Vol. 15 #9

THE CASCADE CAVER

Official Publication of the
CASCADE GROTTO N. S. S.

SEATTLE'S ONLY GENUINE UNDERGROUND NEWSPAPER

Vol. 15 No. 9 Editor: Rod Crawford September 1976

GRIZZLY

BEARS BAR CAVER CONVENTION

— SEE WITHIN

REMEMBER THE ALL GROTTO TRIP SEE BACK COVER

THE CASCADE CAVER is published ten times a year by the Cascade Grotto of the National Speleological Society. Subscription rate is $4.00 per year. Full grotto dues of $6.00 includes a subscription to the quarterly *Northwest Caving*. All payments should be made to the grotto treasurer, Chuck Coughlin, 6433 S. 128th Pl., Seattle Washington 98178.

COMING EVENTS

Almost every weekend. Paradise Glacier Cave. Call Charlie Anderson, 827-5106.
Saturday, Sept. 18. Mt St Helens Steam Caves. Call Bill Halliday, EA4-7474.
Monday, Sept. 20. Regular Meeting at the Hallidays', 1117 36th Ave. E., 8:00 PM. Program: Charlie Anderson's slides of Caverns of Sonora, Texas. Alternate: Bill Halliday's slides of the Canadian Rockies.
Late September? Boulder Glacier, Mt. Baker. Call Halliday.
Any sunny day. If you have a 4-wheel drive vehicle, the Black Mountain Karst needs more checking. Call Rod Crawford, 543-4486 nights.
October 1. DEADLINE for the October *Cascade Caver*.
October sometime. Russ Turner plans a caving trip to Alabama. Call him at 284-1125.
Windy Creek Cave. Presumably someone will go sometime. Ask at the meeting or call around.
OCTOBER 9-10-11, COLUMBUS DAY WEEKEND. ALL-GROTTO TRIP TO MT. ADAMS CAVE AREA, MEET AT PETERSON PRAIRIE CAMPGROUND. Those with transportation, call around for passengers. Alternate meeting: Deadhorse Cave. See back cover.
Monday, October 18. Regular meeting, same time and place.

CHANGE OF ADDRESS

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NEWS AND NOTES

THE AUGUST MEETING was fairly well attended. The cancellation of the Nakimu Convention was discussed, and people made many alternate plans for Labor Day, which could not be included in this issue. Some business from the NSS, concerning procedures for the expulsion of members, was discussed and tabled. Russ Turner showed miscellaneous slides illustrating his last month's article on vertical technique.

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I have heard that a new short route to Windy Creek Cave has been found. Come to the meeting and hear about it.

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The ed.'s reference for the feature on p. 99 is: De Graaff, G., and J.A.J. Nel, 1965. On the tunnel system of Brants' Karroo Rat, *Parotomys brantsi*, in the Kalahari Gemsbok National Park. *Koedoe* 8: 136-139.

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Dave Jones has been wondering what became of our end of his Cave Register program. Please, when you're going to a well-visited cave, get a register from me or Bob Brown and leave it there--it's in a good cause.

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Cover idea by Hank Ramsey, execution by editor.

The Northwest Explorers: Their Contribution to Washington Caving

by Rod Crawford

In about the year 1956, a group of outdoor types in Portland, Oregon banded together and called themselves the Northwest Explorers. Their avowed interests included "geology, anthropology, Indian lore, and general exploration." As of 1958, there were about seven members, including Peter Alburas, Bill Dailey, Bob Greenlee, and Jack Grant.

The group drifted more and more into caving during their first years until caving occupied a large part of the club's activities. In fact, they may be considered one of the precursors of the present Oregon Grotto. They participated in some of the early work in Oregon Cave[1]. Grant and Dailey are noted for having spent two months of 1960 exploring La Grota de Loltun in Yucatan[2]. Dailey, the mapper of the group, drafted most of the maps that appear in Caves of Washington.

The Northwest Explorers' first introduction to organized caving came in summer of 1958, when Alburas wrote to Bill Halliday. He stated that the group had explored a number of caves (mostly lava tubes in the Bend area) and were ready for more. At the time, Halliday was attempting to coordinate the chaotic caving activity in the Northwest through his Western Speleological Survey, and so was delighted to hear from Alburas. The correspondence which followed continued through November 1963.

The association of the Northwest Explorers with the W.S.S.--at one time they were known as the Oregon Speleological Survey, Northwest Explorers Unit--was distinctly productive in terms of caves added to the Washington list. There appear to have been few, if any, corresponding additions in Oregon. But then, from time immemorial Portland cavers have done most of their caving in Washington. The notes that follow document the group's original contributions to the Washington cave list. This information has never before appeared in print.

All of the caves listed below are lava tubes in the Mt. Adams area of Washington. In most cases, the original "discoverer" of these caves is difficult to determine. Most were probably seen by pre-Columbian Indians. Several were seen by the first white men in the area under George McClellan[3]. Local pioneers in the 19th Century noted many of them, as evidenced by an 1886 report that they were "almost numberless" and that new ones were "constantly being discovered".[4] But most of these early cavers and their caves remain anonymous. The only information that can now be traced refers to those caves that were used for some practical purpose--Ice Cave, Butter Cave, Cheese Cave, and Meat Cave. In the author's opinion, the credit for a cave's discovery belongs to those who record its existence in such a way that it can be identified by later explorers. In several of the following cases, this credit belongs to the Northwest Explorers.

