

# **ENVIRONMENTAL MONITORING REPORT**

## **PENNSUCO MITIGATION PROJECT**

**Miami-Dade County**

**Township-52-South, Sections-30 and 32, Range 39-East**

**Township-53-South, Section -16, Range-39-East**

**Township-53/54-South, Section-6, Range-39-East**

**Project: C-13604**

**Monitoring Performed:  
December 3, 2005**

**Submitted:  
December 2005**

**KCI Technologies, Inc.**

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## **1.0 Introduction**

KCI Technologies, Inc. (KCI) has conducted the annual vegetative monitoring and data collection assessment for the Pennsuco Monitoring Mitigation Project, C-13604, administered by the South Florida Water Management District (SFWMD). The monitoring requires qualitative and quantitative assessments to document the success of the vegetative and hydrologic restoration. Restoration success can be gauged by reduction of exotic species and the recruitment of target native species, sawgrass in particular.

## **2.0 Purpose**

The primary purpose of the monitoring program is to identify and describe the elements of the natural system, thus enabling the SFWMD to evaluate the success of exotic plant control activities over a five-year period. The vegetative success criteria outlined in the Draft Pennsuco Memorandum of Agreement (MOA) requires that after five-years: the percent cover of exotic invasive species is no greater than five percent, the percent cover of open water and obligate and facultative wetland woody shrub species is no greater than 20 percent, and the percent cover of native plant herbaceous obligate and facultative wetland species is no less than 80 percent.

## **3.0 Site Location**

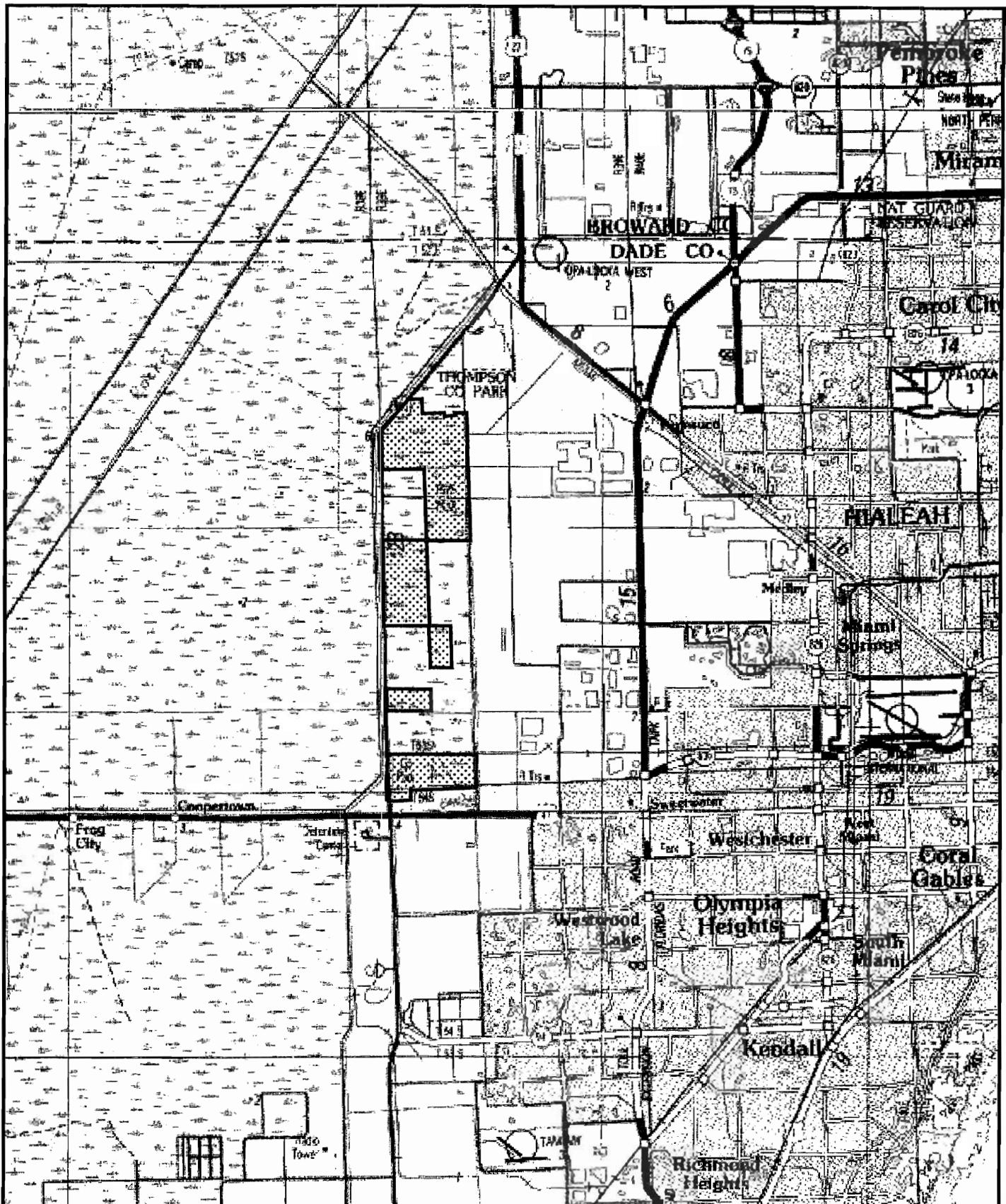
The Pennsuco Mitigation Area is composed of all or part of 11 blocks in Cell 26 of the East Coast Buffer and occupies approximately 13,000 acres in Miami-Dade County (Figure 1). The site is bordered on the west and north by Krome Avenue, to the south by the Tamiami Trail (US 41) and to the east by the Dade-Broward Levee. The SFWMD had been conducting invasive species eradication in these areas as a component of its restoration plan. The specific areas being monitored include Section 30, Township 52 South, Range 39 East; Section 5, Township 53 South, Range 39 East; Section 18, Township 53 South, Range 39 East; and Section 31, Township 53 South, Range 39 East.

## **4.0 Methodology**

The monitoring was conducted along four one-mile transects as identified in Figure 1 of the SFWMD Statement of Work or as adjusted by SFWMD staff at the field visit prior to the initiation of work. Three of the four transects are located adjacent to Krome Avenue (A, C, DR) and were directly accessible. The remaining transect (B) is located one mile east of Krome Avenue (Figure 2, Table 1). Global Positioning System (GPS) was used to identify the two end points of each transect. The points were permanently marked by installing a 10-foot length of 3-inch PVC pipe, painted fluorescent orange, at each location. GPS and/or compass bearings were then used to identify data collection stations along each transect.

**Table 1 Transect End Points**

Transect	Latitude	Longitude
<b>Begin "A"</b>	25° 53' 12.76"	80° 29' 03.33"
<b>End "A"</b>	25° 53' 12.69"	80° 28' 04.91"
<b>Begin "B"</b>	25° 51' 20.39"	80° 28' 01.70"
<b>End "B"</b>	25° 51' 19.15"	80° 27' 03.30"
<b>Begin "C"</b>	25° 49' 48.07"	80° 28' 55.38"
<b>End "C"</b>	25° 49' 48.00"	80° 27' 57.00"
<b>Begin "DR"</b>	25° 47' 20.64"	80° 28' 46.31"
<b>End "DR"</b>	25° 47' 45.57"	80° 28' 09.88"

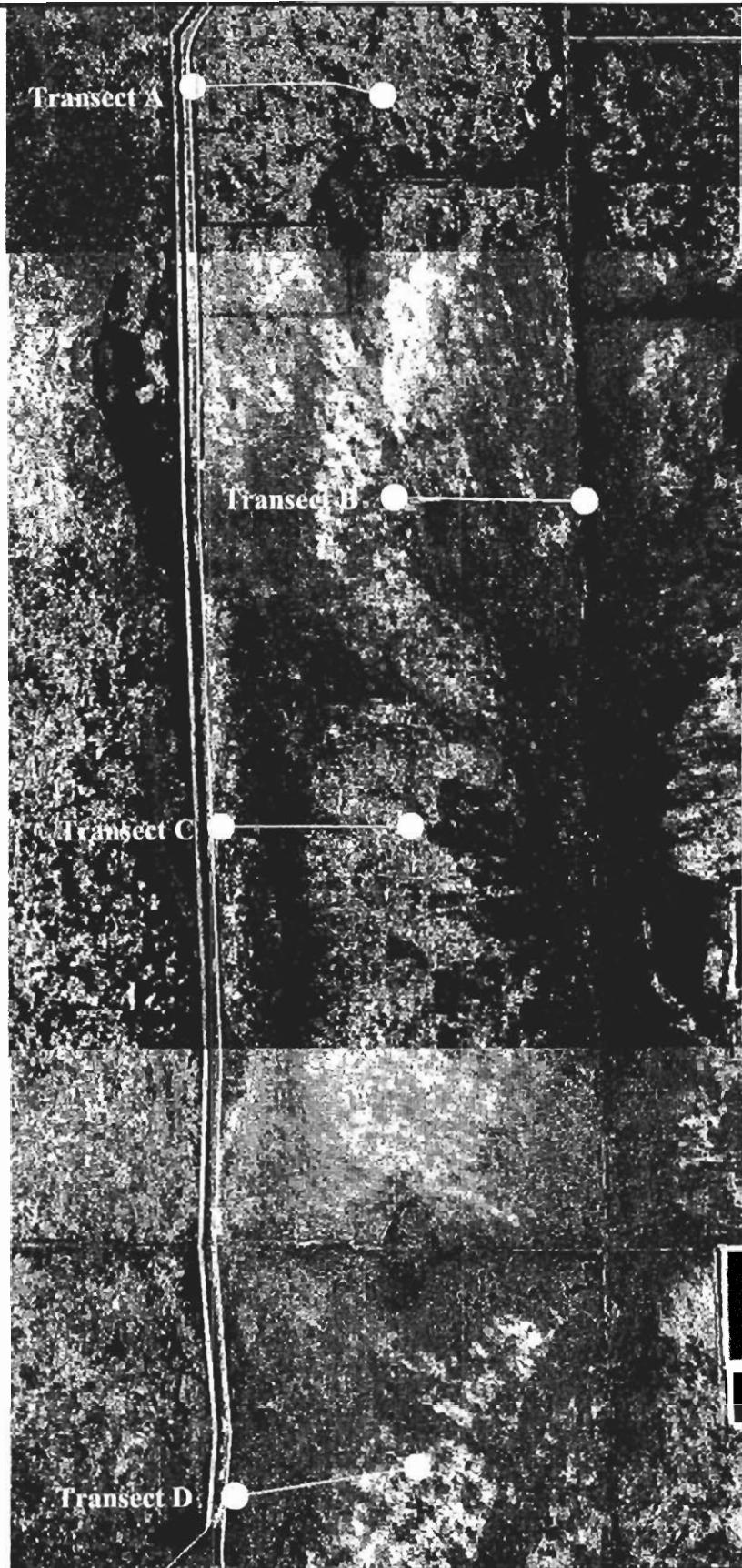


**Figure 1. Location Map**

Restoration Area



10000 0 10000 20000 Feet



**Figure 2. Transect Locations**



3000 0 3000 Feet

A total of 30 data collection stations, each measuring 4 square meters, were established at approximately equally spaced intervals of 176 feet along each transect. Collection stations at the end points of each transect were established three meters from the point marker. At each data collection point, the center of a four-meter square grid was marked by placing a 5-foot length of white  $\frac{3}{4}$ -inch PVC pipe in the substrate. Where feasible, a 4-meter square portable PVC frame with 4 individual 1-meter cells was utilized to estimate percent coverage; otherwise, visual assessments were made by assessing the area 1-meter in each direction from the central point of the collection station. Percent coverage was estimated in each of four layers, described as follows:

1. **Submerged Aquatics** – Herbaceous plants occurring below water surface.
2. **Herbaceous** – Non-woody plants occurring at or above the water surface and woody plants less than one meter in height
3. **Sapling/Vine** – Woody plants one to three meters in height and woody vines.
4. **Overstory** – Woody plants greater than three meters in height.

Coverage was documented at each of the 120 collection stations as a percent coverage with the total percent not exceeding 100 percent/layer. All species found were documented by scientific and common name, and entered onto field forms. Water level and/or soil saturation, observed aquatic macrofauna, wildlife utilization, and/or indicators of wildlife (i.e. tracks, scat, etc.) were recorded at data collection stations 7, 14, 21, and 28 of each transect. Observations also focused on whether saw grass (*Cladium jamaicense*) and Punk Trees (*Melaleuca quinquenervia*) were either alive or dead, due to eradication efforts. This distinction was not made for other vegetative types because of the significantly lower percentage of other vegetation present.

Photographs of the collection station were taken for reference from an elevated position. Panoramic photos were taken from each transect end point to qualitatively document the existing vegetation along the transect. Each panoramic photo included the end point of each transect with the 3-inch PVC pipe shown for reference.

