KCI TECHNOLOGIES

ENGINEERS • PLANNERS • SCIENTISTS • CONSTRUCTION MANAGERS

LANDMARK CENTER I, SUITE 200 · 4601 SIX FORKS ROAD · RALEIGH, NC 27609 · 919-783-9214 · (FAX) 919-783-9266

December 29, 2004

South Florida Water Management District
3301 Gun Club Road
West Palm Beach, Florida 33406

Attn: David Black

Subject: Pennsuco Monitoring
KCI Job Order #12043215

Dear Mr. Black:

KCI has completed the Fall 2004 monitoring draft report on the Pennsuco restoration project. We are forwarding two copies of the document for your review and approval. The next monitoring for the site is scheduled for May 2005.

Please feel free to contact me if you have any questions about the work or need additional information.

Sincerely,

Joseph J. Pfeiffer, Jr. PWS
Southeast Environmental Manager
Vice President

Cc: Darryl Kroeze, KCI

ENVIRONMENTAL MONITORING REPORT

PENNSUCO MITIGATION PROJECT

Miami-Dade County, Sections 6, 16, 30, 32
Townships 52-South, 53-South, Range 39-East

Project: C-13604

Monitoring Performed:
November 20, 2004

Submitted:
December 2004

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

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 ¾-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 then 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 was 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
November 20, 2004

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 November 20, 2004 monitoring

Throughout the transect dead punk tree saplings and trees were observed. Between points A1 and A12 many punk tree (*Melaleuca quinquenervia*) saplings were manually removed, indicating recent control efforts. After point A12, there were numerous punk tree saplings throughout the transect.

The entire transect was observed to have standing water. 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, 100 percent open/void.
- In the herbaceous species layer, 22 percent live saw-grass, 14 percent dead saw-grass, 2 percent live punk tree (*Melaleuca quinquenervia*), 2 percent dead punk tree, 1 percent Southern Swamp Lily *(Crinum americanum),* 6 percent Capillary Hairsedge *(Bulbostylis ciliataefolia),* and 3 percent Tracy's Beak Rush (*Rhynchospora tracyi*).
- In the sapling/vine layer, 100 percent open/void.
- In the overstory layer, 100 percent open/void.

TRANSECT "A" Total Length 5280'

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0.0%
Bladderwort	*Utricularia foliosa*	0.0%
Bladderwort	*Utricularia purpurea*	0.0%
Ludwigia	*Ludwigia repens*	0.0%
Open/Void	*N/A*	100.0%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	22.3%
Saw Grass (Dead)	*Cladium jamaicense*	14.2%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1.8%
Punk Tree (Dead)	*Melaleuca quinquenervia*	2.2%
Bushy Bluestem	*Andropogon glomeratus*	0.7%
Southern Swamp Lily	*Crinum americanum*	1.3%
Pickerelweed	*Pontederia lanceolata*	0.0%
Yellowtops	*Flaveria linearis*	0.0%
Arrowhead	*Sagittaria graminea*	0.2%
Floating-Heart	*Nymphoides aquatica*	0.4%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	6.3%
Tracy's Beak Rush	*Rhynchospora tracyi*	2.5%
Button Bush	*Cephalanthus occidentalis*	0.0%
Maiden-Cane	*Panicum hemitomum*	0.0%
Shield Fern	*Thelypteris kunthii*	0.0%
Swamp Fern	*Blechnum serrulatum*	1.3%
Elm	*Trema micrantha*	0.0%
Dead Biomass	*N/A*	6.9%
Open Water/Mud/Void	*N/A*	40.0%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0.0%
Golden Fig	*Ficus Aurea*	0.0%
Open/Void	*N/A*	100.0%
	TOTAL	100%

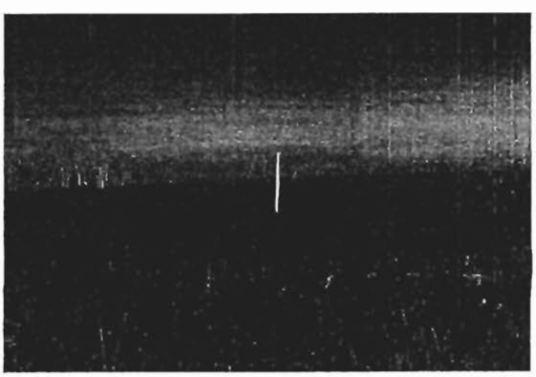
NOTES: manual Melaleuca treatment before point A-12 (many pulled up saplings), after point A-12 large numbers of Melaleuca saplings, but few in plots

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

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacoda caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture: Soil is moist, but not saturated

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE

Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-2 **STATION** 1+82

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacoda caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

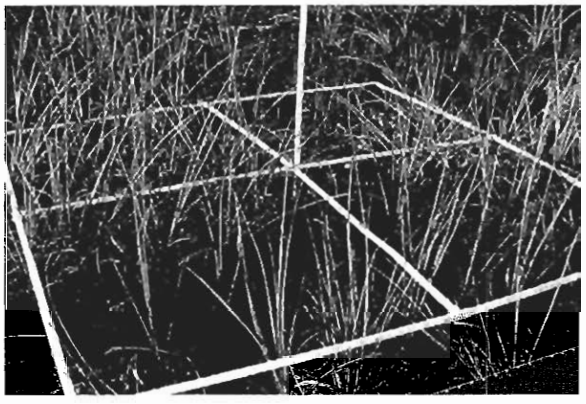
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacoda caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

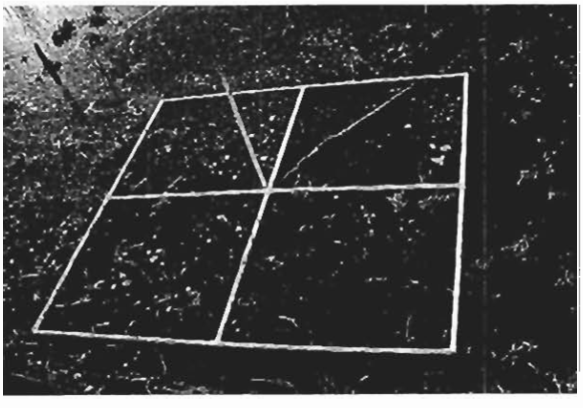
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacoda caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	1%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	5%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	9%
Open Water/Mud/Void	*N/A*	85%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

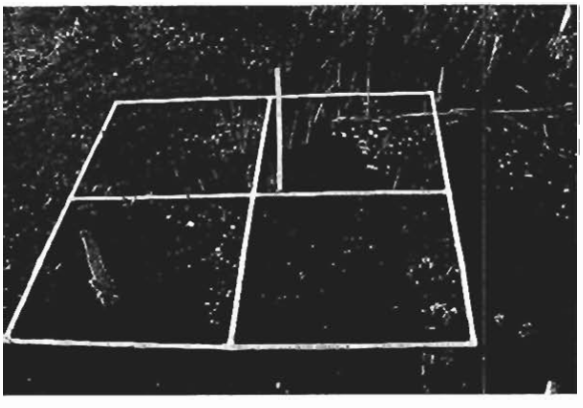
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacoda caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

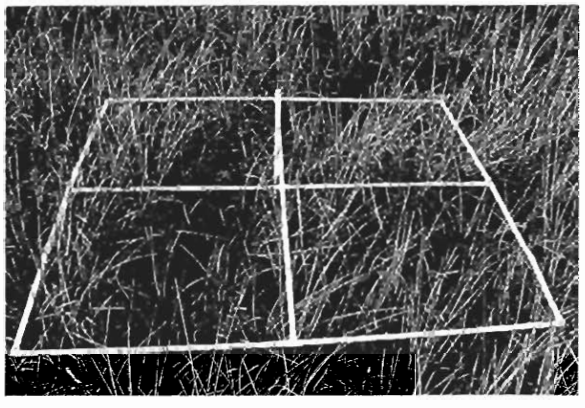
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

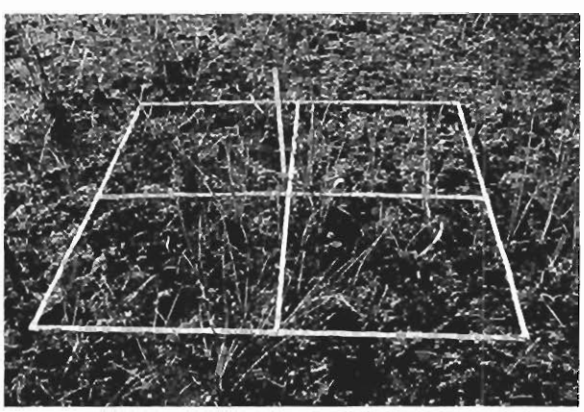
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	25%
Saw Grass (Dead)	*Cladium jamaicense*	15%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	10%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	5%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	45%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

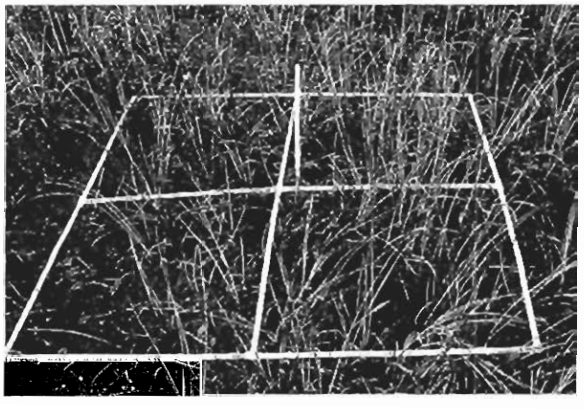
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 4" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-8 STATION 12+74

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

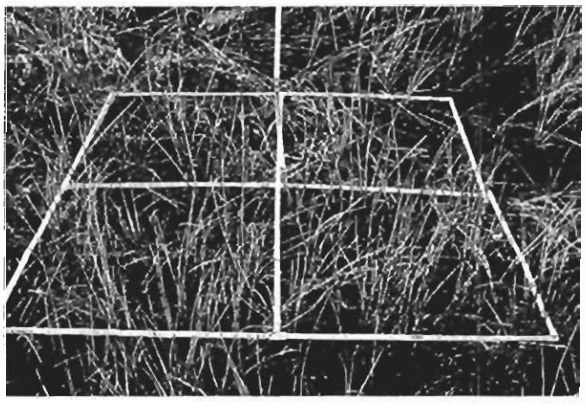
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	30%
Saw Grass (Dead)	*Cladium jamaicense*	20%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	3%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	47%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

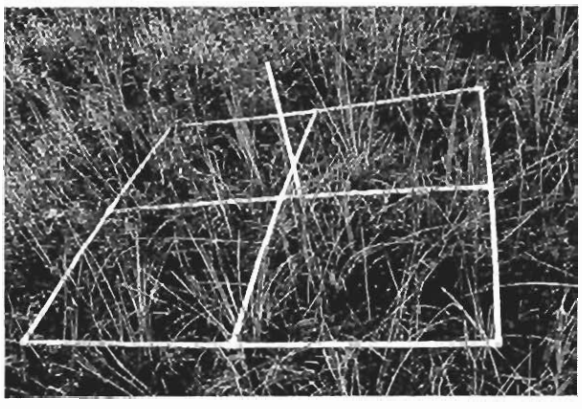
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	40%
Saw Grass (Dead)	*Cladium jamaicense*	20%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	1%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	3%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	10%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	26%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

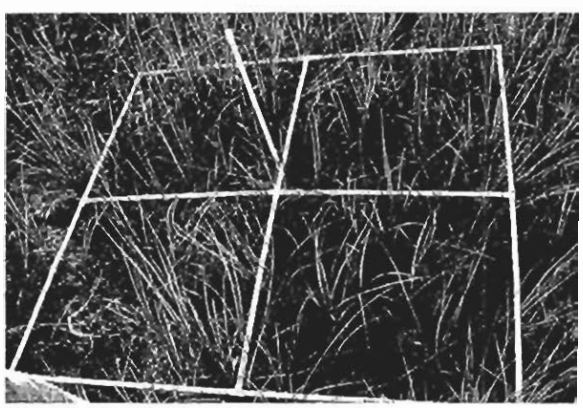
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

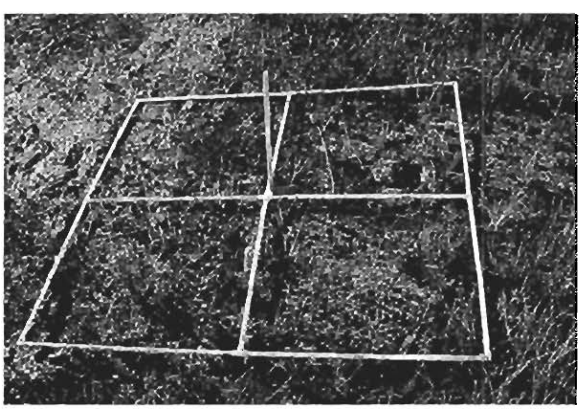
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

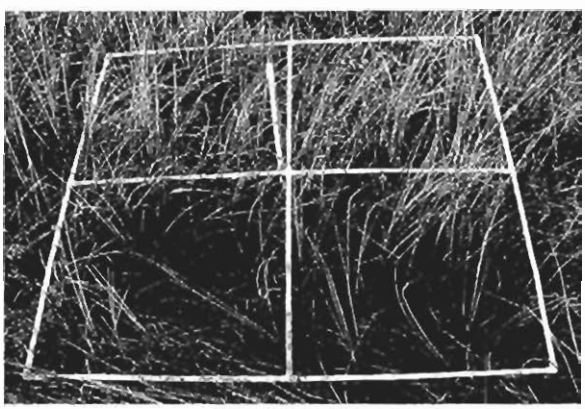
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

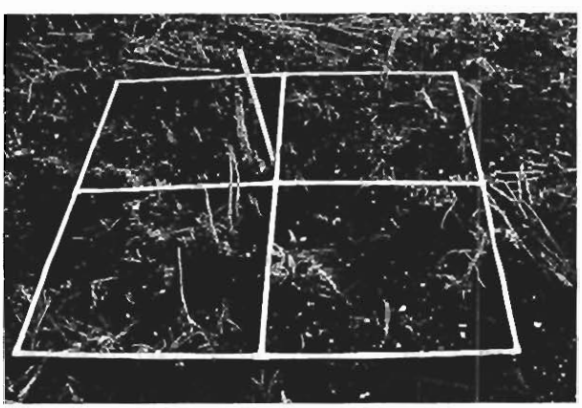
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	55%
Saw Grass (Dead)	*Cladium jamaicense*	30%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	14%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

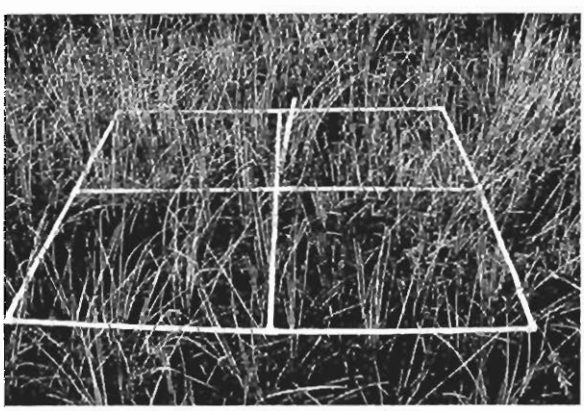
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 3" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-15 **STATION** 25+48

