

INTERNATIONAL UNION OF SPELEOLOGY  
UNION INTERNATIONALE DE SPÉLÉOLOGIE

## Commission on Volcanic Caves



**Newsletter**  
**June 2002**

# 36

*This Newsletter is send free to all  
members of the Commission.  
It is not possible to subscribe - but  
will be send to all interested in  
lava tube caves.  
News and information always  
appreciated!*

Honorary President: Dr. W.R. Halliday  
bnawrh@webtv.net

*Chairman & editorial address:*

J.P. van der PAS  
Vauwerhofweg 3  
6333 CB SCHIMMERT  
Netherlands

jpgvanderpas@hetnet.nl

- in this newsletter a summary in Spanish about the Geological Congress hold in Argentina. Silvia Barredo, commission member, organized the speleological part. She hopes soon to do some exploration in some volcanic caves (in Argentina).

- Bill Halliday reports he had a talk about 'Lava Tubes as Groundwater Conduits on Hawaii Island' at the regional GSA meeting. (Well received...). He points out he will probably talk about this also at the Japanese Symposium in 2003 (see note on page 7).

- the Pseudokarst Symposium announced for 2002 in Austria was cancelled at the very last moment. It is shifted to 2003 (still in Austria).


- as mentioned before: next symposium on Glacier Caves will be in September 2003 on Svalbard (for some 'Spitsbergen').

- as you see in this newsletter 'the Azores' propose the XIth Symposium on Lavatube Caves in 2004 (the year before the UIS congress in Athens). To be supported by all!

## Contents of this Newsletter:

page 4/5 report **Argentina**

6/7 info symposium **Iceland 2002**

 8/9 proposal **Açores 2004**

10/13 some info **VULCANIA** (France),  
including environment (Auvergne)

14/29 Bill Halliday - **Mowich Cave**

30/31 more about **Açores**

Some notes about several past and coming symposia.  
See also next pages.

On this and next page a summary by Lic. Silvia Barredo, who organized the **First Speleological Symposium** as part of the XV Congreso Geológico Argentino. Due to timelack only in Spanish....

She claims to conduct soon new exploration in some little but very interesting exploration in volcanic caves in south Argentina.

#### XV CONGRESO GEOLÓGICO ARGENTINO PRIMER SIMPOSIO SOBRE ASPECTOS GEOLÓGICOS Y AMBIENTALES DE LA ESPELEOLOGIA

Durante la semana del 23 al 26 de Abril pasado se llevo a cabo el XV Congreso Geológico Argentino en la ciudad de El Calafate, provincia de Santa Cruz (Argentina) con la participación de geólogos nacionales e internacionales de primer nivel. A pesar de las dificultades económicas que atraviesa nuestro país concurrieron mas de 600 personas al evento cuyos resultados superaron enormemente las expectativas iniciales.

Los simposios abarcaron diferentes temas no solo estrictamente geológicos sino abiertos a la sociedad: La Enseñanza de las Geociencias en el siglo XXI, Geología Urbana y Geología Ambiental, Geoprocesamiento, Nuevos escenarios de la exploración minera en la República Argentina, entre otros y también hubo talleres donde se destaco el de Geoarqueología, liderado por uno de nuestros asesores en la F.A.d.E (Federación Argentina de Espeleología) Dr. Marcelo Zárate (Profesor titular en la Universidad de La Pampa).

Aunque los protagonistas indiscutibles del evento fueron los Simposios sobre Fajas Plegadas y Corridas Subandinas y Subducción Horizontal una de las vedettes del congreso fue la **Espeleología** que se presento dignamente frente a una comunidad científica mayormente escéptica ante esta temática, al menos en nuestro país.

Participaron de las charlas espeleológicas, geólogos de las empresas Repsol – YPF, Tecpetrol, Panamerican, Texaco internacional, entre otros. Expertos en Tectónica, glaciología, sedimentología, geomorfología y mineralogía de España, Francia, Argentina, EEUU, Colombia, Venezuela, Chile, Japón además de numerosos alumnos interesados en esta disciplina como futura aplicación de sus carreras, guías de montaña y andinistas locales.

El simposio se abrió con la conferencia del Dr. Víctor Ramos, conocido científico nacional y coordinador de Geoparques y Geosítios para América latina de la UNESCO. Durante la misma Ramos sienta las bases para la elaboración de áreas temáticas o geoparques no solo desde el punto de vista geológico sino también antropológico, biológico etc. Los resultados fueron altamente satisfactorios porque guardaparques y autoridades de diferentes provincias tuvieron la oportunidad de acceder a la información base para la ingeniería de estas nuevas áreas y por supuesto surgieron numerosos proyectos que espero se lleven a cabo en un futuro no muy lejano. Seguidamente se desarrollaron las sesiones de charlas donde debo destacar la labor de nuestro colega Javier Elortegui Palacios, (CEC, Córdoba), quien presento un trabajo sobre los fenómenos kársticos en el Valle de Punilla Córdoba con énfasis en la





cueva Piedras Grandes, que despertó mucho interés en la audiencia. Sin embargo y sin entrar en detalles sobre otras exposiciones, creo que la conferencia que dio el Dr. Adolfo Eraso (España) sobre "Los glaciares árticos y antárticos ante el calentamiento global. Importancia del criokarst" a sala llena...supero cualquier expectativa. Su carisma y claridad expositiva hicieron que tuviera que repetirla mas tarde con un presentismo notablemente alto. La audiencia salió entusiasmada y ya hay proyectos en curso para futuros trabajos con nuestros expertos nacionales y por supuesto con la colaboración de Adolfo. Aquí quiero detenerme para subrayar el interés puesto en este simposio por éste nuestro colega y amigo y, toda la colaboración desinteresada que nos dio en esos días, además de las cátedras sobre karst glacial y morfología glaciaria en las cuevas de hielo del Glaciar Perito Moreno. Espero que en un futuro trabajemos juntos en la puesta de estaciones de medición y en el análisis probabilístico de la predicción de zonas de drenaje interno y en la aplicación de series de tiempo a los ciclos glaciarios. La comitiva nacional contó además con integrantes de GEA (Grupo Espeleológico Argentino), entre ellos **Mario Pettersen** especialmente invitado por el congreso para integrar la mesa Redonda sobre "Patrimonio Geológico: Legislación y Manejo de áreas naturales", con autoridades nacionales de primer nivel. Mario acerco la problemática de nuestro sistemas cavernarios mas importantes como Cuchillo Cura y Brujas (actualmente centro de debates, enfrentamiento entre grupos espeleológicos nacionales y mal manejo) al presidente del Consejo Profesional de Geología a representantes de la Asociación Paleontológica (APA) y la Asociación Geológica Argentina (AGA) y al coordinador del único parque temático nacional reconocido por la UNESCO, Dr. Ruben Cúneo, quienes acordaron trabajar juntos en la elaboración de una nueva ley nacional de protección del Patrimonio Geológico Argentino la que será elevada ante las autoridades pertinentes para llegar al Senado de la Nación. También estuvo **Eduardo Tedesco** quien se encargo del tema topografía ante los interesados. GEA armo un *stand* en un área de exhibición y fue visitado por la totalidad del congreso. Allí nuestro colega dio cátedra y contesto numerosas preguntas. **Silvia Chávez** (ex colega de GEA) trabaja actualmente en el área de sensores Remotos del servicio Geológico Minero de la Nación, realizo los posters que acompañaron la muestra y que acapararon la atención del publico ya que sintetizan armoniosamente la actividad espeleológica nacional. Nos ayudaron también los Biólogos locales: **Claudia Guerrero** y **Damián Fernández** quienes además de facilitar la logística participaron del congreso y en la coordinaron de la vista a las cuevas de hielo

del glaciar Perito Moreno y las cuevas en arenisca de la zona del Cerro Calafate y Walichu. Con ellos hemos establecido los lazos para seguir explorando la región pero sobre todos desde el punto de vista glaciokárstico.

Otros geólogos estructuralistas como **Roberto Rodríguez Fernandez** (España) aportaron información que abrió el camino hacia proyectos exploratorios en la zona de la faja corrida y plegada del segmento de subducción horizontal donde los corrimientos estan fuertemente controlados por rocas calizas y yesosas y, si bien el clima no es el mas apto, quien estamos estudiando la deformación en alta cordillera y Precordillera hemos encontrado rastros de fenómenos kársticos actuales de pequeñas dimensiones pero también evidencia de cavernamientos mayores posiblemente vinculados a restos de paleokarsts exhumados.

Quiero destacar finalmente el aporte de **Horacio Costa** (GEA) por su edición de videos y todos los que enviaron información para la mesa redonda en especial a **G. Redonte** de **FADE - GEA** y a **C. Benedetto** (INAF) para discutir la problemática del manejo de áreas con cavernas. A la **Secretaría de Medio Ambiente y Desarrollo Sustentable de la Nación** por auspiciar el simposio. También al **Dr. Manuel Moreno** y a **Hernando Martinez Sacristán** de Colombia, **Alexis Perez** de Cuba, **Graciela Vujovich** (Canadá), **Abel Vale** y al **Dr. Urbani** (FEALC), a los Dres. **Miguel Haller** (presidente del congreso), **José Selles Martínez** (comité organizador), **Hector Ostera** (responsable del comité editor), a **Susana Valencio** (tesorera) y a **Victor Ramos** (presidente del comité Científico) por sus buenos augurios y por acompañarme hasta el ultimo momento con sus mensajes de aliento.

