

Table 1. A list of Birds observed in the Study Area for 1978.
(CONT'D)

COMMON NAME	SCIENTIFIC NAME	RELATIVE ABUNDANCE	SEASON OF OCCURRENCE
White Pelican	<u>Pelecanus</u> <u>erythrorhynchos</u>	Rare	Winter
Brown Pelican	<u>Pelecanus occidentalis</u> <u>carolinensis</u>	Uncommon	Permanent
Double-crested Cormorant	<u>Phalacrocorax auritis</u>	Common	Permanent
Red-breasted Merganser	<u>Mergus serrator</u>	Common	Winter
Blue-winged Teal	<u>Anas discors</u>	Uncommon	Winter
American Coot	<u>Fulica americana</u>	Common	Winter
Florida Gallinule	<u>Porphyryula martinica</u>	Common	Permanent
Mottled Duck	<u>Anas fulvigula</u>	Uncommon	Permanent
Pied-billed Grebe	<u>Podilymbus podiceps</u>	Common	Permanent
Herring Gull	<u>Larus argentatus</u>	Fairly Common	Winter
Ring-billed Gull	<u>Larus delaware nsis</u>	Fairly Common	Winter
Laughing Gull	<u>Larus atricilla</u>	Common	Permanent
Least Tern	<u>Sterna albifrons</u>	Common	Summer
Belted Kingfisher	<u>Megaceryle alcyon</u>	Common	Permanent

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COMMON NAME	SCIENTIFIC NAME	RELATIVE ABUNDANCE	SEASON OF OCCURRENCE
Turkey Vulture	<u>Cathartes aura</u>	Common	Permanent
Black Vulture	<u>Coragyps atratus</u>	Common	Permanent
Gray Kingbird	<u>Tyrannus dominicensis</u> <u>dominicensis</u>	Common	Permanent
Red-winged Blackbird	<u>Agelaius phoeniceus</u>	Common	Permanent
House Sparrow	<u>Passer domesticus</u>	Common	Permanent
Savannah Sparrow.	<u>Passerculus</u> <u>sandwichensis</u>	Common	Winter
Tree Swallow	<u>Iridoprocne bicolor</u>	Uncommon	Winter
Barn Swallow	<u>Hirundo rustica</u>	Common	Fall
Common Crow	<u>Crovis brachyrhynchus</u>	Common	Permanent
White-crowned Pigeon	<u>Columba leucocephala</u>	Uncommon	Summer
Rock Dove	<u>Columba livia</u>	Common	Permanent
Mourning Dove	<u>Zenaidura macroura</u>	Common	Permanent
Ground Dove	<u>Columbigullina</u> <u>passerina</u>	Common	Permanent

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COMMON NAME	SCIENTIFIC NAME	RELATIVE ABUNDANCE	SEASON OF OCCURRENCE
Northern Waterthrush	<u>Seivrus noveboracensis</u>	Rare	Winter
Yellowthroat	<u>Geothlypis trichas</u>	Uncommon	Permanent
Blue-Gray Gnat Catcher	<u>Polioptila caerulea</u>	Uncommon	Winter
Palm Warbler	<u>Dendroica palmarum</u>	Common	Winter
Blackpoll Warbler	<u>Dendroica striata</u>	Uncommon	Spring & Fall
Pine Warbler	<u>Dendroica pinus</u>	Fairly Common	Permanent
House Wren	<u>Troglodytes aedon</u>	Common	Winter
Bobolink	<u>Dolichonyx oryzivorus</u>	Fairly Common	Spring & Fall
Indigo Bunting	<u>Passerina cyanea</u>	Uncommon	Spring & Fall
Mockingbird	<u>Mimus polyglottos</u>	Common	Permanent
Catbird	<u>Dumetella carolinensis</u>	Common	Permanent
Cardinal	<u>Richmondia cardinalis</u>	Common	Permanent
Eastern Meadowlark	<u>Sturnella magna</u>	Common	Permanent

Table 2. A list of Reptiles and Amphibians observed in the Study Area for 1978.

