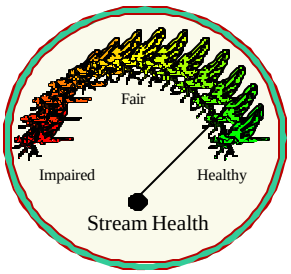
EcoSummary

Ocklawaha Creek @ SR267

1/10/02



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 ecoregion are compared. Ocklawaha Creek, which drains into Lake Talquin, is located in Gadsden County.

Ocklawaha Creek was sampled on January 10, 2002 as part of routine reference stream monitoring. Stream Condition Index (SCI) sampling was conducted along with habitat assessment; see Figure 2. Water chemistry samples were also taken for nitrate-nitrite, total Kjeldahl nitrogen (TKN), total phosphorus, turbidity, *Enterococci*, *Escherichia coli*, total coliform, and fecal coliform analysis; see Figure 2.

Results and Discussion

Nutrient concentrations were low in Ocklawaha Creek with nitrate-nitrite, total Kjeldahl nitrogen, and total phosphorus concentrations being lower than 90-95% of Florida streams. *Enterococci* and *Escherichia coli* exceeded the EPA single-sample maximum allowable density for a designated beach area (61CFU/100mL and 235 CFU/100mL respectively), but the applicability of these indicators in warm Florida waters is still under investigation. Fecal and total coliform levels complied with Class III water quality standards. The overall habitat assessment score (133) was in the optimal range (>120). The Stream Condition Index (SCI) scored in the "excellent" category.

In conclusion, overall good water quality, optimal habitat, and an "excellent" score on the Stream Condition Index indicate that Ocklawaha Creek is a healthy aquatic ecosystem.

Figure 1: Overview Map of the Ocklawaha Creek Area

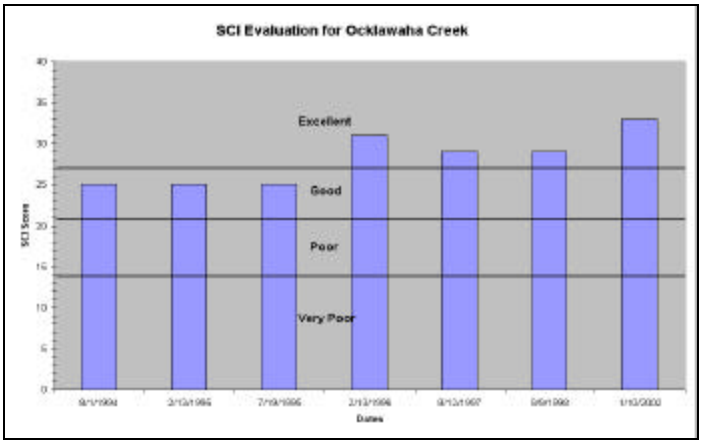


Figure 2: Data Table

Ocklawaha Creek			
Sampling Date		1/10/2002	
Macroinvertibrate Parameters		Chemistry Data	
SCI	33	Ammonia (mg/L)	na
SCI Evaluation	Excellent	Nitrate-Nitrite (mg/L)	0.017
Number of Taxa	37	TKN (mg/L)	0.16 I
EPT Index	13	Total Phosphorus (mg/L)	0.015 U
FL Index	20	Color (PCU)	na
% Dominant Taxon	9.92	Turbidity (NTU)	1.2
% Diptera	30.5	TSS (mg/L)	4 U
Total number of Chironomidae	11	Physical-Chemical Data	
% Filter-Feeders	20.6	Habitat Assessment	133
Bacteria Parameters		Specific Conductivity (umhos/cm)	19
Enterococci (col/100mL)	460	Dissolved Oxygen (mg/L)	11.7
Escherichia coli (col/100mL)	290	pH (SU)	4.8
Fecal Coliforms (col/100 mL)	270	Temperature (deg C)	8.7
Total Coliforms (col/100 mL)	1100		

"I"-Value between the laboratory detection limit and laboratory practical quantitation limit; "U"-Below detection limit.

Figure 3:SCI Data



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