Hoy puedo decirles que todo esto es mas que un primer paso, hemos saltado a una nueva dimensión donde lo interdisciplinario es ya un hecho. La "espeleo" ahora es una ciencia mas dentro de las naturales en nuestro país y tenemos el orgullo de decir que ya somos **tenidos en cuenta**.

**Mas de 20 años de "espeleo científica y exploratoria" en Argentina estan dejando sus frutos. Claro es que a lo largo de estos años no pasamos desapercibidos pero intuyo que ahora sonamos mas fuerte!!!!**

Silvia Barredo  
Coordinadora del Primer Simposio sobre  
Aspectos Geológicos y ambientales de la espeleología  
GEA (Grupo Espeleológico Argentino)  
UBA (Lab. Tectónica Andina - Universidad de Buenos Aires

Here again all info about the 'Iceland' symposium coming September (2002).

As good news in the mean time the proposal came for the next (XI<sup>th</sup> International Symposium on Vulcanospeleology) to be on the Azores. See next pages.

## X<sup>th</sup> International Symposium on Vulcanospeleology

September 9-15, 2002 Reykjavík, Iceland

### Preliminary Program

#### Proposal – Subject to change

**Monday Sept. 9:** Registration at Grand Hotel from 09:00 to 17:00.

**Tuesday Sept. 10.** Registration at Grand Hotel from 09:00 to 12:00. At 13:00 a bus will depart from Grand Hotel for an excursion around the Reykjanes peninsula. A qualified guide will take the symposium's participants and accompanying persons to various Holocene and Quaternary volcanics of aerial or sub-glacial origin. Several caves sites/lava-flows will be visited. The tour starts in the Bláfjöll region southeast of Reykjavík and we will have a good view of the Þríhnúkagígur pit. From there we will visit the 800 m long lava-tube Leiðarendi, with a peculiar younger lava that has flowed into collapses of the underlying tube and partially blocked the passage. Caving gear is required, an oversuit, boots, helmet, gloves and lights. From Leiðarendi the trip goes to Krísuvík, with numerous lava-flows and geothermal activity and to the very tip of the Reykjanes peninsula. There are historical hyaloclastite craters partially eroded by the surf, and further inland are nice lava-crater or spatter cones to be seen. From Reykjanes we drive back to Reykjavík, where a reception will be held (location to be defined).

**Wednesday Sept. 11** Oral/poster session at Grand Hotel. Further program is to be defined later, but each oral presentation will take 15-20 min. each, depending on the amount of submitted material. The session will begin at 09:00 in the morning, with coffee break from 10:00 to 10:20 and a one-half hour lunch break (included in registration fee). Another coffee break will be taken in the afternoon.

**Thursday Sept. 12** Same as above – oral/poster session from 09:00 to 17:00.

**Friday Sept. 13** General excursion included in registration fee – whole day. The bus will depart from Grand Hotel at 09:00 and drive along the hot-water pipe between the Nesjavellir geothermal power plant and Reykjavík. The first stop will be at the drill-hole site near the power station. The geothermal area is situated in a graben-like structure and flux of geothermal fluids is naturally diverted along the lateral graben faults, where most of the production wells are located. From Nesjavellir we go the Thingvellir, the old Parliament site – overlooking the Thingavellir Lake. From there we will cross the ~9500 years old Goðahraun lava shield (~10 km<sup>3</sup>) where around 20 lava caves are known. Maybe a short stop will be at the hornito Tintron, surveyed by J. Reich in 1974. From Goðahraun the road takes us through the small village of Laugarvatn with abundant geothermal activity and lunch will be served at the hotel – overlooking the Geysir geothermal area with spouting hot-springs. After some time at the geysers, we head for Selfoss and our final stop will be at Ölfus, just west of the town Þorlákshöfn. There we will take about 1 km hike up-hill the lava flow Leitarhraun and go down the narrow entrance to Árnahellir, a famous lava cave in Iceland, with abundance of speleothems. A generator will be on-site and powerful lighting will be in the cave for a better view. The cave is a preserved natural monument and traffic is very limited and under the supervision of the Icelandic Speleological Society and the Nature Conservation Agency. Arrival in Reykjavík around 18:00 or little later.

**Saturday Sept. 14** From 09:00 to 12:00 at Grand Hotel. Panel discussion, meeting of the UIS commission on volcanic caves etc. Closing ceremony and rest of the day is free. At 18:00 a ferry will take symposium participants to the island of Viðey outside Reykjavík harbour where cocktails will be served at a welcoming ceremony and later we will enjoy dinner at the symposium's final banquet. Guests will be ferried back to Reykjavík later in the evening.

**Sunday Sept. 15** Excursion to Surtshellir. Stefánshellir and Víðgelmir in the Hallmundarhraun lava-flow. Departure from Grand Hotel at 09:00 and this will be a rather long day probably with a lunch-pack and stop for Icelandic highway hamburgers on the way home for those who want. Arrival will probably be around 20:00.

**Optional Post-Symposium trips.**

**Monday Sept 16**

**Tuesday Sept. 17**

**Wednesday Sept 18**

**Trip A. (Difficult)** Two, maybe three-day trip to the recently discovered cave-area around the Laufbalavatn in the Skaftáreldahraun (Laki lava, Eldhraun lava) formed in 1783. Most of the first day will be spent driving and playing tourist on the way east to the flow-field and accommodation will be provided in a hut that sleeps 18 persons and is owned by the local farmers. Bunkers and two gas burners are the facilities provided. The next day participant will be taken to the extensive cave area near the lake Laufbalavatn and most of the day spent caving. Arrival will be late in the cabin at Miklafell, and the following day will be used for getting back to Reykjavík.

**Trip B. (Moderate)** Also two or three day trip to the Snæfellsnes peninsula. This trip is not planned yet, but there are numerous caves and volcanic features on the peninsula worth looking at. Several places can provide accommodation, even in beds if preferred.

**Trip C. Undecided** Undecided. (Possibly a trip through Sprengisandur to the Mývatn area. Two or three days)



This announcement was received via Bill Halliday, with the note he will speak there also.

## **JSH02: International Symposium on Groundwater and Volcanoes**

*4 July 2003*

IAHS (ICGW) and IAVCEI

Although groundwater is one of the most important characteristics of volcanoes, groundwater hydrology is perhaps the least well understood component. The purpose of the symposium is to bring together hydrologists, volcanologists, geophysicists, geochemists, geographers, and civil engineers, to exchange current ideas and information concerning groundwater in volcanoes. The topics to be covered include: recharge processes, flow paths, and residence times for groundwater; origins and occurrence of groundwater; groundwater contribution to slope disasters; influence of groundwater on volcanism; interaction between groundwater and surface waters; and groundwater usage. Studies involving geothermal hydrological systems are also appropriate for this symposium.

*Main convenor:* **Dr Masaya Yasuhara**  
Geological Survey of Japan, Higashi, Tsukuba,  
Ibaraki 305-8567, Japan  
[tel.: +81 298 612409; fax: +81 298 613749;  
[masaya-vasuhara@aist.go.jp](mailto:masaya-vasuhara@aist.go.jp)]

*Co-convenors:* **Dr Stephen B. Gingerich**,  
US Geological Survey, 677 Ala Moana Boulevard  
#415, Honolulu, Hawaii 96813, USA  
[tel.: +1 808 5872411; fax: +1 808 5872401;  
[sbginger@usgs.gov](mailto:sbginger@usgs.gov)]

**Kohei Kazahaya**, Geological Survey of Japan,  
Higashi, Tsukuba, Ibaraki 305-8567, Japan  
[tel.: +81 298 613861; fax: +81 298 613749;  
[kazahaya-k@aist.go.jp](mailto:kazahaya-k@aist.go.jp)]

**Yuichi Suzuki**, Ritssho University, 1700 Mankichi,  
Kumagaya, Saitama 360-0194, Japan  
[tel.: +81 48 5391648; fax: +81 48 5391648;  
[ysuzuki@ris.ac.jp](mailto:ysuzuki@ris.ac.jp)]

**Dr Joseph S. Walder** (IAVCEI), US Geological  
Survey, Cascades Volcano Observatory,  
1300 SE Cardinal Court, Building 10, Suite 100,  
Vancouver, Washington 98683-9589, USA  
[tel.: +1 360 9938948; fax: +1 360 9938980;  
[jswalder@usgs.gov](mailto:jswalder@usgs.gov)]

On these two pages  
the proposal for the  
Symposium in 2004.

It should be support-  
ed by all members of  
our Commission.



REGIÃO AUTÓNOMA DOS AÇORES

SECRETARIA REGIONAL DO AMBIENTE

DIRECÇÃO REGIONAL DO AMBIENTE

UIS General Secretary  
Dr. Pavel Bosák, c/ o Czech  
Speleological, Kalisnická 4-6, CZ-130 00  
Praha 3, Czech Republic

Sua referência

Sua Comunicação

Nossa referência

Data

84-6/02 Vol. 27 n.9

Horta

29.05.2002 \*002847

Dear Sir,

The Azores Regional Government, through the Regional Secretary of Environment ("Secretaria Regional do Ambiente") and the "Azores Volcanic Caves Study Group" wish to organise, the XI International Symposium on Volcanospeleology, in Azores Archipelago in 2004. The "Secretaria Regional do Ambiente" will be able to provide the necessary facilities for the meeting, and financial and logistical support, while the "Azores Volcanic Caves Study Group" will ensure the adequate scientific and technical support.

It is expected that the quality of the invited speakers for the "Azores XI International Symposium on Volcanospeleology", together with a significant number of contributions from participants, will result in a fruitfull exchange of experiences and in the better knowledge of volcanic caves and its protection.