COMMON NAME	SCIENTIFIC NAME	PREFERRED HABITAT
American Crocodile	<u>Crocodylus acutus</u>	Salt or brackish water
Florida Softshell	<u>Trionyx ferox</u>	Lakes, ponds, canals, roadside ditches
Florida Snapping Turtle	<u>Chelydra serpentina osceola</u>	Any permanent body of freshwater
Eastern Idigo Snake	<u>Drymarchon corais couperi</u>	Near thickets of dense natural vegetation
Mangrove Water Snake	<u>Natrix fasciata compressicauda</u>	Salt or brackish water
Black Rat Snake	<u>Elaphe obsoleta obsoleta</u>	Extremely variable
Mud Snake	<u>Farancia abacura</u>	Swamps and lowlands
Reef Gecko	<u>Sphaerodactylus notatus notatus</u>	Around buildings
South Eastern Fivelined Skink	<u>Eumeces inexpectatus</u>	On spoil banks
Brown Anole	<u>Anolis sagrei</u>	
Green Anole	<u>Anolis carolinensis</u>	Scrub and vines
Cuban Tree Frog	<u>Hyla septentrionalis</u>	Hides near moisture
Spadefoot Toad	<u>Scaphiopus holbrooki holbrooki</u>	Sandy soils

Table 3. A list of Mammals observed in the Study Area for 1978.

COMMON NAME	SCIENTIFIC NAME	PREFERRED HABITAT
Cat	<u>Felis domestica</u>	Associated with man
Marsh Rabbit	<u>Sylvilagus palustris</u>	Berms, swamps, and hammocks
Raccoon	<u>Procyon lotor</u>	Along streams, berms
Black Rat	<u>Rattus rattus</u>	Buildings & occasionally in fields

Table 4. A comparison of Study Area Bird species
1978, to Surrounding Area species.

	TURKEY POINT	SURROUNDING AREA
American Bittern	X	X
American Coot	X	
American Goldfinch		X
American Kestrel	X	X
American Redstart		X
Anhinga		X
Bald Eagle	X	X
Barn Swallow	X	X
Belted Kingfisher	X	X
Black-bellied Plover	X	X
Black-crowned Night Heron		X
Black-necked Stilt	X	
Black Skimmer	X	X
Black Vulture	X	
Blackpoll Warbler	X	X
Black-whiskered Vireo		X
Blue-gray Gnatcatcher	X	X
Blue Jay		X
Blue-winged Teal	X	
Boat-tailed Grackle		X
Bobolink	X	X
Broadwinged Hawk	X	
Brown Pelican	X	X
Cardinal	X	X
Caspida Tern		X
Catbird	X	
Cattle Egret	X	X
Cedar Waxwing		X
Chuck-Will's Widow		X
Clapper Rail		X
Common Crow	X	
Common Egret	X	X
Common Flicker		X
Common Grackle		X
Common Nighthawk	X	X
Common Snipe		X
Double-Crested Cormorant	X	X
Downy Woodpecker		X
Eastern Meadowlark	X	X
Eastern Phoebe		X
Florida Gallinule	X	
Glossy Ibis		X
Gray Kingbird	X	X
Great Blue Heron	X	X
Great White Heron	X	

Table 4. A comparison of Study Area Bird species
(CONT'D) 1978, to Surrounding Area species.

	TURKEY POINT	SURROUNDING AREA
Green Heron	X	X
Ground Dove	X	
Herring Gull	X	X
House Sparrow	X	
House Wren	X	X
Killdeer	X	X
Laughing Gull	X	X
Least Tern	X	X
Little Blue Heron	X	X
Louisiana Heron	X	X
Magnificent Frigatebird	X	X
Marsh Hawk	X	
Merlin	X	X
Mockingbird	X	X
Mottled Duck	X	
Mourning Dove	X	
Northern Waterthrush	X	X
Osprey	X	X
Palm Warbler	X	X
Peregrine Falcon		X
Pie-billed Grebe	X	X
Pine Warbler	X	
Prairie Warbler		X
Red-bellied Woodpecker	X	X
Red-breasted Merganser	X	X
Reddish Egret	X	X
Red-shouldered Hawk		X
Red-winged Blackbird	X	X
Ring-billed Gull	X	X
Roseate Spoonbill	X	X
Rock Dove	X	
Royal Tern		X
Sanderling		X
Savannah Sparrow	X	
Screech Owl	X	
Semipalmated Plover	X	
Sharp-shinned Hawk		X
Snowy Egret	X	X
Tree Swallow	X	X
Turkey Vulture	X	X
White-crowned Pigeon	X	
White-eyed Vireo		X
White Ibis	X	

Table 4. A comparison of Study Area Bird species
(CONT'D) 1978, to Surrounding Area species.

