

ENVIRONMENTAL MONITORING REPORT

PENNSUCO MITIGATION PROJECT

Miami-Dade County

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

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

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

Project: C-13604

Monitoring Performed:

November 9, 2002

May 17, 2003

Submitted: June 2003

KCI Technologies, Inc.

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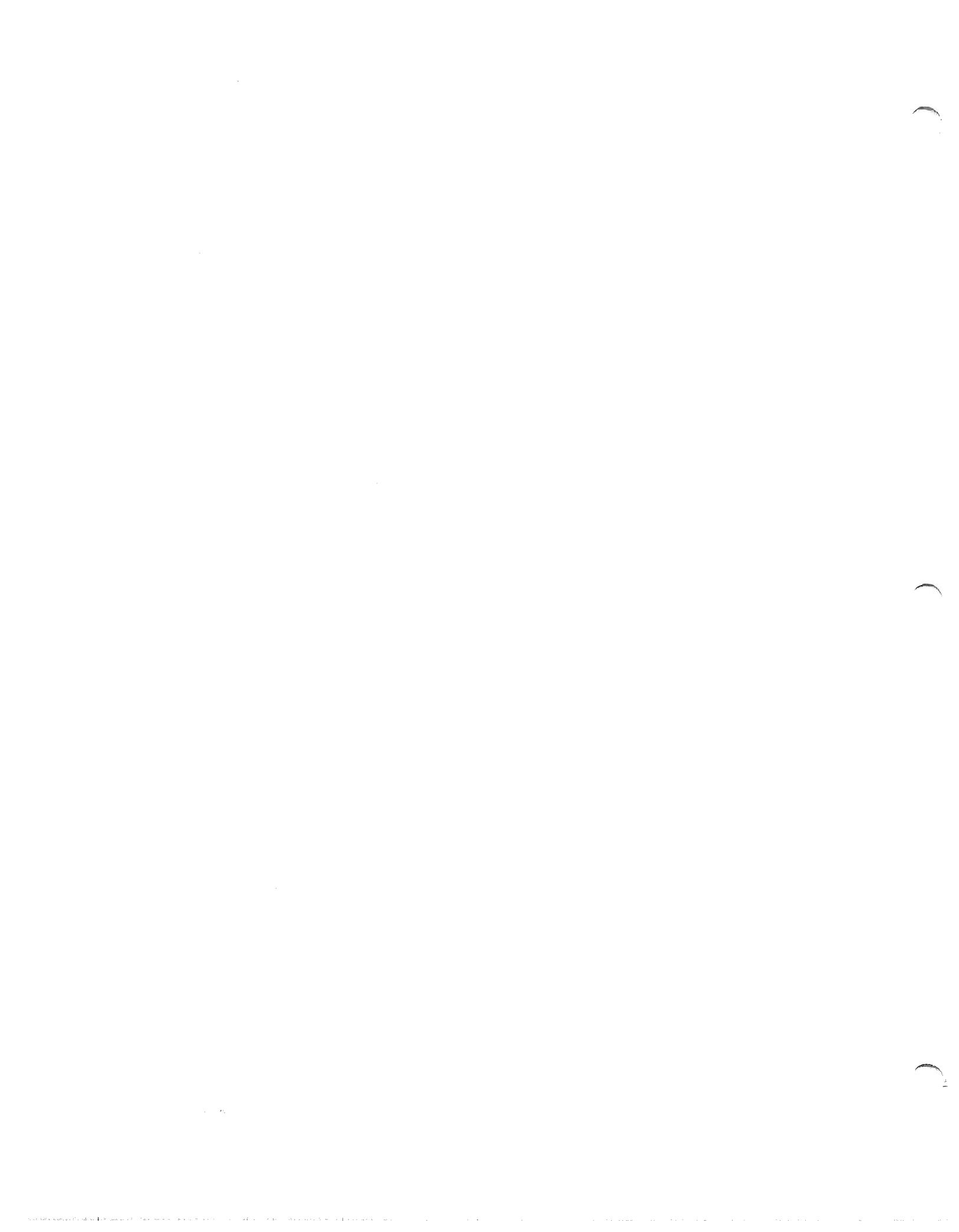
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Excel Spreadsheets of Monitoring Data and Photographs



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

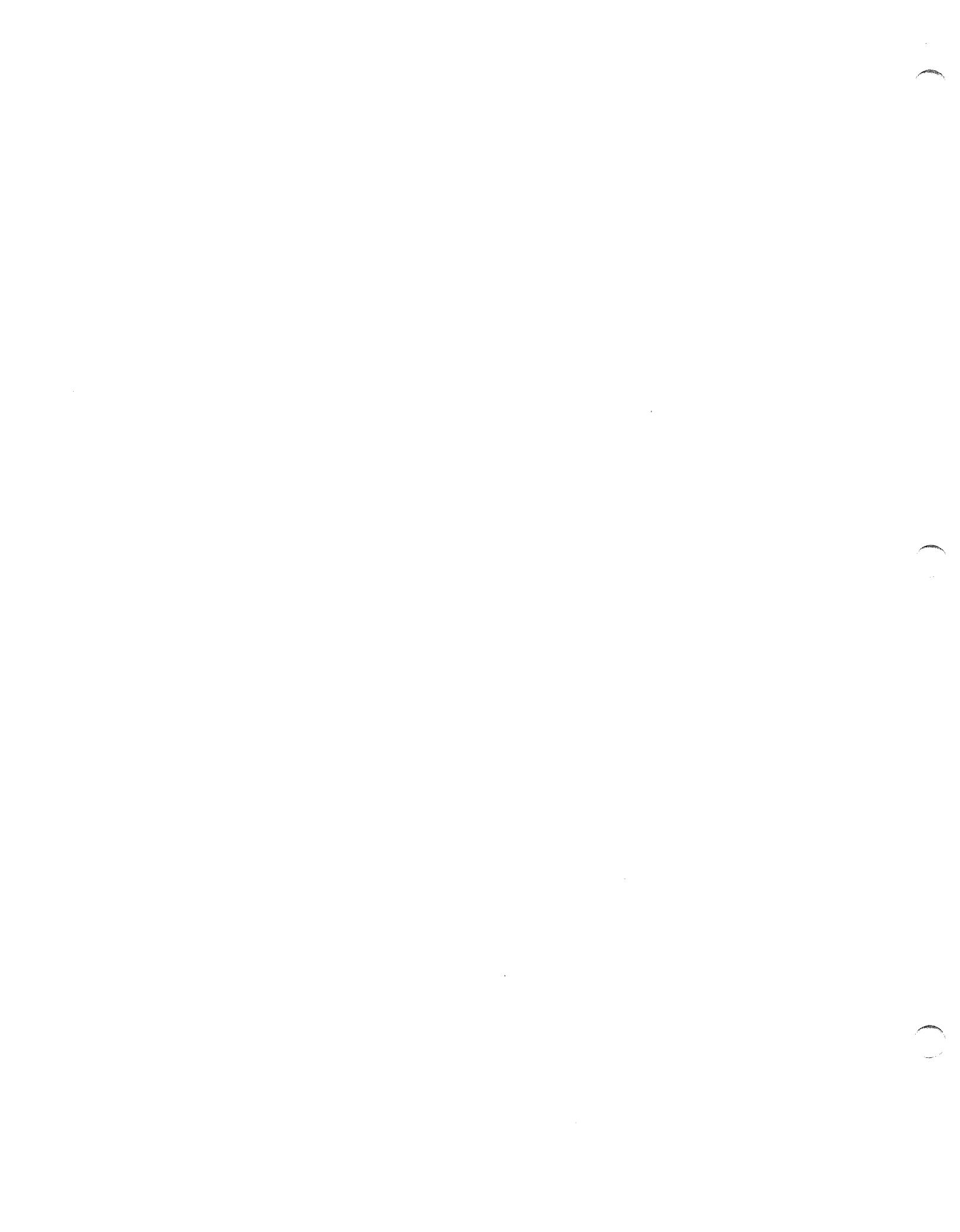
The Pennsuco Mitigation Area is composed of all or part of 11 blocks in Cell 26 of the East Coast Buffer and occupies approximately 13,000 acres in Miami-Dade County (Figure 1). The site is bordered on the west and north by Krome Avenue, to the south by the Tamiami Trail (US 41) and to the east by the 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 6, 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, D) 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 "D"	25° 46' 40.00"	80° 28' 52.00"
End "D"	25° 46' 47.93"	80° 27' 55.87"



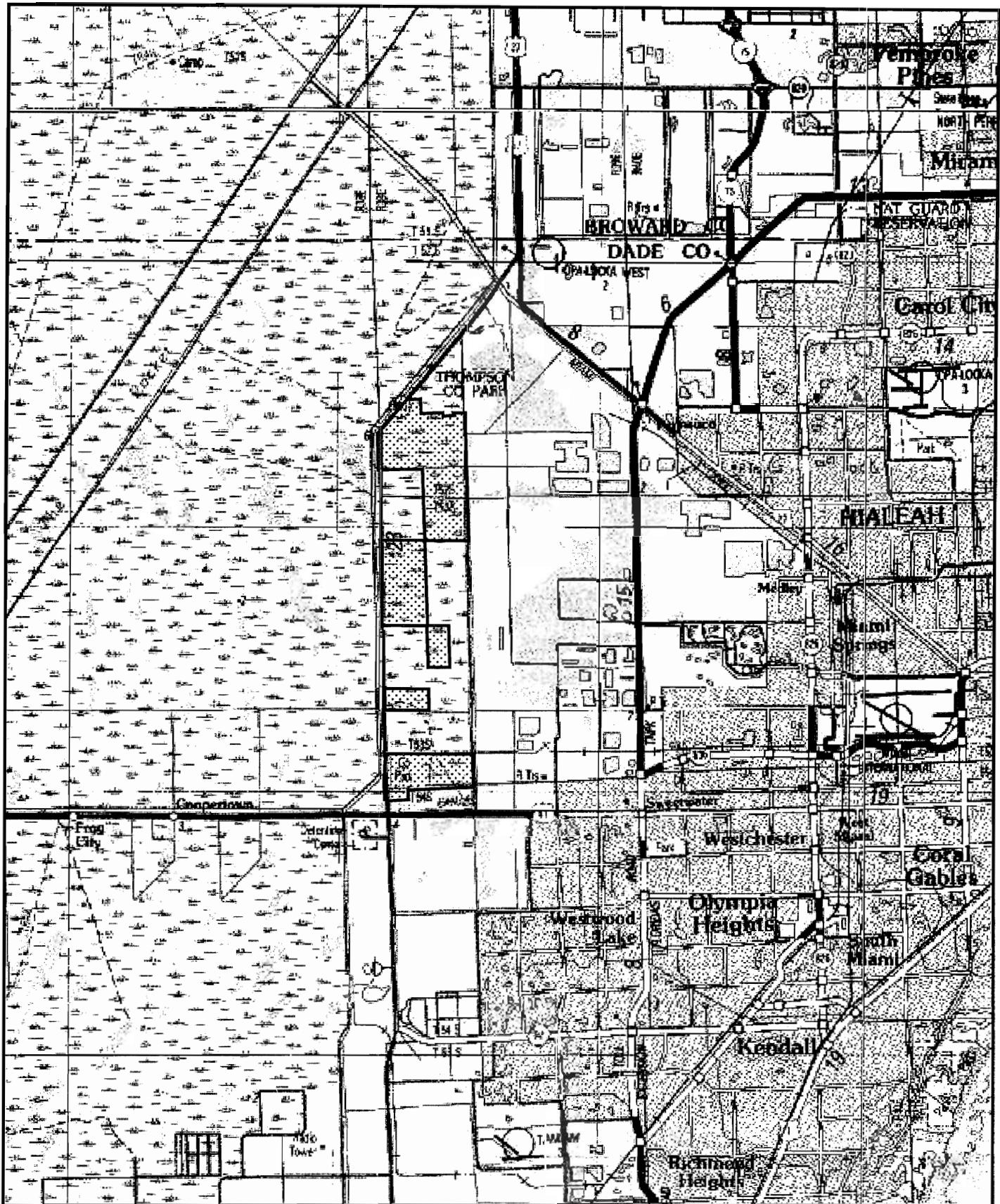


Figure 1. Location Map



Restoration Area



10000 0 10000 20000 Feet



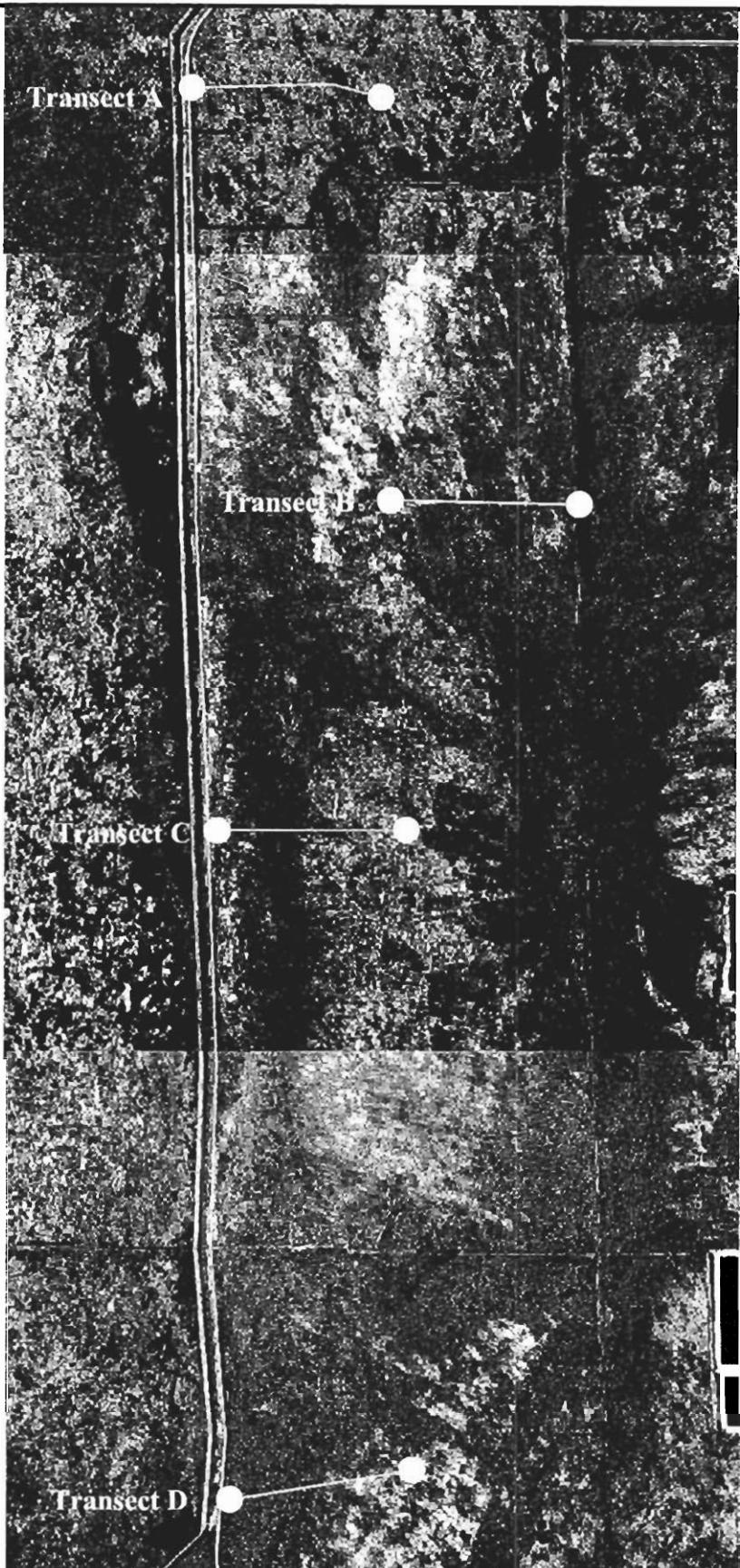


Figure 2. Transect Locations



176 176

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

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

Coverage was documented at each of the 120 collection stations as a percent coverage with the total percent not exceeding 100 percent/layer. All species found were documented by scientific and common name, and entered onto field forms. Water level and/or soil saturation, observed aquatic macrofauna, wildlife utilization, and/or indicators of wildlife (i.e. tracks, scat, etc.) were recorded at data collection stations 7, 14, 21, and 28 of each transect. Observations also focused on whether saw-grass and punk trees 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. If an overstory was present, a photo from the center of the point was taken looking up from a position one meter above the surface. 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)

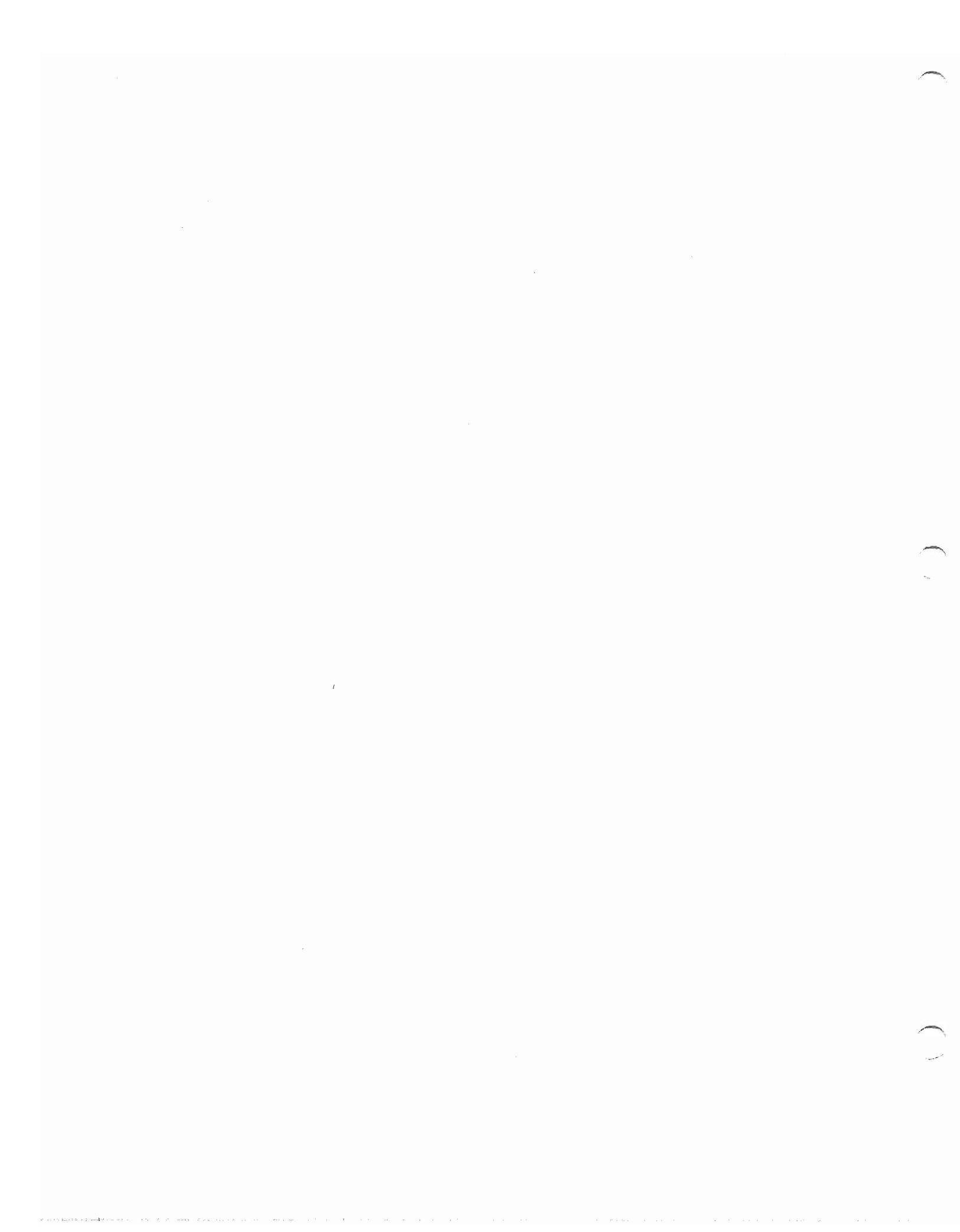
TA = Total area sampled in transect (30 collection points x 4 square meters = 120 square meters)

TC = Total coverage by species per transect

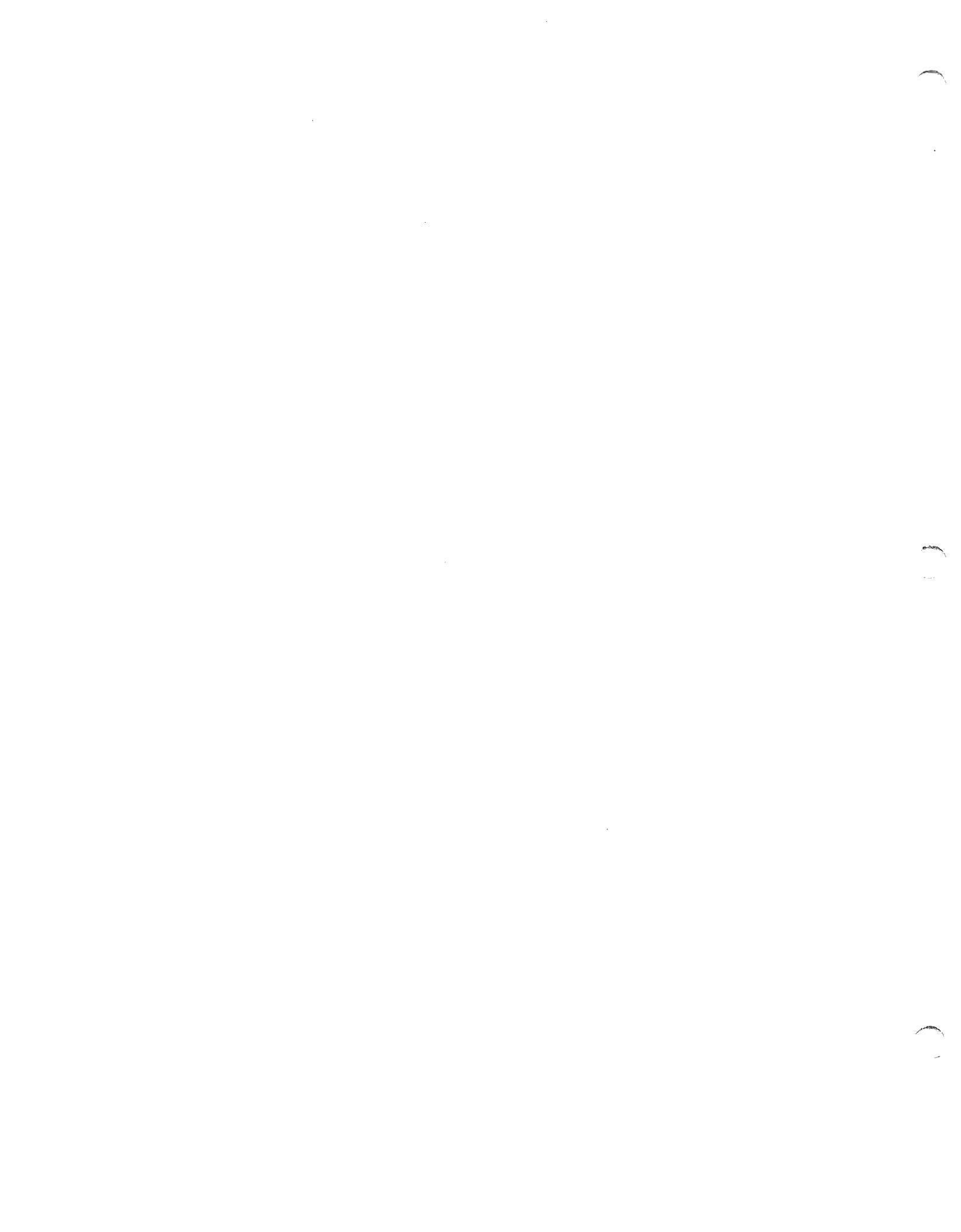
$$TC = PC/TA$$

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 9, 2002
May 17, 2003



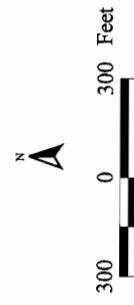
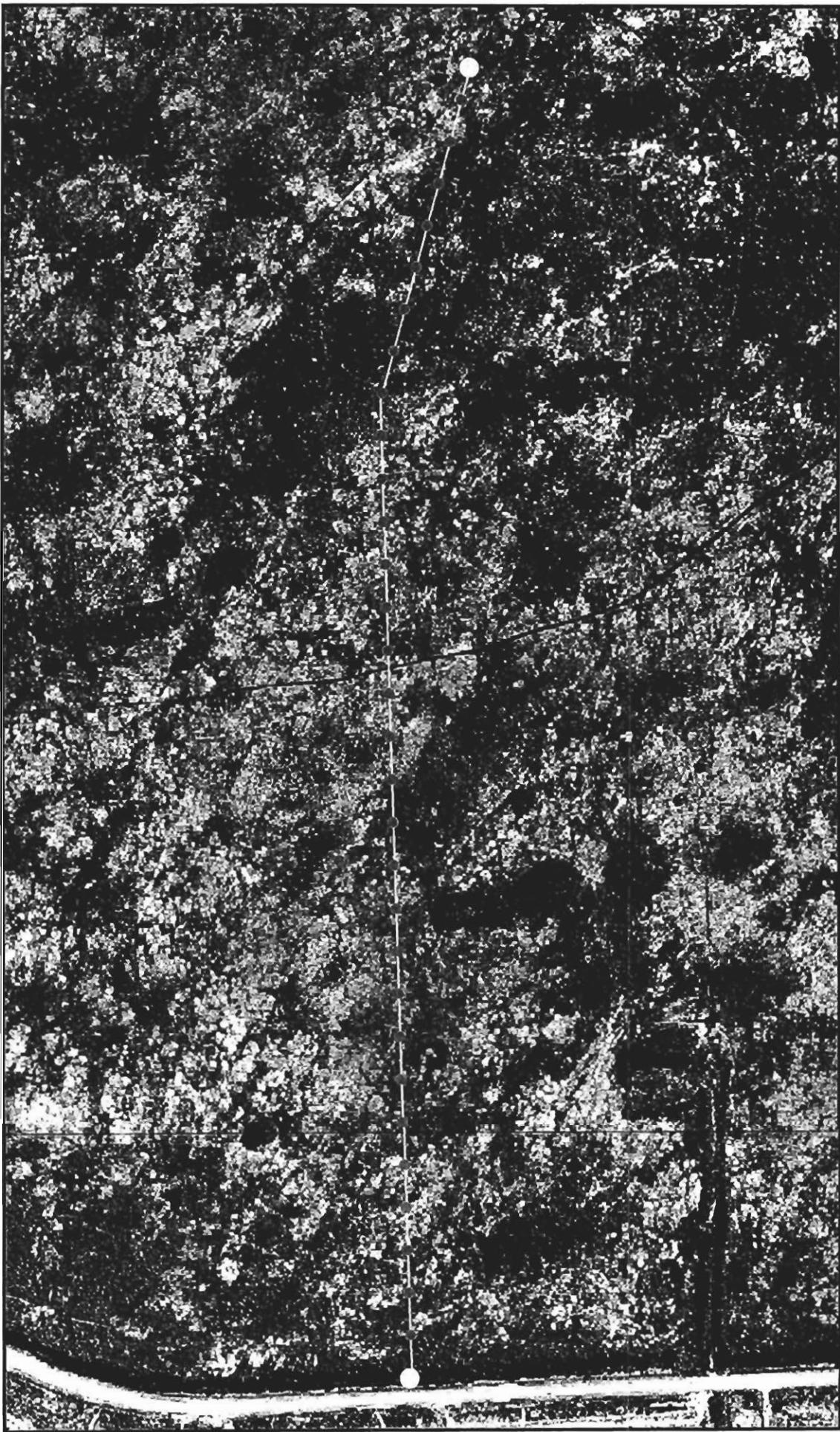
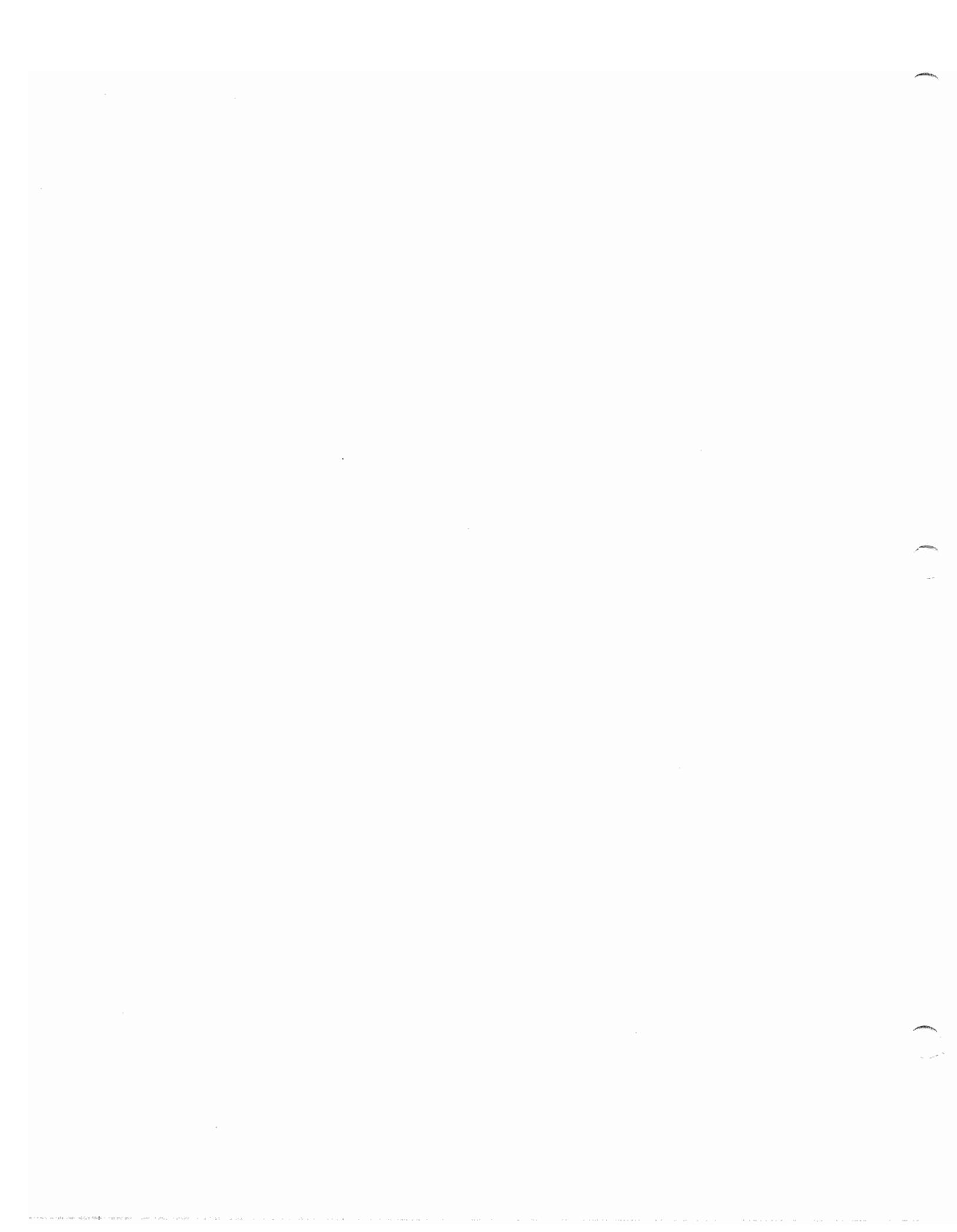


Figure 3. Transect A

End Points of Segment
● Data Collection Locations



TRANSECT A

Narrative

Transect A is located in Section 30, Township 52, Range 39 (Cell 26 – Pennsco Exotic Treatment Area). It starts on the levee at Krome Avenue with point A1 (GPS Coordinates Latitude $25^{\circ} 53' 12.76''$, Longitude $80^{\circ} 29' 03.33''$) and continues east one mile to point A30 (GPS coordinates Latitude $25^{\circ} 53' 12.69''$, Longitude $80^{\circ} 28' 04.91''$), 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 punk tree (*Melaleuca quinquenervia*), yellowtops (*Flaveria linearis*) and an unknown plant (UK 9) belonging to the Malvaceae family. Points A2 through A30 represent a wet prairie community type dominated by saw-grass (*Cladium jamaicense*). Control efforts focused primarily on punk trees, and consisted of herbicidal treatment and a physical removal program, followed by a controlled burn.

(esm wild Wm lab?)

Observations from November 9, 2002 monitoring

Photo points 23 and 24, have punk tree saplings visible in all directions outside of the grid. Punk tree seedlings, totaling less than one percent of the vegetative coverage, were observed at photopoints 2, 5, 9, 10, 20, and 22. These sightings seem to correlate to photopoints that have an average of 75 percent open water and sparse vegetation due to either natural conditions or herbicides.

Water depths ranged from 4.5 to 6.5 inches at the four photopoint locations (A7, A14, A21, and A28). A few one to two-centimeter fry were observed at photopoints A21 and A28. No other macrofauna or indicators of wildlife were noted.

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

- No vegetative coverage in the submerged aquatics layer.
- In the herbaceous species layer, 17 percent live saw-grass, 36 percent dead saw-grass, and 1 percent yellowtops (*Flaveria linearis*).
- In the sapling/vine layer, 4 percent live punk trees.
- In the overstory layer, 2 percent dead punk trees.

Observations from May 17, 2003 monitoring

• recruitment of 2 new species
Photo points 23 and 24, have a noted decrease in live punk tree saplings in and outside of the grid. Two additional species, Tracy's Beak Rush (*Rhynchospora tracyi*) and Water-Hyssops (*Bacopa caroliniana*) were found at A15/16 and A17 respectively.

Water depths ranged from 1.0 to 3.0 inches at the four photopoint locations (A7, A14, A21, and A28). No macrofauna or indicators of wildlife were noted. Water levels were down leaving many areas dry and the macrofauna particularly the small fry were mostly absent.

In summary, the percent vegetative coverage (greater than or equal to 1 percent), by layer, for this transect identified:

- Vegetative coverage in the submerged aquatics layer less than 1 percent total.
- In the herbaceous species layer, 18 percent live saw-grass, 33 percent dead saw-grass, 1 percent live punk tree, 2 percent yellowtops (*Flaveria linearis*), 1 percent Southern Swamp Lily (*Crinium americanum*) and 1 percent Tracy's Beak Rush (*Rhynchospora tracyi*).
- In the sapling/vine layer, one percent live punk trees and three percent dead punk trees.
- In the overstory layer, two percent dead punk trees.

- increase in % Sawgrass by 1%
- decrease in % dead Sawgrass by 3%
- decrease in % live punk by 3%

Pennsuco Monitoring Project - Summary Sheet

TRANSECT

"A"

Total Length 5280'

SUBMERGED AQUATICS

Common Name	Scientific Name	% Coverage	% Coverage
Water-Hyssops	<i>Bacopa caroliniana</i>	0.00%	0.03%
Bladderwort	<i>Utricularia foliosa</i>	0.00%	0.00%
Bladderwort	<i>Utricularia purpurea</i>	0.00%	0.00%
Ludwigia	<i>Ludwigia repens</i>	0.00%	0.07%
Open/Void	N/A	100.00%	99.90%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15.00%	17.93%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40.10%	33.43%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.43%	0.97%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.00%	0.50%
Southern Swamp Lily	<i>Crinum americanum</i>	0.50%	0.87%
Pickerelweed	<i>Pontederia lanceolata</i>	0.00%	0.10%
Yellowtops	<i>Flaveria linearis</i>	0.80%	1.87%
Arrowhead	<i>Sagittaria graminea</i>	0.13%	0.03%
Floating-Heart	<i>Nymphoides aquatica</i>	0.27%	0.13%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.33%	0.00%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0.00%	0.73%
Button Bush	<i>Cephalanthus occidentalis</i>	0.00%	0.00%
Maiden-Cane	<i>Panicum hemitomum</i>	0.00%	0.03%
Shield Fern	<i>Thelypteris kunthii</i>	0.00%	0.00%
Swamp Fern	<i>Blechnum serrulatum</i>	0.00%	0.00%
Elm	<i>Trema micrantha</i>	0.00%	0.00%
Uk9	<i>Malvaceae</i>	0.17%	0.00%
Open Water/Mud/Void	N/A	42.27%	43.70%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	3.70%	1.40%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.00%	2.60%
Elm	<i>Trema micrantha</i>	0.00%	0.00%
TBD		0.00%	0.00%
Open/Void		96.30%	96.33%
TOTAL		100%	100%

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.00%	0.00%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	1.67%	1.67%
Golden Fig	<i>Ficus Aurea</i>	0.00%	0.00%
Open/Void		98.33%	98.33%
TOTAL		100%	100%

NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

0+00 Panoramic - Looking east



11/9/02

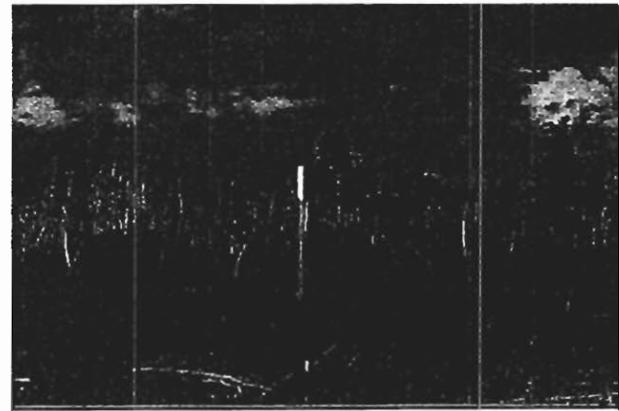


5/17/03

A transect



52+78 Panoramic - Looking West



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-1

STATION

0+00

SUBMERGED AQUATICS

Common Name	Scientific Name	11/9/2002	5/17/2003
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	1%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	24%	55%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	1%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	5%	0%
Open Water/Mud/Void	N/A	71%	44%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	50%	50%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		50%	50%
TOTAL		100%	100%

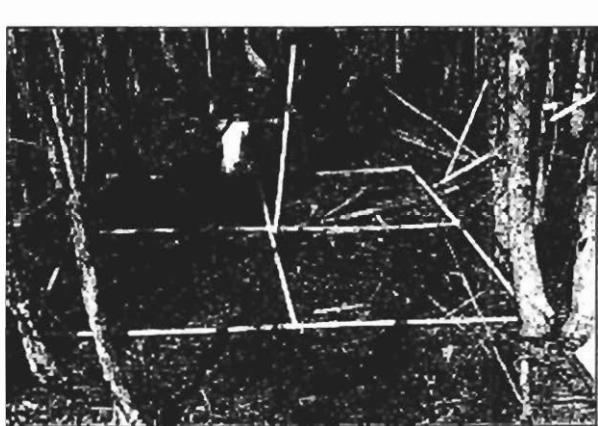
NOTES: Levee position adjacent to Krome Ave.

