



# BREAKDOWN

January 1995

## New Bulletins in Progress

By Jim Kennedy

*Caves of Fayette County, Pennsylvania*, Bulletin 20, will be the next publication from the MAR presses. As of this writing, there are more than 80 caves and about a dozen mines and rock shelters (called caves by the locals) recorded in the county, 61 more caves than the last comprehensive county-wide survey. We expect over 100 pages with four pocket maps and two fold-out maps. Highlights are totally new maps of Laurel Caverns (2.5 miles, 464' deep), Barton Cave (2400+ feet, 151' deep), Casparis Cave (2400+ feet, 112' deep), and a never-before-published map of Askon Hollow Cave (1664 feet, 214' deep). This is the first MAR Bulletin to use the new "scientific" format, making it more useful to resource managers and less of a guide for spelunkers. History, biology, paleontology, geology, etc. are noted for each entry. Tentatively due out in about a year or so, when the Laurel Caverns resurvey is complete. Jim Kennedy and John Chenger are putting this volume together.

Westmoreland County is also getting a much-needed new bulletin. Kim and Tom Metzgar have been ridgewalking, mapping, researching, and writing about more than 140 caves, cavelets, and historical cave references in the county. This effort should be finished in 1-2 years. So far, Bear Cave is the longest at 7000+' and Copperhead Cave is the deepest at 338'. Other significant caves are Lemon Hole (2200+'), Coon Cave

(5000+'), and Sandeppley Cave (2325'). Many Loyalhanna Grotto members are contributing.

The most recent bulletin project to get off the ground is the Upper Susquehanna Basin Bulletin, covering Columbia, Clinton, Lycoming, Union, and Montour counties. Also called the CCLUM Bulletin, it should finally finish the Valley and Ridge Province. Keith Wheeland and Keith Christenson are organizing Nittany Grotto and other cavers in north-central Pennsylvania for the work, which should be completed in 2-3 years. Forty-eight caves are listed now in the five-county area, but digging, ridgewalking, and talking to landowners should turn up many more. The most significant cave in the study area is Blessing Mountain Wells, a sandstone cave with potentially 1-2 miles of passages. It is possibly the longest cave of its type in the East.

Our list of bulletins in progress includes a much-needed revision of MAR Bulletin 9, *Caves of Huntingdon County, Pa.* Long out of print, this bulletin featured classic Kookan Cave and about 100 others. Now there are closer to 200 caves known in the county and new classics like Ruth Cave, McFadden Cave, and Fantasy Cave. Garrett Czmor and members of the Huntingdon County Cave Hunters are coordinating this effort. No publication date is known at this time.

Finally, we understand that Tom Metzgar is also working on a bulletin for Armstrong County. No details are known, but multi-mile Brady's Bend Cave is still incompletely mapped.

## Upcoming Events:

February 25, 1995 M.A.R. BUSINESS MEETING, 1:00 p.m. at Jay Herbein's house in Harrisburg. Call Bill Wolford for details.

March 25-26, 1995 ER-NCRC BASIC CAVE RESCUE ORIENTATION, Laurel Caverns, PA. Contact Jim Kennedy for information.

May 12-14, 1995 SPRING V.A.R. MEET, Camp Kidd, Parsons, WV. Contact Doug Moore (304) 594-2600.

May 19-21, 1995 SPRING M.A.R. MEET, Laurel Caverns, Farmington, PA. Contact Jim Kennedy.

May 19-21, 1995 S.E.R.A. SUMMER CAVE CARNIVAL, LaFayette, GA. Contact Don Hunter (706) 788-2051.

July 17-21, 1995 N.S.S. CONVENTION, Blacksburg, VA. Contact Carol Tideman (410) 792-0742.