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

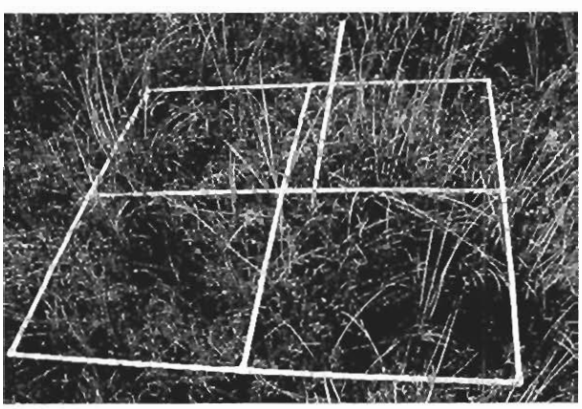
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	15%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	45%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	35%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

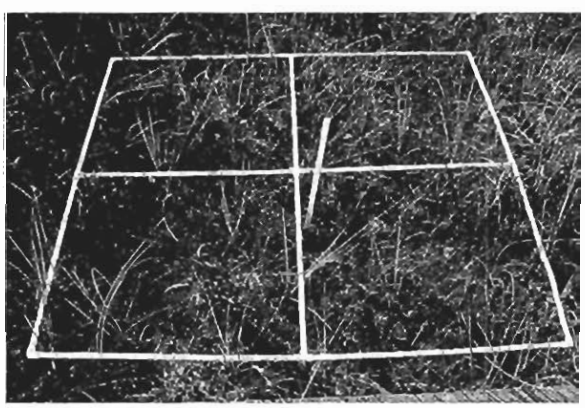
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	25%
Saw Grass (Dead)	*Cladium jamaicense*	15%
Punk Tree (Alive)	*Melaleuca quinquenervia*	5%
Punk Tree (Dead)	*Melaleuca quinquenervia*	1%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	10%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	44%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

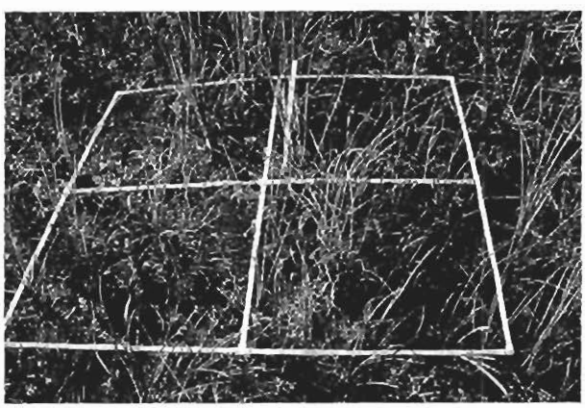
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES: 2 *Melaleuca* saplings alive, 1 dead

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

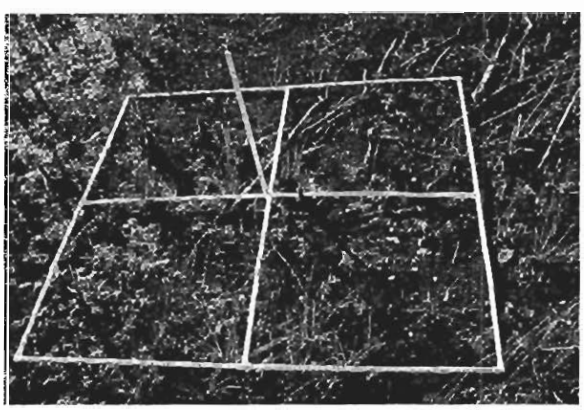
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

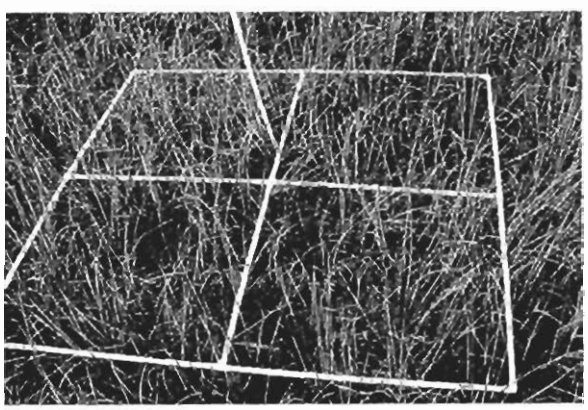
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	50%
Saw Grass (Dead)	*Cladium jamaicense*	25%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	24%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

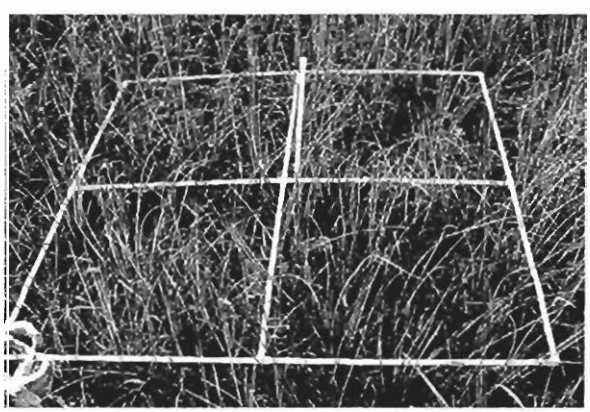
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES: 1 *Melaleuca* sapling alive

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 11/19/2004

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	25%
Saw Grass (Dead)	*Cladium jamaicense*	15%
Punk Tree (Alive)	*Melaleuca quinquenervia*	3%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	57%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

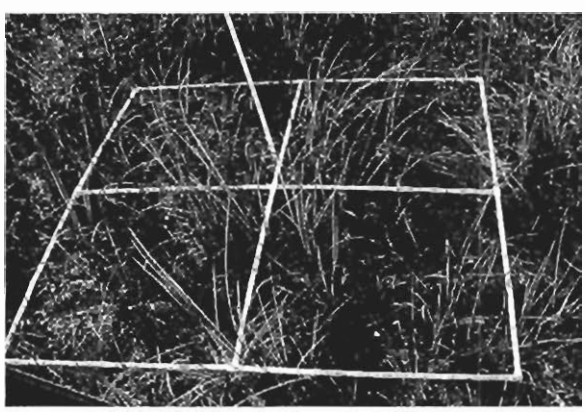
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 4" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-22 **STATION** 38+22

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	2%
Punk Tree (Dead)	*Melaleuca quinquenervia*	5%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	35%
Open Water/Mud/Void	*N/A*	48%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

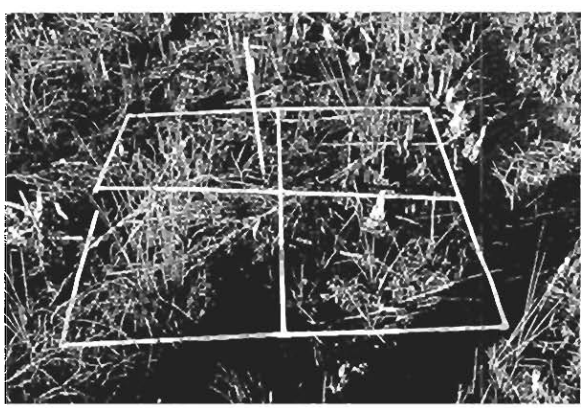
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	5%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	5%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	3%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	10%
Open Water/Mud/Void	*N/A*	77%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	5%
Punk Tree (Dead)	*Melaleuca quinquenervia*	3%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	15%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	10%
Open Water/Mud/Void	*N/A*	67%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

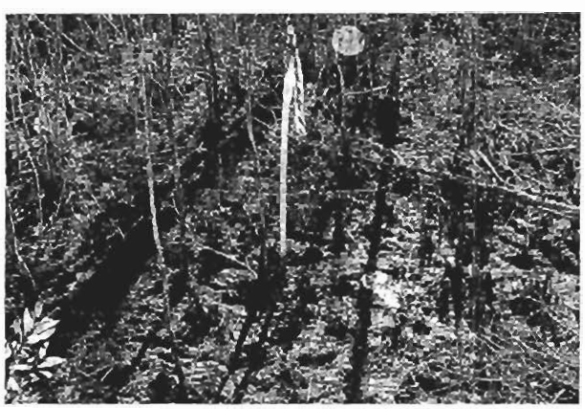
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 11/19/2004

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	2%
Punk Tree (Dead)	*Melaleuca quinquenervia*	5%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	20%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	15%
Open Water/Mud/Void	*N/A*	58%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

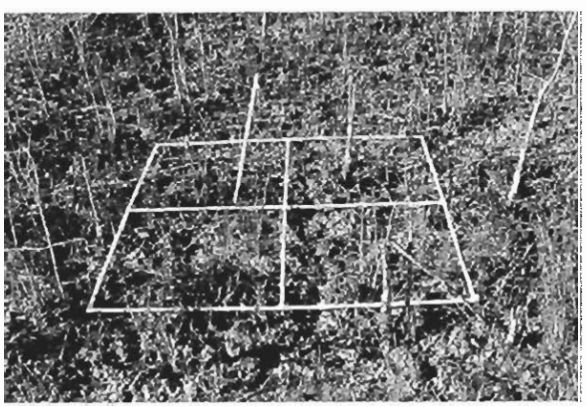
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

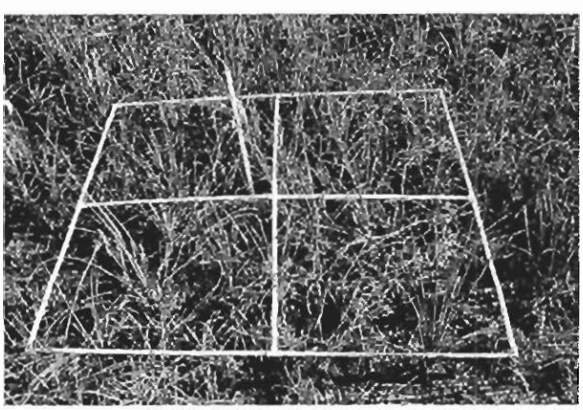
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-29 **STATION** 50+96

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	8%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	72%
Open Water/Mud/Void	*N/A*	10%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

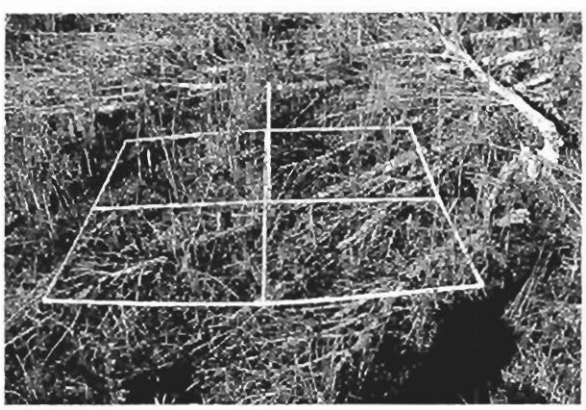
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Water-Hyssops	*Bacopa caroliniana*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw-grass (Alive)	*Cladium jamaicense*	45%
Saw-grass (Dead)	*Cladium jamaicense*	15%
Punk Tree (Alive)	*Melaleuca quinquenervia*	3%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Bushy Bluestem	*Andropogon glomeratus*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweeds	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Dead Biomass	*N/A*	0%
Open Water/Mud/Void	*N/A*	37%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

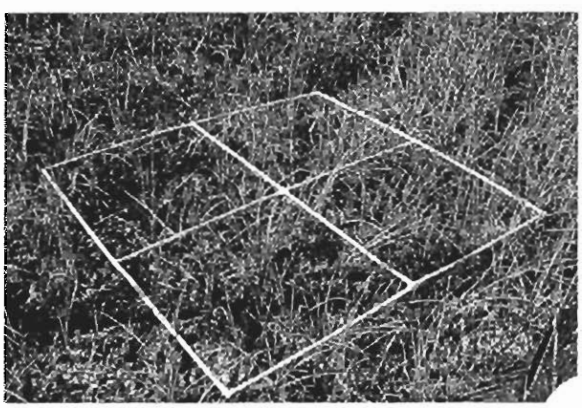
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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, affecting many of the plots percent coverage.

Observations from November 20, 2004 monitoring

Photo point B6, though dominated by dead and alive saw-grass (*Cladium jamaicense*), also contained 5 percent punk tree (*Melaleuca quinquenervia*) seedlings within the herbaceous species.

The entire transect was observed to have standing water. At the four data collection locations (B7, B14, B21, and B28) the water was six to ten inches in depth. No macrofauna or indicators of wildlife were noted.

Most of the punk tree vegetative communities were dead, as shown in photos B8 and B9, due to enhancement efforts, which called for eradication of exotic and invasive species.

An uncontrolled fire burned through this transect damaging many of the PVC pipes marking the plots, including the end points.

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, 25 percent dead saw-grass, 5 percent dead punk tree, and 5 percent Tracy's Beak Rush (*Rhynchospora tracyi*).
- In the sapling/vine layer, 100 percent open/void.
- In the overstory layer, 100 percent open/void.

TRANSECT "B" **Total Length** 5280'

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0.0%
Bladderwort	*Utricularia foliosa*	0.0%
Bladderwort	*Utricularia purpurea*	0.0%
Ludwigia	*Ludwigia repens*	0.0%
Open/Void	*N/A*	100.0%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	21.3%
Saw Grass (Dead)	*Cladium jamaicense*	6.2%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.2%
Punk Tree (Dead)	*Melaleuca quinquenervia*	1.7%
Southern Swamp Lily	*Crinum americanum*	2.0%
Pickerelweed	*Pontederia lanceolata*	0.0%
Yellowtops	*Flaveria linearis*	0.0%
Arrowhead	*Sagittaria graminea*	2.0%
Floating-Heart	*Nymphoides aquatica*	0.2%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0.0%
Cattail	*Typha latifolia*	0.0%
Button Bush	*Cephalanthus occidentalis*	0.0%
Maiden-Cane	*Panicum hemitomum*	2.2%
Tracy's Beak Rush	*Rhynchospora tracyi*	3.5%
Swamp Fern	*Blechnum serrulatum*	0.0%
Elm	*Trema micrantha*	0.0%
Ceaser Weed	*Urena lobata*	0.0%
Open Water/Mud/Void	*N/A*	60.9%
	TOTAL	100%

25

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0.0%
Golden Fig	*Ficus Aurea*	0.0%
Open/Void	*N/A*	100.0%
	TOTAL	100%

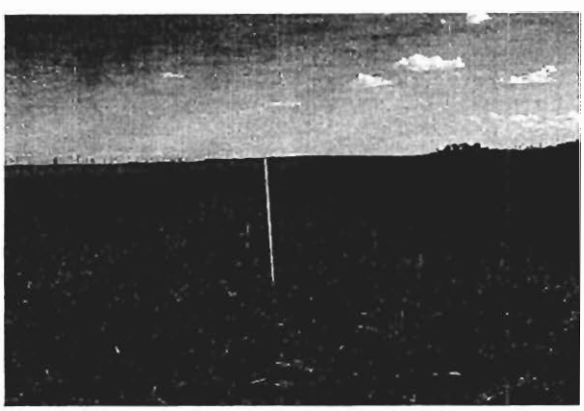
NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

0+00 Panoramic - Looking East



52+78 Panoramic - Looking West

TRANSECT / POINT B-1 **STATION** 0+00

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	35%
Saw Grass (Dead)	*Cladium jamaicense*	15%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Mallow	*Malvaceae spp.*	0%
Open Water/Mud/Void	*N/A*	50%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

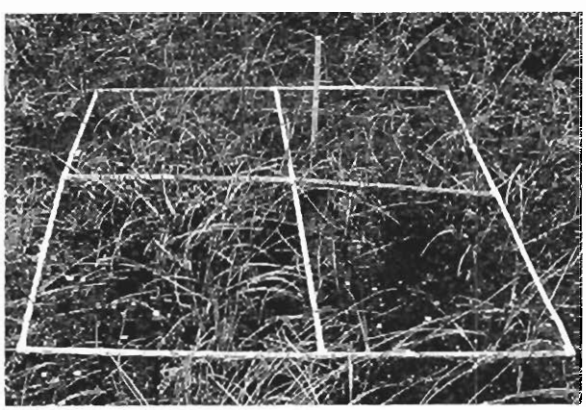
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES: _____