	TURKEY POINT	SURROUNDING AREA
White Pelican	X	X
Willet		X
Wood Duck		X
Wood Ibis	X	
Yellowlegs		X
Yellowthroat	X	X
Yellow-bellied Sapsucker		X
Yellow-crowned Night Heron	X	X
Yellow-rumped Warbler		X
Yellow Warbler		X

Table 5. A comparison of Study Area Reptiles and Amphibians for 1978, to Surrounding Area species.

	TURKEY POINT	SURROUNDING AREA
American Alligator		X
American Crocodile	X	X
Bahaman Bark Anole		X
Black Rat Snake	X	
Brown Anole	X	
Corn Snake		X
Cuban Treefrog	X	X
Eastern Diamondback Rattlesnake		X
Eastern Indigo Snake	X	X
Everglades Racer		X
Florida Cricket Frog		X
Florida Softshell	X	X
Florida Snapping Turtle	X	
Florida Water Snake		X
Green Anole	X	X
Green House Frog		X
Green Treefrog		X
Key West Anole		X
Mangrove Water Snake	X	X
Mud Snake	X	
Cuban Tree Frog	X	
Pig Frog		X
Reef Gecko	X	
South Eastern Five-lined Skink	X	
Southern Leopard Frog		X
Spadefoot Toad	X	

Table 6. A comparison of Study Area Mammals for 1978, to Surrounding Area in species.

	TURKEY POINT	SURROUNDING AREA
Black Rat	X	X
Bob Cat		X
Cotton Rat		X
Dolphin		X
Domestic Cat	X	
House Mouse		X
Manatee		X
Marsh Rabbit	X	X
Raccoon	X	X
Rice Rat		X
White Tailed deer		X

