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THE NEWSLETTER
OF THE AUSTRALIAN
SPELEOLOGICAL FEDERATION

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This winter has been a severe one in Southern and South-Eastern Australia, so the snow and rain may be a major factor for the scarcity of Society news this letter. The other factor may well be the September panic when people realize that Exams are 2 months away. But "after the exams" when summer is firmly established and the mud on the dirt roads dries to an all-penetrating dust, we foresee a new surge of energy. The major event at the end of the year is the 3rd Conference of the Australian Speleological Federation

in Canberra from the 27th to the 30th of December. Reports from David Purchase indicate that the Canberra Society, hosts for the conference, have most things under control. Some points aren't finalized but remember that Canberra has few cavers so they are relying on the support and suggestions of other societies. Some of this support, though originally promised, has not yet been realized. The actual conference is to be held at the Y.M.C.A. camp, Stuart Island, near Canberra. This camp is in a very pleasant setting. The all inclusive cost for the four days conference is £5 to £6.

The post-conference field trips are interesting, and designed so that "interstaters" can gain an appreciation of Southern N.S.W. caves, whilst the N.S.W. cavers and any other keen people can concentrate on some solid original work. People taking part in the field trips will be divided into three groups depending on whether they can stay three weeks, two weeks or one week. The tentative programme for these groups is on the enclosed insert. If enough people are interested in a caving come bushwalking trip into a more

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inaccessible area, there may be a trip to the "mythical bottomless caves" of Bendethra. Group C (one week only) will spend the whole time at Yarrangobilly, and any one who wants to squat longer in this highly potential area will be encouraged to do so. Of all the areas to be visited Yarrangobilly is the most caverniferous and the most renown. Let's hope the Tasmanians can answer the question of whether Yarrangob is as speleologically spectacular as their fabulous Mole Creek. But be warned, the final answer may be biased !! A brief tourist blurb on other areas to be visited will now follow.

Wyanbene :- 30 miles south of Braidwood N.S.W. near the Shoalhaven River. Here there is a moderately extensive, attractive stream passage cave which might have rewards for further exploration. Nearby is the Big Hole which is not in limestone yet is of interest.

Bungonia :- About 100 miles south of Sydney. This area is an elevated limestone plateau over 1000 feet above the Shoalhaven. There is a magnificent gorge, as well as numerous holes, none of which reach to the level of the bottom of the gorge.

Wee Jasper :- An interesting area where the Canberra cavers have done a lot of solid exploration and research. It is the main area where bat banding is carried out in Australia, and no doubt David Purchase and his helpers will demonstrate techniques and theories in this interesting side-line of caving. The Dip Cave with its series of parallel passages is fascinating. Then there is the large complex Punchbowl Cave which has now been linked with the Signature Cave by the effort of "human moles". Over 2000 Bent Wing bats have been banded in the Signature Cave. Punchbowl Hill is riddled with holes but may have little prospects and at least one has foul air during some seasons. Then there is the partially explored Dog Leg Cave which is usually blocked with water and/or sand. But if the season is a dry one a party may be able to force their way into impressive chambers and follow extensions further than the Canberra cavers have been able to get.

Coolamon :- Up in the Snowy Mountain area. Once again impressive scenery with gorges which represent former great risings of underground drainage. Cooleman and Murray's Caves are in the side of one of these gorges.

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A.S.F. BUSINESS :- Very little has come to hand for publication. However I've received a huge pile of overseas speleological literature from the secretary. It will be reviewed, then passed onto the Librarian. No report from the Treasurer except that he is horrified with how much I'm spending. Still this is a treasurer's privilege ! If it wasn't for the voluntary help of people not directly connected with A.S.F., this Newsletter would cost a lot more. No sub-committee reports are at hand except that I heard from "the horse's mouth" that the Yarrangobilly Sub-committee has achieved it's purpose and that S.S.S. has the final report. The first of the three articles to appear in "Walkabout" are in the hands of the "Walkabout" Editor. We are still awaiting much of the promised material.

Bat Banding in Australia:- We wish to bring your attention to the first published paper on this research project. We hope this is only the first of a long series by numerous authors. Purchase, D., & Hiscox, Pauline M., 1960 - First Report on Bat Banding in Australia, C.S.I.R.O. Wildlife Research, Vol. 5. No. 1, pp. 44-51. In this paper the authors describe the methods of the bat banding programme which commenced in 1947 initiated by a C.S.I.R.O. officer and carried on by the authors and other members of the Canberra Speleological Society. The aim of the project is to study the ecology of the cave dwelling species of the Australian Microchiroptera. Long distant movements are discussed in detail and indicate a probable seasonal migration of Miniopterus schreibersii blepotis.