Water Level / Soil Moisture _____

Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____



Peninsula Monitoring Project - Data Form

TRANSECT / POINT B-2 STATION 1+82

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

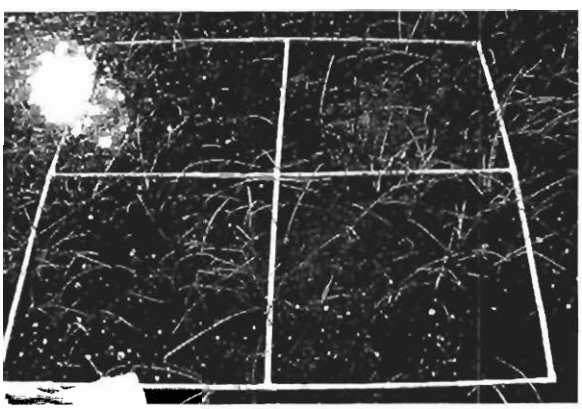
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT B-3 STATION 3+64

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

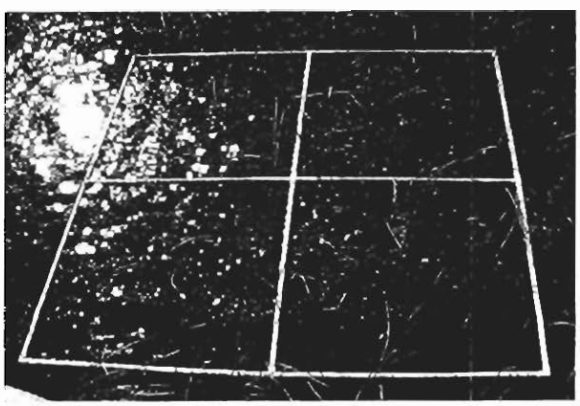
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT B-4 **STATION** 5+46

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

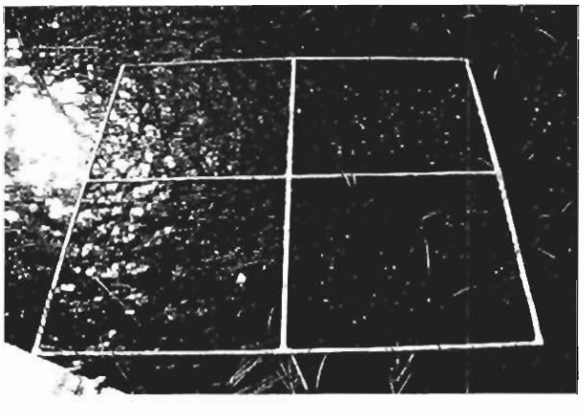
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

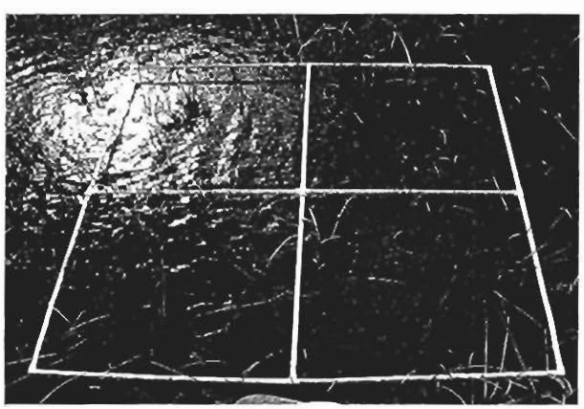
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

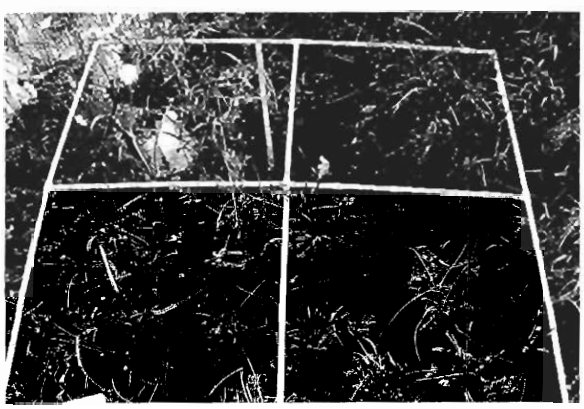
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture: 10" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE

Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-8 **STATION** 12+74

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-9 **STATION** 14+56

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	15%
Tracy's Beak Rush	*Rhynchospora tracyi*	30%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Mallow	*Malvaceae spp.*	0%
Open Water/Mud/Void	*N/A*	40%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

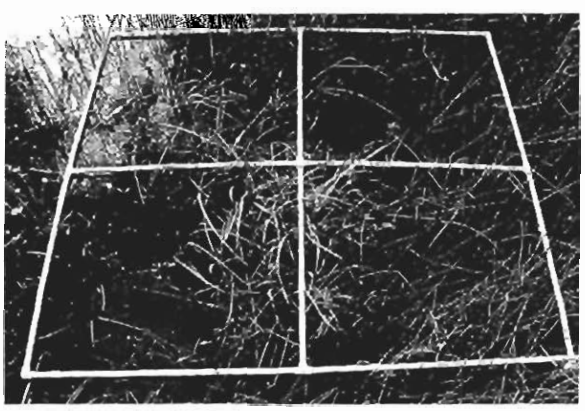
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-11 **STATION** 18+20

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

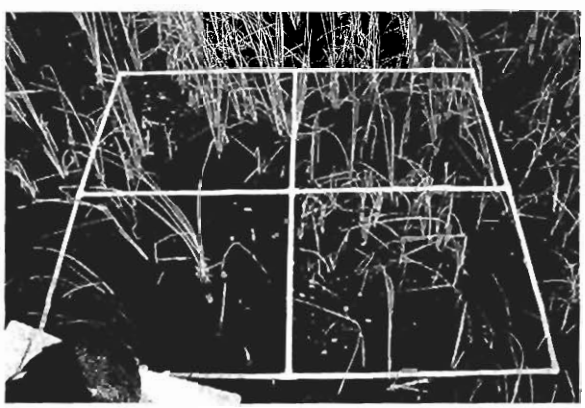
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-12 **STATION** 20+02

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

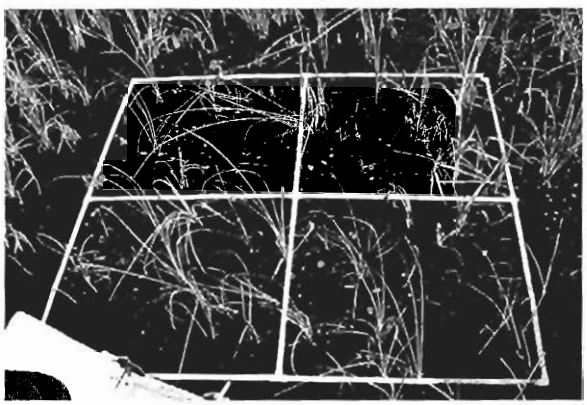
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES: 2 *Melaleuca* saplings alive

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

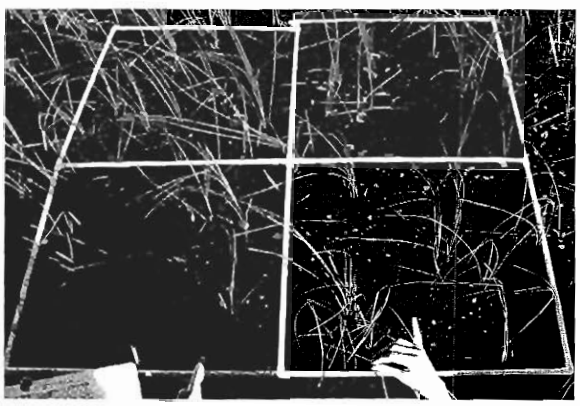
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	25%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	15%
Southern Swamp Lily	*Crinum americanum*	15%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Mallow	*Malvaceae spp.*	0%
Open Water/Mud/Void	*N/A*	45%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture: 6" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE

Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-15 **STATION** 25+48

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	3%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	20%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Mallow	*Malvaceae spp.*	0%
Open Water/Mud/Void	*N/A*	72%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

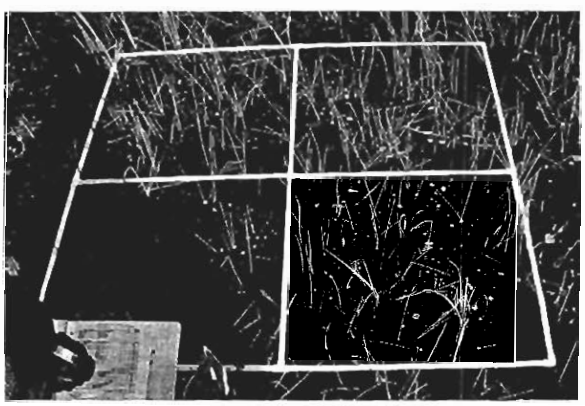
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-16 **STATION** 27+30

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

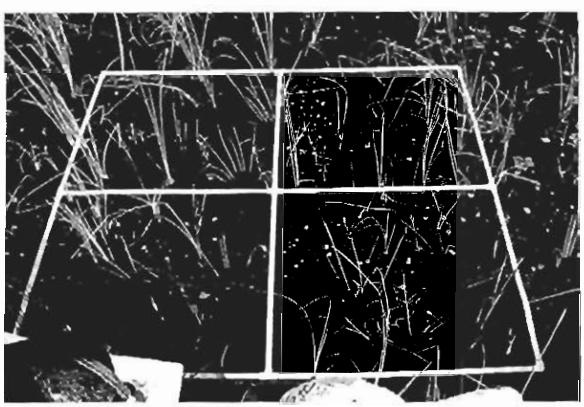
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

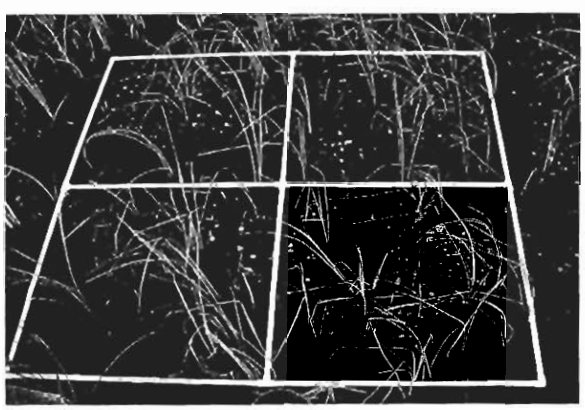
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

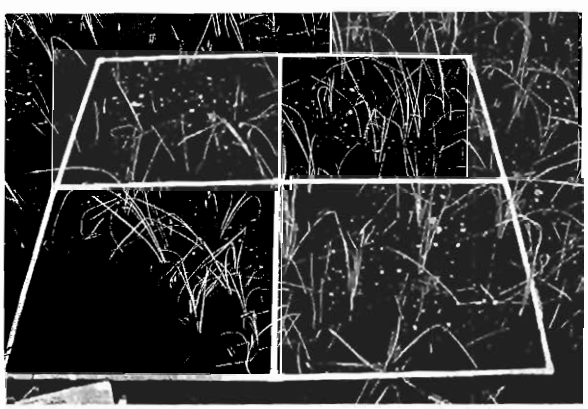
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

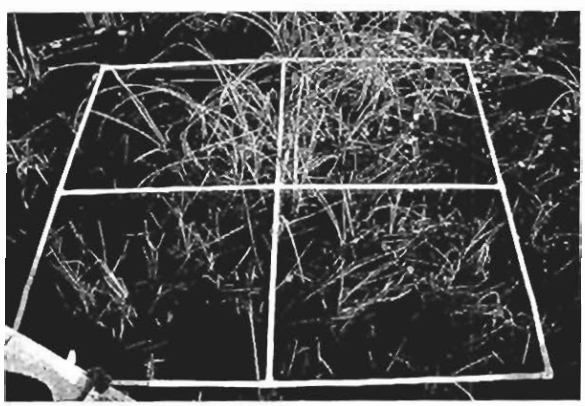
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

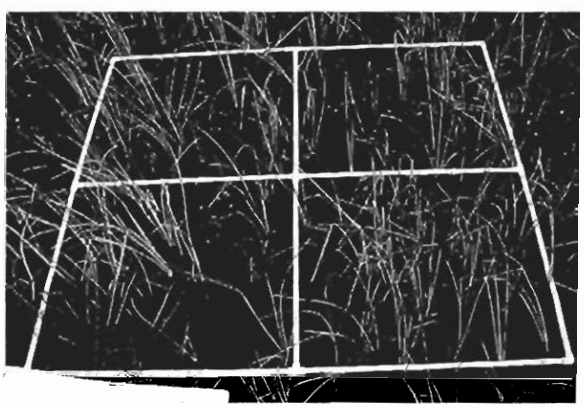
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

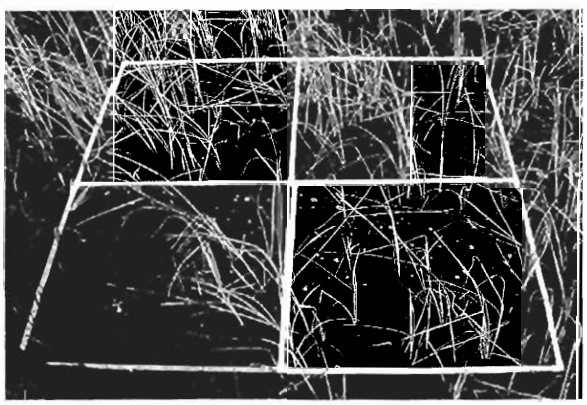
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 10" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-22 **STATION** 38+22

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

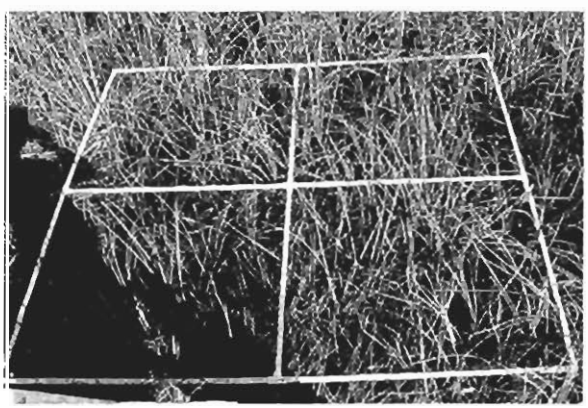
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-23 **STATION** 40+04

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

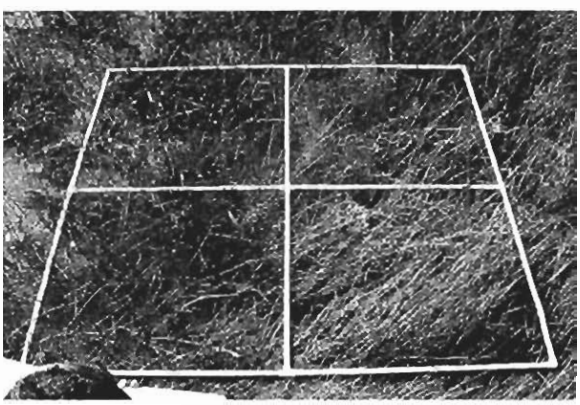
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-25 **STATION** 43+68