As it is well known, the Azores Islands are located in the North Atlantic Ocean, along the Mid-Atlantic ridge, at about 1500 km away from mainland Portugal and are composed by nine islands of volcanic origin, where about 250 volcanic caves are known. These caves have different sizes, shapes and a diversity of geological structures and troglobitic fauna. Torres Cave (in Pico Island) and "Algar do Carvão" volcanic pit (Terceira Island), are among the most impressive, the first with about 5 000 m of lenght, and the second with a depth of about 90 m. Four Azorean caves that can be visited at present times: "Furna do Enxofre" (at Graciosa Island), and "Algar do Carvão", "Aguilhas" and "Natal" lava caves (all at Terceira Island).





REGIÃO AUTÓNOMA DOS AÇORES  
**SECRETARIA REGIONAL DO AMBIENTE**  
**DIRECÇÃO REGIONAL DO AMBIENTE**

The so-called "Azores Volcanic Caves Study Group" ("Grupo para o Estudo das Cavidades Vulcânicas dos Açores") was created in order to evaluate, study and characterise the speleological patrimony of the Azores in 1988. This characterization includes a classification system for that patrimony which proposes adequate protection measures for each cave. Speleological groups, like "Os Montanheiros" (at Terceira Island) and "Amigos dos Açores" (at S. Miguel Island) together with local and regional authorities belong to this group.

We, at the Azores are deeply involved in the study of our wealth patrimony of volcanic caves and would most warmly accept the responsibility of organising the XI International Symposium on Volcanospeleology.

Looking forward to see you all in the Azores in 2004,

Best regards,

**O DIRECTOR REGIONAL DO AMBIENTE**

**Eduardo Carqueijeiro**

**C/C :**

**Chairman of UIS Comision on the Volcanic Caves**

**Dr. Jan Paul van der Pas**

**Vauerhofweg 3,**

**NL-6333 CB Schimmert, Netherlands**

**P.C./N.P.**

## A Quick Visit to 'VULCANIA' a (the) French volcano park

J.P. van der Pas

Some 350 km. south of Paris is the Auvergne, an area of volcanic peaks. Vulcanism started here some 22.000.000 years ago, with last eruptions 7.000 years ago.

The area is very scenic, but.... I passed it during the years several times but did not really stay, despite the promises of fantastic views, walls of basalt, lakes, and not to forget the 'Puy de Dôme', the nearly 1500m. high volcano, which can be ascended.

But weather can be lousy there, rain and fog will spoil all views. As happened this time, it was only that the fog lifted a little so I knew I was at the foot of a remarkable basalt formation, which I knew was near but invisible.

But now to the recently opened **Volcano Park**.

Is it worth to visit? Certainly, but if you have seen 'some' vulcanism don't come from the other side of the world for this.

It is easy to find if you are in the Clermont-Ferrand area: it is on signs all over the place.

Entrance fee is Euro 18, which in my opinion is not too expensive.

You can stay the whole day, and bring your own food or use one of the many cafeteria's or restaurants. If you are coming by own transport: don't forget an umbrella. It is a long walk from the parkings to the buildings.

The amount of exhibitions is enormous, there are many movies, from 'normal' size to enormous proportions. One of the bigger ones is in 3-D, with stunning effects and a tremendous amount of sound.

Another huge screen shows eruptions from all over the world, again with mind shattering noise. But one who has seen 'National Geographic' programs will know this (but not in this size!).

Spectacular is a (short) trip where you with the molten lava rush through a volcanic tunnel.

One of the many displays is dedicated to Maurice and Katia Krafft. It shows very good pictures of their explorations, together with items from their collection, all of the highest quality. Some very nice speleothems are included.

Another display is called 'lavatunnel', but only a very short part is dressed as a real tunnel, the largest part is filled with sound effects and mini-displays (video).

Another display shows mudpools and silica rims and dams.

Then there is the huge crater, indeed a big shaft with rumbling sounds from the deep, enhanced with 'smoke' machines. Impressive in size, but due to the fact a huge net is stretched out in it one has problems to look into the deep. But maybe it is too tempting for some to explore the bottom.



I visited in the middle of the week, in May. The place is visited by huge amounts of schoolchildren, and if you have the luck a few classes are just in front of you when trying to enter one of the cinema's.....

The whole complex is build on four levels, with rooms and galleries all over the place. Despite a 'plan' belongs to the ticket it pays to firts explore the different levels to make yourself familiar with the layout.

It should be noted there is a second park,virtually next door to Vulcania - '**Volcan á ciel ouvert**'.

This is actually an abandoned open air quarry, now a flat area, but before the 'Puy de Lemptégy'. After the quarry operations stopped it was transferred into an open air museum. All kind of volcanic features were highlited by remains. It will be seen how long this not very interesting park can exist besides Vulcania. A visit is not recommended (remember the rain).

**VULCANIA** can be seen on [www.vulcania.com](http://www.vulcania.com) (this site gives also openingshours, and more important: when it is closed).

July and August it will be open daily, but in other months it might be closed on weekends.

### Some places to visit near to 'VULCANIA' (France)

When in the Auvergne there are many speleologic places to be visited.

Around Clermont-Ferrand several 'grottes' are mentioned in publications and leaflets. However, I did not see anything like tunnels.

Very close to Clermont-Ferrand is the small town **Royat**. There are two very different caves, both of volcanic origin.

The first is **Grotte du Chien (Dog's Cave)**. This is a lava cavity in bubble form, estimated 10 m. high and some 20/30 meter circumstance. It has the same reputation as the Dog's Cave near Naples (Italy) - due to the volcanic activity still gasses are rising via cracks in the bottom. Not done anymore, but there has been a past when it was shown that dogs (and other living creatures) died when going below a certain level. Now this is shown just with candles. Entrance fee Euro 3.06, duration max. 20 minutes. Tour in French, but they show also a good video in English.

In the old days the gas was 'catched' and used in a small factory to make 'gazeuses'.

Comment. When I sent Bill Halliday a postcard of this cavity he remarked: I think I see a distinct accreted lining at the entrance, and some odd orifices and a terminal lava tongue - maybe a filled tube with open rudimentary branches. Some day..... Reproduction of this card in B/W is not clear enough for this publication.



*La grotte des Lavandières, lithographie du XIX<sup>e</sup> siècle.*

'Grotte des Laveuses'  
somewhere in 1800.  
High some 3 meter,  
width 8 meters.  
See sketch next page.

### **Grotte des Laveuses (Cave of the Washing Ladies)**

This is a small cavern along a small river (which flows through Royat), the Tiretaine. Dog's Cave is in the center, and this cavern is just uphill, some 30 minutes walk.

This cavity (see simple map) was used in the old days as an excellent washing place. Not only was there running water, it was also warm. However, this area was already in use in Roman times and has been changed dramatical in due time. Certainly during the last two centuries. It is a small cavity where the soft material under a solid basalt roof was washed away. Still water is coming via all kind of small holes out of the upper-hill wall, but it looks all very artificial now. I have two pictures, one from a book (19th century), and a postcard which must be from early 1900. Nowadays it is again different - certainly the environment.

But... with some fantasy an old lava tube can be imagined.

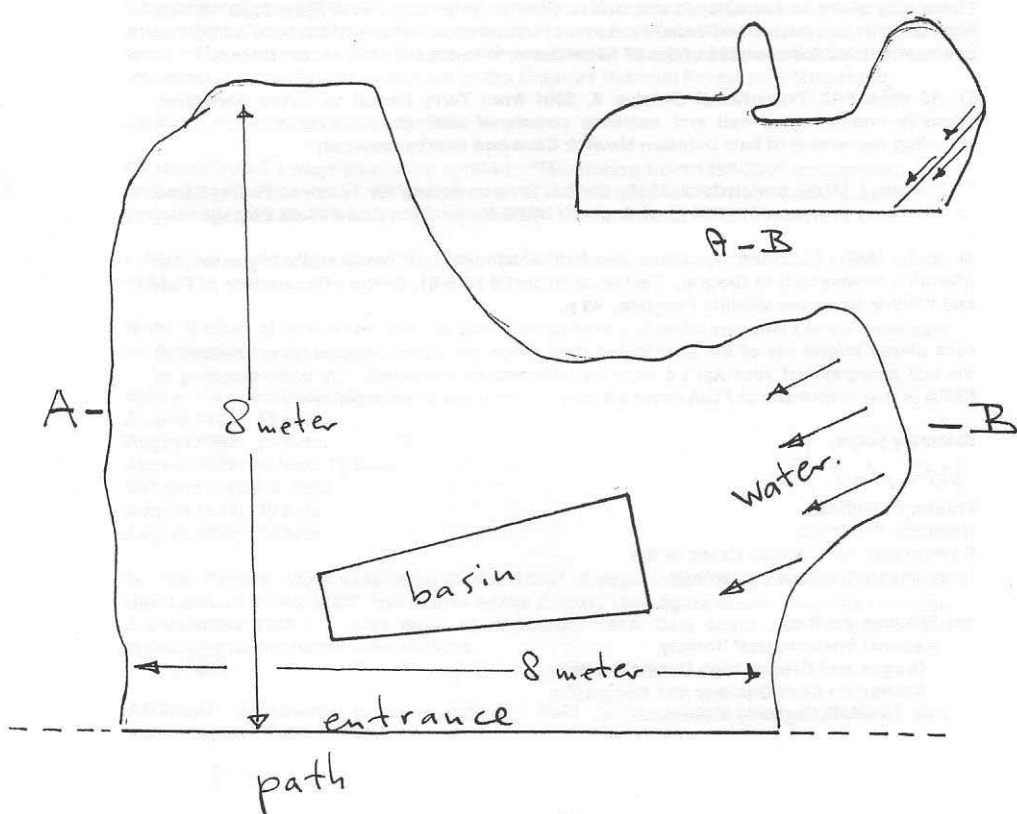
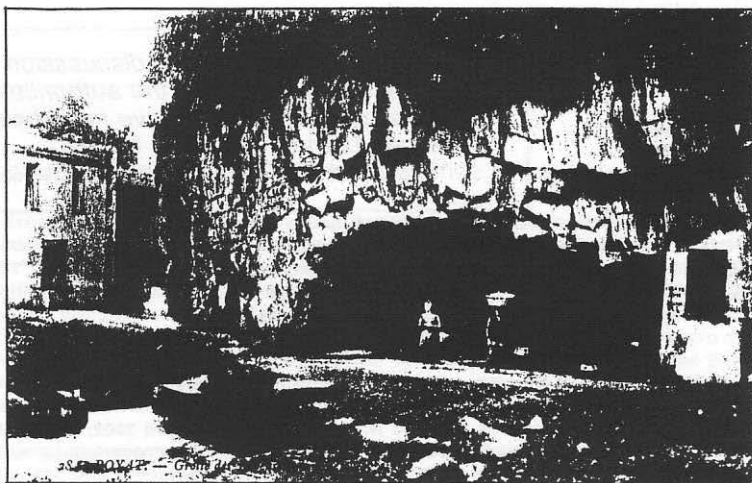
### **Grotte-Taillerie du Puy-de-Dôme**