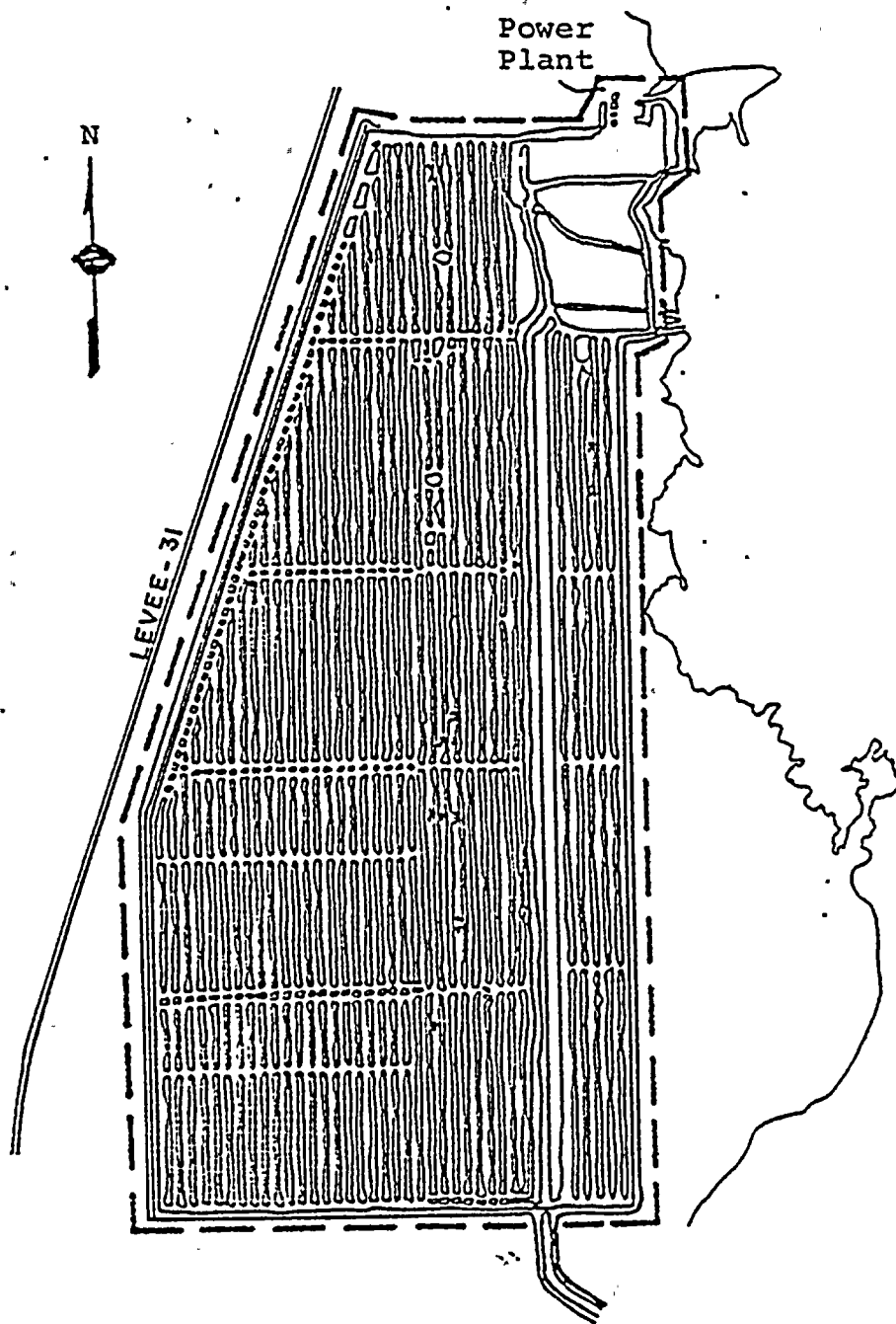


Figure 1. Faunal Study Area at the Turkey Point Cooling Canal System.

REFERENCES

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Induced Revegetation

Method

The 30 species of grasses, shrubs, and trees planted during the 1973-74 Initial Study Project were checked quarterly for survival and vitality (Table 1). The parameter of vitality was an attempt to single out plants which could survive, but were in some manner inhibited in growth.

Discussion and Conclusions

Growth rates and vitality continued to be higher in the more organic areas and lower in the mucky clays. These trends were best observed in the species with excellent survival rates. For example, the Coccoloba uvifera (sea grapes), planted in organic soils, were as tall as 3.5 meters and covered areas of 9m² or more. These large plants produced an abundance of seeds, resulting in numerous seedlings. Sea grapes planted in the mucky clays, although seeming healthy, remained small and exhibited little new growth. No plantings of the Initial Study remained in the clay areas. Several of the sites have been overgrown by native plant species, particularly Conocarpus erectus (buttonwoods), with a resulting loss of vigor and increase in mortality to the test species.

Plants in the "Excellent" and "Good" survival categories generally exhibited "Good" vitality, thus indicating a tolerance to wind exposure and saline conditions on the berms. An exception, Cocculus laurifolius, showed only "Fair" survival, but "Excellent" vitality. It survived only in organic soil areas that were protected from extreme sun and wind by native vegetation.

Generally, the patterns of mortality and vigor are unchanged since 1975.

12

Table 1. Average survival rates and vitality of the Initial Study Plantings quarterly during 1978. See Figure 1 for test site locations.

Vitality		
EXCELLENT (90% survival)		
Good	<u>Coccoloba uvifera</u>	Sea Grape
Good	<u>Conocarpus erectus</u>	Silver Button Bush
Good	<u>Scaevola frutescens</u>	Scaeval Shrub
Exc.	<u>Zoysia japonica</u>	Zoysia Grass
GOOD (60-89% survival)		
Fair	<u>Pittosporum tobira</u>	Green Pittosporum
Good	<u>Rhoeo discolor</u>	Oyster Plant
Good	<u>Zamia intergrifolia</u>	Cootie Evergreen
FAIR (30-59% survival)		
Fair	<u>Cocos nucifera</u>	Coconut Plam
Good	<u>Pittosporum sp.</u>	Variegated Pittosporum
Good	<u>Crinum asiaticum</u>	Crinum Lily
Fair	<u>Stenotaphrum secundatum</u>	Bitter Blue Grass
Exc.	<u>Cocculus laurifolius</u>	Snail Seed
POOR (30% survival)		
Fair	<u>Eugenia uniflora</u>	Florida Cherry
Poor	<u>Cortaderia selloana</u>	Pampas Grass
Poor	<u>Hymenocallis palmeri</u>	Spider Lily