Data for each transect was organized into spreadsheets and correlated with photographic references for each collection station. Summary percent coverages by species were calculated for each layer by dividing the area occupied by each individual species in the transect by the total area surveyed in the transect. This procedure is outlined in the following:

CT = Percentage of coverage by species per collection station

CA = Total area sampled per collection point (4 square meters)

PC = Total area covered by species per collection station (CT\*CA)

TA = Total area sampled in transect (30 collection points x 4 square meters = 120 square meters)

TC = Total coverage by species per transect

TC = PC/TA

## 5.0 Results

The collected data were incorporated into individual spreadsheets for presentation. A narrative describing each transect followed by summary data and individual data is presented in the following section.

**MONITORING DATA**  
**December 3, 2005**

## **TRANSECT A**

### **Narrative**

Transect A is located in Section 30, Township 52, Range 39 (Cell 26 – Pennsuco Exotic Treatment Area). It starts on the levee at Krome Avenue with point A1 (GPS Coordinates Latitude 25° 53' 12.76", Longitude 80° 29' 03.33") and continues east one mile to point A30 (GPS coordinates Latitude 25° 53' 12.69", Longitude 80° 28' 04.91"), which is west of the Dade-Broward Levee (Figure 3). Two community types were identified for transect A. Point A1 represents an upland levee community dominated by Swamp Fern (*Blechnum serrulatum*) and Bushy Bluestem (*Andropogon glomeratus*). Points A2 through A30 represent a wet prairie community type dominated by Saw Grass (*Cladium jamaicense*). Previous control efforts focused primarily on Punk Trees (*Melaleuca quinquenervia*), and consisted of herbicidal treatment and a physical removal program, followed by a controlled burn.

### **Observations from December 3, 2005 monitoring**

The recent control efforts of Punk Tree saplings (*Melaleuca quinquenervia*) has shown a decrease in saplings throughout the transect. Between points A1 and A26 no Punk Tree (*Melaleuca quinquenervia*) saplings were observed in the plots, indicating recent control efforts. After point A25, there were numerous Punk Tree (*Melaleuca quinquenervia*) saplings observed throughout the transect.

The entire transect was observed to be inundated due to the recent hurricane storms in the area. At the four data collection locations (A7, A14, A21, and A28) the water was three to ten inches in depth. No macrofauna or indicators of wildlife were noted.

In summary, the percent vegetative coverage, by layer, for this transect identified:

- In the submerged aquatics layer only, 1.3 percent Water-Hyssops (*Bacopa caroliniana*) and 98 percent open/void.
- In the herbaceous species layer, 18 percent alive Saw Grass, 13 percent dead Saw Grass, 1.3 percent alive Punk Tree (*Melaleuca quinquenervia*), .5 percent dead Punk Tree, 1 percent Southern Swamp Lily (*Crinum americanum*), Floating-Heart (*Nymphoides aquatica*), and Capillary Hairsedge (*Bulbostylis ciliataefolia*), 7 percent Tracy's Beak Rush (*Rhynchospora tracyi*) and dead biomass, and 48 percent open/void.
- In the sapling/vine layer, 1 percent alive and dead Punk Tree, and 98 percent open/void.
- In the overstory layer, 2 percent alive Punk Tree and 98 percent open/void.

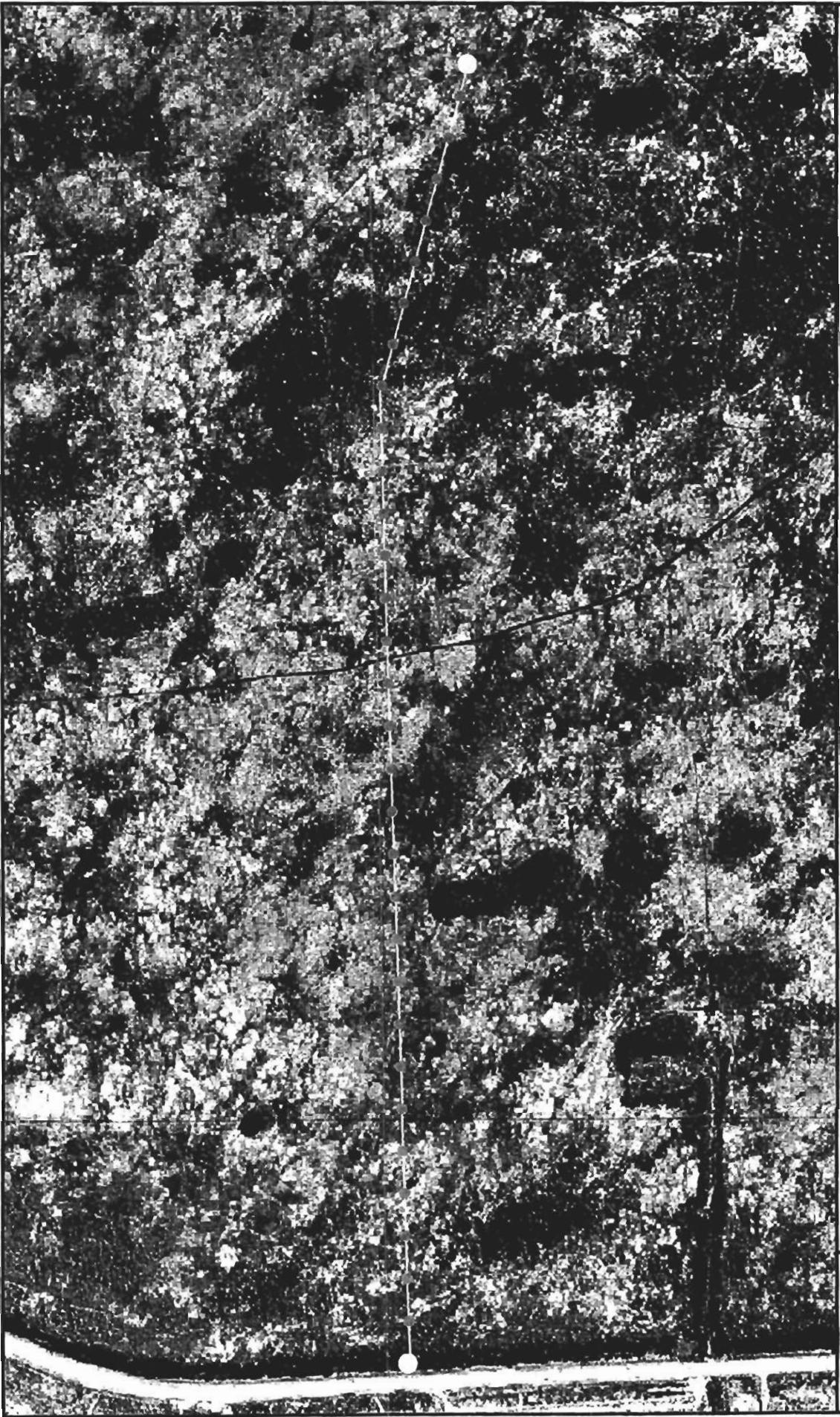
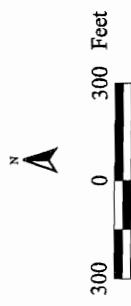


Figure 3. Transect A

End Points of Segment  
Data Collection Locations

KC  
TECHNOLOGIES



## TRANSECT

"A"

Total Length

5280'

## SUBMERGED AQUATICS

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	1.3%	0.0%
Bladderwort	<i>Utricularia foliosa</i>	0.0%	0.0%
Bladderwort	<i>Utricularia purpurea</i>	0.0%	0.0%
Ludwigia	<i>Ludwigia repens</i>	0.5%	0.0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0.7%	0.0%
Open/Void	N/A	97.5%	100.0%
<b>TOTAL</b>		100.0%	100%

## HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	17.7%	22.3%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	13.0%	13.0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1.3%	2.5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.5%	1.8%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0.5%	0.5%
Southern Swamp Lily	<i>Crinum americanum</i>	0.7%	1.1%
Pickerelweed	<i>Pontederia lanceolata</i>	0.2%	0.2%
Yellowtops	<i>Flaveria linearis</i>	0.2%	0.0%
Arrowhead	<i>Sagittaria graminea</i>	0.2%	0.0%
Floating-Hearst	<i>Nymphoides aquatica</i>	1.2%	0.1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.7%	5.3%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	6.7%	3.0%
Button Bush	<i>Cephalanthus occidentalis</i>	0.2%	0.0%
Maiden-Cane	<i>Panicum hemitomum</i>	0.7%	0.0%
Shield Fern	<i>Thelypteris kunthii</i>	0.3%	0.0%
Swamp Fern	<i>Blechnum serrulatum</i>	0.8%	1.7%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
Water Cowbane	<i>Oxypolis filiformis</i>	0.3%	0.0%
Dead Biomass	N/A	7.2%	6.8%
Open Water/Mud/Void	N/A	47.8%	41.6%
<b>TOTAL</b>		100%	100%

## SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.8%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	1.2%	0.0%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
TBD	N/A	0.0%	0.0%
Open/Void	N/A	98.0%	100.0%
<b>TOTAL</b>		100%	100%

## OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	1.7%	0.0%
Golden Fig	<i>Ficus Aurea</i>	0.0%	0.0%
Open/Void	N/A	98.3%	100.0%
<b>TOTAL</b>		100%	100%

## NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

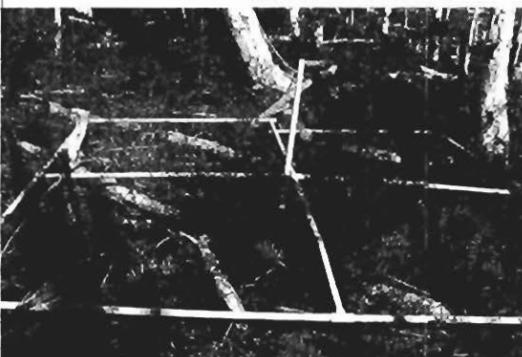
0+00 Panoramic - Looking east



52+78 Panoramic - Looking West



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT	A-1	STATION	0+00
<b>SUBMERGED AQUATICS</b>		12/3/2005	6/4/2005
<b>Common Name</b>	<b>Scientific Name</b>	<b>% Coverage</b>	<b>% Coverage</b>
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
	<b>TOTAL</b>	100%	100%
<b>HERBACEOUS SPECIES</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>% Coverage</b>	<b>% Coverage</b>
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	15%	15%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	5%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	5%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	10%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	25%	50%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	40%	0%
Open Water/Mud/Void	N/A	0%	35%
	<b>TOTAL</b>	100%	100%
<b>SAPLING / VINE</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>% Coverage</b>	<b>% Coverage</b>
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	15%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	85%	100%
	<b>TOTAL</b>	100%	100%
<b>OVERSTORY</b>			
<b>Common Name</b>	<b>Scientific Name</b>	<b>% Coverage</b>	<b>% Coverage</b>
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
	<b>TOTAL</b>	100%	100%
<b>NOTES:</b>			
Water Level / Soil Moisture	0 inches - dry soil		
Aquatic Macrofauna			
Wildlife Indicators (tracks, scat, nests)	none		
			

**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT A-2

STATION 1+82

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Water-Hyssops	<i>Bacoda caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	30%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	15%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	35%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

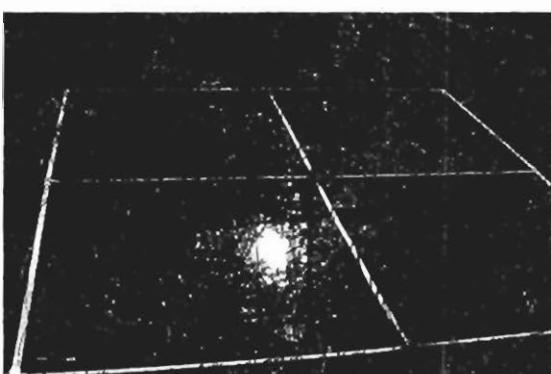
Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-3**

**STATION**

**3+64**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacoda caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	20%	30%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	<i>N/A</i>	0%	10%
Open Water/Mud/Void	<i>N/A</i>	80%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	<i>N/A</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

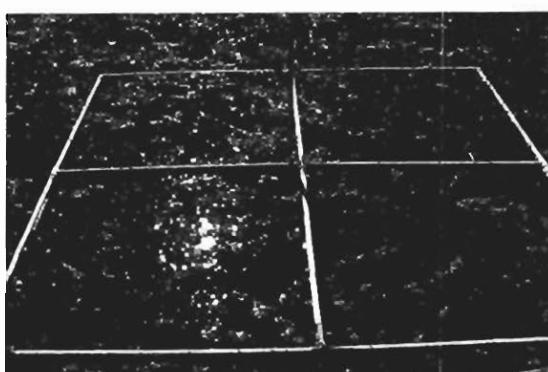
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-4**

**STATION**

**5+46**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Water-Hyssops	<i>Bacoda caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	30%	20%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	40%	10%
Open Water/Mud/Void	N/A	30%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

