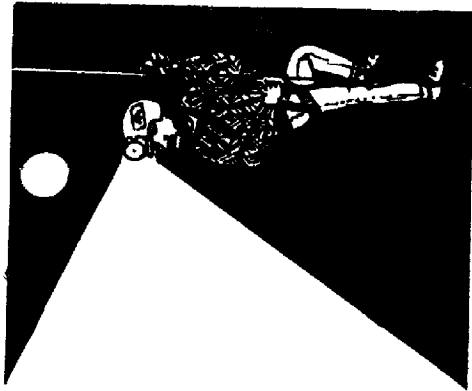


APRIL 1982

BIRMINGHAM GROTTO NEWSLETTER

NATIONAL SPELEOLOGICAL SOCIETY



The Birmingham Grotto Newsletter is published approximately twelve times a year by the Birmingham Grotto of the National Speleological Society.

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Officers for the 1981-82 year are :

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Special thanks to Ron Council

NEWSLETTER REVIEW

Huntsville Grotto Newsletter, March 1982-
The Newsletter reports on the events of the annual meeting of the Alabama Cave Survey held in Anniston on March 20. Greg McGill and Joe Domnanovich were re-elected as officers.

David Teal announced that Guffy Cave has a new gate and lock, but has not yet been locked.

Bill Torode reported that new government policy on Fern Cave is soon to come. The government now owns the Johnson, Spring and Morgue entrances for protection of the bats. Surprise Pit is still privately owned.

Cave Cricket Gazette, April 1982-
Bill Allendorf, Barb Shaeffer, and Lou Simpson report on a trip to Fisher Ridge in which part of the group was trapped in the cave due to high water caused by heavy thunderstorms. The trapped cavers waited for the water to abate, but when it did not they exited the cave via another entrance. No one was hurt, but all were tired and hungry after a long, wet trip.

Der Fledermaus, April 1982-
Cato Holler, Jr. writes of an interesting trip during Christmas to Bermuda. Lots of caves and beautiful ocean scenery. A good place to stay is the Bermuda Biological Station where Dr. Iliffe is coordinating cave studies on the island. Dr. Iliffe is the authority on the islands geology, caves, and cave fauna.

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'BEAR'S "BIRTHDAY" PRESENT: BENNETT COVE CAVE
By Marion O. Smith

On February 7, 1982, "Teddy Bear" Thurman entered a pit in Jackson County's Bennett Cove that he and Jim Youmans had found in 1980. The three by four foot opening led down an offset 32 foot drop, followed by an eight foot climb to a 22 foot pit. At the bottom of this 'Bear traversed about 50 feet of passage, down a seven foot climb, to a third short pit. Perceiving from the flow of air there was potential, he rejoined his comrades (Youmans, Wayne Prince, and Mike Davis) and they moved on to check other leads.

The return trip was March 27 by 'Bear Youmans, Steve "Flat Rock" Holmes, and myself. The third pit was about 24 feet deep and was immediately followed by a six foot vertical squeeze, 10 feet of horizontal passage, an offset 10 foot climb, and a 30 foot pit. There 'Bear pounded in a half inch bolt before exploration could continue.

At the bottom was a seven foot climb with dangerous boulders which were soon cleared. 'Bear and "Flat Rock" followed the passage at the bottom of this climb about fifty feet to a wet belly crawl. Meanwhile, above the seven foot climb, I crawled 15 feet to a dome, but it was not a by-pass. I then joined 'Bear and "Flat Rock" and was "suckered" into digging out the low stream crawl. After about 50 feet a 20 foot pit was reached.

By the time I got out of the crawl the others were half way back up the 30 foot pit, on a ledge opposite the side with the bolt. There "Flat Rock" was boosted up 10 feet to a large hole in the wall and slid down the other side to high walking passage which quickly sloped steeply downward to the same 20 foot pit I had seen earlier from the wet crawl.

"Flat Rock" was the first down this drop. He scrambled through some larger breakdown passage and was soon again boosted up a climb to view a dome. The rest of us passed him, went down a six foot climb, passed underneath another dome area, and entered a passage that led for hundreds of feet.

Taking turns leading, we explored about 1300 feet of surprisingly easy passage. There were few crawls and three areas of considerable vertical change: a forty foot deep fissure climb, a steep sloping area after an eight foot climb through breakdown, and a 20 foot climb series. Eventually a truly wet crawl was encountered and we halted exploration and started back toward the entrance, leaving the 20 and 30 foot pits rigged. "Flat Rock" had already exited and returned to the truck.

The next morning I asked 'Bear and Youmans about a second return trip. Neither was interested but gave their blessings for me to conduct such a trip. In fact 'Bear told me that he was "giving" me the cave for a birthday present! When I told him my birthday was still six months away, 'Bear responded that he might not find another cave as good as Bennett Cove Cave during that time.

