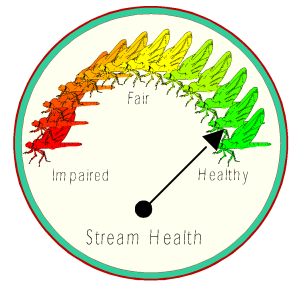


EcoSummary

BioRecon Report



Weaver Creek below Eglin Road 736 Santa Rosa County February 24, 2000

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

Purpose

A bioassessment was performed on Weaver Creek in an effort to document the environmental health of streams flowing into the Yellow River Aquatic Preserve (YRAP). The BioRecon was conducted in partnership with the YRAP staff.

Background

Weaver Creek at the bioassessment site (Lat. 30° 33' 7.56" Long. 86° 55' 46.2") is a third order stream originating as a steephead about 2 miles east of Choctaw Field (Eglin AFB) in Santa Rosa County. This stream flows to the Weaver River below State Road 87, then forms a delta with the Yellow River at the mouth of Blackwater Bay, which empties into Pensacola Bay. Weaver Creek drains the Southern Pine Plains and Hills ecoregion (65f) and enters the Gulf Coast Flatwoods (75a) near this site.



Results

The BioRecon indicated a healthy biological community. All 3 biological indicators surpassed thresholds established for a healthy aquatic wildlife community:

Biometrics	Value	Thresholds
Taxa Richness	45	≥24
Florida Index	33	≥22
EPT	21	≥17

The biota was dominated by clean water indicating aquatic wildlife. However, the upstream ER736 road culverts caused some channelization in Weaver Creek above and below the road. Recreational vehicle activity had caused severe hillside erosion to the sandy hill on the west bank. Severe gully formation from logging roads and silviculture was observed in the watershed. Old growth deadhead logs were illegally removed from an upstream swimming hole. The removal of the logs reduced fish and wildlife habitat and allowed sand to fill the streambed. A man with his grandchildren said he had swum

in the deep waters surrounding the large logs for almost 50 years.



Significance

This Weaver Creek site met Class III State Water Quality Standards 62-302 for recreation and the propagation and maintenance of a healthy, well-balanced population of fish and wildlife. The ER736 culvert crossing had an impact on stream hydrology and fish and wildlife productivity. Impairment to stream hydrology (i.e. depth, sediment loading) could affect the federally endangered Gulf of Mexico sturgeon. Culverts may restrict sturgeons' upstream migration; they are known to inhabit similar spring type streams in the area.

Suggestions

Restoration of the stream's natural hydrology (i.e. flow, depth) and preserving riparian wetland forests buffer zones would benefit the Aquatic Preserve's fish and wildlife community including the sturgeon. Replacing culverts with bridges that span the streamside wetlands and restoration of the watershed's natural hydrological patterns could enhance Weaver Creek as fish and wildlife nursery area. Other logging roads fording tributaries need to be stabilized to prevent ongoing erosion. **For more information, contact Donald Ray, FDEP Northwest District, 160 Governmental Center, Pensacola, FL 32501 (850) 595-8300 x1126 or SC 695-8300**