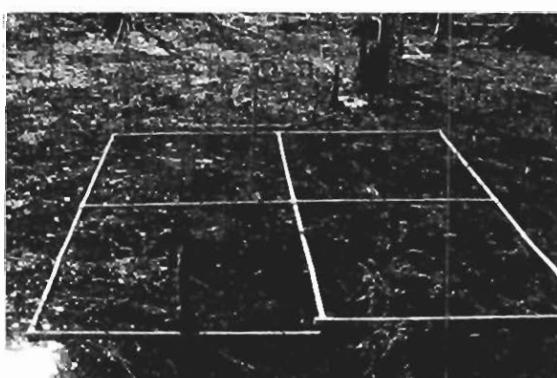
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-5

**STATION** 7+28

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacoda caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	15%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	85%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	40%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-6**

**STATION**

**9+10**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	15%	25%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	10%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	20%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	37%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** One live Melaleuca quinquenervia tree

Water Level / Soil Moisture

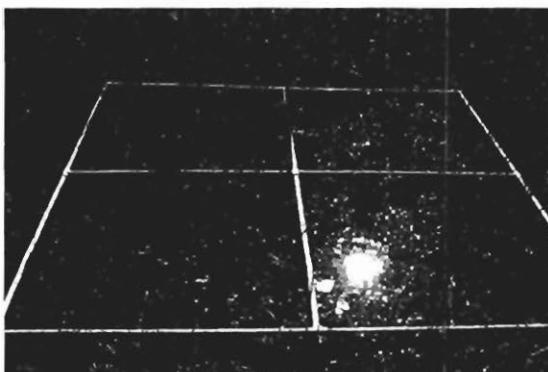
\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT A-7

STATION 10+92

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	5%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	30%	40%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

- Water Level / Soil Moisture 10 inches  
 Aquatic Macrofauna \_\_\_\_\_  
 Wildlife Indicators (tracks, scat, nests) none



**Pennsco Monitoring Project - Data Form**

TRANSECT / POINT A-8

STATION 12+74

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	5%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	25%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES: \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-9

**STATION** 14+56

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	15%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	10%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	30%	44%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

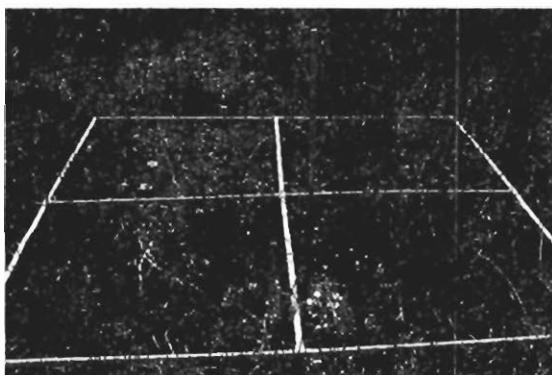
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-10

**STATION** 16+38

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	5%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	5%	5%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	10%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	25%	12%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

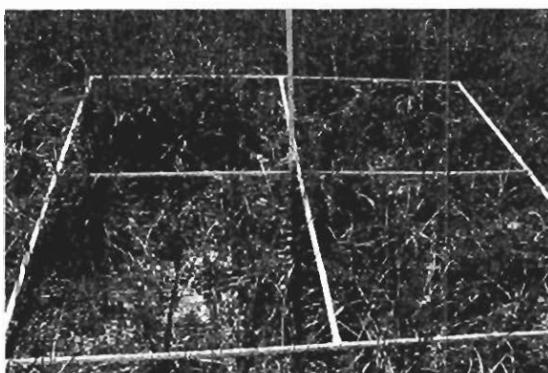
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT A-11

STATION 18+20

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	35%	40%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	10%	10%
Open Water/Mud/Void	N/A	55%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

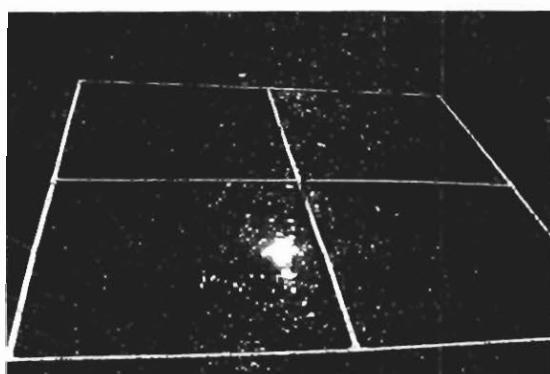
\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-12

**STATION** 20+02

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	5%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	65%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	30%	15%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

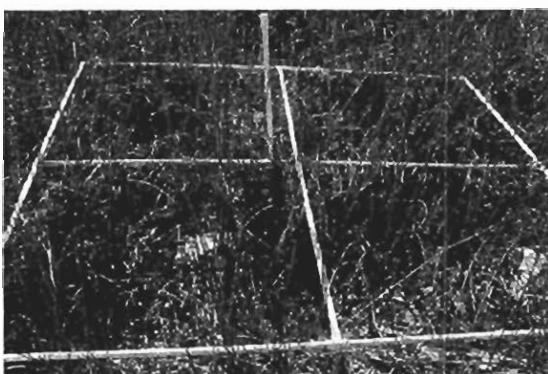
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-13

**STATION** 21+84

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	10%	10%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	15%
Open Water/Mud/Void	N/A	90%	75%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

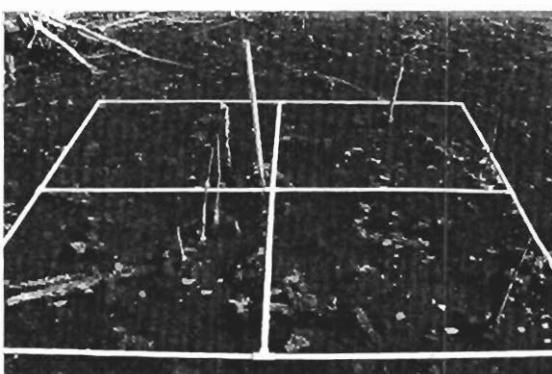
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT A-14

STATION 23+66

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	45%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	15%	15%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

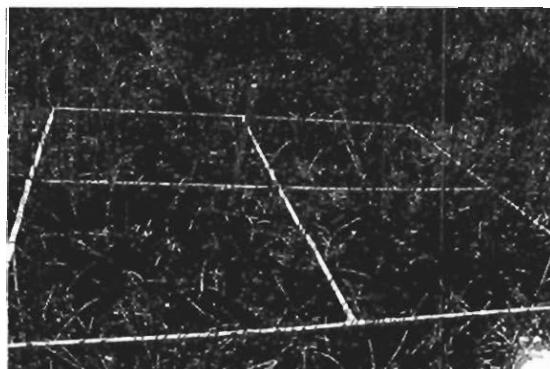
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

- Water Level / Soil Moisture 8 inches  
 Aquatic Macrofauna \_\_\_\_\_  
 Wildlife Indicators (tracks, scat, nests) none



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-15

STATION 25+48

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	15%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	50%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	30%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	35%	10%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

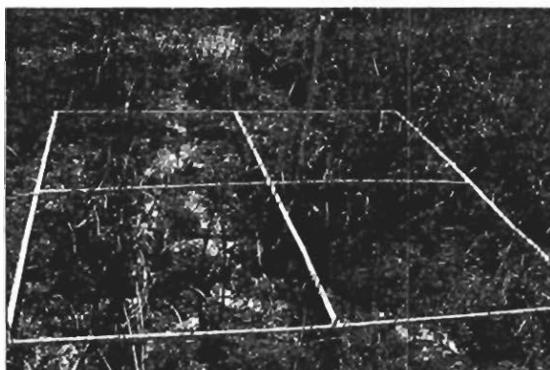
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-16

**STATION** 27+30

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	35%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	20%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	15%	0%
Open Water/Mud/Void	N/A	35%	40%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

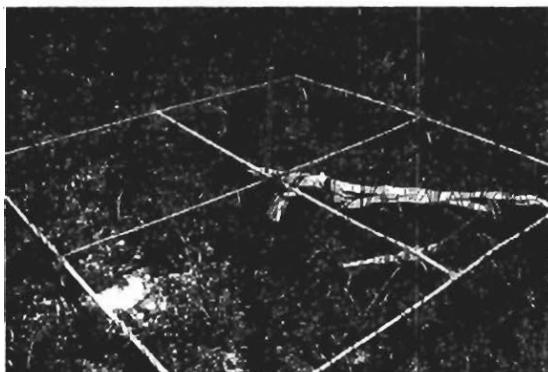
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-17

**STATION** 29+12

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	10%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	10%	0%
Open/Void	N/A	80%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	3%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitonum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	10%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	45%	47%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

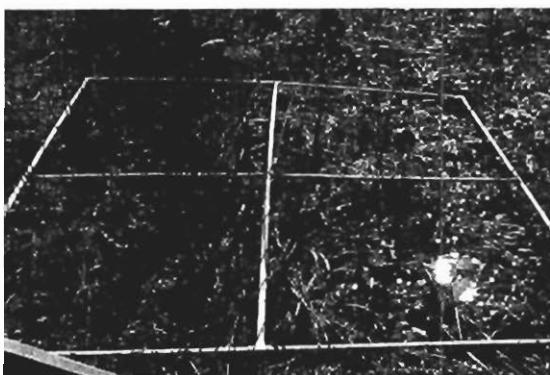
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-18**

**STATION**

**30+94**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	15%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	85%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	3%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	5%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	30%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	10%	15%
Open Water/Mud/Void	N/A	85%	47%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

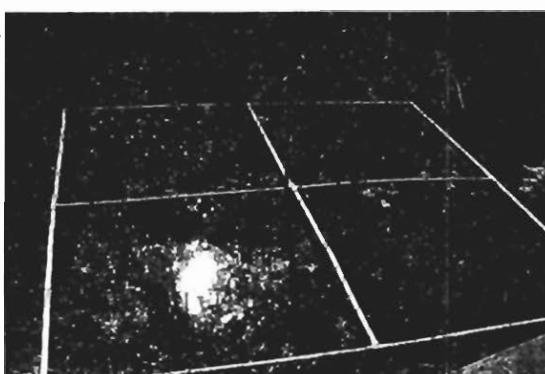
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-19**

**STATION**

**32+76**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	65%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	<i>N/A</i>	0%	0%
Open Water/Mud/Void	<i>N/A</i>	5%	5%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	<i>N/A</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

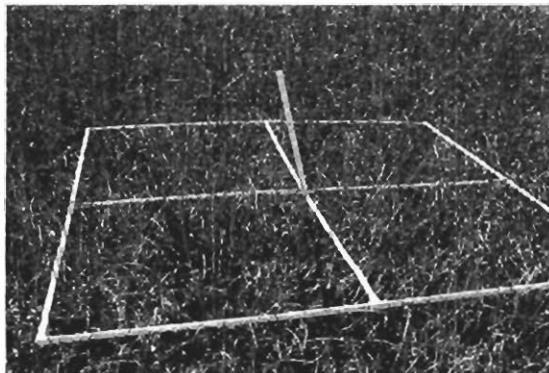
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

A-20

STATION

34+58

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	45%	30%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	20%	10%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** one live *Melaleuca quinquenervia*

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** A-21

**STATION** 36+40

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Water-Hyssops	<i>Bacopa caroliniana</i>	5%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	30%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	45%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

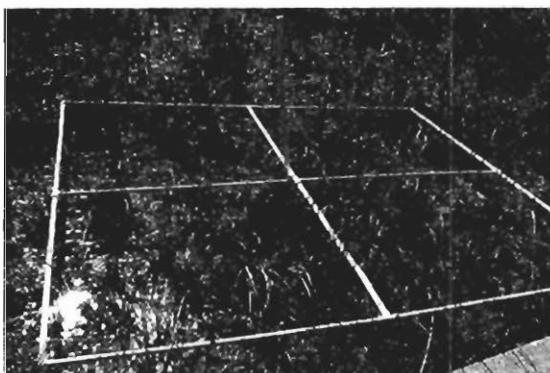
Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture                    3 - 5 inches

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)                    none



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-22**

**STATION**

**38+22**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	35%	30%
Open Water/Mud/Void	N/A	55%	40%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

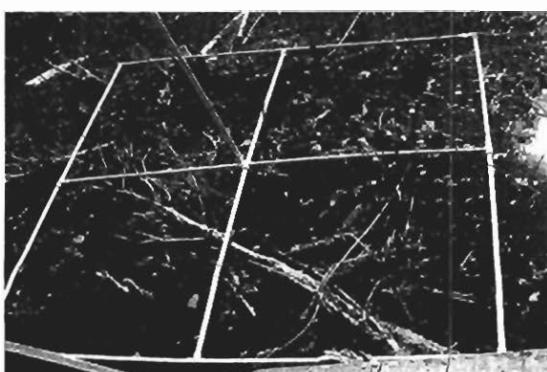
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-23**