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

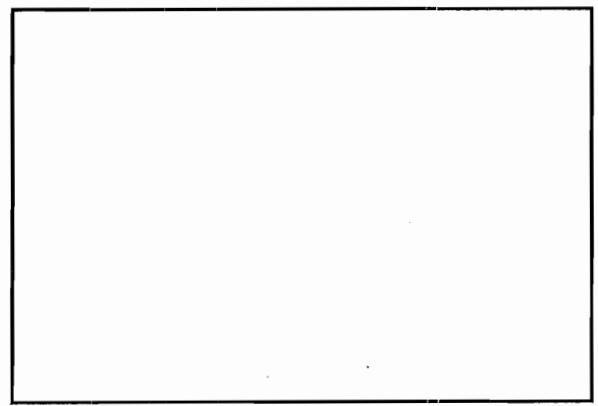
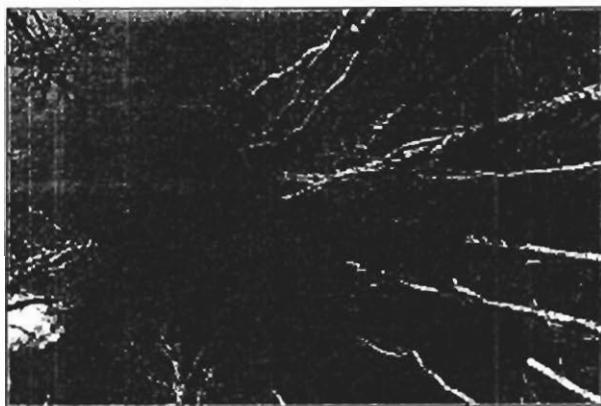
GROUND



A1



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-2

STATION

1+82

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	75%	60%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		99%	100%
TOTAL		100%	100%

OVERSTORY

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

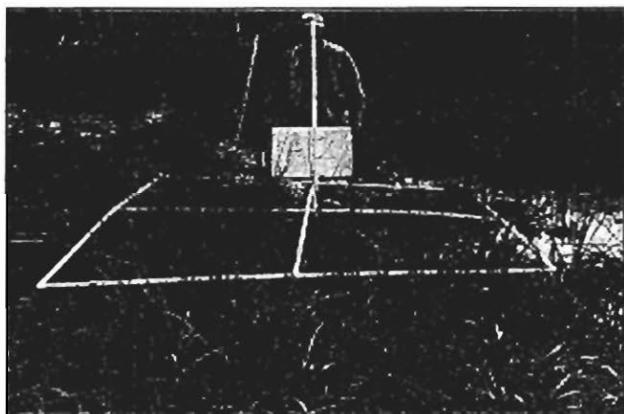
NOTES: _____

Water Level / Soil Moisture

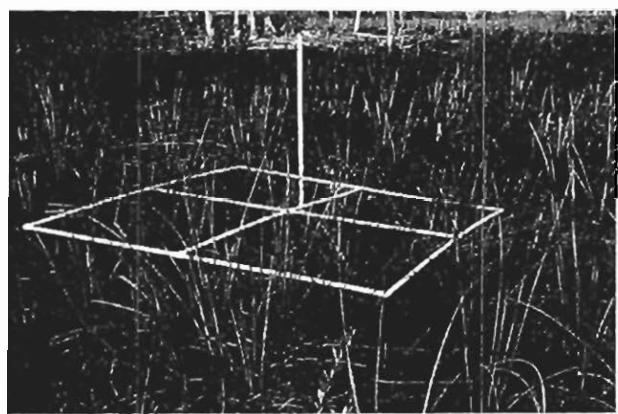
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

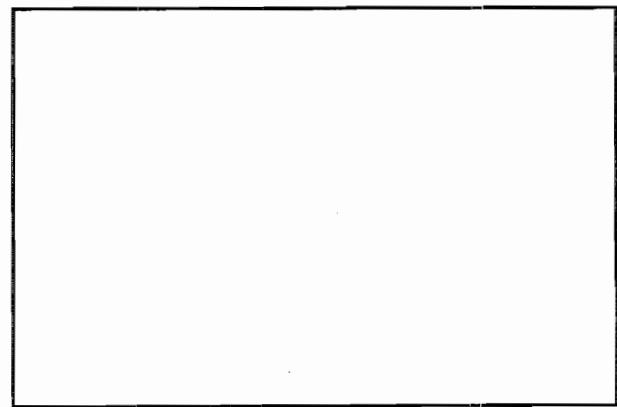
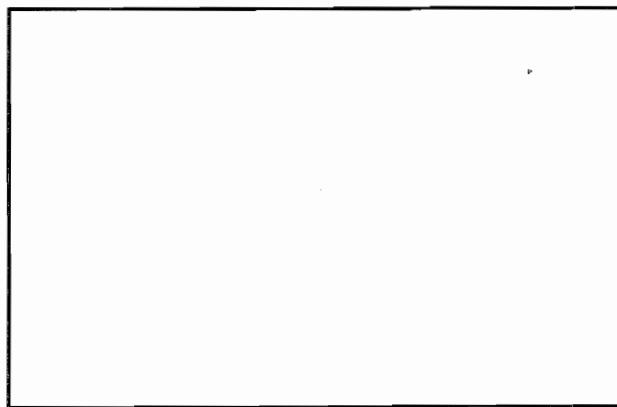
GROUND



5/17/2003



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-3

STATION

3+64

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

Water-Hys

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	80%	60%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	20%	40%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

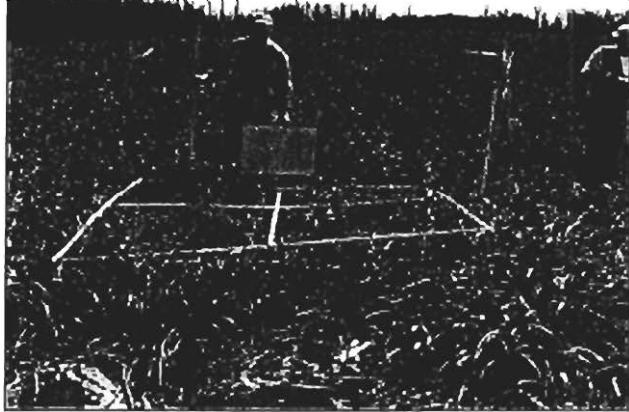
NOTES: _____

Water Level / Soil Moisture

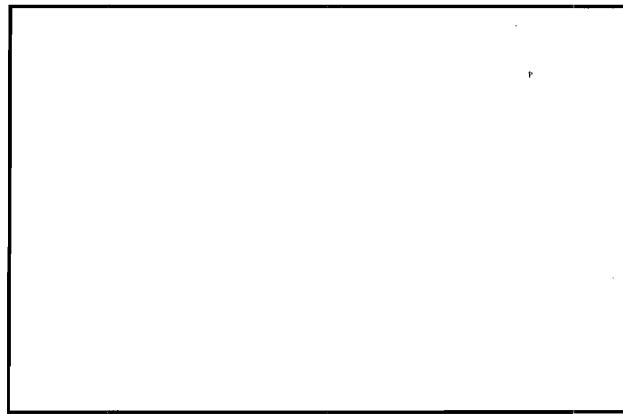
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

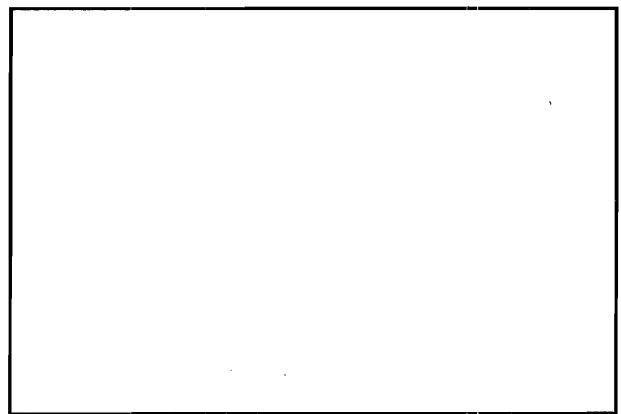
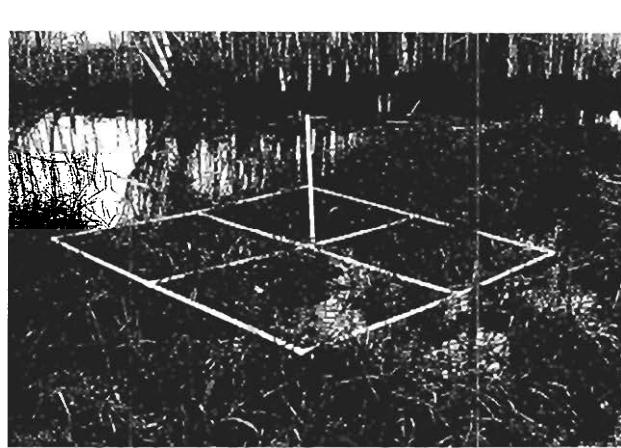
GROUND



A3



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-4

STATION

5+46

SUBMERGED AQUATICS

11/9/2002

5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	60%	50%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	40%	50%
	TOTAL	100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

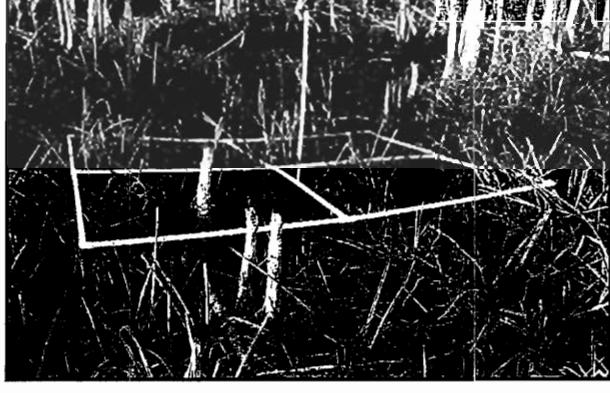
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

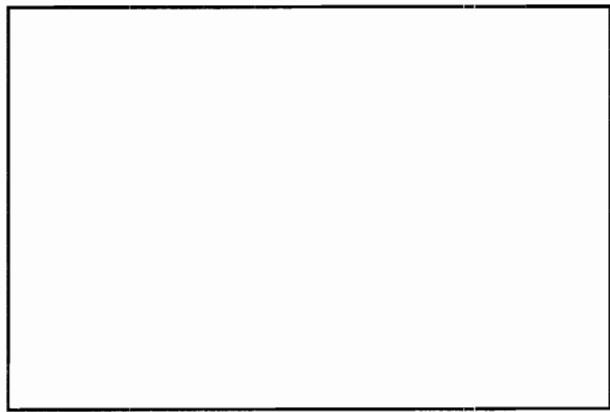
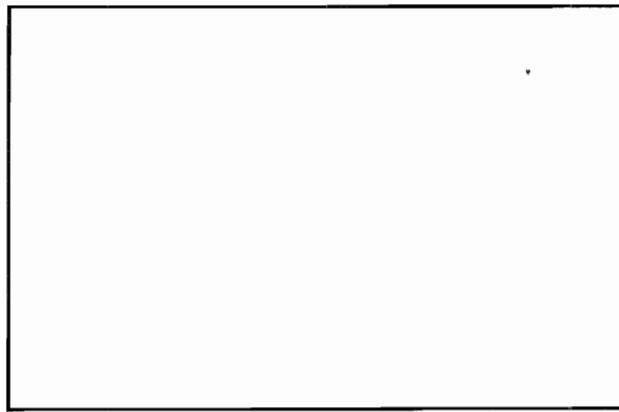
GROUND



A4



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-5

STATION

7+28

SUBMERGED AQUATICS

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

11/9/2002

5/17/2003

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	89%	54%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

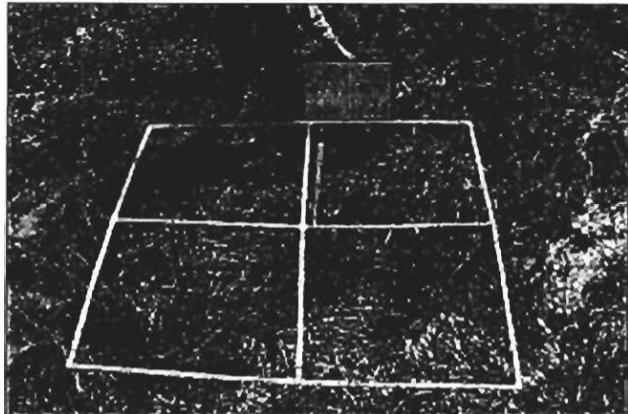
Water Level / Soil Moisture

Aquatic Macrofauna

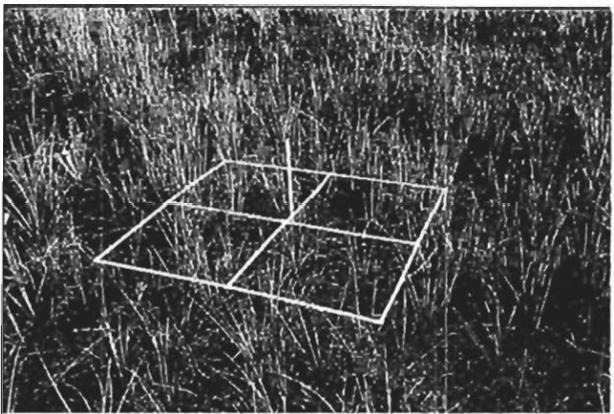
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

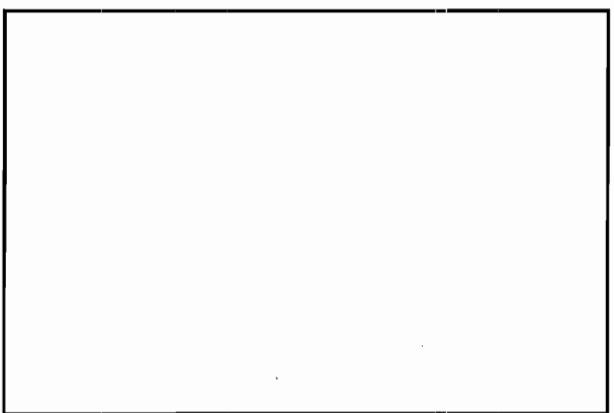
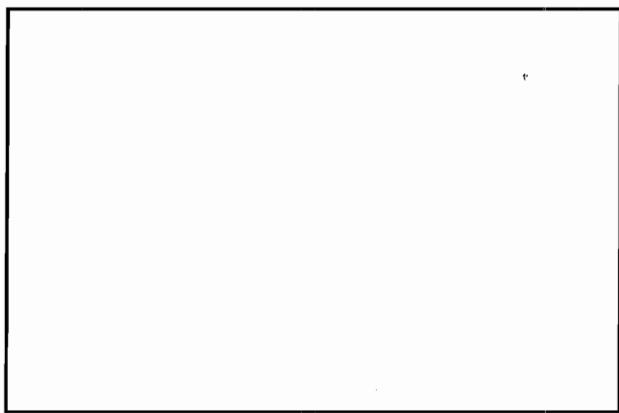


5/17/2003



A5

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-6

STATION 9+10

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	5%	2%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	65%	65%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	3%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
UK9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	27%	22%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

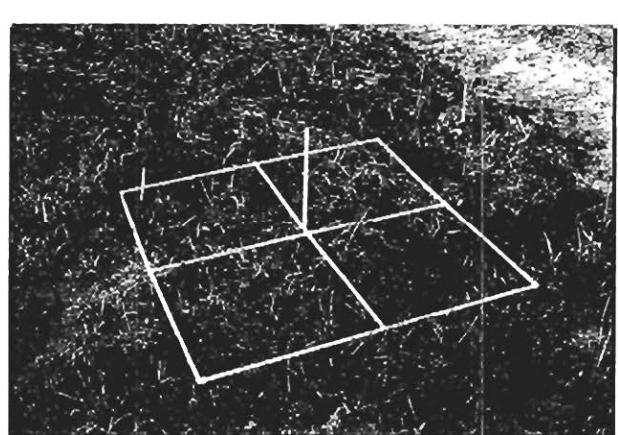
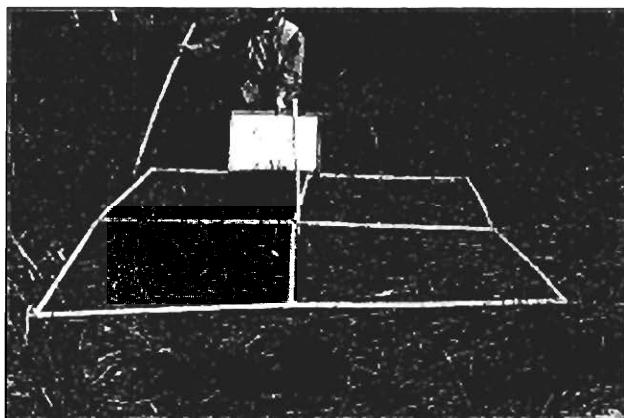
NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

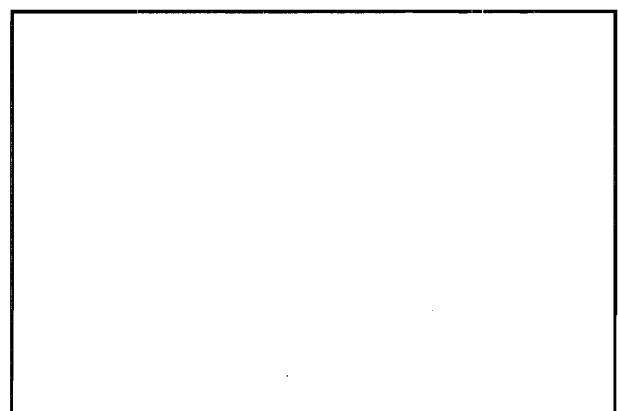
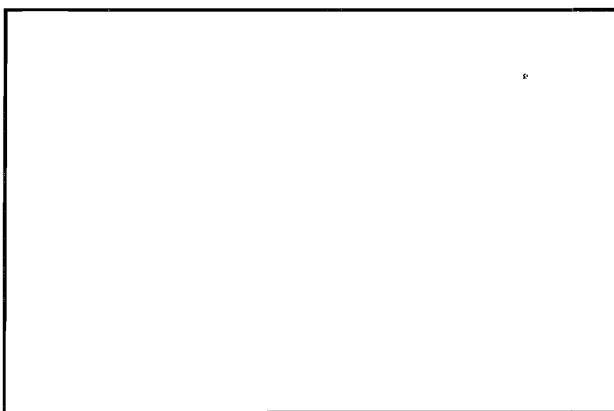
Wildlife Indicators (tracks, scat, nests)

GROUND



A6

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-7

STATION

10+92

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	43%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	2%	3%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	1%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	35%	36%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

3" of standing water

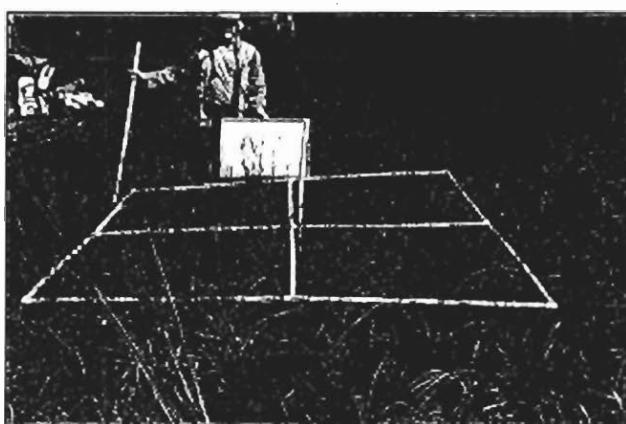
Aquatic Macrofauna

None

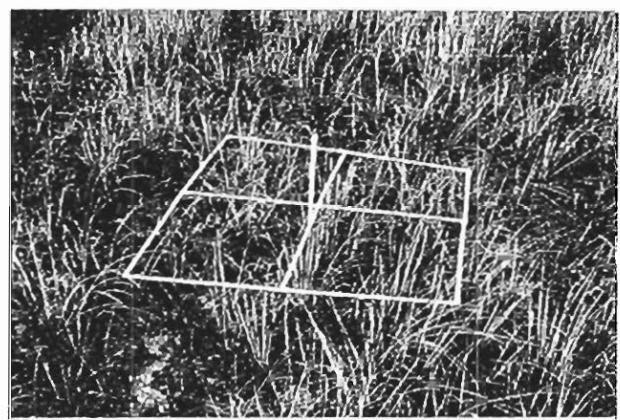
Wildlife Indicators (tracks, scat, nests)

None

GROUND

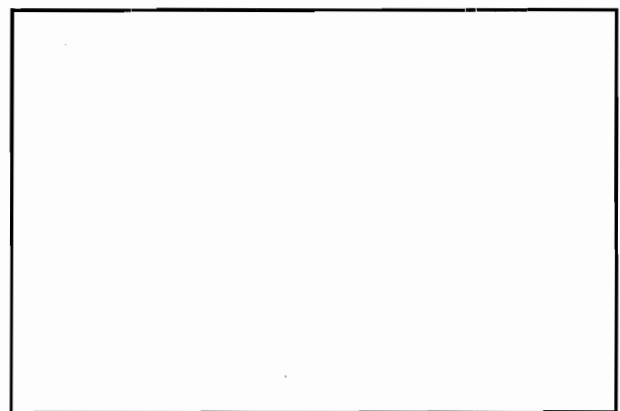
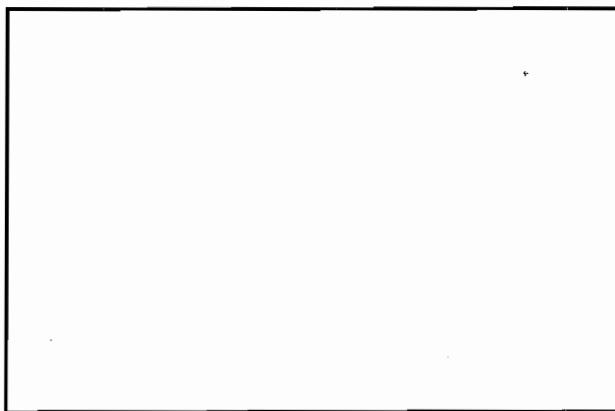


5/17/2003



A7

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-8

STATION

12+74

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	5%	3%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	45%	32%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

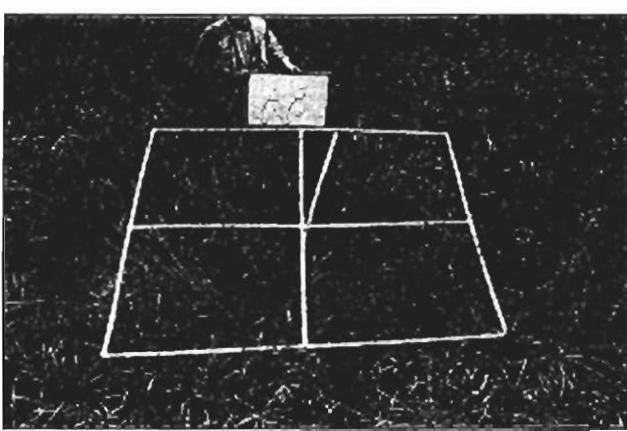
NOTES: _____

Water Level / Soil Moisture

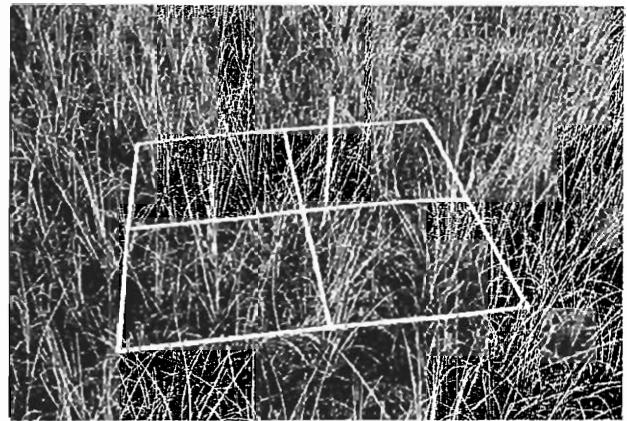
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

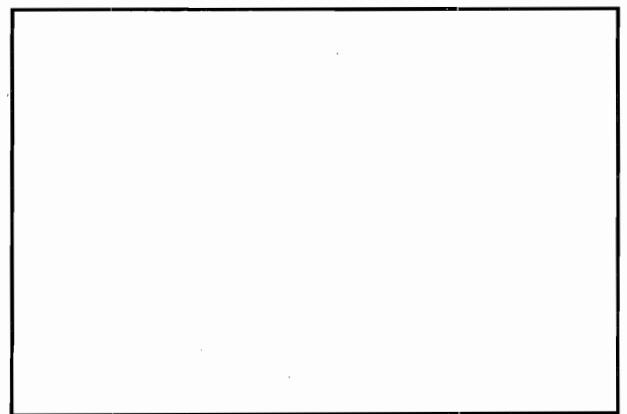
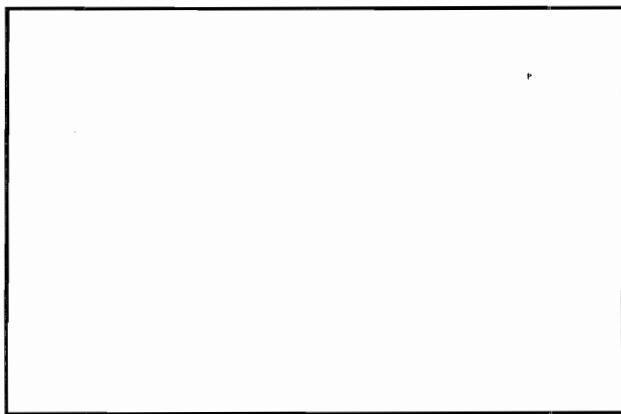


5/17/2003



A8

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-9

STATION

14+56

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	2%	1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
UK9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	52%	59%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

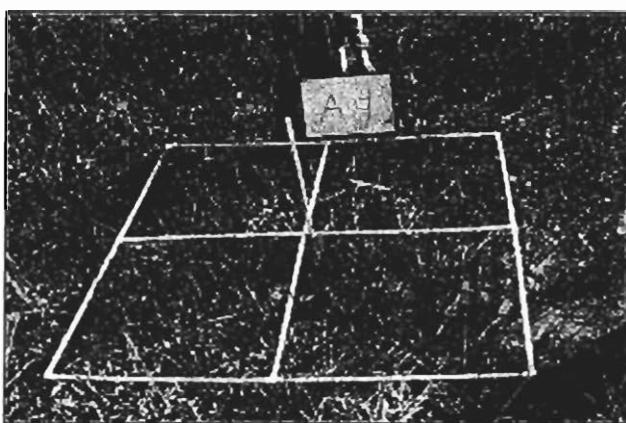
NOTES:

Water Level / Soil Moisture

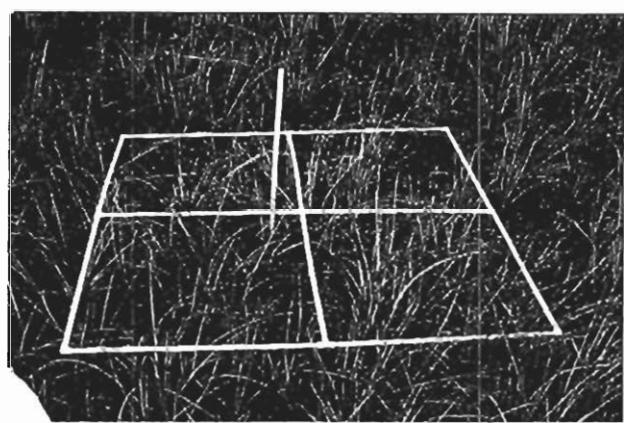
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

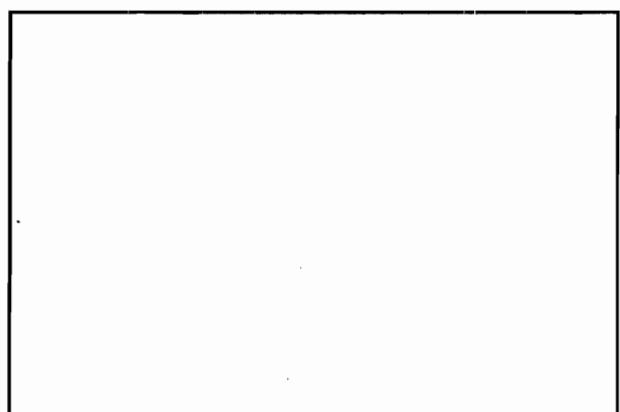
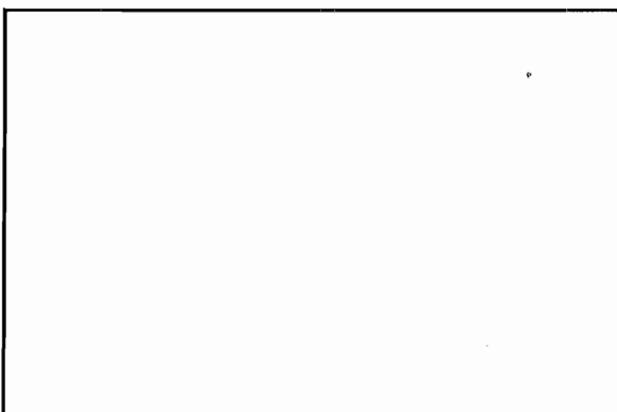


5/17/2003



A9

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-10

STATION

16+38

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	42%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	2%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	1%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	1%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	49%	48%
TOTAL		100%	99%

SAPLING / VINE

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

OVERSTORY

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

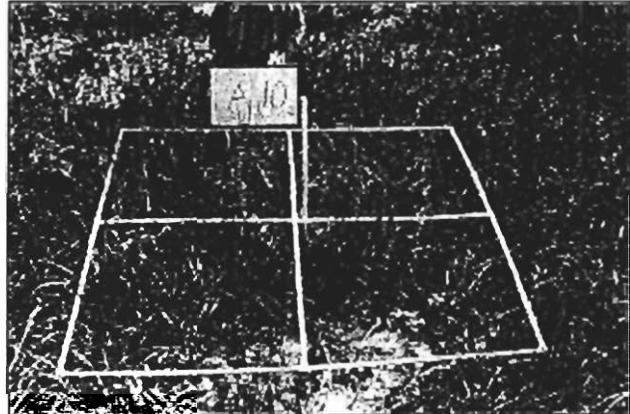
NOTES: _____

Water Level / Soil Moisture _____

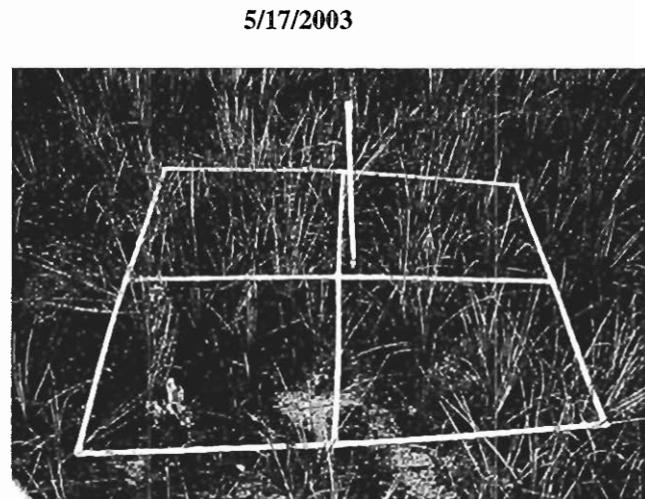
Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____

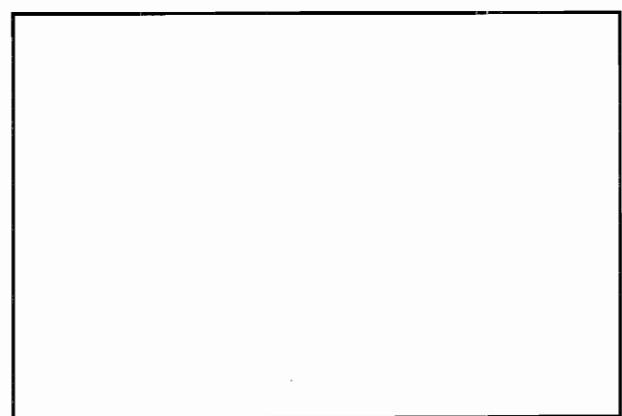
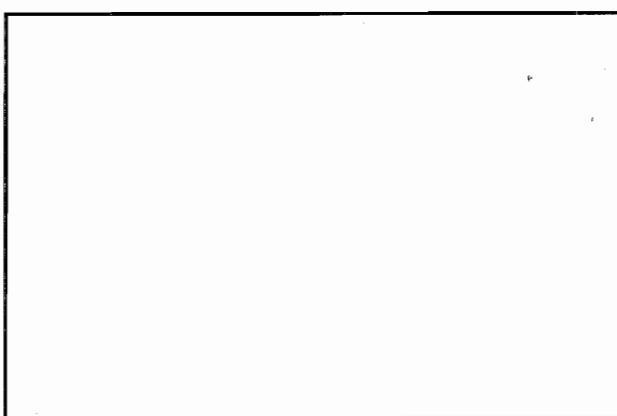
GROUND



A10



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-11

STATION

18+20

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	55%	50%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	45%	50%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

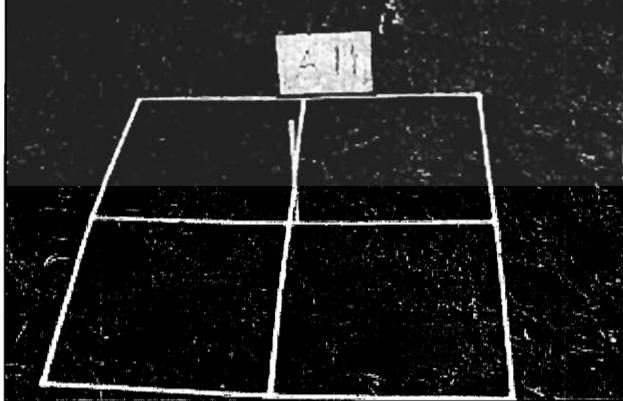
NOTES:

Water Level / Soil Moisture

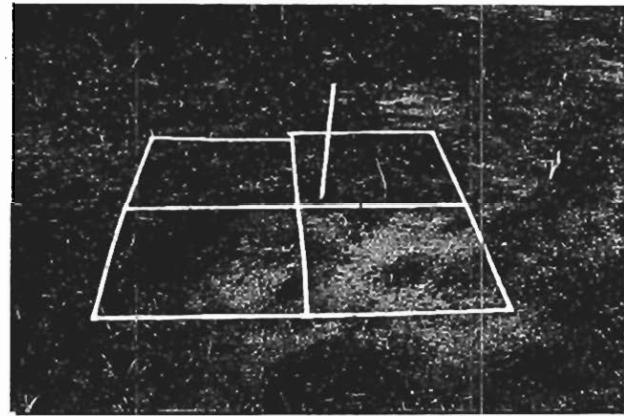
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

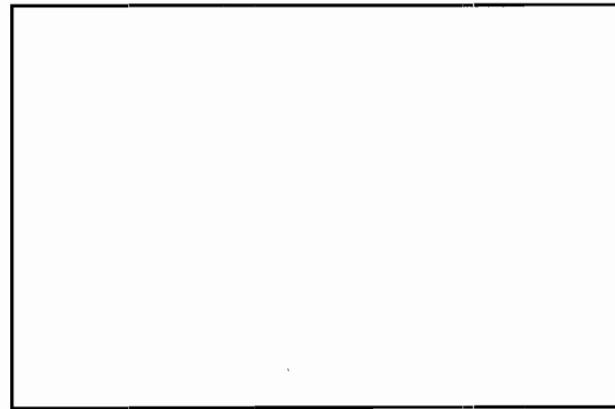
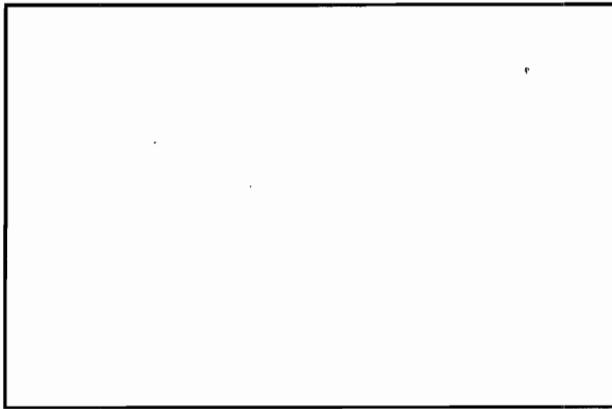


5/17/2003



A11

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-12

STATION

20+02

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	1%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	20%	39%
	TOTAL	100%	100%

SAPLING / VINE

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

OVERSTORY

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

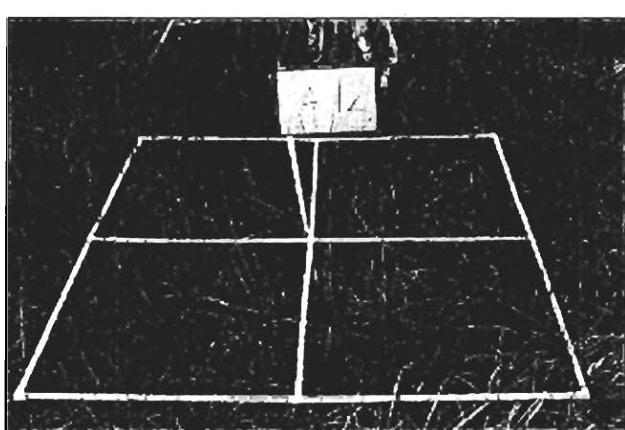
NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

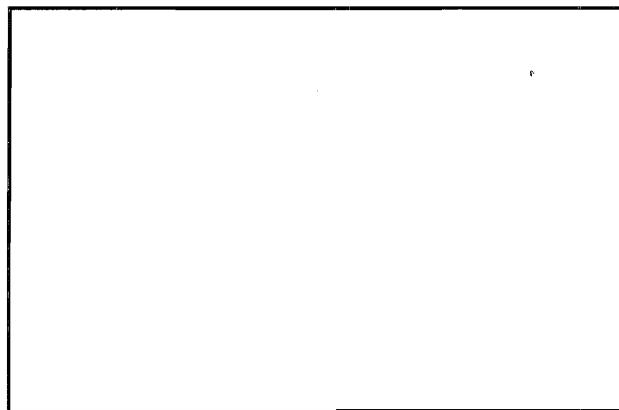
Wildlife Indicators (tracks, scat, nests)

GROUND

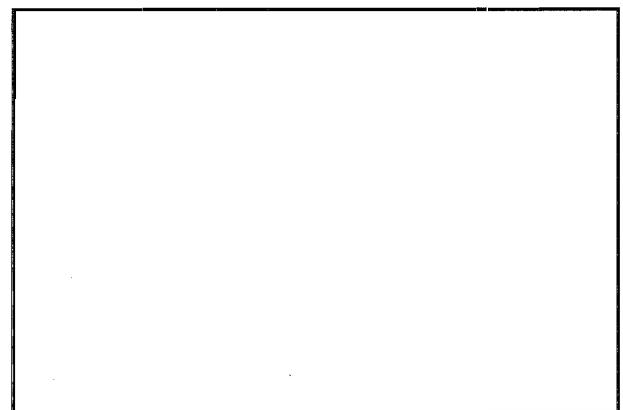
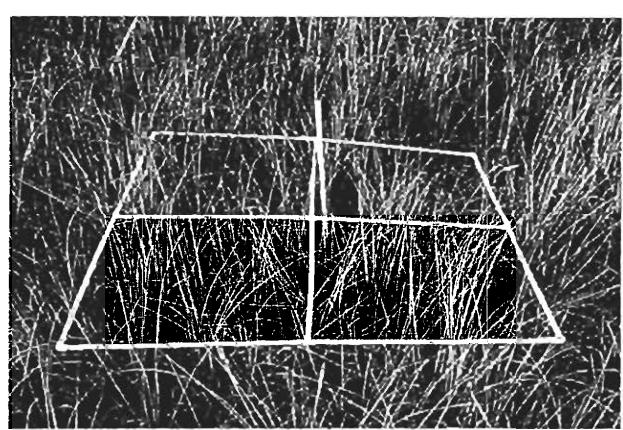


A12

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-13

STATION

21+84

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	95%	85%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
UK9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	5%	10%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

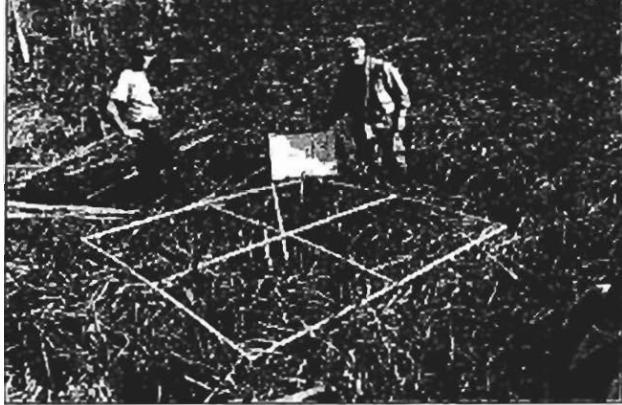
NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

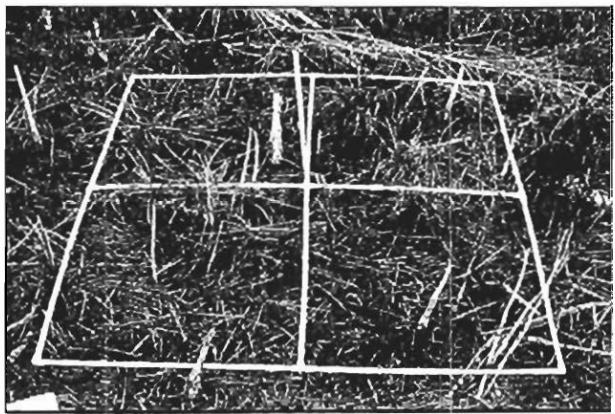
Wildlife Indicators (tracks, scat, nests)

GROUND



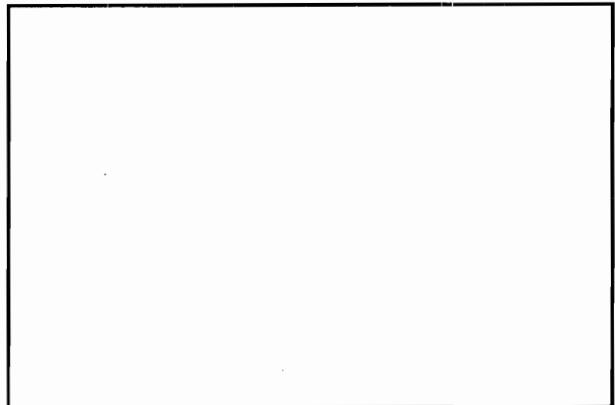
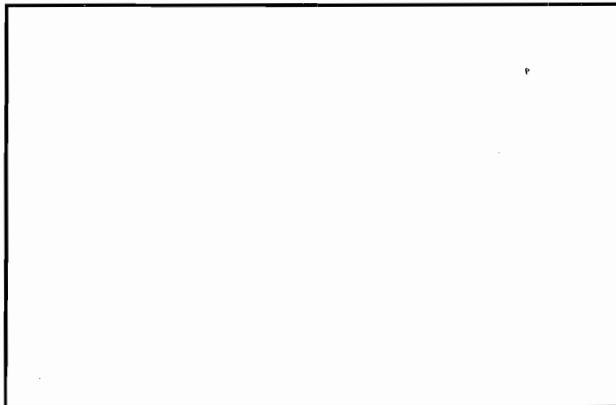
11/9/2002

5/17/2003



A13

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-14

STATION

23+66

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	35%	40%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

1" of standing water

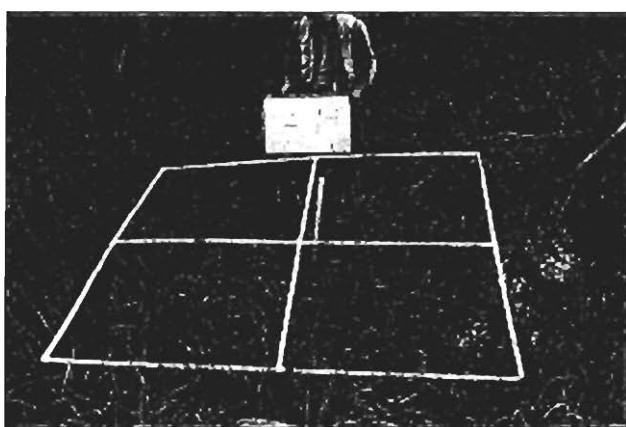
Aquatic Macrofauna

None

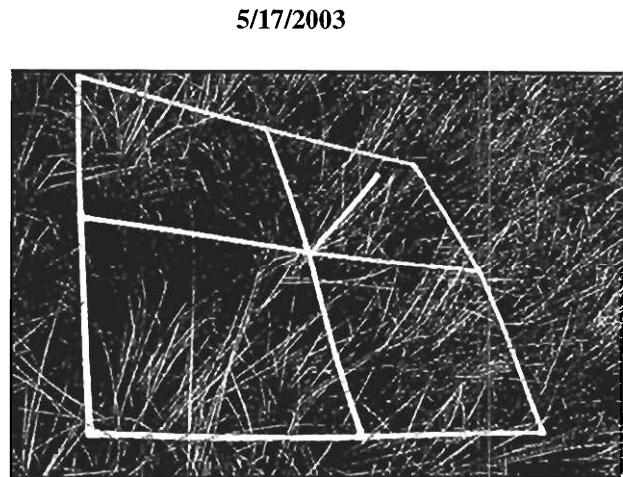
Wildlife Indicators (tracks, scat, nests)

None

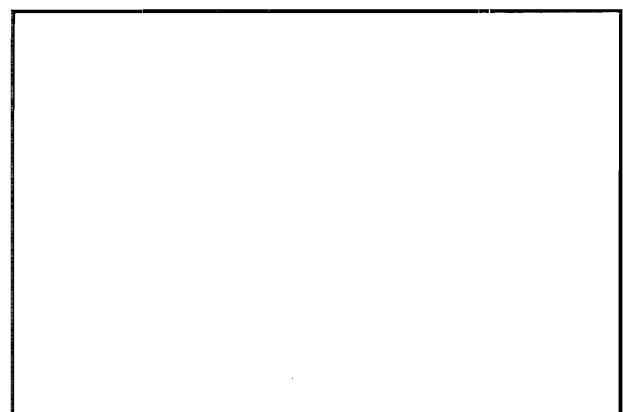
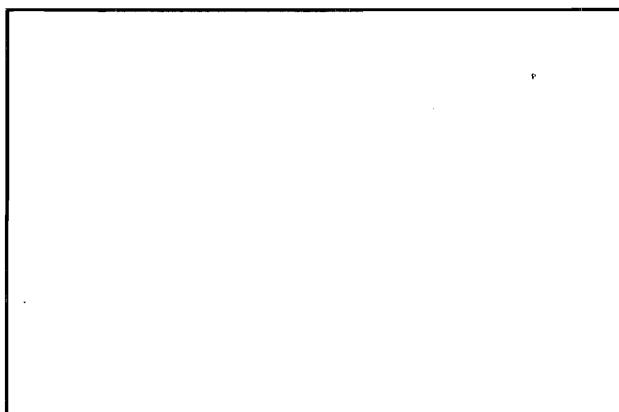
GROUND



A14



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-15

STATION 25+48

SUBMERGED AQUATICS

11/9/2002 **5/17/2003**

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	10%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	12%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	80%	78%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

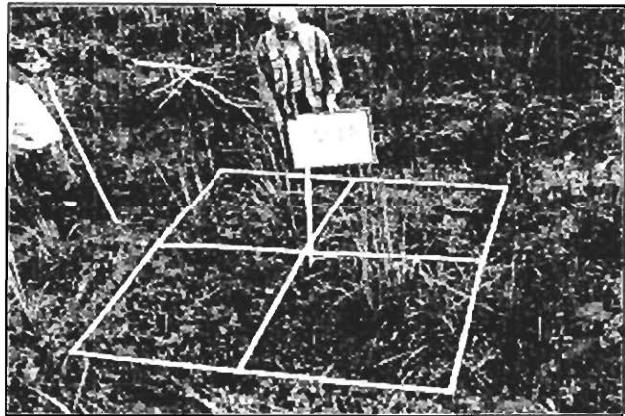
NOTES: _____

Water Level / Soil Moisture _____

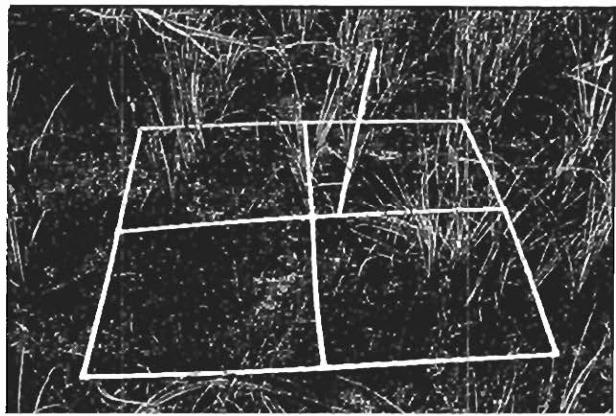
Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____

