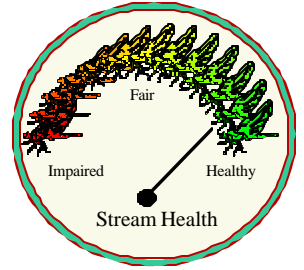




# EcoSummary

Sweetwater Creek

3/25/93-2/13/96



## Background

Since 1992, minimally disturbed reference streams have been sampled throughout Florida for the purpose of establishing biological community expectations and identifying specific thresholds for assessing stream health. The Stream Condition Index (SCI) has been the primary assessment method, which 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 the reference site sampling. These reference streams are sampled periodically to maintain accurate expectations to which other streams in the same region are compared.

Sweetwater Creek, a tributary of the Apalachicola River, is located in Liberty County, south of Torreya State Park.

Sweetwater Creek was sampled four times from August 1994 to present. Stream Condition Index (SCI) sampling was conducted; see Figures 2 & 3. Water chemistry samples were taken for ammonia, nitrate-nitrite, total Kjeldahl nitrogen (TKN), total phosphorus, and turbidity analysis; see Figure 2.

## Results and Discussion

Water quality parameters (low nutrients, sufficient dissolved oxygen, etc.) were consistently good in Sweetwater Creek.

Stream Condition Index (SCI) results indicated that Sweetwater Creek scored in the "excellent" category for all seven sampling events.

In conclusion, Stream Condition Index and water quality data indicated that Sweetwater Creek is a healthy aquatic ecosystem.

Figure 1: Overview Map of the Sweetwater Creek Area



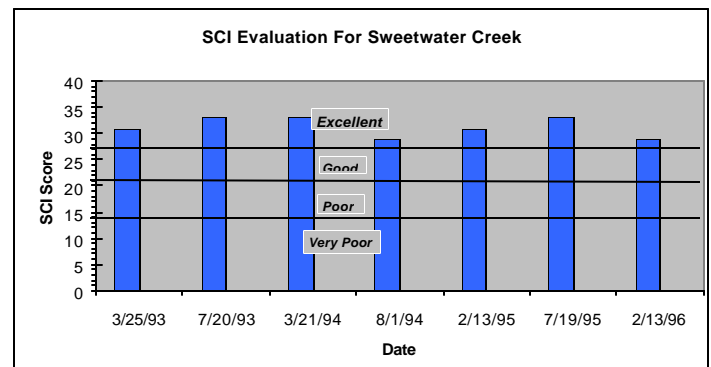
*Sweetwater is in Liberty Co south of Torreya State Park crossing Hwy 270*

Figure 2: Data Table

Sweetwater Creek							
Station	Sweetwater Creek						
Station Nickname	SWTREF						
STORET	31010051						
Date Sampled	3/25/93-2/13/96						
Date	3/25/93	7/20/93	3/21/94	8/1/94	2/13/95	7/19/95	2/13/96
SCI	31	33	33	29	31	33	29
Temperature (deg. C)	-	22.5	19.6	24.5	10.9	23.4	6.7
pH (SU)	-	6.2	6.9	6.15	7.2	6.17	6.5
Dissolved Oxygen (mg/L)	-	7.2	9.0	7.3	10.8	7.3	10.7
Specific Conductivity (umho/cm)	-	20	25	29	22	25	20
Turbidity (NTU)	4.8	-	4.2	5.6	-	-	2.6
TKN (mg/L)	0.19	0.16	0.18 A	0.20	0.52	0.17	0.16
Nitrate-Nitrite (mg/L)	0.027	0.02 U	0.01 U	0.012 I	0.012	0.018	0.051
Ammonia (mg/L)	0.09	0.092	0.057	0.064	0.11	0.062	0.13
Total Phosphorus (mg/L)	0.031	0.013 T	0.028	0.027	0.026	0.040	0.017

"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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