My crew was only myself and Dave Doolin, a young Indianian who was one of a dozen cavers to camp the previous night at the Sherwood Quarry. Clad in full wet-suits, we managed to push the cave an additional 500 feet. The wet crawl where we had turned around on Saturday opened up for a few hundred feet to a series of clean-washed vertical climbs totaling about 30 feet. At the bottom of the final climb of 16 feet the passage became a low stream crawl for about 200 feet to a sump, interrupted half way by ten and thirty foot domes. Doolin reached the sump and I checked the domes for a by-pass, but the single passage found ended after 20 feet.

On the way out we completely derigged the cave and made a careful estimate of the climbs, step-ups, and pits. This figure came to 290 feet, which added to the gradient makes this 2000 foot long cave somewhat over 300 feet in depth, and really quite a nice "birthday present."

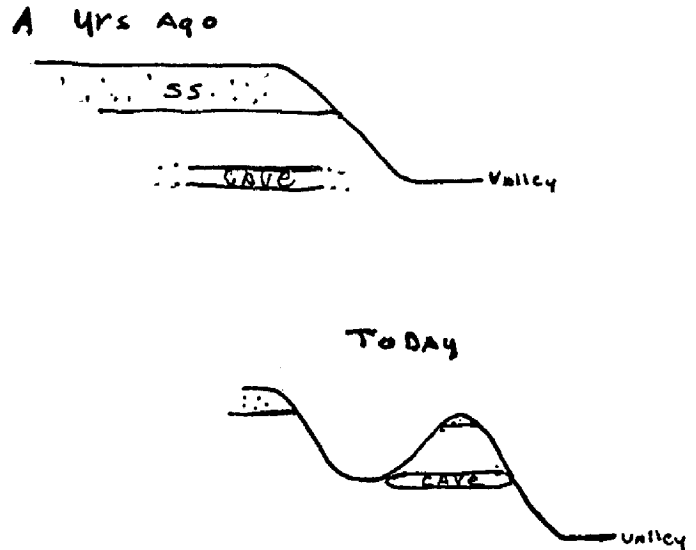
CAVE DEVELOPMENT USING WORNOCK CAVE AS
A MODEL

By Milo Washington

Wornock Cave serves well as a model to illustrate cave development in flat laying limestones. The simple tube we see today (see map) originates in a sink and intersects the mountain side some 400 feet above the valley floor. Throughout its length, the flat ceiling, solution pockets, etc. gives evidence of its formation beneath the water table. To recreate this condition we must replace the rock to the mountain, sink, and valley that has been eroded away.

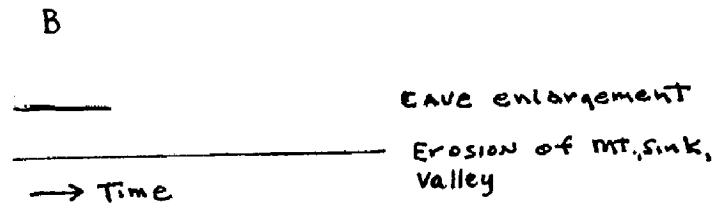
A: The erosion

The erosion of the mountain sink and valley obviously took a long time in comparison with the time taken to dissolve the cave.



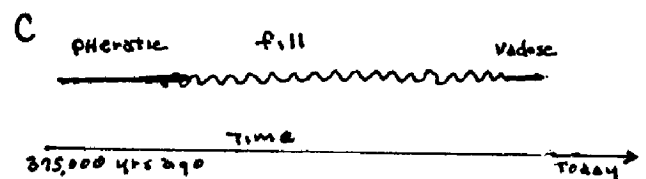
B:

To fix the cave's enlargement in time is difficult but a stable ground water situation seems necessary. These condition exits during an Interglacial period. The second interglacial began 375,000 years ago and lasted 60,000 years. The following Glacial period dropped sea level 300 feet, increased the gradient of surface streams, and lowered ground water levels leaving Wornock Cave air filled. Unsupported by water pressure, breakdown fell at many positions in the cave.