GROUND

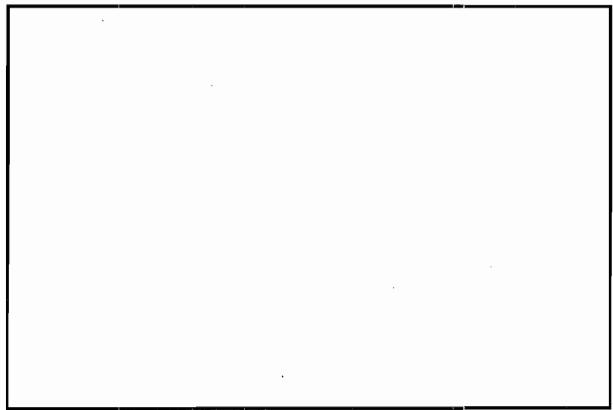
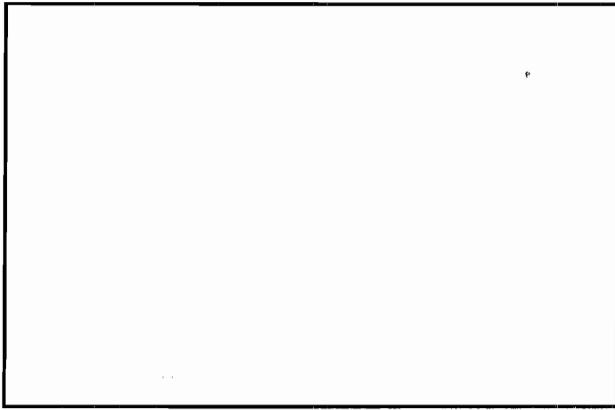


5/17/2003



A15

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-16

STATION

27+30

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	5%	7%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	3%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	10%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	92%	83%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

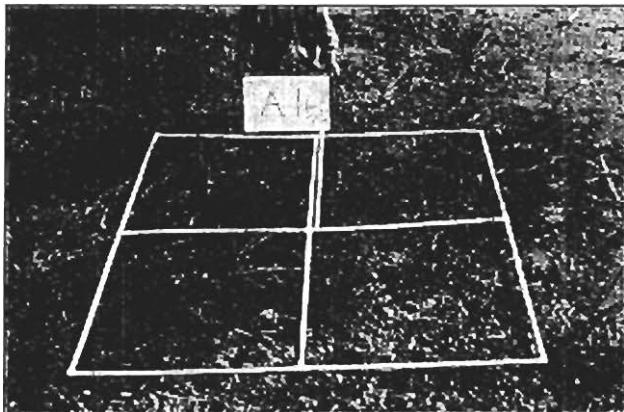
Water Level / Soil Moisture

Aquatic Macrofauna

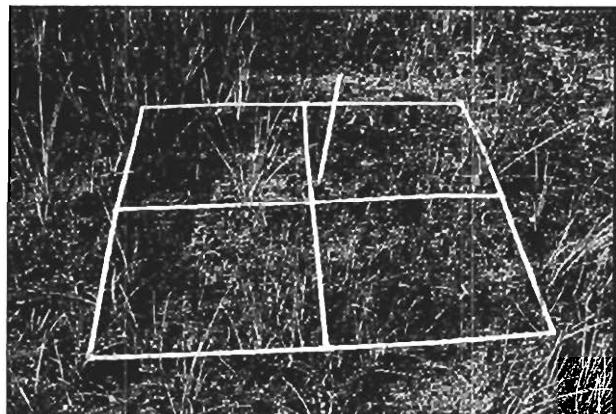
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

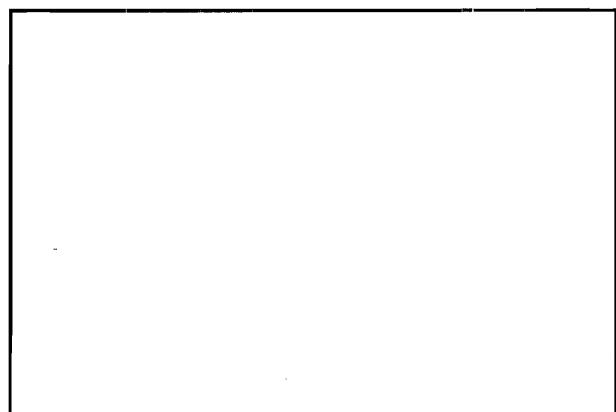
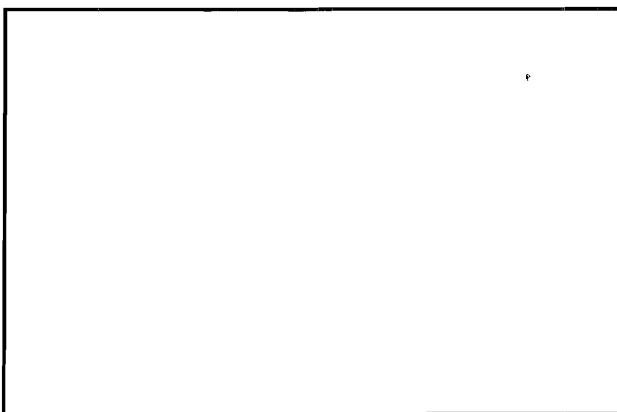


5/17/2003



A16

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-17

STATION

29+12

SUBMERGED AQUATICS

11/9/2002

5/17/2003

Common Name	Scientific Name	% Coverage	% Coverage
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	1%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	1%
Open/Void	N/A	100%	98%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40%	43%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	3%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	1%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
UK9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	37%	28%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

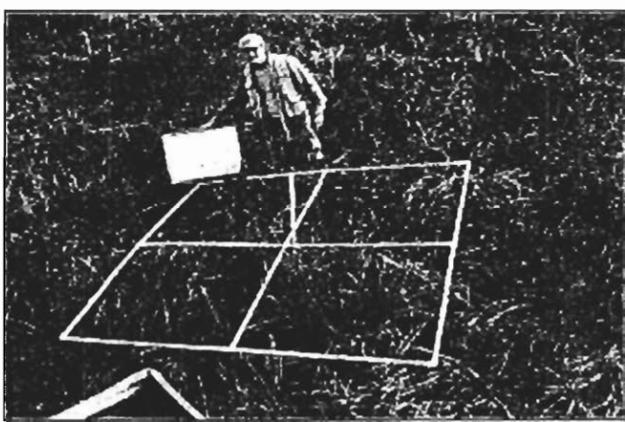
NOTES: _____

Water Level / Soil Moisture

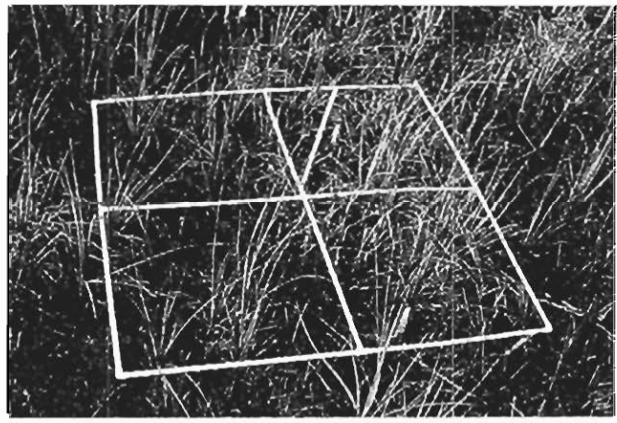
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

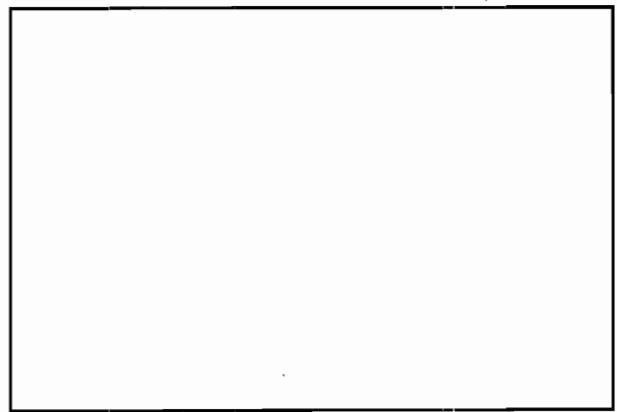
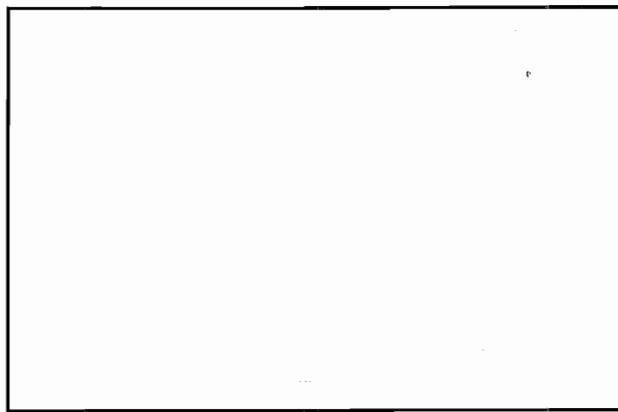


5/17/2003



A17

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-18

STATION

30+94

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	35%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	5%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	1%	1%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	64%	79%
TOTAL		100%	110%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture

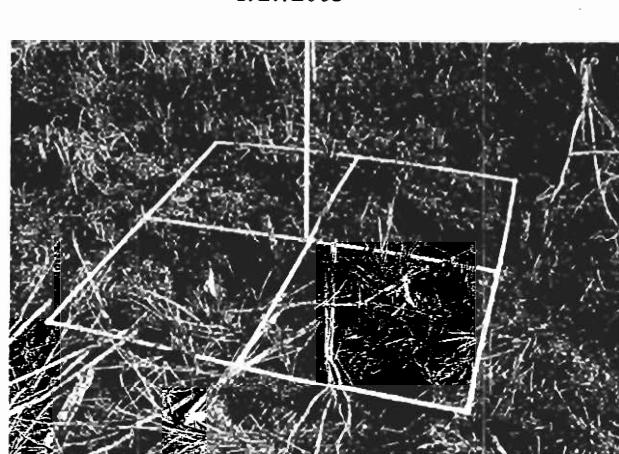
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

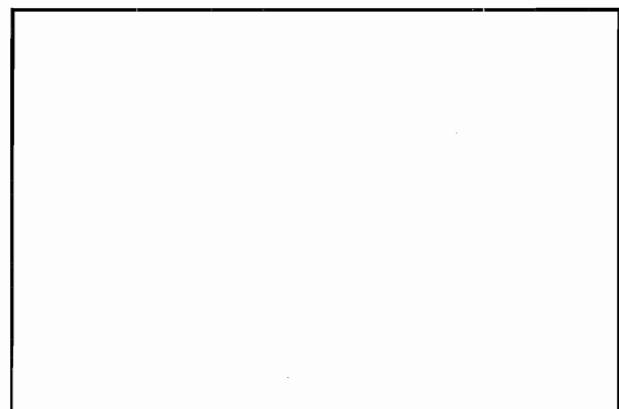
GROUND



A18



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-19

STATION

32+76

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	25%	20%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

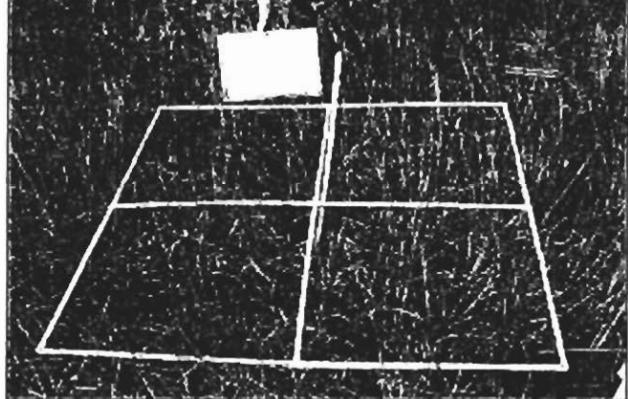
NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

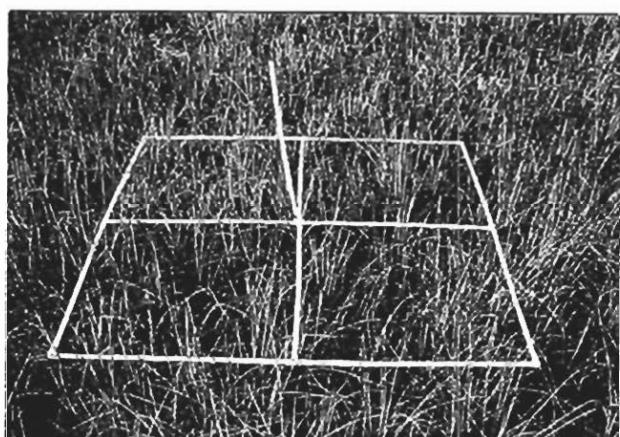
Wildlife Indicators (tracks, scat, nests)

GROUND

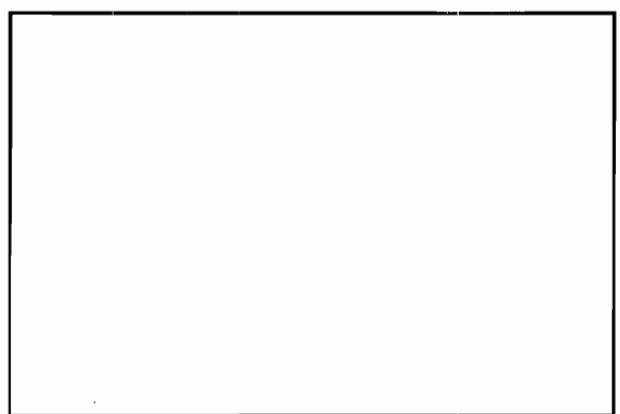
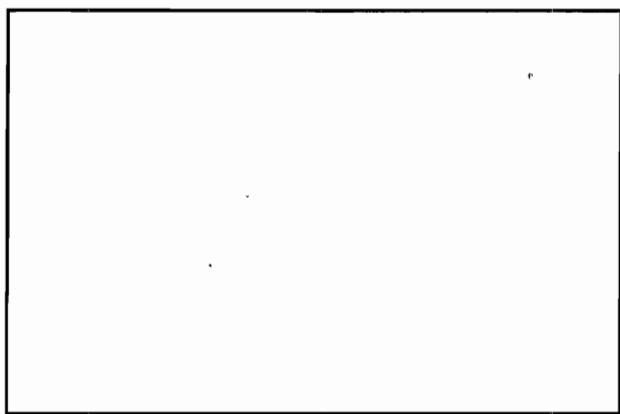


A19

5/17/2003



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-20

STATION 34+58

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	27%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	30%	15%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	1%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	1%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	39%	55%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture _____

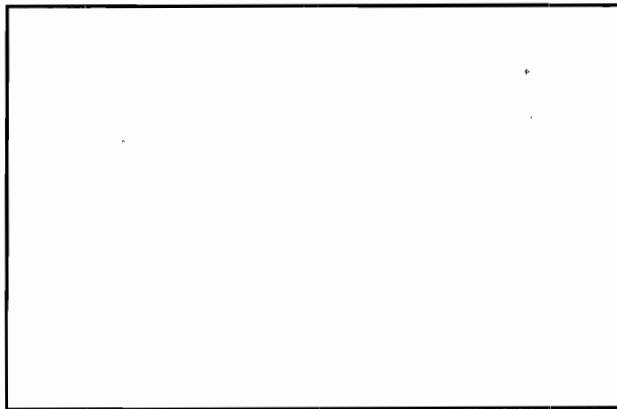
Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____

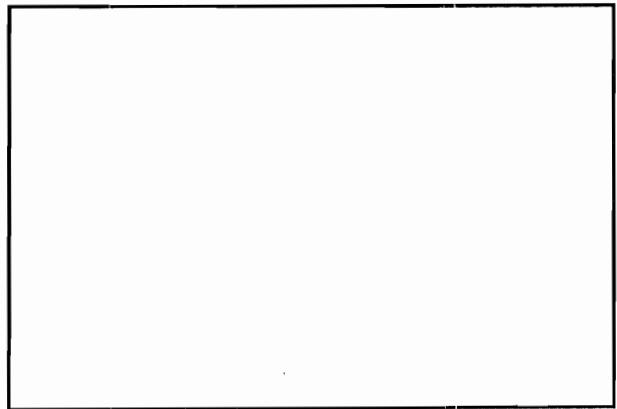
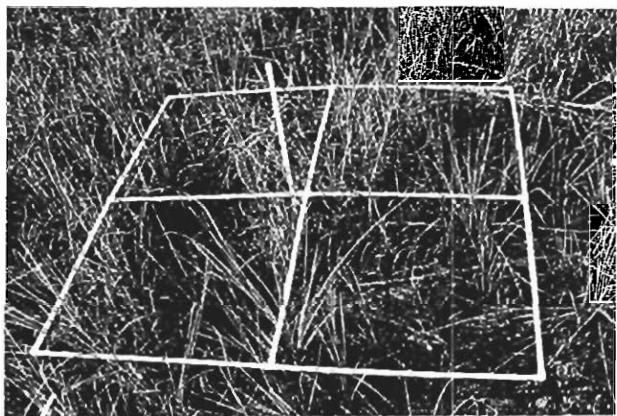
GROUND



CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-21

STATION

36+40

SUBMERGED AQUATICS

11/9/2002 5/17/2003

Common Name	Scientific Name	% Coverage	% Coverage
Water-Hyssops	<i>Bacopa caroliniana</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	1%
Open/Void	N/A	100%	99%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	2%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	55%	68%
TOTAL		100%	100%

SAPLING / VINE

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

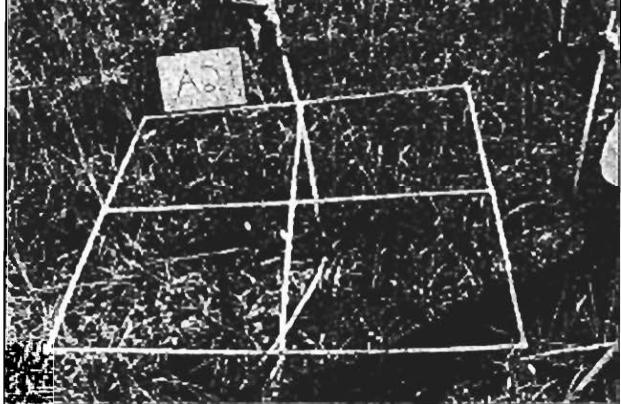
OVERSTORY

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

NOTES:

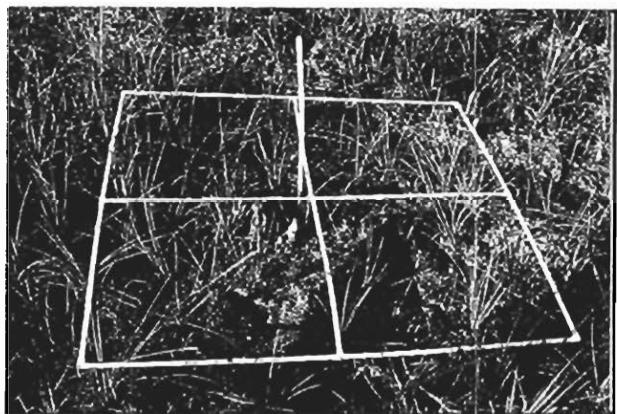
Water Level / Soil Moisture	Water only in depressions
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

GROUND

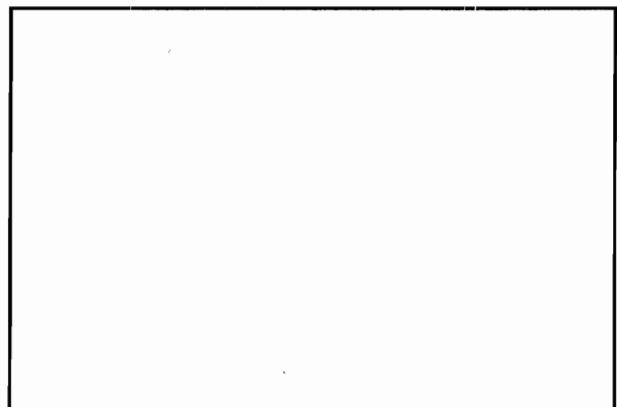
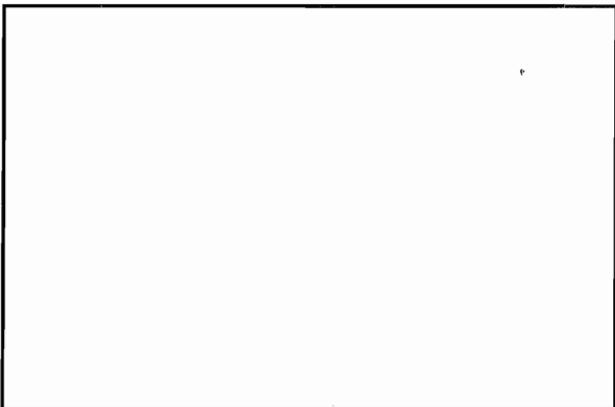


A21

5/17/2003



CANOPY



Pennsoco Monitoring Project - Data Form

TRANSECT / POINT

A-22

STATION

38+22

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	85%	85%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	1%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	14%	13%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

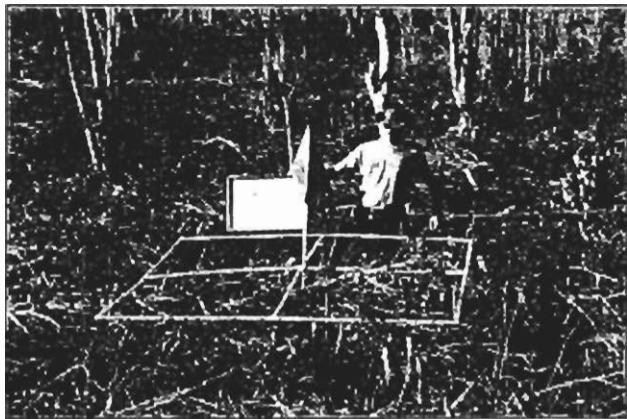
Water Level / Soil Moisture

Aquatic Macrofauna

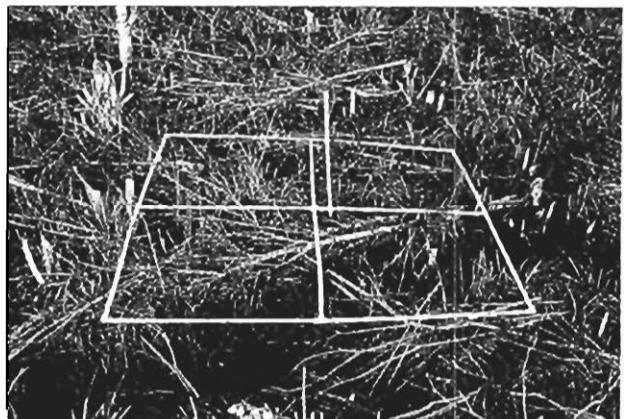
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

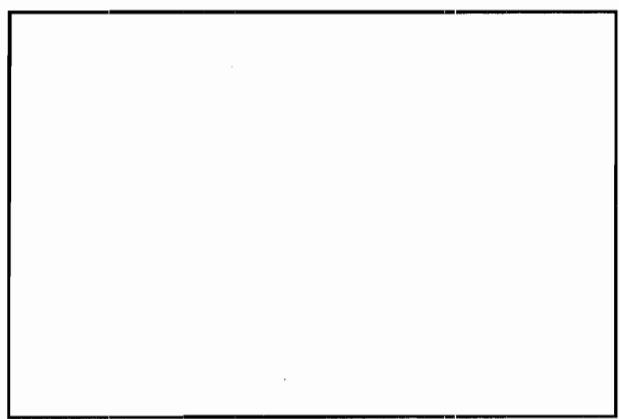
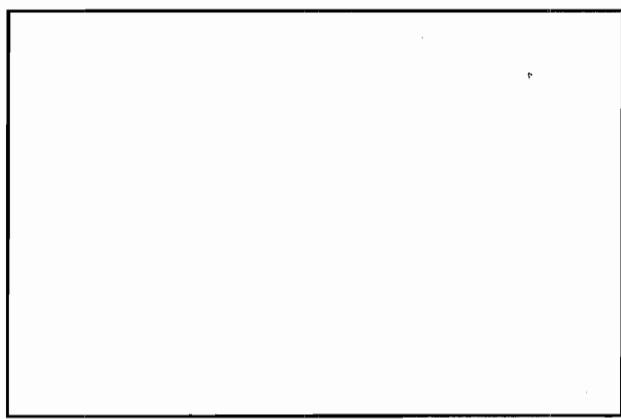


5/17/2003



A22

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-23

STATION

40+04

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	95%	90%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	0%	10%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	10%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	10%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		80%	80%
TOTAL		100%	100%

OVERSTORY

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

NOTES: New growth occurring from dead Melaleuca stalks

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

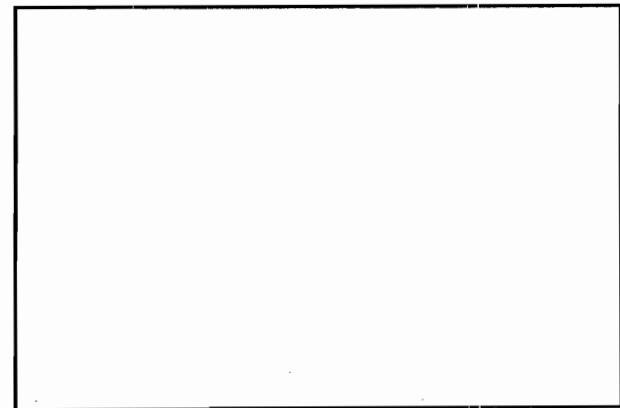
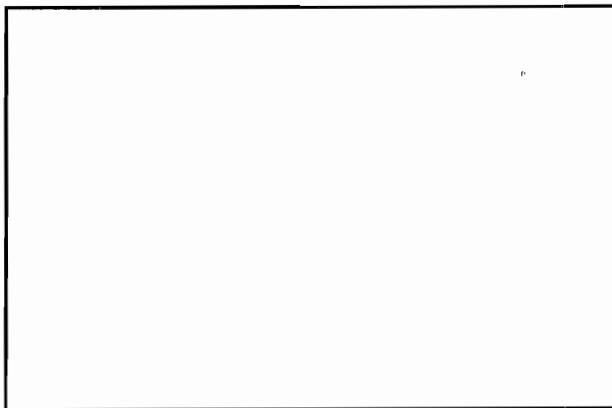
GROUND



A23



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-24

STATION

41+86

SUBMERGED AQUATICS

11/9/2002

5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	85%	80%
	TOTAL	100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	15%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		80%	70%
	TOTAL	100%	100%

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

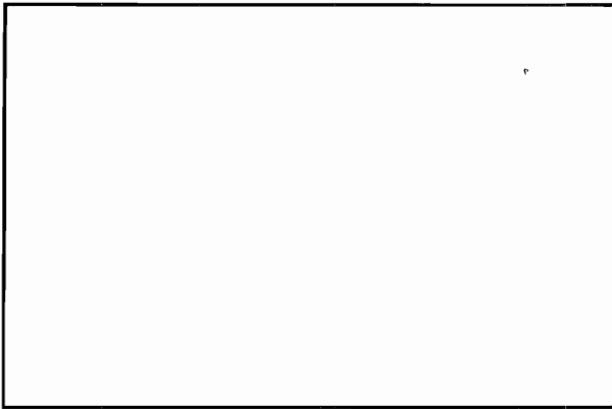
Wildlife Indicators (tracks, scat, nests)

GROUND



A24

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-25

STATION

43+68

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	5%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	70%	25%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	25%	74%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	7%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		90%	90%
TOTAL		100%	100%

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture _____

Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____

GROUND

11/9/2002

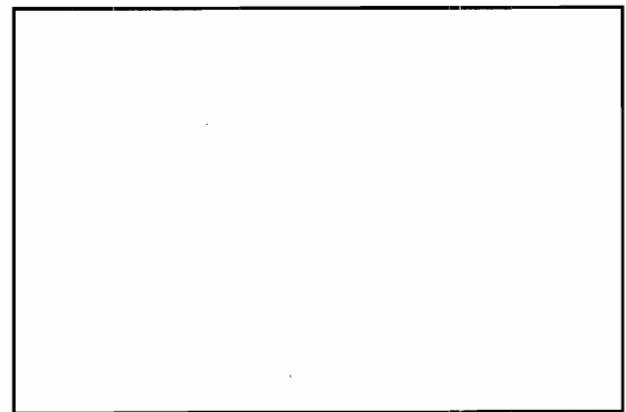
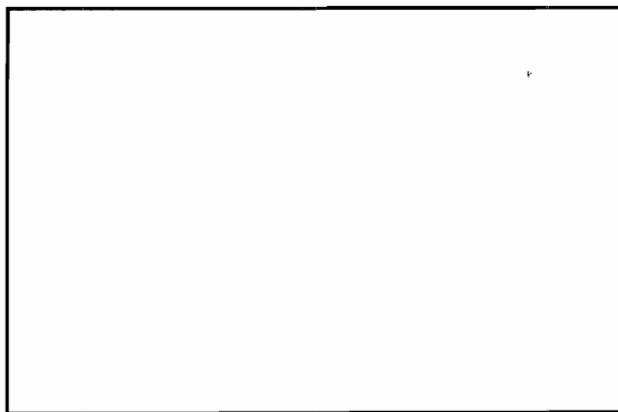


5/17/2003



A25

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-26

STATION

45+50

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	5%	5%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	65%	55%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	5%	15%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	2%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	25%	23%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

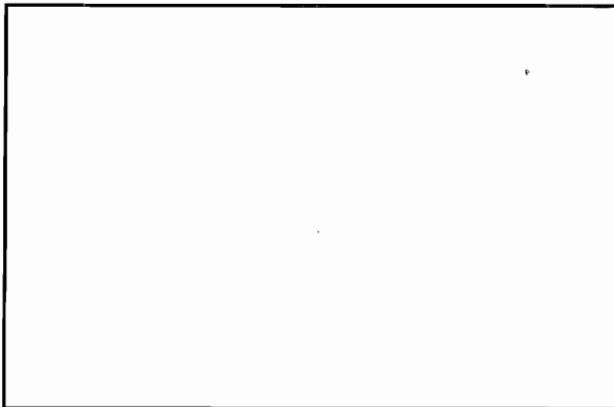
Wildlife Indicators (tracks, scat, nests)

GROUND

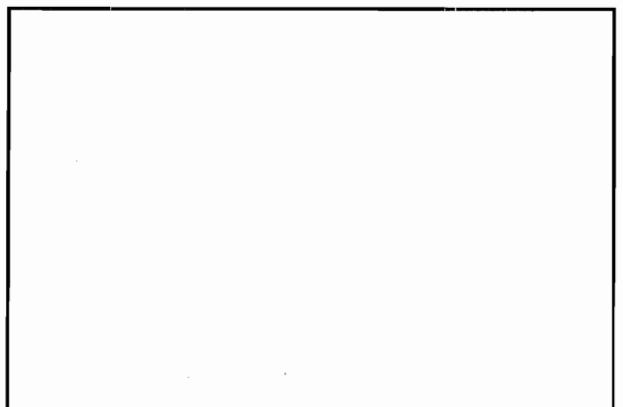


A26

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-27

STATION 47+32

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	90%	65%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	4%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	10%	31%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	4%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	6%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		90%	90%
TOTAL		100%	100%

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

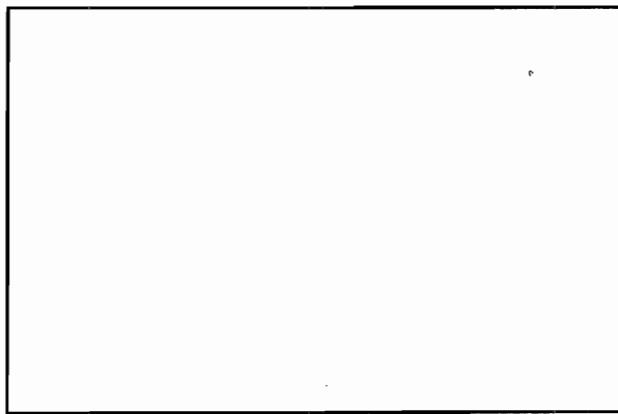
Wildlife Indicators (tracks, scat, nests)

GROUND

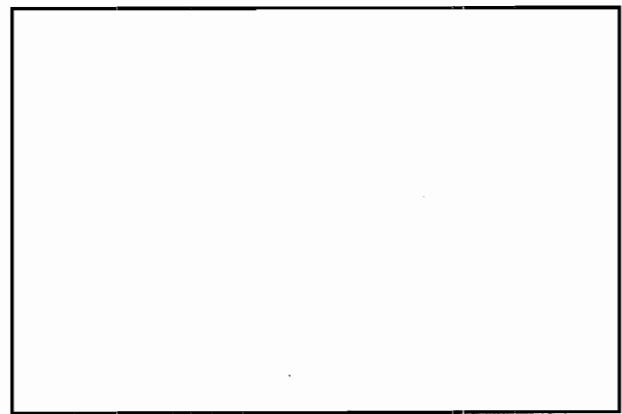


A27

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-28

STATION

49+14

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	80%	80%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	20%	20%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		80%	80%
TOTAL		100%	100%

OVERSTORY

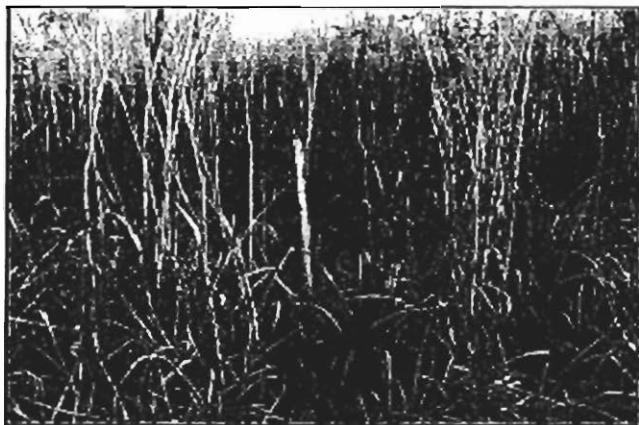
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		100%	100%
TOTAL		100%	100%

NOTES:

Water Level / Soil Moisture	1" standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

GROUND

11/9/2002

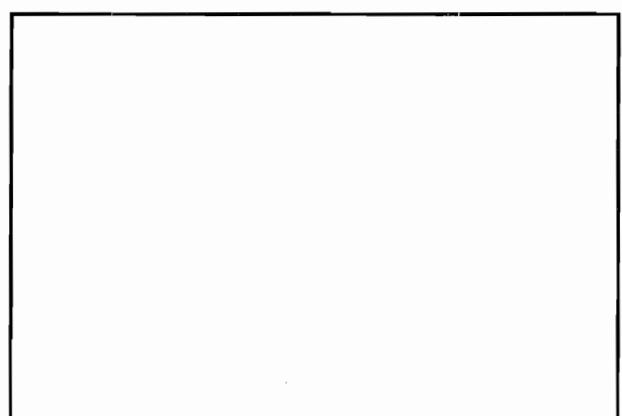
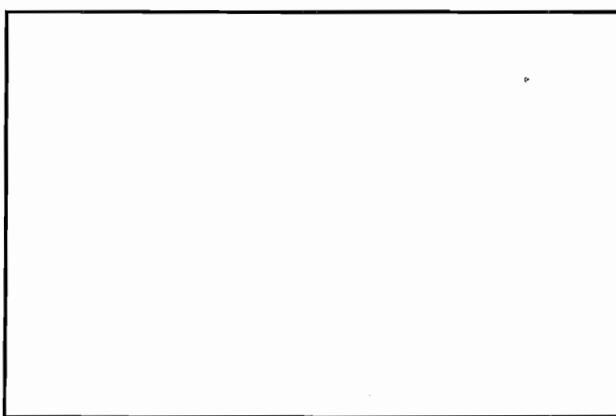


5/17/2003



A28

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-29

STATION 50+96

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	95%	95%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	5%	5%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	15%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		80%	80%
TOTAL		100%	100%

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

{ GROUND

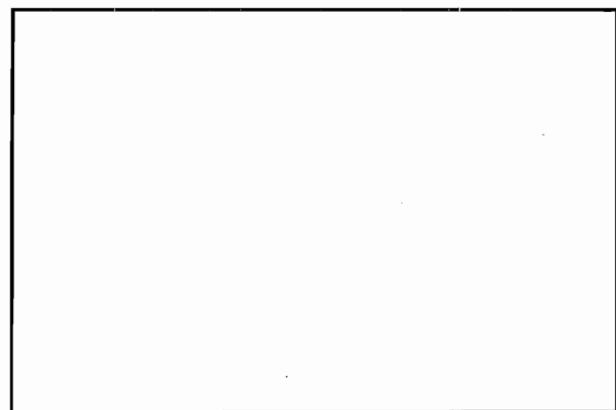
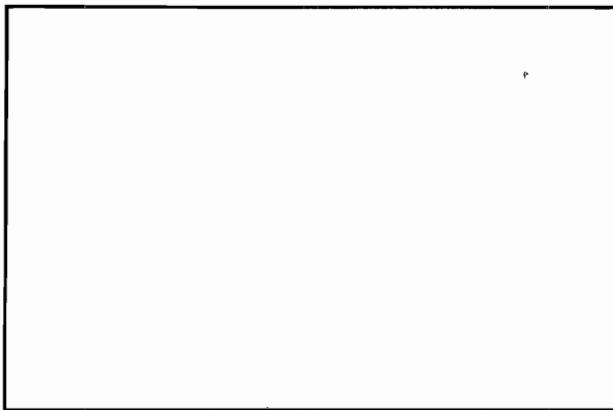


5/17/2003



A29

{ CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT A-30

STATION 52+78

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw-grass (Alive)	<i>Cladium jamaicense</i>	15%	40%
Saw-grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweeds	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	1%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	84%	60%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	10%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	10%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		90%	100%
TOTAL		100%	110%

OVERSTORY

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

NOTES: _____

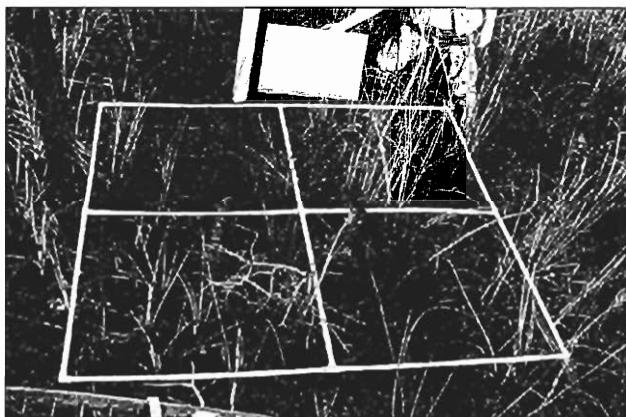
Water Level / Soil Moisture _____

Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____

GROUND

11/9/2002

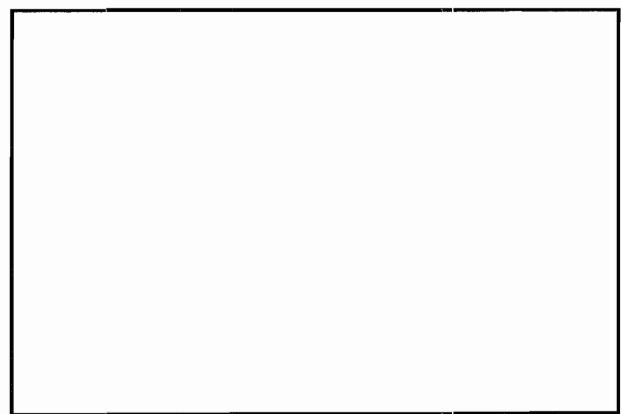
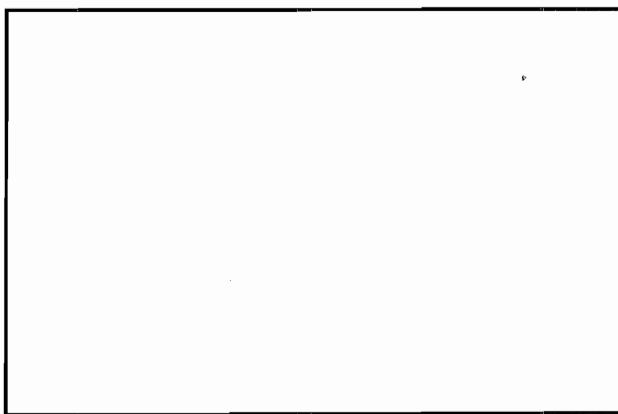