This is just a tourist trap. You can not miss it if you go to the Puy-de-Dôme. DON'T GO THERE.

This is only (is this possible) an artificial tunnel, a 250 meter gallery with an exhibition, very unimportant, of minerals. Entry fee Euro 4,60. During your walk in this tunnel (via the building stones you can see the daylight...) you pass the 'calcite' area. In what is supposed to give impression of a lavatunnel suddenly a stalagmite is hanging from the ceiling.... Even the difference of mites and tites escapes them. In the end you go via a large shop which sells jewelry, some which is produced on the spot.

Due to the terrible rains, and non-visibility, some caveties mentioned on walking-maps were just not found nor reached:

Grotte de Puy de Goules (actually a Gallo-Romain quarry),  
Grottes at the Clierso,  
a lava-pit mentioned by Martel.





6530 Cornwall Court  
Nashville, TN 37205  
3 May 2002

James Caplan, Supervisor  
Umpqua National Forest  
PO Box 1008  
Roseburg, OR 97470

*In previous newsletters the discussion between Dr. Halliday and the authorities about access to Mowich Cave have been mentioned (and published). Here it continues on this and the next 15 pages....*

By Certified Mail

Dear Sir:

re: 6220-1 // 01-013-UMP

This is in further response to your letter of 4 April 2002 and enclosures.

Enclosed here is a list of documents received with your letter of 4 April 2002, in partial response to the FOIA request made through my attorney. If I have overlooked any document which you sent on that date, please inform me immediately.

In the body of this list, please find specified items referenced in these various documents which reasonably would be expected to be considered responsive to my FOIA request. These may all be in the delayed responses cited in your letter of 4 April 2002. If not, however, this is a formal additional Freedom of Information Act request for the additional documents cited following 24 of the 27 listed items, with the following exceptions:

- 1) 15 page FAX Transmissal October 5, 2001 from Terry Farrell to Cindy Barkhurst, primarily consisting of exit and entrance counts of bats at and near Mowich Cave, including movement of bats between Mowich Cave and nearby crevices;
- 2) Perkins, J. Mark. undated; ca. 1986. Central Oregon Survey for Townsend's Big Eared Bat, *Plecotus townsendii* / 1986 Final Report / USFS Requisition # 88-FW-86, 88 pages.
- 3) *ibid.* 1987. Distribution, status, and habitat affinities of Townsend's big-eared bat (*Plecotus townsendii*) in Oregon. Technical Report # 86-5-01, Oregon Department of Fish and Wildlife Nongame Wildlife Program. 49 p.

Also please inform me of the anticipated date when the other documents referenced in the last paragraph of your April 4 letter can reasonably be expected. My understanding of NEPA is that responses to FOIA requests may not be postponed indefinitely.

Sincerely yours,

*W.R. Halliday*  
William R. Halliday  
Honorary President,  
Commission on Volcanic Caves of the  
International Union of Speleology

cc: IUS (van der Pas)  
National Speleological Society  
Oregon and Oregon High Desert Grottos  
Section on Cave Geology and Geography  
M. Hood, D. Jagnow, S. Knutson

13

## APPENDIX

### Group 1 - Background

A. Extracts from "Habitat Conservation Assessment and Conservation Strategy for the Townsend's Big-eared Bat." Preparers not documented: "Idaho State Conservation Effort". August 1995. 14 of at least 52 pages; cover included but not title page. No specific mention of Mowich Cave. States without documentation that "the most serious factor (in population declines) is loss and/or degradation of suitable roosting habitat" and also that "all population declines are known to be due to human disturbance of most sites". Also implies problem from pesticide spraying. Differentiates between flashlight cavers and National Speleological Society members; differentiates between recreational cavers and researchers in closure periods.

Additional documents to be supplied: title page or other documentation of identity of preparers. Documentation of contradictory assertions of causes of population declines.

B. "Draft Management Recommendations for Townsend's Big Eared Bat, *Corynorhinus (Plecotus) townsendii*", Diana J. Howell, Team Leader. 43 p. 1995-96 Draft; lacks cover letter appended to 1998 draft. Prepared before the 2000 report on Barnum Cave and its bat population. No specific mention of Mowich Cave. Jim Nieland is a member of the study team. The Autumn window between the maternity season and hibernacula is clearly indicated. I supplied this document to the Umpqua National Forest thru Mike Hupp.

Additional documents to be supplied: none.

C. Unattributed 1-page tabulation entitled: "Monitoring from 1983-2000 documented year around use". No sources nor references. Presumably about Mowich Cave. Begins with prejudicial unfactual statement (see Document G). Omits March 1977 observations.

Additional documents to be supplied: documentation of each asserted figure except 1985.

Note: if taken at face value, this list would document a disastrous effect of the cave gate on August populations:

Spring 1984: trailhead sign removed

August 1985: 55 bats

August 1987: 50 bats

August 1990: at least 35 bats

Bat gate installed 1992

August 1998: 20 bats

August 1999: 10 bats

D. "Bat Report: June 1985 through May 1986" 2 page memo from Jessica Gonzales to Bob Leonard 5 May 1986", the source of the August 1985 figure above. No bats recorded 3 September 1985 and only three on 3 October 1985. Data scant and inadequate but apparently no nocturnal observations.

Additional documents to be supplied: field notes documenting dates/times and methodologies of observations.

E. Letter, 18 June 1999 from Jerry Farrell to Cindy Barkhurst. Refers to additional issue: grievance of Oregon High Desert Grotto of National Speleological Society against Umpqua National Forest about Mowich Cave, with "letters to the governor and such". Proposes vengeful response: permanent closure of cave. Notes that a June 17, 1999 count of 10 bats was a maximum. This was because the so-called count consisted of exit and entrance observations, which almost always count some bats twice.

Additional documents to be supplied: responses of Cindy Barkhurst and other staff persons of the Umpqua National Forest to this letter.

F. Unsigned memo dated 5 October 2001: "Re: Protection of Mowich Cave". A classical example of unsupported rhetoric, with at least one untrue assertion: "There is no doubt this species uses the cave year around" and a grandiose statement about "the opinion of the biologists AND scientists" (emphasis mine-WRH). Ignores the possible effect of the cave gate on the population (see Document C). Refers to alleged counts "in late September, October, December, January", and of a relevant report from Steve Cross, none of which has been documented despite repeated requests.

Additional documents to be supplied: field notes substantiating the supposed counts and the techniques, dates and times; also this and any other reports by Steve Cross.

G. "Mowich Cave History and the Biology of Townsend's "Big Eared Bats April 18,2000". Prepared by Michael Hupp with Jim Nieland. Previously supplied to me by Mike Hupp and discussed with him. Omits all of cave's history except that of its biological resources and part of its administrative history. Reports designation of Mowich Cave as "Significant" on 13 March 2000 (documentation of this not yet supplied to me). Devotes four lines to apocryphal Earl F. Moore "observations" which Mr. Hupp acknowledged to me were entirely unreliable. Mentions "years of monitoring by the Diamond Lake Ranger District"; this statement clearly is misleading hyperbole. Cites 1990 report by Perkins and 1991 report by Tuttle but does not reference them.

Additional documents to be supplied: field notes documenting "years of monitoring"; also 1990 and 1991 Perkins and Tuttle references cited in this document. Also documents substantiating designation of the cave as Significant.

H. Parts of letter from Mark Perkins to Bob Leonard, 10 March 1984. First and last pages only, with part of discussion of Mowich Cave continuing past page 1.

Additional document to be supplied: remainder of section on Mowich Cave in this letter.

I. Parts of memo dated 7 March 1989 to District Ranger of Diamond Lake Ranger District from Jessica Gonzales. First and last pages only (2 copies of last page).

Additional document to be supplied: remainder of section on Mowich Cave in this memo.

