

Research Underway on Rare Cave Shrimp

By Jim Wood, Southeast Regional Writer/Editor

On November 29, 1980, scuba divers operating 360 feet deep within an underground river at Mammoth Cave NP were surprised to see several tiny, translucent shrimp scurrying along the bottom. It was the first live sighting of the Kentucky Cave Shrimp (*Palaemonias ganteri* Hay) in many years.

This unique waterborne, cave-dwelling creature was last seen alive in 1967. It was thought to be extremely rare and perhaps extinct until the discovery of a single dead shrimp in 1979.

Diver Stephen D. Maegerlein of Williams, Indiana, first spotted the elusive shrimp with his underwater flashlight about 120 feet from the park's Echo River boat landing. He saw three individuals about 25mm (1 inch) long. John W. Dickerson, an NPS ranger, also observed 6 of the shrimp in an underwater tube about 4 feet wide by 2 feet high. He captured one for scientific study and for positive identification by officials of the U.S. Fish and Wildlife Service (USFWS). The shrimp was examined, photographed, and released in its original habitat the following day.

The Kentucky Cave Shrimp, once abundant in an area of Mammoth Cave known as Roaring River, recently has been proposed for Endangered Species status by the USFWS. The cave system of Mammoth Cave apparently is the critical habitat for the shrimp.

The discovery also prompted the NPS and the USFWS to support jointly a one-year contracted research study for an ecological analysis of the shrimp. A work proposal was sent to several area universities for competitive bidding and the contract was let to

Terry Leitheuser of the Department of Biological Sciences, Old Dominion University, Norfolk, Virginia.

Leitheuser's study will attempt to establish the population size of the shrimp, its distribution, and its habitat requirements. In addition, the research information is urgently needed by both the NPS and USFWS for decisions regarding the Corps of Engineers' proposed plans to remove Lock and Dam No. 6 on the Green River. Removal of this lock and dam would have a pronounced effect on the water levels of Mammoth Cave. It is not known how these water level changes will affect the shrimp. It could result in total loss of the shrimp or it could create more favorable habitats for the shrimp. NPS and FWS officials do not know enough about the shrimp to predict which route would be most favorable for the endangered species. Leitheuser's research findings will be available around the end of the year.