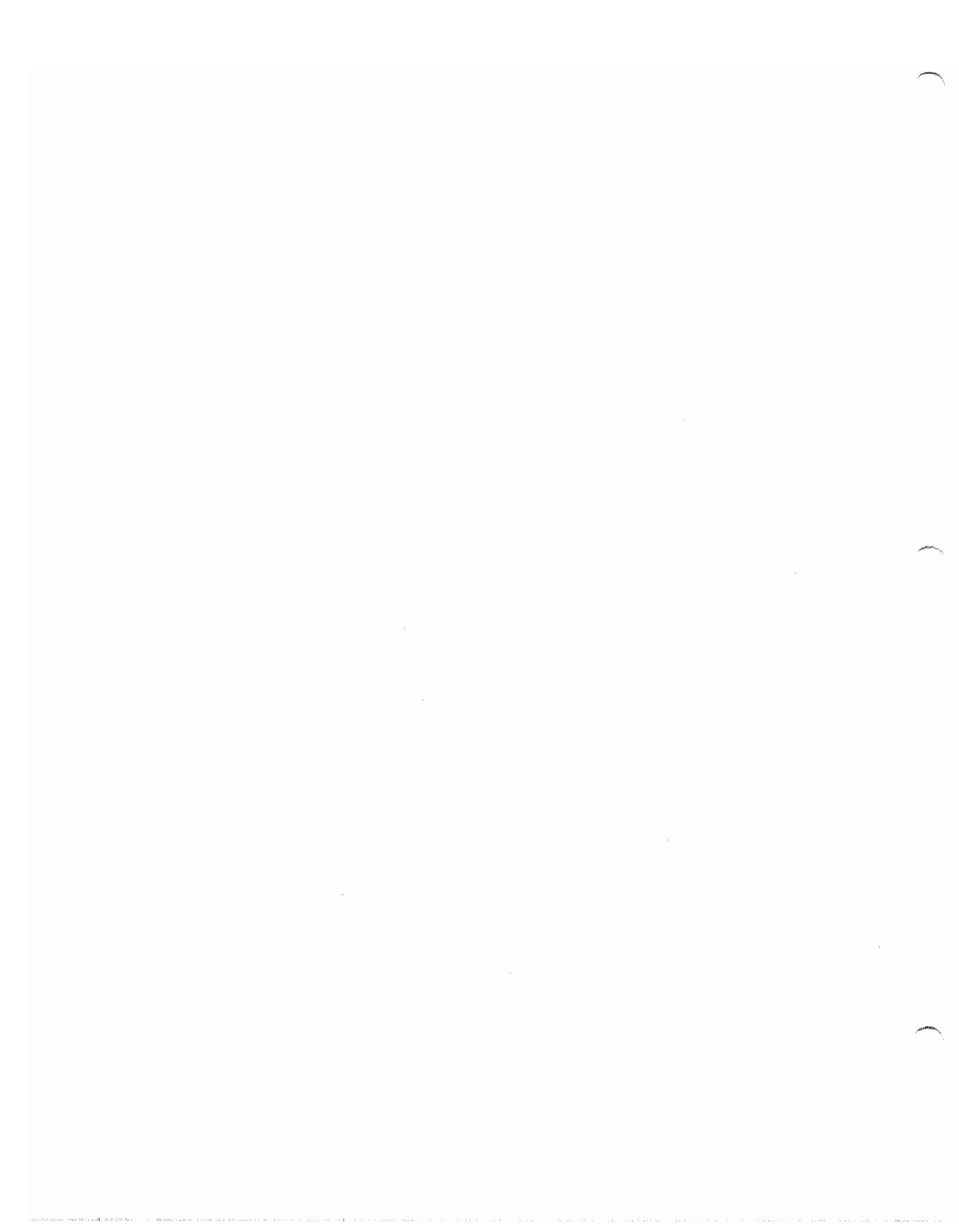
5/17/2003



A30

CANOPY





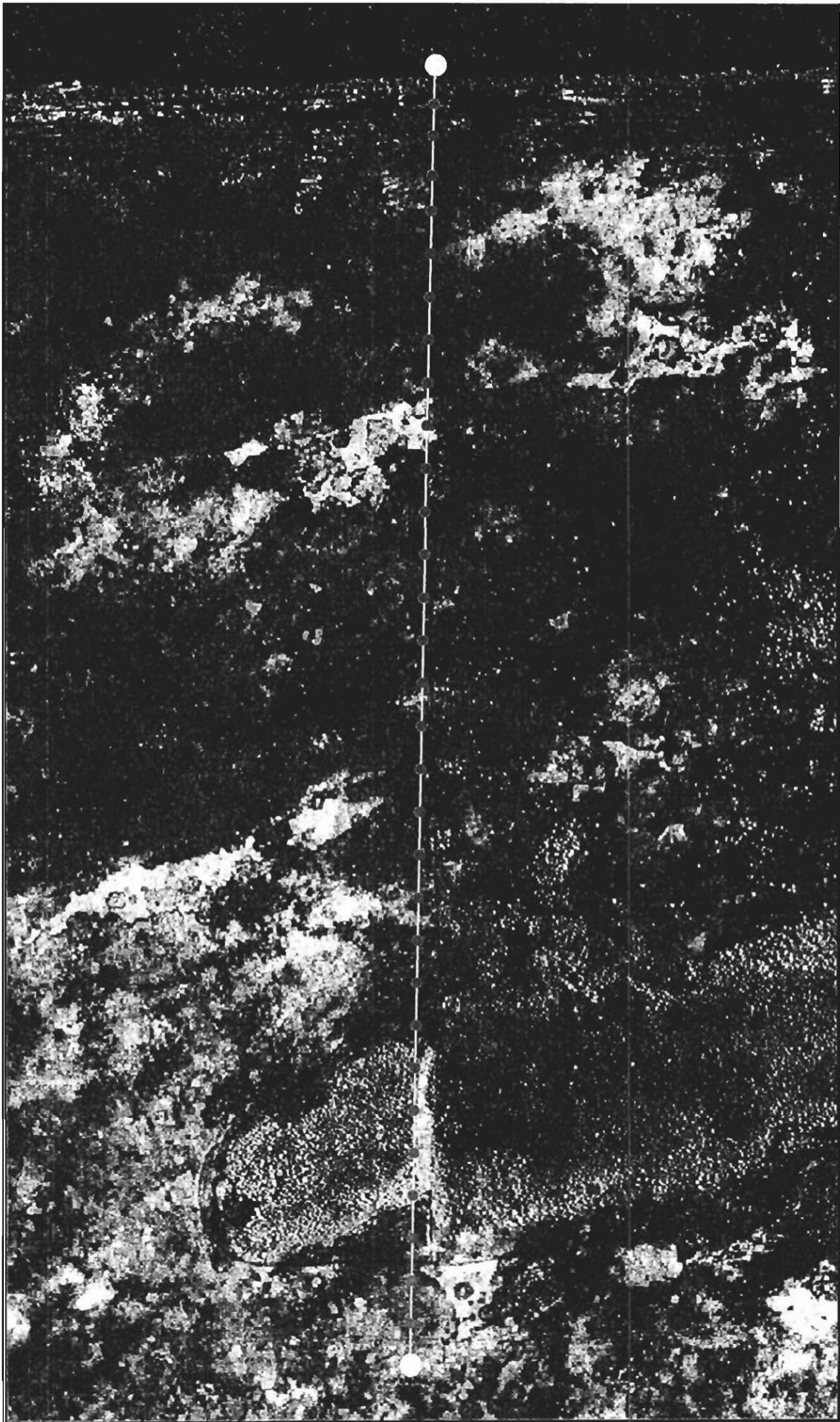
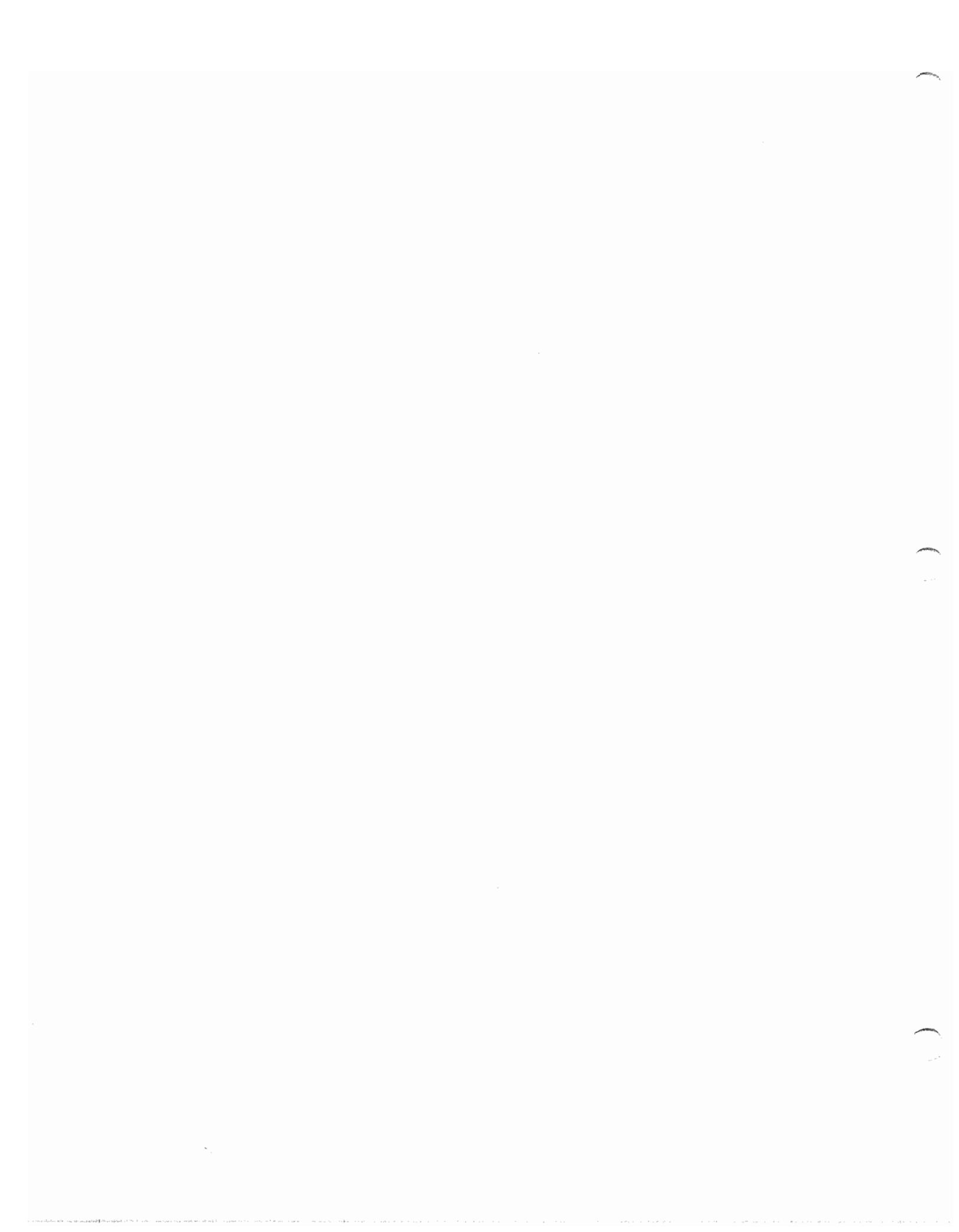


Figure 4. Transect B

End Points of Segment
● Data Collection Locations





TRANSECT B

Narrative

Transect B is located in Section 5, Township 53, Range 39 (Cell 26 – Pennsco Exotic Treatment Area). It starts at point B1 approximately one mile east of Krome Avenue (GPS Coordinates Latitude $25^{\circ} 51' 20.39''$, Longitude $80^{\circ} 28' 01.70''$), 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. Control efforts consisted of herbicidal treatment and a physical removal program, followed by a controlled burn.

Observations from November 9, 2002 Monitoring

Photo points B8 and B9, though dominated by Pickerelweed (*Pontederia lancelata*) and Arrowhead (*Sagittaria graminea*), have punk tree (*Melaleuca quinquenervia*) saplings visible in all directions outside the grid. Punk tree seedlings occupy 1 percent of the herbaceous species at photopoint B7, where the open water area totals 56 percent.

Water depths ranged from 11 to 14 inches at the four photopoint locations (B7, B14, B21, and B28). A few two-centimeter fry were observed at photopoints B13 and B21. A few small snails about five centimeters in length were noted at B22. One Cuban Tree frog was photographed on saw-grass at B18.

Much 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.

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

- In the submerged aquatics layer, 1 percent Bladderworts (*Utricularia spp.*).
- In the herbaceous species layer, 63 percent live saw-grass, 1 percent Southern Swamp Lily (*Crinium Americanum*), and 1 percent Button Bush (*Cephaelanthus occidentalis*).
- In the sapling/vine layer, 1 percent live punk trees.
- In the overstory layer, 1 percent dead punk trees.

Observations from May 17, 2003 Monitoring

Photo points B8 and B9, have punk tree (*Melaleuca quinquenervia*) saplings visible in all directions outside the grid. Punk tree seedlings occupy 3 percent of the herbaceous species at photopoint B7, where the open water area totals 90 percent.

Water depths ranged from 4 to 7 inches at the four photopoint locations (B7, B14, B21, and B28). One Cuban Tree frog was observed at photopoint B21. No other macrofauna or indicators of wildlife were noted. Water levels were down leaving many areas dry and the macrofauna particularly the small fry were mostly absent.

Much 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.

In summary, the percent vegetative coverage (greater than or equal to 1 percent), by layer, for this transect identified:

- In the submerged aquatics layer, 1 percent Bladderworts (*Utricularia spp.*).
- In the herbaceous species layer, 56 percent live saw-grass, 6 percent dead saw-grass and 1 percent Southern Swamp Lily (*Crinium Americanum*).
- No vegetative coverage was found in the sapling/vine layer.
- The overstory layer contained 1 percent dead punk trees.

- 100% Live Sawgrass reduced by 73%
- 0% Button Bush from 1% to 0%
- 1% decrease punk in Sapling/Vine layer

Pennsuco Monitoring Project - Summary Sheet

TRANSECT

"B"

Total Length

5280'

SUBMERGED AQUATICS

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0.00%	0.00%
Bladderwort	<i>Utricularia foliosa</i>	0.67%	0.67%
Bladderwort	<i>Utricularia purpurea</i>	0.33%	0.00%
Ludwigia	<i>Ludwigia repens</i>	0.03%	0.27%
Open/Void	N/A	98.97%	99.07%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	62.70%	56.33%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0.00%	6.17%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.17%	0.33%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.00%	0.10%
Southern Swamp Lily	<i>Crinum americanum</i>	0.70%	1.43%
Pickerelweed	<i>Pontederia lanceolata</i>	0.43%	0.33%
Yellowtops	<i>Flaveria linearis</i>	0.00%	0.00%
Arrowhead	<i>Sagittaria graminea</i>	0.33%	0.17%
Floating-Heart	<i>Nymphoides aquatica</i>	0.07%	0.13%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.00%	0.00%
Cattail	<i>Typha latifolia</i>	0.00%	0.00%
Button Bush	<i>Cephaelanthus occidentalis</i>	1.00%	0.00%
Maiden-Cane	<i>Panicum hemitomum</i>	0.10%	0.50%
Shield Fern	<i>Thelypteris kunthii</i>	0.00%	0.00%
Swamp Fern	<i>Blechnum serrulatum</i>	0.00%	0.00%
Elm	<i>Trema micrantha</i>	0.00%	0.00%
Uk9	<i>Malvaceae</i>	0.00%	0.00%
Open Water/Mud/Void	N/A	34.50%	34.50%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1.00%	0.00%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.00%	0.00%
Elm	<i>Trema micrantha</i>	0.00%	0.00%
TBD		0.00%	0.00%
Open/Void		99.00%	100.00%
TOTAL		100%	100%

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.00%	0.07%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	1.17%	1.17%
Golden Fig	<i>Ficus Aurea</i>	0.00%	0.00%
Open/Void		98.83%	98.77%
TOTAL		100%	100%

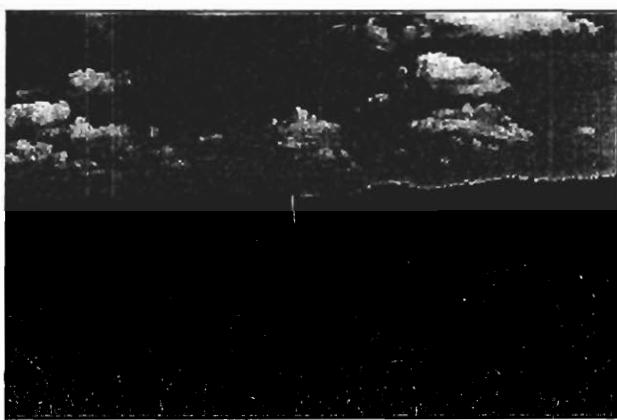
NOTES:

Water Level / Soil Moisture

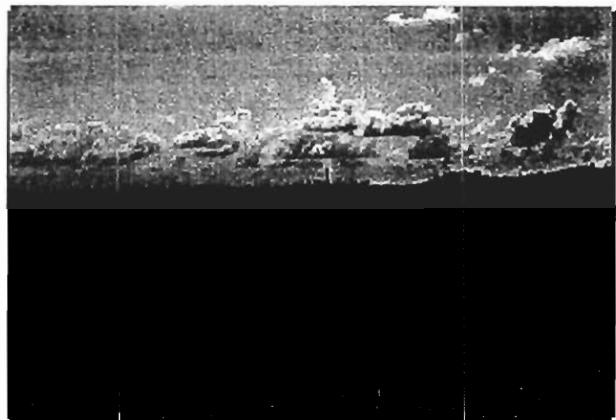
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

0+00 Panoramic - Looking east

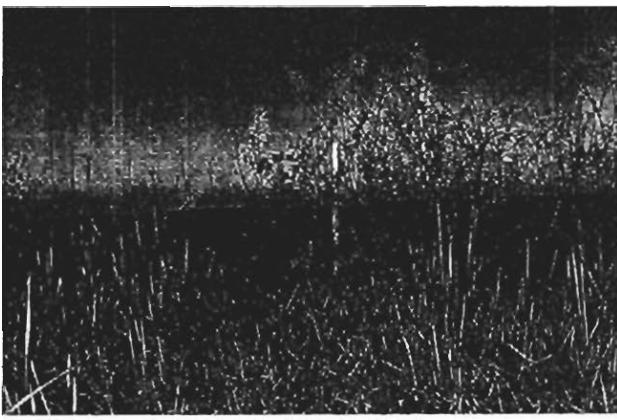


11/9/02

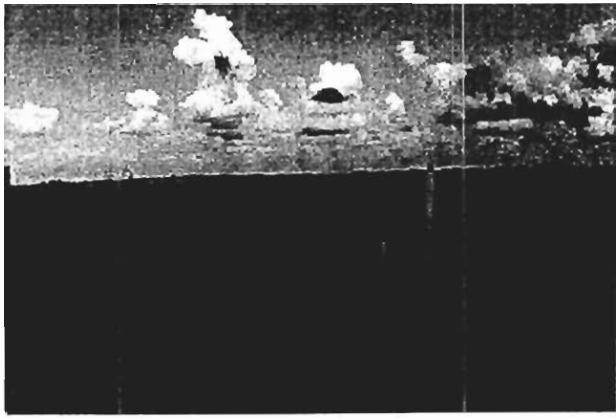


5/17/03

B transect



52+78 Panoramic - Looking West



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-1

STATION 0+00

SUBMERGED AQUATICS

Common Name	Scientific Name	11/9/2002	5/17/2003
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
	TOTAL	100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	48%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	52%	50%
	TOTAL	100%	100%

SAPLING / VINE

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

OVERSTORY

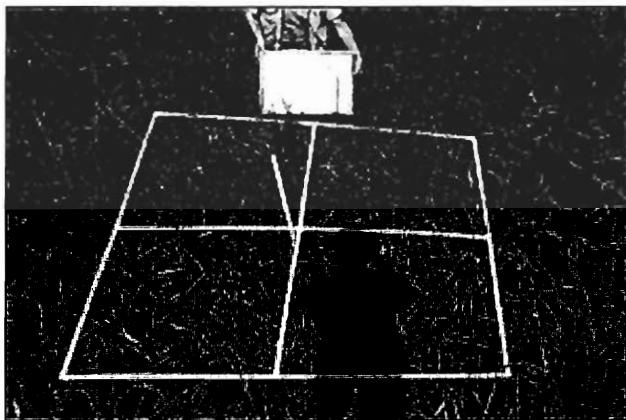
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		100%	100%
	TOTAL	100%	100%

NOTES:

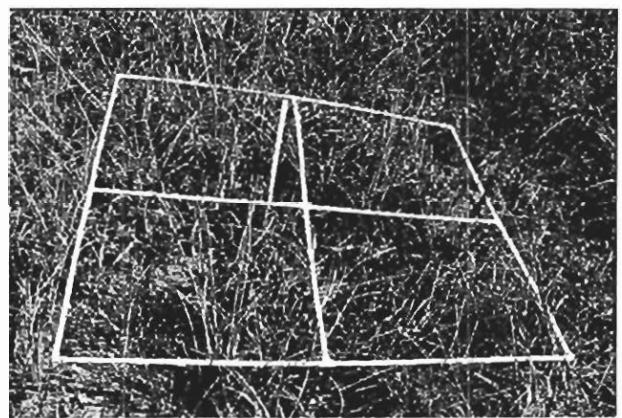
- Water Level / Soil Moisture _____
- Aquatic Macrofauna _____
- Wildlife Indicators (tracks, scat, nests) _____

GROUND

11/9/2002

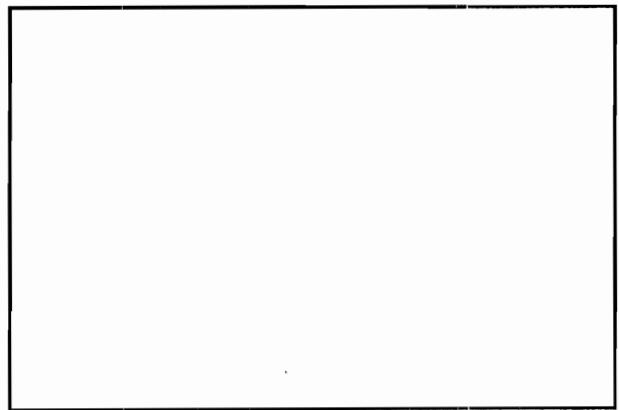
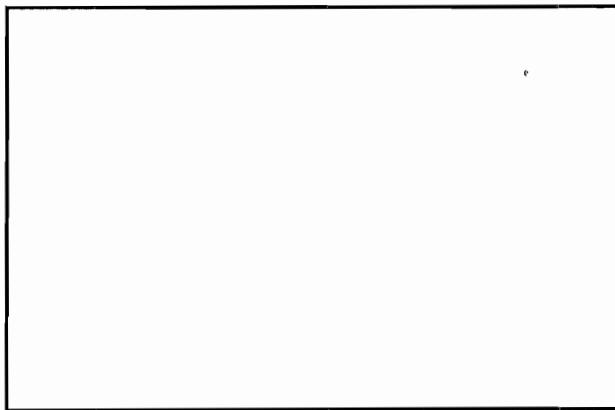


5/17/2003



B1

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-2

STATION

1+82

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	35%	35%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

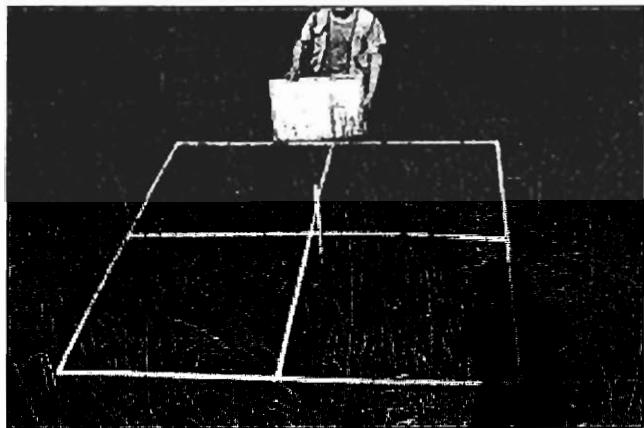
Water Level / Soil Moisture

Aquatic Macrofauna

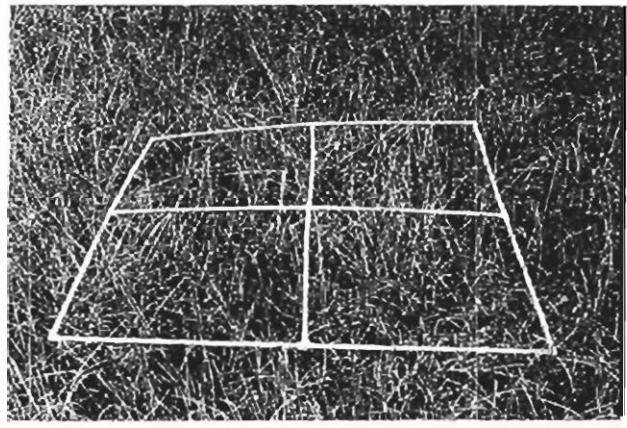
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

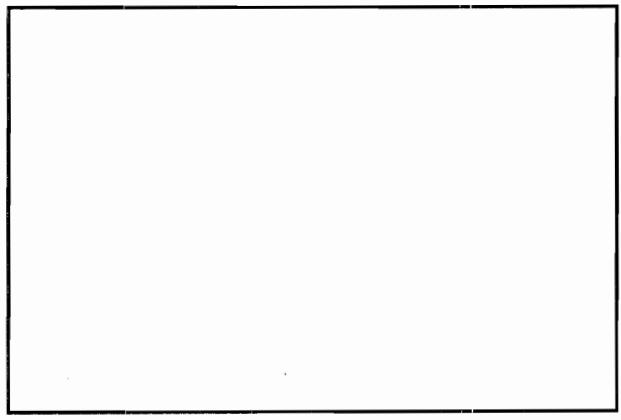
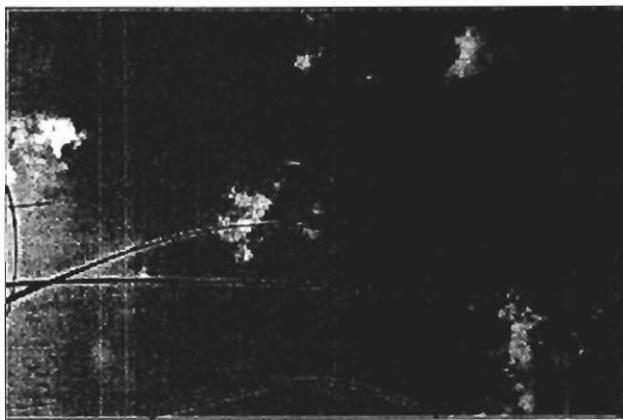


5/17/2003



B2

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-3

STATION

3+64

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	85%	80%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	15%	15%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

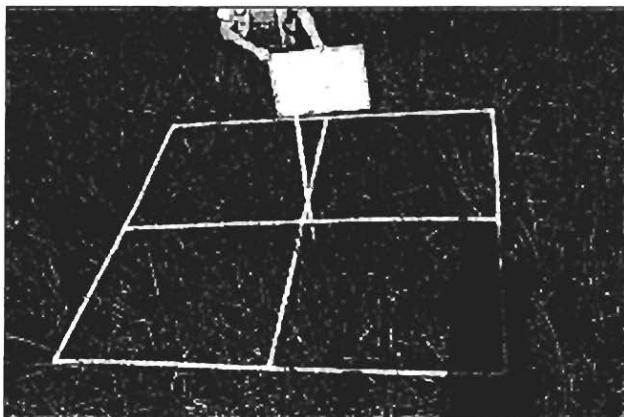
Water Level / Soil Moisture

Aquatic Macrofauna

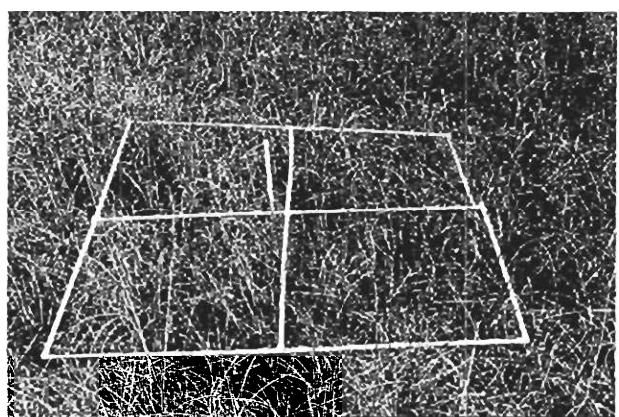
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

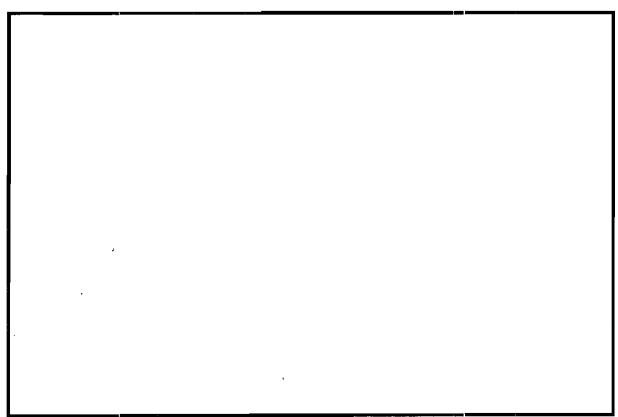


5/17/2003



B3

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-4

STATION

5+46

SUBMERGED AQUATICS

11/9/2002

5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	60%	45%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	3%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	1%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	36%	40%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

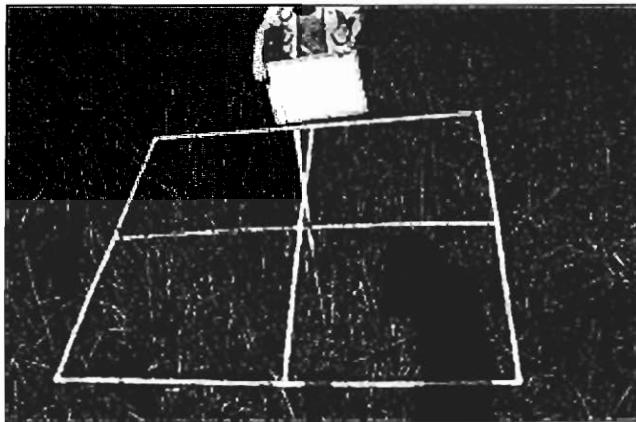
Water Level / Soil Moisture

Aquatic Macrofauna

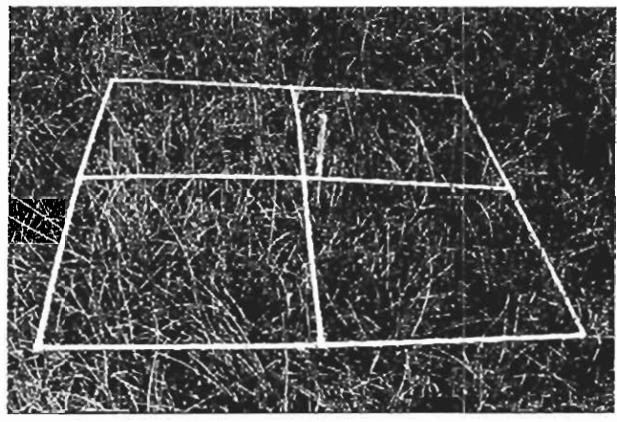
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

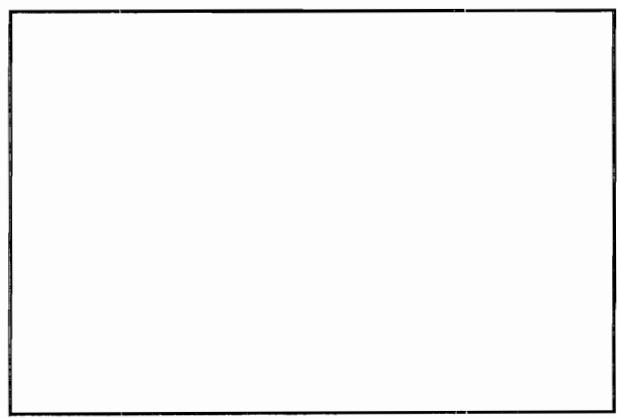
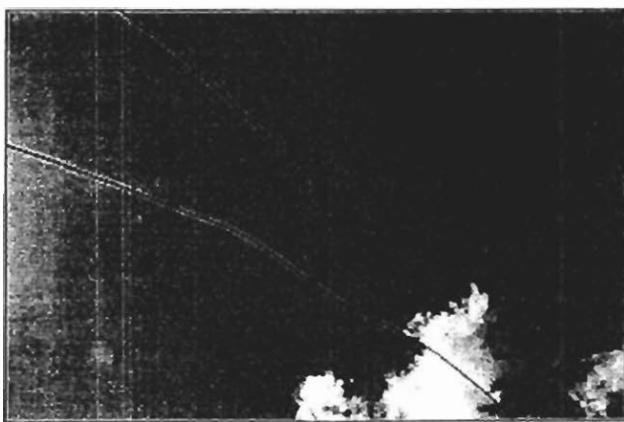


5/17/2003



B4

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-5

STATION 7+28

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	90%	75%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	10%	20%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

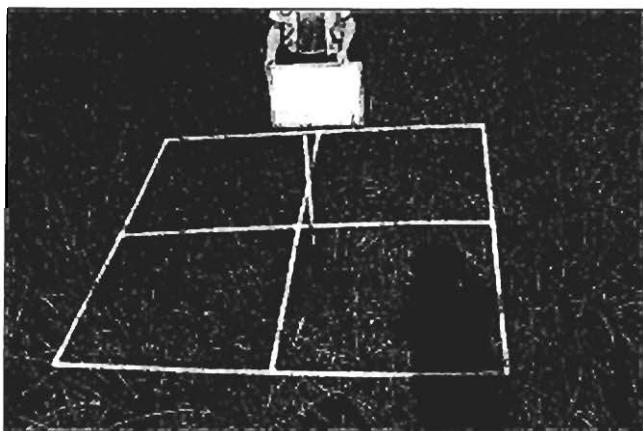
NOTES: _____

Water Level / Soil Moisture

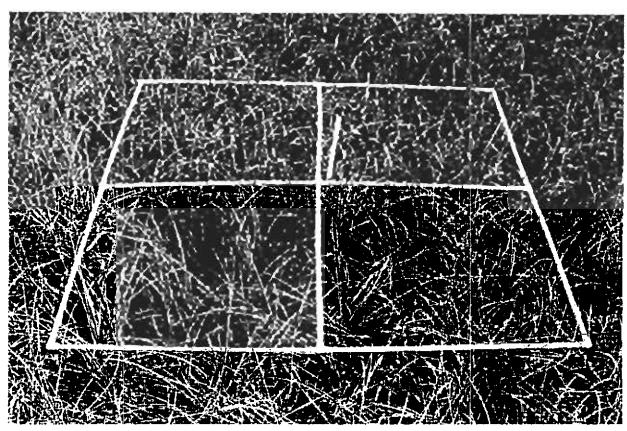
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

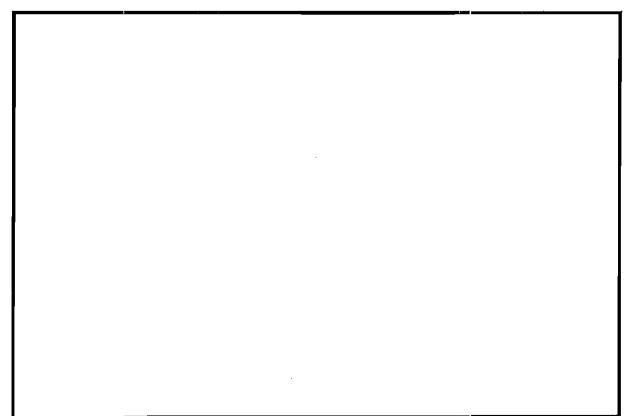


5/17/2003



B5

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-6

STATION 9+10

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	44%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	2%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	5%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	55%	48%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

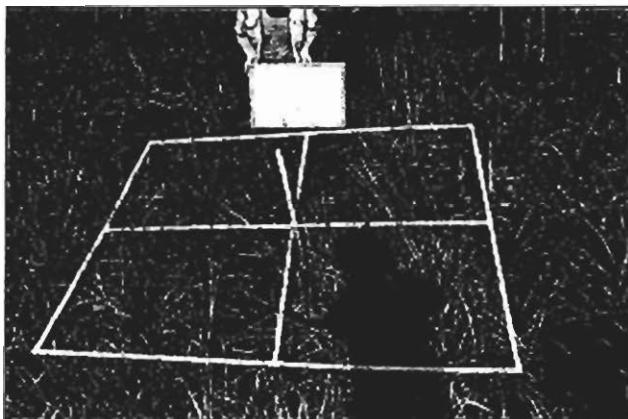
Water Level / Soil Moisture

Aquatic Macrofauna

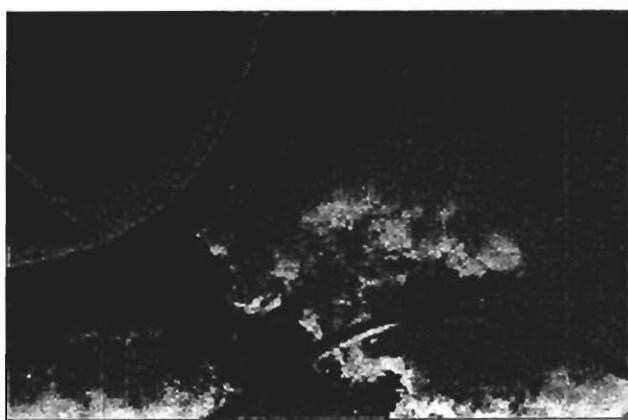
Wildlife Indicators (tracks, scat, nests)

GROUND

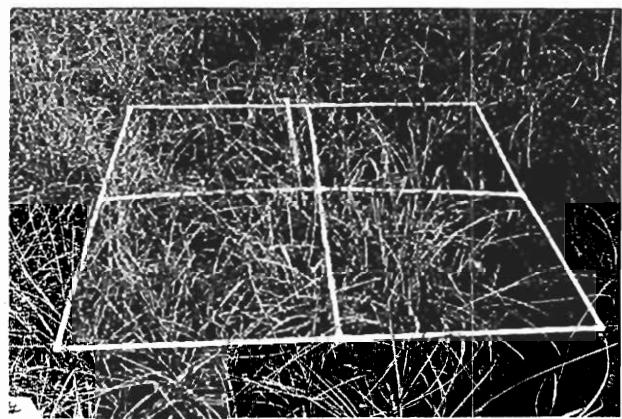
11/9/2002



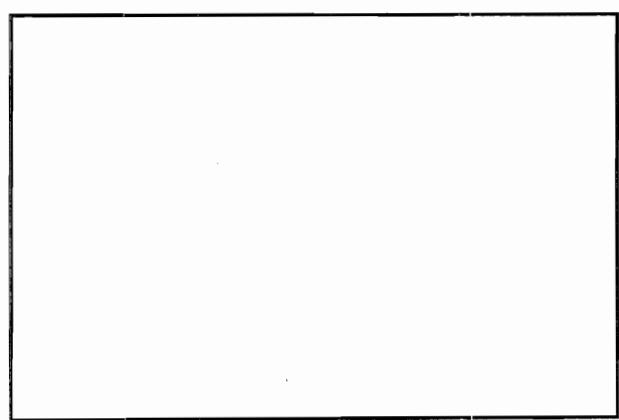
CANOPY



5/17/2003



B6



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-7

STATION

10+92

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	3%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	5%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	8%	5%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	2%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	30%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	56%	90%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

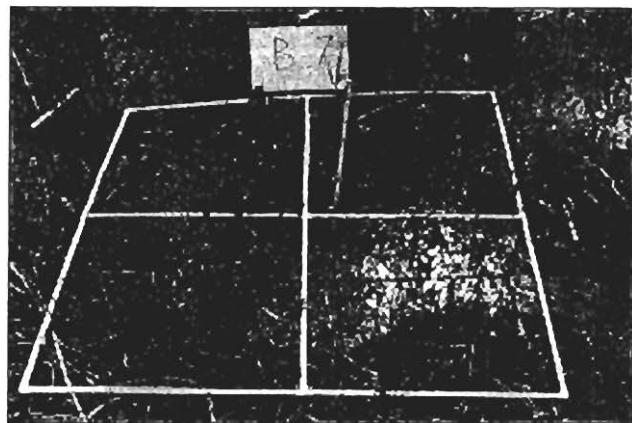
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		100%	100%
TOTAL		100%	100%

NOTES: _____

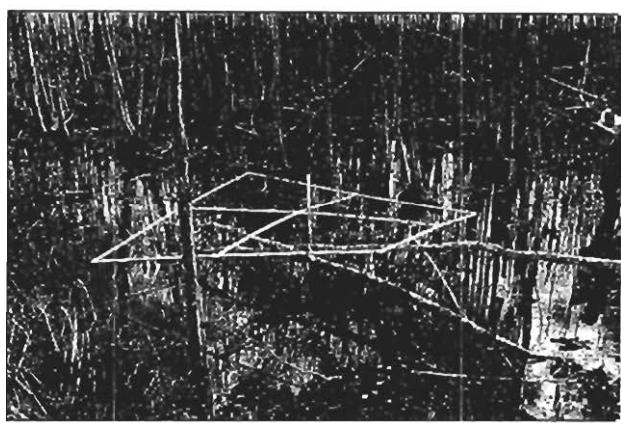
Water Level / Soil Moisture	4" of standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

GROUND

11/9/2002

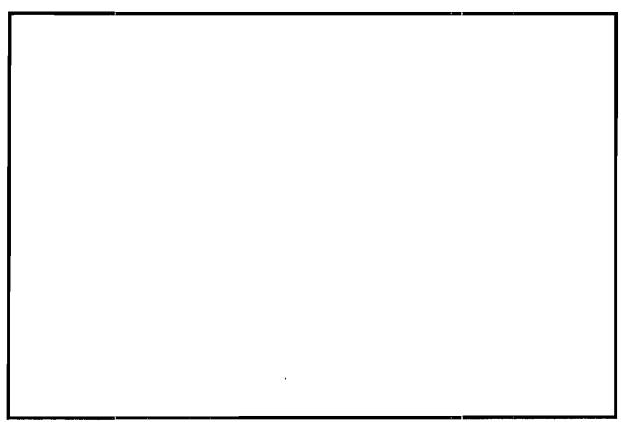
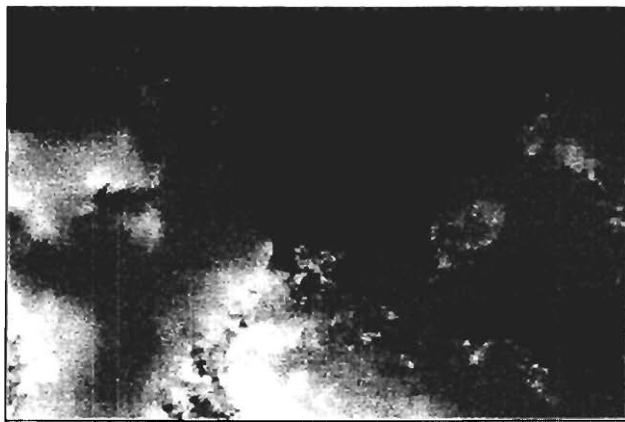


5/17/2003



B7

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-8

STATION 12+74

SUBMERGED AQUATICS

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	10%	15%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	3%
Open/Void	N/A	90%	82%
TOTAL		100%	100%

11/9/2002

5/17/2003

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	2%	1%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	2%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	96%	99%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	2%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		100%	98%
TOTAL		100%	100%

NOTES:

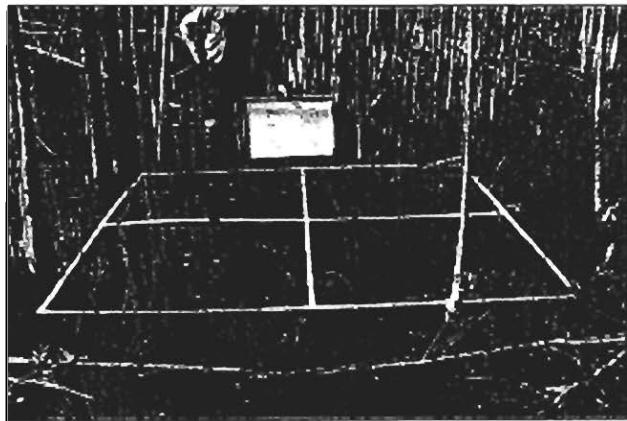
Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

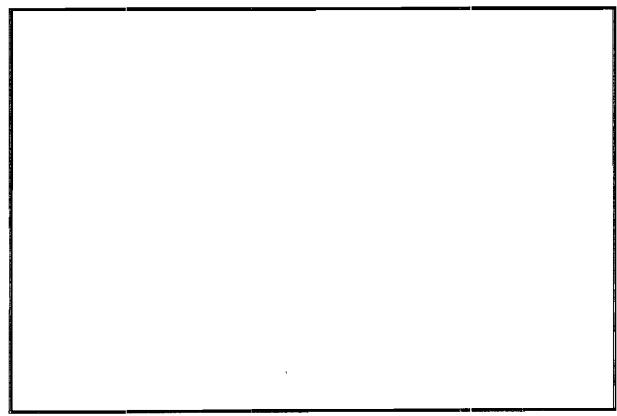


5/17/2003



B8

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-9

STATION

14+56

SUBMERGED AQUATICS

11/9/2002 5/17/2003

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	10%	0%
Bladderwort	<i>Utricularia purpurea</i>	10%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	5%
Open/Void	N/A	80%	95%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	1%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	99%	100%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	35%	35%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		65%	65%
TOTAL		100%	100%

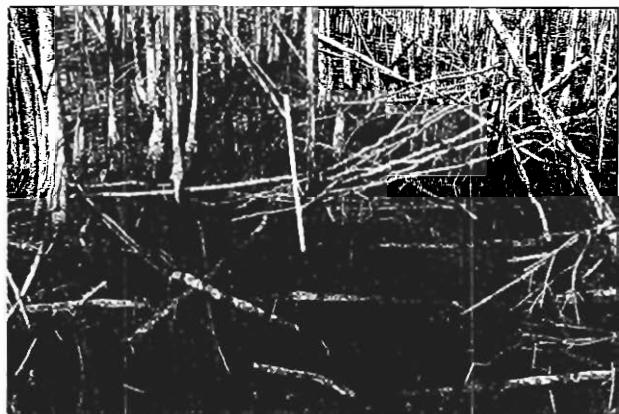
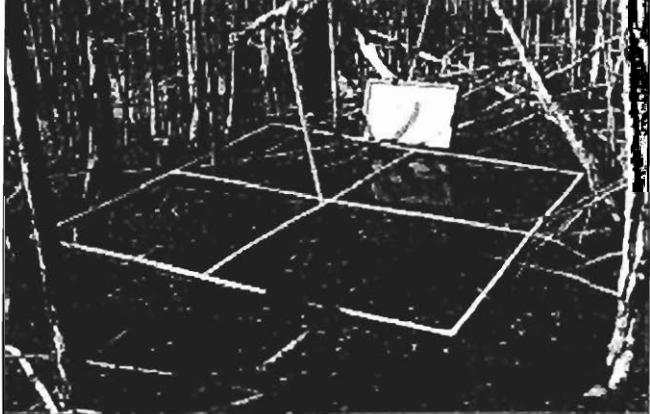
NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

