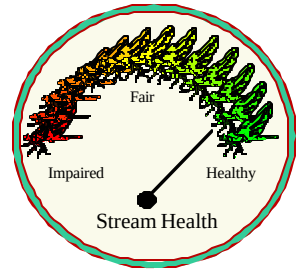




EcoSummary

Polar Creek

3/24/98



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. While similar to the SCI, the BioRecon procedure consists of 4 dipnet sweeps, field sorting, and identification of all taxa except for worms, midges, and water mites. BioRecon thresholds have been established for taxa richness, the EPT Index, and the Florida Index. Reference streams are sampled by both SCI and BioRecon periodically to maintain accurate expectations to which other streams in the same region are compared. Polar Creek is located in Jefferson County north of U.S. Route 27 and south of the small town of Lloyd. Polar Creek drains into Burnt Mill Creek. Polar Creek was sampled in March 1998.

Stream Condition Index (SCI) and BioRecon 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 good in Polar Creek. Stream Condition Index results showed that Polar Creek scored in the "excellent" category for the sampling event in March 1998. Polar Creek passed all three metrics for the BioRecon, scoring in the "healthy" category.

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

Figure 1: Overview Map of the Polar Creek Area



Figure 2: Data Table

Polar Creek	
Station	Polar Creek
Station Nickname	POLARUNK
STORET	22030089
Date Sampled	03/24/98
SCI	31
SCI Evaluation	Excellent
BioRecon Evaluation	Healthy
Temperature (deg. C)	12.4
pH (SU)	5.4
Dissolved Oxygen (mg/L)	9.6
Specific Conductivity (umho/cm)	15
Turbidity (NTU)	3.4 A
TKN (mg/L)	0.23
Nitrate/Nitrite (mg/L)	0.02 U
Ammonia (mg/L)	-
Total Phosphorus (mg/L)	0.096

"U"-Below detection limit; "A"-Value reported is the mean of two or more determinations.



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