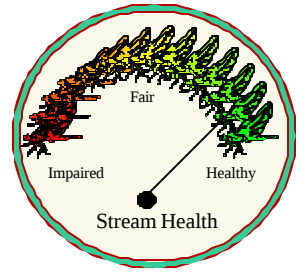




EcoSummary

Mule Creek
7/8/92-7/9/96



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. Mule Creek, which drains into Telogia Creek, is located in Liberty County north of State Road 12 and east of Torreya State Park. Mule Creek was sampled seven times from August 1992 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.

Figure 1: Overview Map of the Mule Creek Area



Figure 2: Data Table

Mule Creek							
Station				Mule Creek			
Station Nickname				MULEREF			
STORET				22020049			
Date Sampled				7/8/92 - 7/9/96			
Date	7/8/92	3/25/93	7/20/93	3/21/94	8/1/94	2/13/95	7/9/96
SCI	29	29	27	31	27	31	31
Temperature (deg. C)	23.3	16	22	18	23	10.9	23.3
pH (SU)	4.2	4.6	4.8	5.4	4.3	4.25	4.6
Dissolved Oxygen (mg/L)	7.5	9.0	7.3	9.2	7.3	10.9	7.5
Specific Conductivity (umho/cm)	23	20	20	29	39	25	28
Turbidity (NTU)	-	31	-	2.4	3.2	-	3
TKN (mg/L)	-	0.28	0.28	0.26 A	0.58	0.75	0.37
Nitrate-Nitrite (mg/L)	-	0.040	0.049 T	0.052	0.043	0.100	0.020
Ammonia (mg/L)	-	0.02	BDL	0.02	0.014 I	0.021	0.021
Total Phosphorus (mg/L)	-	0.024	0.014 T	0.027	0.036	0.049	0.037

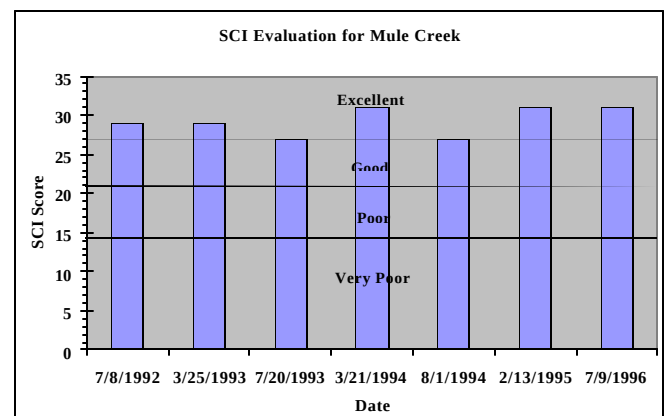
"I"-Value between the laboratory detection limit and laboratory practical quantitation limit; "U"-Below detection limit; "BDL"- Below detection limit; "T"- Value reported is less than the criterion of detection.

Results and Discussion

Nutrients were low in Mule Creek compared with other Florida streams. In March 1993, turbidity (31 NTU) was elevated (See figure 2).

The Stream Condition Index (SCI) scored in the "excellent" category for all sampling events in Mule Creek, indicating that it is a healthy aquatic ecosystem.

Figure 3: SCI Evaluation



FOR MORE INFORMATION, CONTACT:

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