J. Telephone memo dated 29 August 2000 by Cindy Barkhurst, documenting conversation with Steve Cross. No consideration of nocturnal foraging pattern of bats, nor of possible impact of gate on bat population (see Document C). Speculates that cave may have had a substantial pre-1980 population; ignores 1977 observations. Speculates that "going into cave at any time in the fall" would cause the hibernaculum to move. Without documentation, asserts a need for "full year around closure".

Additional documents to be supplied: all reports by Steve Cross which may document some of these assertions. Also documentation of statements made by Ms. Barkhurst which elicited these statements which she attributes to Steve Cross.

K. Supposed 6 July 2000 letter of Merlin Tuttle (Bat Conservation International) to the Supervisor of the Umpqua National Forest. Not on letterhead, not signed; may be proposed letter which Dr. Tuttle never signed. No reference to contrary previous telephone conversations by Jim Kennedy of BCI with various staff persons of the Umpqua National Forest; these telephone memos have not been supplied to me. Umpqua staff communications leading to this supposed letter not included.

Additional documents to be supplied: signed copy of this letter; telephone memos of conversations of Jim Kennedy with Umpqua staff persons; staff memos documenting circumstances of the eliciting of this letter by Dr. Tuttle.

L. Sequence of five edited telephone memos dated September 2000 between L. Broeker, C. Barkhurst and J. Nieland. Forest Geologist Broeker described Mowich Cave as "an erosional feature (opening developed from weathering along intersecting joints and fissure) ...about 50 meters in length" rather than a lava tube cave with a published map which shows a length of 450 feet. He describes himself as an engineering geologist who was "a little bit suspicious" of our research proposal despite the geological eminence of my co-worker, Dr. Stephan Kempe, who is Professor and head of the Department of Geology at Darmstadt Technical University, and another member of the IUS Commission on Volcanic Caves. He is critical of our supposed lack of detail in the research proposal without considering the instructions in the application process. As Regional Cave Specialist and a member of the interagency team which authored Document A, Nieland recommended that we be allowed to enter the cave in the Autumn "window" of time. Ms. Barkhurst responded that she and Steve Cross disagreed. With no additional discussion, Nieland is then said to have reversed his recommendation, contrary to the Document A team conclusions. However, on 6 May 2002 he wrote that for him to either influence or discredit a decision of the Umpqua National Forest "would be considered a conflict of interest by the agency". Thus it is doubtful that this telephone memo is an accurate record of his statements. This document also refers to other discussions between Nieland and Broeker; no memos concerning these have been supplied.

Additional documents to be supplied: memos of other discussions between Messrs. Nieland and Broeker; letters or memos documenting statements by Steve Cross on this and related subjects.

M. Undated (post-23 August 2000) 4-page memo by Larry Broeker (see Document L) to J. Ouimet, District Ranger, entitled "Mowich Cave". This is a polemical document, not a scientific report. Without documentation, he repeats unsubstantiated statements about bat populations as if they had been proven. He asserts the same incorrect length of 50 meters for Mowich Cave as in Document L. He asserts that there are at least 27 other "cave features" along its bluff and refers to a detailed site map of the cave area which has not been supplied to me. He does not define the unusual term "cave feature", which does not appear in Glossary of Geology. (Although one small rockshelter is present a short distance east of Mowich Cave, apparently he is basically referring to crevices which are large enough for bats but not for humans. This is not in accord with the definition of "cave" in FCRPA.) He mentions a "written communique" from Jim Nieland which apparently has not been supplied to me. On the other hand, he has visited the entrance section of the cave and now recognizes it as a lava tube cave (see Document L for his contrary statement), and states that the bat counts "over the past 15 years" have been exit counts (although without mentioning the recognized inaccuracies of such observations and the lack of details on these supposed observations).

Additional documents to be supplied: substantiation of statements about bat populations and field notes documenting methodologies, dates, and times of bat counts. Detailed site map showing at least 27 "other cave features". Written communique from Jim Nieland.

#### Group 2 - Documentation of closure actions

N. 7 pages from US Forest Service "Environmental Policy and Procedures Handbook Chapter 20, effective 7/11/91. Does not include some sections of CFR cited by Cindy Barkhurst in Document R as relevant. See below.

Additional documents to be supplied: additional sections of CFR cited by Ms. Barkhurst; see Document R.

Oa and Ob. Two photocopies of undated (ca. 1991), unsigned Decision Memos: "Closure of Mowich Cave". (In his cover letter, the Supervisor of the national forest acknowledges that none was ever signed.) The texts assert that the project was not planned for public review despite CFR requirements. They justify categorical exclusion of the supposed basis that "there are no extraordinary circumstances that might cause the action to have significance". They provide disinformation on the availability of the cave experience for the people of the Roseburg area. The sensitive nature of the species was cited as justification for violating CFR requirements.

Additional documents to be supplied: interoffice and intra-office memos on the decision matrix for preparation and signing of this document.

P. Job order for installation of gate on cave "by May 31, 1992".

Additional documents to be supplied: interoffice and intra-office memos on selection of timing for installation of this gate.

Q. One page photocopy of potential sign headed PROTECTED, with logos of Bat Conservation International and Oregon Fish and Wildlife. Included is the following statement:

If you manage to get inside, you could place yourself in great danger from oxygen-depleted air, toxic gases, unstable rock, and vertical dropoffs....

In summer 1999, Dr. Kempe and I found such a sign inside the Mowich Cave gate, with a US Forest Service logo added. Jim Kennedy of Bat Conservation international has told me of having several conversations with staff persons of the Umpqua National Forest about this sign. No memos of any of these conversations have been supplied to date, nor any memos about the recent removal and replacement of this disinformation sign.

Additional documents to be supplied: interoffice and intra-office memos concerning removal and replacement of this sign; also telephone memos of conversations between Jim Kennedy and various staff persons of the Umpqua National Forest.

#### Group 3 - Documents relating to Congressional inquiries

R. Memo dated 22 March 2000 from C. Barkhurst to Mike Hupp, entitled "Reply to Senators Smith and Wyden". Ms. Barkhurst notes that no legal closure order was ever issued, and legally the Umpqua National Forest cannot enforce its closure by the gate. She seems to suggest retroactive issuance of a closure order. She describes the species as "unique" which it is not (in Oregon, these bats actually are only one of several subspecies), and "rare" which by Federal definition, it is not. She asserts that "district



reports" document years of Forest Service monitoring of the bat population (no detailed district reports of this type have been supplied to me), and that human disturbance is causing a significant population decline (without noting that Document C indicates that the principal "human disturbance" may be the gate itself). She recommends that "the lack of NEPA documentation is not an issue" despite strong assertions to the contrary from at least two reputable organizations independently. Further, she asserts that CFR category 31.1b, section 1 exempted the closure from NEPA provisions (no such CFR category has been supplied to me).

Additional documents to be supplied: The cited CFR category 31.1b, section 1. And office memos documenting the response of her superiors to this memo.

S. Letter dated 5 May 2000 to Senator Gordon H. Smith, signed by Linda Goodman for the Regional Forester. (Presumably an identical letter was sent to Senator Wyden.) This letter is responsive to a letter of 14 January 2000 from Senator Smith responsive to the grievance of Richard Carlson, as chairman of the National Speleological Society's Oregon High Desert Grotto.

The letter contains significant disinformation, presumably supplied to the Regional Forester by the Forest Supervisor. For example:

Contrary to its assertion, the controversial gate does not protect the bat colony from human disturbance; the maternity colony can easily be reached by sticks poked through the gate, and would be immediately above a fire pushed through the gate - two procedures commonly utilized by bat-killing vandals throughout the USA. Probably for this reason, the Umpqua's own consultant (Mark Perkins) initially recommended a fence at a distance from the entrance, rather than a gate. I independently made the same recommendation to Mike Hupp, who responded that the gate was going to stay. Period.

Further, statistics in Document C suggest that the presence of the gate is the principal problem with "human disturbance" of the bat colony. Almost certainly, it exposes the bats to added predation by raccoons and other carnivores and omnivores.

Further, the letter gives false information about the size of the cave and its resources and values other than biological. The published map of the cave shows its length to be about 450 feet, not 150 feet as stated. Thus it has significant recreational values. Whether or not it also has significant geological and archaeological values is not yet clear. It has never been studied by a qualified vulcanospeleologist such as Dr. Kempe.

Still further, the letter falsely claims that due process provisions of NEPA were not required for the closure action. See Documents N and R. Mike Hupp's memo (Document G) is cited as documentation. Its errors and omissions are discussed above.

Additional documents to be supplied: pre- and post-gate predation of the bat colony: field notes documenting how and when the observations were made.

#### Group 4. Cultural and Archaeological Documents

T. Two slightly different versions of a 2-page document headed 1.3 Archaeological Background; page 18 and another page identified as PacificCorp. North Umpqua Hydroelectric Project. FERC Project no. 1927. Date on one page: 02/04/94. Cites the discredited Earl Moore book and mentions the supposed finding of a skin pouch which held a cache of 68 obsidian projectile points in one of two caves in this vicinity. A handwritten marginal note states: "Not the bat cave but adjacent".

Additional documents to be supplied: documentation of the actual location of the cache, by field notes.

U. Pages 122-127 of "A Damage Assessment of Cultural Resource Sites on the Umpqua National Forest", by Thomas E. Churchill et al, Coastal Magnetic Search and Survey, Report # 46, apparently undated; probably ca 1994. Incorrectly states that the cave has never been surveyed. Although no test trenches were made, asserts that no cultural material is present. Concluded that the cave is "at least" 150 feet long.

Additional documents to be supplied: none.