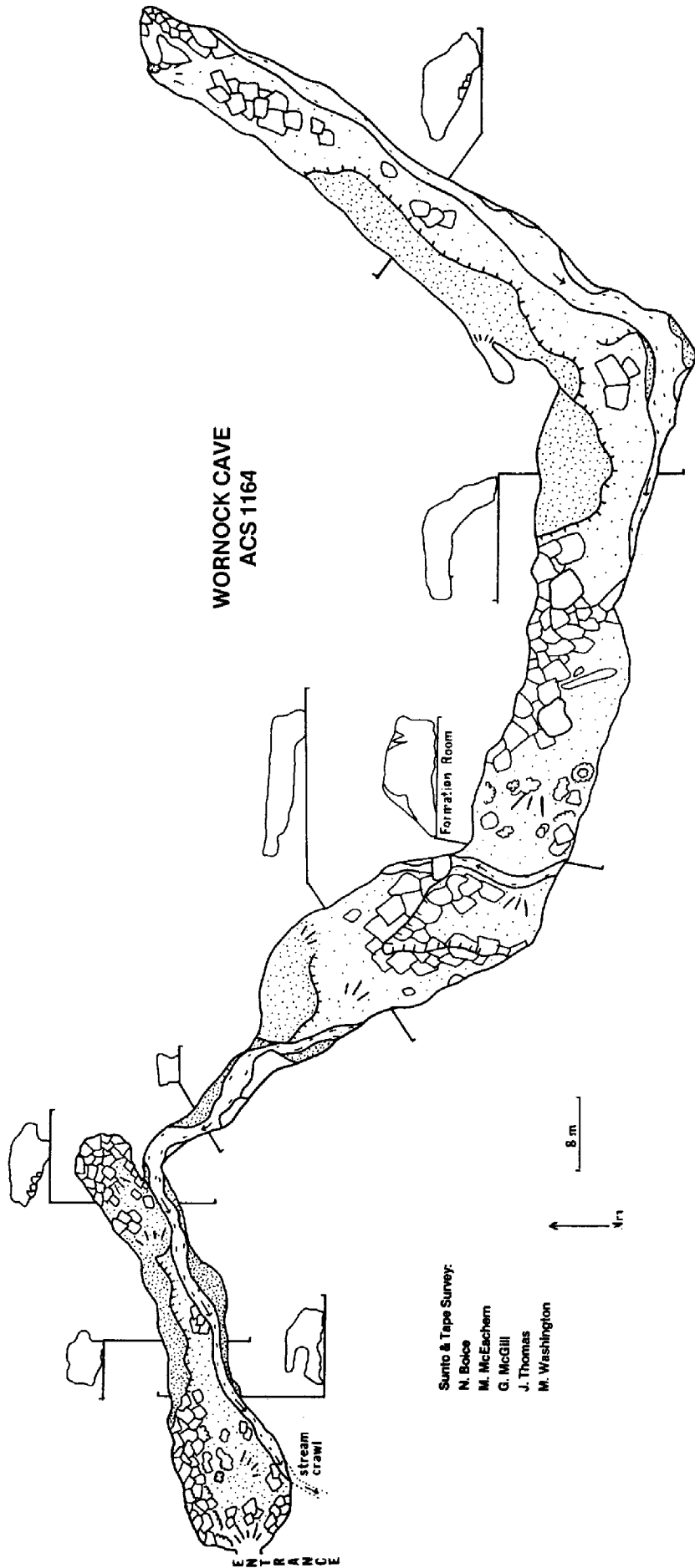
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In recent times (5,000? years ago) a free surface stream invaded the cave and began clearing the breakdown while cutting a small channel (not mapped) along a joint leading to a spring several hundred feet away.



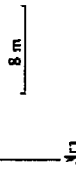
Note: This article is intended for the general reader so as to demonstrate the basic mechanisms of cave development. It is non-specific and incomplete as applied to the environs of Wornock Cave. M.W.

**WORNOCK CAVE
ACS 1164**



Surto & Tape Survey:

- N. Boice
- M. McEachern
- G. McGill
- J. Thomas
- M. Washington



BAT OF THE MONTH

by John Marshall

MYOTIS GRISCESENS : GRAY BAT

Description: Forearm, 40-46 mm; wingspread 275-300 mm. This is a large Myotis with uniformly gray fur. There is a distinct sagittal crest on the skull and the calcar is not keeled. The wing membrane is attached at the ankle, while it is attached at the base of the toe in all other members of the Myotis genus. (Barbour and Davis 1969)

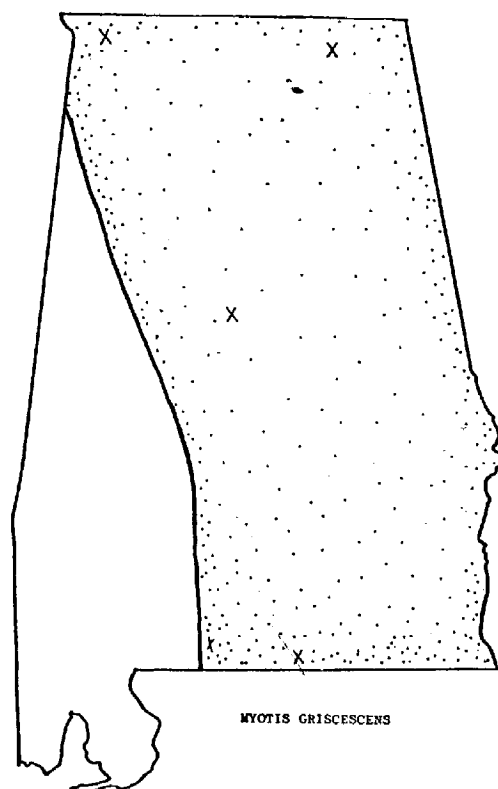
Distribution: The gray bat is found from the Tennessee Valley through eastern and central Alabama and down to the Florida line. It is absent from the Gulf Coast and the Black Belt region of western Alabama. Specific locations include Sander's Cave in Conecuh County (LaVal 1967), Saltpetre Cave in Lauderdale County (Mohr 1932), Saltpetre Cave in Bibb County (Chermock and White 1953) and in Sauta Cave in Jackson County (Tuttle 1979). It is found in the state year round.