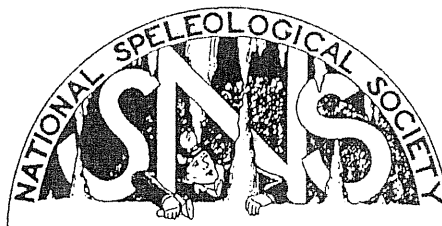
August 31-September 4, 1995 OLD TIMER'S REUNION, Dailey, WV. Contact Bill Wolford.

August 3-9, 1996 N.S.S. CONVENTION, Salida, CO. Contact Skip Withrow (303) 693-0997.

June 23-27, 1997 N.S.S. CONVENTION, Sullivan, MO. Contact Pam Saberton (314) 772-6956.

### In this issue:

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# Aquatic Invertebrates in Caves

by Barb Barton, Zoologist, TNC

Most cavers are familiar with the more visible forms of animal life in caves, such as bats, crickets, and spiders. But if one looks more closely, there are many small invertebrates that call these dark, subterranean environments home. There are tiny spring-tails, snails, millipedes, centipedes, and countless others that live most if not all of their life cycles in caves.

Some of the most interesting habitats within a cave are also the wettest. They come in all shapes and sizes, from tiny drip pools to giant spring fed rivers such as the one in Alexander Caverns in Mifflin County. Within these bodies of water can be found some of the most interesting and unusual cave dwellers of all. Isopods, amphipods, and planaria spend their entire lives crawling on the bottom looking for food items such as decaying wood, dead animal matter, and detritus. They feed on organic debris, and it has been reported that planaria even prey upon injured isopods and amphipods.

How does one identify aquatic invertebrates? For positive identification down to the species level, voucher specimens must be collected and sent to an expert who uses microscopic characteristics of the crustacean to determine what it is. The planaria are the most difficult-- there are only two experts in the world who know this group well enough to name them.

For the caver, it is fairly easy to determine which of the three groups of organisms you have crawling around in front of you. All are white, have no eyes, and occur in water bodies-- even the smallest drip pools. I have usually found them in pools or streams that have some kind of woody debris and a sandy bottom, although you may see them in a gravel bed. Planaria are flat, hence their common name "flatworm". They are slow

moving, and vary in size from 0.25 to 1.5 inches. There are only three caves in Pennsylvania known to harbor planaria. Isopods are crustaceans, and are members of the sowbug family. They have a row of plates along their backs that are slightly spaced apart. Usually you will see long antennae-like appendages growing from the last plate, which are called endopods and exopods. Isopods are fast crawlers, and generally run for cover when they sense the vibration of foot steps. Their bodies are dorsoventrally compressed (flattened), unlike the amphipods, which are laterally compressed (side to side). Amphipods are also known as scuds, and are related to shrimp. One can easily distinguish between the isopods and the amphipods by their style of locomotion. Amphipods often swim on their sides, their abdomens curled under. Often they will swim freely in the water, other times they crawl along the bottom. All of these troglobites are scavengers and important components of the fragile food chain in a cave.

Protecting cave invertebrates is a challenge indeed. Threats include water contamination, hydrological changes, and direct disturbance to the habitat and the organisms. The Nature Conservancy is currently working toward protecting these rare creatures through agreements with land owners, cave acquisition and education.

The caving community can help in the protection of these species by restricting foot travel through pools, streams, and lakes. Evidence of the impacts of cave traffic on aquatic cave invertebrates can be easily seen in Carnegie Cave in Cumberland County. Many cavers walk through the water-filled trenches, which at one time probably contained isopods. Toward the back of the cave by the rimstone dams, the isopods have been able to survive, most likely due to the lack of significant foot traffic in that passage.

If you find isopods, amphipods, or planaria, please contact Barb Barton, Zoologist, The Nature Conservancy, 34 Airport Drive, Middletown, PA 17057. Phone (717) 948-3962.

