

AQUATIC INVERTEBRATES ASSOCIATED WITH BEAVER DAMS IN A SOUTH-EASTERN COASTAL PLAIN RIVER SYSTEM

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Abstract. Beaver dams have been identified as a possible source of varying biodiversity in Coastal Plain systems. This experiment, through benthic sampling methods, investigated the impact on beaver dams on water parameters and subsequently their effect on macroinvertebrate assemblages. In this ongoing study of the Ochoopee River, two sites impacted by beaver dams and one natural flowing site were examined during summer (low flow) and winter-spring months (flood-stage). For the impacted sites, two separate habitats were studied; the sedentary slough immediately upstream of the dam, and the flowing area immediately downstream of the dam. Four benthic core samples were retrieved, and water parameters measured monthly at each site. In the laboratory, invertebrates were separated from organic matter and identified to the lowest taxonomic category possible. In preliminary data from summer months, 9,805 macroinvertebrates of twenty unique taxa were identified. Seven of these taxa were varied between beaver impoundments and the natural flowing site. Benthic Organic Matter standing stock was consistently higher above beaver impoundments indicating that restricted water flow influences sedimentation rates. Differences in macroinvertebrate Functional Feeding Group biomass suggests that influences of water flow on sedimentation rate may also influence macroinvertebrate functional composition. Currently more samples from non-summer months are being processed in order to allow for more accurate assessments on the effects of seasonal flow rates on macroinvertebrate assemblages in these areas.