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	20%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	15%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Mallow	*Malvaceae spp.*	0%
Open Water/Mud/Void	*N/A*	60%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

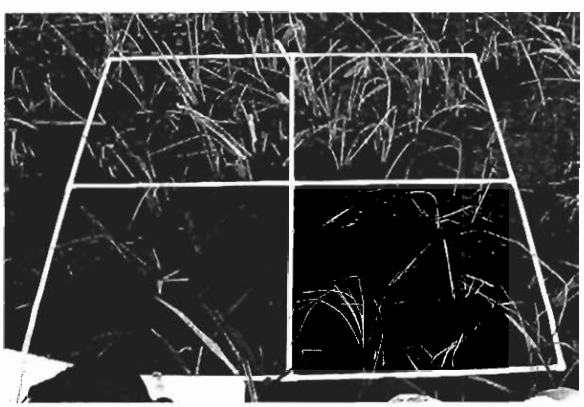
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

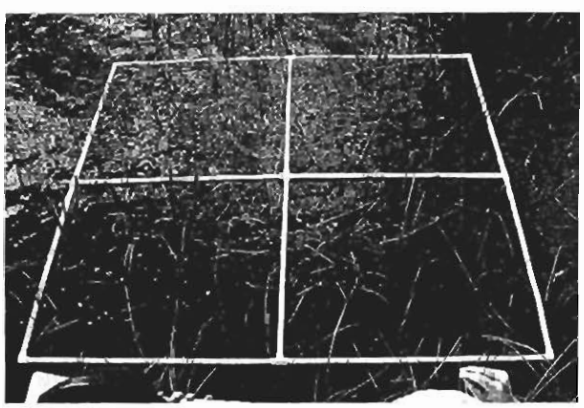
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	25%
Saw Grass (Dead)	*Cladium jamaicense*	30%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	1%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	15%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Mallow	*Malvaceae spp.*	0%
Open Water/Mud/Void	*N/A*	29%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

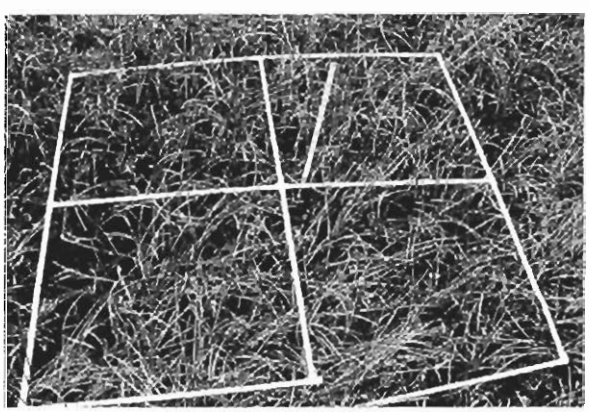
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

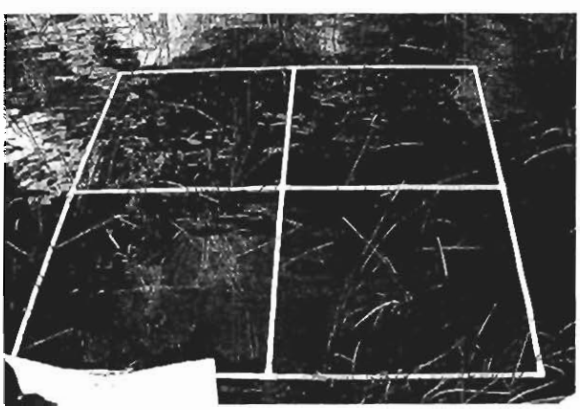
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 8" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): frogs



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-29 **STATION** 50+96

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

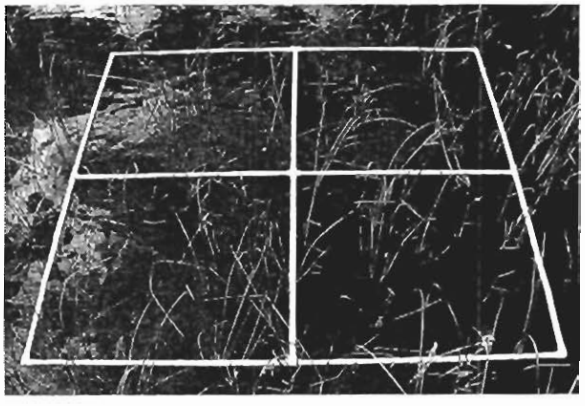
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

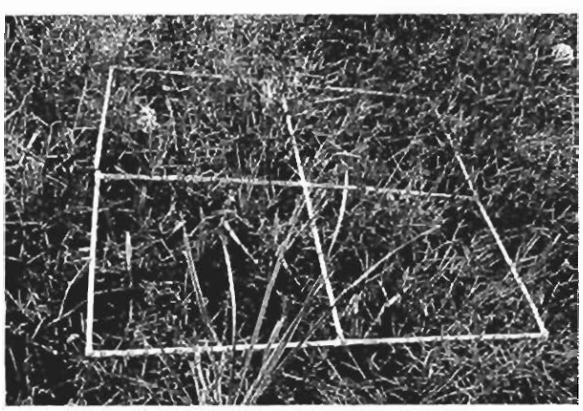
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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*) 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, affecting many of the plots percent coverage. The area along this transect has rebounded with a saw-grass dominated plant community.

Observations from November 20, 2004 monitoring

The vegetative community consisted primarily of saw-grass, with 16% coverage. The majority of the transect resulted in 73% open-void due to the fire burning the vegetation.

The entire transect was observed to have standing water. At the four data collection locations (C7, C14, C21, and C30) the water was five to eight inches in depth. Small fish were observed swimming at point C7.

An uncontrolled fire burned through this transect damaging many of the PVC pipes marking the plots, including the end points.

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

- In the submerged aquatics layer, 5 percent Mermaid Weed (*Proserpinaca palustris*).
- In the herbaceous species layer, 16 percent live saw-grass (*Cladium jamaicense*), 2 percent dead saw-grass (*Cladium jamaicense*), 2 percent swamp fern (*Blechnum serrulatum)*, and 73.1 percent open/void.
- In the sapling/vine layer, 100 percent open/void.
- In the overstory layer, 99.5 percent open/void.

Pennsuco Monitoring Project - Summary Sheet

TRANSECT "C" Total Length 5280'

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	5.2%
Bladderwort	*Utricularia foliosa*	0.0%
Bladderwort	*Utricularia purpurea*	0.0%
Ludwigia	*Ludwigia repens*	0.4%
Open/Void	*N/A*	94.4%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	16.3%
Saw Grass (Dead)	*Cladium jamaicense*	2.0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0.0%
Southern Swamp Lily	*Crinum americanum*	0.7%
Pickerelweed	*Pontederia lanceolata*	0.1%
Yellowtops	*Flaveria linearis*	0.0%
Arrowhead	*Sagittaria graminea*	0.0%
Floating-Heart	*Nymphoides aquatica*	0.5%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0.5%
Cattail (Alive)	*Typha latifolia*	0.2%
Cattail (Dead)	*Typha latifolia*	0.0%
Button Bush	*Cephalanthus occidentalis*	0.0%
Maiden-Cane	*Panicum hemitomum*	0.0%
Shield Fern	*Thelypteris kunthii*	1.0%
Swamp Fern	*Blechnum serrulatum*	2.3%
Elm	*Trema micrantha*	0.0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0.1%
Open Water/Mud/Void	*N/A*	76.2%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0.0%
Golden Fig	*Ficus Aurea*	0.0%
Elm	*Trema micrantha*	0.5%
Open/Void	*N/A*	99.5%
	TOTAL	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 C-1 STATION 0+00

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	15%
Open/Void	*N/A*	85%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

TRANSECT / POINT C-2 STATION 1+82

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	50%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	50%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	80%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	10%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	1%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	0%
	TOTAL	92%

SAPLING / VINE

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

OVERSTORY

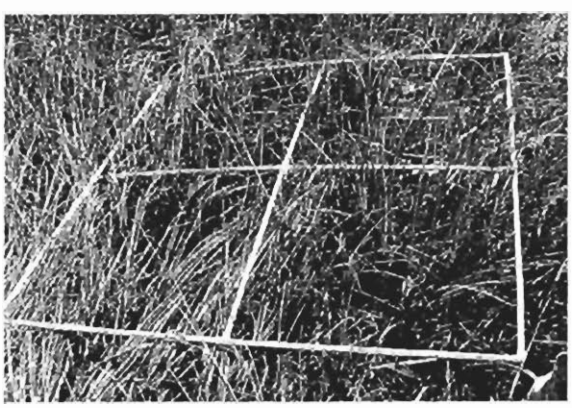
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	45%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	1%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	54%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

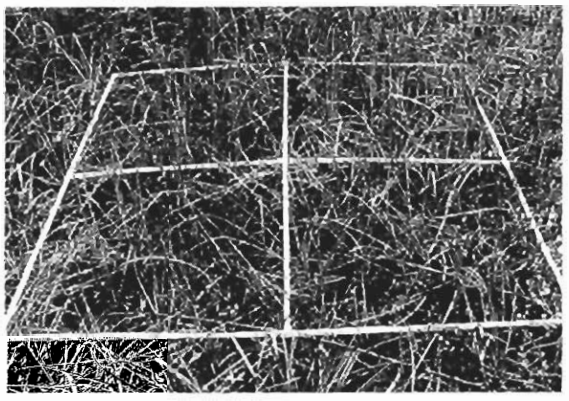
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

TRANSECT / POINT C-5 **STATION** 7+28

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

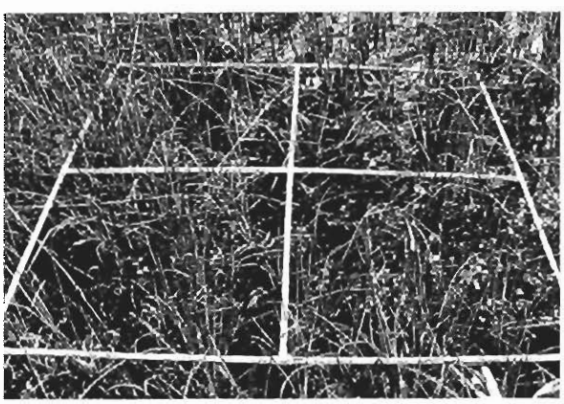
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

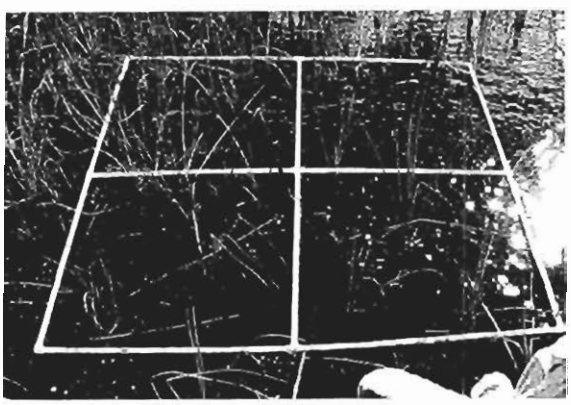
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-7 **STATION** 10+92

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	40%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	10%
Open/Void	*N/A*	50%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

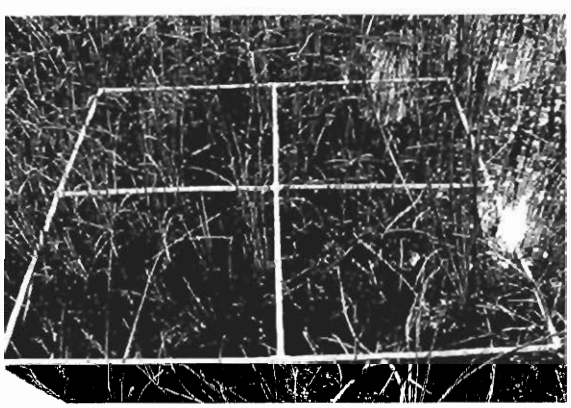
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 5" standing water

Aquatic Macrofauna: small fish

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-8 STATION 12+74

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

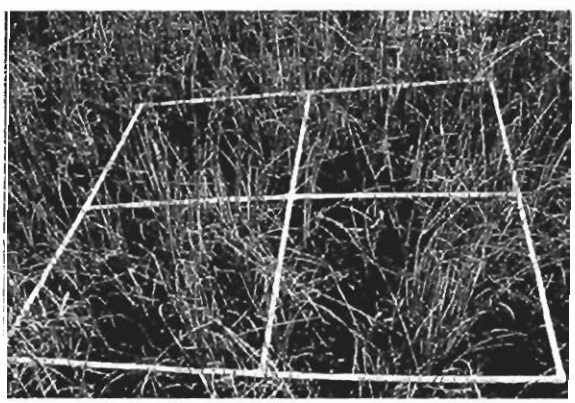
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-9 STATION 14+56

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

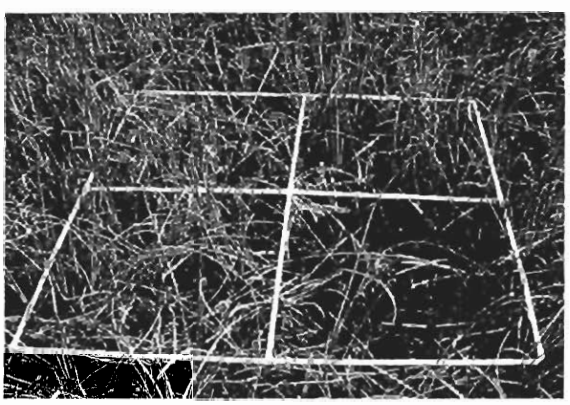
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	8%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	2%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	90%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

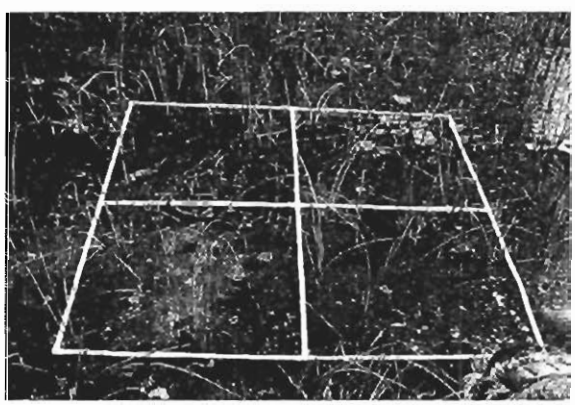
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

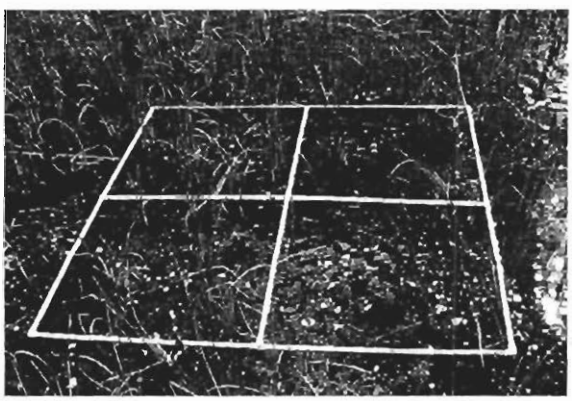
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-12 **STATION** 20+02

