

COASTAL PLAIN HEADWATER SYSTEMS: PROCESSES AND FUNCTIONS

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Abstract. Headwater streams and wetlands form the critical linkage between groundwater and stream flow. They are the “capillary system” of the stream drainage network, in that, the health and condition of the whole drainage system are dependent on functional and viable headwater systems. Important functions of headwater systems include sediment, nutrient and flood control, wildlife habitat corridors, and water and food supply. First-order headwater systems have a profound effect on water quality since they contribute the overwhelming majority of the downstream water volume and, in most cases, are groundwater driven. This paper expands upon the processes and functions related to headwater systems by using hydrologic, botanical and geomorphic data collected from a Coastal Plain headwater stream/wetland complex. In addition, threats to headwater systems are discussed.