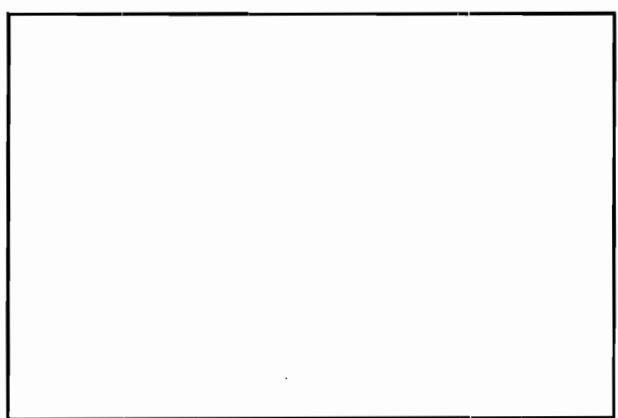
Wildlife Indicators (tracks, scat, nests)

GROUND



B9

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-10

STATION

16+38

SUBMERGED AQUATICS

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

11/9/2002

5/17/2003

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	90%	80%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	10%	15%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

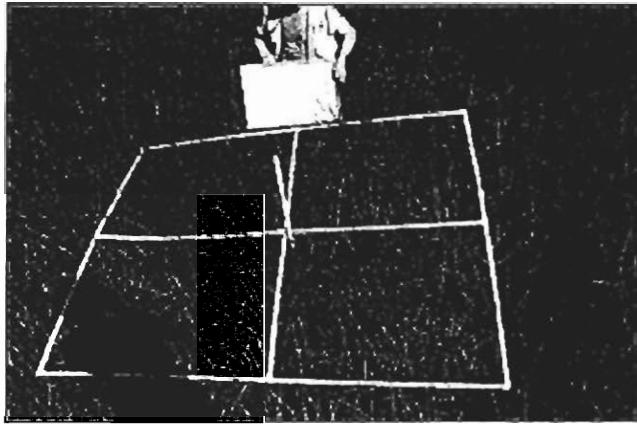
Water Level / Soil Moisture

Aquatic Macrofauna

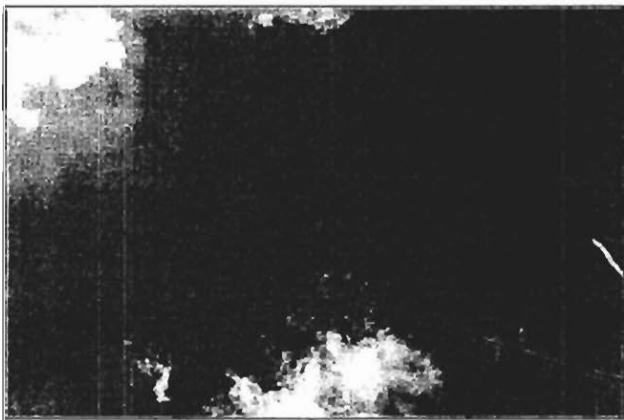
Wildlife Indicators (tracks, scat, nests)

GROUND

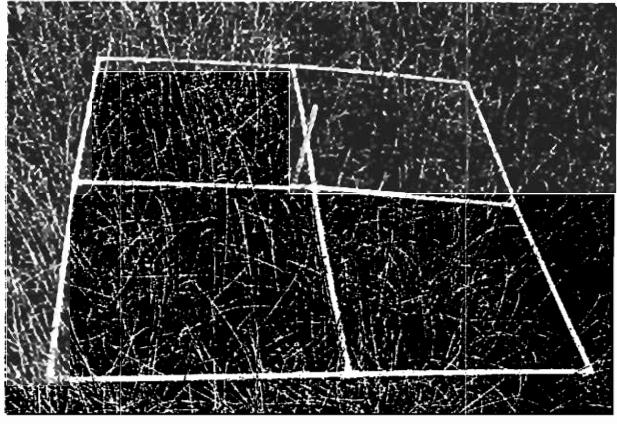
11/9/2002



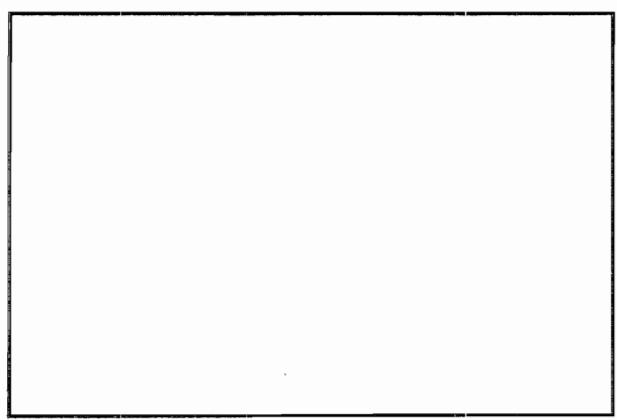
CANOPY



5/17/2003



B10



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-11

STATION 18+20

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	2%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	1%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	30%	32%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

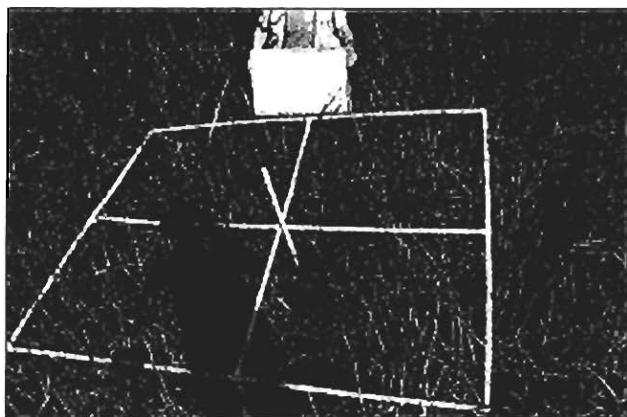
Water Level / Soil Moisture

Aquatic Macrofauna

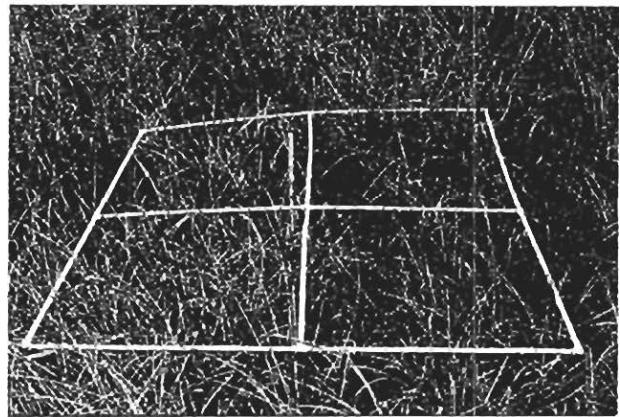
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

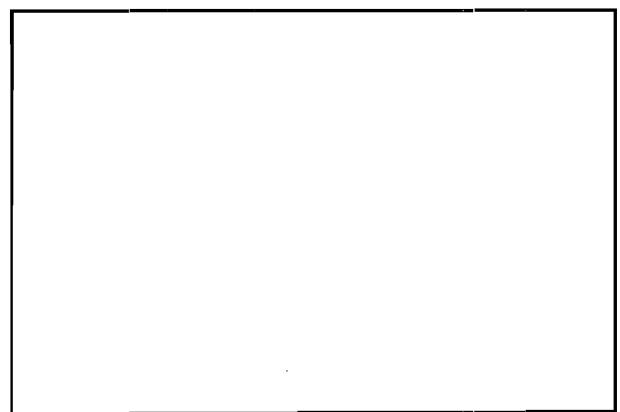
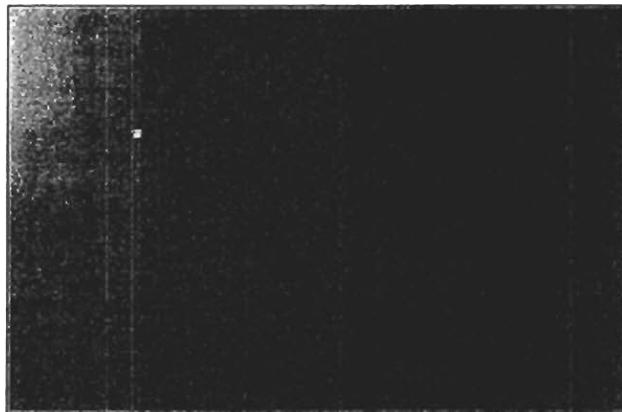


5/17/2003



B11

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-12

STATION

20+02

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	3%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	32%	35%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

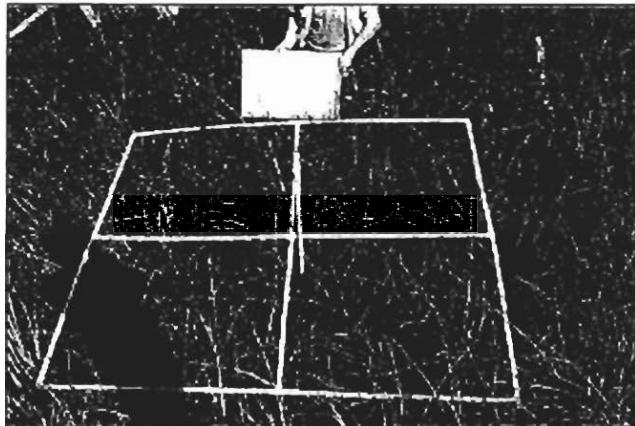
Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

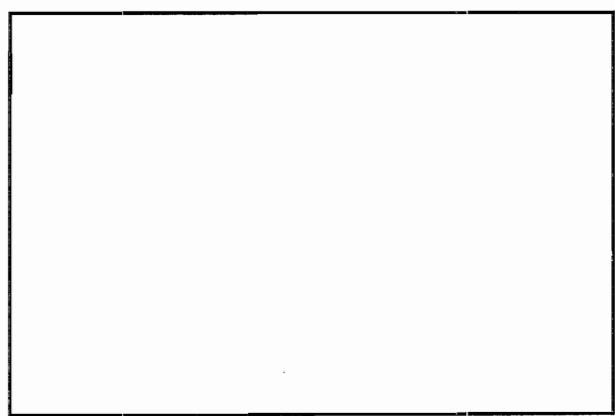
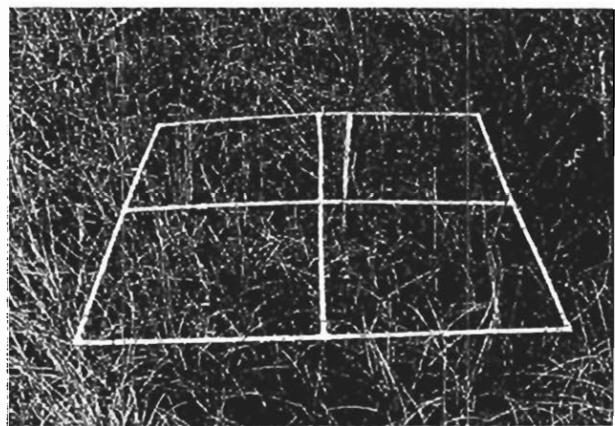
11/9/2002



B12

CANOPY

5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-13

STATION 21+84

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	1%	2%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	74%	73%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

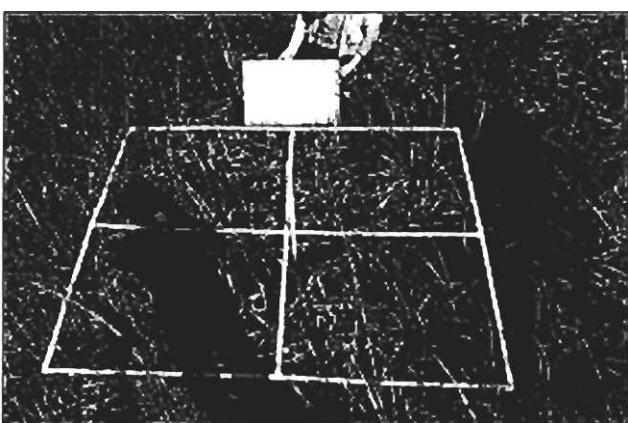
NOTES: _____

Water Level / Soil Moisture

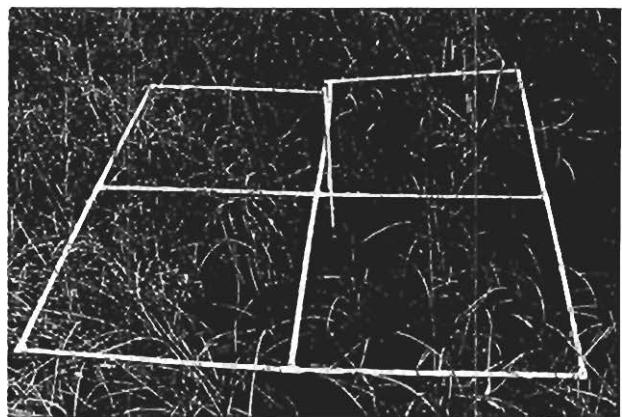
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

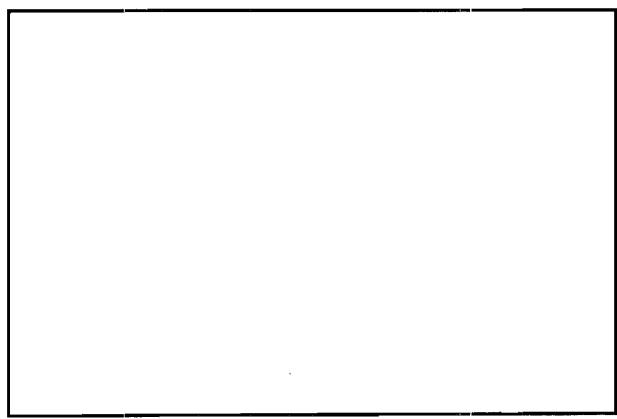


5/17/2003



B13

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-14

STATION 23+66

SUBMERGED AQUATICS

Common Name	Scientific Name	11/9/2002	5/17/2003
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	80%	80%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	20%	15%
TOTAL		100%	100%

SAPLING / VINE

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

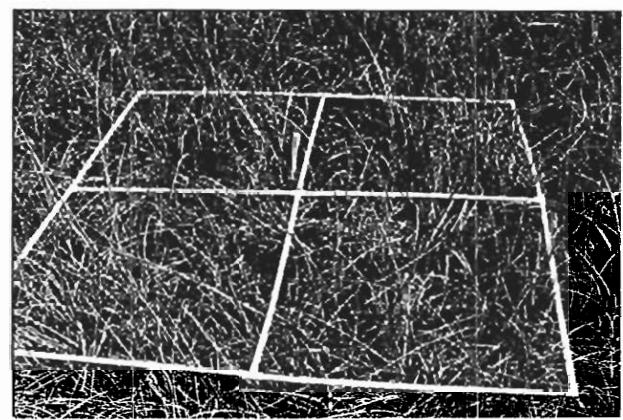
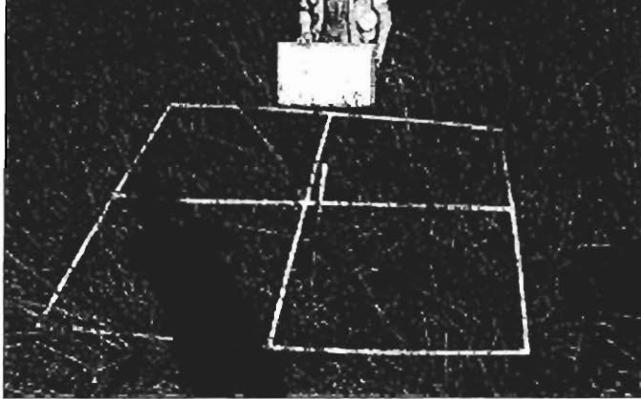
OVERSTORY

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

NOTES:

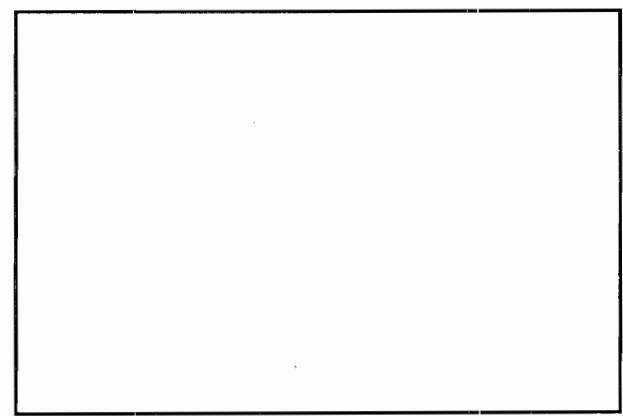
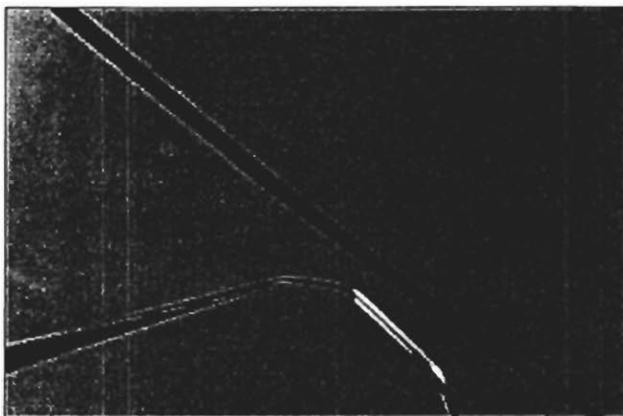
Water Level / Soil Moisture	4.5" of standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

GROUND



B14

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-15

STATION

25+48

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	95%	95%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbosyris ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	5%	5%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

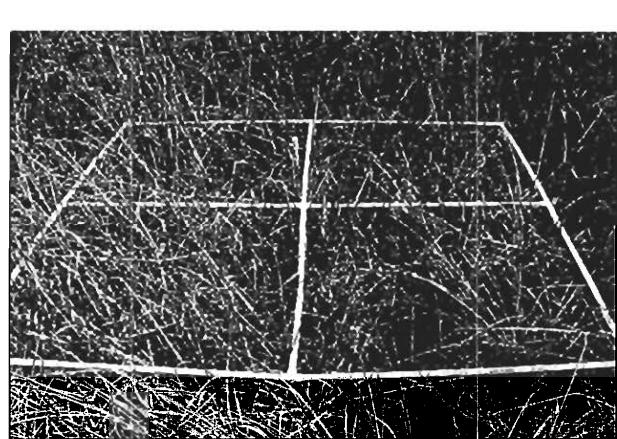
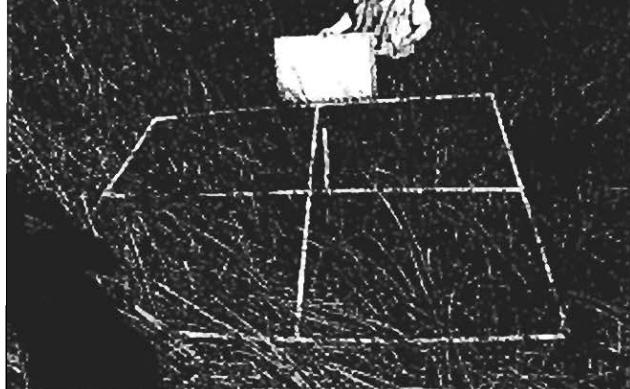
NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

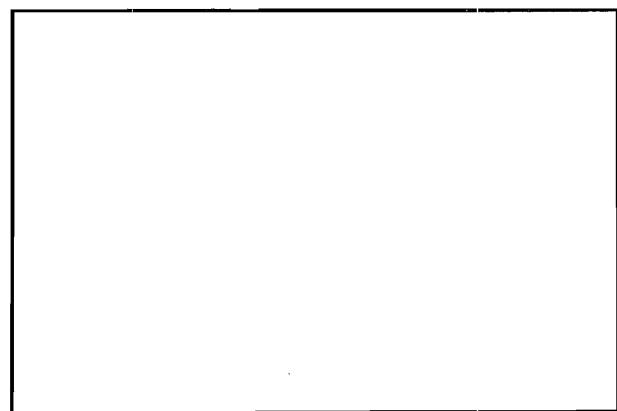
Wildlife Indicators (tracks, scat, nests)

GROUND



B15

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-16

STATION

27+30

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	85%	75%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	2%	3%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	13%	17%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

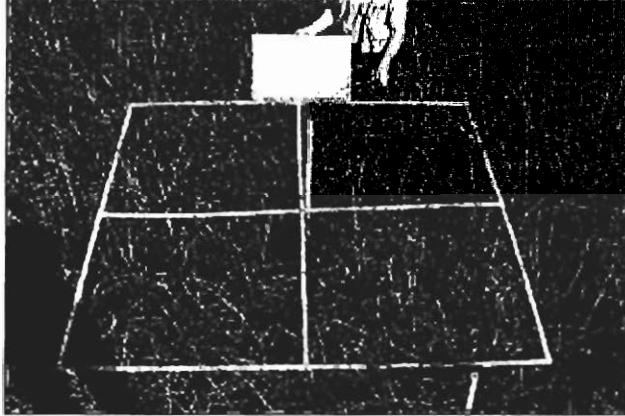
NOTES: _____

Water Level / Soil Moisture

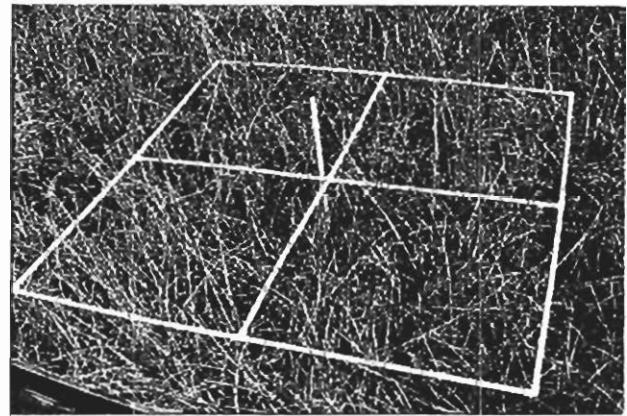
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

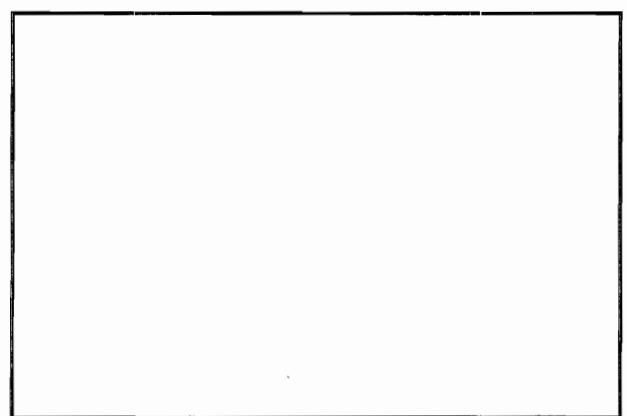
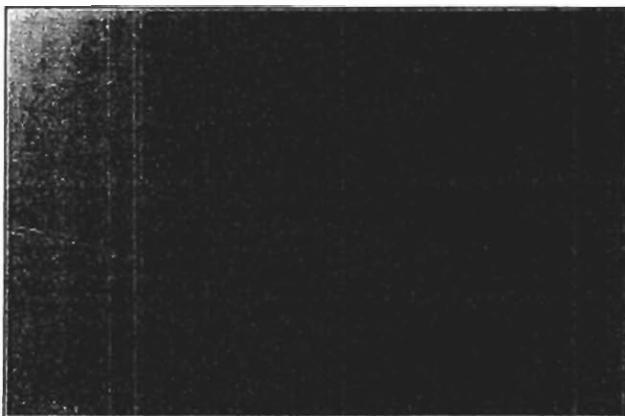


5/17/2003



B16

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-17

STATION

29+12

SUBMERGED AQUATICS

11/9/2002

5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	60%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	5%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	3%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	40%	12%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

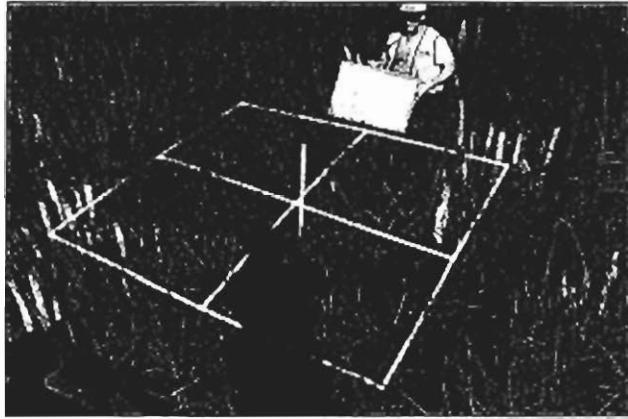
Water Level / Soil Moisture

Aquatic Macrofauna

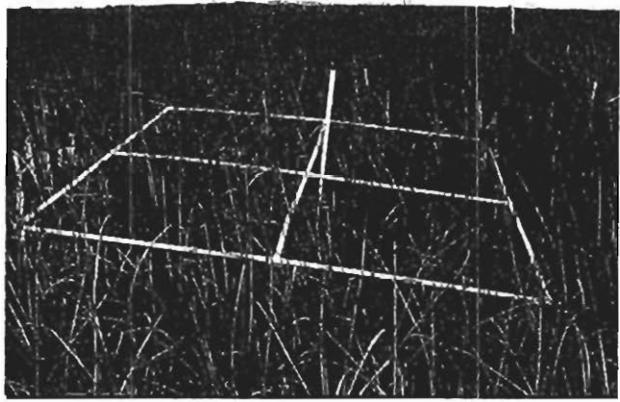
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

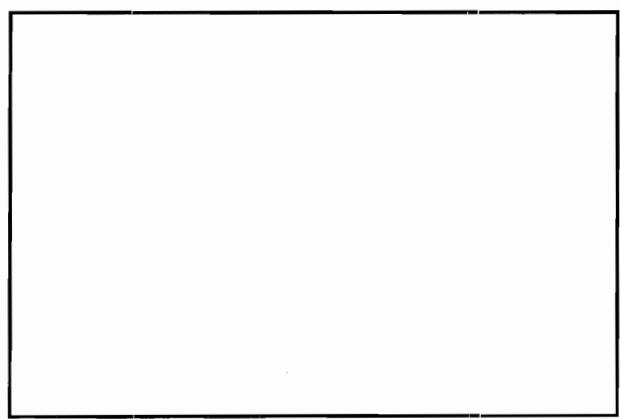
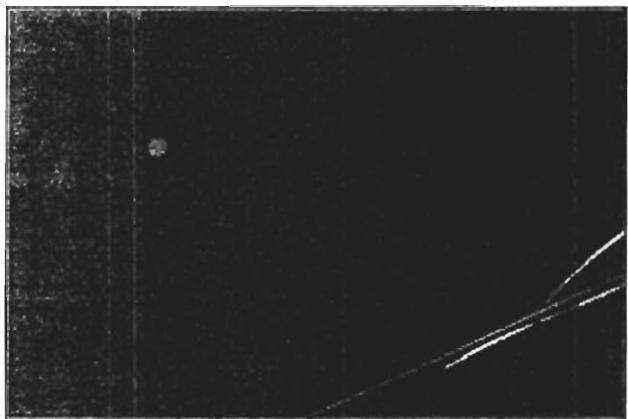


5/17/2003



B17

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-18

STATION

30+94

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	75%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	25%	25%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

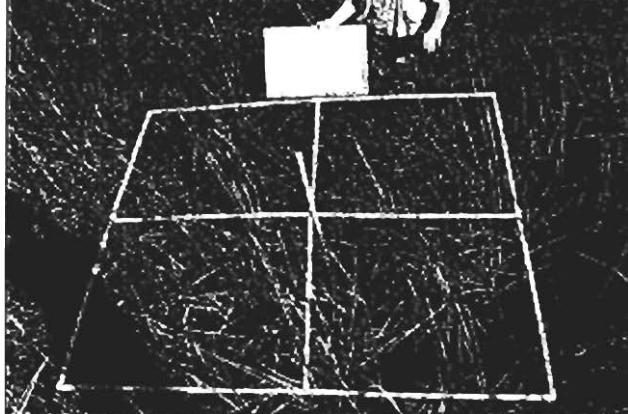
NOTES: _____

Water Level / Soil Moisture

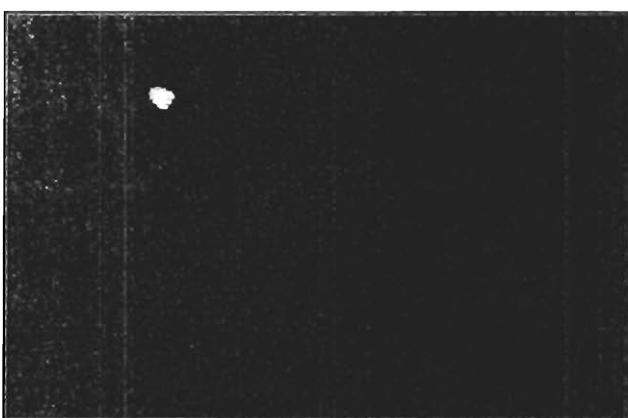
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

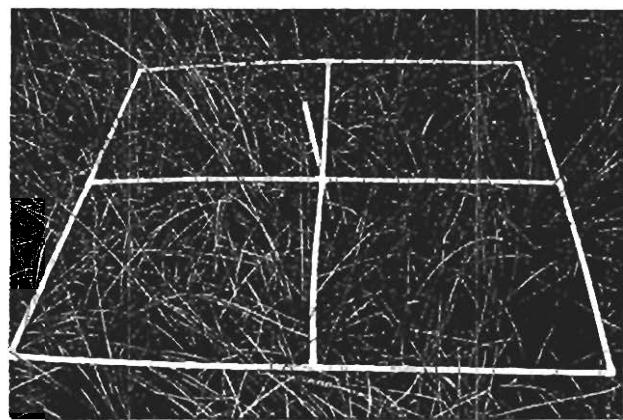
GROUND



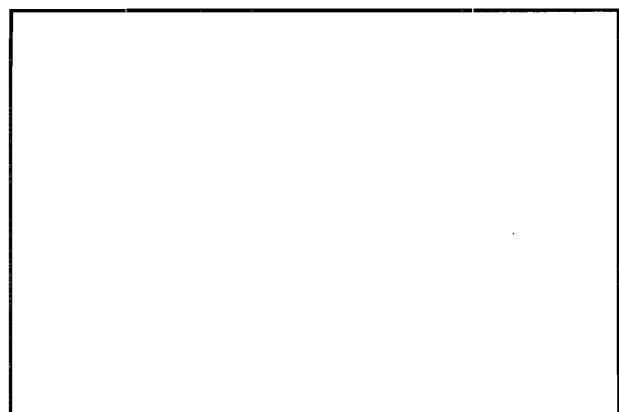
CANOPY



5/17/2003



B18



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-19

STATION 32+76

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	57%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	3%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	40%	15%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

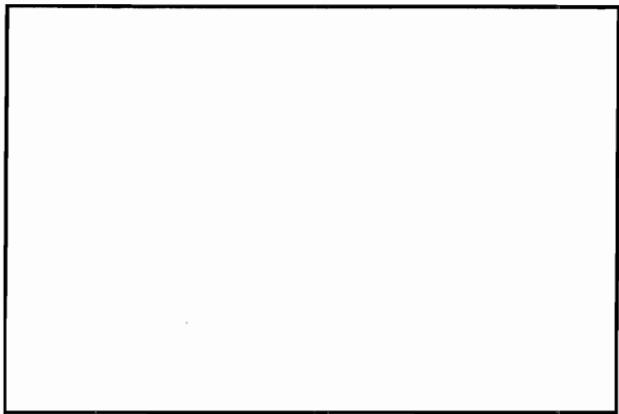
NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

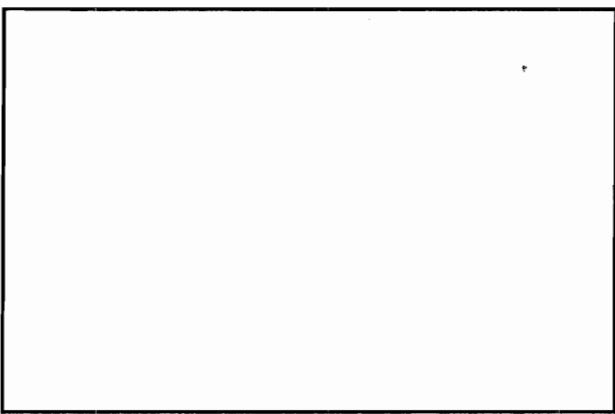
GROUND



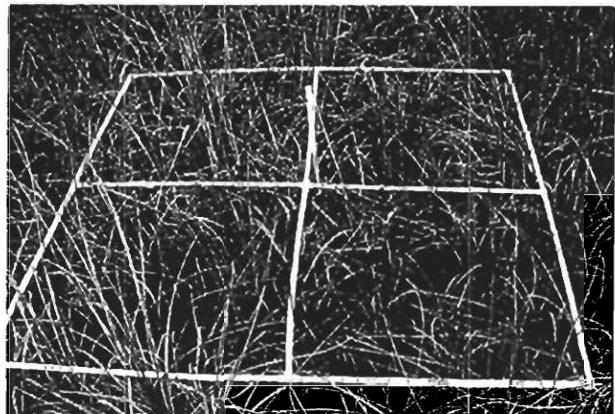
11/9/2002

B19

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-20

STATION

34+58

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	75%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	25%	30%
	TOTAL	100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

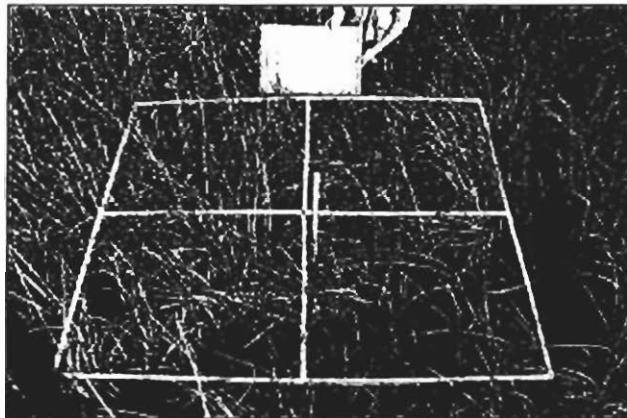
Water Level / Soil Moisture

Aquatic Macrofauna

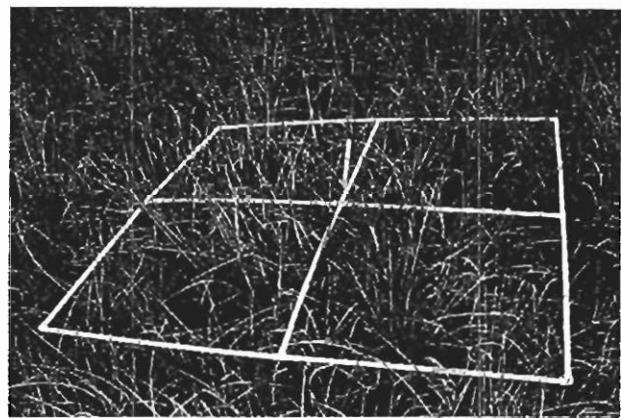
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

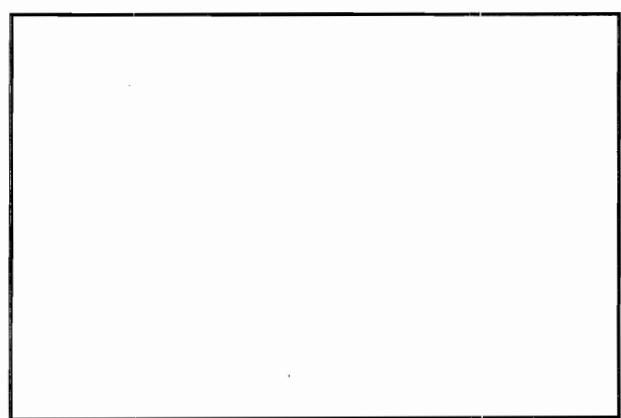


5/17/2003



B20

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-21

STATION 36+40

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	70%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	30%	30%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

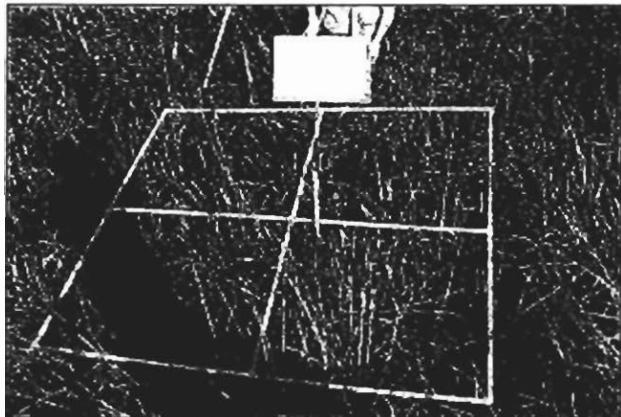
Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		100%	100%
TOTAL		100%	100%

NOTES:

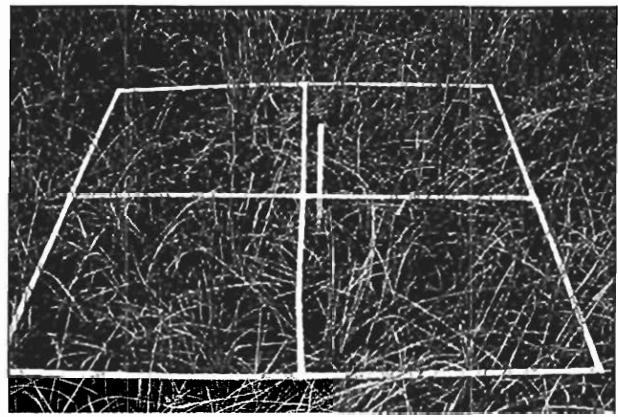
Water Level / Soil Moisture	7" standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	1 Cuban tree Frog

GROUND

11/9/2002

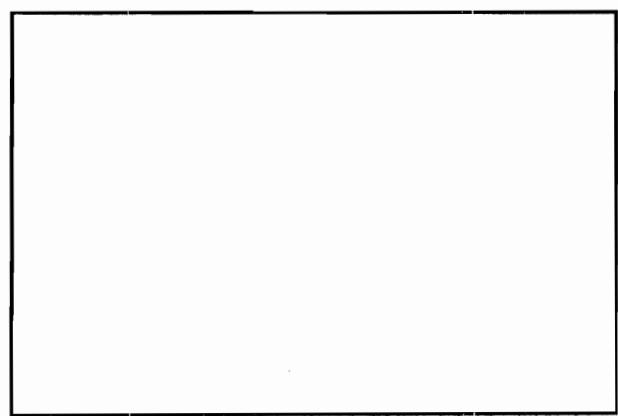


5/17/2003



B21

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-22

STATION

38+22

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	45%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	55%	50%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

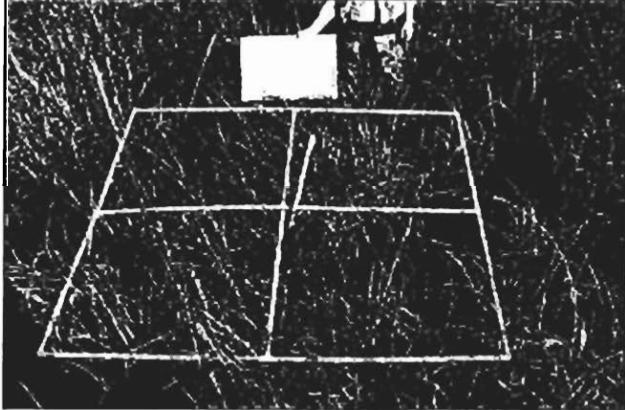
NOTES:

Water Level / Soil Moisture

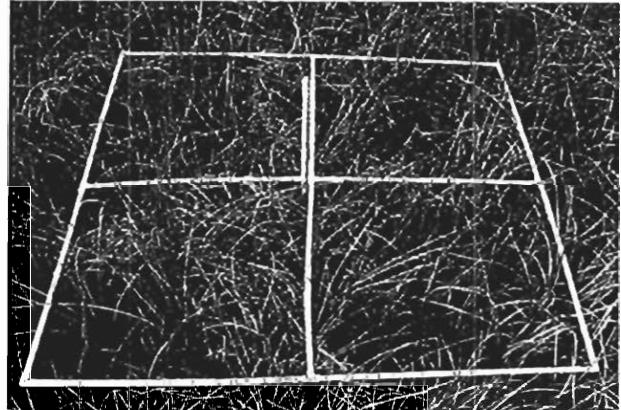
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

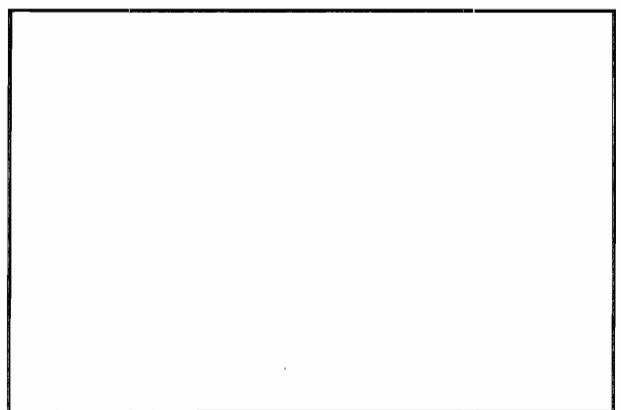


5/17/2003



B22

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-23

STATION

40+04

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	97%	95%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	3%	3%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	0%	2%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	20%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
TBD		0%	0%
Open/Void		80%	100%
TOTAL		100%	100%

OVERSTORY

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

NOTES: _____

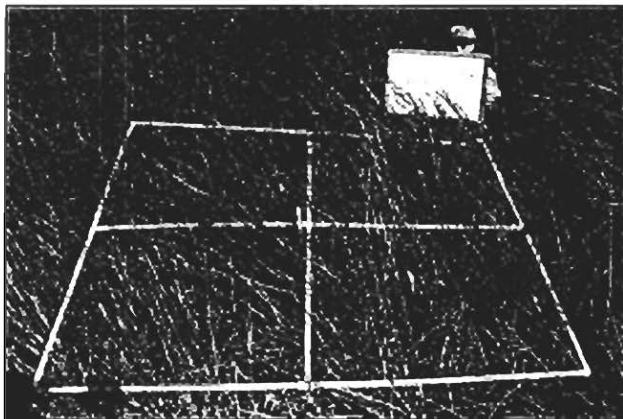
Water Level / Soil Moisture

Aquatic Macrofauna

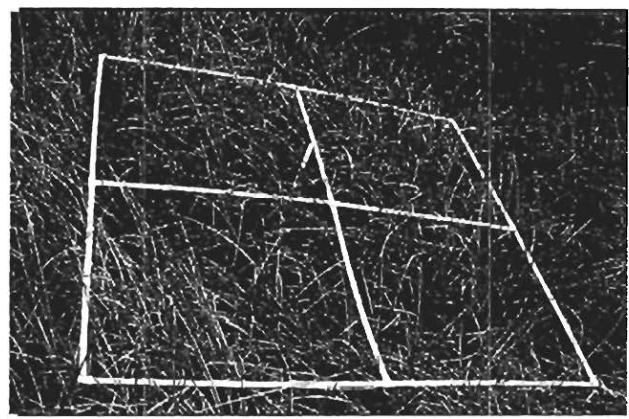
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

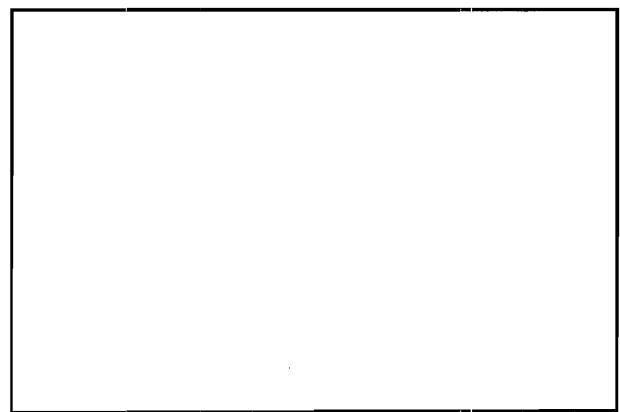
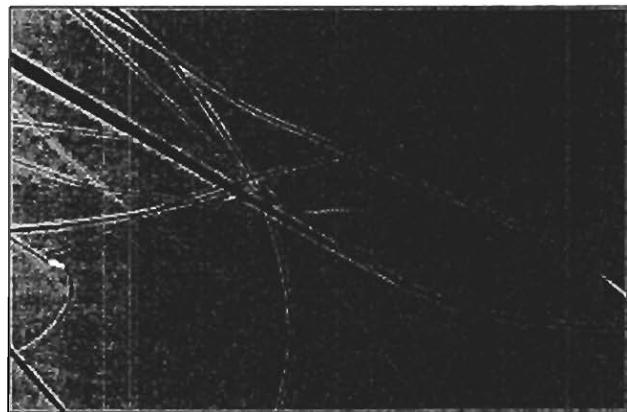


