

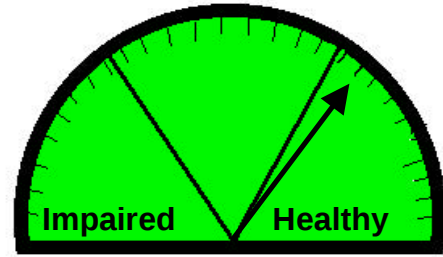


ECOSUMMARY

A Biorecon Assessment

BioRecon: A rapid, cost-effective screening mechanism for identification of biological impairment.

Surface Water Assessment & Monitoring Program South District



Stream Health

Prairie Creek at State Road 31, De Soto Co.

March 24, 1997

Purpose

A single BioRecon sampling was performed at this site in order to examine the water quality in the stream and document the organisms that inhabit a potentially impacted stream in this geographical area. This is important because impacted streams may have good water quality, and the biological thresholds on which BioRecon is based require further refinement.



Prairie Creek

Basin Characteristics

The drainage basin for Prairie Creek includes orange groves, forest, and improved and native pasture. Major land uses in the area include agriculture, grazing, and rural residential. The creek supplies drinking water for Punta Gorda and flows into the Peace River.



Results

☺ The BioRecon indicated that Prairie Creek supports a healthy aquatic insect community. The site is surrounded by native pasture with numerous oak trees. The riparian (stream bank) zone has steep banks from old channelization, covered by *Panicum* and willow. The floodplain has willow, oak, and grasses, and extends far upstream of the site. The in-stream habitat consisted of sand/silt (55%, 15%), with leaf packs and mats (15%) and exposed roots (12%). Snags were rare, but very productive. Flow was strong (0.33 m/sec). **Prairie Creek passed all three BioRecon thresholds for a healthy stream.** There were **33** different taxa (minimum threshold = 18), a Florida Index score of **20** (threshold = 10), and **8** caddisflies or mayflies (threshold = 4). Water chemistry met Class 3 standards for all parameters tested. Dissolved oxygen was high and conductivity (dissolved solids) was a little high.

Significance

These results indicate that this stream supports a healthy aquatic community, probably due to the natural condition of the surrounding and upstream floodplain.

Land in the immediate drainage area is pasture and citrus, with sparse residential use. However, the potential exists for impacts to the stream from more intensive agricultural development.

Suggestions