**STATION**

**40+04**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	25%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	25%
Open Water/Mud/Void	N/A	100%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	45%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	55%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-24**

**STATION**

**41+86**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	35%	10%
Open Water/Mud/Void	N/A	65%	85%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

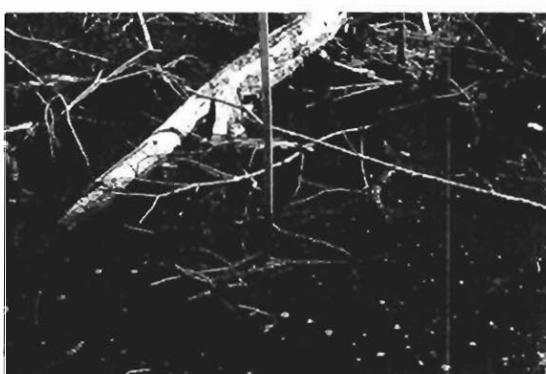
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT A-25

STATION 43+68

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	15%
Open Water/Mud/Void	N/A	90%	80%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	5%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT A-26

STATION 45+50

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	5%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	5%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	10%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	20%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	15%
Open Water/Mud/Void	N/A	70%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

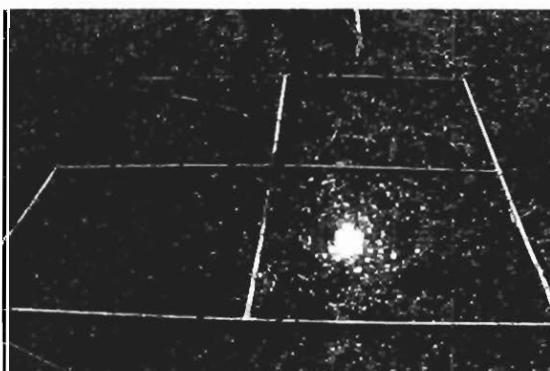
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-27**

**STATION**

**47+32**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	20%	15%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	20%
Open Water/Mud/Void	N/A	75%	57%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-28**

**STATION**

**49+14**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	5%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	5%
Open Water/Mud/Void	N/A	50%	30%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture	10 inches
Aquatic Macrofauna	
Wildlife Indicators (tracks, scat, nests)	none



# Pennsoco Monitoring Project - Data Form

TRANSECT / POINT

A-29

STATION

50+96

## SUBMERGED AQUATICS

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

## HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	15%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	10%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	20%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	30%	25%
Open Water/Mud/Void	N/A	40%	40%
<b>TOTAL</b>		100%	100%

## SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	20%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	60%	100%
<b>TOTAL</b>		100%	100%

## OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

## NOTES:

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**A-30**

**STATION**

**52+78**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw-grass (Alive)	<i>Cladium jamaicense</i>	35%	50%
Saw-grass (Dead)	<i>Cladium jamaicense</i>	20%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Bushy Bluestem	<i>Andropogon glomeratus</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweeds	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Water Cowbane	<i>Oxypolis filiformis</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	30%	35%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



## **TRANSECT B**

### **Narrative**

Transect B is located in Section 5, Township 53, Range 39 (Cell 26 – Pennsuco Exotic Treatment Area). It starts at point B1 approximately one mile east of Krome Avenue (GPS Coordinates Latitude 25° 51' 20.39", Longitude 80° 28' 01.70"), and extends one mile east to Point B30 at the Dade-Broward Levee (Figure 4). One community type, wet prairie primarily dominated by Saw Grass (*Cladium jamaicense*), was identified for transect B. Previous control efforts consisted of herbicidal treatment and a physical removal program, followed by a controlled burn. A fire burned throughout this transect in the summer of 2004. During the recent monitoring it was observed that the Saw Grass is recovering from the burn and gradually growing back.

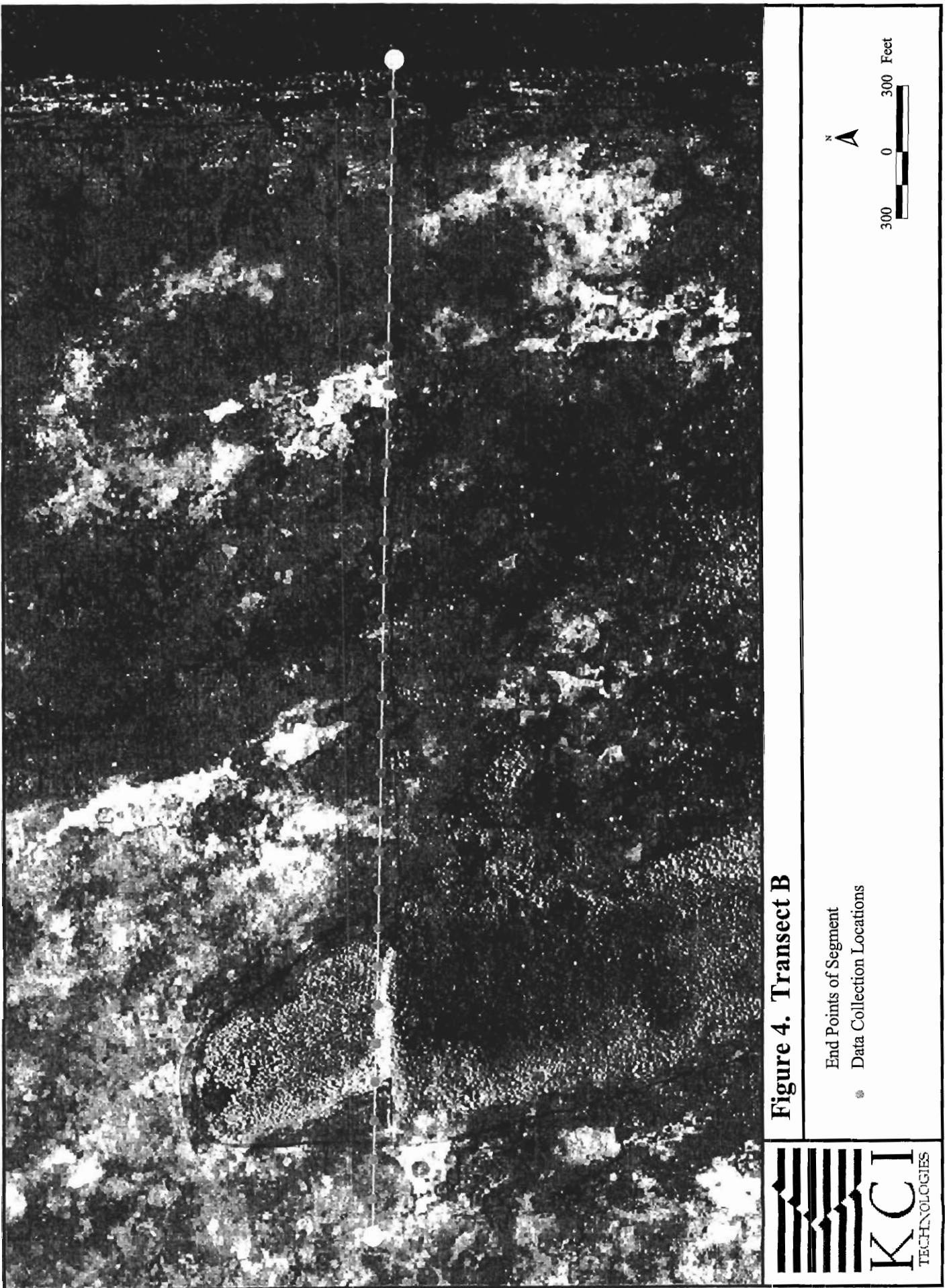
### **Observations from December 3, 2005 monitoring**

The entire transect was observed to be inundated due to the recent hurricane storms in the area. At the four data collection locations (B7, B14, B21, and B28) the water was ten to fifteen inches in depth. No macrofauna or indicators of wildlife were noted.

Most of the Punk Tree vegetative communities were dead, due to enhancement efforts, which called for eradication of exotic and invasive species.

In summary, the percent vegetative coverage, by layer, for this transect identified:

- In the submerged aquatics layer, 100 percent open/void.
- In the herbaceous species layer, 24 percent alive Saw Grass, 4 percent dead Saw Grass, 8 percent Tracy's Beak Rush (*Rhynchospora tracyi*), 4 percent Arrowhead (*Sagittaria graminea*), 3 percent Southern Swamp Lily (*Crinum americanum*), 2 percent Floating-Heart (*Nymphoides aquatica*) and Button Bush (*Cephaelanthus occidentalis*), 1 percent Pickerelweed (*Pontederia lanceolata*) and dead biomass, and 50 percent open/void.
- In the sapling/vine layer, 100 percent open/void.
- In the overstory layer, 4 percent dead Punk Tree (*Melaleuca quinquenervia*) and 96 percent open/void.



**Pennsuco Monitoring Project - Summary Sheet**

TRANSECT "B"

Total Length 5280'

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0.0%	0.0%
Bladderwort	<i>Utricularia foliosa</i>	0.0%	0.0%
Bladderwort	<i>Utricularia purpurea</i>	0.0%	0.0%
Ludwigia	<i>Ludwigia repens</i>	0.0%	0.0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	1.8%	0.0%
Open/Void	N/A	98.2%	100.0%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	23.5%	25.3%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	4.2%	5.8%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.3%	0.5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.0%	2.0%
Southern Swamp Lily	<i>Crinum americanum</i>	3.3%	2.8%
Pickeralweed	<i>Pontederia lanceolata</i>	1.2%	0.0%
Yellowtops	<i>Flaveria linearis</i>	0.0%	0.0%
Arrowhead	<i>Sagittaria graminea</i>	3.7%	2.5%
Duck Potato	<i>Sagittaria latifolia</i>	0.3%	0.0%
Floating-Heart	<i>Nymphoides aquatica</i>	2.0%	0.0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.0%	0.2%
Cattail	<i>Typha latifolia</i>	0.0%	0.0%
Button Bush	<i>Cephalanthus occidentalis</i>	1.5%	2.2%
Maiden-Cane	<i>Panicum hemitomum</i>	1.0%	0.0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	8.2%	0.0%
Swamp Fern	<i>Blechnum serrulatum</i>	0.0%	0.0%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
Mallow	<i>Malvaceae spp.</i>	0.0%	1.7%
Swamp Cabbage	<i>Sabal palmetto</i>	0.0%	0.0%
Dead Biomass	N/A	0.7%	0.0%
Open Water/Mud/Void	N/A	50.2%	56.7%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
TBD	N/A	0.0%	0.0%
Open/Void	N/A	100.0%	100.0%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	3.8%	0.0%
Golden Fig	<i>Ficus Aurea</i>	0.0%	0.0%
Open/Void	N/A	96.2%	100.0%
<b>TOTAL</b>		100%	100%

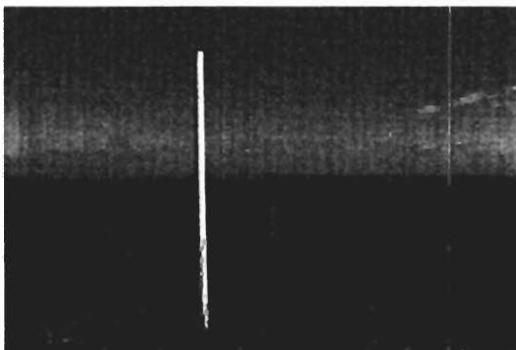
**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

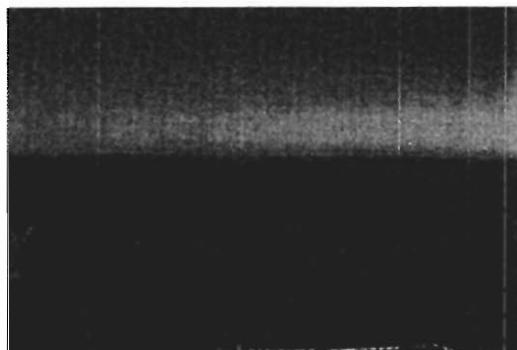
Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_

0+00 Panoramic - Looking East



0+00 Panoramic - Looking East



52+78 Panoramic - Looking West

**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**B-1**

**STATION**

**0+00**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	30%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** B-2

**STATION** 1+82

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	5%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	55%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	35%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**B-3**

**STATION**

**3+64**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-4

STATION 5+46

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**B-5**

**STATION**

**7+28**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

B-6

STATION

9+10

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	65%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** one sprig dead *Melaleuca quinquenervia*

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-7

STATION 10+92

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	5%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	10%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	30%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	10%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	50%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

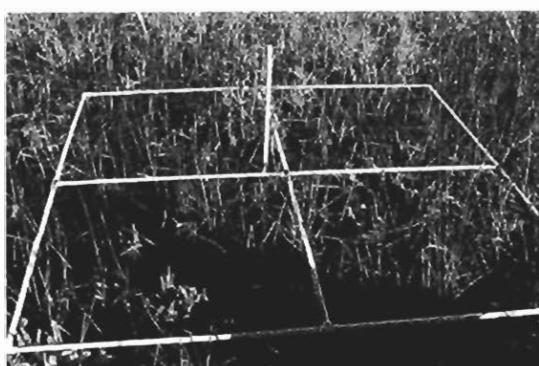
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

- Water Level / Soil Moisture                    10 inches  
 Aquatic Macrofauna  
 Wildlife Indicators (tracks, scat, nests)        none



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

B-8

STATION

12+74

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	10%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	40%	20%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	30%	35%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	20%	35%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	15%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	85%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** Many dead *Melaleuca quinquenervia* due to hurricane damage

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsueo Monitoring Project - Data Form**

TRANSECT / POINT B-9

STATION 14+56

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	15%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	15%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	85%	80%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	75%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	25%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** New point - old point lost due to hurricane damage in stand of *Melaleuca quinquenervia*.