At the time the paper was written the greatest distance between point of banding was 180 miles (from Wee Jasper to Gabbo Island, ?). Since then a bat banded at Narrengullen was recovered in Sydney 165 miles away. Recovery records certainly prove that bats of the above species get around. At the end of July, 4,103 bats of 5 species had been banded.

Programmes of bat banding are now being discussed by other Australian Societies including the Northern Territory and Port Moresby Speleological Societies. S.U.S.S. members have been bat banding at Burringjack Dam with the Canberra cavers. They are now bat banding in railway tunnels around Sydney ! Also a member of the Kemsey Society and the Zoology Staff of the University of

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New England, Peter Dwyer, is banding bent wing bats in the Armidale region.

Australians Caving in India and Kashmir :- Reports of caves in the massive limestones of the foothills of northern India and Kashmir have enthused two Sydney (S.S.S.) cavers so much that they have set off for these areas, and hope to get there for the month and a half of clear weather between the monsoon and the winter. As far as they can ascertain no serious speleological activity has been carried out in this part of Asia apart from investigation of "temple caves". Many of us would like to have our gear on the yaks which these two, Paull Rose and Tom Hayllar, intend to hire.

Third International Congress of Speleology :- The essential events will take in Vienna between September 18th & 23rd, 1961, and will be continued in Obertraun (Upper Austria) from September 24th to 26th, with the final meeting in Salzburg from September 26th to 28th. Excursions will take place both before and after the conference. Topics for discussion are 1. Physical speleology including Karst Phenomena. 2. Cave fauna and flora in recent times. 3. Cave Palaeontology and Archaeology. 5. Practical Speleology.

I have received a limited number of the first circular and application forms. If interested let me know. Applications must reach the Congress Secretary by 31st October, 1960.

Collection and Identification of Cave Fungi :- Dr. D.M. Griffin of the Department of Agriculture Sydney University has expressed interest and a willingness to examine cave fungi. The fungi should be handled as little as possible and not with fingers or hands. Lift from ground with knife etc. and place in sterile (if possible) Petri dish or other glass, or metal dish. The dish is then wrapped in paper and information regarding Cave, date, amount of natural light, size and number of colonies, colour, height and what they are growing on. The wrapped dishes can be carried in a convenient sized "M. & B" container. Photographs of the colony may be helpful. Specimens should be sent to Dr. Griffin, or Miss B. Dew, C/- School of Public Health of the same University.

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Collection of Cave Mites :- Messrs R.V. Southcott and H. Wormersley of the South Australian Museum are willing to identify and comment on cave mites sent to them. All mites found in caves including those living on bats and in bat guano are of interest. Mr. Wormesley has already published papers on bat mites, and a paper on mites from Bat guano is coming out in the Records of the South Australian Museum this year. Also remember our Secretary, Peter Aitken, who is an entomologist with this museum is willing to examine any cave insects sent to him.

Society Activities:-

Sydney Speleological Society :- Cave divers of this society culminated three years work when leading diver Brian Weston forced an underwater connection between the Olympian and Fig Tree Caves at Wombeyan. During this operation the "transisterized base to diver communication equipment" developed by Henry Fairlie-Cunningham, was proved highly successful under operational conditions. Diving has also been undertaken at Jenolan where a 120 ft. passage was found to lead from the River Styx Pool, but a tight underwater squeeze blocked further progress. Another dive in the Junction Pool proved extensive passages with some air pockets. They also did a lot of semi-dry caving at Jenolan using scaling poles without much success.

Canberra Speleological Society :- A lot of their activities are in the form of research projects. These include geomorphology of the Dip Cave, Wee Jasper, and collection of water samples to survey solubility rate of various limestone by Joe Jennings; Bat banding and ecology by David Purchase; investigation of speciation of Raphidophorinae (cave locusts) by Ederic Slater; whilst Edith Smith is surveying the Punchbowl Hill at Wee Jasper. A theodolite surface survey of the Punchbowl Hill at Wee Jasper has been completed. Wee Jasper is the main area for trips but they have been "sightseeing" in other areas, and at Easter 10 members walked into Bendethera. The general opinion is that the caves at Bendithera are not worth the effort required to reach them.

Victorian Cave Exploration Society:- Have been showing an interest in the non-limestone caves which are common in the Western Victorian volcanic rocks and in the granites in the hills around Melbourne. They descended down what is believed to be a volcanic pipe at Mt. Eccles. They even report volcanic stalactites. They are also continuing work on the "potholes" at Murindal.

Sub-Aqua Speleological Society of Victoria:- As there is a lot of water coming down the Murindal River they have not entered the Pyramids resurgence since Easter. However they have now begun investigating the resurgence of Scrubby Creek (a tributary of the Buchan River). As the only surface entrance is very tight, a dive was made using a "Hookah Hose Unit". Johnny Discoll penetrated 50 feet upstream but a narrowing of the passage and the drag of the hose forced him back. This resurgence has promise as there is a considerable underground water-shed behind it, and where the creek emerges there are extensive terraces of calcareous tufa.

