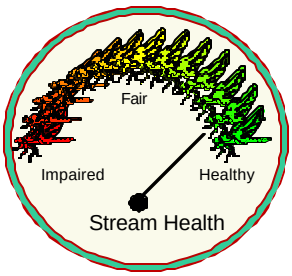


EcoSummary

Crooked Creek

07/08/92-07/09/96



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. Crooked Creek is a reference stream in the Florida panhandle (Figure 1). Crooked Creek flows northwest through Gadsden and Liberty Counties into the Apalachicola River.

Samples were collected from Crooked Creek on seven occasions from July 1992 to July 1996. Benthic macroinvertebrate stream condition index (SCI) sampling was conducted (Figures 2 and 3). Water chemistry samples were taken for ammonia, nitrate-nitrite, total Kjeldahl nitrogen (TKN), total phosphorus, and turbidity analysis (Figure 2).

Results

Most nutrient concentrations in Crooked Creek tended to be low or average compared with other Florida streams. Total phosphorus levels (0.13 mg/L to 0.21 mg/L) were slightly above average, exceeding the values found in 60% of other Florida streams.

SCI scores for Crooked Creek were consistently in the "excellent" range (Figures 2 & 3), indicating that healthy conditions prevailed.

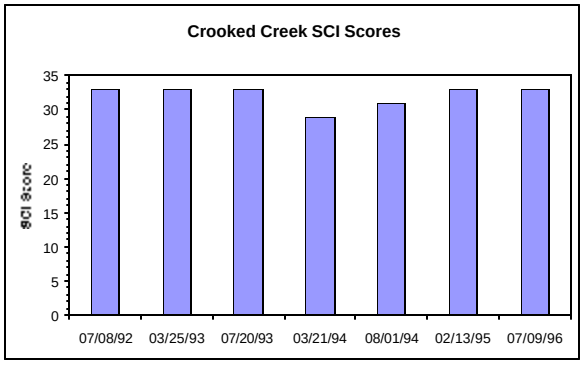
Figure 1. Overview Map of the Crooked Creek Area



Figure 2. Data Table

Crooked Creek – 31010050							
Sampling Date	07/08/92	03/25/93	07/20/93	03/21/94	08/01/94	02/13/95	07/09/96
Macroinvertebrate Parameters							
SCI Score	33	33	33	29	31	33	33
Panhandle Evaluation	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent
Physical-Chemical Data							
Temperature (deg. C)	23.2	18.5	23	19.5	23.7	10.8	23.2
pH (SU)	6.2	6.5	6.5	6.7	6.17	5.64	7.5
Specific Conductance (umho/cm)	25	20	19	20	35	20	21
Dissolved Oxygen (mg/L)	-	8.6	8.0	9.2	-	10.0	7.2
Nutrient Data							
Ammonia (mg/L)	0.02 T	0.02 U	0.02 U	0.15	0.014 I	0.062	0.025
Nitrate-Nitrite (mg/L)	0.092 A	0.08	0.11	0.069	0.064 A	0.1	0.08
TKN (mg/L)	0.3	0.29	0.27	0.27	0.27 A	0.3	0.35
Total Phosphorus (mg/L)	0.2	0.16	0.18	0.13	0.15	0.16	0.21
Turbidity (NTU)	11.3	5.5	-	8	9 A	-	9.9

Figure 3. SCI Scores over Time



FOR MORE INFORMATION, CONTACT:
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