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-10

STATION 16+38

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	25%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	40%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	5%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	10%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	50%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	25%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	75%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** New point - old point lost due to hurricane damage in stand of *Melaleuca quinquenervia*.

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

TRANSECT / POINT B-11

STATION 18+20

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	55%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	15%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	5%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	35%	25%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

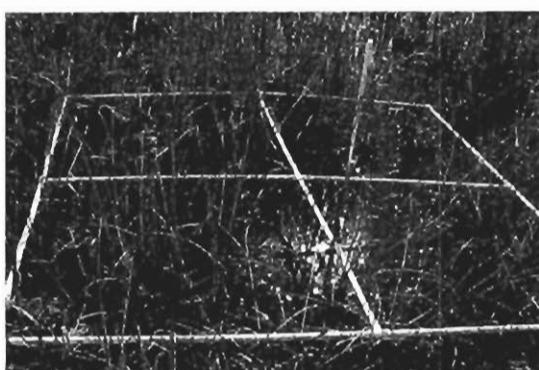
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

**TRANSECT / POINT** B-12

**STATION** 20+02

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	10%	0%
Open/Void	N/A	90%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	10%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	15%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	10%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

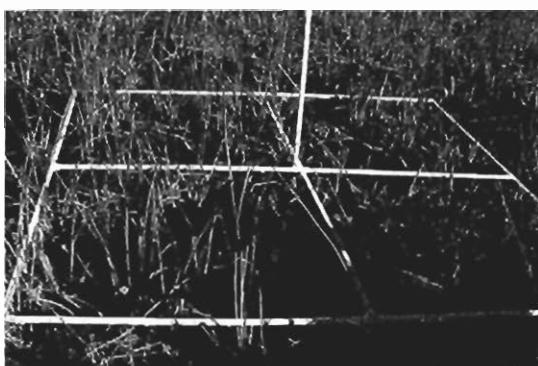
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** B-13

**STATION** 21+84

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	10%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	75%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

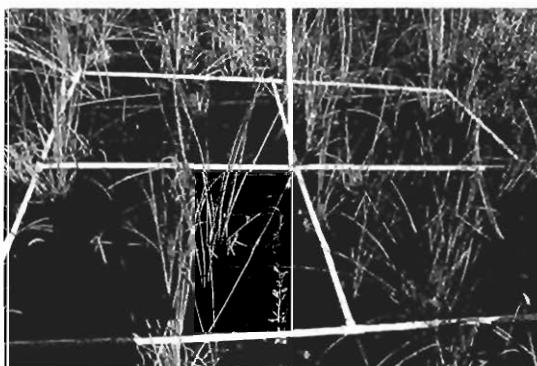
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** One sprig of *Melaleuca quinquenervia*

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-14

STATION 23+66

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	65%	75%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES: \_\_\_\_\_

Water Level / Soil Moisture 10 - 12 inches

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) none



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-15

STATION 25+48

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	70%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

TRANSECT / POINT B-16

STATION 27+30

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	30%	0%
Open/Void	N/A	70%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	2%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	10%
Pickeralweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	15%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	45%	68%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-17

STATION 29+12

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	25%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

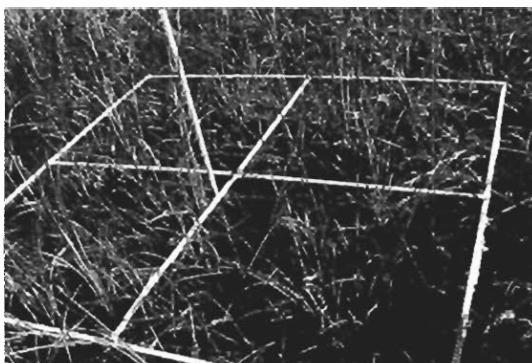
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-18

STATION 30+94

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	1%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	64%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES: \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-19

STATION 32+76

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005 % Coverage	6/4/2005 % Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	10%	0%
Open/Void	N/A	90%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	65%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

B-20

STATION

34+58

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	15%	25%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	25%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	10%	35%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

B-21

STATION

36+40

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	30%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	5%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	10%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	10%
Open Water/Mud/Void	N/A	30%	25%
<b>TOTAL</b>		100%	110%

**SAPLING / VINE**

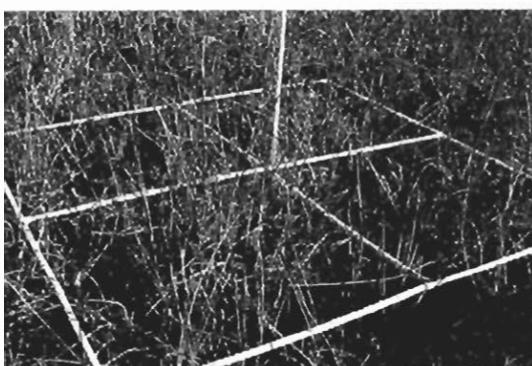
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

- Water Level / Soil Moisture                    15 inches  
 Aquatic Macrofauna  
 Wildlife Indicators (tracks, scat, nests)                    none



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** B-22

**STATION** 38+22

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

TRANSECT / POINT B-23

STATION 40+04

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickeralweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	70%	75%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

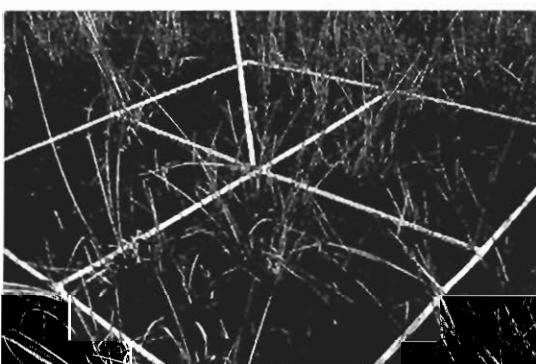
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

B-24

STATION

41+86

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	100%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	0%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES:

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsueo Monitoring Project - Data Form**

**TRANSECT / POINT** B-25

**STATION** 43+68

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	5%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	5%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

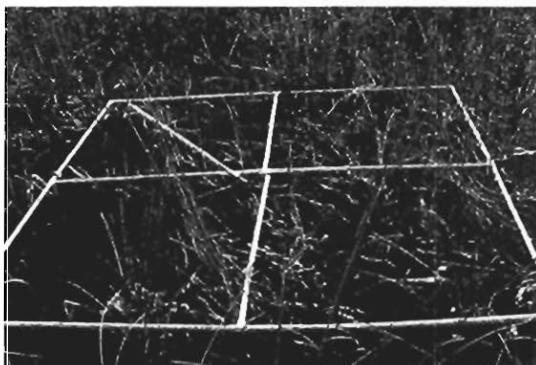
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** B-26

**STATION** 45+50

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	3%
Southern Swamp Lily	<i>Crinum americanum</i>	15%	15%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	54%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** B-27

**STATION** 47+32

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	30%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	10%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	40%	35%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT B-28

STATION 49+14

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	30%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	10%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

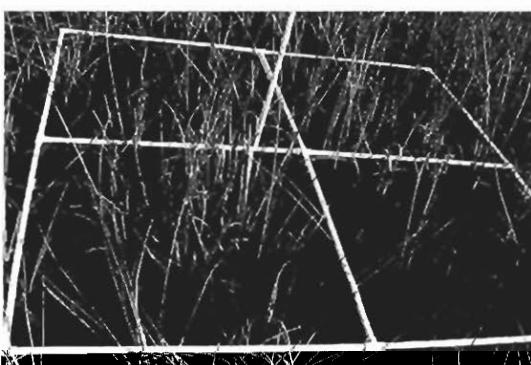
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES: \_\_\_\_\_

- Water Level / Soil Moisture 12 inches  
 Aquatic Macrofauna \_\_\_\_\_  
 Wildlife Indicators (tracks, scat, nests) none



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

B-29

STATION

50+96

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	15%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	10%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	0%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	65%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** B-30

**STATION** 52+78

**SUBMERGED AQUATICS**

12/3/2005

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	20%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	20%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	30%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Mallow	<i>Malvaceae spp.</i>	0%	10%
Swamp Cabbage	<i>Sabal palmetto</i>	0%	0%
Dead Biomass	N/A	0%	10%
Open Water/Mud/Void	N/A	20%	30%
<b>TOTAL</b>		100%	110%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

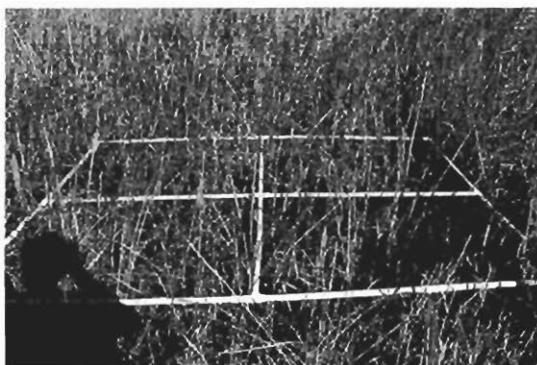
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



## **TRANSECT C**

### **Narrative**

Transect C is located in Section 18, Township 53, Range 39 (Cell 26 – Pennsuco Exotic Treatment Area). It starts on the levee at Krome Avenue with point C1 (GPS Coordinates Latitude 25° 53' 12.76", Longitude 80° 29' 03.33") and continues east one mile to point C30 (GPS coordinates Latitude 25° 53' 12.69", Longitude 80° 28' 04.91"), which is west of the Dade-Broward Levee (Figure 5). Two community types were identified for transect C. Point C1 represents an upland levee community dominated by Swamp Fern (*Blechnum serrulatum*) and Shield Fern (*Thelypteris kunthii*) in the herbaceous layer. Points C2 through C30 represent a wet prairie community type dominated by Saw Grass (*Cladium jamaicense*). A fire burned throughout this transect in the summer of 2004. During the recent monitoring it was observed that the Saw Grass is recovering from the burn and gradually growing back.

### **Observations from December 3, 2005 monitoring**

The vegetative community consisted primarily of Saw Grass, with 32% coverage. The majority of the transect resulted in 50% open/void due to the recent fire burning the vegetation.

The entire transect was observed to be inundated due to the recent hurricane storms in the area. At the four data collection locations (C7, C14, C21, and C30) the water was ten to twenty inches in depth. No macrofauna or indicators of wildlife were noted.

In summary, the percent vegetative coverage by layer, for this transect identified:

- In the submerged aquatics layer, 7 percent Manatee Mudgrass (*Micranthemum glomeratum*) and 93 percent open/void.
- In the herbaceous species layer, 32 percent alive Saw Grass (*Cladium jamaicense*), 9 percent dead Saw Grass (*Cladium jamaicense*), 3 percent Southern Swamp Lily (*Crinum americanum*), 1 percent Floating-Heart (*Nymphoides aquatica*), Swamp Fern (*Blechnum serrulatum*), and Tracy's Beak Rush (*Rhynchospora tracyi*), 2 percent dead biomass, and 50 percent open/void.
- In the sapling/vine layer, 100 percent open/void.
- In the overstory layer, 1 percent dead Punk Tree (*Melaleuca quinquenervia*) and 99 percent open/void.