Slime Cave. In August 1958, Alburas recieved from Halliday a list of rumors, among which was an anonymous report giving the name and location of Slime Cave. On September 14, 1958, Alburas, Dailey, and five others drove off in pursuit of this rumor and found the cave without difficulty. They explored Slime Cave Annex, then explored and mapped the main cave and photographed the entrance. Alburas wrote: "We were disappointed to find clear signs that [the cave's] full length had been inspected by several people with a taste for Prince Albert and other loose tobaccos."

Dry Creek Cave. On the same day, September 14, the group visited the Mt. Adams Ranger Station and met Harold G. Coffin, a biologist at Walla

Walla College. Coffin had just heard of a small, unexplored cave entrance from a "cowboy" type in the ranger station. The augmented party quickly found the entrance and spent an hour exploring. They found, though, that this was no one-hour cave. In fact, it was the most complex known lava tube in Washington until the later exploration of Deadhorse Cave. The name Dry Creek Cave was an "almost automatic identification" with this initial exploring party.

The further exploration of Dry Creek Cave was done in 1959, 1960, and 1961 by members of the Washington Speleological Survey. Dry Creek Cave Annex was discovered by Bill Halliday on August 2, 1959.

Curly Creek Cave. This rather isolated cave was discovered in late September 1958 by rangers or loggers surveying a sale line for clearcutting. On October 4, 1958, some Northwest Explorers, including Alburas and Greenlee, visited the Hemlock Ranger Station (now called the Wind River R.S.) for directions to Falls Creek Cave. While there, the ranger told them about the new discovery and supplied the name Curly Creek Cave. The party duly found and explored this very breakdown-strewn cave.

Falls Creek Cave. The history of this cave is complex and will be treated more fully elsewhere. Halliday had heard about the cave from the ranger at Hemlock R.S. under the name Panther Creek Cave and the party received directions from the ranger as noted above. On Sunday, October 5, they spent four hours exploring known parts of the cave. On October 12, Alburas and another visited it again. These visits were the first to the cave by organized cavers.

Dynamited Cave, the well-known multi-level lava tube, had been partly explored by locals on October 10 as far as the first 40' pit[5]. Greenlee, Grant, and another (not Alburas) of the Northwest Explorers visited the cave on the 11th with ropes borrowed from Carl Nielsen, the cave's main explorer. Again, they were the first organized cavers in the cave. The extent to which they penetrated into the cave is not recorded.

I am indebted to Bill Halliday for the opportunity to transcribe information used in this report from his personal papers.

FOOTNOTES

1. Halliday narrates the following incident from one of these trips, in March 1959: "The two guys from Bend [Phil Coyner and Jim Anderson] showed up, and impressed us favorably, although being fearless practical jokers. Got back at them, though. We were exploring in two small entrances on the cliff outside the cave, when I heard them crawling down a tight lead toward the one I was in. Just before they came into view, I achieved a wholly amazing imitation of a bear's growl and snarl--combined, that is. As we had just been talking about Elijah and the bear pit, it was wholly effective. We now know what sounds two people make when crawling backward up a tight crawlway at supersonic speed."

2. See *Northwest Caving*, 6 (1/2): 16-18.

3. See *Cascade Caver*, 15 (3): 15-16; *Journal of Spelean History*, 5 (2): 31-32.

4. Lyman, W.D., and H.S. Lyman, 1886. The caves and glaciers of Mt. Adams. *The West Shore* (Portland), 12 (10): 312-317.

5. Crawford, R., 1975. An historical study of Dynamited Cave. *Northwest Caving*, 6 (1/2): 3-8.

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Windy Creeking

by Bill Capron

On Saturday, July 17, Peter Barnhart, Ruth Barnhart and I went to Windy Creek Cave. We drove to the Blue Lake Road and turned off it onto a logging road lying below and north of Dock Butte. After some road rebuilding (removing a small mudslide and lots of rocks), we reached the end of the road for us—a large patch of snow in the road. The road is passable for another mile or so when snow free.

We walked to the clearcut at the end of the road and scouted around for a route on the west slopes of Dock Butte. We found a deer trail and followed it successfully for quite a while. The way eventually got bogged down in bunches of Devils Club and lots of seasonal streams (all full). We traveled a mile in about two hours and then found the flagged trail from an earlier expedition reported in these pages. We followed it easily and after some bridge-building, arrived at our snow-covered campsite.

Sunday morning we hiked along the cliff and found the cave with little trouble. Two of the party had not been caving for a while and got quite a bit of enjoyment from the trip. The Ex-Pool was perfectly dry. Water level was higher, naturally, than last fall. We went along to a deep wall-to-wall pool followed by a tricky chimney, where we turned around, no one desiring to bathe in those chill waters.