5/17/2003



B23

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT B-24

STATION 41+86

SUBMERGED AQUATICS

		11/9/2002	5/17/2003
Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	80%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	5%	10%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	15%	10%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

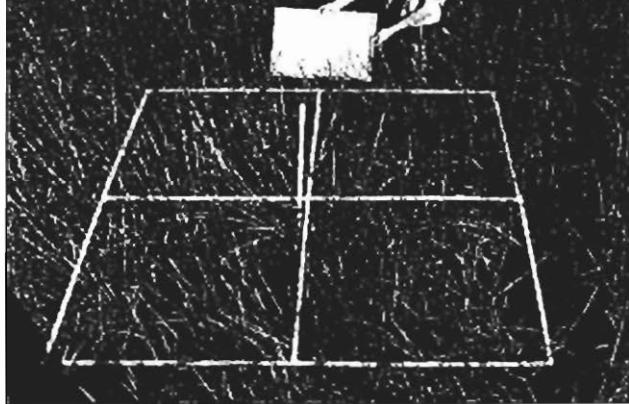
NOTES: _____

Water Level / Soil Moisture

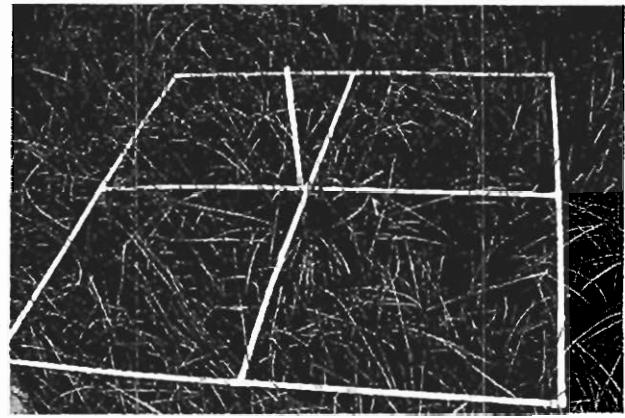
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

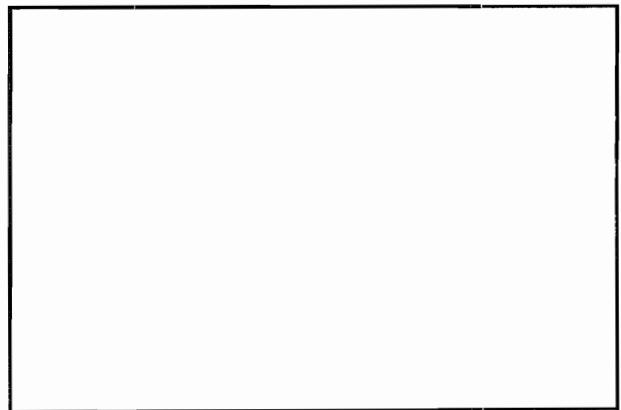


5/17/2003



B24

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-25

STATION

43+68

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	60%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	3%	3%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	32%	32%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

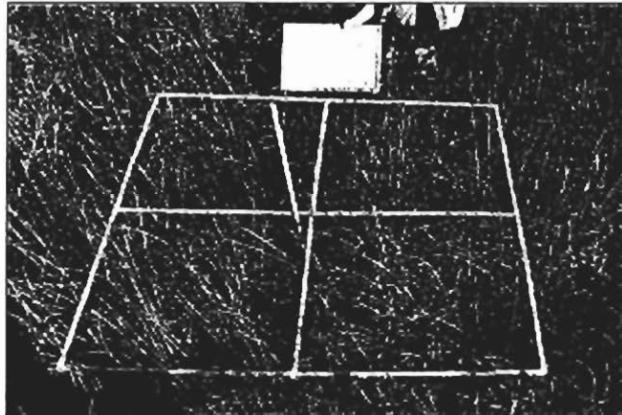
Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

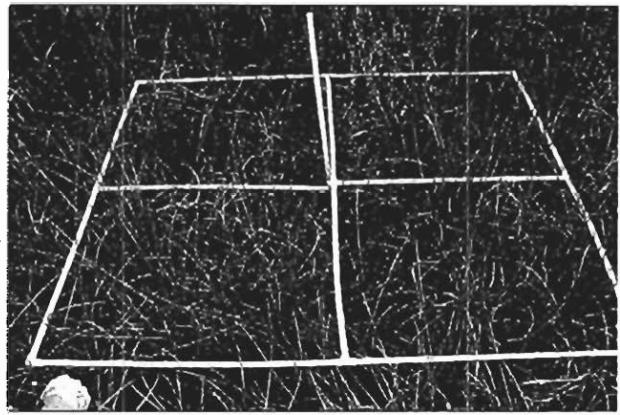
GROUND

11/9/2002

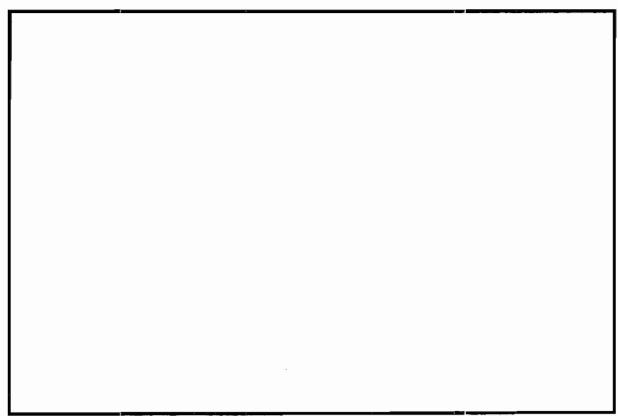


CANOPY

5/17/2003



B25



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-26

STATION

45+50

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	75%	60%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

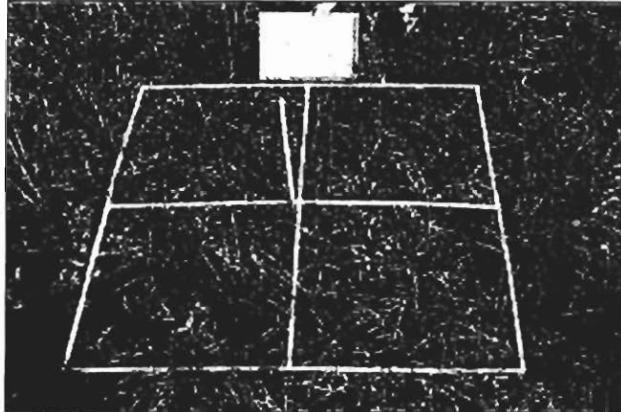
NOTES: _____

Water Level / Soil Moisture

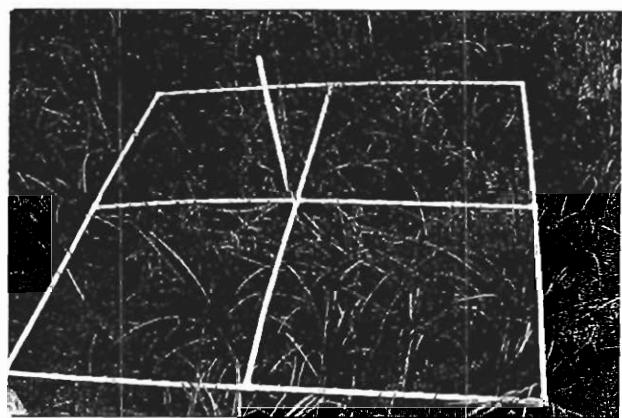
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

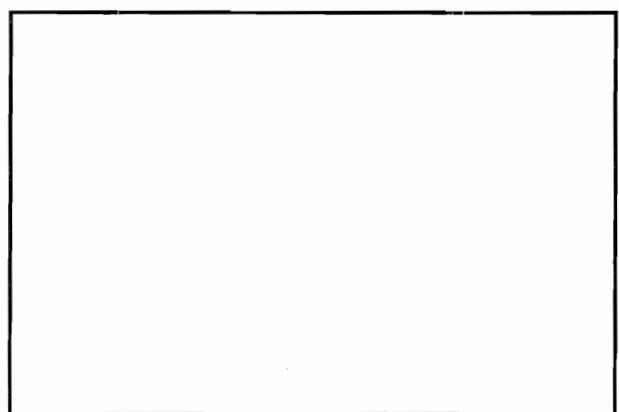
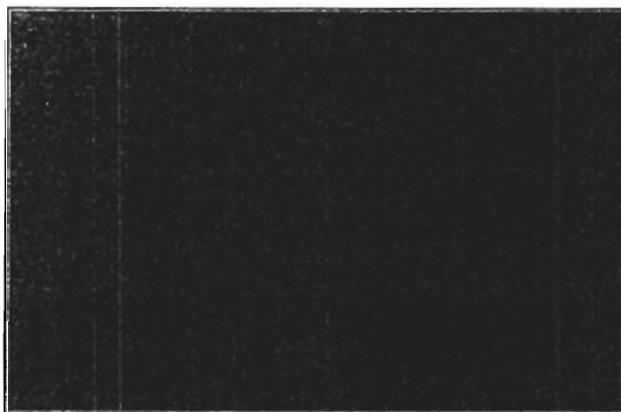


5/17/2003



B26

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-27

STATION

47+32

SUBMERGED AQUATICS

Common Name	Scientific Name	11/9/2002	5/17/2003
		% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	95%	75%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	5%	20%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

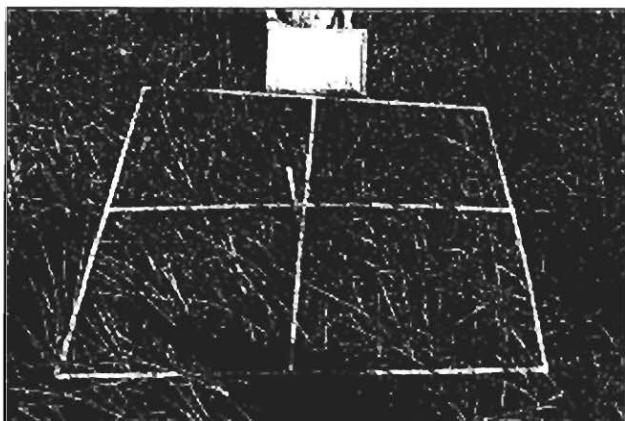
NOTES:

Water Level / Soil Moisture

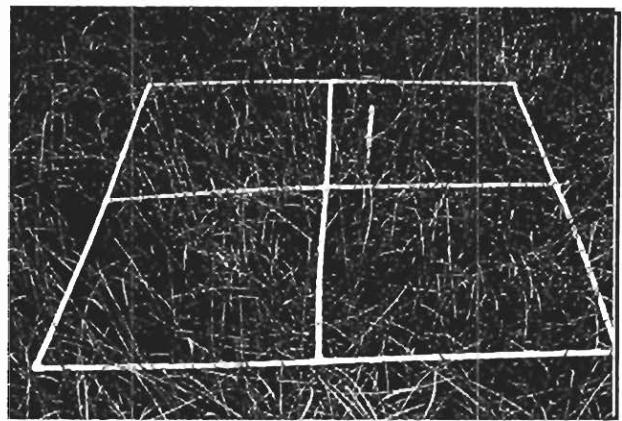
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND

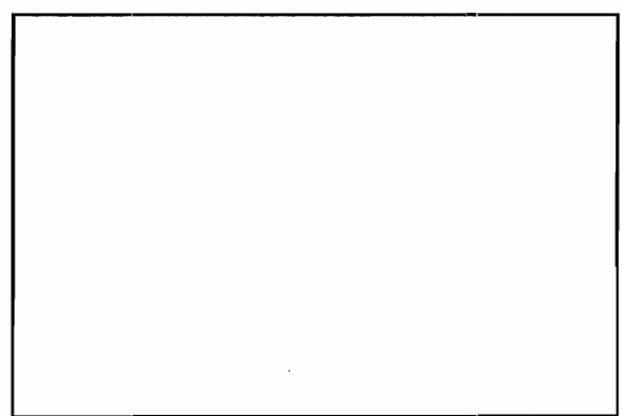


5/17/2003



B27

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-28

STATION

49+14

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	85%	75%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	15%	20%
TOTAL		100%	100%

SAPLING / VINE

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

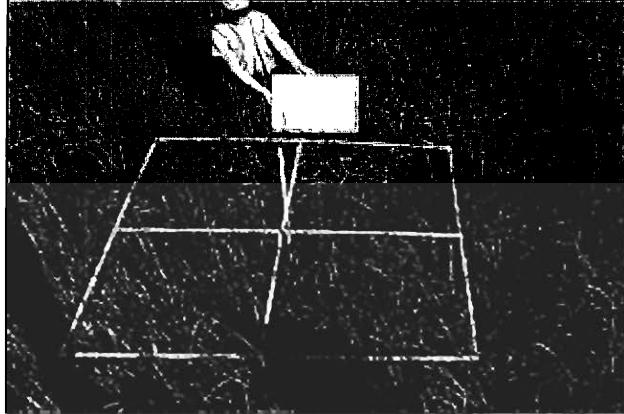
OVERSTORY

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

NOTES:

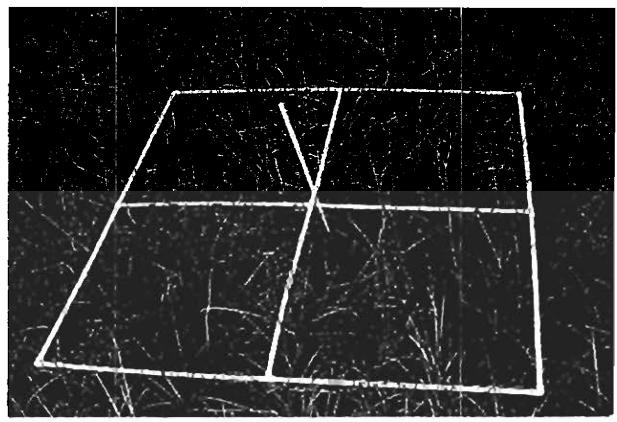
Water Level / Soil Moisture	7" standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

GROUND



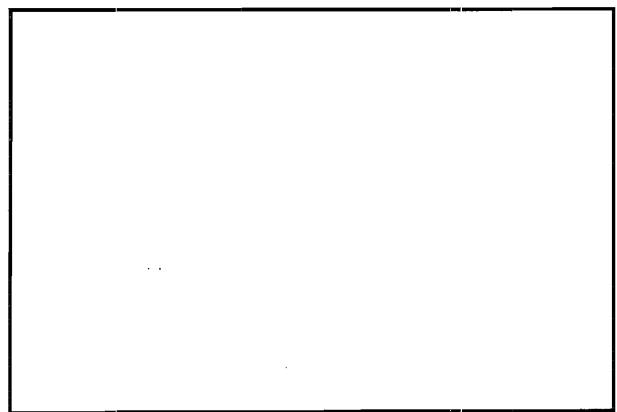
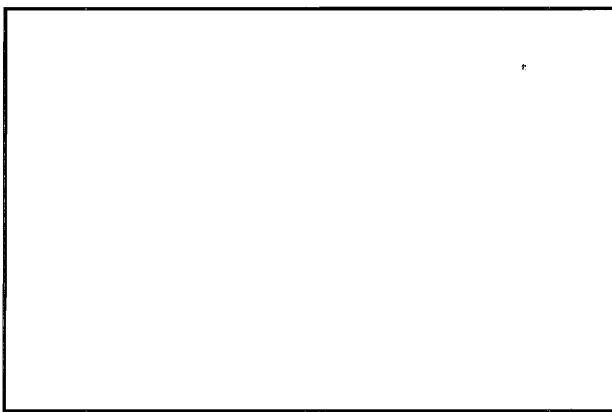
11/9/2002

5/17/2003



B28

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

A-29

STATION

50+96

SUBMERGED AQUATICS

Common Name	Scientific Name	11/9/2002	5/17/2003
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	70%	65%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	30%	30%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

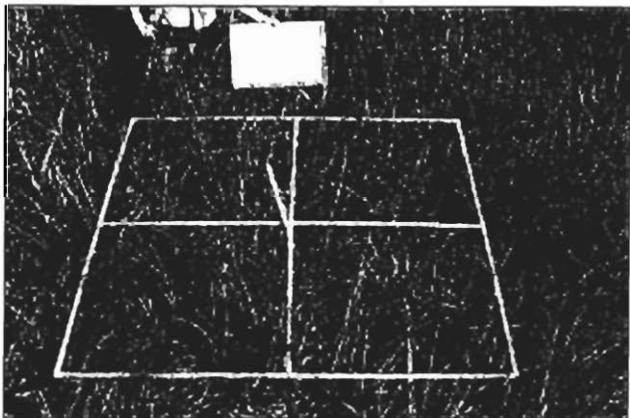
Water Level / Soil Moisture

Aquatic Macrofauna

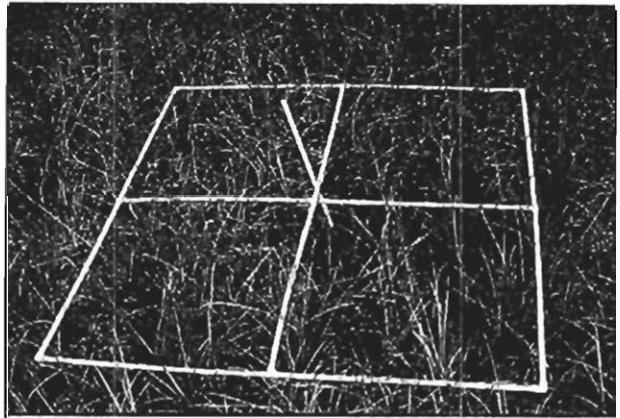
Wildlife Indicators (tracks, scat, nests)

GROUND

11/9/2002

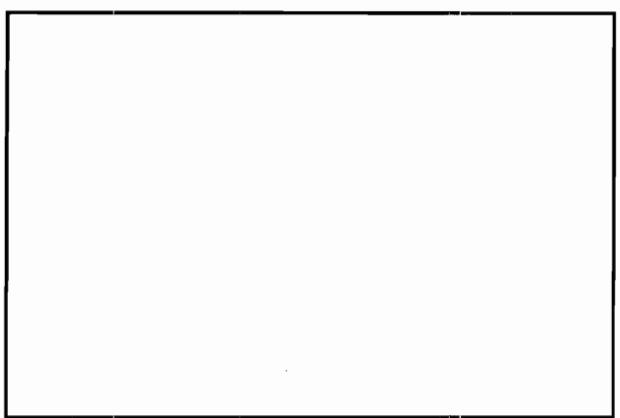


5/17/2003



B29

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

B-30

STATION

52+78

SUBMERGED AQUATICS

11/9/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	85%	70%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	2%	5%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	3%	15%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Uk9	<i>Malvaceae</i>	0%	0%
Open Water/Mud/Void	N/A	10%	10%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

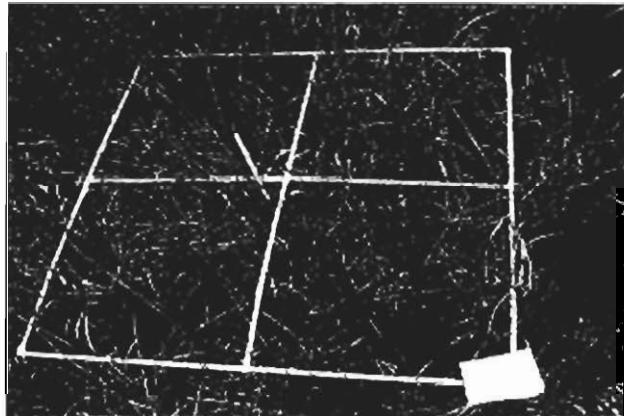
NOTES: _____

Water Level / Soil Moisture _____

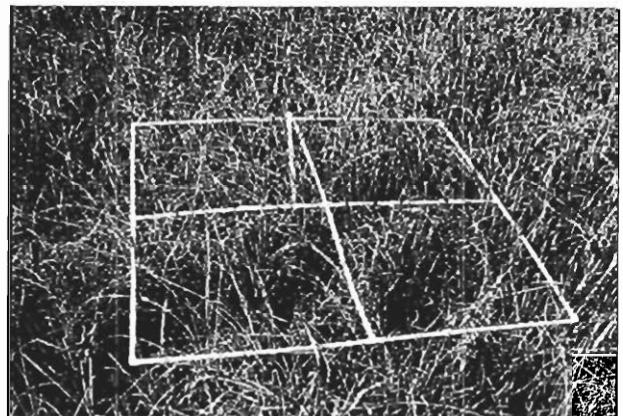
Aquatic Macrofauna _____

Wildlife Indicators (tracks, scat, nests) _____

GROUND

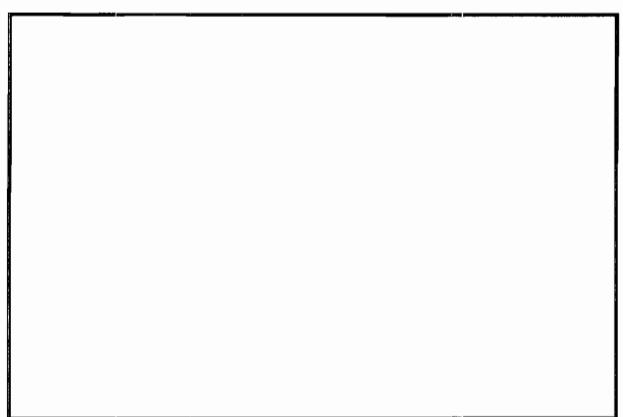


5/17/2003



B30

CANOPY





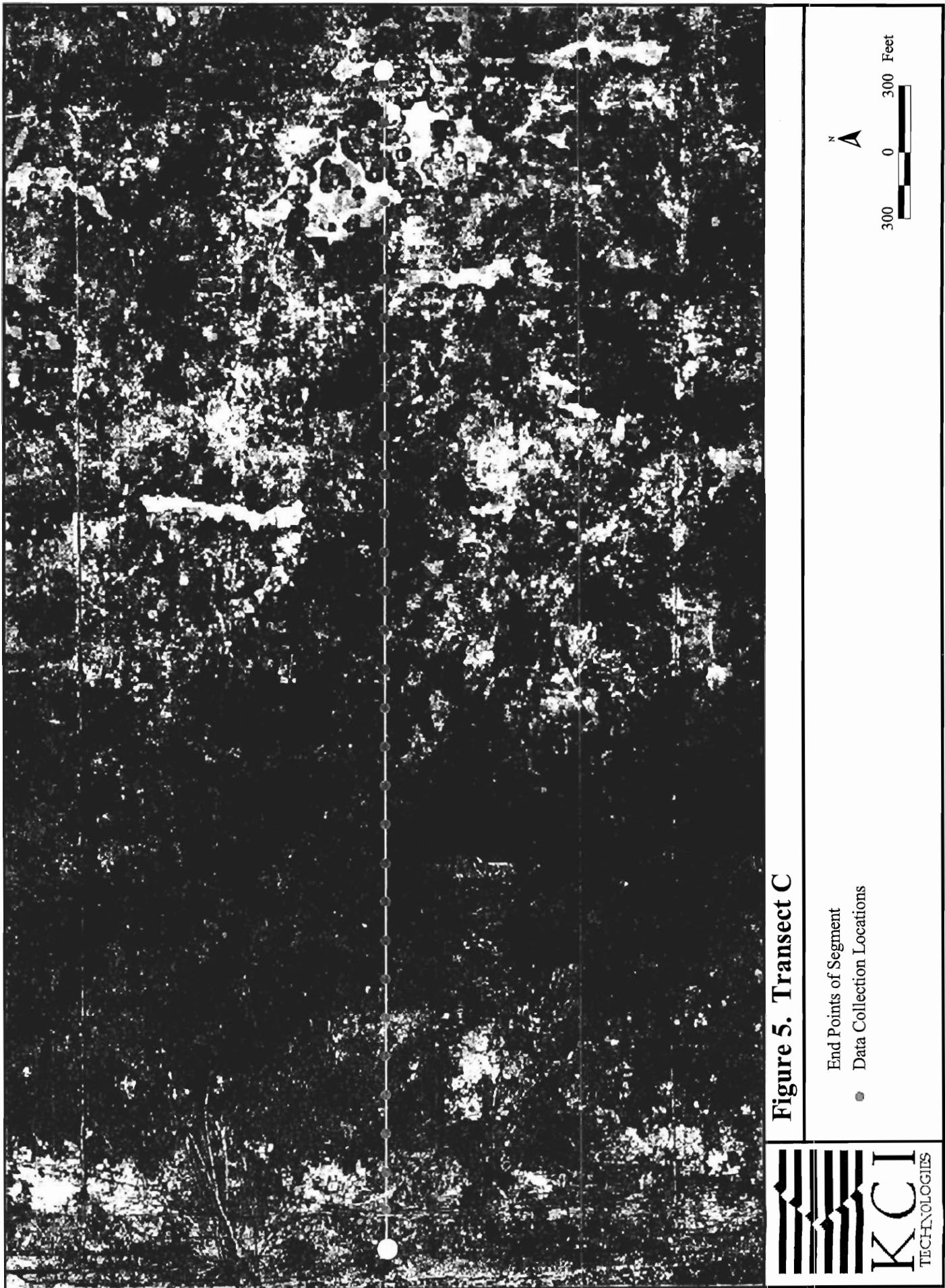
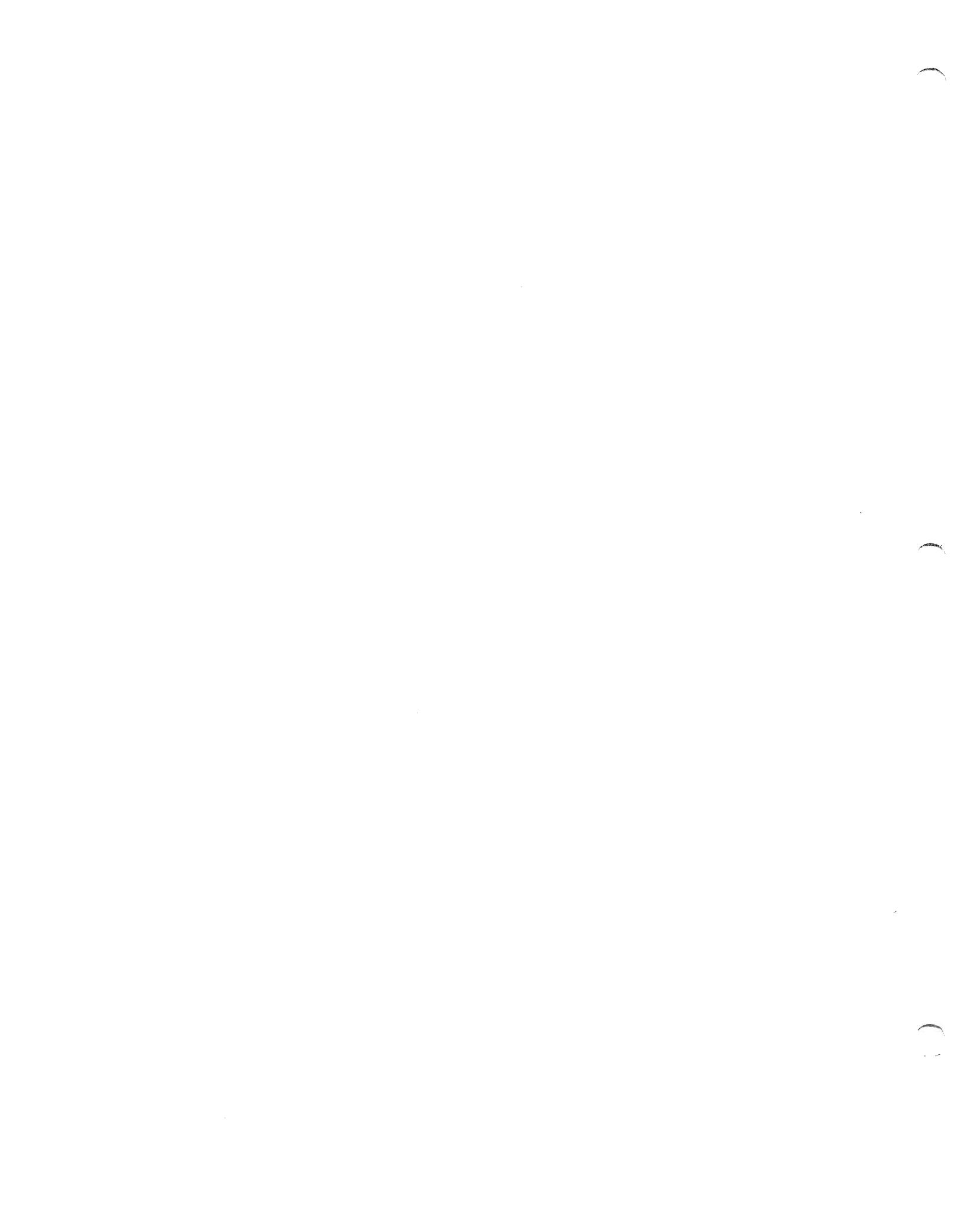


Figure 5. Transect C

KCI
TECHNOLOGIES



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 and Elm (*Trema micrantha*) in the sapling layer. Points C2 through C30 represent a wet prairie community type dominated by saw-grass (*Cladium jamaicense*). This area was reported to have burned two to three years ago. Evidence of past treatments in this area (i.e. dead vegetation, punk tree stumps/slash etc.) were not apparent. The area along this transect has rebounded with a saw-grass dominated plant community. Dead saw-grass along this transect appeared to be natural.

Observations from November 9, 2002 monitoring

Water depths ranged from 6.5 to 9.5 inches at photopoints C7, C14, C21 and C28. Fry were common in the open water areas of C20 and C21, although few fry less than one centimeter long were noted at C28. At C28, a water spider and grasshopper were observed.

The dead saw-grass along this transect appeared to be natural. The vegetative community consisted primarily of saw-grass, which ranged from six to eight feet in height. Additionally, one to two percent of punk tree was observed in the herbaceous layer at data collection points C13, C23, and C28. These plants appear to gain a footing in openings where the saw-grass density is limited.

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

- In the submerged aquatics layer, 1 percent Bladderworts (*Uticularia purpurea*).
- In the herbaceous species layer, 33 percent live saw-grass, 34 percent dead saw-grass, and 3 percent Swamp Fern (*Blechnum serrulatum*) was observed at data collection point C2.

Observations from May 17, 2003 monitoring

Two additional species, Tracy's Beak Rush (*Rhynchospora tracyi*) and Button Bush (*Cephaelanthus occidentalis*) were found at C28 and C14 respectively. Water depths ranged from 3.0 to 7.0 inches at photopoints C7, C14, C21 and C28. Several 3-inch fry were common in the open water areas of C14. No other macrofauna or indicators of wildlife were noted. Water levels were down leaving many areas dry and the macrofauna particularly the small fry were mostly absent. The vegetative community consisted primarily of saw-grass, which ranged from six to eight feet in height.

In summary, the percent vegetative coverage (greater than or equal to 1 percent), by layer, for this transect identified:

- No vegetative coverage in the submerged aquatics layer.
- In the herbaceous species layer, 29 percent live saw-grass, 40 percent dead saw-grass, and 1 percent Swamp Fern (*Blechnum serrulatum*).
- In the sapling/vine layer, 2 percent Elm (*Trema micrantha*).
- Vegetative coverage in the overstory layer was not significant.

Pennsuco Monitoring Project - Summary Sheet

TRANSECT

"C"

Total Length

5280'

SUBMERGED AQUATICS

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0.00%	0.00%
Bladderwort	<i>Utricularia foliosa</i>	0.00%	0.00%
Bladderwort	<i>Utricularia purpurea</i>	1.00%	0.00%
Ludwigia	<i>Ludwigia repens</i>	0.00%	0.00%
Open/Void	N/A	99.00%	100.00%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	32.83%	29.00%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	34.07%	39.67%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.13%	0.03%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.00%	0.00%
Southern Swamp Lily	<i>Crinum americanum</i>	0.07%	0.27%
Pickerelweed	<i>Pontederia lanceolata</i>	0.10%	0.03%
Yellowtops	<i>Flaveria linearis</i>	0.00%	0.00%
Arrowhead	<i>Sagittaria graminea</i>	0.23%	0.00%
Floating-Heart	<i>Nymphoides aquatica</i>	0.40%	0.40%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0.33%	0.00%
Cattail	<i>Typha latifolia</i>	0.33%	0.50%
Button Bush	<i>Cephalanthus occidentalis</i>	0.00%	0.23%
Maiden-Cane	<i>Panicum hemitomum</i>	0.00%	0.00%
Shield Fern	<i>Thelypteris kunthii</i>	0.17%	0.50%
Swamp Fern	<i>Blechnum serrulatum</i>	3.00%	1.33%
Elm	<i>Trema micrantha</i>	0.17%	1.33%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0.00%	0.17%
Open Water/Mud/Void	N/A	28.17%	26.57%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.00%	0.00%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.00%	0.00%
Elm	<i>Trema micrantha</i>	2.00%	2.33%
TBD		0.00%	0.00%
Open/Void		98.00%	97.67%
TOTAL		100%	100%

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0.00%	0.00%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0.33%	0.33%
Golden Fig	<i>Ficus Aurea</i>	0.00%	0.00%
Open/Void		100%	100%
TOTAL		100%	100%

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

0+00 Panoramic - Looking east

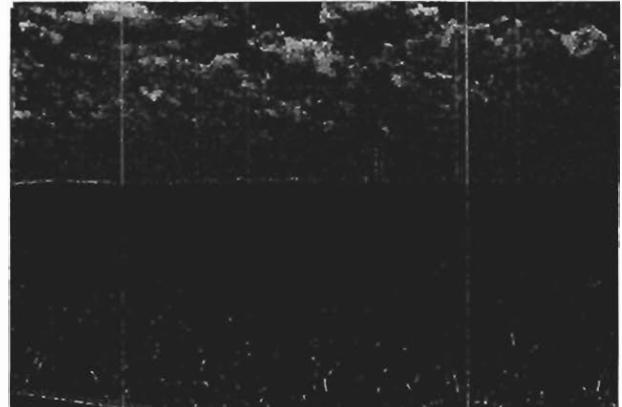


11/10/02



5/17/03

C transect



52+78 Panoramic - Looking West

Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-1

STATION 0+00

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	0%	0%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	0%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	5%	15%
Swamp Fern	<i>Blechnum serrulatum</i>	85%	40%
Elm	<i>Trema micrantha</i>	5%	40%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	5%	5%
TOTAL		100%	100%

SAPLING / VINE

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Elm	<i>Trema micrantha</i>	60%	70%
TBD		0%	0%
Open/Void		40%	30%
TOTAL		100%	100%

OVERSTORY

Common Name	Scientific Name	% Coverage	% Coverage
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	10%	10%
Golden Fig	<i>Ficus Aurea</i>	0%	0%
Open/Void		90%	90%
TOTAL		100%	100%

NOTES: Levee position adjacent to canal.

Water Level / Soil Moisture

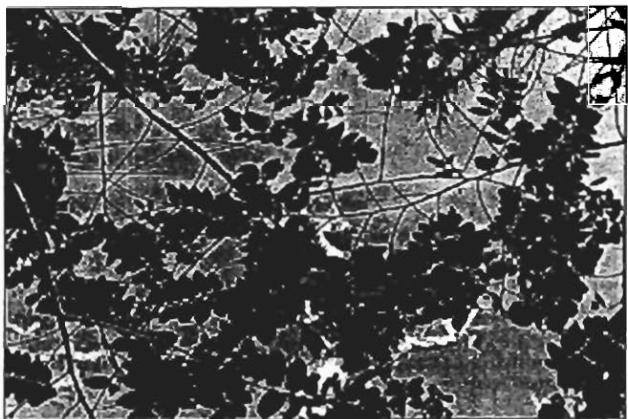
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND



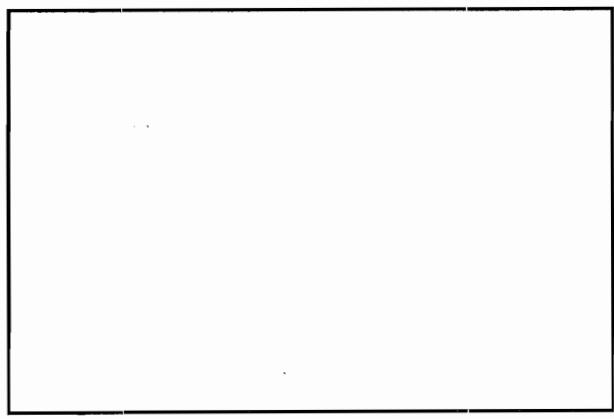
CANOPY



5/17/2003



C1



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-2

STATION 1+82

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES: Saw grass 6 to 10' tall

Water Level / Soil Moisture

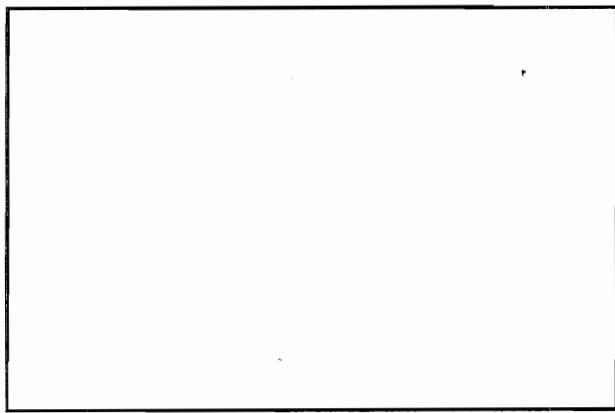
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

GROUND



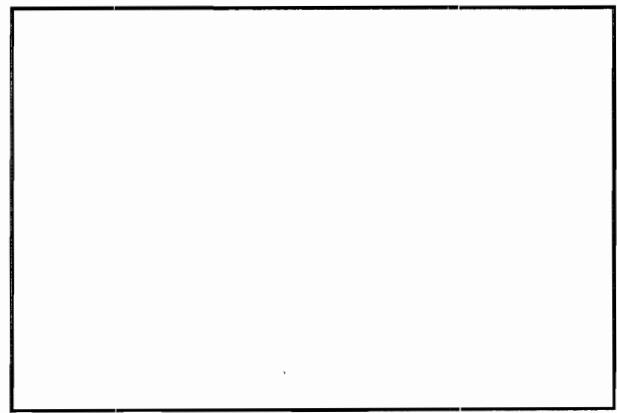
CANOPY



5/17/2003



C2



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-3

STATION

3+64

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	50%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	10%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	1%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	50%	49%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

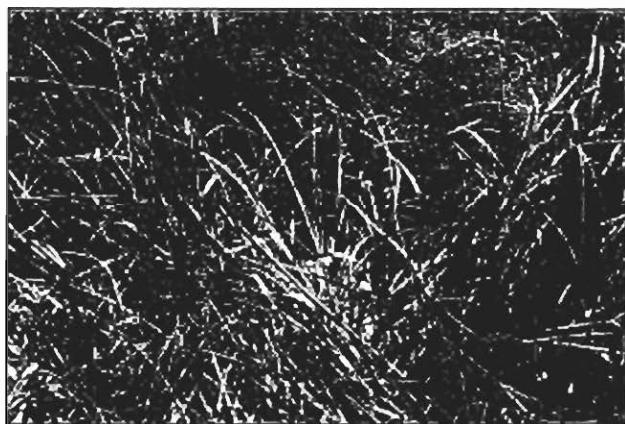
NOTES: Saw grass 6' tall

Water Level / Soil Moisture

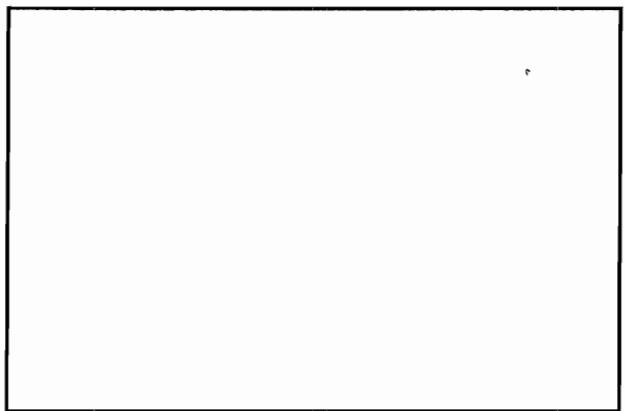
Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

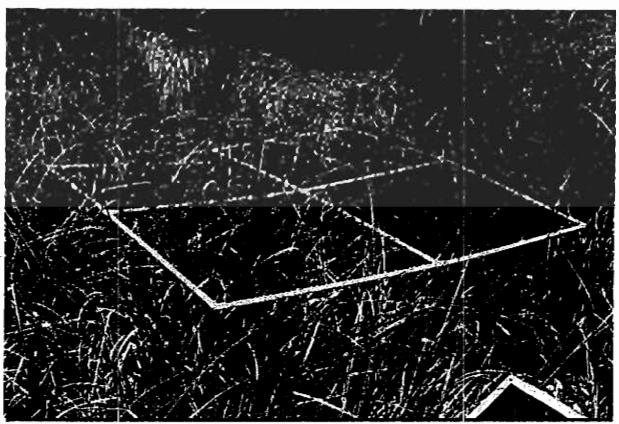
GROUND



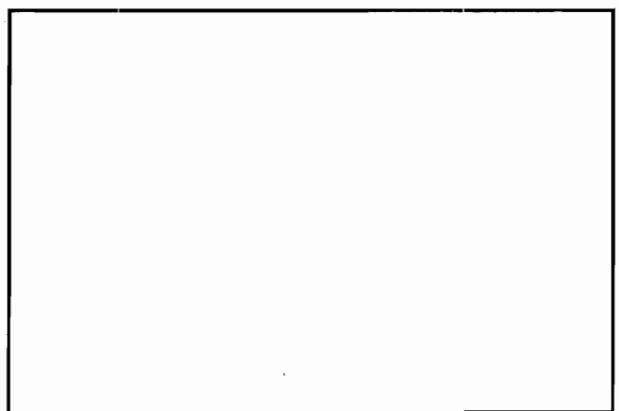
CANOPY



5/17/2003



C3



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-4

STATION

5+46

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	15%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	35%	35%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

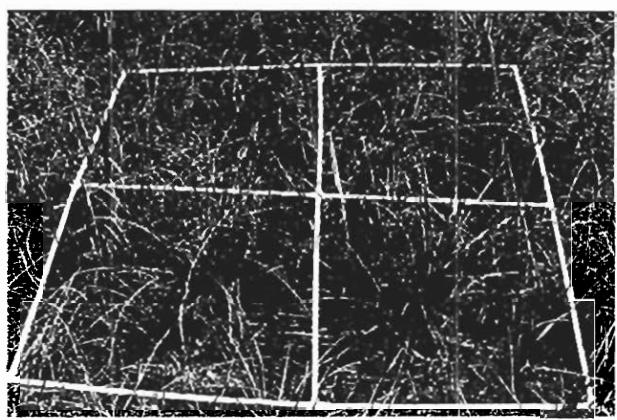
GROUND

11/10/2002

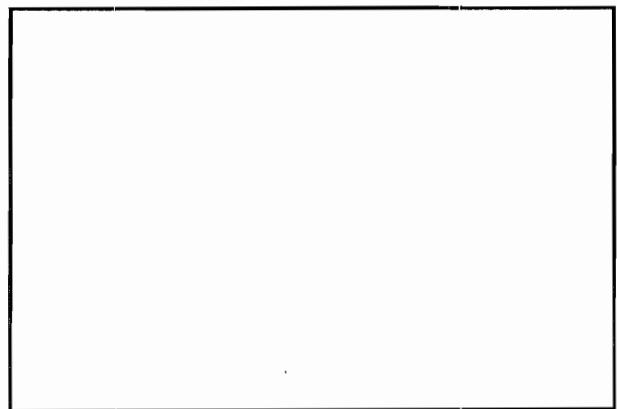
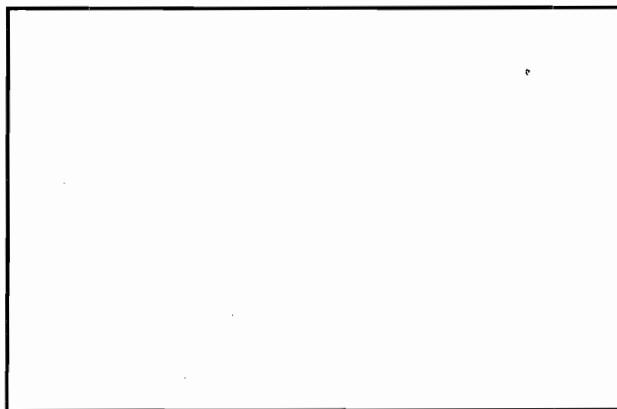