Habitat: This species occurs almost exclusively in caves. Occasionally a few individuals are found in storm drains and mines. Tuttle (1974,1975) says they only use caves with high domed roofs for maternity caves, so they can roost in tight clusters in the thousands creating incubator-like conditions. Maternity caves are also usually in caves with substantial water (Barbour and Davis 1969).

The males roost in separate caves from the females during the summer. The largest of these bachelor caves, and the largest concentration of gray bats anywhere, is in Sauta Cave in Jackson County. About 20 km from there is a major maternity cave (Tuttle 1979).

In the autumn, these colonies disband and winter in different caves. The most important hibernaculum is in northeastern Alabama and contains between half and two-thirds of the entire known population.

Remarks: The gray bat is presently listed as endangered (Federal Register, 28 April 1976). Its habit of concentrating in a relatively few caves and narrow habitat requirements have made it very vulnerable to human disturbance. However, there is some cause for optimism. Several caves, including Sauta Cave, have been purchased and gated by the US Fish and Wildlife Service. Tuttle (1979) reports that the protection of a cave on the Wheeler National Wildlife Refuge that previously had only 9,000 bachelor transients, resulted in an increase to 19,000 bats in 2 years and a return to maternity status. Increased concern and awareness can continue to improve the status of the gray bat by helping to protect its dwindling habitat.



GREY BAT CAVE RECEIVES PROTECTION
BY Steven D. Carey

A colony of grey bats, Myotis grisescens, in Sanders Cave (ACS 167), Conecuh County, Alabama has received limited protection by the United States Fish and Wildlife Service and the Alabama Department of Conservation and Natural Resources.

I first became aware of the situation at Sanders Cave in the fall of 1980 while gathering data for a vertebrate fauna survey of the caves of Alabama's lower coastal plain. Discussions with John T. Brady of the Indiana/Grey Bat Recovery Team prompted investigation by Fred Bagley and Judy Jacobs of the USFWS.

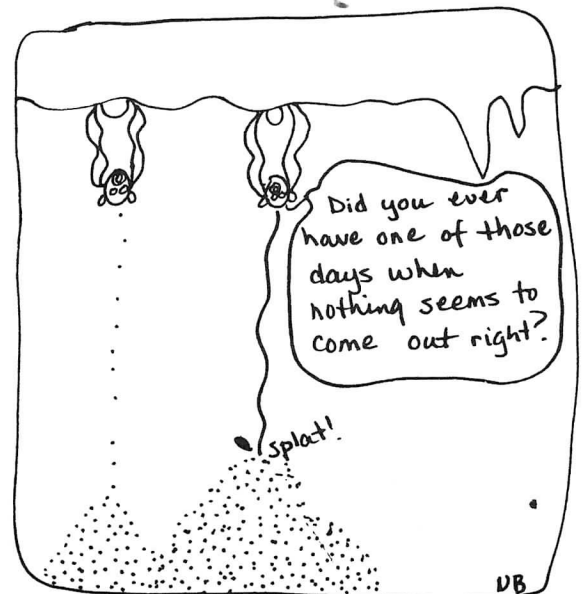
As a result of their investigation, the USFWS decided to close the cave from 15 March through 15 September. A sign stating the reasons for the closure and penalties for violation has been installed at the cave's main entrance.

My observations at Sanders Cave revealed that the situation was critical. The cave is well known to locals and even to a few cavers. The spacious entrance room has been the scene of numerous parties. The area of the bat colony is easily accessible and evidence of molestation in the form of mud balls on the ceiling and spent 38 cal. shells have been observed by me. Some of the bats left the cave and took up residence in a nearby house. Crowded conditions and understandable molestations by the home owner resulted in the deaths of numerous baby bats (so many newborns fell down the chimney and collected in the hearth, they had to be shovelled out).

The sign may or may not be an effective deterrent. The owner is cooperating by limiting access to the cave. Perhaps the most effective deterrent has nothing to do with man's activities. Beavers have constructed a new dam in an adjacent swamp and the resulting rise in water level has flooded the access trail to the cave and portions of the cave's floor.



29. *Myotis grisescens* at Mammoth Cave National Park, Kentucky.



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