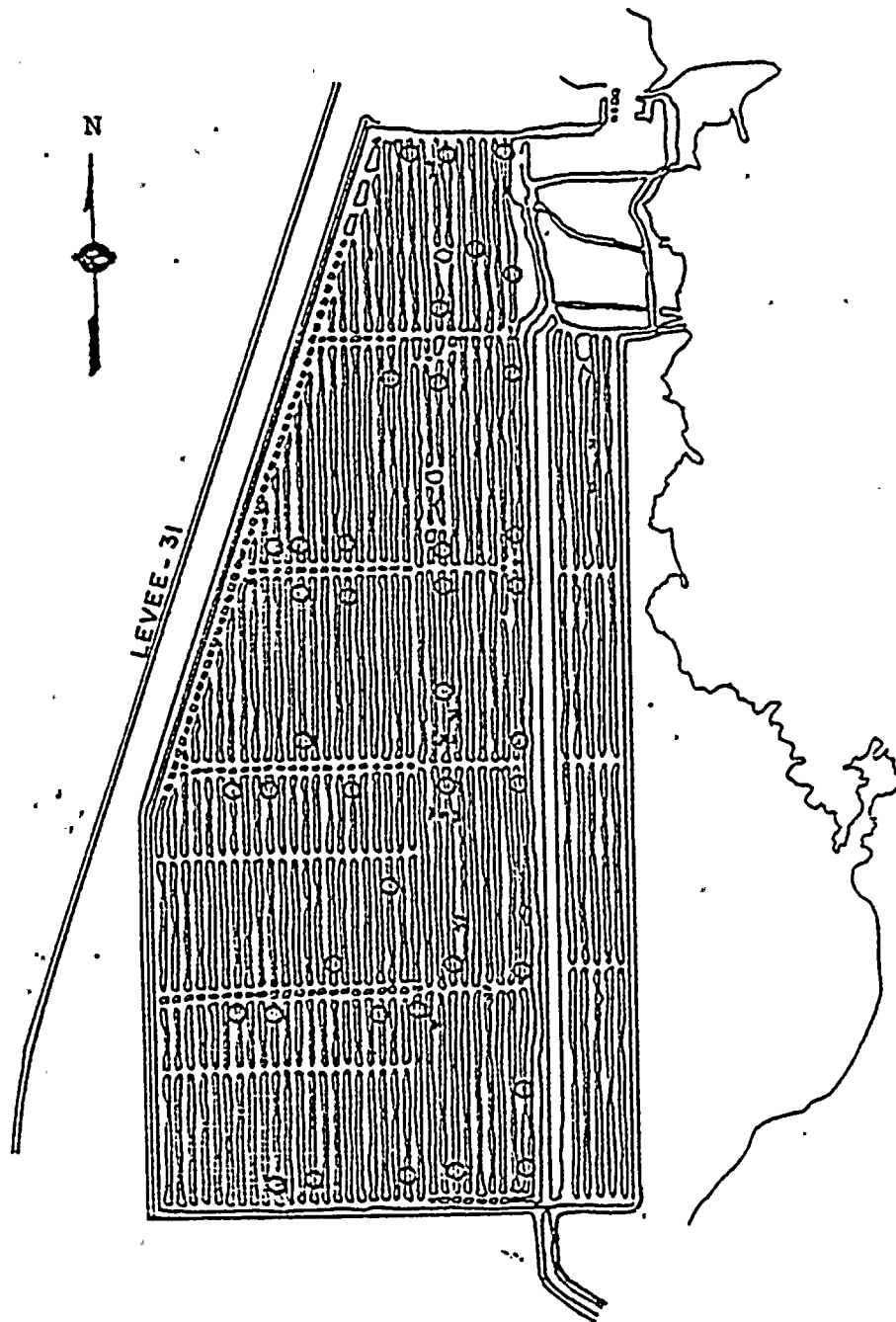


Figure 1. Induced Revegetation test sites at the Turkey Point Cooling Canal System.