We quickly returned to camp and packed our gear. Our first mile or so went quickly, but the rest of the way to the clearcut was slow and we barely made it before darkness. The route, while short, involves some tricky traversing, and unless an easier way can be found, others are preferable.

One final item--someone should do some careful looking alongside the road we followed to the clearcut. It is just below Dock Butte and has lots of water activity and exposed rock.

Windy Point Caves
July 18- Mary Reigel, Chuck, Katie, Bridget and Casey Coughlin

by Chuck Coughlin

At the last grotto meeting, Rues Turner had reported some small shelter caves near Windy Point Campground east of White Pass, so we decided to check them out while on our annual cherry picking trip to Yakima. We located the caves without much difficulty at the base of the cliffs north of the campground. The smaller cave is about 50' long with an estimated 10' x 4' high entrance. The second cave is approximately the same length but with an impressive 15' x 25' high entrance.

Black Mountain Karst, August 22

by Rod Crawford

Greg Cady, Joyce Thompson and I started from Seattle late Saturday morning to pick up our guide, Jan Roberts, at Mountlake Terrace. Unfortunately Jan was coming down with a cold and couldn't come. However, he gave us explicit and, as it proved, very adequate directions.

Two hours later we were at the base of Black Mountain in northern Whatcom County. Another half-hour sufficed to climb the six miles of poor road up the mountain in Greg's International Scout. In the process we passed through one layer of cloud, but there were still one or two more above us. Needless to say, the brush was wet, making me very glad I had my wool pants on.

At the head of the road is a hunting cabin with good mattresses for those who may wish to sleep (the land is owned by Georgia Pacific). There is a 1 1/2 mile hike or so up overgrown, indistinct logging roads to the pit area. The clammy dampness affected Greg's back to such an extent that he had to stop after the first mile, but Joyce and I continued and found the line of three sinks with no difficulty. The first of these sinks is just a sink; the second is a stream swallet with cave entrance. We labored at clearing one hole in this sink only to find that it connected with the main entrance. I went into this, accompanied by a moderate-sized stream. Joyce could not follow due to a lack of wool clothing. Being alone, I only entered for about 50' or so; According to an old sketch, the cave was at least twice that long, and Jan indicated that two partly blocked crawlways at the bottom may be explorable after some work. So, we had something to come back for.

We continued to the third sink which is a pit of 40-50' depth swallowing a moderate-sized waterfall. We clung to a tree (which I suppose may be considered a sort-of belay) and peered into the stygian blackness, then started back down the mountain. In the process, we found and marked those parts of the road that we had lost on the way up, so the next trip should be easier for everybody. A vast expanse of limestone, containing at least two karst areas, here is still utterly unchecked by cavers. I think the area has at least as much potential as Washington Monument, and in addition is much more accessible when the snow's gone. This usually takes a while, however, since the above-mentioned sinks are at an elevation of 4200'.

Second Trip--September 4.

On Saturday the 4th I returned to Black Mountain with Wes Grandstaff and, of all people, Bob Tower (!!). The weather was fine in Seattle and stayed so all day, but when we reached Black Mountain it was (guess what!) raining. We stopped briefly at the Silver Lake quarry to confirm the presence of the large "Keep Out" sign, then started up the mountain.

Bob's Dodge van had a high enough clearance for the road, but the steep grade almost proved too much for the two-wheel drive on several occasions. Finally we reached an impasse, fortunately only a mile from the top of the driveable road. So we parked in the road, got out our gear and ponchos, and hiked on up the road in the steady rain. As we passed, a chipmunk was heard to squeak: "Now, that's dedication!"

We hiked on up to the cave area, pointing out the usual illusory holes in the limestone cliffs. As we passed a resurgence, I placed a plankton net in the flow to catch possible phreatobites (see the "Biologist's Chamber", August *Cascade Caver*). We stopped to admire the pit, then prepared to descend the cave.

The cave, though small, is interesting, containing some short climbs, all sorts of passage, and a 7" column-like speleothem. The air is not as cold as one might expect. At the very bottom are two unexplored crawlways. One, a round tube 1-1/2' or so in diameter twisting off into the distance, might well be termed "The Wormhole". The other contains the stream.

Bob went in a short distance, then desisted because of some loose-appearing rocks. Wes and I explored most of the cave, then surveyed 53', perhaps one-third of the total. We then had to descend the mountain on account of what appeared to be encroaching fog. It was still raining.

A recent conversation with Jan Roberts resulted in the name Elephant Hide Cave for this cave. This is because of the appearance of the limestone walls--not, unfortunately, because you could hide an elephant in it. A planned

return to the area on the 12th, if it occurs, should provide more information and maybe even more caves.

The results of my plankton-netting were interesting but not as yet conclusive.