Be sure to include a description of what you saw, the name of the cave and county, and if possible a map of the cave designating the exact location you found the organisms. Anyone interested in helping with survey work for cave invertebrates is encouraged to contact Barb. ∞

*Below is a list of caves and springs in eastern Pennsylvania where recent collections of rare aquatic invertebrates have been made. This list is courtesy of Barb Barton at The Nature Conservancy. The western half of the state is covered by the Western Pennsylvania Conservancy and the locations were not available at press time. This list is published for caver education. Be especially careful of pools and streams in these locations.*

*Caecidatea pricei* - Price's Cave Isopod

|                      |            |
|----------------------|------------|
| Schofer Cave         | Berks      |
| Carnegie Cave        | Cumberland |
| Cleversburg Sink     | Cumberland |
| Hershey-Coy Cave     | Cumberland |
| Needy Cave           | Franklin   |
| Python Pit           | Franklin   |
| Welsh Run Cave       | Franklin   |
| Refton Cave          | Lancaster  |
| Indian Springs       | Lancaster  |
| Lutz Spring          | Lancaster  |
| Danville Pike Cave   | Lancaster  |
| Aitken Cave          | Mifflin    |
| Johnson Cave #2      | Mifflin    |
| North York Cave      | York       |
| Taxville Quarry Cave | York       |
| Crystal Pit Cave     | York       |

*Stygobromus allegheniensis* - Allegheny Cave Amphipod

|                           |         |
|---------------------------|---------|
| Schofer Cave              | Berks   |
| East Blue Mountain Spring | Lebanon |

*Stygobromus biggersi* - Biggers' Cave Amphipod

|            |          |
|------------|----------|
| Needy Cave | Franklin |
|------------|----------|

*Stygobromus gracilipes* - Shenandoah Valley Cave Amphipod

|            |          |
|------------|----------|
| Needy Cave | Franklin |
|------------|----------|

*Stygobromus pizzinii* - Pizzini's Cave Amphipod

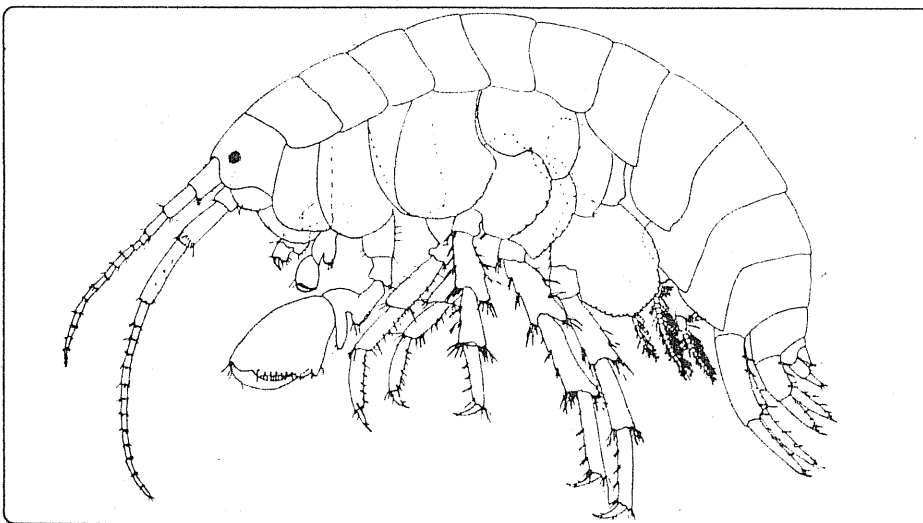
|                    |           |
|--------------------|-----------|
| Refton Cave        | Lancaster |
| Danville Pike Cave | Lancaster |

*Stygobromus stellmucki* - Stellmuck's Cave Amphipod

|                   |         |
|-------------------|---------|
| Alexander Caverns | Mifflin |
|-------------------|---------|