Kempsey Speleological Society:- Are achieving results at Tomagong though rock falls are proving a nuisance. They believe they have entered one cave for the first time to find some interesting spelian decoration. They believe that depositional activity has been rejuvenated in fairly recent times. They are also helping Peter Dyer in his bat banding work. He has so far visited the bat caves at Yessabah and Carrai.

Northern Territory Speleological Society:- We have seen a brief press report that they have definitely found the "mythical Kintore Caves". They descended a shaft in the floor of a known cave and found an extensive system with stream and all. Hope we'll have more precise information in the next issue.

Please Note that a supreme effort will be made to distribute the December issue by the 1st December so that it will contain the latest information regarding the conference in Canberra. Please send me all material for publication by November 7th.

Health and Nutrition for Cave Explorers:- Once again we would like to bring your attention to the advisability of anti-tetanus immunization for cave explorers, as tetanus is caused by extremely powerful poisons produced by bacteria found in soils rich in organic matter, i.e. bat guano. Need we say that tetanus is very

unpleasant and often fatal. We know of no cases amongst Australian cavers but that does not mean the danger does not exist. C.E.G. (S.A.) and S.U.S.S. are encouraging members to be immunized. A short paper on tetanus immunization appears in the Bulletin of the South African Speleological Association, 1960, Part 2, page 29.

Also in Part 2 of the 1960 edition of the South African Bulletin, there is an article on Nutrition (page 42). We all get hungry underground, but few of us know what we should carry to provide energy for prolonged physical exertion, or long waits in the cold and damp.

Have you tried Sesame Halva Bar? This bar is made out of the very oily sesame seed which is rich in protein as well as fat. The bar is sweetened and sometimes chocolate flavoured. It is very squashable, but because of the oil it extrudes should be carried in a plastic bag. However, it is thirst provoking.

LATEST A.S.F. ANNOUNCEMENT:- Since this Newsletter was edited and the stencil cut, we have received word from the Secretary, Peter Aitken, that he is unable to continue in this capacity. Because of specialized training he received in the British Army, he has been "co-opted" into the Australian Citizen Military Forces. This makes large inroads into his spare time. On top of this he has to take part in a field trip at the end of this year, in his capacity as Assistant Entomologist with the South Australian Museum. It is extremely unfortunate that this should happen so close to the Conference time. But under the circumstances Peter has made the only decision possible. No doubt he feels that it is better to put his cards on the table, than to continue as Secretary in name only. Until the end of the year, our President, Elery Hamilton-Smith, will handle all correspondence which should now be addressed to him C/- Victorian Association of Youth Clubs, 16 Simpson St., East Melbourne, C.2.

Next year A.S.F. will need a new Secretary. Any nominations ?

Reviews of Latest Literature:-

Annales de Speleologie:- We are extremely fortunate to have received the following copies of this important speleological periodical:- Volume XIV parts 1 - 2, & Parts 3-4, 1959; Volume XV part 1 & part 2, 1960. The scope of papers in this periodical is tremendous and deal with most natural sciences studied in or from the spelian environment. I shall now briefly mention some of the papers in Vol. XIV, parts 1 - 2.

The section on physical Speleology includes papers on:-
 "The Distribution of CO₂ in the Karsts" by H. Rouges, p.9 - As the solubility of CaCO₃ is correlateable with the partial pressure of CO₂ it was essential to know the rules governing partial pressures in the interior of a karst. The pH & T.A.C. & temp. of subterranean waters were measured, revealing variations in particular cases, characteristic of a certain type of karst. pH and T.A.C. readings were taken at resurgences and were similar for each valley investigated.

"The Major Cavities of France and their relationship with Climatic conditions." by J. Corbel, p.31 - By use of an "excavation index" major cavities are defined. This index is L by l by h, where h = vertical depth; L = Length of longest axis of the cave; l = length of short axis perpendicular to L. Ten major cavities are listed and these divided into 2 groups - caves made by streams in karsts only in areas of mountain with high snow fall eg. Sierre St. Martin, - and those big caves formed by streams in zones which has high snow fall during the Quaternary and always include important fossil (dead) sections. eg. Pardinac.

The section on biological speleology includes papers on:-
 "A contribution on the Study of cave dwelling Coleoptera" by Mme S. Deleurence, p.101 - a study of one genus of this group of insects shows that subterranean life has not only produced some morphological changes but also influenced functional biology, as they have longer life and slower development, fewer eggs are laid, and number of moultings and period of larvae nutrition is influenced.

"The Protée and its biological interest" by A. Vandel and M. Bouillon, p.111. - This is a fascinating review of the knowledge of the "Blind Cave Newt" (*Proteus anguinus*) of Europe, as well as a paper on the authors' researches into the reproduction and evolution of this animal.