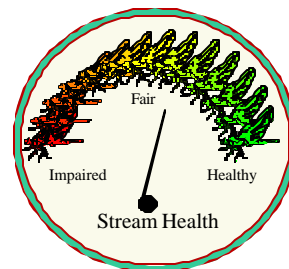




EcoSummary

Spring Warrior Creek

8/3/94-5/12/95



Background

Spring Warrior Creek, located in Taylor County south of Perry, Florida, drains into the Gulf of Mexico. The drainage basin consists predominantly of pine flatwoods and swamps. Known human activities in the area mostly consist of silvicultural and residential use. Spring Warrior Creek was investigated as a potential reference stream, however visual observations (algal blooms producing very green water) suggested some disturbance in the watershed.

Spring Warrior Creek was sampled twice from August 1994 to present. Stream Condition Index (SCI) sampling was conducted; see Figures 2 & 3. The Stream Condition Index (SCI) consists of collecting 20 D-frame dipnet sweeps (0.5 m in length) of the most productive habitats in a 100 m reach of stream. The organisms are sub-sampled, sorted, and identified to the lowest practical taxonomic level. Seven measurements of invertebrate health are calculated and compared with the expectations established by reference site sampling. Water chemistry samples were taken for ammonia, nitrate-nitrite, total Kjeldahl nitrogen (TKN), total phosphorus, and turbidity analysis; see Figure 2.

Results and Discussion

Dissolved oxygen was somewhat depressed (5.8 mg/L) in August, 1994. The most recent total phosphorus concentration measured (0.27 mg/L) was greater than the values found in 70% of Florida streams, suggesting nutrient enrichment.

Stream Condition Index results indicated that Spring Warrior Creek scored in the "poor" category the first sampling date, but was in the "good" category for the second.

Visual observations of algal blooms, somewhat depressed dissolved oxygen, elevated phosphorus, and one "poor" result on the SCI suggest human disturbance

in the watershed. Future sampling should attempt to identify potential pollution sources in this basin.

Figure 1: Overview Map of the Spring Warrior Creek Area

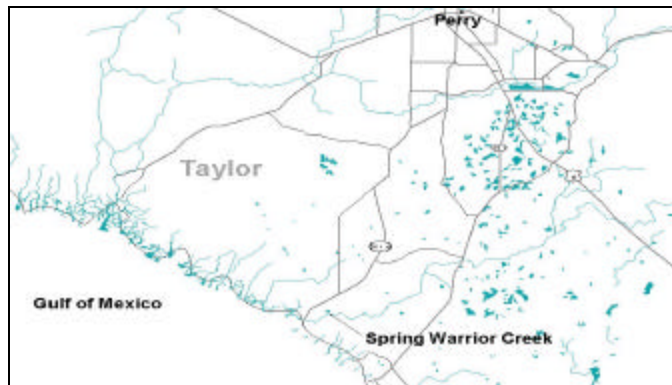
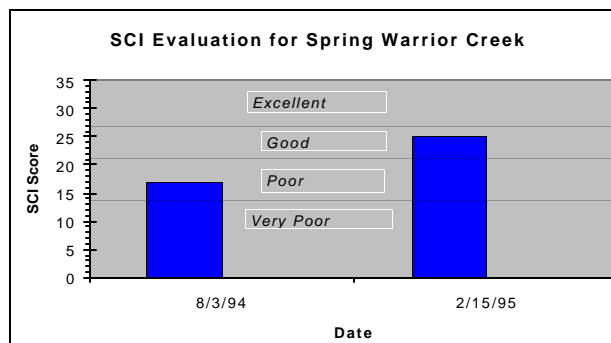


Figure 2: Data Table

Spring Warrior Creek		
Station	Spring Warrior Creek	
Station Nickname	SPWARREF	
STORET	22050059	
Sampling Date	8/3/94-2/15/95	
Date	8/3/94	2/15/95
SCI	17	25
Temperature (deg. C)	24.7	17.5
pH (SU)	7	7.73
Dissolved Oxygen (mg/L)	5.8	8.5
Specific Conductivity (umho/cm)	175	172
Turbidity (NTU)	2.7	-
TKN (mg/L)	1.30	1.80
Nitrate-Nitrite (mg/L)	0.029	0.070
Ammonia (mg/L)	0.052	0.02 U
Total Phosphorus (mg/L)	0.097	0.260

"I"-Value between the laboratory detection limit and laboratory practical quantitation limit; "U"-Below detection limit; "A"-Average value

Figure 3: SCI Evaluation



FOR MORE INFORMATION, CONTACT:

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