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

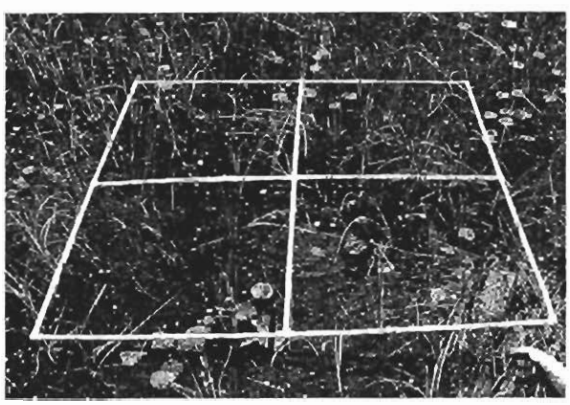
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage	
Mermaid Weed	*Proserpinaca palustris*	0%	
Bladderwort	*Utricularia foliosa*	0%	
Bladderwort	*Utricularia purpurea*	0%	
Ludwigia	*Ludwigia repens*	0%	
Open/Void	*N/A*	100%	
	TOTAL	100%	

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	
Saw Grass (Alive)	*Cladium jamaicense*	2%	
Saw Grass (Dead)	*Cladium jamaicense*	0%	
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%	
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%	
Southern Swamp Lily	*Crinum americanum*	0%	
Pickerelweed	*Pontederia lanceolata*	0%	
Yellowtops	*Flaveria linearis*	0%	
Arrowhead	*Sagittaria graminea*	0%	
Floating-Heart	*Nymphoides aquatica*	0%	
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%	
Cattail (Alive)	*Typha latifolia*	0%	
Cattail (Dead)	*Typha latifolia*	0%	
Button Bush	*Cephalanthus occidentalis*	0%	
Maiden-Cane	*Panicum hemitomum*	0%	
Shield Fern	*Thelypteris kunthii*	0%	
Swamp Fern	*Blechnum serrulatum*	0%	
Elm	*Trema micrantha*	0%	
Tracy's Beak Rush	*Rhynchospora tracyi*	0%	
Open Water/Mud/Void	*N/A*	98%	
	TOTAL	100%	

SAPLING / VINE

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

OVERSTORY

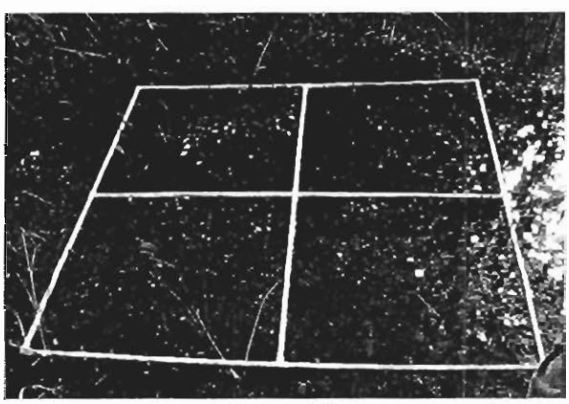
Common Name	Scientific Name	% Coverage	
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%	
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%	
Golden Fig	*Ficus Aurea*	0%	
Elm	*Trema micrantha*	0%	
Open/Void	*N/A*	100%	
	TOTAL	100%	

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	95%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

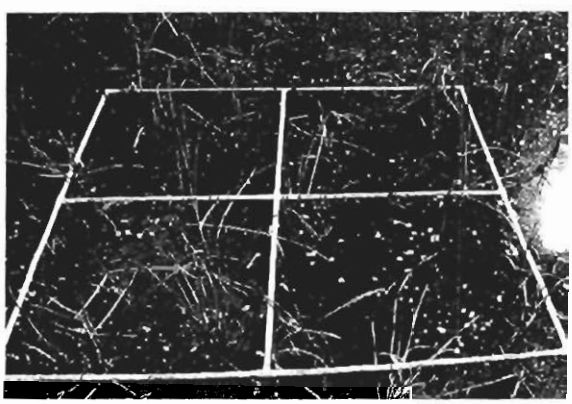
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 6" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



TRANSECT / POINT C-15 STATION 25+48

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	95%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

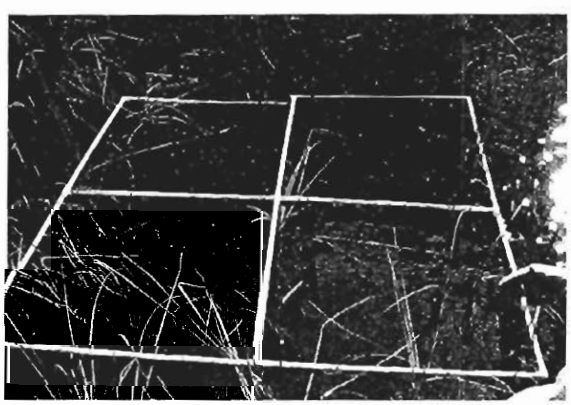
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-16 STATION 27+30

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	7%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	93%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

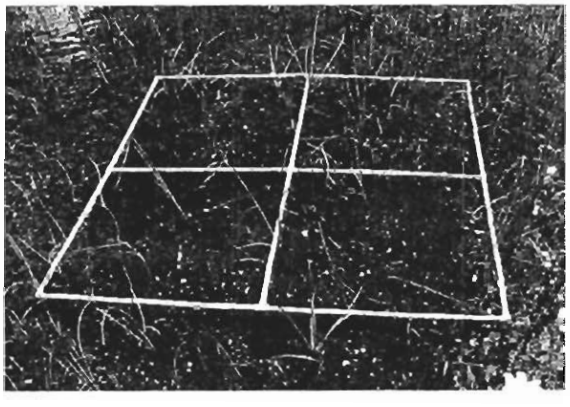
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-17 **STATION** 29+12

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

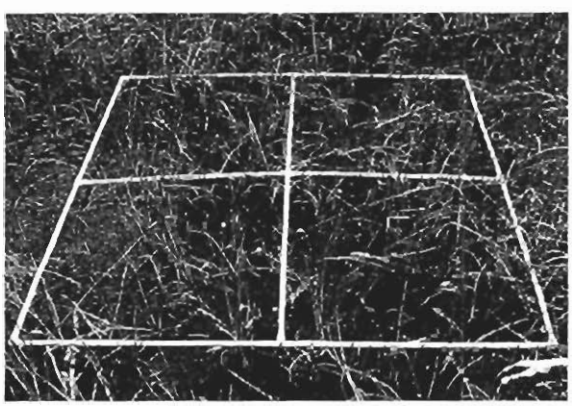
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



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TRANSECT / POINT C-18 STATION 30+94

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	10%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	90%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	4%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	96%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

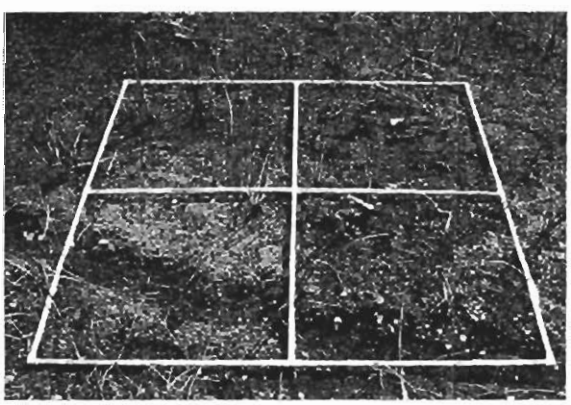
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-19 STATION 32+76

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	15%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	85%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

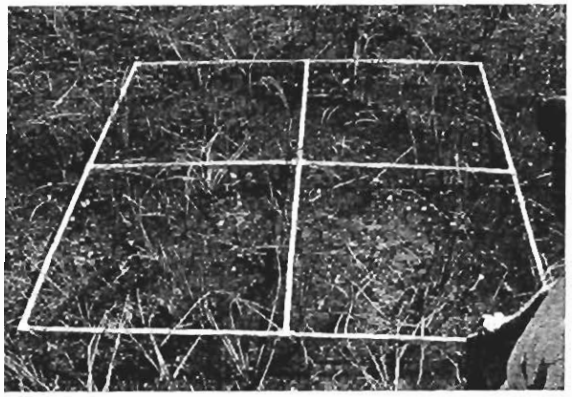
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-20 **STATION** 34+58

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	15%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	85%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	15%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	1%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	74%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

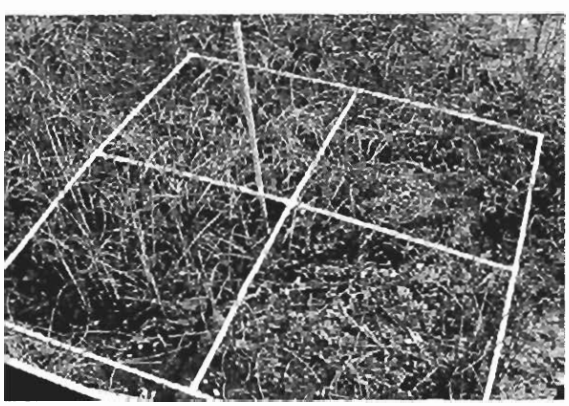
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	2%
Open/Void	*N/A*	98%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	3%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	97%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

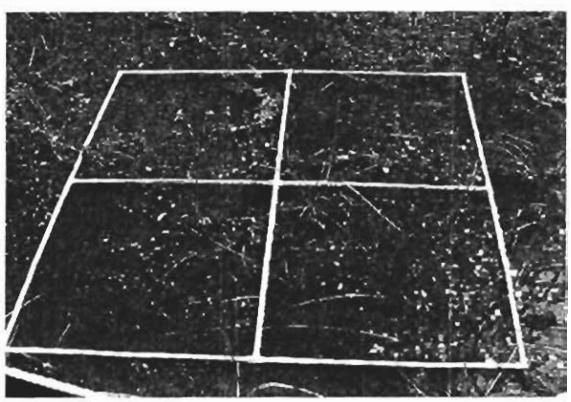
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 7" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



TRANSECT / POINT C-22 STATION 38+22

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	2%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	93%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

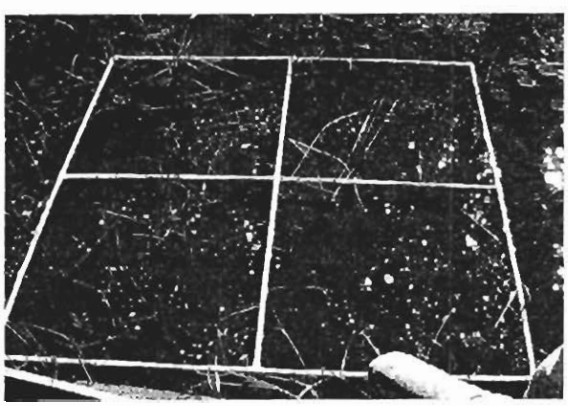
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-23 **STATION** 40+04

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	10%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	90%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	15%
Saw Grass (Dead)	*Cladium jamaicense*	10%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	2%
Open Water/Mud/Void	*N/A*	73%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

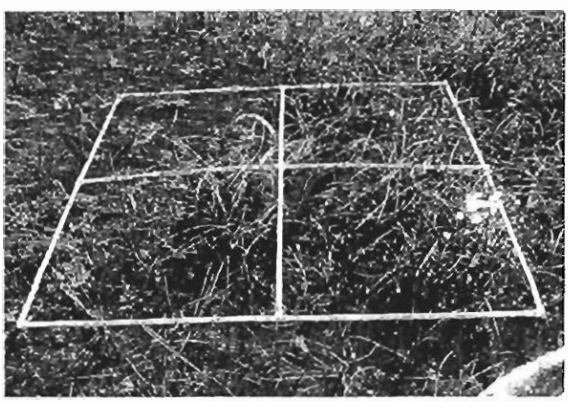
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-24 **STATION** 41+86

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	5%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	95%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	10%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	1%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	1%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	5%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	78%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

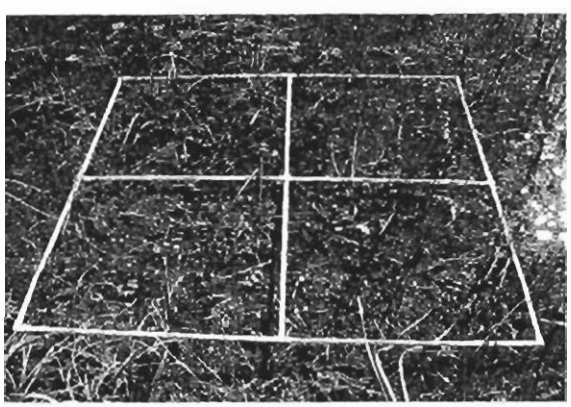
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	2%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	93%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	10%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	90%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	1%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	84%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

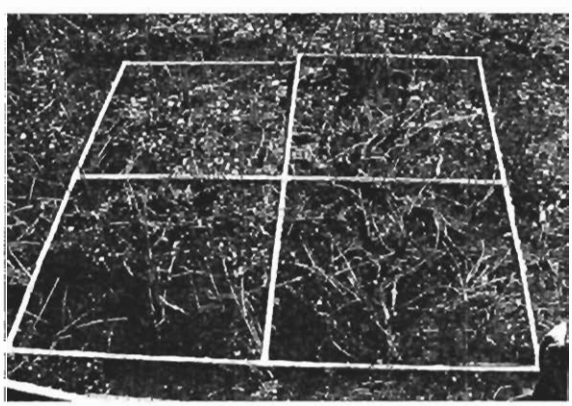
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



TRANSECT / POINT C-27 STATION 47+32

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	20%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	1%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	79%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

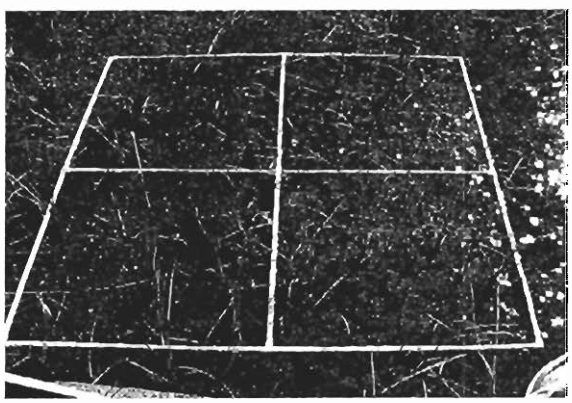
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	2%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	88%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

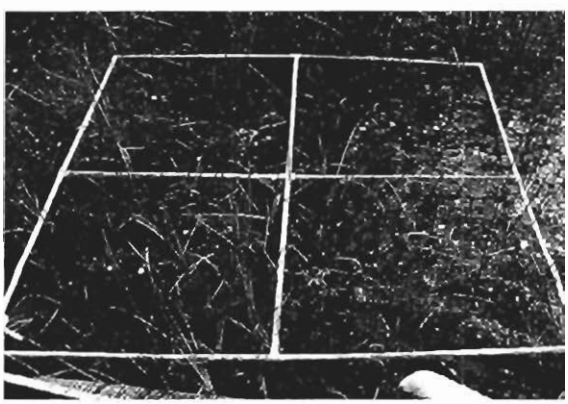
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-29 STATION 50+96

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	3%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	3%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	10%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	79%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

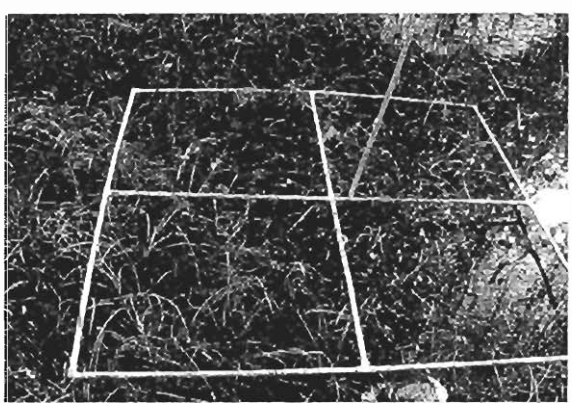
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail (Alive)	*Typha latifolia*	0%
Cattail (Dead)	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Elm	*Trema micrantha*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	2%
Open Water/Mud/Void	*N/A*	88%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

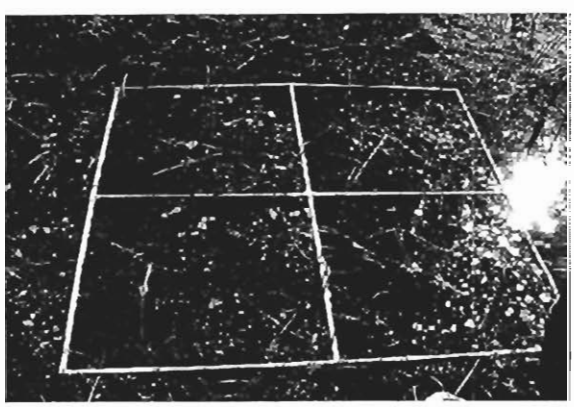
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 8" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



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 dominated by Saw-grass (*Cladium jamaicense*) in the herbaceous layer and Punk trees *(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, affecting many of the plots percent coverage.