V. 6-Page document apparently including unidentified field notes and a compass and tape sketch of the entrance section of Mowich Cave. The first two pages may be part of Document U instead. Included are two pages of photos including old Mowich Cave Trail sign and 2 pages of field notes describing that trail. Graffiti dated 1986 are mentioned, as is "cobble-sized roof fall". The cave is described as at least 50 feet long.

Additional documents to be supplied: none.

W. 2-Page message display; exchange of teletype-like messages on cultural resources; Coastal Magnetic study (Document U) denigrated by Angie Snyder who was concerned about the potential for cultural values, but she was shot down by Vance Carlson who misstated Coastal Magnetic's findings. Handwritten annotations term Mowich Cave "Cave A" and something else as "Cave B" (cultural site 15-03-101), without documentation.

Additional documentation to be supplied: documentation that Mowich Cave is NOT cultural site 15-03-101.

X. 3 interoffice memos in September 2000 about cultural values of Mowich Cave. Debra Barner is sufficiently concerned about their potential presence that all visits should be monitored by a US Forest Service employee and the cave floor be documented before and after each visit.

Additional documentation to be supplied: field notes on such documentation.

Group 5. Photocopies of letters by me

Y. My letter to Diamond Lake Ranger District dated 8 May 2000. Laid out multiple issues and documented that Dr. Kempe is a co-researcher in this proposal.

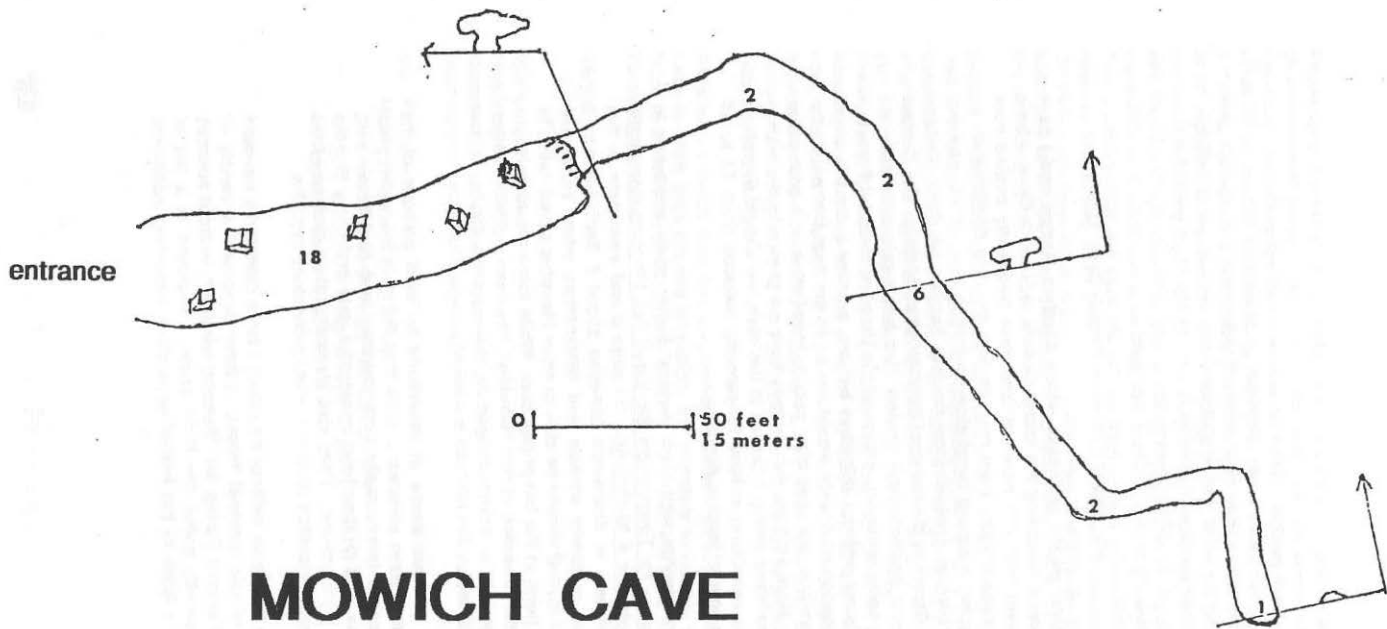
Additional documentation to be supplied: all interoffice memos responsive to this letter not already supplied.

Z. My letter to Steve Cross dated December 15, 2000, asking for specifics of counts or estimates on specific dates as asserted in C. Barkhurst memo. No response.

Additional documentation to be supplied: any communication between Steve Cross and the staff of the Umpqua National Forest responsive to this letter.

AA. My letter to Steve Cross dated 11 October 2001, asking for specifics on counts or estimates of bat population on any date of any year between October 1-15. No response.

Additional documentation to be supplied: any communication between Steve Cross and the staff of the Umpqua National Forest responsive to this letter.



# MOWICH CAVE

UMPQUA NATIONAL FOREST, OREGON

BRUNTON AND TAPE SURVEY, MARCH 1977  
D. ANDERSON, K BELL, CJ RUSHIN  
DRAFTED MAY, 1977, RUSHIN

Address until 6 July 2002:  
6530 Cornwall Court  
Nashville, TN 37205

Merlin Tuttle, PhD  
Bat Conservation International  
PO Box 162603  
Austin, TX 78716-2603

8 May 2002

Dear Merlin:

re: secret closure of Mowich Cave, Oregon

I am confident that you are aware of the grievance which Stephan Kempe and I have against the Umpqua National Forest regarding the secret closure of Mowich Cave. I have frequently discussed this problem with Jim Kennedy and have frequently copied your office on correspondence about the matter. I am representing the IUS Commission on Volcanic Caves which has enacted a strong resolution protesting this action, and our actions are supported by the National Speleological Society Section on Cave Geology and Geography and the Oregon Grotto of the National Speleological Society. The Oregon High Desert Grotto of the National Speleological Society also has a grievance separate from ours but arising out of the same unlawful actions of the Umpqua National Forest. I am attempting to resolve the issue without litigation but am preparing for the worst scenario. Going public with litigation obviously would not be in the best interest of the few bats now remaining seasonally in the cave after secret installation of a gate rather than the fence recommended by Mark Perkins. But we may have no choice in the matter, and as the bats also use crevices immediately adjacent to the cave, we should be able to minimize the harm to the small remaining colony (apparently reduced from 35 to 55 before the gate to fewer than ten now, at least in Augusts).

Also I am confident that you are familiar with Mark Perkins' 5-year study published in 1986, entitled Central Oregon Survey for Townsend's Big Eared Bat, *Plecotus townsendii* / 1896 Final Report / USFS Requisition # 88-FWL-86. On page 8 and elsewhere in this landmark report, a "window" of time is delineated between about 7 September to 1 November of each year, between maternity season and hibernation, when concerned scientists such as Dr. Kempe and myself should be able to enter *Plecotus* caves - even in the daytime - without significant harm to the bat population. While there are some slight variations in the terminal dates, the presence of this "window" has been verified in other reports that you probably know. It is acknowledged in the ongoing Drafts of the interagency *Plecotus* task force, of which Jim Nieland is a member.

Still further I am confident that you are aware of assertions by staff persons of the Umpqua National Forest that (1) they have accurate counts that, for decades, show year-round use of this cave by *Plecotus* (presumably both daytime and nighttime), with alarmingly decreasing populations, and (2) they have conclusive data that show that the cave should be closed to all entry year-round. They also claim that their closure of the cave was legal despite their deliberate violation of due process provisions of NEPA.

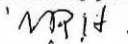
As part of my attempts to resolve this issue without litigation, I have repeatedly travelled to Roseburg to meet with staff of this national forest. I have proposed a variety of alternatives based on very limited access during the "Autumn window", without success to date. Consequently I am currently going the FOIA route. Enclosed is a list of documents received to date, and a letter to the Forest Supervisor indicating additional documents to be supplied.

Please read the list of documents I have received to date. I will be happy to send you photocopies of some or all of them so that you can determine whether you reach the same conclusions about their contents as I did. I believe that you will conclude - as I did - that the supposed decades-long, accurate, year-round, day and night counts simply do not exist. Obviously it is possible that they may be found in the next batch of documents to be supplied to me, but the data supplied to date is so sketchy, so limited, and of such uncertain reliability that I will be very surprised if anything better is supplied later. I have not found a single record of any count of night roosts in any season of any year so it is especially difficult to see how they can justify excluding qualified researchers at night. The assertion that the cave should be kept closed year-round apparently is based on hearsay originating from one or more unexplained conversations with Steve Cross. Cross has not responded to two letters from me, and with the exception of one very brief telephone memo which may represent a misunderstanding, there is no documentation of his reasoning on this matter.

Several puzzling documents were included in this batch of FOIA responses. One of these was an unexplained, unsigned letter (enclosed) purportedly from you, dated 6 July 2000, supporting year-round closure of the cave. I would greatly appreciate your verifying whether this is a legitimate copy of an actual letter by you to the Forest Supervisor. As you will note, I have specifically requested copies of telephone memos of discussions between Cindy Barkhurst and yourself (as well as those of discussions between Jim Kennedy and various staff persons on the Umpqua). In the event that this is a legitimate copy of a letter by you, I think it important to determine what information Ms. Barkhurst provided you prior to your sending it, and what she may have omitted that now is documented as a result of my FOIA request. I expect to obtain this from FOIA requests rather than from you.

Because so much time has elapsed since our visit to the unexpected gate of Mowich Cave in 1999, I am moving as rapidly as possible to resolve this unfortunate matter. I hope to hear from you in the very near future, about the letter purportedly from you to the Forest Supervisor.

