

SUNDAY

DEC. 4, 2005

Researchers uncover black and white truth of cave fish discovery

EDITOR'S NOTE: The following article is part of an ongoing science series written by Arkansas State University faculty members and published periodically by *The Sun*.

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SPECIAL TO THE SUN

JONESBORO — Among the most intriguing creatures in nature are those blind and depigmented living in caves. For centuries they have fascinated both scientists and laymen. After all, there are not many of them, and the question of how they can survive in harsh underground conditions is still not fully understood.

However a new controversy has arisen lately: Who actually discovered the first blind cave fish?

Although published references to blind "white" cave

history on New York State?

In order to tackle these questions Jonathan S. Woodward, a student sponsored through the Arkansas State University's RISE program, and an ASU biology professor decided to look into old archives. Here they found the truth, and it was black and white.

What the team confirmed was the rumor that this "white" fish was probably discovered by a slave under the name of Stephen Bishop.

Bishop is arguably the person most frequently mentioned in the history of Mammoth Cave. Born into slavery probably around 1821, he was acquired by Franklin Gorin, a lawyer from the nearby town of Glasgow, Ky., when he was about 13 years old.

Gorin purchased Mammoth Cave in 1838. Bishop

CAVE: Researchers believe Bishop discovered northern species of cave fish

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In 1838 Bishop suspended either a cedar pole or a log pole ladder across Bottomless Pit and thus was able to significantly expand the known area of the cave. More importantly, Bishop and others could now visit River Styx and Echo River and observe the blind cave fishes found there.

The blind cave fishes of Mammoth Cave became an added attraction to tourists and many visitors from the northeastern United States took specimens to cities like New York and Philadelphia.

One of those specimens found its way to DeKay, who was writing a book on the natural history of the state of New York and somehow saw no problem in including this fish from Kentucky.

After all, he wrote "the Ichthyology of New-York will embrace a very large proportion of the Fishes of the United States."

Clearly he was an optimist.

Given that there are two species of blind cave fishes in Mammoth Cave — the northern cavefish and the southern cavefish — the next logical question was which one was the first discovered by Bishop? After looking into the fish collections of museums all over the world, the ASU researchers concluded that it had to be the northern cavefish; it is not only more abundant and accessible in the



A 19th century illustration by an anonymous artist depicts the Bottomless Pit at Mammoth Cave, Ky., where tourists marveled about blind cave fishes.

area Bishop first visited but also the one for which there are the oldest historical records.

Bishop, a self-educated and highly intelligent man, died in 1857, a year after obtaining

his freedom and before he could move to Liberia to pursue a new life.

But he left a scientific legacy as the true discoverer of the first blind cave fish.

For more information con-

tact the ASU Department of Biological Sciences at biology@astate.edu.

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