Observations from November 20, 2004 monitoring

The vegetative community consisted primarily of saw-grass with only 7% coverage. The majority of the transect resulted in 78.3% open-void due to the fire burning the vegetation.

The entire transect was observed to have standing water. At the four data collection locations (DR7, DR14, DR21, and DR28) the water was two and a half to six inches in depth. Small fish were observed swimming at points DR7 and DR14.

An uncontrolled fire burned through this transect damaging many of the PVC pipes marking the plots, including the end points.

No data was collected for points DR5 and DR6.

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

- In the submerged aquatics layer, 99.6 percent open/void.
- In the herbaceous species layer, 7 percent live saw-grass (*Cladium jamaicense*), 2 percent dead saw-grass (*Cladium jamaicense*), 3 percent Southern Swamp Lily (*Crinum americanum*), 7 percent Tracy's Beak Rush (*Rhynchospora tracyi*), and 78.3 percent open/void
- In the sapling/vine layer, 99.4 percent open/void.
- In the overstory layer, 100 percent open/void.

TRANSECT "DR" Total Length 5280'

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0.0%
Bladderwort	*Utricularia foliosa*	0.0%
Bladderwort	*Utricularia purpurea*	0.0%
Ludwigia	*Ludwigia repens*	0.4%
Open/Void	*N/A*	99.6%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	7.4%
Saw Grass (Dead)	*Cladium jamaicense*	2.1%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.5%
Punk Tree (Dead)	*Melaleuca quinquenervia*	1.3%
Southern Swamp Lily	*Crinum americanum*	2.7%
Pickerelweed	*Pontederia lanceolata*	0.0%
Yellowtops	*Flaveria linearis*	0.0%
Arrowhead	*Sagittaria graminea*	0.6%
Floating-Heart	*Nymphoides aquatica*	0.0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0.5%
Cattail	*Typha latifolia*	0.0%
Button Bush	*Cephalanthus occidentalis*	0.0%
Maiden-Cane	*Panicum hemitomum*	0.0%
Shield Fern	*Thelypteris kunthii*	0.0%
Swamp Fern	*Blechnum serrulatum*	0.0%
Tracy's Beak Rush	*Rhynchospora tracyi*	6.6%
Open Water/Mud/Void	*N/A*	78.3%
	TOTAL	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.6%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0.0%
Elm	*Trema micrantha*	0.0%
Open/Void	*N/A*	99.4%
	TOTAL	100%

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0.0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0.0%
Golden Fig	*Ficus Aurea*	0.0%
Open/Void	*N/A*	100.0%
	TOTAL	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-30 STATION 52+78

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

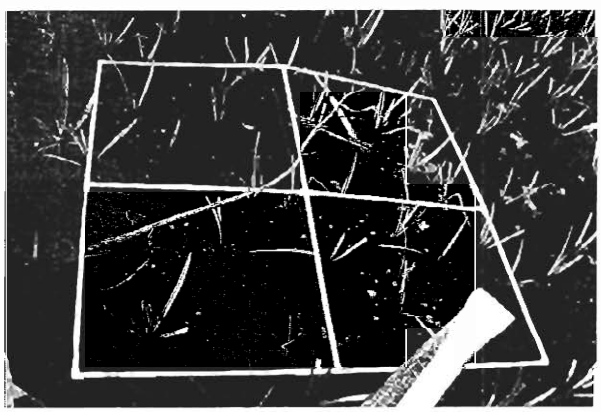
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-29 STATION 50+96

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

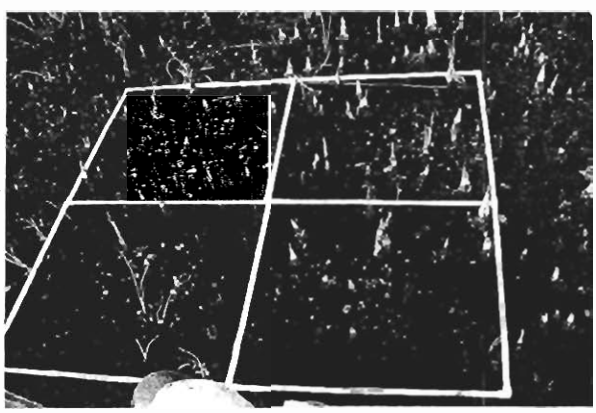
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-28 STATION 49+14

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture: 5" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE

Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-27 STATION 47+32

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

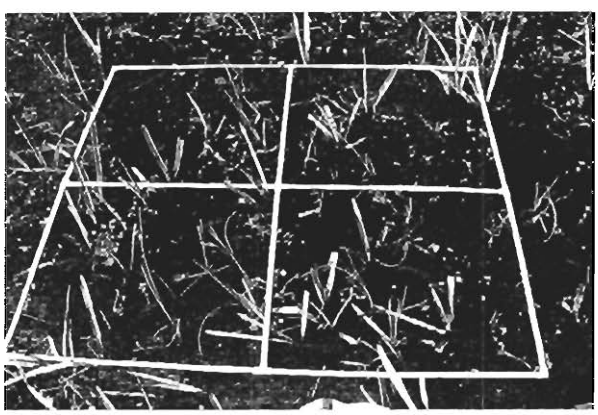
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-26 STATION 45+50

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	94%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

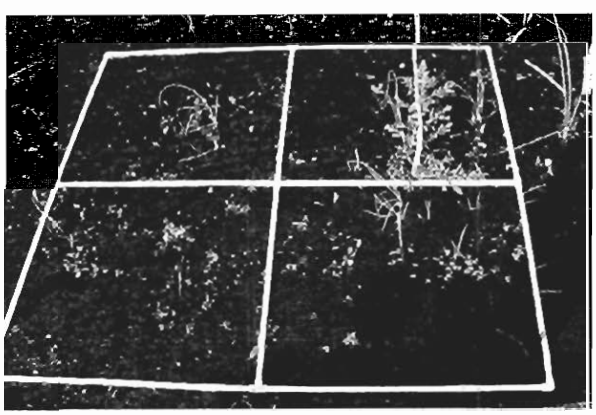
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-25 **STATION** 43+68

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

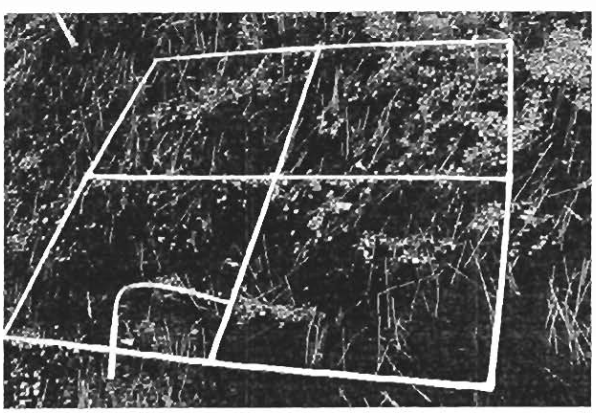
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

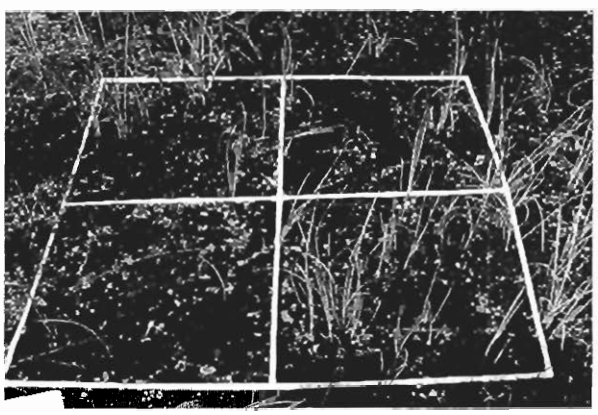
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

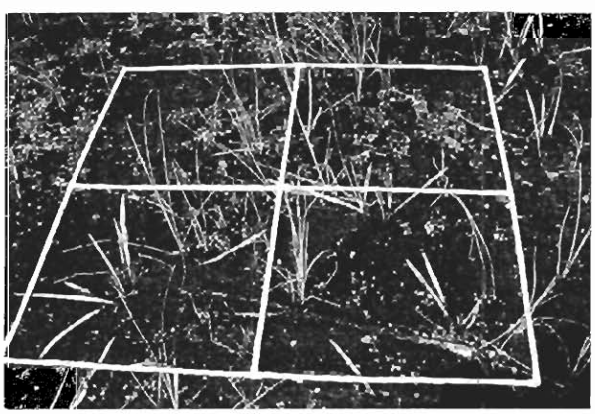
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	10%
Open Water/Mud/Void	*N/A*	89%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

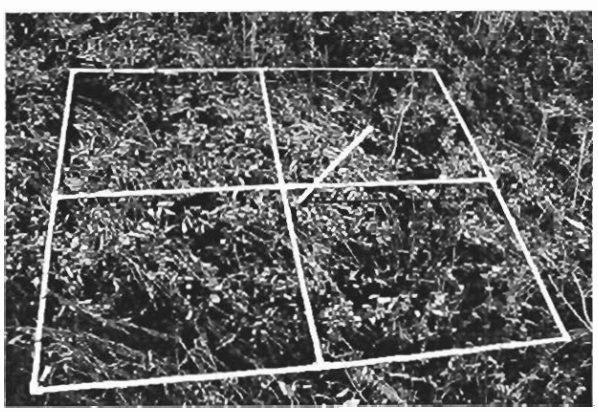
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	0%
Saw Grass (Dead)	*Cladium jamaicense*	5%
Punk Tree (Alive)	*Melaleuca quinquenervia*	2%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	15%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	10%
Open Water/Mud/Void	*N/A*	68%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

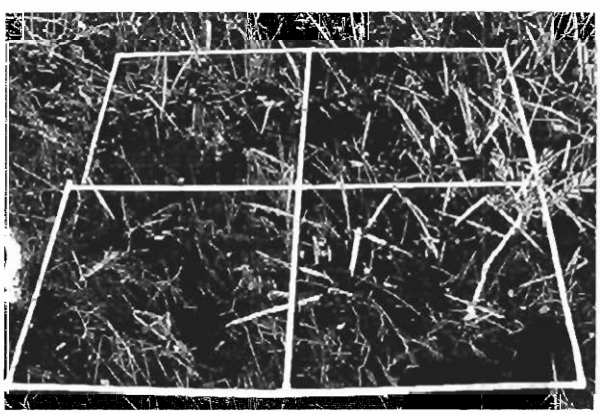
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 6" standing water

Aquatic Macrofauna: NONE

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-20 STATION 34+58

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

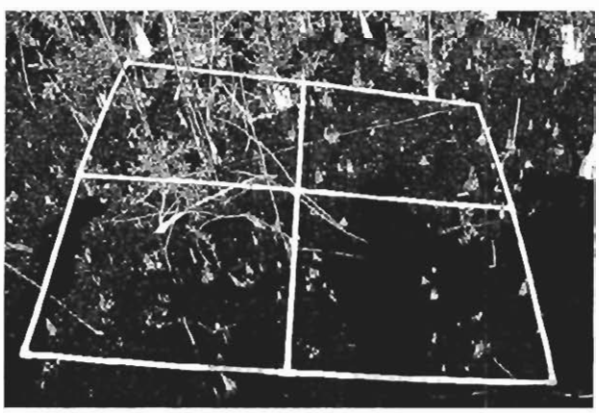
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-18 STATION 30+94

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	5%
Open/Void	*N/A*	95%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	10%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	85%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

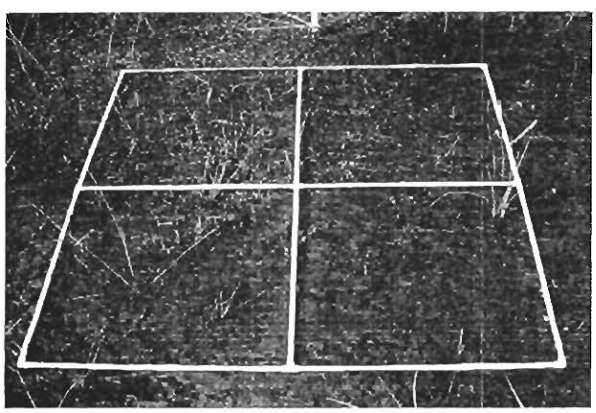
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	1%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	94%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

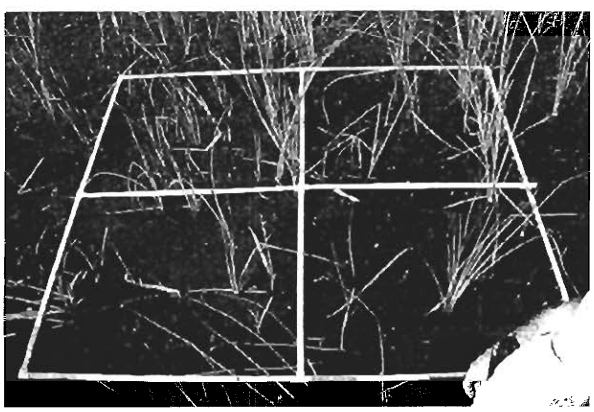
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	10%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	5%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	85%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	15%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	84%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

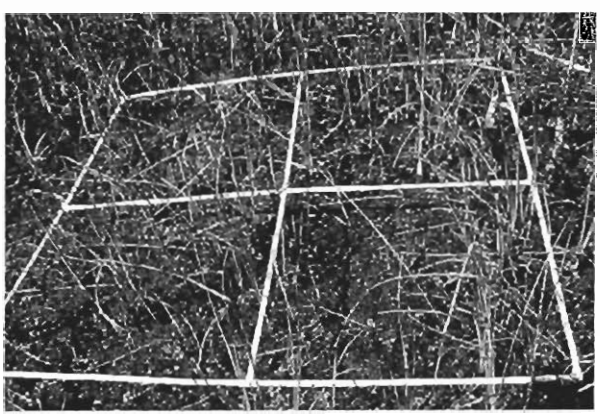
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-14 **STATION** 23+66

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	2%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	1%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	15%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	82%
	TOTAL	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	99%
	TOTAL	100%

OVERSTORY

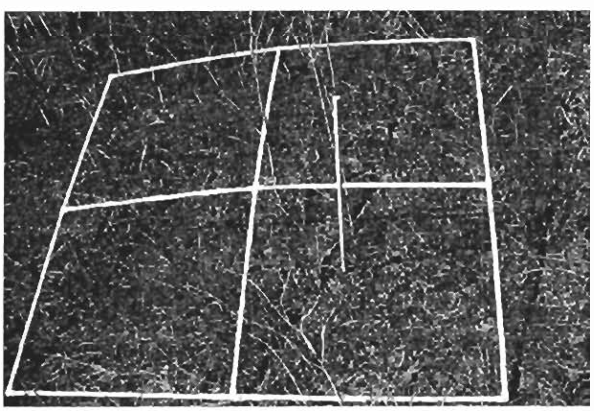
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 4" standing water

