

Great difficulties have been met with in purchasing diving equipment for the three clubs mentioned here. Nevertheless, all have equipment suitable for carrying out underwater speleological investigations. Single hose regulators of the following types are mainly used: Scubapro Mark II, Scubapro Mark V, Scubapro Mark VII, Dacor Olympic 400, Snark Silver, Amphora Silver, Royal Mistral, P-11, Ukraine II. The same holds true for other equipment e.g. telephone, underwater lamps and photographic facilities. Due to difficulties in buying equipment, the majority is home-made.

A historical review of the work done and a list of the relevant literature were published, together with abstracts in English and Russian, in issue II, 1974, of this periodical.

English translation revised by R.A. Halliwell.

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HUNGARY

Kinga SZÉKELY

INSTITUTIONS AND RESEARCH-WORKERS DEALING WITH SCIENTIFIC INVESTIGATION OF CAVES AND KARST AREAS IN HUNGARY

I. Government Institutes, University Departments and State Enterprises

1. *Mining Research Institute, Mining Hydrological Branch* (Bányászati Kutató Intézet, Bányavizvédelmi Osztály)
H-1037 Budapest, Mikoviny u. 2-4. Tel.: 687-260.
Topics: fundamental and applied research devoted to karst water control in mines; karst hydrogeology; karst hydraulics; technology, equipment and systems of karst water control.
Director: Dr. A. Schmieder, head of research department
Staff: I. Bagdy, works engineer; Mrs. Ö. Gessler, research associate; I. Havasy, research associate; Dr. Zs. Keserü, senior scientist; G. Szilágyi, research associate; T. Willems, senior scientist

2. *Hungarian Geological Institute* (Magyar Állami Földtani Intézet)
H-1143 Budapest, Népstadion út 14. Tel.: 837-940
a) *Department of Hydrology*
Topics: hydrogeology of the karstic and non-karstic mountain areas of Hungary and the problem of karst features hidden deep underground.
Director: Dr. L. Szébenyi, head of research department, geologist
Staff: Dr. P. Müller, research associate, geologist, I. Venkovits, geologist
b) *Museum*
Topic: Pleistocene vertebrates
Dr. L. Kordos, research associate, geologist

3. *Transdanubian Research Institute of the Hungarian Academy of Sciences* (Magyar Tudományos Akadémia Dunántúli Tudományos Intézete)
H-7601 Pécs, Kulich Gyula út 22. Tel.: 10-489
Topic: speleoclimatology.
Dr. I. Fodor, senior scientist, candidate of sciences

4. *National Nature Conservancy Office, Speleological Institute* (Országos Természetvédelmi Hivatal Barlangtani Intézet)
H-1121 Budapest, Költő út 21. Tel.: 366-744.
Topics: Establishment of a National Cadastral Register of Caves and continuous registration of new entries in it. Development of plans for selected research subjects of outstanding importance. Co-ordination of speleological research works conducted in various scientific institutions with existing plans of research, exploration and cave-harnessing. Checking works stipulated in licences for the exploration and utilization of caves given to social organizations. Development, construction, equipment and operation of selected caves and/or fulfilling the duty of technical supervision in nature conservancy matters in caves given over to other organizations for operation. Collecting and evaluating reports on speleological research and on exploratory activities

and submitting proposals as to the relevant forms of utilization. The Institute performs its technical supervision of nature conservancy in caves in a close cooperation and coordination with the governmental and nongovernmental organizations interested.
Director: I. Saskó, director in charge
Staff: G. Magyari, geologist; T. Borza, geologist

5. *Research Centre for Water Resources Development, Institute for Hydrology* (Vízgazdálkodási Tudományos Kutató Központ Vízrajzi Intézet)
H-1095 Budapest, Kvassay Jenő u. 1. Tel.: 140-620
a) *Department of Subsurface Hydrology, Karst Water Section*
Topics: hydrogeology and hydrology connected with karst and nonkarstic springs, and fundamental research in hydraulics. Study of the effects of human intervention. Expertises for mine objects, water supply, etc. connected with karst water.
Staff: Dr. Gy. Dénes, research associate, geographer; Á. Lorberer, research associate, geologist; Dr. Ö. Ráday, research associate, geographer; L. Maucha, research associate, geologist; Dr. I. Sárváry, research associate, engineer
b) *Hydrological Network Department, Karst Water Section*
Topics: operation of the national karst water observation network and data collecting. The works are carried on by the staff of the Gellérthegy Laboratory of Karst Hydrology.
c) *Data Bank Department*
Topic: primary processing and storage of the data of the national karst water observation network
Staff: Dr. I. Sugár, research associate, geologist
Coordination of the works conducted at the above three departments is done by Dr. T. Böcker, candidate of sciences, scientific adviser.