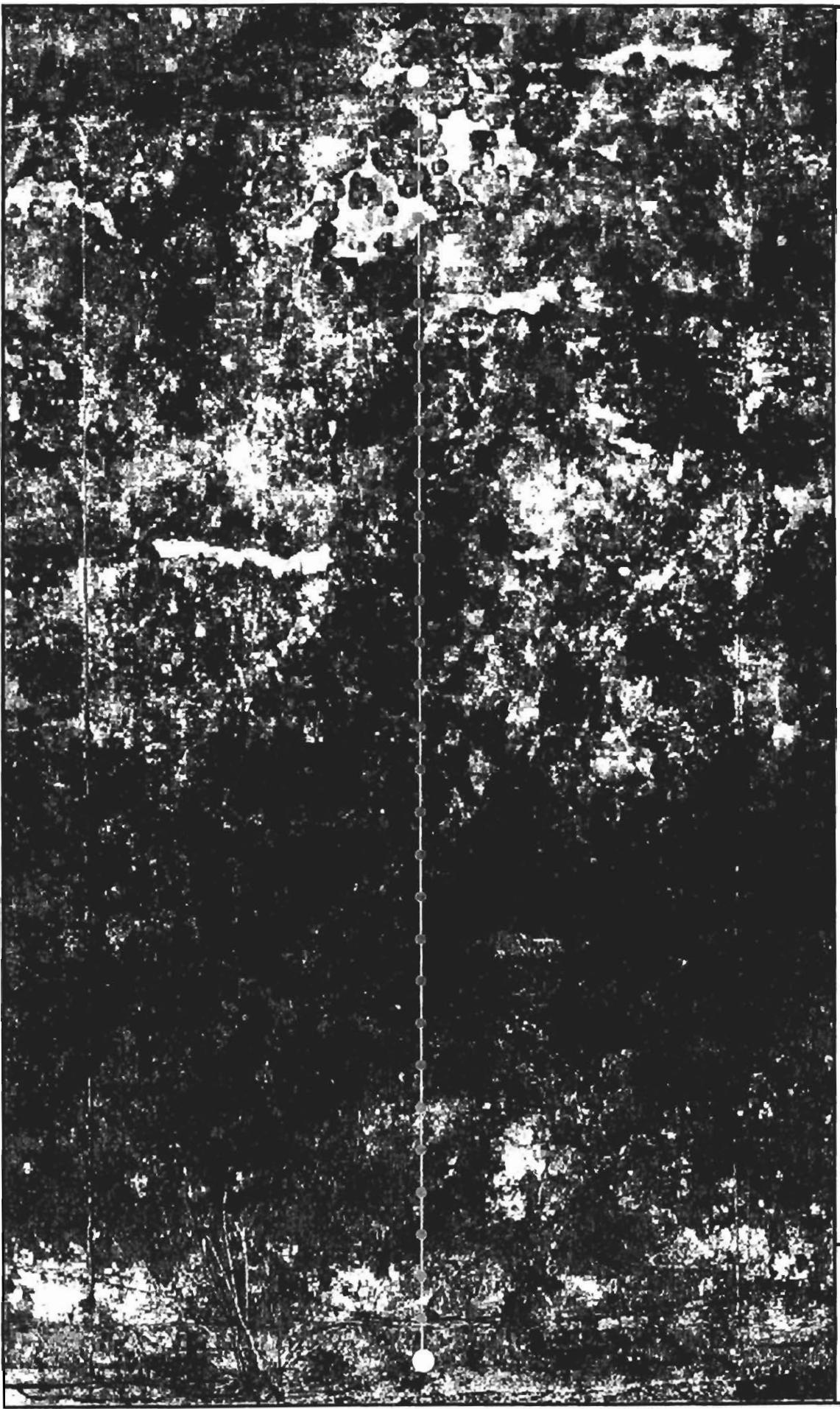


Figure 5. Transect C

End Points of Segment  
Data Collection Locations

N  
0 300 Feet

KC  
TECHNOLOGIES

# Pennsuco Monitoring Project - Summary Sheet

TRANSECT "C"

Total Length 5280'

## SUBMERGED AQUATICS

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0.0%	0.0%
Bladderwort	<i>Utricularia foliosa</i>	0.0%	0.0%
Bladderwort	<i>Utricularia purpurea</i>	0.0%	0.0%
Ludwigia	<i>Ludwigia repens</i>	0.0%	0.0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	7.0%	0.0%
Open/Void	N/A	93.0%	100.0%
<b>TOTAL</b>		100%	100%

## HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	32.0%	30.7%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	9.2%	10.0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Southern Swamp Lily	<i>Crinum americanum</i>	3.0%	1.2%
Pickerelweed	<i>Pontederia lanceolata</i>	0.2%	0.2%
Yellowtops	<i>Flaveria linearis</i>	0.0%	0.3%
Arrowhead	<i>Sagittaria graminea</i>	0.2%	0.4%
Floating-Heart	<i>Nymphoides aquatica</i>	1.2%	0.2%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.0%	0.0%
Cattail (Alive)	<i>Typha latifolia</i>	0.0%	0.0%
Cattail (Dead)	<i>Typha latifolia</i>	0.0%	0.0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0.0%	0.0%
Maiden-Cane	<i>Panicum hemitomum</i>	0.0%	0.0%
Shield Fern	<i>Thelypteris kunthii</i>	0.8%	0.7%
Swamp Fern	<i>Blechnum serrulatum</i>	1.0%	2.2%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	1.0%	0.8%
Dead Biomass	N/A	1.8%	0.5%
Open Water/Mud/Void	N/A	49.3%	52.9%
<b>TOTAL</b>		100%	100%

## SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
TBD	N/A	0.0%	0.0%
Open/Void	N/A	100.0%	100.0%
<b>TOTAL</b>		100%	100%

## OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.7%	0.0%
Golden Fig	<i>Ficus Aurea</i>	0.0%	0.0%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
Open/Void	N/A	99.3%	100.0%
<b>TOTAL</b>		100%	100%

## NOTES:

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_

0+00 Panoramic - Looking east



0+00 Panoramic - Looking east



52+78 Panoramic - Looking West

**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-1

**STATION** 0+00

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	25%	20%
Swamp Fern	<i>Blechnum serrulatum</i>	30%	60%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	25%	10%
Open Water/Mud/Void	N/A	20%	10%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	20%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	80%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-2**

**STATION**

**1+82**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	80%	90%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	20%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphaoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	0%	5%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT

C-3

STATION

3+64

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	60%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	10%	20%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-4

STATION 5+46

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	20%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	5%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	5%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	25%	20%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES:

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-5

**STATION** 7+28

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	5%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

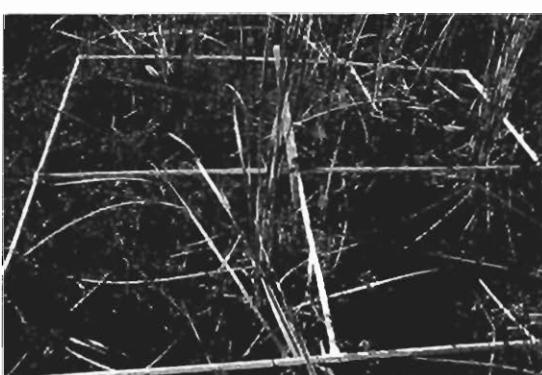
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-6

STATION 9+10

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005	6/4/2005
Saw Grass (Alive)	<i>Cladium jamaicense</i>	60%	45%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickeralweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	25%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005	6/4/2005
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	12/3/2005	6/4/2005
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-7

**STATION** 10+92

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	55%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickeralweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	25%	25%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture	10 inches
Aquatic Macrofauna	_____
Wildlife Indicators (tracks, scat, nests)	none



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-8

STATION 12+74

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	55
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	55%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	25%	40%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-9**

**STATION**

**14+56**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	5%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	70%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

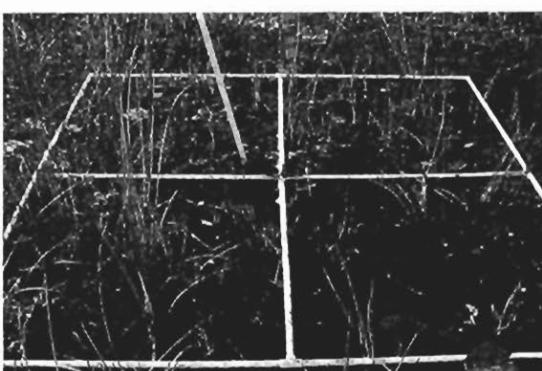
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-10**

**STATION**

**16+38**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	5%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	45%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	15%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	30%	30%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

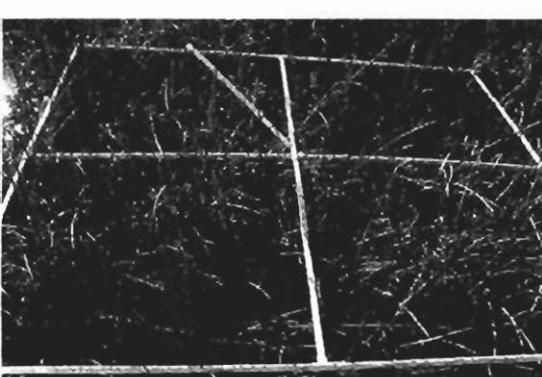
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-11

**STATION** 18+20

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	64%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

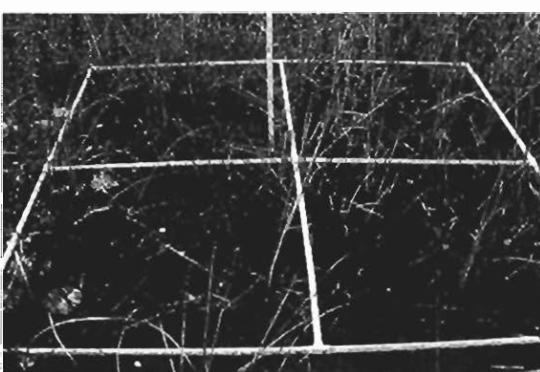
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT C-12

STATION 20+02

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	45%	0%
Open/Void	N/A	55%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	15%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-13

**STATION** 21+84

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	45%	0%
Open/Void	N/A	55%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	10%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	70%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT C-14

STATION 23+66

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	35%	0%
Open/Void	N/A	65%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture	10 inches
Aquatic Macrofauna	
Wildlife Indicators (tracks, scat, nests)	none



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-15

**STATION** 25+48

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	25%	0%
Open/Void	N/A	75%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-16

STATION 27+30

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	70%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

**TRANSECT / POINT** C-17

**STATION** 29+12

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	20%	0%
Open/Void	N/A	80%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	85%	75%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

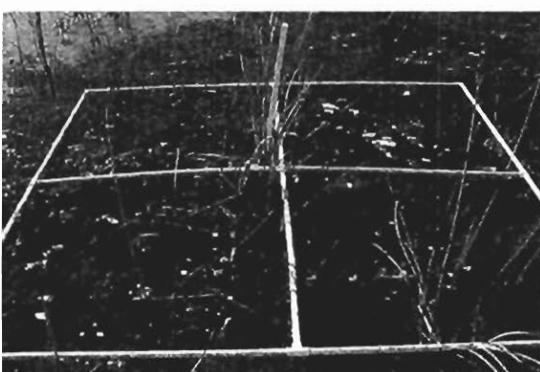
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-18

**STATION** 30+94

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	35%	0%
Open/Void	<i>N/A</i>	65%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomon</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	<i>N/A</i>	0%	0%
Open Water/Mud/Void	<i>N/A</i>	75%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	<i>N/A</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



Pennsueo Monitoring Project - Data Form

TRANSECT / POINT C-19

STATION 32+76

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	10%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	30%	0%
Open Water/Mud/Void	N/A	45%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES: \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-20

**STATION** 34+58

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	50%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-21**

**STATION**

**36+40**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphaeides aquatica</i>	10%	1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	69%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture	20 inches
Aquatic Macrofauna	
Wildlife Indicators (tracks, scat, nests)	none



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-22

**STATION** 38+22

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	5%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	35%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** C-23

**STATION** 40+04

**SUBMERGED AQUATICS**

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Hart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	65%	75%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

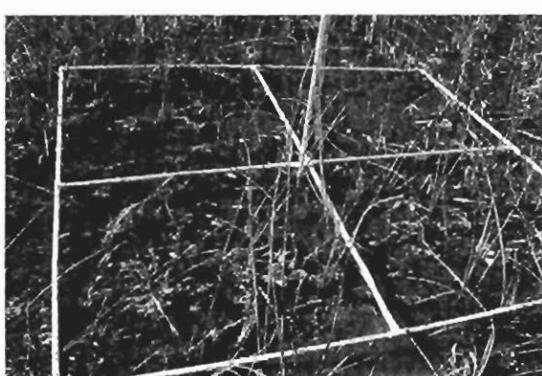
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-24**

**STATION**

**41+86**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	<i>N/A</i>	0%	0%
Open Water/Mud/Void	<i>N/A</i>	80%	90%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	<i>N/A</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-25**

**STATION**

**43+68**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	60%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-26**

**STATION**

**45+50**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	5%
Open Water/Mud/Void	N/A	65%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

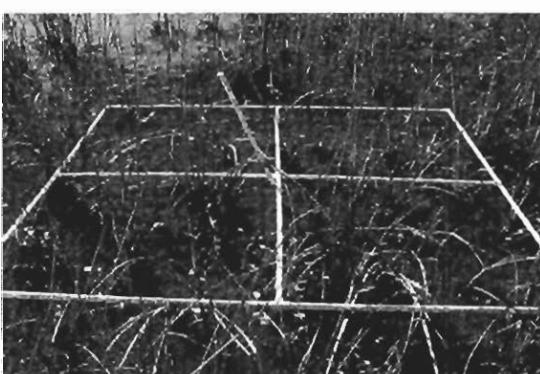
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



