

2006 Monitoring Summary

Patrick Creek at Coffee County Road 368 (31.4384/-86.1121)

BACKGROUND

The Alabama Department of Environmental Management (ADEM) selected Patrick Creek as a candidate ecological reference reach in 1995 based on watershed conditions. However, a screening level assessment conducted in 1999 rated the macroinvertebrate community at the site as *fair*. The site was prioritized for further monitoring in 2006 to more fully evaluate biological conditions within the reach (ADEM 2006).

In 2006, several southern states and the United States Environmental Protection Agency (EPA) Region 4 conducted a pilot project to compare results using each state's macroinvertebrate bioassessment method (Huff et. al 2006). As part of this effort, ADEM and EPA Region 4 scheduled side-by-side assessments of the macroinvertebrate community in Patrick Creek at PATC-1 (Figure 1). However the assessments could not be conducted due to drought conditions. Watershed characteristics are summarized in Table 1 and Figure 2.



Figure 1. Photo of Patrick Creek at PATC-1 taken January, 2010.

REFERENCES

Huff, L., R. Frydenborg, M. Brossett, C. Jones, T. Pugh, M. Vogel, A. Dossett, B. Crouch, J. Glover, D. Arnwine, L. Dorn, C. Decker, J. Harrison, D. Melgaard, L. Gabanski, J. Diamond, S. Stribling, J. Gerritsen. 2006. *Do we need performance-based bioassessment methods: USEPA Region 4 method performance and data comparability workgroup and pilot study*. Poster presentation at the Annual meeting of the National Water Quality Monitoring Council. San Jose, California. May 7-11, 2006.

Table 1. Summary of watershed characteristics.

Watershed Characteristics			
Basin	Choctawhatchee R		
Drainage Area (mi ²)	9		
Ecoregion ^a	65d		
% Landuse			
Open water			1
Wetland	Woody		3
	Emergent herbaceous		<1
Forest	Deciduous		11
	Evergreen		37
	Mixed		17
Shrub/scrub			14
Grassland/herbaceous			<1
Pasture/hay			6
Cultivated crops			8
Development	Open space		3
	Low intensity		<1
Population/km ² ^b			8

a.Southern Hilly Gulf Coastal Plain

b.2000 US Census

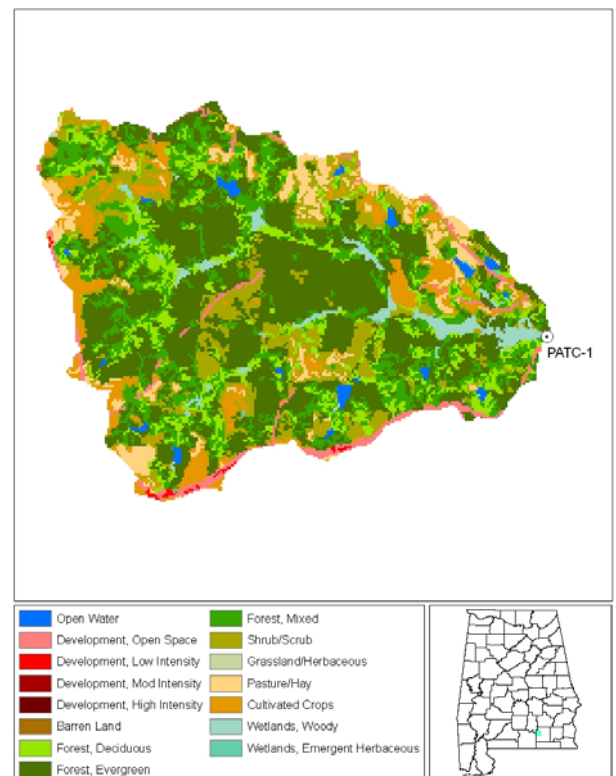


Figure 2. Landuse in the Pea River watershed at PATC-1.