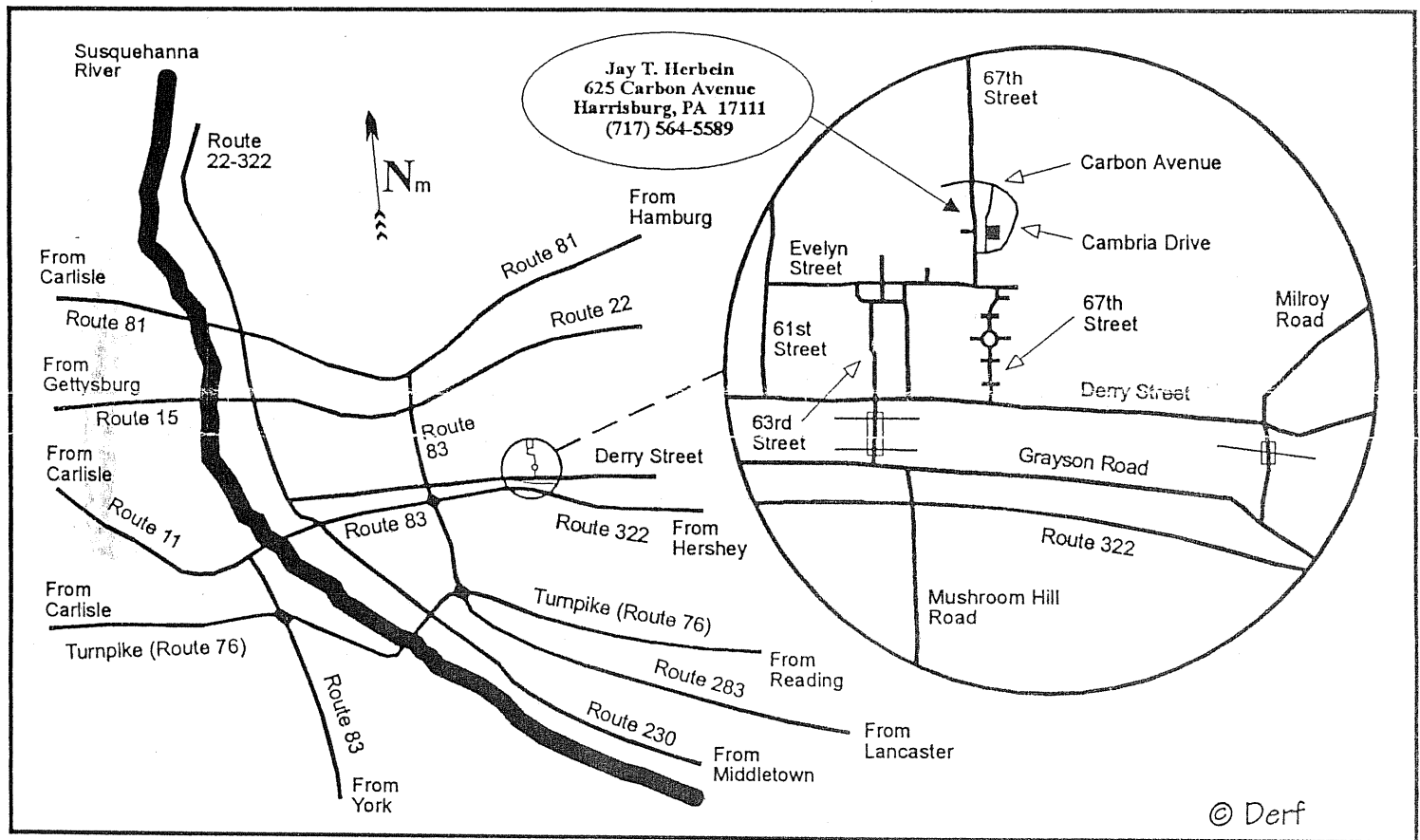
*Crangonyx dearolffi* - Pennsylvania Cave Amphipod

|                 |          |
|-----------------|----------|
| Python Pit      | Franklin |
| North York Cave | York     |



# Mid-Appalachian Region BUSINESS MEETING February 25, 1995 - 1:30 PM

We hope to see representatives from all M.A.R. Grottos! A party will be held at Dale and Judi's place after the Business Meeting. Food and beverages will be furnished at both locations (donations are appreciated). For more information, call Jay at (717) 564-5589, or Dale and Judi at (717) 238-2198.