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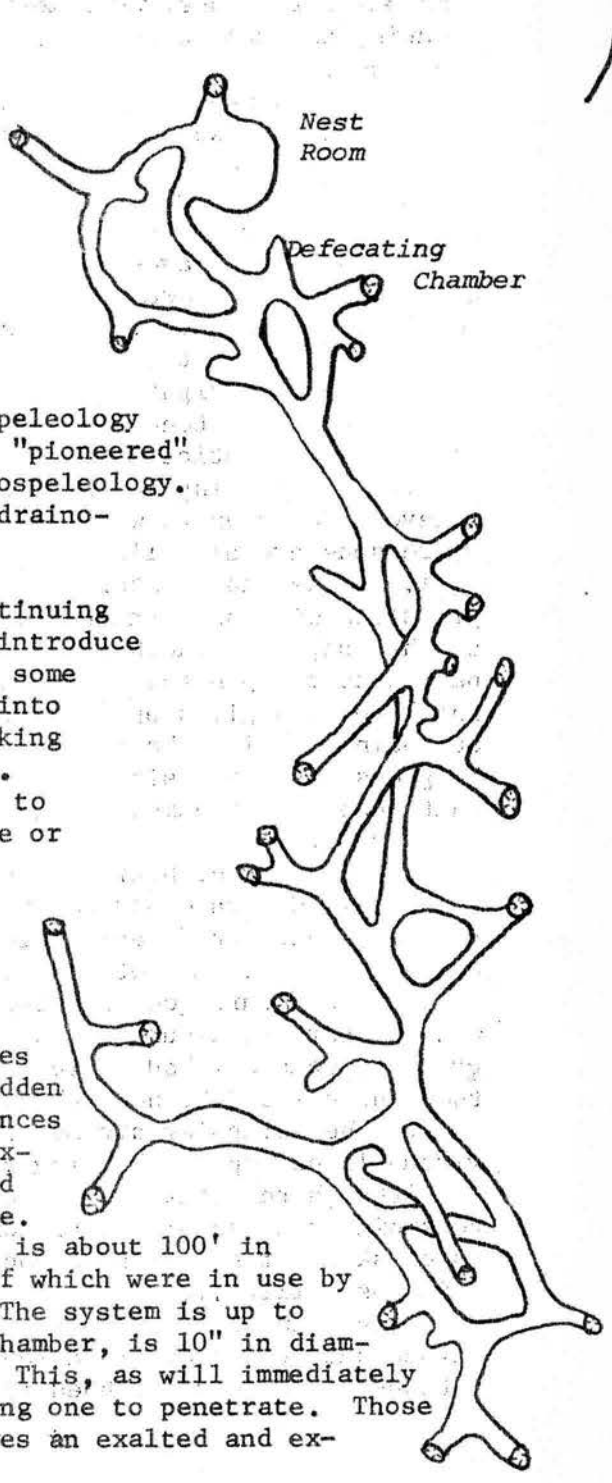
KARROO CAVE #3

Kalahari Gemsbok National Park,
South Africa



Northwestern cavers are famous (notorious?) for their interest new and different types of caves. The Cascade Grotto has pioneered in vulcanospeleology and glaciospeleology. Xanadu Grotto has "pioneered" in what they so cleverly term earthcrackospeleology. The Oregon Grotto has pioneered in stormdrainospeleology.

Following in the same spirit (and continuing the same downward trend), we hope here to introduce a totally new kind of caving. Admittedly, some cavers have come close to it when falling into rabbit holes, or digging into a likely-looking entrance that proves to be a badger burrow. But such mundane activities can never hope to penetrate a system that is at all intricate or extensive.

Karroo Caves are very much more interesting. Made by colonies of Karroo Rats, they can be extremely intricate. The soft and sandy soil containing them is a medium never before penetrated by cavers. Passages pass over and under each other, undergo sudden widenings, terminate in dead ends or entrances ——there are innumerable entrances. And exploring Karroo Caves may give you the added thrill of meeting a Karroo Rat face to face.

Karroo Cave #3, an outstanding example, is about 100' in length. There are 22 entrances, not all of which were in use by karroo rats when the system was studied. The system is up to 30" deep. The largest room, the Nesting Chamber, is 10" in diameter. Average passage diameter is 80 mm. This, as will immediately be seen, makes the system a very challenging one to penetrate. Those who succeed in doing so will find themselves an exalted and exclusive company indeed.

Editor's note: the following news comes a little late for practical purposes, but I thought readers might be interested in the real story behind the cancellation. ---The Editor.

Grizzly Bear Hazard Forces Cancellation of Nakimu Convention

by Phil Whitfield
5 August, 1976

On a July 1st reconaissance of Nakimu with three Parks Canada staff, I became aware of the possibility of a caver confrontation with grizzly bears when our party observed a mother and two cubs close to the access trail. By creating as much noise as possible, we managed to return to the highway unscathed.

On three subsequent trips up Cougar Valley to the caves in July, Chief Naturalist John Woods found grizzlies near the trail, and on one such trip he observed three adult bears at different points on the three mile trail.

On July 26th, two Parks Canada employes, experienced naturalists on days off, were attacked by a grizzly sow in Cougar Valley not far from the entrance to Nakimu Caves. The girl was mauled to death and her male companion escaped to the highway with severe injuries. He is presently in critical condition in hospital. A female grizzly found near the scene of the incident was shot by park staff. To ensure public safety and to avoid any further conflicts which might necessitate the destruction of other grizzlies in the park, the Superintendent immediately closed Cougar Valley to the public until further notice.

