

STRATEGIES FOR ACCESSING AND MONITORING HIGH-FLOW, SUBMERGED CAVE SYSTEMS IN CENTRAL FLORIDA

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Abstract

Ecosystems of underwater caves often receive little study, due to the fact that they are not amenable to ordinary environmental sampling techniques and protocols. While many cave systems in north Florida are well-studied, and their biodiversity well-documented, the submerged caves in central Florida are not well understood due to the narrow conduits and the high-flow associated with these systems. Technical divers from the Cambrian Foundation, a 501c3, based in Orlando, Florida, have recently developed several new approaches for collecting data in these systems which are impenetrable to recreational divers. Developing techniques for reliably sampling these habitats is challenging, and must consider issues such as sample container buoyancy, sterile technique, confined space, gear configuration (that is, no-mount diving), and working in a submerged cave environment, as well as the safety issues and conservation practices that are important in this type of field work. In addition, we will address the importance of landowner/agency/researcher relations and access to these difficult systems. The goal of this presentation is to share these strategies with others working in similar systems that are difficult to access. Development of these procedures is particularly important as it has permitted us to develop long-term monitoring programs to study these habitats, which have often been neglected due to logistical constraints.