From the East on Route 322:  
Turn right on Mushroom Hill Road at the second traffic light after Hummelstown. Proceed one block to Grayson Road and turn left. Travel one more block and turn right onto the bridge crossing the railroad yards. Turn right on Derry Street. Turn left on 67th Street. Follow the enlarged map to Jay's house.

Otherwise:  
Intercept Route 322 East toward Hershey. Turn left on Mushroom Hill Road at the first traffic light (about 2 miles after the interchange). Follow the previous text.

NOTE: If you are coming from the West on I-83 N, you can NOT get off at the Derry Street exit... use the Route 322 exit.

# Cave Register Project Information

By John Chenger, condensed from the *Loyalhanna Troglodyte V8, 11*

The original purpose was to collect information about the types of people visiting different types of caves. The big boss at the N.S.S. tells me that someday an article in the News or Bulletin will detail the findings.

What you can do to help:

- Take a few extra pencils when caving and drop them off in the register tube.
- If the book is missing, soaked or filled, take it home and call the region manager.
- Be a pal and replace a register with a new book! Contact the region manager and he

will fix you up with books and pencils. It's a great way to do something useful during your next beginner trip, and relieve some pressure on the register sponsor.

- Have everyone in your group sign in—and use the blank pages skipped in-between groups.

## M.A.R. Bulletins Available

| No. | County in Pennsylvania |                                 | Cost (without postage) |
|-----|------------------------|---------------------------------|------------------------|
| 8   | Blair                  | 89 caves, 40 maps               | 6.50*                  |
| 9   | Huntingdon             | 94 caves, 36 maps               | (Out of print)         |
| 10  | Snyder                 | 20 caves, 14 maps               | 2.00*                  |
| 11  | Centre                 | 71 caves, 56 maps, 1 large map  | 9.00**                 |
| 12  | Mifflin                | 47 caves, 31 maps, 5 large maps | 7.00**                 |
| 13  | Perry                  | 13 caves, 6 maps                | 5.00*                  |
| 14  | Bucks                  | 24 caves, 6 maps                | 3.00*                  |
| 15  | Lehigh                 | 25 caves, 13 maps               | 3.25*                  |
| 16  | Northampton            | 24 caves, 13 maps, 1 large map  | 5.50*                  |
| 17  | Northumberland         | 20 caves, 10 maps               | 5.00*                  |
| 18  | Berks                  | 64 caves, 32 maps               | 7.00**                 |
| 19  | Bedford                | 54 caves, 33 maps               | 5.50*                  |

\* Add U.S. Postage \$1.25 each copy; \$0.50 each additional to same address.

\*\* Add U.S. Postage \$1.75 each copy; \$0.50 each additional to same address.

Non-U.S. postage is \$2.00 each copy; \$1.50 each additional to same address.

Make checks payable to M.A.R.: Order from  
Bette White, 542 Glenn Road, State College, PA 16803

Some of the original serious registers in Pennsylvania were placed by the Pittsburgh Grotto almost ten years ago. These include such classics as Barton, Blue Hole #1, Copperhead, and Casparis. As a result, these old sites suffer little, if any, vandalism. Everyone seems to be quite familiar with them. Strangely, some ultra-popular caves such as J-4 have enjoyed excellent register participation, while other tiny caves in eastern Pennsylvania have experienced stolen books and containers. Interested in placing a register somewhere? Some suggestions I have are Sandeppley, Carney's Pit, Hipple, Wind, Quarry Hill, Alexander Caverns, Milroy, McAlisterville, and Big Ridge.

Should anyone feel like taking on any of these simple projects, contact John Chenger (western PA, northern WV) (412) 437-5215, John Walters (central PA) (814) 359-2549, Garrett Czmor (central PA) (814) 643-3067, or M.A. Roman Barvinchack (eastern PA) (phone n/a). ∞



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