After discussing the situation with Superintendent Smith on August 3rd, I have undertaken to withdraw the 1976 NWRA Convention from the Nakimu Caves. My reasons are as follows:

1. Parks Canada staff indicate that there is very little chance that the grizzlies will have vacated Cougar Valley by the Labour Day weekend. As long as the danger of another mauling incident exists, Parks Canada cannot be expected to re-open the valley to any section of the public, even to cavers who have been given approval in principle for access to the caves. From our point of view, having seen the problem at first hand, I think we would be grossly irresponsible to try to carry on with the scheduled Meet knowing that some of our number could suffer the same fate as Barb Chapman or Andy Stepnewski.

2. Even if the bears did appear to have vacated Cougar Valley by Labour Day, Parks Canada would be crucified if they re-opened the valley for us and some unexpected bear incident occurred. As organizer of the Nakimu Convention, I would not wish to put Parks Canada in any position which might jeopardize future good relations between cavers and that agency. Even less would I care to assume responsibility for some caver's being mauled by a grizzly because I had decided to go ahead with a Nakimu Meet on the chance that there would be no such incident.

3. The foregoing arguments lead inexorably to the conclusion that we have virtually no hope of holding an NWRA Convention at Nakimu this year...

Although the grizzlies have thrown a totally unexpected shadow over the possibility of holding a Regional Meet at Nakimu some time in the future, I have asked Parks Canada to confirm that they are still prepared to consider this possibility....

I most sincerely apologize to NWRA members for having led you down the garden path two years in a row in pursuit of an elusive Nakimu convention. Although I may have flubbed it last year because I did not allow enough lead

time, this year I can assure you that everything was going swimmingly until I discovered that the garden path was suddenly lined with most uncooperative grizzly bears. Rather than march us all into their jaws, I admit defeat. ("He who caves and runs away lives to cave another day?").

I am sorry. I hope you can all bear the disappointment.

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Historical Note -- Ole's Cave (???)

by Bill Halliday

In their 1972 GSA Bulletin article, Ron Greeley and Jack Hyde state that the first published account of the Mt. St. Helens lava tube caves was in 1903, in the *Mazama*. The following item is reproduced exactly from page 55 of Vol. VI no. 21/22 of *Spelunca; Bulletin de la Societe de Speleologie*, Paris, 1st and 2nd Trimesters, 1900:

"Spencer's Cave (Etats-Unis). - La caverne de Spencer, recemment decouverte dans le compte de Stomania (etat de Washington), sur la Lewis-River, a 10 ou 12 miles au sud de mont Saint-Hebus, est decrite par un journal americain comme tres remarquable, situes dans la lave, possedant des salles de plus de 100 metres de long et 20 de haut et incompletement exploree."

The editor of *Spelunca* was E. - A. Martel, father of modern speleology. The odd errors evident above apparently resulted from his trying to decipher a hand-written communication sent to him by someone who ran across the article referred to. It translates:

Spencer's Cave [presumably Ole's Cave, but why the name???), recently discovered in Skamania County, near the Lewis River, and 10 to 12 miles south of Mt. St. Helens, is reported by an American journal to be quite remarkable. In lava, it has rooms more than 100 metres long and 20 high and is not completely explored.

Now--what about some newspaper research in 1899 and 1900 papers?

Editor's note: The Mazama *article referred to mentions that in July 1900, Col. Hawkins (the Mazama explorer of the cave) sent a newspaper clipping about his exploit to the geologist, Joseph LeConte. This could be the same article--perhaps even the same clipping.*

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Note on *Achatina fulica* (Giant African Snail)

by Bill Halliday

In the July 1976 *Caver*, Rod Crawford referred to my collecting a shell of this species, now in the Burke Museum of the University of Washington, "at least twice as heavy as a normal shell of this species." He stated that it was from "a Kenya limestone cave." Actually, it is from Mangapwani Cave, Zanzibar, Tanzania, not Kenya, at the bottom of a dirt slope below the small secondary entrance. I am writing the CEGEA suggesting that they compare weights of such shells from their limestone and their lava caves to see if there is a consistent difference.

THE BIOLOGIST'S CHAMBER: AQUATIC ISOPODS

by Rod Crawford

The isopods comprise one of the many orders of crustaceans. They differ from the other orders by: 1) having three distinct body regions; 2) the thorax not covered by a single plate (carapace); 3) having seven pairs of legs, the first modified for grasping; and 4) having the boddy flattened as seen from above, not compressed as in the amphipods.

Most isopods are marine or terrestrial, the latter being the well-known "sowbugs" or "pillbugs". Nonetheless, almost all the cave species belong to the smaller freshwater branches of the group. In Europe and elsewhere, several freshwater isopod groups are represented, but in the United States, with only one exception (in Texas), all the species in subterranean waters belong to the family Asellidae and the genus *Asellus*.

In the United States, about 25 species of *Asellus* are named, eight from surface waters and seventeen from cave or phreatic waters. The latter species differ from the former in being more slender and lacking eyes and pigment--in short, the usual troglobitic modifications (see figures). Because of these differences, they were once placed in a separate genus, *Caecidotea*. This distinction is now considered unnecessary.