CANOPY

5/17/2003



C4



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-5

STATION

7+28

SUBMERGED AQUATICS

		11/10/2002	5/17/2003
Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	5%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	5%	15%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	5%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	60%	40%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

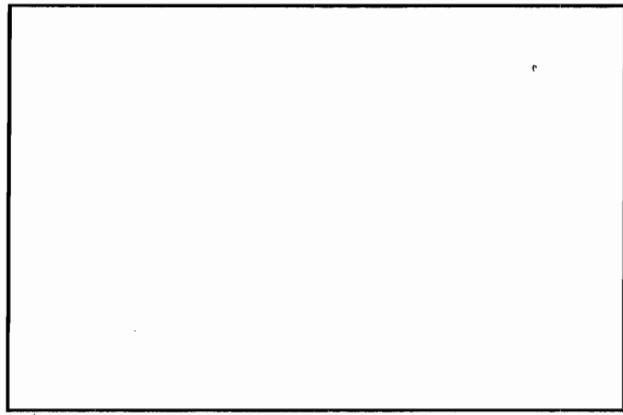
Wildlife Indicators (tracks, scat, nests)

GROUND

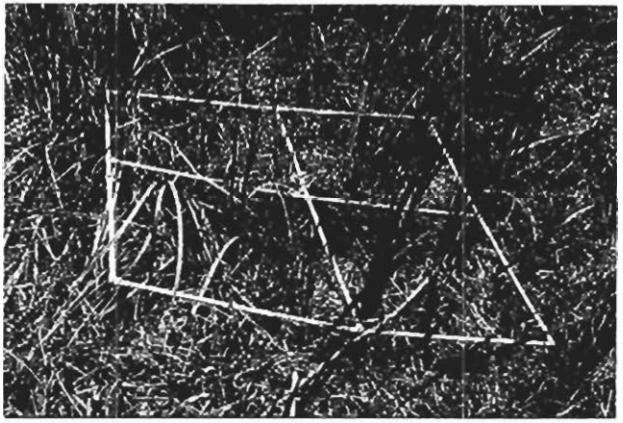


11/10/2002

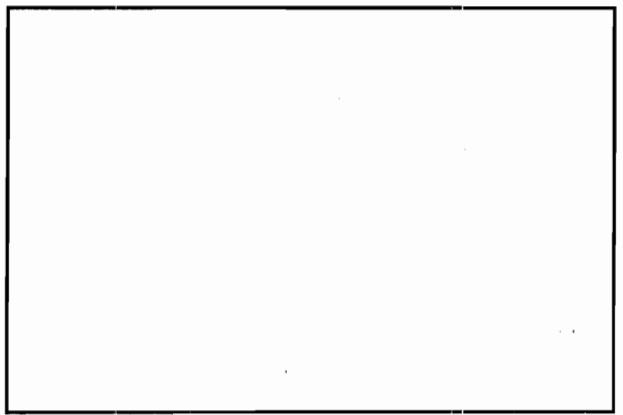
CANOPY



5/17/2003



C5



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-6

STATION 9+10

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	70%	55%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	5%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	0%	5%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

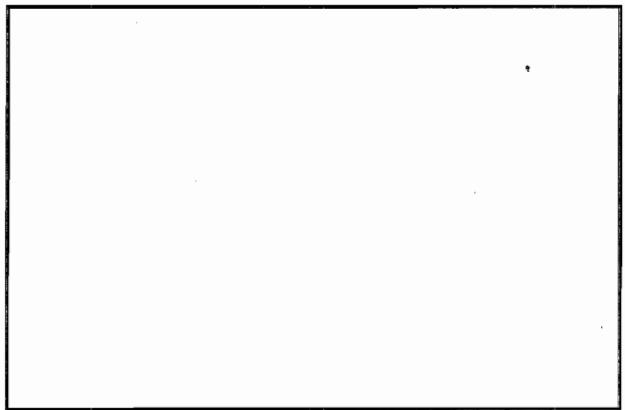
Wildlife Indicators (tracks, scat, nests)

GROUND

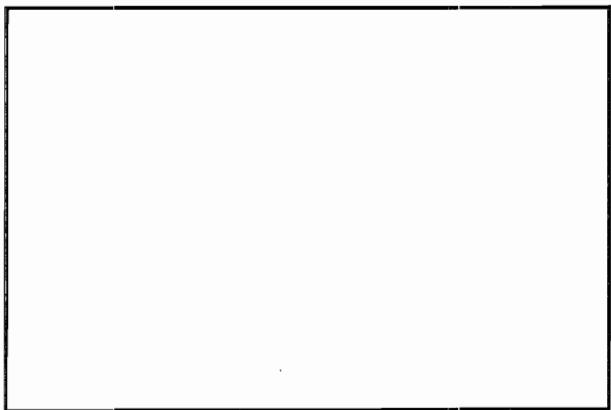
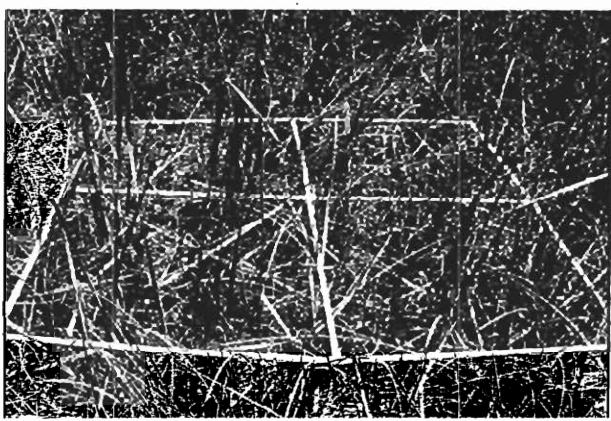


C6

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-7

STATION 10+92

SUBMERGED AQUATICS

			<u>11/10/2002</u>	<u>5/17/2003</u>
Common Name	Scientific Name	% Coverage	% Coverage	
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%	
Bladderwort	<i>Utricularia foliosa</i>	0%	0%	
Bladderwort	<i>Utricularia purpurea</i>	0%	0%	
Ludwigia	<i>Ludwigia repens</i>	0%	0%	
Open/Void	N/A	100%	100%	
TOTAL		100%	100%	

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	40%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	15%	10%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture	4" of standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

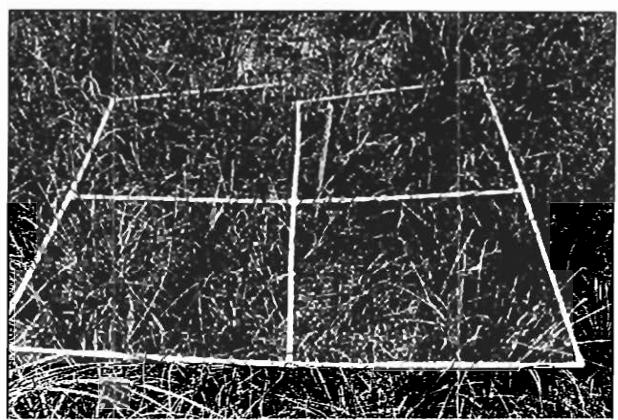
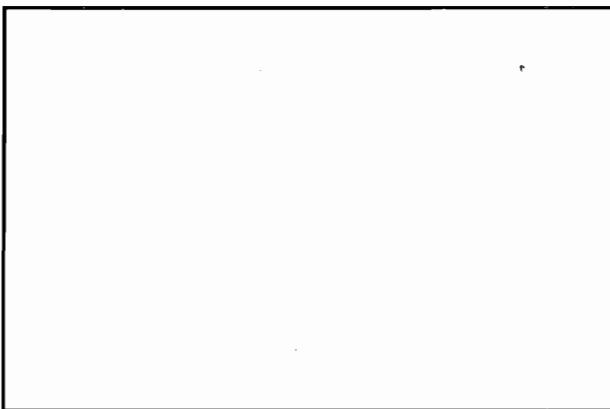
GROUND



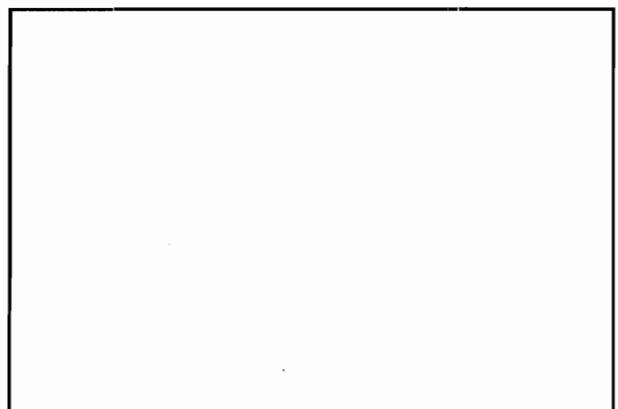
11/10/2002

C7

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-8

STATION 12+74

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	40%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	5%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	3%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	72%	55%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

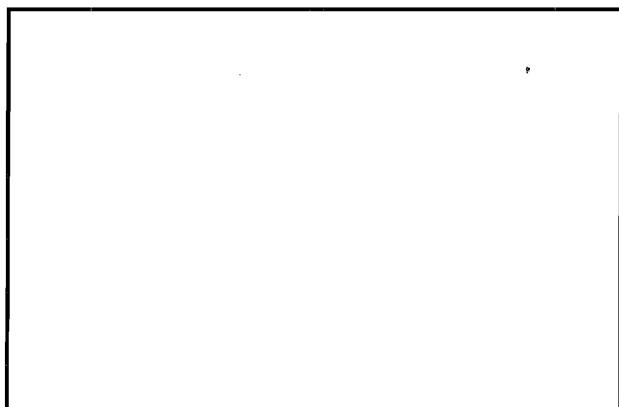
Wildlife Indicators (tracks, scat, nests)

GROUND

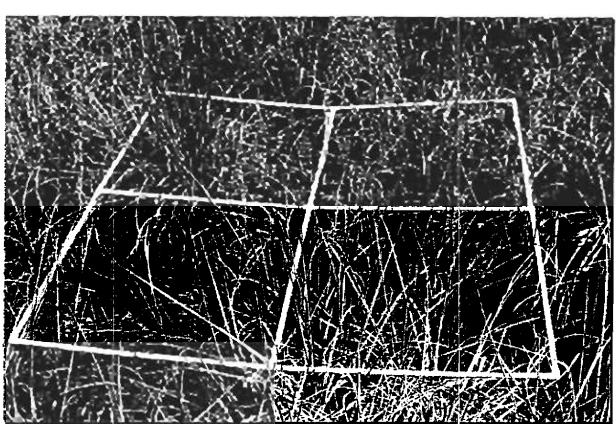


11/10/2002

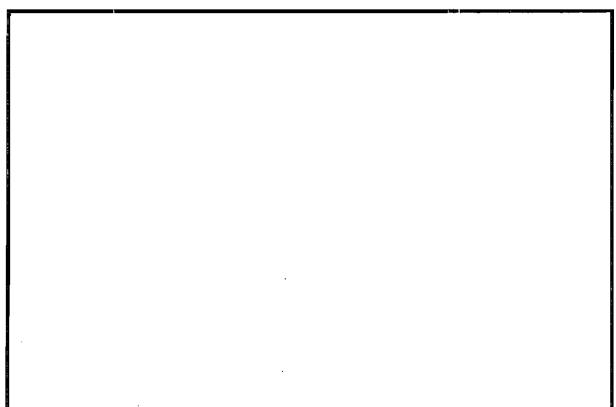
CANOPY



5/17/2003



C8



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-9

STATION 14+56

SUBMERGED AQUATICS

			11/10/2002	5/17/2003
Common Name	Scientific Name	% Coverage	% Coverage	
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%	
Bladderwort	<i>Utricularia foliosa</i>	0%	0%	
Bladderwort	<i>Utricularia purpurea</i>	0%	0%	
Ludwigia	<i>Ludwigia repens</i>	0%	0%	
Open/Void	N/A	100%	100%	
TOTAL		100%	100%	

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40%	45%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	45%	35%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

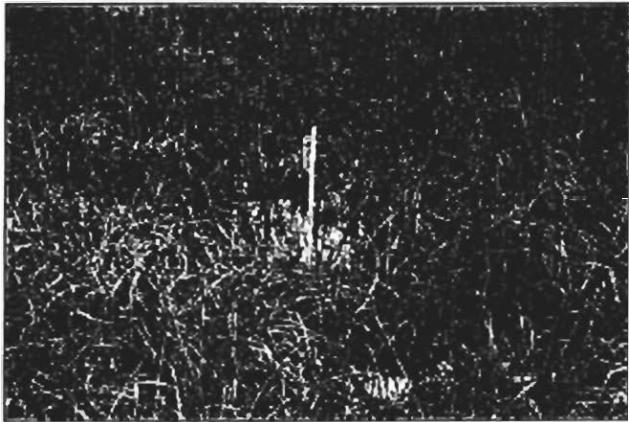
Water Level / Soil Moisture

Aquatic Macrofauna

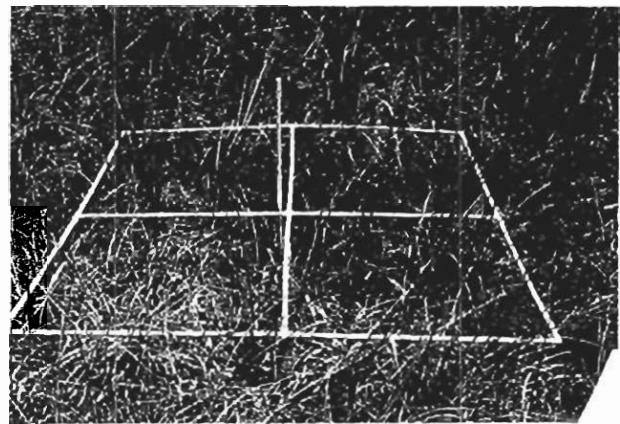
Wildlife Indicators (tracks, scat, nests)

GROUND

11/10/2002

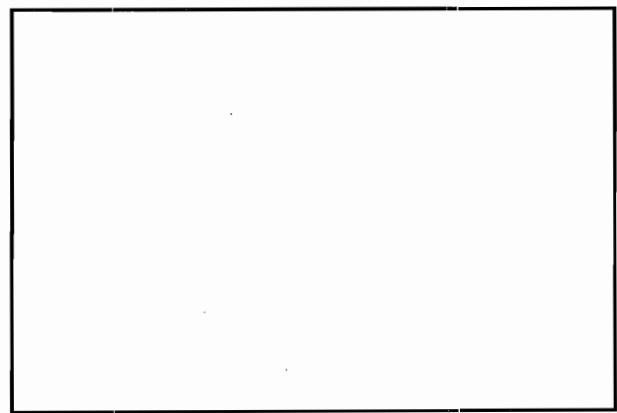
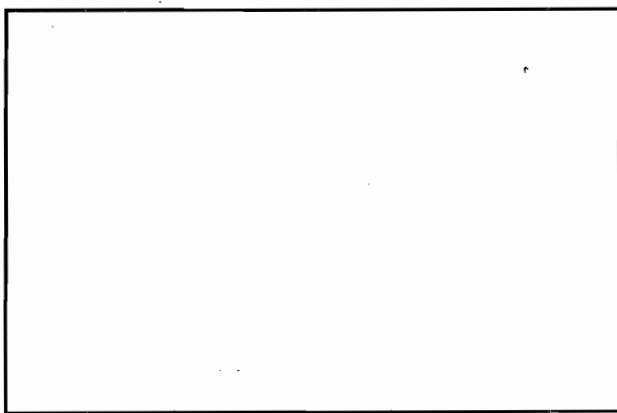


5/17/2003



C9

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-10

STATION 16+38

SUBMERGED AQUATICS

			11/10/2002	5/17/2003
Common Name	Scientific Name	% Coverage	% Coverage	
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%	
Bladderwort	<i>Utricularia foliosa</i>	0%	0%	
Bladderwort	<i>Utricularia purpurea</i>	0%	0%	
Ludwigia	<i>Ludwigia repens</i>	0%	0%	
Open/Void	N/A	100%	100%	
TOTAL		100%	100%	

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	40%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	55%	70%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	5%	10%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

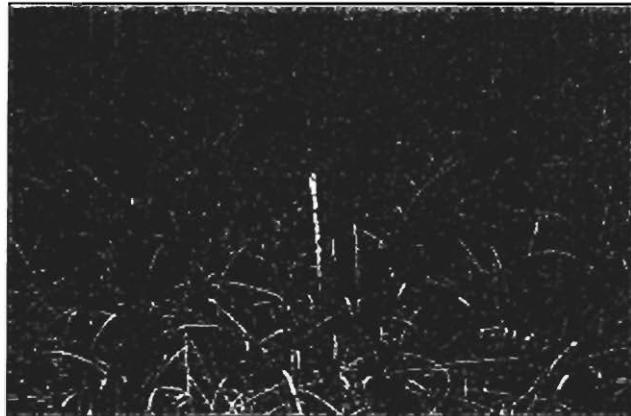
Water Level / Soil Moisture

Aquatic Macrofauna

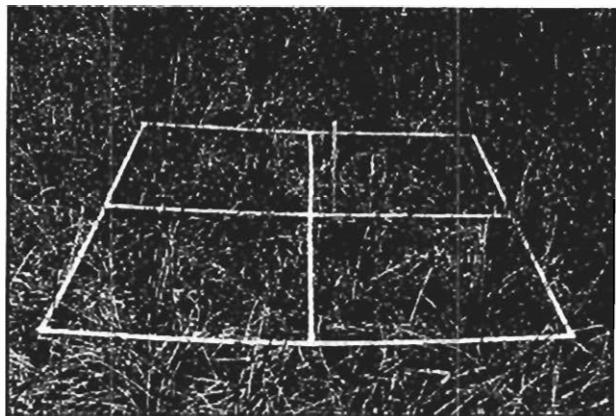
Wildlife Indicators (tracks, scat, nests)

GROUND

11/10/2002

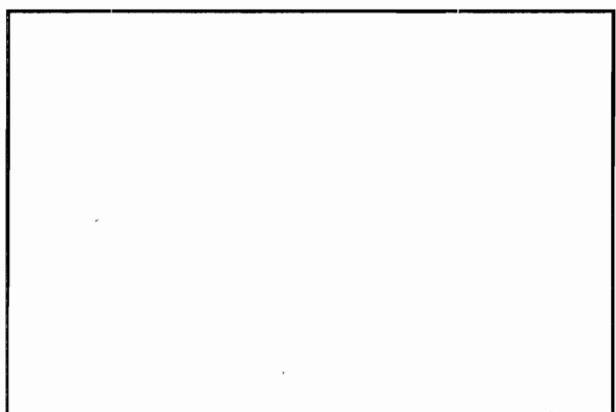
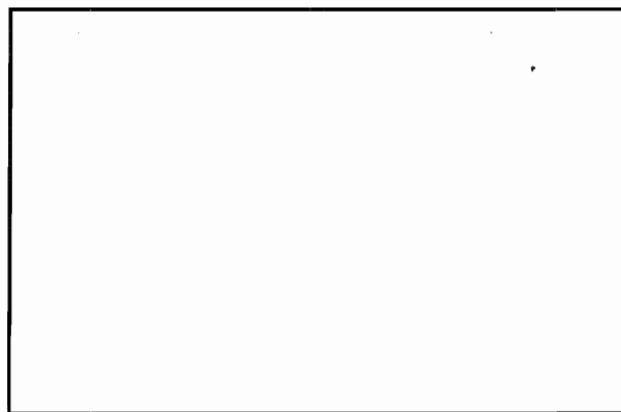


5/17/2003



C10

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-11

STATION

18+20

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	65%	65%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	1%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	0%	10%
TOTAL		100%	101%

SAPLING / VINE

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

OVERSTORY

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

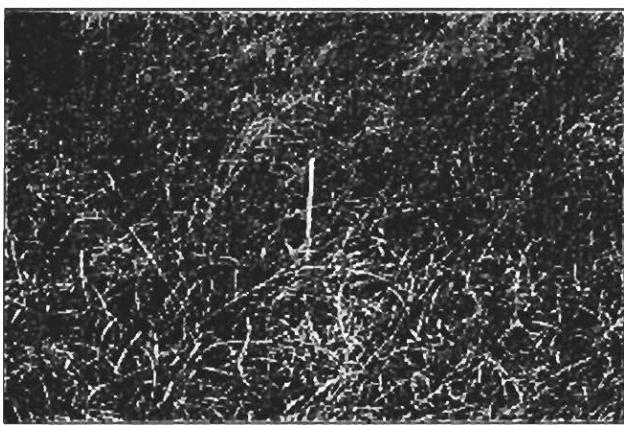
NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

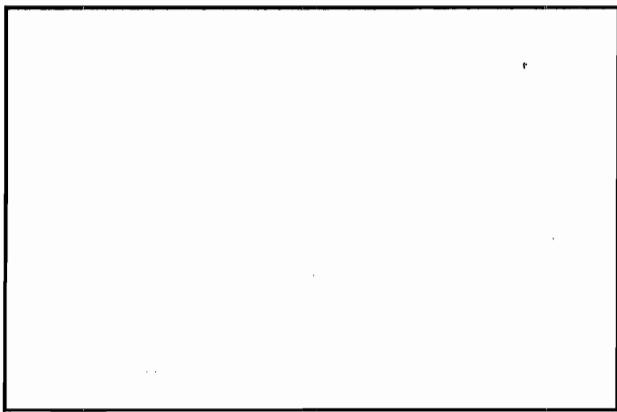
Wildlife Indicators (tracks, scat, nests)

GROUND



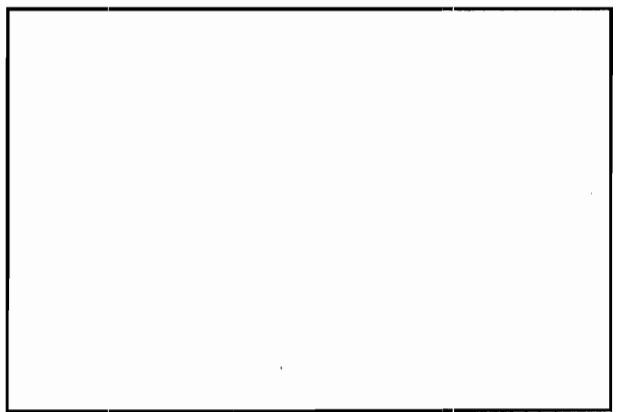
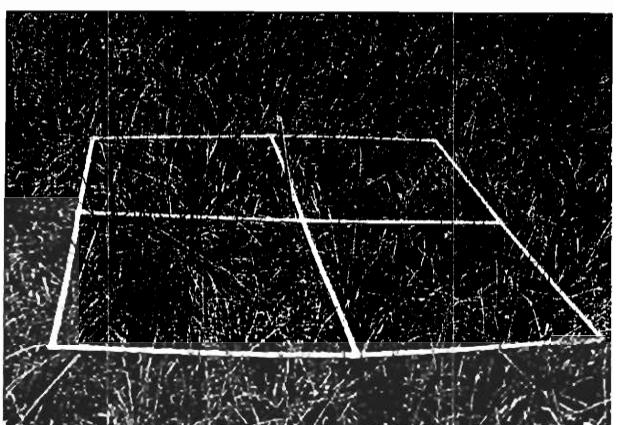
11/10/2002

CANOPY



C11

5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-12

STATION

20+02

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	75%	70%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	0%	20%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

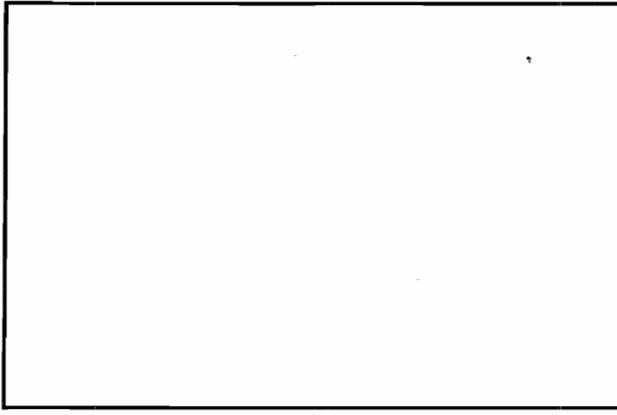
Wildlife Indicators (tracks, scat, nests)

GROUND

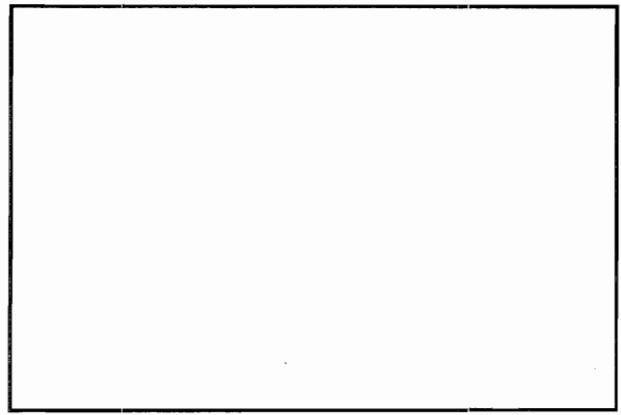
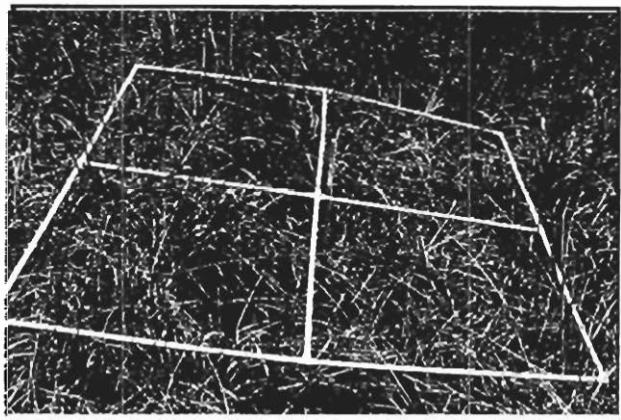


C12

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-13

STATION

21+84

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	45%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	49%	35%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

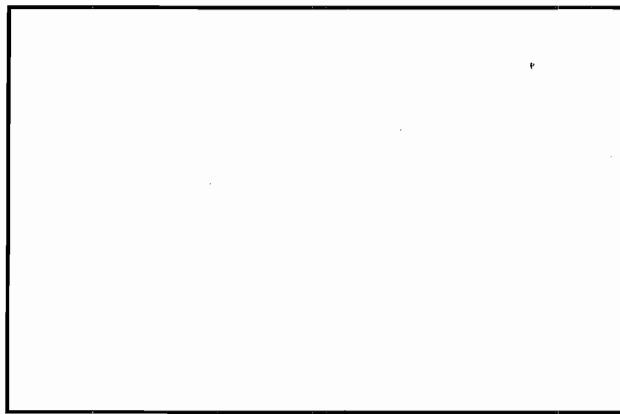
Wildlife Indicators (tracks, scat, nests)

GROUND



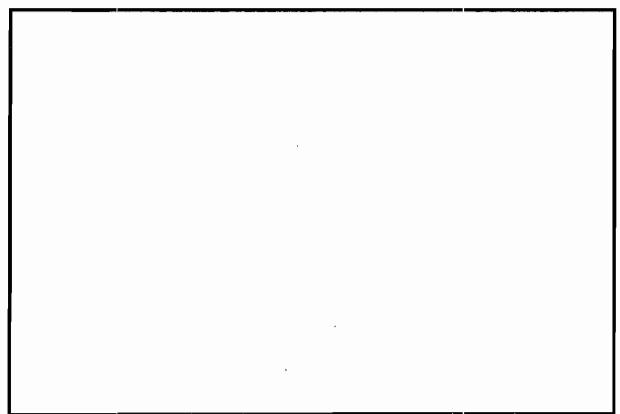
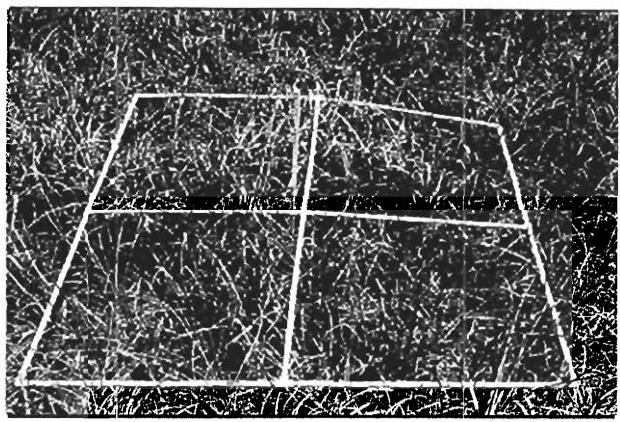
11/10/2002

CANOPY



C13

5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-14

STATION 23+66

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	65%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	35%	60%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	1%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	0%	4%
TOTAL		100%	100%

SAPLING / VINE

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

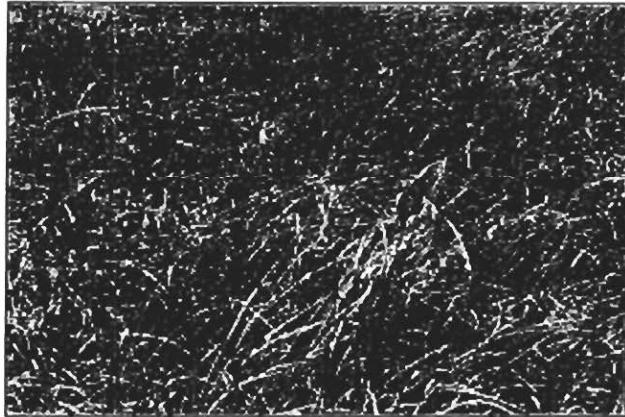
OVERSTORY

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

NOTES:

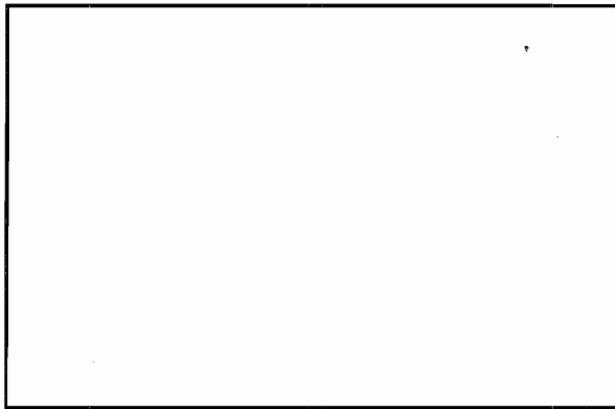
Water Level / Soil Moisture	7" of standing water
Aquatic Macrofauna	Several 3cm fry
Wildlife Indicators (tracks, scat, nests)	None

GROUND

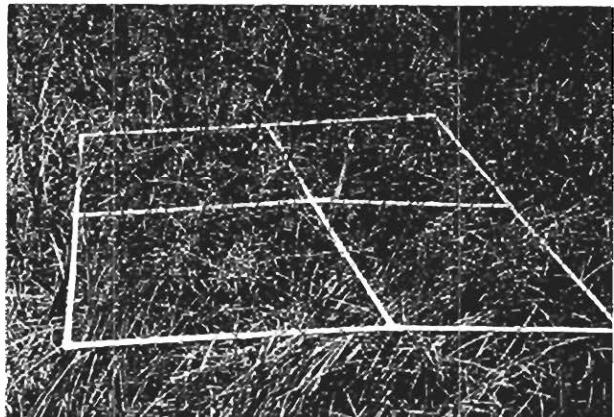


C14

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-15

STATION

25+48

SUBMERGED AQUATICS

11/10/2002

5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	35%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	45%	50%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	20%	20%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

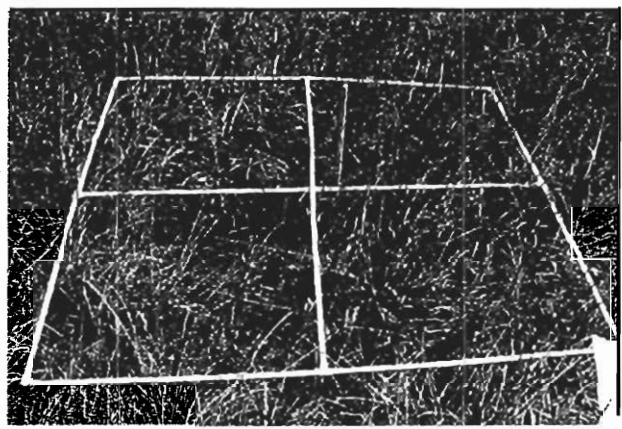
GROUND

11/10/2002

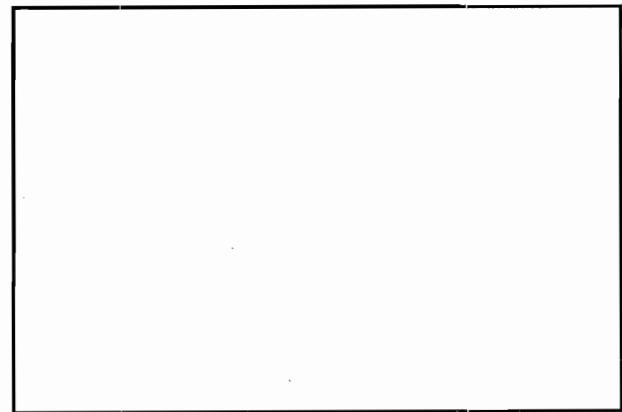
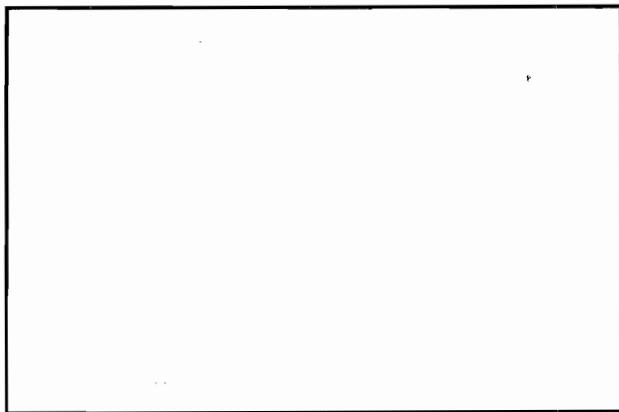


CANOPY

5/17/2003



C15



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-16

STATION

27+30

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	55%	75%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	3%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	0%	2%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

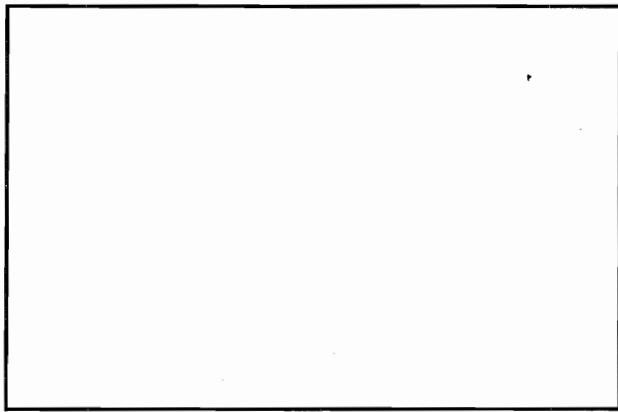
Wildlife Indicators (tracks, scat, nests)

GROUND

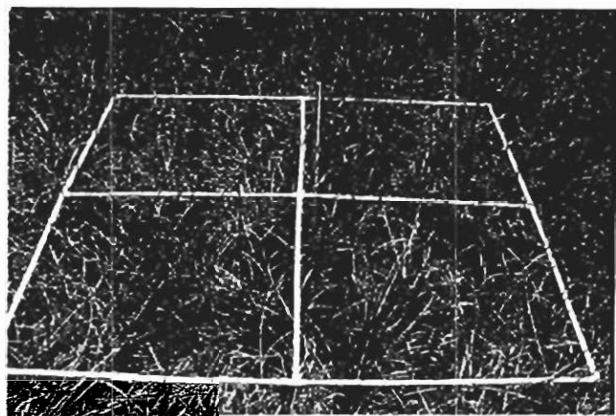


11/10/2002

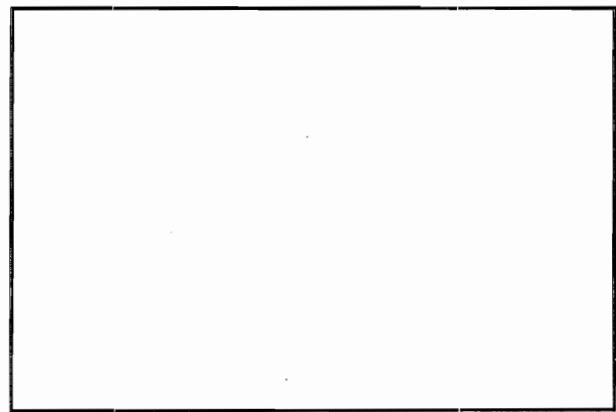
CANOPY



5/17/2003



C16



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-17

STATION 29+12

SUBMERGED AQUATICS

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40%	50%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	35%	15%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

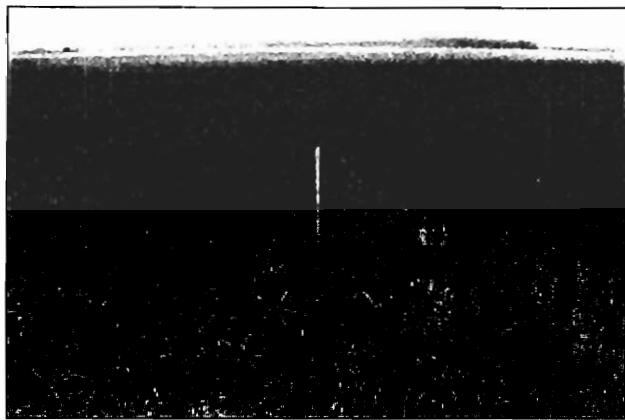
NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

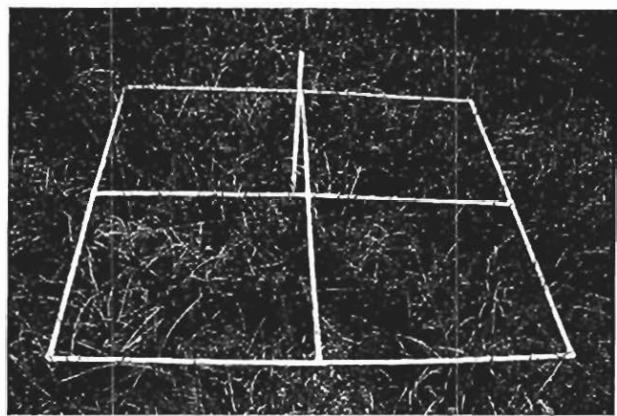
Wildlife Indicators (tracks, scat, nests)

GROUND



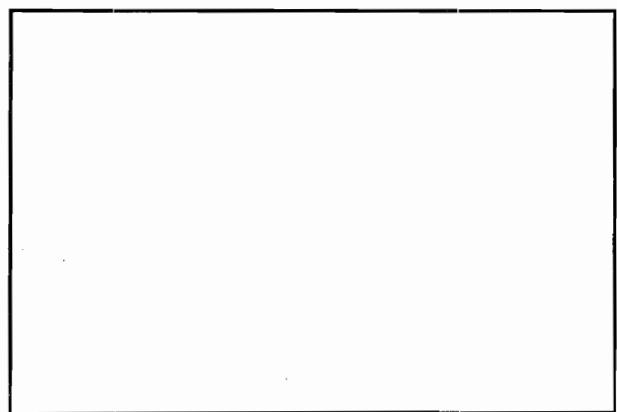
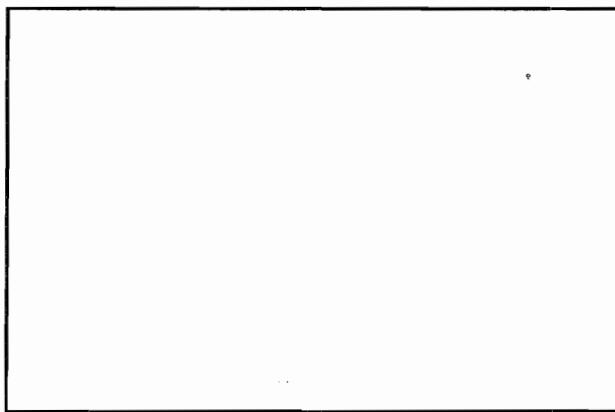
11/10/2002

5/17/2003



C17

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-18

STATION 30+94

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	70%	60%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	10%	15%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

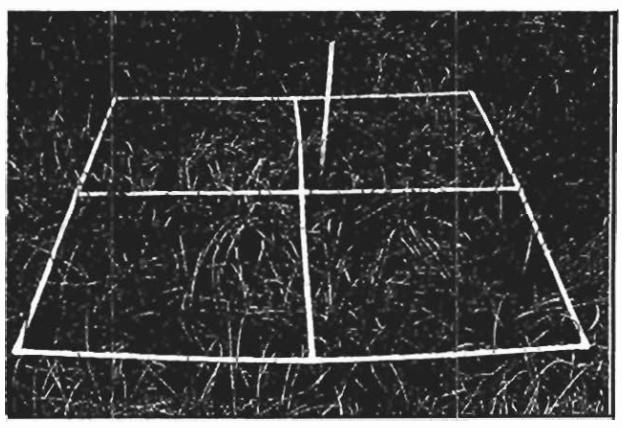
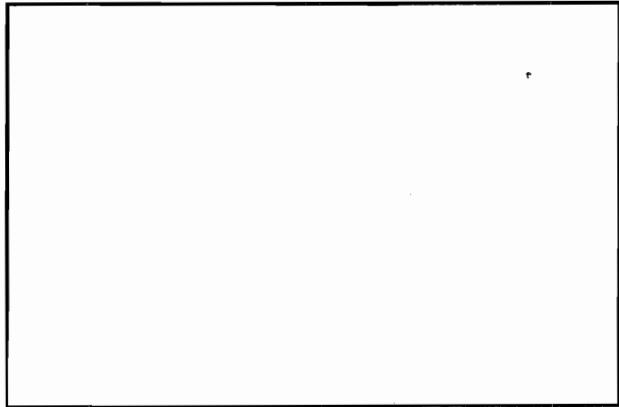
GROUND



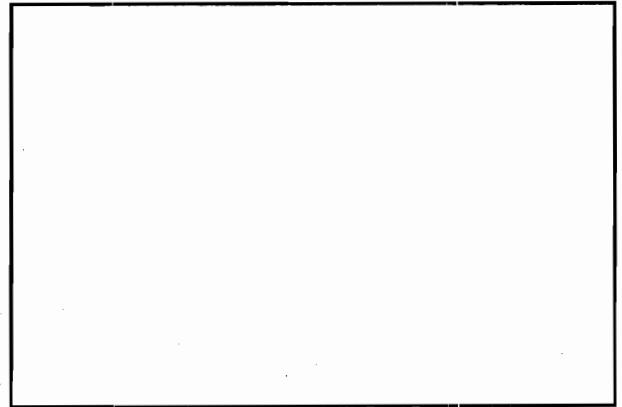
11/10/2002

C18

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-19

STATION 32+76

SUBMERGED AQUATICS

		11/10/2002	5/17/2003
Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	0%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	100%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	50%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	55%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	0%	15%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

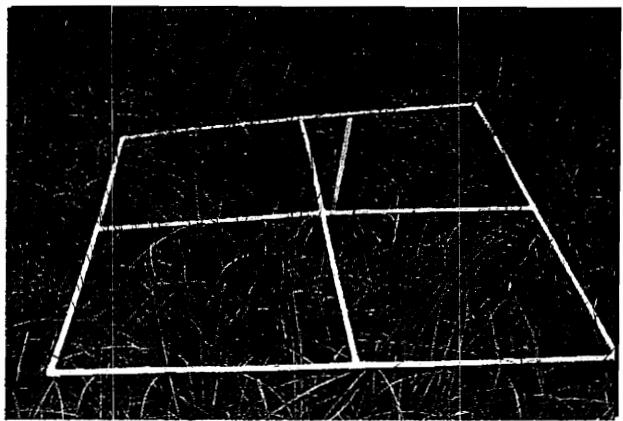
GROUND



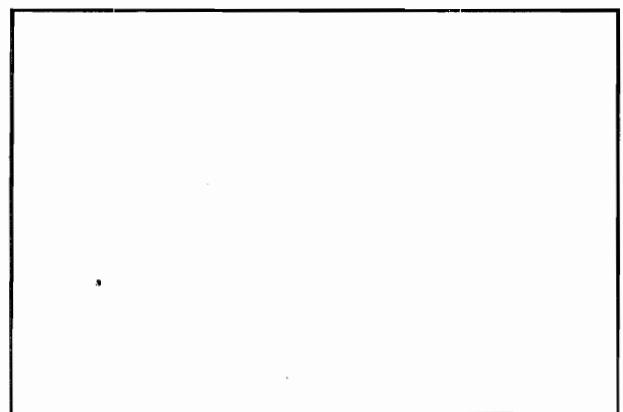
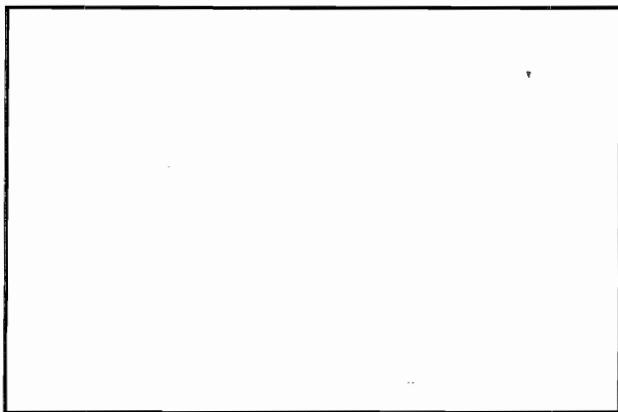
C19

11/10/2002

5/17/2003



CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-20

STATION

34+58

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	35%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	0%	20%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	2%	1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	68%	44%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

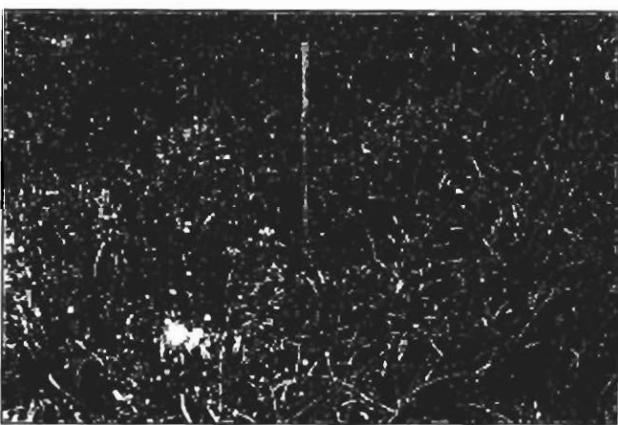
NOTES: Fry common observed in open water area.