Pennsoco Monitoring Project - Data Form

TRANSECT / POINT C-27

STATION 47+32

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	80%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

NOTES:

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-28**

**STATION**

**49+14**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	10%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	10%
Floating-Heart	<i>Nymphoides aquatica</i>	10%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	25%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	65%	30%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

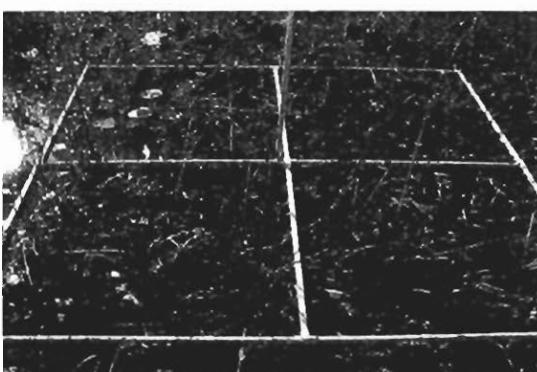
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture                            10 to 12 inches

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)                none



**Pennsoco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-29**

**STATION**

**50+96**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	55%	40%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	15%	35%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	N/A	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**C-30**

**STATION**

**52+78**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/4/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudgrass	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	1%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	1%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail (Alive)	<i>Typha latifolia</i>	0%	0%
Cattail (Dead)	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	<i>N/A</i>	0%	0%
Open Water/Mud/Void	<i>N/A</i>	45%	63%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD	<i>N/A</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



## **TRANSECT DR**

### **Narrative**

Transect DR is a relocated transect due to the previous D transect being a treated area. Transect DR is located in Section 31, Township 53, Range 39 east (Cell 26 - Pennsuco Exotic Treatment Area). It starts at point DR1 approximately one mile east of Krome Avenue (GPS Coordinates Latitude 25° 47' 20.64", Longitude 80° 28' 46.31") and continues southwest to point DR30 (GPS coordinates Latitude 25° 47' 45.57", Longitude 80° 28' 09.88"), (Figure 6). One community type, wet prairie, primarily dominated by Saw Grass (*Cladium jamaicense*) in the herbaceous layer and Punk Tree (*Melaleuca quinquenervia*) in the sapling/vine layer was identified for transect DR.

SFWMD requested that the existing D transect location be relocated to an untreated area during the November 2003 monitoring period. The transect was established at approximately equally spaced intervals of 150 feet along the transect. The transect was shortened due to dense upland area which was not easily accessible.

A fire burned throughout this transect in the summer of 2004. The majority of the PVC pipes were burned in the fire; therefore during the June 2005 monitoring most of the PVC pipes were replaced. During the December 2005 monitoring, five existing plots could not be located. To keep consistency with previous monitoring plots, the five plots will not be monitored. Data were collected for a total of 25 plots.

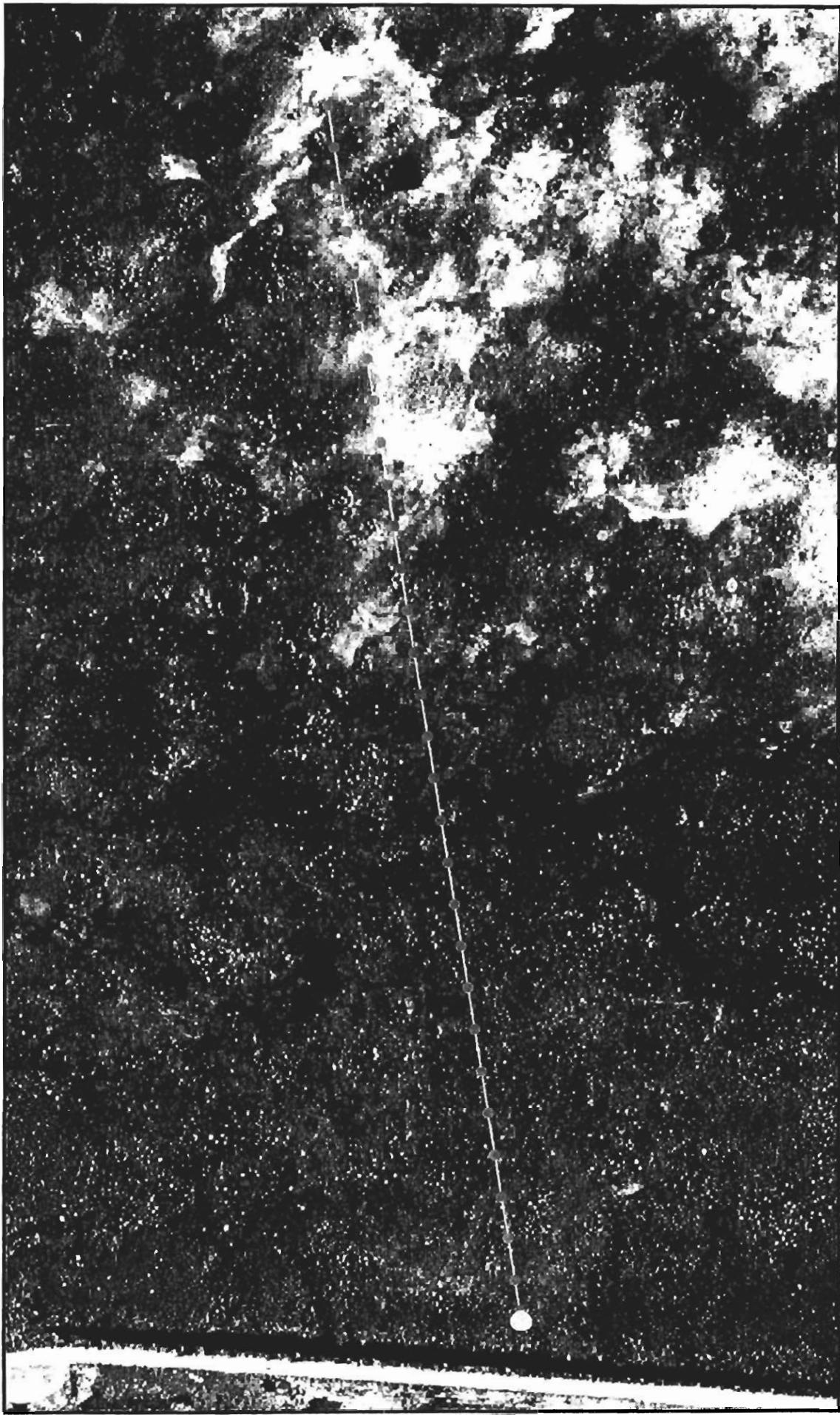
### **Observations from December 3, 2005 monitoring**

The vegetative community consisted primarily of Saw Grass with 27 percent coverage. The majority of the transect resulted in 50 percent open/void due to the fire burning the vegetation.

The entire transect was observed to be inundated due to the recent hurricane storms in the area. No macrofauna or indicators of wildlife were noted.

In summary, the percent vegetative coverage by layer, for this transect identified:

- In the submerged aquatics layer, 1 percent Manatee Mudgrass (*Micranthemum glomeratum*) and 99 percent open/void.
- In the herbaceous species layer, 27 percent alive Saw Grass (*Cladium jamaicense*), 2 percent dead Saw Grass (*Cladium jamaicense*), 8 percent Tracy's Beak Rush (*Rhynchospora tracyi*), 5 percent alive Punk Tree (*Melaleuca quinquenervia*), 2 percent Southern Swamp Lily (*Crinum americanum*), 4 percent dead biomass, and 50 percent open/void.
- In the sapling/vine layer, 2 percent alive Punk Tree (*Melaleuca quinquenervia*), 1 percent dead Punk Tree saplings, and 97 percent open/void.
- In the overstory layer, 100 percent open/void.



**Figure 6. Transect D**

End Points of Segment  
Data Collection Locations

KCI  
TECHNOLOGIES

300 0 300 Feet

TRANSECT

"DR"

Total Length 5280'

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0.0%	0.0%
Bladderwort	<i>Utricularia foliosa</i>	0.0%	0.0%
Bladderwort	<i>Utricularia purpurea</i>	0.0%	0.0%
Ludwigia	<i>Ludwigia repens</i>	0.0%	0.0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0.8%	0.0%
Open/Void	N/A	99.2%	100.0%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	27.4%	21.4%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	2.2%	7.4%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	4.6%	1.6%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	1.0%	1.5%
Southern Swamp Lily	<i>Crinum americanum</i>	1.8%	0.9%
Pickerelweed	<i>Pontederia lanceolata</i>	0.6%	0.0%
Yellowtops	<i>Flaveria linearis</i>	0.0%	0.0%
Duck Potato	<i>Sagittaria latifolia</i>	0.2%	0.2%
Arrowhead	<i>Sagittaria graminea</i>	0.0%	0.0%
Floating-Heart	<i>Nymphoides aquatica</i>	0.0%	0.0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.0%	0.0%
Cattail	<i>Typha latifolia</i>	0.0%	0.0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0.0%	0.0%
Maiden-Cane	<i>Panicum hemitomum</i>	0.0%	0.0%
Shield Fern	<i>Thelypteris kunthii</i>	0.0%	0.0%
Swamp Fern	<i>Blechnum serrulatum</i>	0.0%	0.0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	7.8%	5.5%
Dead Biomass	N/A	4.0%	1.0%
Open Water/Mud/Void	N/A	50.4%	60.5%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	2.0%	1.1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	1.4%	1.9%
Elm	<i>Trema micrantha</i>	0.0%	0.0%
Open/Void	N/A	96.6%	97.0%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.0%	0.0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.0%	0.2%
Golden Fig	<i>Ficus Aurea</i>	0.0%	0.0%
Open/Void	N/A	100.0%	99.8%
<b>TOTAL</b>		100%	100%

**NOTES:**

Water Level / Soil Moisture

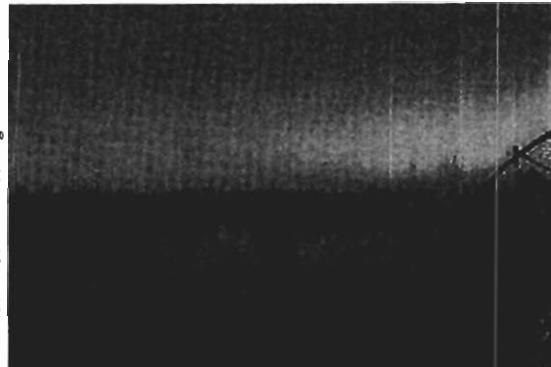
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

0+00 Panoramic - Looking east



52+78 Panoramic - Looking West



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-1**

**STATION**

**0+00**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	5%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	5%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	20%	0%
Open Water/Mud/Void	N/A	70%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** 12/3/05 - points approximately 100-150 ft apart

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-2**

**STATION**

**1+82**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	1%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	45%	54%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-3

**STATION** 3+64

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	25%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	1%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	65%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	10%	54%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-4**

**STATION**

**5+46**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	20%	45%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-5

**STATION** 7+28

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	<i>N/A</i>	10%	0%
Open Water/Mud/Void	<i>N/A</i>	35%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-6

**STATION** 9+10

**SUBMERGED AQUATICS**

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	30%	60%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	5%	5%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	95%	90%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-7

**STATION** 10+92

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	15%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	25%	67%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	95%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-8

**STATION** 12+74

**SUBMERGED AQUATICS**

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	25%	75%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	95%	95%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-9**

**STATION**

**14+56**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	15%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	35%	69%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	97%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT DR-10 STATION 16+38

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	5%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	20%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	60%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	95%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

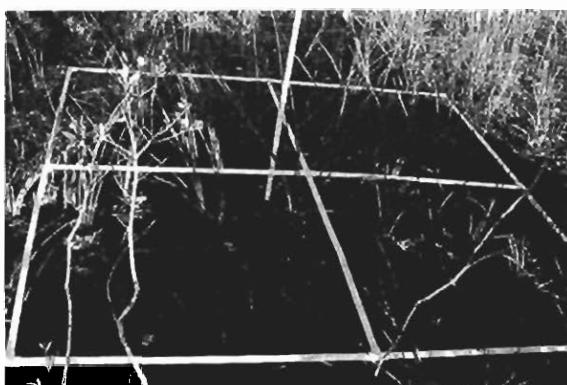
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-11**

**STATION**

**18+20**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	3%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	<i>N/A</i>	0%	0%
Open Water/Mud/Void	<i>N/A</i>	70%	67%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-12**

**STATION**

**20+02**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	5%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	5%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	55%	65%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	10%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	90%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture

\_\_\_\_\_

Aquatic Macrofauna

\_\_\_\_\_

Wildlife Indicators (tracks, scat, nests)

\_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-13**

**STATION**

**21+84**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	10%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	80%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsucou Monitoring Project - Data Form**

**TRANSECT / POINT** DR-14

**STATION** 23+66

**SUBMERGED AQUATICS**

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	15%	10%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	5%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	50%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	85%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