It should be noted that the isopods of surface waters tend to be attracted to light, and almost never penetrate very far into caves. Thus, only the troglobitic species need be considered here.

The distribution of subterranean *Asellus* leaves no doubt that they are phre-

DIAGRAMS OF *ASELLUS*

Scale markers ⟵⟶ equal one millimeter

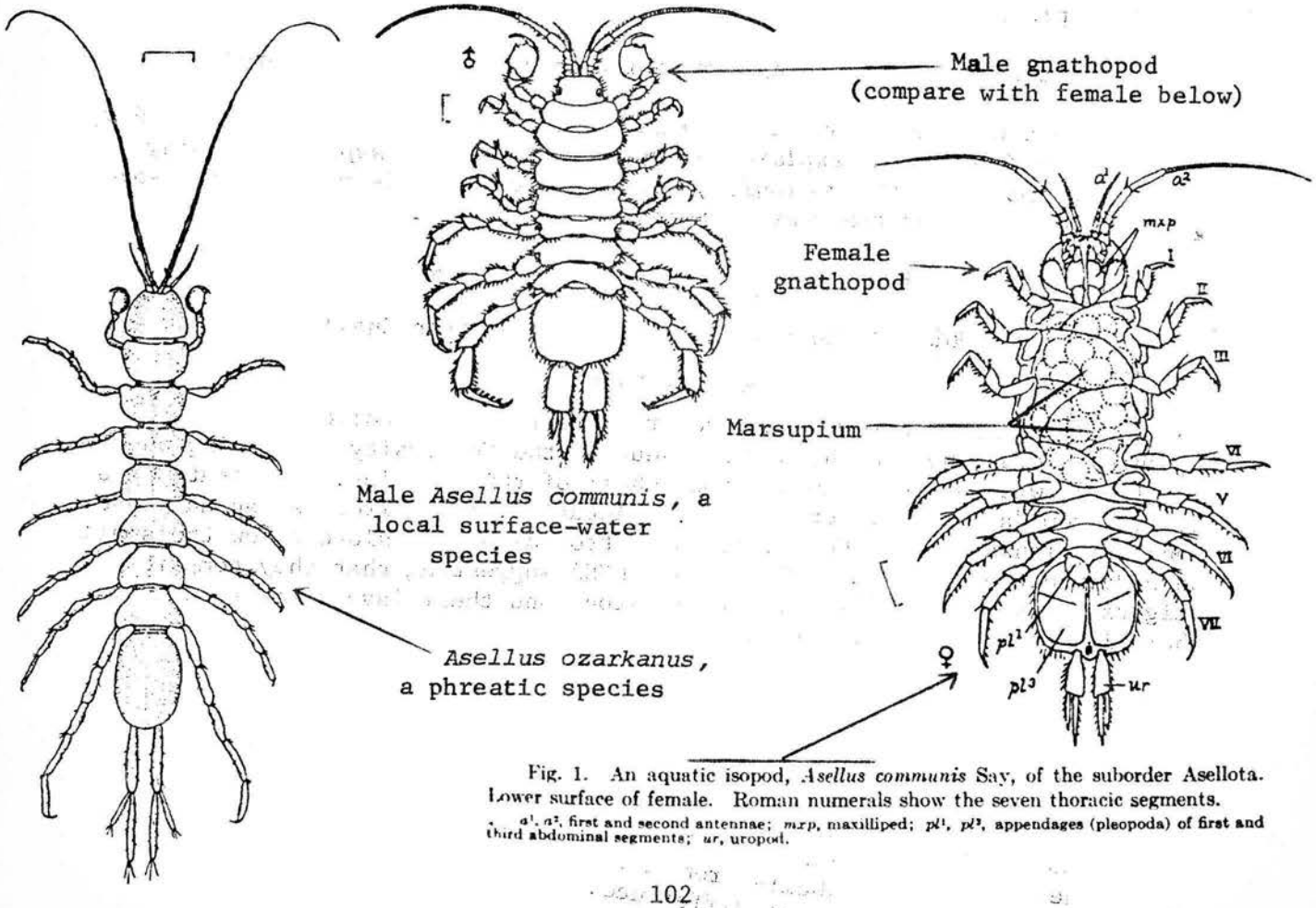


Fig. 1. An aquatic isopod, *Asellus communis* Say, of the suborder Asellota. Lower surface of female. Roman numerals show the seven thoracic segments. a^1, a^2, first and second antennae; *mxp*, maxilliped; pl^1, pl^2, appendages (pleopoda) of first and third abdominal segments; *ur*, uropod.

atobitic as well as troglobitic [see last month's issue]. For example, *A. stygius* of Mammoth Cave occurs in caves, springs, and wells in Kentucky, Indiana, Illinois, Pennsylvania, and Virginia. Many species were first discovered in springs and resurgences, and they may occur a short distance downstream from the spring.

Isopods are scavengers. The cave species will eagerly devour dead plant matter, but--unlike surface species--will avoid living plants. They will feed on dead insects and crustaceans and most other organic debris. Cave species in the Northwest probably have few enemies, but in the South cave fish and salamanders prey on them. Dead individuals are avidly consumed by flatworms or other isopods.