Very sincerely yours,

  
William R. Halliday  
Honorary President,  
Commission on Volcanic Caves of the  
International Union of Speleology

cc: IUS (van der Pas)  
National Speleological Society  
Section on Cave Geology and Geography  
Oregon Grotto and Oregon High Desert Grotto  
M. Hood, D. Jagnow, S. Knutson



6 July 2000

Don Ostby, Forest Supervisor  
Umpqua National Forest  
PO Box 1008  
Roseburg, Oregon 97470

Dear Mr. Ostby,

I am writing to convey support for your protection of Mowich cave and the resident colony of Townsend's big-eared bats. Your effort to protect this species and its essential habitat is commendable and appreciated. I am aware that this population has been in decline and is at a critical low due to human disturbance. I spoke with Cindy Barkhurst, Forest Wildlife Biologist and agree that this cave should continue to be closed year-around until such time as status trend monitoring indicates that its big-eared bat population has recovered and stabilized.

If in the future, these conditions are achieved, limited and brief access for scientific purposes may be appropriate. If this is considered, I recommend any visit require direct accompaniment and supervision by a wildlife biologist with appropriate skill and training to monitor disturbance and ensure protection of the bats. Disturbance monitoring of such an action should be done before, during, and a month after entry along with your other monitoring efforts, to fully assess any possible impact.

In closing, thank you for your efforts and please keep us informed of the status of protection of Mowich cave. Bat Conservation International has extensive expertise to offer on bat conservation matters, and are happy to assist.

Sincerely,

Merlin Tuttle  
Executive Director

cc: Cindy Barkhurst

Address until 6 July 2002:

6530 Cornwall Court  
Nashville, TN 37205

Mark Perkins  
2217 Emerson Avenue  
Salt Lake City, Utah 84108-2305

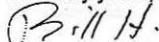
14 May 2002

Dear Mark:

From a variety of sources I have assembled all the enumerations of *P. townsendii* in Mowich Cave I can find, including a FOIA request (responses to date are indicated by citations of various "Documents" below. I am including Document C and will be pleased to send you copies of any others which would be of interest to you.)

If you can add any others, or have relevant comments, I would be very pleased to receive them.

Sincerely yours,



William R. Halliday  
Honorary President,  
Commission on Volcanic Caves of the  
International Union of Speleology

cc: IUS (van der Pas), Larson

KNOWN ENUMERATIONS OF *P. TOWNSENDII* IN MOWICH CAVE, OREGON (May 14, 2002)

1958. August. Artifact-hunting E.F. Moore later writes of "thousands of bats" harassing his party. Discredited by Mike Hupp 2000.

1977. March. "Not enough bats to take special notice of them" during mapping of cave. Source: written 2000 recollections of C.J. Rushin-Bell, USAID Senior Forester and long-standing bat-conscious speleologist.

1977. At least one later visit; same recollections. Same source.

"Early 1980's". Document F. "Documented" maternity colony of 40 to 50 female *P. townsendii*; no documentation cited.

1983. Maternity colony of 40 female *P. townsendii*. Source: Perkins, 1987. Also cited in anonymous undated Document C. Specifically no hibernaculum. Month and date not specified. Rounded figure suggests an estimate.

1983. Maternity colony of 50 adult females and up to four hibernating *P. townsendii*. Source: Perkins, 1990, contradicting his 1987 report. Months and dates not specified. Rounded figure for maternity colony suggests an estimate. Discrepancies between 1987 and 1990 reports not discussed.

1984. 40 *P. townsendii* in maternity colony plus a hibernaculum. Source: undocumented assertion in anonymous undated Document C. Probably an attempt to reconcile Perkins 1987 and 1990, but specifying the wrong year.

(1984 Spring. Mowich Cave Trail trailhead sign removed.)

1984. May 21. 15 bats. Source: undocumented assertion in anonymous undated Document C. Rounded figure.

1985. June 21. 1 unidentified bat seen flying in cave. Time not specified. Source: Document D.

1985. June 24. 4:30 pm. 4 roosting bats counted. Source: Document D.

1985. August 20. Time not specified. 55 roosting bats observed for 30 seconds; became active. Rounded figure; probably an estimate. Source: Document D. Anonymous undated Document C asserts that the bats left the cave when disturbed; Document D contradicts this.

1985. October 3. Time not specified. 2 roosting bats counted; awake, evidently not disturbed. Source: Document D.

1985. October 28. Time not specified. 3 hibernating bats counted; evidently not disturbed. Source: Document D.

1986. March 11. 4 pm. 16 bats counted. Some showed arousal within 3 minutes but did not fly. Source: Document D. Also cited in Document C.

Late 1980's. *P. townsendii* population said to have declined to 50. Source: Document G. No documentation. Rounded figure.

1987. August 11. 50 bats said to be present, including some young; undocumented. Source: anonymous undated Document C. Rounded figure.

1989. September 6. 25 to 30 bats; some flew out. Rounded figure, presumably estimated but entirely undocumented at this time. Source: anonymous undated Document C.

1990. Date not specified. About 35 *P. townsendii*. Perkins, 1990. Rounded figure. Document F later discussed Perkins discussing decline from 50 to 35 as if these were counts; Perkins' original estimate of 40 (not 50) not mentioned.

1990. 35 *P. townsendii* adult females, plus 4 hibernating. Anonymous undated Document C, apparently an elaboration of Perkins 1990, ignoring Perkins 1987.

Some date before November 1991. Coastal Magnetic's archaeological reconnaissance does not mention observation of any bat. Source: Document U.

(1992. Gate installed.)

Pre-2001. "Recent summer maternity counts in the 20's" (23 females); August counts with young supposedly documented in the 40's. Fall counts supposedly in the 20's, then increasing to 30's in the winter. Source: undocumented assertions in Document F. Rounded figures.

1998. August; date not stated. 20 bats. Source: undocumented assertion in anonymous undated Document C.

1999. Series of dusk exit counts included in Farrell report of 5 Oct. 2001, from excerpt of unidentified printed report. Apparently from all caves and crevices in area.

June 17: 10 bats  
July 1: 1 bat  
July 12: 2 bats  
July 26: 23 bats  
Aug. 18: 45 bats  
Aug. 31: 28 bats  
Sept. 14: 16 bats  
Sept. 28: 22 bats

1999. August. Date unspecified. 10 bats. Source: undocumented assertion in anonymous undated Document C. Compare with August 1998, 1987, 1985 above.

1999. December 17. Time not stated. Present count said to be 23 (unclear whether includes all bats or merely *P. townsendii*), previous count supposedly 50; asserted decline of more than 50% (but no previous December counts evidently on record and ignoring August 18, 1999 exit count of 45). Unexplained cryptic notation of "33#COTO". Source: excerpt from unidentified printed report included in Farrell 2001 report.

2000. March. Date not stated. 22 hibernating bats; undocumented. Source: anonymous undated Document C.

2000. Series of dusk exit counts in Farrell 2001 report. Notation: "Caves on each side used much more than gated cave". "Big bats" not identified by species but presumably were *P. townsendii*. "Small bats" also were counted, suggesting that not all of the bats mentioned above were *P. townsendii*.

July 12: 3 big bats in, 10 out.

July 19: 4 big bats in, 12 out.

August 3: 9 big bats in, 23 out; total exit 14.

August 8: 7 big bats in, 13 out; total exit said to be 5.

2000. September 7. Visit by Forest Geologist. No mention of any bats present. Source: Document M.

2001. No data received.

William R. Halliday

14 May 2002

## Document 'C'

Monitoring from 1983-2000 documented year around use.

Early 1900's anecdotal history reported hundreds of bats.

1983 40 maternity Col

1984 40 maternity + hibernaculum

1984 May 21, 15 bats

1985 August 20, 55 bats. Brief presence disturbed them and bats left.

1985 October 3, 2 bats observed roosting both disturbed

1985 October 28, 3 bats

1985 January 10, 12 bats

1986 March 11, 16 bats arousal w/in 3 min. of entry disturbed

1987 August 11, 50 bats some young of year

1989 September 6, 25-30 bats disturbed some flew out

1990 Perkins report discusses decline from ~50 to 35 adult females in 1990, 4 hibernating.

1992 Bat gate installed

1998 August, 20 bats

1999 August, 10 bats

2000 March, 22 hibernacula

2000 August,

Address until 6 July 2002:  
6530 Cornwall Court  
Nashville, TN 37205  
bnawrh@webtv.net (not valid in Hawaii)

Summer field season address:  
101 Aupuni St. #911  
Hilo, HI 96720

29 May 2002

Ms. Kimberly Bown  
Regional Director, Recreation and Lands  
US Forest Service  
PO Box 3623  
Portland, OR 97206-3623

via Certified Mail

Dear Ms. Bown:

re: unlawful secret closure of Mowich Cave

It is my understanding that your Washington office has asked or soon will ask you to review the situation arising from what we consider the unlawful closure of Mowich Cave. In this matter I represent the Commission on Volcanic Caves of the International Union of Speleology. Our position is supported by the Section on Cave Geology and Geography of the National Speleological Society and by the two concerned Oregon chapters of the National Speleological Society. Enclosed please find a copy of the very strong resolution unanimously passed by the Commission at its last meeting, in Catania, Italy.

It is our position that the secret 1992 closure of this cave was done in violation of the due process provisions of NEPA and also in violation of the cooperative agreement between the US Forest Service and the National Speleological Society. I enclose a photocopy of a memo dated 03/22/00 recently obtained through FOIA request. You will note that it acknowledges lack of compliance with due notification provisions of NEPA and even suggests consideration of retroactive compliance.