6. *Historical Museum of Budapest, Prehistorical and Ancient Section* (Budapesti Történeti Múzeum, Ős- és Ókor történeti Osztály)
H-1053 Budapest, Károlyi Mihály u. 16. Tel.: 173-893
Topic: Paleolithic research
Staff: Dr. M. Gábori, department head, doctor of historical sciences
Mrs. M. Gábori, senior scientist, candidate of sciences

7. *Natural History Museum, Geological-Paleontological Department* (Magyar Nemzeti Múzeum Őslénytár)
H-1088 Budapest, Múzeum krt. 14-16. Tel.: 337-171
Topic: research devoted to Pliocene-Pleistocene vertebrates
Dr. D. Jánosy

8. *Hungarian National Museum, Archeological Department* (Magyar Nemzeti Múzeum Régészeti Osztály)
H-1088 Budapest, Múzeum krt. 14-16. Tel.: 130-678
Topic: Paleolithic research
Dr. T. V. Dobosi

9. *Hungarian Natural History Museum, Botanical Department* (Természettudományi Múzeum Növénytár)

H-1146 Budapest, Vajdahunyadvár

Topic: algal flora of caves

Dr. L. Hajdu, research associate

10. *Department of Physical Geography, Eötvös Loránd University* (Eötvös Loránd Tudományegyetem, Természetföldrajzi Tanszék)

H-1083 Budapest, Kun Béla tér 2. Tel.: 343-963

Topic: karst morphology

Dr. S. Láng, university professor, doctor of geographical sciences

Topic: surface karst morphology

Dr. L. Zámbo, first assistant

11. *Ho Shi Minh Teachers' Training College* (Ho Si Minh Tanárképző főiskola)

H-3300 Eger, Széchenyi tér 2.

Topic: karst hydrology and morphology of the Bükk Mountains

Dr. G. Tóth, first assistant

12. *József Attila University of Szeged, Physical Geography Department* (József Attila Tudományegyetem, Természetföldrajzi Tanszék)

H-6722 Szeged, Tánács Mihály út 2.

Topic: complex research in karst morphogenesis

Dr. L. Jakucs, university professor, doctor of geographical sciences

13. *Technical University of Heavy Industry, Miskolc, Department of Mineralogy and Petrography* (Miskolci Nehézipari Műszaki Egyetem, Ásvány- és Kőzettani Tanszék)

H-3515 Miskolc-Egyetemváros

Topic: karst hydrological investigations of the Bükk Mountains
Department head: Dr. T. Polyák

14. *Bakony Bauxite Mine Enterprise, Hydrological Department* (Bakonyi Bauxitbánya Vállalat, Hidrológiai Osztály)

H-8003 Tapolca, Kossuth Lajos u. 2. Tel: 460

Director: I. Kiss, engineer, department head

15. *Bauxite Prospecting Enterprise, Hydrological Department* (Bauxitkutató Vállalat, Vízföldtani Osztály)

H-8220 Balatonalmádi, Rákóczi u. 10. Tel.: 38-161

Director: Gy. Hőriszt, department head, hydrogeologist

Staff: István Hegedűs, geologist-engineer

16. *Administration of the Bathing Establishment of Budapest, Department for Water Resources Management, Laboratory of Balneology* (Fővárosi Fürdőigazgatóság Vízkészletgazdálkodási Csoport, Balneotechnikai Laboratóriuma)

H-1369 Budapest, Pf. 328. Orlay u. 5-7.

Tel.: 460-700/177 460-762/13

Topics: Genetical problems connected with those subthermal to hot springs welling up on the eastern margin of the Buda hills whose waters of karstic character are used by the spas of the capital.

Director: G. Szalontay, chemist, engineer specialized in environmental control

Staff: G. Regőczy, hydraulic engineer, 4 technicians and 8 assistants

17. *Municipal Sanitary-Epidemic Station* (Városi KÖJÁL Járányügyi Állomás)

H-3529 Miskolc, Lévai u. 2.

Topic: Water pollution testing and evaluation

Director: Dr. J. Bársonyos, head physician

In addition to the above, there are hosts of enterprises and research institutions which, along with their production activities, carry on scientific research devoted to karst and caves. So, for example, at the *Geology Department of Fehér County Bauxite Mines* (Fehér megyei Bauxitbányák Földtani Osztálya) (staff geologists); various departments of the *Dorog Coal Mine Enterprise* (Dorogi Szénbánya Vállalat), the *Tatabánya Coal Mine Enterprise* (Tatabányai Szénbánya Vállalat, Dr. P. Gerber, hydrogeologist), the *Geology Department* (Dr. A. Juhász, chief geologist) and the *Department of Exploration and Explosion Engineering* (F. Hegedűs) of *Borsod Coal Mine Enterprise* (Borsodi Szénbányák Vállalat Kutatási és Robbanástechnikai Osztálya); the *Geological Section of the Exploration and Drilling Unit of the Mecsek Ore Mining Enterprise* (Mecseki Ércbányászati Vállalat (hydrotechnician L. Rónaki); *South Transdanubian Territorial Geological Service of the Hungarian Geological Institute* (Dr. M. Kassay, geologist); *Baranya County Council* (Baranya megyei Tanács) (B. Vass, chief engineer).