Growth and reproduction do not usually follow a seasonal pattern. The reproductive organs are on the underside of the thorax; in mating, the male clasps the female and holds her underneath him, then slips sideways around one side of her, then the other, fanning his sperm cells toward the appropriate openings. The eggs and, later, the young are held in the *marsupium*, a pouch made of plates extending between the first four leg bases (see figure). The young eventually find their way out the rear end of the marsupium by trial and error.

Like other arthropods, isopods periodically molt their skin as they grow. One aspect of their molting is unique: the skin from the hind end of the body, as far forward as the fourth pair of legs, is lost first; the rest follows after a numbersof hours.

Asellus are unable to swim, and phreatic species can be found in cave streams under rocks or slowly crawling along the bottom. When in surface springs they are invariably under rocks, since, despite their lack of eyes, they show some avérsion to light. The phreatic species are profoundly sensitive to touch, and cannot tolerate silty water, which fouls their delicate sensory hairs. They respirate through the *pleopods*, appendages of the abdomen, and appear to require but little oxygen.

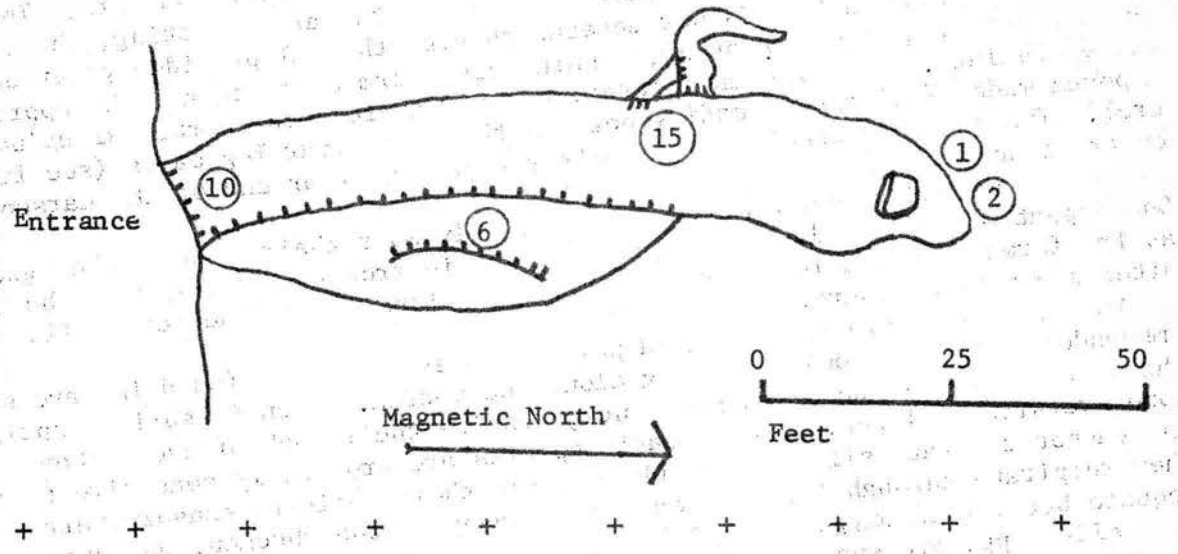
Asellus spp. are known from only two caves in the Northwest--Malheur Cave, Oregon, and Deadhorse Cave, Washington. They are fairly abundant in the shallows of the lake in Malheur Cave, and in the "river" in Deadhorse. Neither species has been described and named. This is because the best diagnostic features are on the male, and no males were collected until recently. Three days ago as I write this, I collected the first males from Deadhorse Cave. The 26 individuals I collected included a mere three males, only one in perfect condition. Males differ from females by fine details of the pleopods, and cannot be distinguished in the field. *Asellus* occur in both the Deadhorse Cave "river" and in the pool near the lower entrance, abundantly in both places.

The collection contained six small, white mites, apparently parasitic on the isopods. A plankton net placed in the spring at the beginning of the "river" for about two hours yielded one phreatic mite and a considerable amount of organic debris, including dead algae, a moss leaf, and miscellaneous fragments. Undoubtedly, this abundant phreatic food supply is responsible for the large isopod population in Deadhorse.

In collecting, individual isopods can be picked up with a wet watercolor brush and dropped into the 70% alcohol preservative. They can be found in numbers where there is a deposit of organic matter for them to feed on. Collectors should not neglect the possibility of finding them under rocks in springs, as well as in the caves themselves. The distribution of our Northwest species is unknown outside of the caves where they were discovered, probably because springs and wells have not been sampled.

DON'S CAVE, King County, Washington

Compass and tape survey 1951
By Cascade Grotto, N.S.S.