While this document was obtained as a result of a FOIA request arising out of the IUS' grievance with the Umpqua National Forest, the memo of 03/22/00 refers to a separate grievance by the Oregon High Desert Grotto of the National Speleological Society resulting from this secret closure. The IUS was unaware of this additional grievance at the time we began our actions, but we now support the Oregon High Desert Grotto in its grievance.

Subsequent to the Umpqua NF memo of 03/22/00, the Regional Forester sent the enclosed letter to Senator Gordon H. Smith, and presumably also to Senator Wyden. It is our belief that this letter contains serious misinformation and even disinformation supplied by the Umpqua National Forest to the Regional Forester. I have recently brought this to the attention of the Washington office of Senator Smith. As a result of your investigation, the Regional Forester may wish to send a letter of correction to Senator Smith (and perhaps also Senator Wyden), and a letter of apology to the Oregon High Desert Grotto of the National Speleological Society. If desired, I will be pleased to supply you with specific documentation of misinformation expressed in several parts of this letter. It is the position of the Commission that especially since the unlawful secret closure of this cave became known to concerned organizations and individuals, the staff of the Umpqua National Forest has repeatedly disseminated misinformation and disinformation, perhaps in an



attempt to distract attention from the illegality of its action. From our perspective, these can be summarized as follows:

- 1) the closure of this internationally significant cave was legal as a categorical exclusion from NEPA requirements;
- 2) its closure at all times is necessary to protect a colony of bats, whether or not bats are present (e.g, at night, or in the window of time between maternity and hibernation periods).
- 3) the gate placed on the cave in 1992 is beneficial to the bat colony, even though August bat populations have declined drastically since the gate was installed.

For a time, a ludicrous sign also asserted that entrance into the cave would expose visitors to incredible hazards including poisonous gases and deep dropoffs (while the Forest also was asserting that it is merely a level lava tube cave just 150 feet long - despite a published 1972 USFS map showing a recreationally significant length of 450 feet).

Because of the cooperative agreement between the National Speleological Society and the U.S. Forest Service, this issue should never have arisen. Other national forests in the Pacific Northwest permit limited scientific study and recreational entry into lava tube caves similarly utilized by *P. townsendii* without harm to the bat colonies. This is possible during the window of time between the two bat seasons referenced above, especially at night when bats are out foraging. We urge compliance of the entire Pacific Northwest Region with the cooperative agreement and with the specific resolution of the Commission, and specific compliance of the Umpqua National Forest with the congruent policy of the other forests of the Pacific Northwest Region.

We also urge consideration of replacement of the Mowich Cave gate with a fence located at a distance from the cave entrance. This is because the gate may be dangerously close to the maternity colony, and also because gates admittedly expose bat colonies to predation by raccoons and other predators capable of making ingenious use of bat gates.

We hope that you will join us in the desire for a uniform policy among Pacific Northwest Region national forests for management of lava tube caves with colonies of *P. Townsendii* and correction of the harm done to date by the Umpqua National Forest. I am enclosing the list of documents I received as a result of the FOIA request made by my attorney, Mr. Richard Blumberg of Seattle. It has notations I made at the time I analyzed the group of reports and letters, for later use. They clearly document the misinformation cited above. I will be pleased to send photocopies of any or all of these to you, to consider in your review, and/or additional reports and documents obtained from other sources, or to assist in any other possible way.

Sincerely yours,

*W.R. Halliday*

William R. Halliday, Honorary President  
Commission on Volcanic Caves of the International Union of Speleology.

Cc: IUS, National Speleological Society, Bat Conservation International

encl.

1

In 'Espeleòleg' 42/2001 two articles were published about lavatube caves:

Pico: tubs de lava i espeleòlegs by Martí Romero.  
Page 32-36, 7 pictures, plan of 'Gruta das Torres'.

Description of the exploration of this lavatube on the Island of Pico, Açores. One of the pictures shows the butchering of a cow, and one of the entrances is named Jameo de la Vaca (pit of the Cow). I do not read Catalane, so can only guess if there is a connection.

Next article in this publication:

Entre el caos i la realitat, by Alfred Montserrat Nebot.

Three pages as an introduction to vulcanospeleology.

Three pictures, and an illustration of the forming of tube profiles (by Chris Wood & T. Mills).

Although the bibliography mentioned is not bad is it dated a bit, the latest being from 1991.

Also in Catalane.

Photocopies if wanted available by the editor.

Espeleòleg is the publication of 'Club Alpí Català',  
Barcelona. [Http://lanzadera.com/ere](http://lanzadera.com/ere)

# GRUTA DAS TORRES

CREAÇÃO VELHA (ILHA DO PICO, AÇORES) PORTUGAL

Recorregut: 5.214 m

Desnivell: -179 m

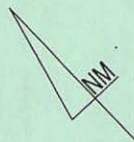
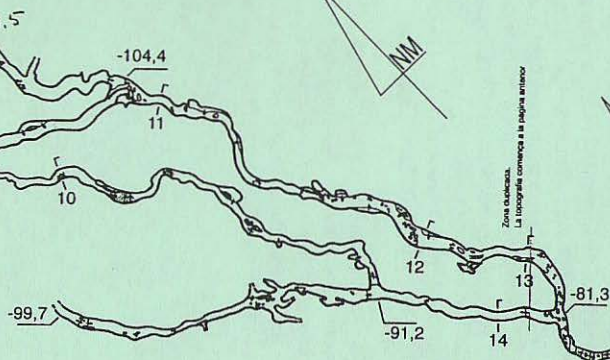
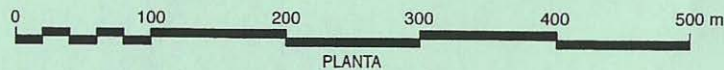
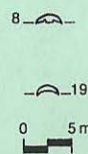
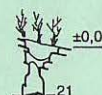
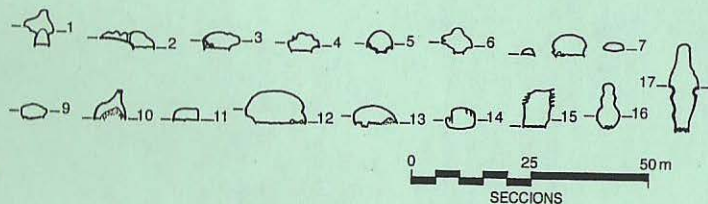
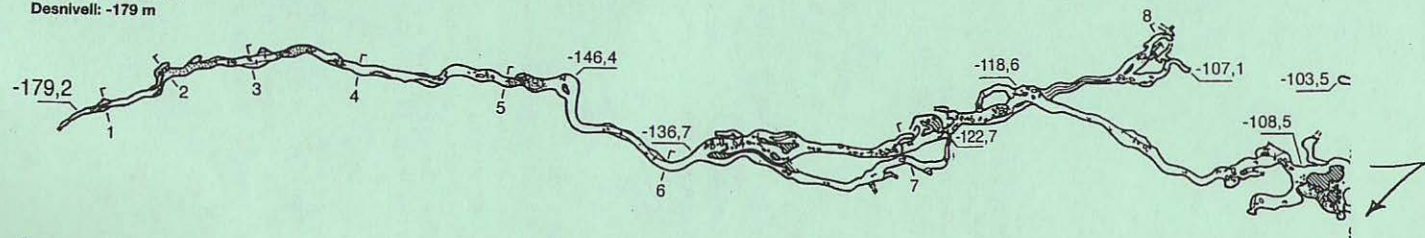
Topografia: I. Albir, A. Amenós, M. Bosch, A. Inglès,

A. Nubiola i M. Romero

Síntesi: A. Amenós i M. Bosch

Dibuix: M. Bosch

ERE del CEC, abril 1996



JAMEO INFERIOR

JAMEO DE LA VACA

JAMEO SUPERIOR





## MISSION STATEMENT

### of the UIS Commission on Volcanic Caves

The Commission on Volcanic Caves is an integral unit of the International Union of Speleology and upholds the high standards of its parent organization. It meets during international congresses of speleology, during international and regional symposia and all appropriate occasions. It solicits and approves sites for such symposia, held to date in the USA (2x), USA-Hawaii, Italy (3x), Japan, Spain (Canary Islands) and Kenya.

The basic mission of the Commission is to advance the scientific exploration, study, and preservation of lava tube caves and related features in volcanic rock, throughout the world. It seeks to bring together all persons, organizations, and agencies with legitimate concerns with volcanic caves, their features, and their environments. Its members are leading vulcano-speleologists from each country or area with especially important lava tube caves or related figures. Members are expected to keep the Commission informed about progress and problems in vulcano-speleology and to disseminate vulcano-speleological information to other speleologists in their country or study area.

The Commission collects and disseminates information through its Newsletter, through sponsorship of internal symposia and conferences and through exchange visits, through meetings of its Chairman/President with individual Commission members and cooperators, and through data compilation in a world data base on lava tube caves at Arizona State University (USA). Currently this world data base contains information on more than 2000 lava tube caves in 40 countries. Further, the Commission provides reports and recommendations to national and regional organizations as the American Geological Institute. Its Newsletter is published at least two or three times each year. In addition to current information it contains reports and abstracts. It is archived at two U.S. Geological Survey libraries, in the UIS library (Switzerland) and is abstracted in Volcano Quarterly.

The Commission intends to continue and expand all current projects. Especially it intends to expand its cooperation (as requested by the UIS Committee during the XII-th International Congress of Speleology in Switzerland - 1997) with other Commissions and Working Groups of the International Union of Speleology and with national and regional speleological organizations working in the field of vulcano-speleology.