Water Level / Soil Moisture

Aquatic Macrofauna

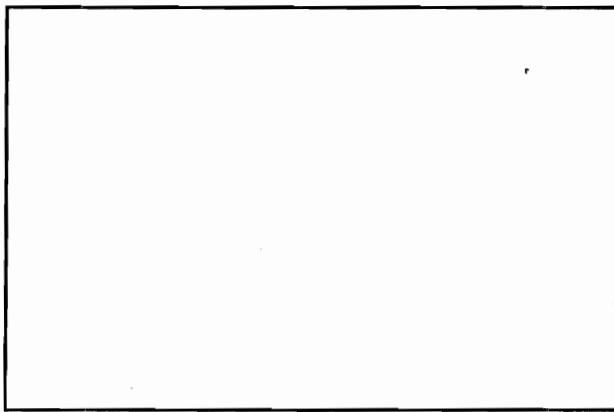
Wildlife Indicators (tracks, scat, nests)

GROUND

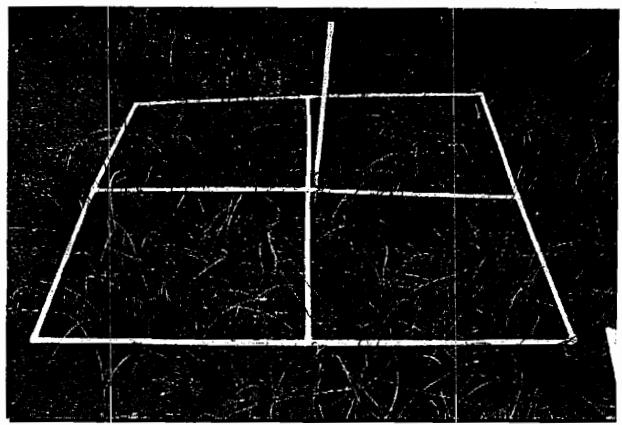


11/10/2002

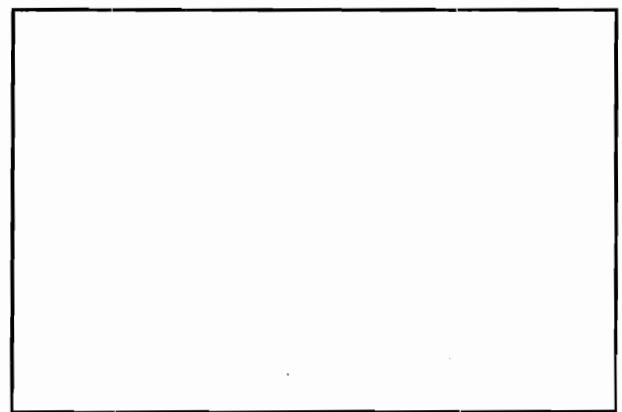
CANOPY



5/17/2003



C20



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-21

STATION

36+40

SUBMERGED AQUATICS

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

11/10/2002

5/17/2003

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	50%	35%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	1%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	2%	1%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephaelanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	28%	38%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture

3" standing water

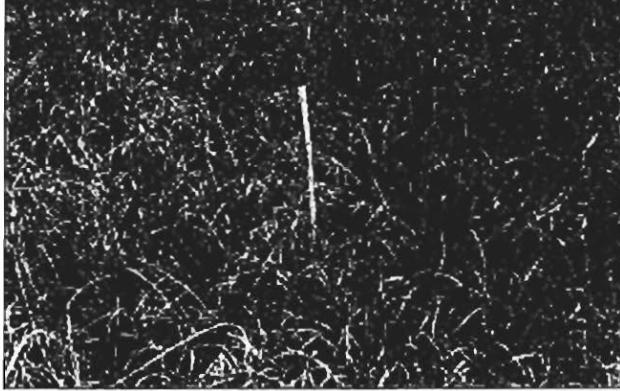
Aquatic Macrofauna

None

Wildlife Indicators (tracks, scat, nests)

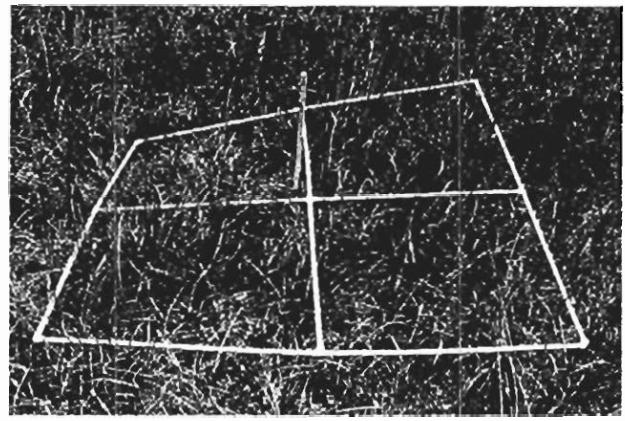
None

GROUND



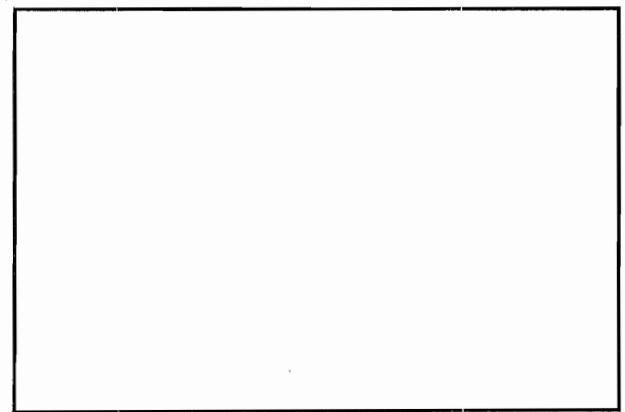
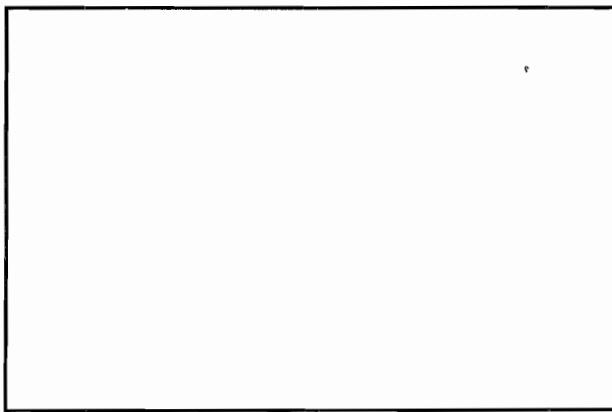
11/10/2002

5/17/2003



C21

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-22

STATION

38+22

SUBMERGED AQUATICS

Common Name	Scientific Name	% Coverage	% Coverage
Mermaid Weed	<i>Proserpinaca palustris</i>	0%	0%
Bladderwort	<i>Utricularia foliosa</i>	0%	0%
Bladderwort	<i>Utricularia purpurea</i>	30%	0%
Ludwigia	<i>Ludwigia repens</i>	0%	0%
Open/Void	N/A	70%	100%
TOTAL		100%	100%

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	15%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	10%	15%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	75%	60%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

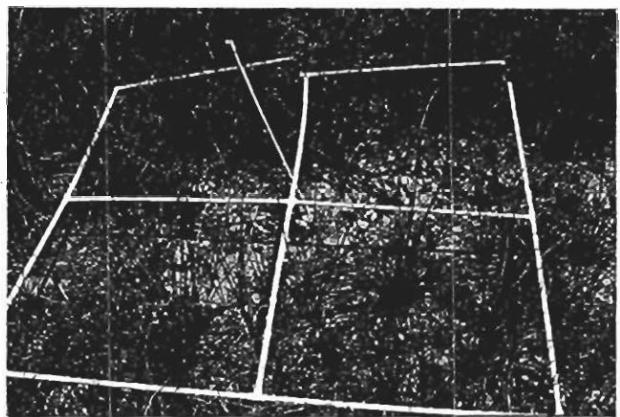
Wildlife Indicators (tracks, scat, nests)

GROUND

11/10/2002

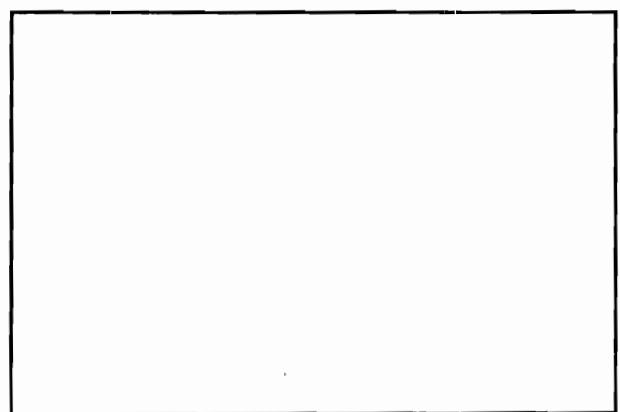
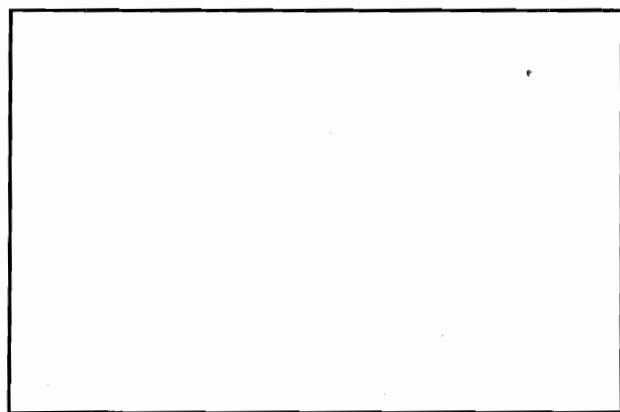


5/17/2003



C22

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-23

STATION

40+04

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	20%	30%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	1%	1%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	54%	44%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

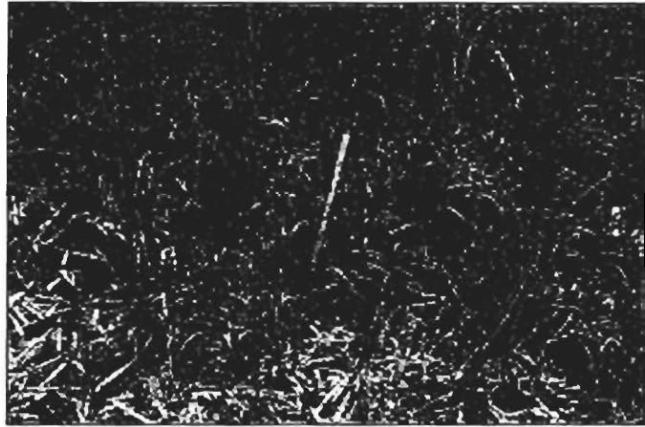
Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

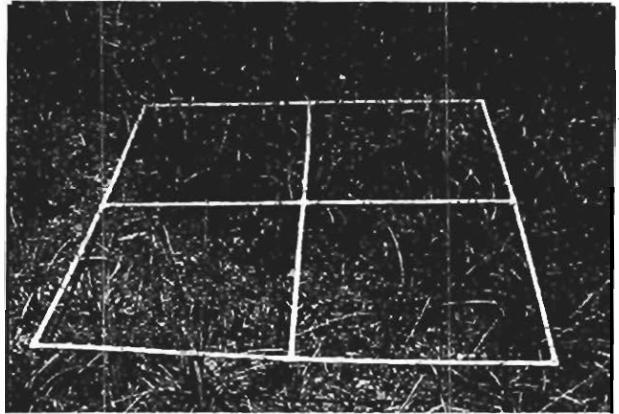
GROUND

11/10/2002

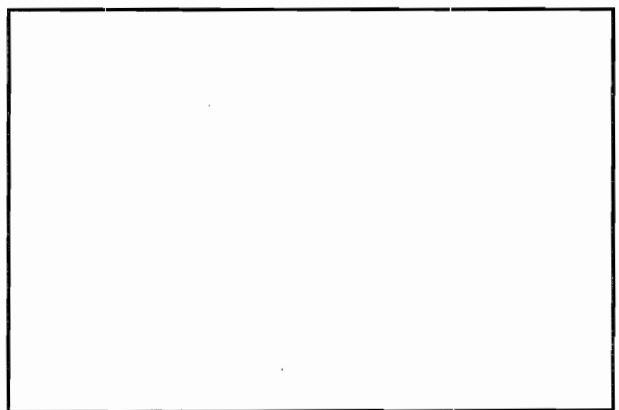
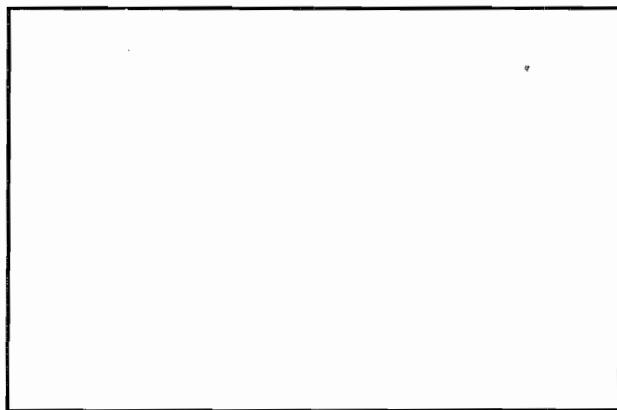


CANOPY

5/17/2003



C23



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-24

STATION

41+86

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

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

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

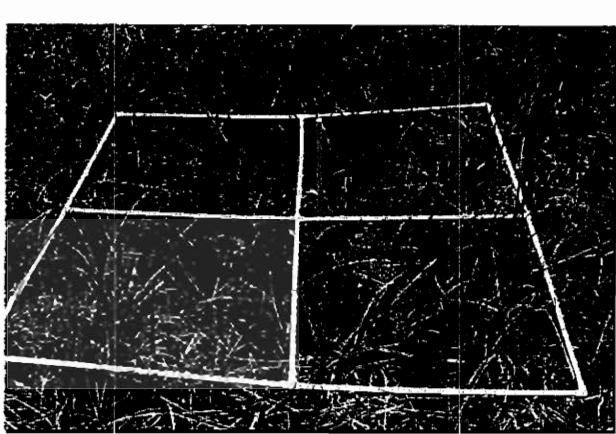
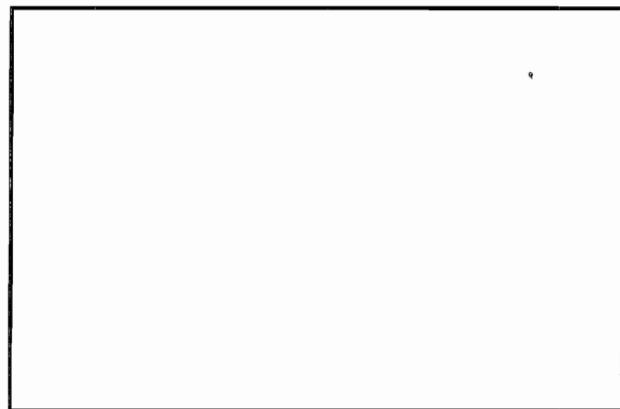
Wildlife Indicators (tracks, scat, nests)

GROUND



C24

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-25

STATION

43+68

SUBMERGED AQUATICS

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

11/10/2002

5/17/2003

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	30%	25%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40%	45%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	30%	30%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

Water Level / Soil Moisture

Aquatic Macrofauna

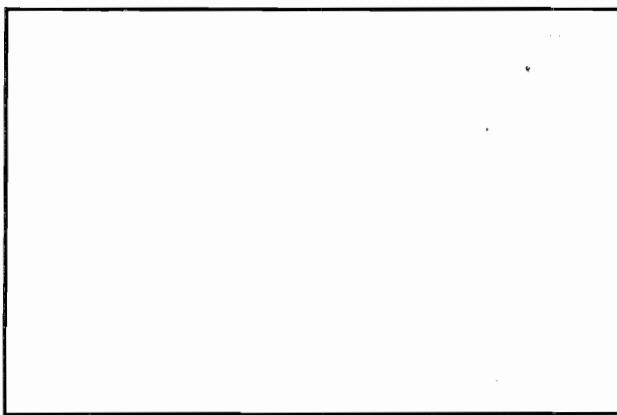
Wildlife Indicators (tracks, scat, nests)

GROUND

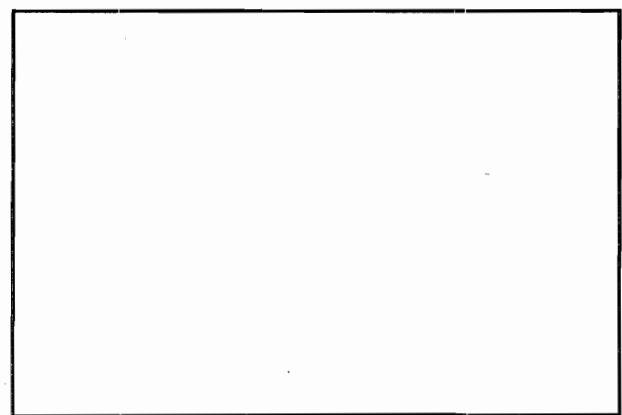
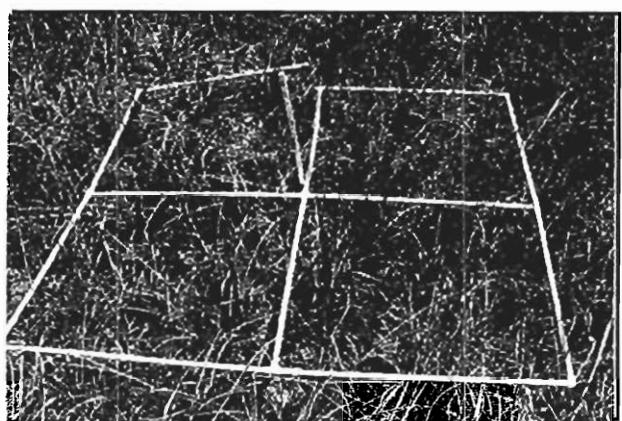


C25

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-26

STATION

45+50

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	45%	30%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	40%	50%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	2%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hermitorum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	13%	20%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

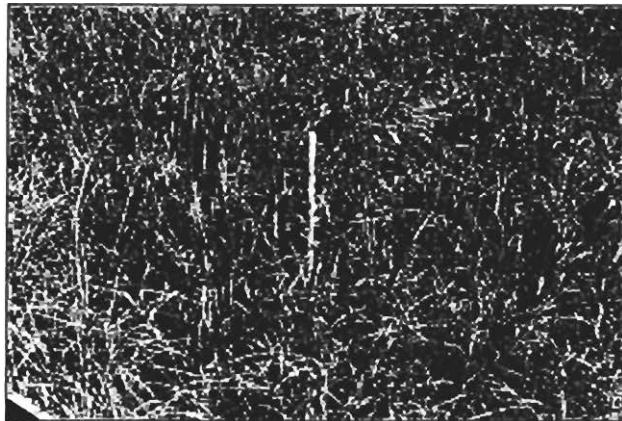
Water Level / Soil Moisture

Aquatic Macrofauna

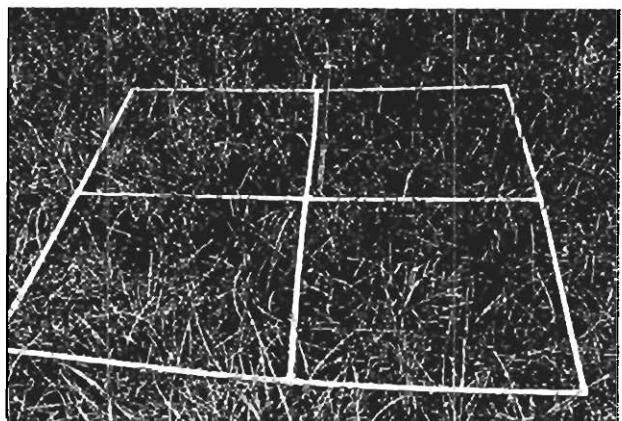
Wildlife Indicators (tracks, scat, nests)

GROUND

11/10/2002

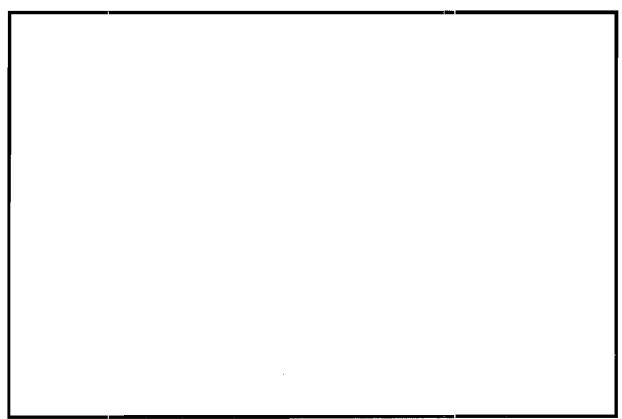
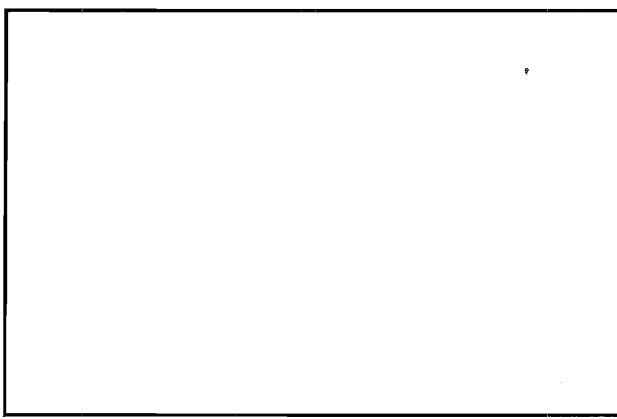


5/17/2003



C26

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT C-27

STATION 47+32

SUBMERGED AQUATICS

11/10/2002 **5/17/2003**

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	20%	15%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	70%	75%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	0%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	10%	10%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

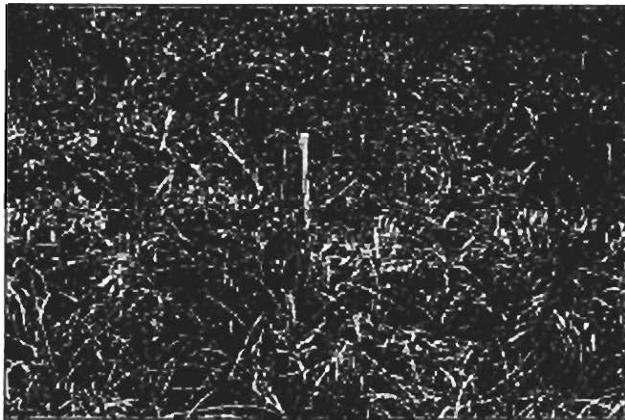
Water Level / Soil Moisture

Aquatic Macrofauna

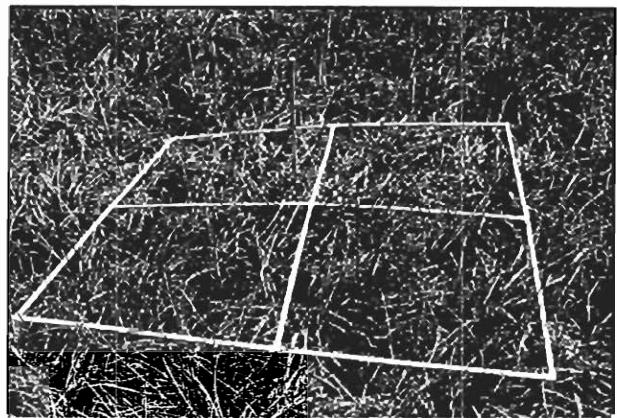
Wildlife Indicators (tracks, scat, nests)

GROUND

11/10/2002

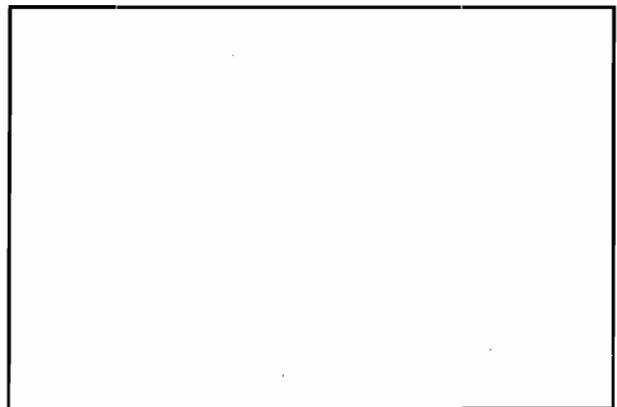
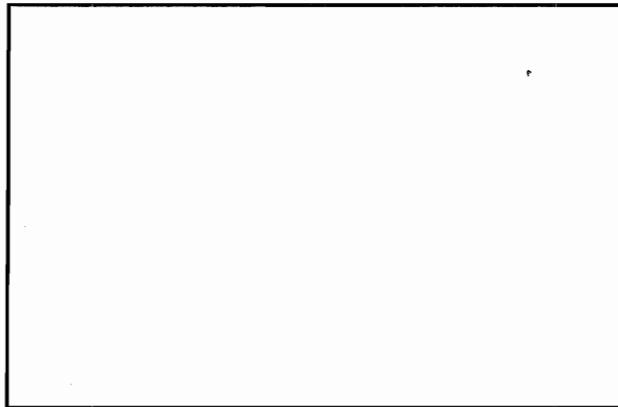


5/17/2003



C27

CANOPY



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-28

STATION

49+14

SUBMERGED AQUATICS

11/10/2002 5/17/2003

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

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	10%	10%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	2%	5%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	2%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	2%	2%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	0%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	8%	10%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	10%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	5%
Open Water/Mud/Void	N/A	66%	68%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES:

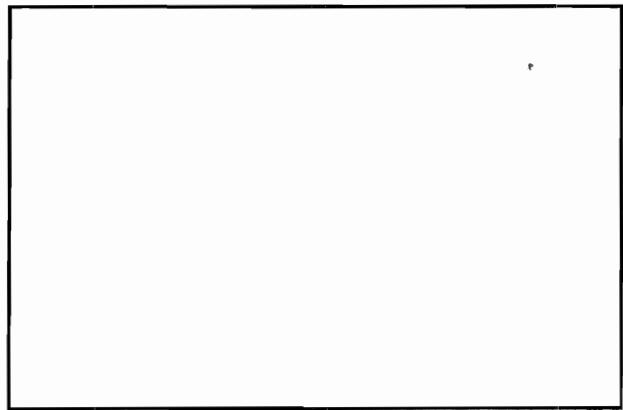
Water Level / Soil Moisture	4" standing water
Aquatic Macrofauna	None
Wildlife Indicators (tracks, scat, nests)	None

GROUND

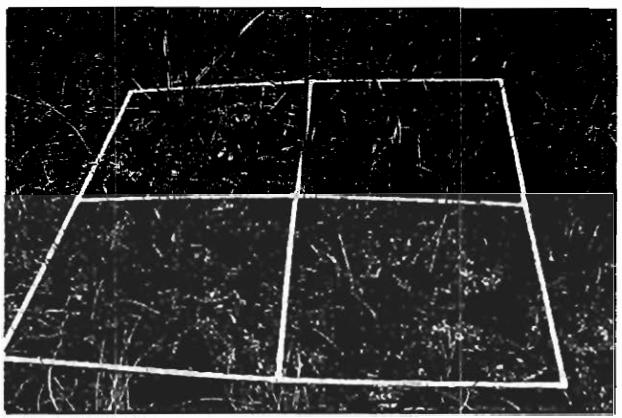


11/10/2002
C28

CANOPY



5/17/2003



Pennsuco Monitoring Project - Data Form

TRANSECT / POINT

C-29

STATION

50+96

SUBMERGED AQUATICS

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

11/10/2002

5/17/2003

HERBACEOUS SPECIES

Common Name	Scientific Name	% Coverage	% Coverage
Saw Grass (Alive)	<i>Cladium jamaicense</i>	25%	20%
Saw Grass (Dead)	<i>Cladium jamaicense</i>	25%	30%
Punk Tree (Alive)	<i>Melaleuca quinquenervia</i>	0%	0%
Punk Tree (Dead)	<i>Melaleuca quinquenervia</i>	0%	0%
Southern Swamp Lily	<i>Crinum americanum</i>	0%	1%
Pickerelweed	<i>Pontederia lanceolata</i>	0%	0%
Yellowtops	<i>Flaveria linearis</i>	0%	0%
Arrowhead	<i>Sagittaria graminea</i>	5%	0%
Floating-Heart	<i>Nymphoides aquatica</i>	0%	0%
Capillary Hairsedge	<i>Bulbostylis ciliataefolia</i>	0%	0%
Cattail	<i>Typha latifolia</i>	0%	0%
Button Bush	<i>Cephalanthus occidentalis</i>	0%	0%
Maiden-Cane	<i>Panicum hemitomum</i>	0%	0%
Shield Fern	<i>Thelypteris kunthii</i>	0%	0%
Swamp Fern	<i>Blechnum serrulatum</i>	0%	0%
Elm	<i>Trema micrantha</i>	0%	0%
Tracy's Beak Rush	<i>Rhynchospora tracyi</i>	0%	0%
Open Water/Mud/Void	N/A	45%	49%
TOTAL		100%	100%

SAPLING / VINE

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

OVERSTORY

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

NOTES: _____

Water Level / Soil Moisture

Aquatic Macrofauna

Wildlife Indicators (tracks, scat, nests)

RAINFALL DATA 2003

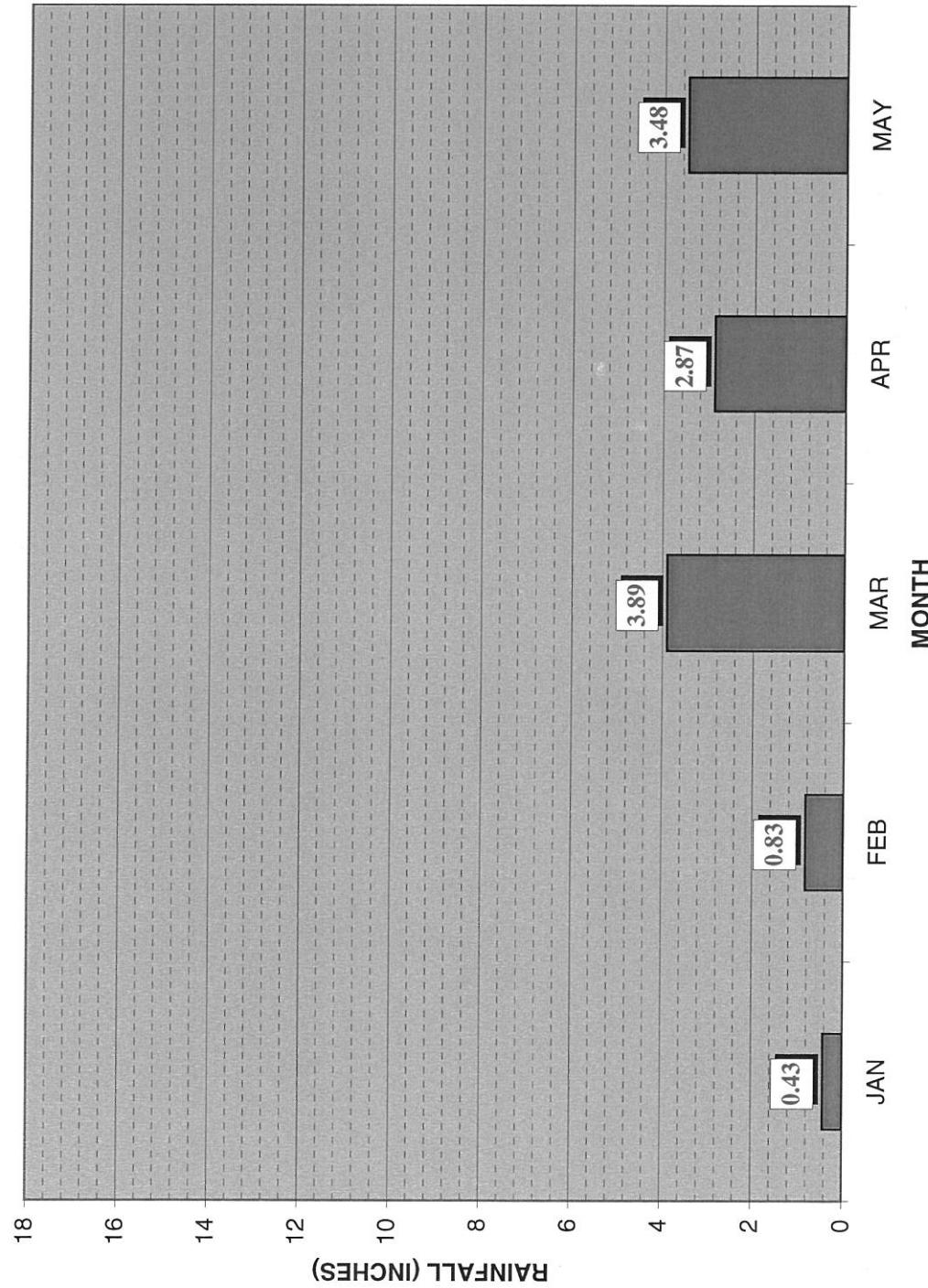
b

d



e

Monthly Precipitation
January 1 - May 20, 2003
Miami Station 25° 49' N, 80° 17' W



b

d



c

e

f



100% - 100%

100



j

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: MIAMI
MONTH: JANUARY
YEAR: 2003
LATITUDE: 25 49 N
LONGITUDE: 80 17 W

	1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSR1	S-S	MX	SPD	DR	

TEMPERATURE IN F: :BCPN: SNOW: WIND :SUNSHINE: SKY :PK WND

LONGITUDE: 80° 17' W

STATION: MIAMI MONTH: FEBRUARY YEAR: 2003 LATITUDE: 25 49 N LONGITUDE: 80 17 W

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: E-6)

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: MIAMI
 MONTH: MARCH
 YEAR: 2003
 LATITUDE: 25 49 N
 LONGITUDE: 80 17 W

	TEMPERATURE IN F:				:PCPN:		SNOW:		WIND			:SUNSHINE: SKY				:PK WND			
	1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
	DY	MAX	MIN	Avg	DEP	HDD	CDD	WTR	SNW	DPHTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD DR	
1	87	72	80	9	0	15	0.00	0.0	0	8.3	18	160	693	99	6		25	170	
2	90	73	82	11	0	17	0.00	0.0	0	8.3	18	250	692	99	6		24	270	
3	84	70	77	6	0	12	0.00	0.0	0	5.2	15	120	688	98	6	12		18	140
4	90	76	83	12	0	18	0.00	0.0	0	8.3	17	230	700	100	5		22	220	
5	87	73	80	9	0	15	0.00	0.0	0	7.3	17	140	701	100	6		21	160	
6	88	75	82	11	0	17	0.00	0.0	0	8.2	17	170	705	100	5		26	180	
7	89	76	83	12	0	18	0.00	0.0	0	7.3	17	160	705	100	4		24	230	
8	88	71	80	9	0	15	T	0.0	0	4.4	14	120	708	100	3			17	150
9	88	71	80	8	0	15	0.00	0.0	0	5.6	15	270	709	100	5	1			
10	86	72	79	7	0	14	0.27	0.0	0	3.2	13	330	701	99	6	18		20	260
11	84	71	78	6	0	13	0.01	0.0	0	3.5	14	100	701	98	7			16	320
12	87	74	81	9	0	16	0.00	0.0	0	4.6	14	120	709	99	6			17	150
13	87	75	81	9	0	16	0.00	0.0	0	5.4	16	140	709	99	8			20	140
14	89	73	81	9	0	16	0.00	0.0	0	5.3	16	120	701	98	7			18	130
15	89	71	80	8	0	15	0.12	0.0	0	4.4	18	100	700	97	8	13		20	90
16	84	70	77	5	0	12	0.14	0.0	0	4.0	18	130	710	99	6	3		23	130
17	87	67	77	4	0	12	1.99	0.0	0	8.8	43	260	703	97	8	138		51	260
18	90	68	79	6	0	14	T	0.0	0	7.3	18	220	720	100	3	18		24	240
19	90	77	84	11	0	19	0.03	0.0	0	9.5	16	160	721	100	4	1		25	190
20	89	80	85	12	0	20	T	0.0	0	12.1	20	160	723	100	5			29	200
21	91	78	85	12	0	20	0.00	0.0	0	11.8	23	210	723	99	4			29	190
22	93	77	85	12	0	20	0.00	0.0	0	6.9	18	280	721	99	4			24	270
23	89	72	81	8	0	16	0.01	0.0	0	5.3	21	310	723	99	7	138		28	140
24	82	69	76	3	0	11	0.00	0.0	0	8.3	15	310	722	98	6	1		22	330
25	81	63	72	-1	0	7	T	0.0	0	8.8	17	80	729	99	5			22	80
26	82	69	76	3	0	11	0.00	0.0	0	6.3	15	130	725	99	9			22	150
27	80	68	74	0	0	9	1.24	0.0	0	8.9	31	270	606	82	10	123		38	260
28	86	69	78	4	0	13	0.00	0.0	0	5.3	15	120	783	99	5			20	150
29	85	69	77	3	0	12	0.00	0.0	0	5.0	13	120	741	100	5			22	180
30	88	59	74	0	0	9	0.08	0.0	0	11.4	26	320	706	95	7			38	310
31	65	54	60	-14	5	0	0.00	0.0	0	12.3	22	330	744	100	4			29	360
SM	2675	2202			5	437	3.89	0.0	221.3			22022		180					
AV	86.3	71.0								7.1	FASTST		PSBL	%	6		MAX (MPH)		
MISC	---	>								43	260					51	260		

	1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18	Avg MX 2MIN	SUM DEP DIR	SPD DIR	MIN PSD S-S MX	SPD DR	DY MAX MIN AVG DEP HDD CDD WTR SNM DPTH SPD DIR PSD S-S MX
--	---	---	---	---	---	----	----	---	---	---	----	----	----	----	----	----	----	----	----	-------------	-------------	---------	----------------	--------	--

TEMPERATURE IN F: :PCPN: SNOW: WIND :SUNSHINE: SKY :PK MND

STATION: MIAMI
MONTH: APRIL
YEAR: 2003
LATITUDE: 25 49 N
LONGITUDE: 80 17 W

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: E-6)

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: MIAMI
 MONTH: MAY
 YEAR: 2003
 LATITUDE: 25 49 N
 LONGITUDE: 80 17 W

	TEMPERATURE IN F:				:PCPN:	SNOW:	WIND	SUNSHINE: SKY				:PK WND						
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	87	71	79	1	0	14	0.09	0.0	0	10.3	21	260	771	98	8	1	26	260
2	89	72	81	3	0	16	0.01	0.0	0	7.1	24	250	786	100	5	38	28	250
3	87	72	80	2	0	15	0.00	0.0	0	5.7	17	140	770	97	4	18	22	170
4	88	73	81	3	0	16	0.00	0.0	0	5.3	14	130	790	100	4		18	180
5	87	77	82	4	0	17	0.00	0.0	0	10.1	17	110	789	99	5		21	120
6	87	79	83	5	0	18	0.00	0.0	0	10.9	18	120	789	99	7		23	110
7	87	77	82	3	0	17	0.01	0.0	0	11.1	20	110	793	100	6		23	160
8	88	78	83	4	0	18	0.00	0.0	0	11.2	17	120	797	100	4		22	160
9	88	78	83	4	0	18	0.00	0.0	0	9.5	15	120	796	100	4		21	170
10	89	78	84	5	0	19	0.00	0.0	0	9.4	16	140	797	100	3		21	120
11	90	77	84	5	0	19	0.00	0.0	0	4.7	14	130	799	100	3		20	170
12	91	78	85	6	0	20	0.00	0.0	0	4.5	15	120	790	99	6		21	160
13	90	70	80	1	0	15	2.42	0.0	0	5.6	25	40	775	97	7	13	46	50
14	86	74	80	1	0	15	0.38	0.0	0	5.3	21	110	791	99	5	13	23	110
15	89	77	83	3	0	18	0.00	0.0	0	6.1	16	140	798	99	5		22	140
16	88	77	83	3	0	18	0.22	0.0	0	5.3	14	140	803	100	6	18	20	150
17	89	78	84	4	0	19	0.08	0.0	0	8.6	15	100	785	97	5	1	18	120
18	88	78	83	3	0	18	T	0.0	0	9.4	17	120	801	99	6		23	150
19	89	78	84	4	0	19	0.14	0.0	0	7.7	17	100	790	98	5		22	150
20	88	76	82	2	0	17	0.13	0.0	0	8.4	18	70	802	99	5	1	23	80
SM 1765 1518				0	346	3.48	0.0	156.2		15011	103							
AV 88.2 75.9									7.8	FASTST	PSBL	%	5	MAX (MPH)				
MISC ---->									25	40				46	50			