TWENTY-FIVE YEARS AGO IN THE CASCADE CAVE REPORT

"First Limestone Cave of Western Washington Located"
by Peter McLellan

"Spurred on by a report forwarded by the Stanford Grotto of a cave on Jackman Creek in the lower Skagit Valley, a 5 man party from the Seattle branch of the Cascade Grotto (W. Gibson, P. Gilhousen, W. Halliday, and 2 prospects, R. Boyer and C. Harrison) spent Saturday [26 May 1951] afternoon and evening combing the woods and bistros of the Concrete, Wash. area for loggers and other old timers. The cave on Jackman Creek was unknown, and location data proved faulty, but we found a Mr. Mac McQuinn [sic. H.E. McQueen] who had used a cave as a winter camp. The next morning he led us over logging roads to the imposing entrance of the cave, adjoining a small lime quarry. Unfortunately its operations some 15 years ago had caused a rockfall preventing access to the unexplored rear of the cave so that all that was left was a short entrance passage to a room 25' in diameter from which several 25' crawlways lead off, one to the base of a small sinkhole. The cave, despite its small size, demonstrates classical vadose and phreatic features, and appears to be located in a roof pendant despite its location at the edge of a bench. Only about 5' of overburden exists, so only tiny formations are present.

"Making up for the size of the cave is the view from its entrance, located 2500' almost straight up from Lake Shannon. 10,000' of Mt. Baker's awe-inspiring cone and most of Mt. Shuksan's more rugged height may be seen from its fern-draped mouth. Though discovered many years ago by a Mr. Weaver, the cave is known locally as 3 Mile Creek Cave. To our knowledge it is the first true limestone cave found west of the Cascades.

"Return was via the equally scenic Mountain Loop Highway. Caves near Darrington turned out to be prospect shafts, but near Monte Cristo Junction, several holes in a high cliff were noted for future investigation. Their bedrock was not evident." [From Cascade Cave Report No. 2, p. 1, June 10, 1951.]

BOOK REVIEWS

by William R. Halliday, M.D.
NSS 812 LH

GLACIERS AND LANDSCAPE. By David E. Sugden and Brian S. John. Edward Arnold, London, 1976. 376 pp. 12 pounds sterling. Available from Halsted Press, John Wiley and Sons, Inc., 1 Wiley Drive, Somerset, NJ. 08873. Price not quoted for hardbound. $12.50 for paperback.

This new reference and textbook on glaciology is properly subtitled "A Geomorphological Approach", and as such, contains a chapter on "Meltwater as part of a glacier". Building upon recent comparisons by fellow glaciologists of glacier features to karstic features, they consider moulins (glacier dome-pits), caves, and related features to be karstic rather than pseudokarstic, and hypothesize on theoretical cross-sections in vadose, fluctuating, and phreatic zones in glaciers. They refer to evidently important glaciological studies apparently not yet reviewed by speleologists, and have advanced no further into recent glaciospeleological literature than the 1970 issues of *Studies in Speleology*; it seems particularly strange that these noted British authorities would not be familiar with the extensive French and Swiss glaciospeleological studies of the turn of the century. But at least the book stands as a beginning of the much-needed interdisciplinary bridge between glaciology and speleology. And a pungent reminder that Chearley Anderson and I need badly to update that 1970 article. The 1970 map they reprinted shows only about 10% of the Paradise Ice Cave System now mapped.

THE WORLD OF CAVES. By A. C. Waltham. G.P. Putnam's Sons, New York, 1976. 128 pp. $12.95 hardbound. 140 full-color plates.

Even first glance reveals that this is the most beautuful cave book published to date, and second glance shows that the color plates are keyed to the text quite admirably. While the format recalls the text of Tony's earlier CAVES (now being remaindered in the U.S., incidentally), there is much new coverage oriented toward speleology on a global scale, and the text and photos are global indeed. Quite properly--in this reviewer's opinion--the text begins in the Karst, and the frontispiece looks to me like Pierre St. Martin. Castleguard Cave in Alberta recieves particular attention. Despite some fine photos of U.S. caves by Russ Harmon and others, Tony's coverage of U.S. caves is perhaps the weakest part of the book, in part because of some silly-looking trivial errors. Mount Rainier is NOT in the Rocky Mountains, for example, nor Mammoth Cave in the Western Appalachians. These should not prejudice the American reader who can both enjoy and learn much from this fine new book.

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Quantities are limited in some cases. If you want any caving-related equipment not listed here, please ask for it. The store is here to serve you, so take advantage of it.--B.C.

THE CASCADE CAVER
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Take Nothing but Pictures
Leave Nothing but Footprints

ALL-GROTTO TRIP

On Columbus Day Weekend, Oct. 9-11, will be a caving trip to the Mt. Adams lava tube area which we hope most of the Grotto will attend. Original planned meeting place was Peterson Prairie Campground, a few miles west of the town of Trout Lake. However, there is no water there now and the place may be crowded with hunters. Upon talking to others who are going we have concluded that the best meeting place is the campsite at DEADHORSE CAVE. There is (still) clean water in Deadhorse Creek. If you don't know how to get there, ask someone who does (like me).

There are approximately a hundred caves known in the area. A trip through Dynamited Cave, doing most or all of the pits, is planned. Come one, come all!

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COME TO THE SEPT. GROTTO MEETING! THIS MONDAY THE 20TH!
THIS MEANS YOU!