5-TP12 southeast corner view to the west

PD5-TP12 southeast corner view to the south

PD5-TP12 seasonal high #1 mean stain line in the area at the base of the moss collar

PD5-TP12 seasonal high #2 evidenced by mean stain line

PD5-TP12 Hummock #1 *Blechnum serrulatum,* Virginia willow, button bush, and wax myrtle

PD5-TP12 Hummock #2 *Osmunda regalis,* red maples, Virginia willow and wax myrtle

PD5-TP12 Hummock#3 *Osmunda regalis*, Virginia willow, and bryophytes

MTP 3-18-14

East side of PD5-TP11 photo strap fern

East side of PD5-TP11 strap fern

PD5-TP11 Hummock #1

PD5-TP11 Hummock #2; red maples, *Blechnum serrulatum, Woodwardia and Osmunda regalis* for ferns

PD5-TP11 northwest corner view to the south – 100% inundated, depth average 3 ½ - 4 ½ feet in some spots

PD5-TP11 northwest corner view to the north– 100% inundated, depth average 3 ½ - 4 ½ feet in some spots