Aquatic Macrofauna: small fish

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-13 **STATION** 21+84

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	1%
Open/Void	*N/A*	99%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	2%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	98%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

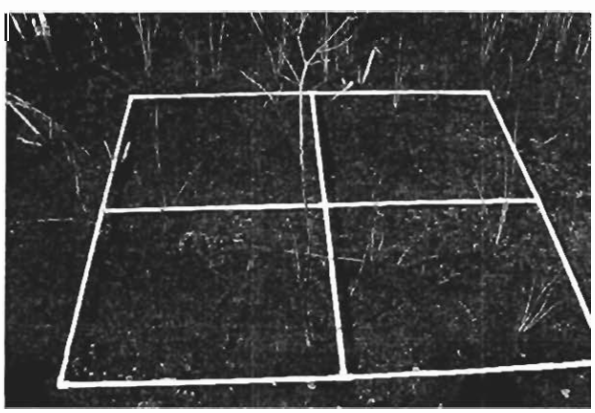
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	2%
Saw Grass (Dead)	*Cladium jamaicense*	4%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	94%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	5%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	2%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	93%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

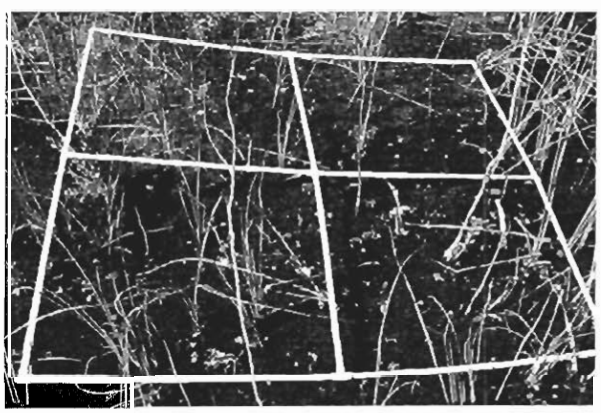
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	3%
Open/Void	*N/A*	97%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	15%
Saw Grass (Dead)	*Cladium jamaicense*	0%
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	84%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

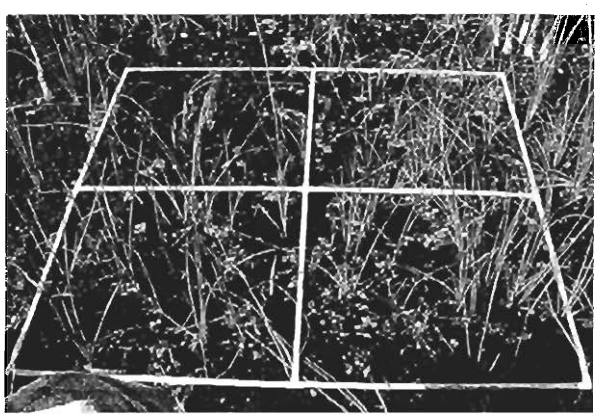
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-9 STATION 14+56

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	1%
Open/Void	*N/A*	99%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

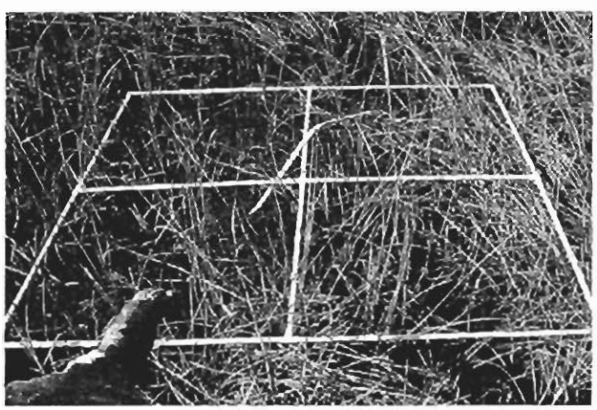
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

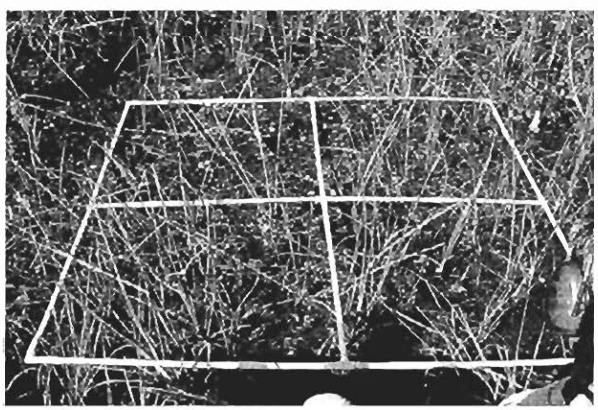
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture: 2.5" standing water

Aquatic Macrofauna: small fish

Wildlife Indicators (tracks, scat, nests): NONE



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-6 STATION 9+10

SUBMERGED AQUATICS 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	
Bladderwort	*Utricularia foliosa*	
Bladderwort	*Utricularia purpurea*	
Ludwigia	*Ludwigia repens*	
Open/Void	*N/A*	
	TOTAL	0%

HERBACEOUS SPECIES

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

SAPLING / VINE

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	
Punk Tree (Dead)	*Melaleuca quinquenervia*	
Elm	*Trema micrantha*	
Open/Void	*N/A*	
	TOTAL	0%

OVERSTORY

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

NOTES: No data collected

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	
Bladderwort	*Utricularia foliosa*	
Bladderwort	*Utricularia purpurea*	
Ludwigia	*Ludwigia repens*	
Open/Void	*N/A*	
	TOTAL	0%

HERBACEOUS SPECIES

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

SAPLING / VINE

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	
Punk Tree (Dead)	*Melaleuca quinquenervia*	
Elm	*Trema micrantha*	
Open/Void	*N/A*	
	TOTAL	0%

OVERSTORY

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

NOTES: No data collected

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 **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	20%
Saw Grass (Dead)	*Cladium jamaicense*	2%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	5%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	73%
	TOTAL	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	1%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Elm	*Trema micrantha*	0%
Open/Void	*N/A*	99%
	TOTAL	100%

OVERSTORY

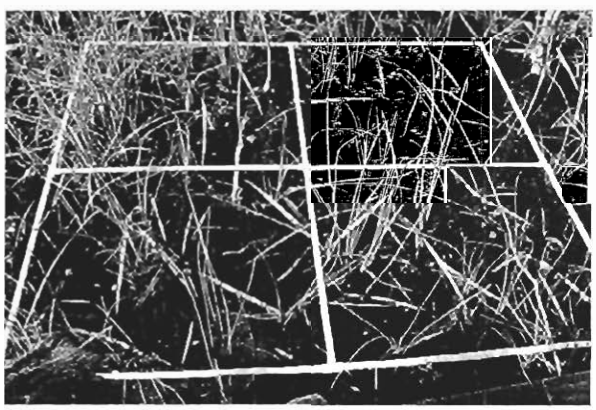
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	20%
Saw Grass (Dead)	*Cladium jamaicense*	1%
Punk Tree (Alive)	*Melaleuca quinquenervia*	2%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	77%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

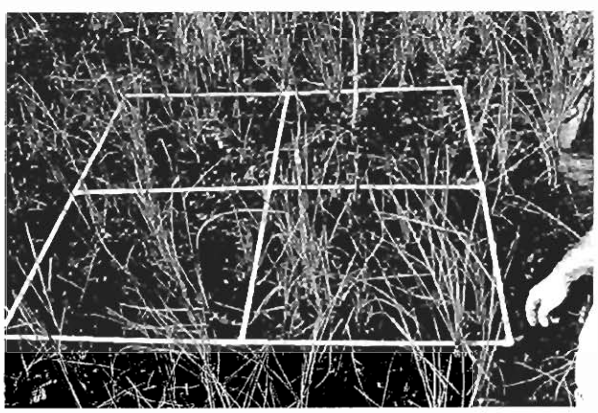
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

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 11/19/2004

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

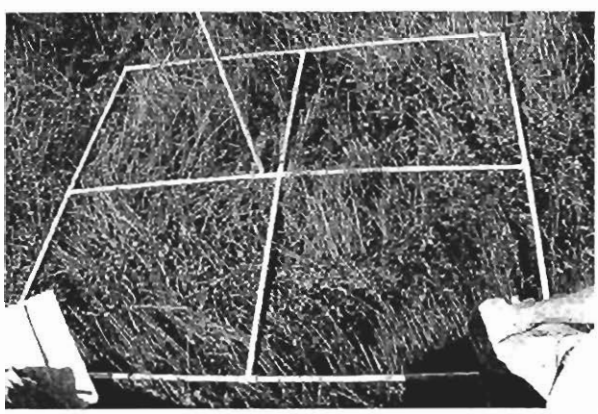
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT DR-1 **STATION** 0+00

SUBMERGED AQUATICS **11/19/2004**

Common Name	Scientific Name	% Coverage
Mermaid Weed	*Proserpinaca palustris*	0%
Bladderwort	*Utricularia foliosa*	0%
Bladderwort	*Utricularia purpurea*	0%
Ludwigia	*Ludwigia repens*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage
Saw Grass (Alive)	*Cladium jamaicense*	20%
Saw Grass (Dead)	*Cladium jamaicense*	2%
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Southern Swamp Lily	*Crinum americanum*	0%
Pickerelweed	*Pontederia lanceolata*	0%
Yellowtops	*Flaveria linearis*	0%
Arrowhead	*Sagittaria graminea*	0%
Floating-Heart	*Nymphoides aquatica*	0%
Capillary Hairsedge	*Bulbostylis ciliataefolia*	0%
Cattail	*Typha latifolia*	0%
Button Bush	*Cephalanthus occidentalis*	0%
Maiden-Cane	*Panicum hemitomum*	0%
Shield Fern	*Thelypteris kunthii*	0%
Swamp Fern	*Blechnum serrulatum*	0%
Tracy's Beak Rush	*Rhynchospora tracyi*	0%
Open Water/Mud/Void	*N/A*	78%
	TOTAL	100%

SAPLING / VINE

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

OVERSTORY

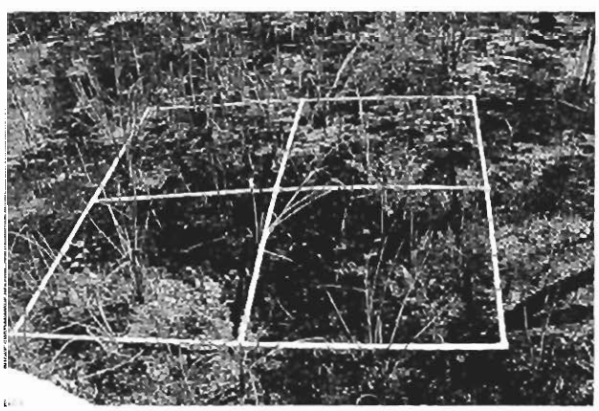
Common Name	Scientific Name	% Coverage
Punk Tree (Alive)	*Melaleuca quinquenervia*	0%
Punk Tree (Dead)	*Melaleuca quinquenervia*	0%
Golden Fig	*Ficus Aurea*	0%
Open/Void	*N/A*	100%
	TOTAL	100%

NOTES:

Water Level / Soil Moisture

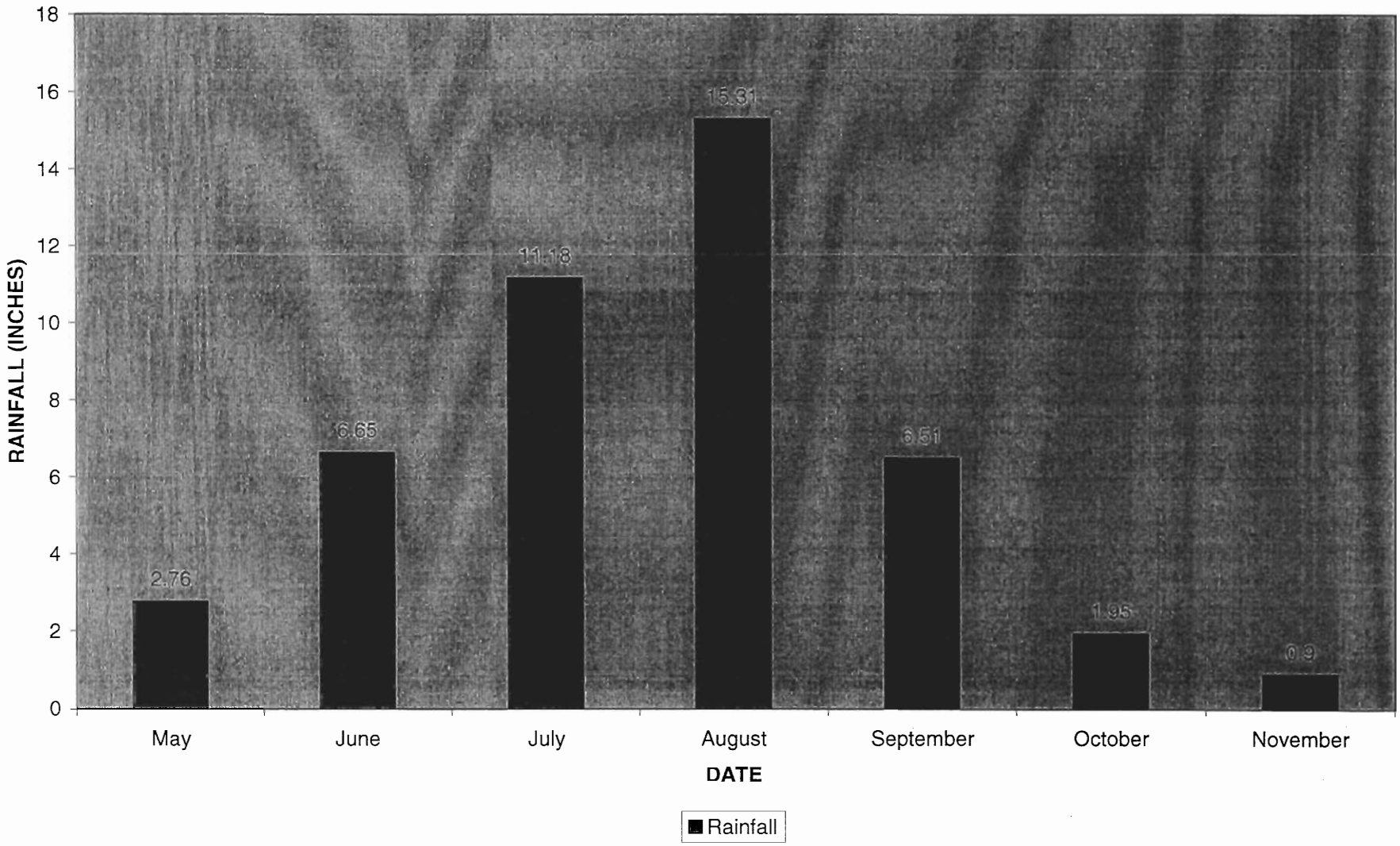
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)