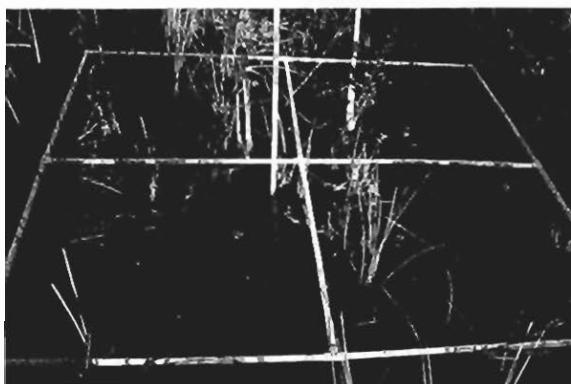
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT DR-15 STATION 25+48

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	5%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	10%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	5%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	90%	55%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	5%	5%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	75%	95%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

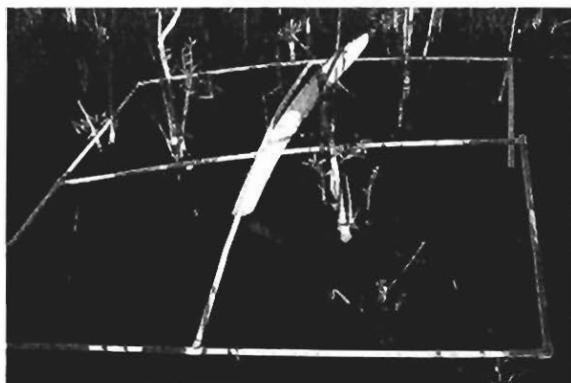
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-16**

**STATION**

**27+30**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	55%	55%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	30%
Dead Biomass	<i>N/A</i>	0%	0%
Open Water/Mud/Void	<i>N/A</i>	45%	15%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	<i>N/A</i>	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-17**

**STATION**

**29+12**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	20%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	15%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	70%	50%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsoco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-18

**STATION** 30+94

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	30%
Dead Biomass	N/A	10%	0%
Open Water/Mud/Void	N/A	60%	70%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-19

**STATION** 32+76

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	55%	30%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	45%	45%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

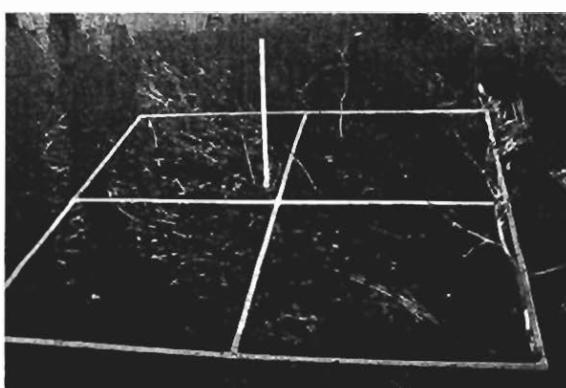
Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-20**

**STATION**

**34+58**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	80%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Dead Biomass	N/A	0%	20%
Open Water/Mud/Void	N/A	20%	80%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-21**

**STATION**

**36+40**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Manatee Mudflower	<i>Micranthemum glomeratum</i>	5%	0%
Open/Void	N/A	95%	100%
<b>TOTAL</b>		100%	100%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	5%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Duck Potato	<i>Sagittaria latifolia</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	60%	0%
Dead Biomass	N/A	0%	0%
Open Water/Mud/Void	N/A	40%	80%
<b>TOTAL</b>		100%	100%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	10%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Open/Void	N/A	100%	90%
<b>TOTAL</b>		100%	100%

**OVERSTORY**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void	N/A	100%	100%
<b>TOTAL</b>		100%	100%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-22**

**STATION**

**38+22**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	n/a
Bladderwort	<i>Utricularia foliosa</i>	0%	n/a
Bladderwort	<i>Utricularia purpurea</i>	0%	n/a
Ludwigia	<i>Ludwigia repens</i>	0%	n/a
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	n/a
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	n/a
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Southern Swamp Lily	<i>Crinum americanum</i>	20%	n/a
Pickerelweed	<i>Pontederia lanceolata</i>	0%	n/a
Yellowtops	<i>Flaveria linearis</i>	0%	n/a
Duck Potato	<i>Sagittaria latifolia</i>	0%	n/a
Arrowhead	<i>Sagittaria graminea</i>	0%	n/a
Floating-Heart	<i>Nymphoides aquatica</i>	0%	n/a
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	n/a
Cattail	<i>Typha latifolia</i>	0%	n/a
Button Bush	<i>Cephalanthus occidentalis</i>	0%	n/a
Maiden-Cane	<i>Panicum hemitomum</i>	0%	n/a
Shield Fern	<i>Thelypteris kunthii</i>	0%	n/a
Swamp Fern	<i>Blechnum serrulatum</i>	0%	n/a
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	n/a
Dead Biomass	N/A	0%	n/a
Open Water/Mud/Void	N/A	35%	n/a
<b>TOTAL</b>		100%	0%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	5%	n/a
Elm	<i>Trema micrantha</i>	0%	n/a
Open/Void	N/A	95%	n/a
<b>TOTAL</b>		100%	0%

**OVERSTORY**

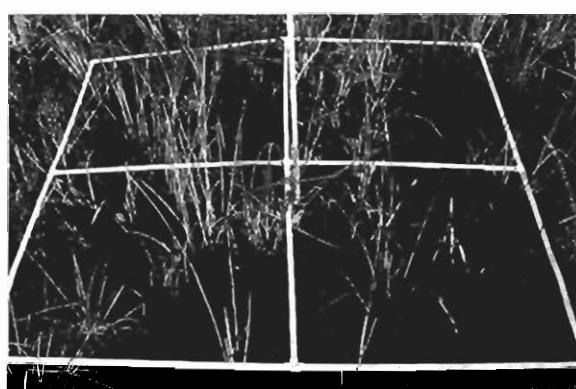
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Golden Fig	<i>Ficus Aurea</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT** DR-23

**STATION** 40+04

**SUBMERGED AQUATICS**

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	n/a
Bladderwort	<i>Utricularia foliosa</i>	0%	n/a
Bladderwort	<i>Utricularia purpurea</i>	0%	n/a
Ludwigia	<i>Ludwigia repens</i>	0%	n/a
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	n/a
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	n/a
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Southern Swamp Lily	<i>Crinum americanum</i>	0%	n/a
Pickerelweed	<i>Pontederia lanceolata</i>	0%	n/a
Yellowtops	<i>Flaveria linearis</i>	0%	n/a
Duck Potato	<i>Sagittaria latifolia</i>	0%	n/a
Arrowhead	<i>Sagittaria graminea</i>	0%	n/a
Floating-Heart	<i>Nymphoides aquatica</i>	0%	n/a
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	n/a
Cattail	<i>Typha latifolia</i>	0%	n/a
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	n/a
Maiden-Cane	<i>Panicum hemitomum</i>	0%	n/a
Shield Fern	<i>Thelypteris kunthii</i>	0%	n/a
Swamp Fern	<i>Blechnum serrulatum</i>	0%	n/a
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	n/a
Dead Biomass	N/A	0%	n/a
Open Water/Mud/Void	N/A	80%	n/a
<b>TOTAL</b>		100%	0%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	10%	n/a
Elm	<i>Trema micrantha</i>	0%	n/a
Open/Void	N/A	90%	n/a
<b>TOTAL</b>		100%	0%

**OVERSTORY**

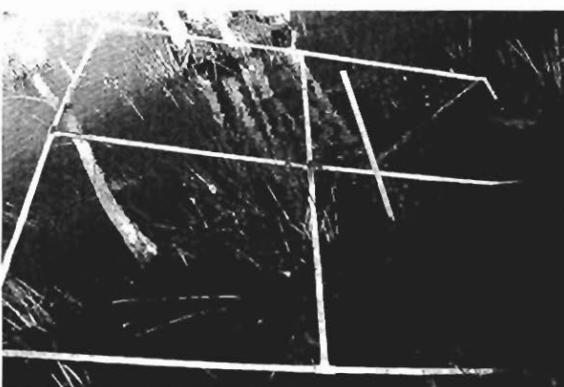
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Golden Fig	<i>Ficus Aurea</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

**TRANSECT / POINT**

**DR-24**

**STATION**

**41+86**

**SUBMERGED AQUATICS**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	n/a
Bladderwort	<i>Utricularia foliosa</i>	0%	n/a
Bladderwort	<i>Utricularia purpurea</i>	0%	n/a
Ludwigia	<i>Ludwigia repens</i>	0%	n/a
Manatee Mudflower	<i>Micranthemum glomeratum</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	5%	n/a
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	n/a
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Southern Swamp Lily	<i>Crinum americanum</i>	0%	n/a
Pickerelweed	<i>Pontederia lanceolata</i>	15%	n/a
Yellowtops	<i>Flaveria linearis</i>	0%	n/a
Duck Potato	<i>Sagittaria latifolia</i>	0%	n/a
Arrowhead	<i>Sagittaria graminea</i>	0%	n/a
Floating-Heart	<i>Nymphoides aquatica</i>	0%	n/a
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	n/a
Cattail	<i>Typha latifolia</i>	0%	n/a
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	n/a
Maiden-Cane	<i>Panicum hemitomum</i>	0%	n/a
Shield Fern	<i>Thelypteris kunthii</i>	0%	n/a
Swamp Fern	<i>Blechnum serrulatum</i>	0%	n/a
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	n/a
Dead Biomass	N/A	0%	n/a
Open Water/Mud/Void	N/A	80%	n/a
<b>TOTAL</b>		100%	0%

**SAPLING / VINE**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	10%	n/a
Elm	<i>Trema micrantha</i>	0%	n/a
Open/Void	N/A	70%	n/a
<b>TOTAL</b>		100%	0%

**OVERSTORY**

Common Name	Scientific Name	12/3/2005	6/5/2005
		% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Golden Fig	<i>Ficus Aurea</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



**Pennsuco Monitoring Project - Data Form**

TRANSECT / POINT DR-25

STATION \_\_\_\_\_

**SUBMERGED AQUATICS**

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	n/a
Bladderwort	<i>Utricularia foliosa</i>	0%	n/a
Bladderwort	<i>Utricularia purpurea</i>	0%	n/a
Ludwigia	<i>Ludwigia repens</i>	0%	n/a
Manatee Mudflower	<i>Micranthemum glomeratum</i>	10%	n/a
Open/Void	N/A	90%	n/a
<b>TOTAL</b>		100%	0%

**HERBACEOUS SPECIES**

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	n/a
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	n/a
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Southern Swamp Lily	<i>Crinum americanum</i>	15%	n/a
Pickerelweed	<i>Pontederia lanceolata</i>	0%	n/a
Yellowtops	<i>Flaveria linearis</i>	0%	n/a
Duck Potato	<i>Sagittaria latifolia</i>	0%	n/a
Arrowhead	<i>Sagittaria graminea</i>	0%	n/a
Floating-Heart	<i>Nymphoides aquatica</i>	0%	n/a
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	n/a
Cattail	<i>Typha latifolia</i>	0%	n/a
Button Bush	<i>Cephalanthus occidentalis</i>	0%	n/a
Maiden-Cane	<i>Panicum hemitomum</i>	0%	n/a
Shield Fern	<i>Thelypteris kunthii</i>	0%	n/a
Swamp Fern	<i>Blechnum serrulatum</i>	0%	n/a
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	n/a
Dead Biomass	N/A	0%	n/a
Open Water/Mud/Void	N/A	85%	n/a
<b>TOTAL</b>		100%	0%

**SAPLING / VINE**

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Elm	<i>Trema micrantha</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**OVERSTORY**

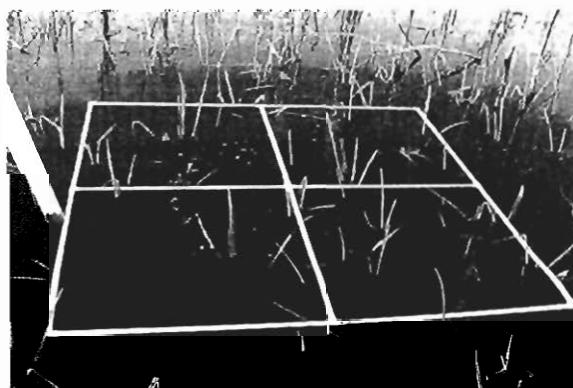
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	n/a
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	n/a
Golden Fig	<i>Ficus Aurea</i>	0%	n/a
Open/Void	N/A	100%	n/a
<b>TOTAL</b>		100%	0%

**NOTES:** \_\_\_\_\_

Water Level / Soil Moisture \_\_\_\_\_

Aquatic Macrofauna \_\_\_\_\_

Wildlife Indicators (tracks, scat, nests) \_\_\_\_\_



## **RAINFALL DATA 2005**

**Monthly Precipitation (May-November 2005)**  
**TAMiami Trail 40 MI BEND, FL**