RAINFALL DATA 2004

Monthly Precipitation 2004
TAMIAMI TRAIL 40 MI BEND, FL



FIGURES

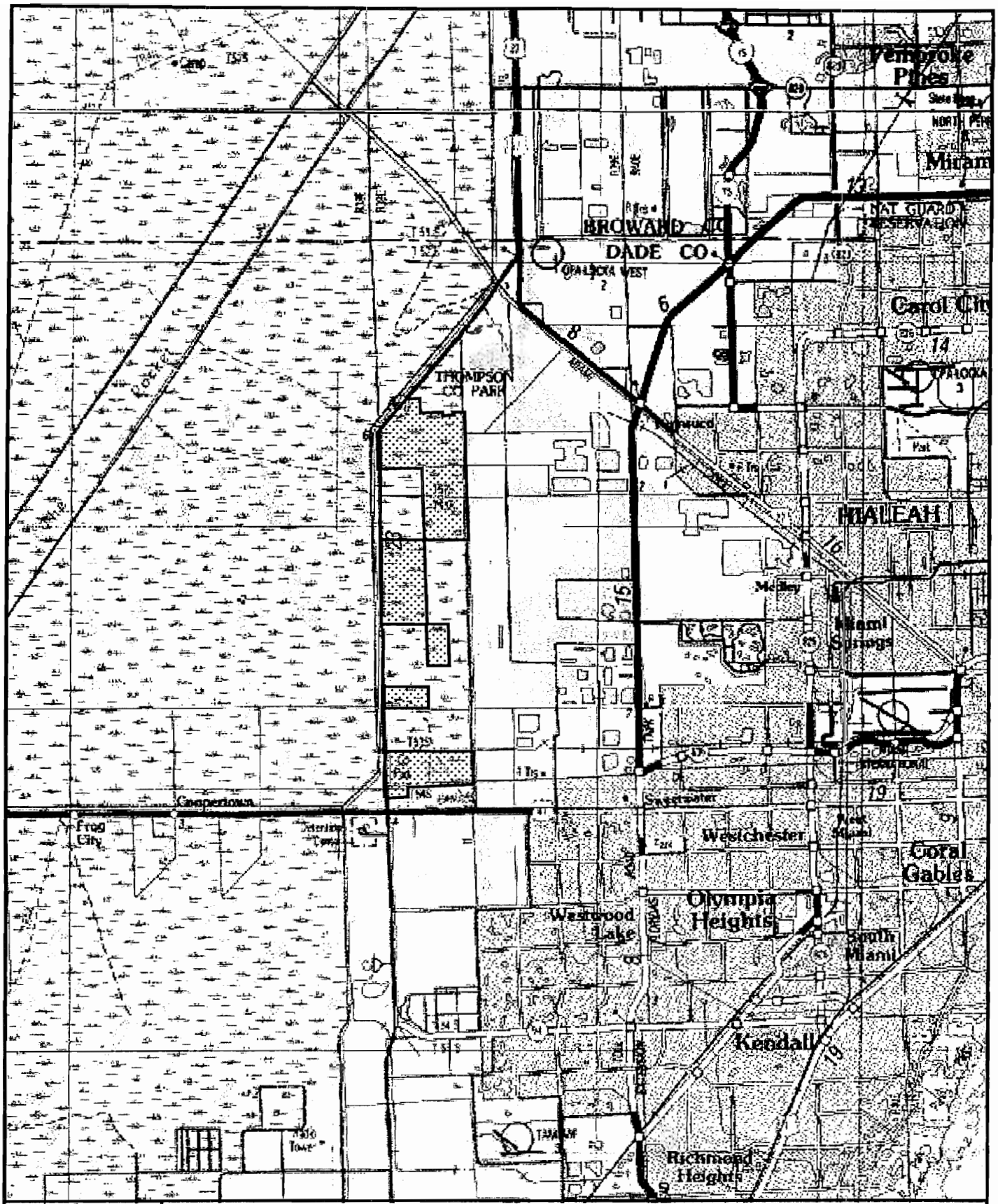


Figure 1. Location Map

Restoration Area

N

10000 0 10000 20000 Feet

KCI TECHNOLOGIES

Figure 2. Transect Locations

N

3000 0 3000 Feet

KCI TECHNOLOGIES

Figure 3. Transect A

End Points of Segment

Data Collection Points

N

300 0 300 Feet

KCI TECHNOLOGIES

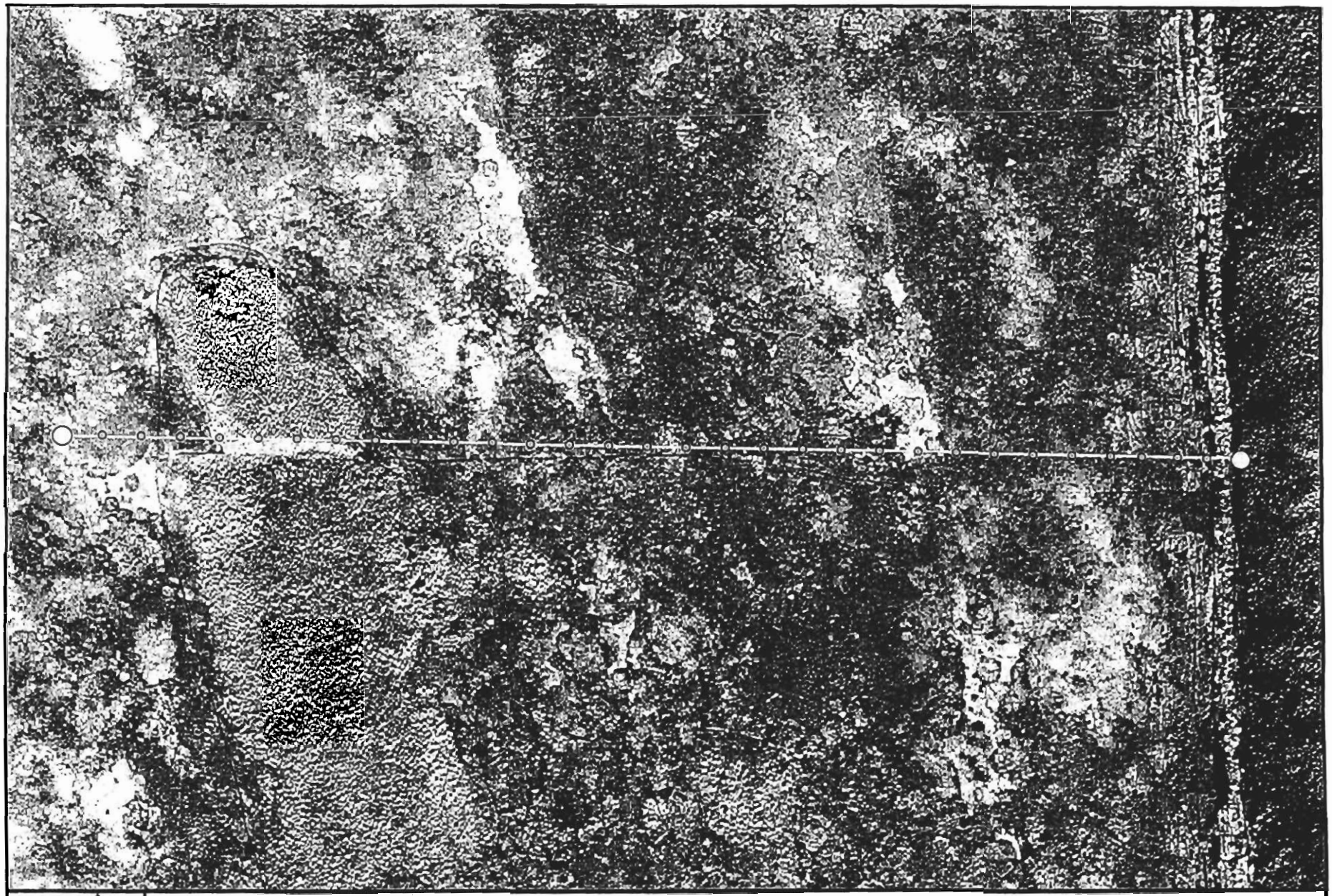


Figure 4. Transect B

End Points of Segment
Data Collection Points

N

300 0 300 Feet

KCI TECHNOLOGIES

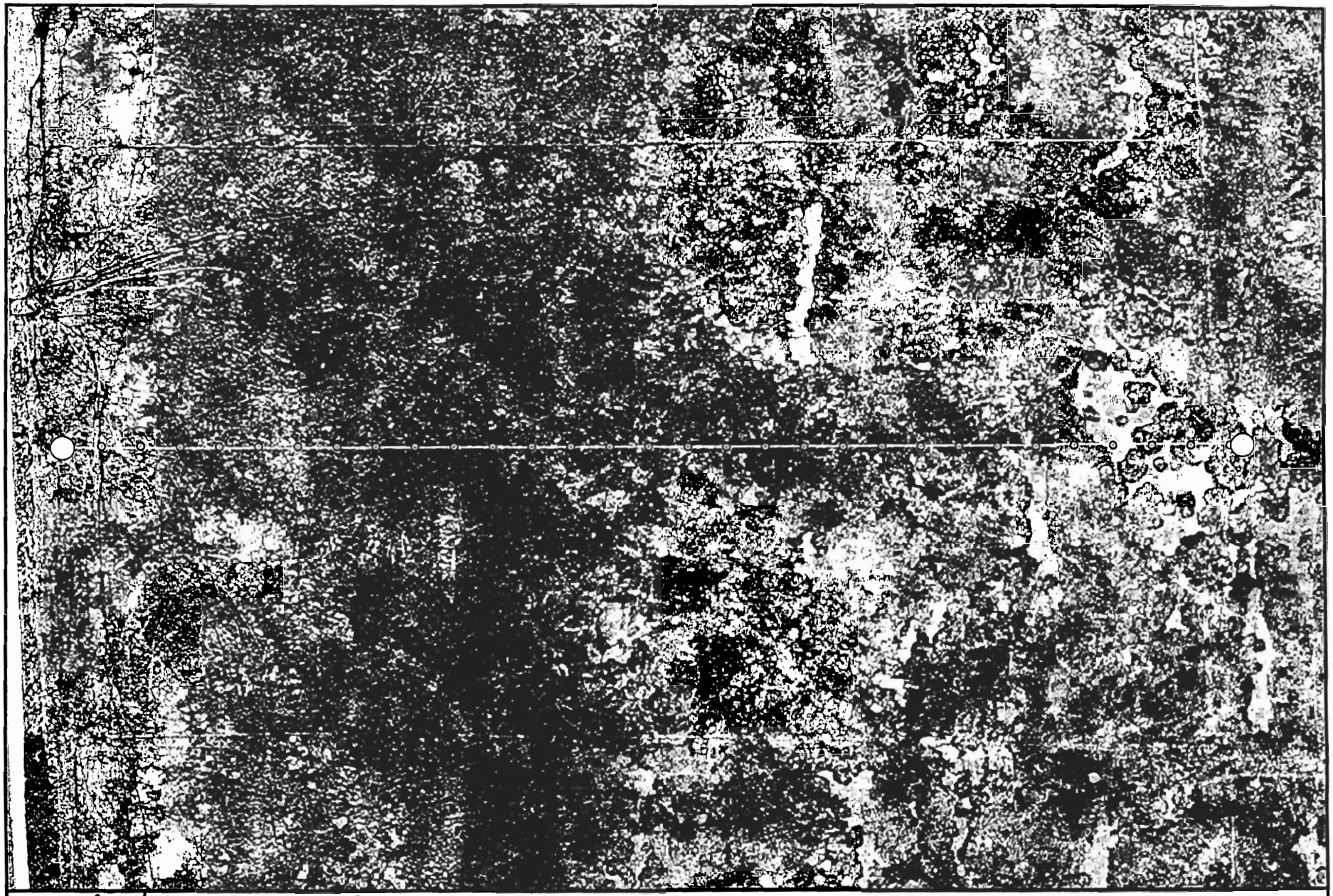


Figure 5. Transect C

End Points of Segment

Data Collection Points

N

300 0 300 Feet

KCI TECHNOLOGIES

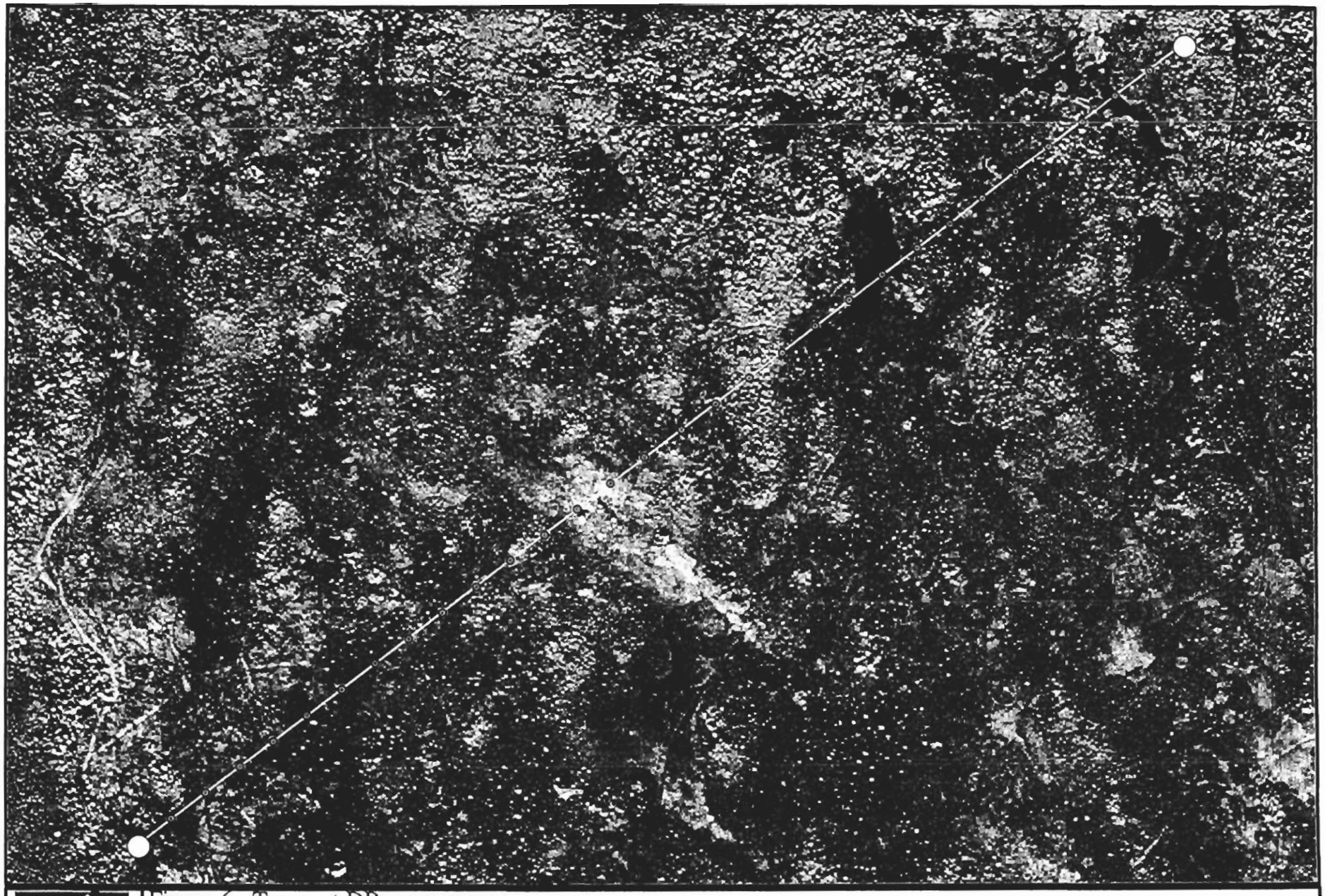


Figure 6. Transect DR

End Points of Segment

Data Collection Points

N

300 0 300 Feet

KCI TECHNOLOGIES