II. Scientific Research Stations

1. *Jósvafő Karst Water Research Station, Research Centre for Water Resources Development* (Vizgazdálkodási Tudományos Kutató Központ (VITUKI) Jósvafői Karsztvízkutató Állomása)

H-3758 Jósvafő, Tel.: Jósvafő 8

Topics: Scientific investigation of the Aggtelek-Jósvafő area at the surface, in caves and boreholes; karst-hydrological measurements and fundamental research. Examination of the karst-hydrological and speleological effects of geophysical agents.

Director: P. Szilvay, geotechnician

Staff: G. Izápy, works engineer, Mrs. G. Izápy, geotechnician, 2 instrument operators and 3 unskilled auxiliary workers.

2. *Gellérthegy Karst-Hydrological Laboratory, Research Centre for Water Resources Development* (Vizgazdálkodási Tudományos Kutató Központ (VITUKI) Gellérthegyi Karszt Hidrológiai Laboratórium)

H-1111 Budapest, Szent Gellért tér. Tel.: 669-875

Topics: observation, registration and processing of hydrological data on hot springs on the left bank of the Danube. The Laboratory is the centre of the National Observation Network.

Staff: 4 technicians, 6 operators, 2 mechanics.

3. *Eötvös Loránd University, Department of Zoosystematics and Ecology, Speleobiological Laboratory, Aggtelek* (Eötvös Loránd Tudományegyetem Állatökológiai Tanszék Barlangbiológiai Laboratóriuma, Aggtelek)

H-1088 Budapest, Puskin u. 3. Tel.: 339-929

Topics: regular investigations of the bios in the Baradla Cave and its relations to the environment; examination of the biology of the individual species concerned. Study of the conditions of living of various soil-dwelling animals under cave-laboratory conditions. Faunistic research in other Hungarian caves.

Director: Dr. A. Zicsi, titular professor, doctor of biological sciences.

Staff:

a) research in zoology:

K. Dózsa-Farkas, first assistant (*Enchytraeidae*)

Dr. I. Loksa, candidate of biological sciences, senior lecturer (*Arachnoidea*)

Dr. A. Zicsi, titular professor, doctor of biological sciences (*Lumbricidae*)

M. Pobožnski, research associate (*Diptera*)

I. Baranyi, senior scientist (environmental effects of the nervous system of lacustral bivalves)

b) research in botany:

Mrs. Z. L. Igali first assistant (primitive fungi)

III. Scientific Collections

1. *Bibliotheca Speleologica*

Special Speleological Library of the Hungarian Speleological Society (Magyar Karszt- és Barlangkutató Társulat speleológiai szakkönyvtára)

H-1055 Budapest, Kossuth Lajos tér 6-8. II. 225.

Tel.: 311-793

The Library was instituted in 1959. Numerous foreign periodicals can be found, in Hungary, only here. No lending of literature. The stock of the Library is available only for being consulted on the spot.

The Library is on duty on Wednesdays from 4 to 7 o'clock p.m. In cases of emergency, exceptional visits, upon personal request, may be permitted.

2. *Speleological Map Library*

A special collection of the Documentation Section of the Hungarian Speleological Society.

H-1055 Budapest, Kossuth Lajos tér 6-8. II. 225.

Tel.: 311-793

Librarian: J. Horváth

No lending of maps, the material of the Library is available for being consulted on the spot on Wednesdays, from 4 to 7 o'clock p.m.

3. *Speleocadastral Archives*

Field-reports of members of the Hungarian Speleological Society.

H-1055 Budapest, Kossuth Lajos tér 6-8. II. 225.

Tel.: 311-793

Responsible in charge: Dr. L. Kordos

4. *Register of the Hungarian caves*

Materials (descriptions, maps and bibliography of Hungarian caves) under elaboration

Hungarian Geological Institute (Magyar Állami Földtani Intézet)
H-1143 Budapest, Népszabadság út 14. Tel.: 837-940
Responsible in charge: Dr. K. Bertalan, geologist

5. Cave Inventory

National Nature Conservancy Office, Speleological Institute
(Országos Természetvédelmi Hivatal Barlangtani Intézet)
H-1121 Budapest, Költő u. 21.

Responsible in charge: T. Borza, geologist

The Inventory can be consulted by permission of the director of the Speleological Institute.

6. National Register of Springs and Karst Water Observation Wells (Országos Forrás-nyilvántartás és Karsztvíz megfigyelő kutak nyilvántartása)

Register of data on the Hungarian karst springs processed by the Data Bank Department of the Institute for Hydrology of VITUKI

H-1095 Budapest, Kvassay Jenő út 1. Tel.: 140-620

IV. Speleotherapeutical Institutions

1. Jósvafő Sanatorium of the Miners' Trade Union (near the Béke Cave) (Bányaipari Dolgozók Szakszervezetének Jósvafői Gyógy-üdülője)

Sponsor: The Borsod Coal Mines Enterprise
H-3525 Miskolc, Kazinczy út 19. Tel.: 18-461

Director: Dr. B. Adorján, county head physician

Patronage by: Dr. P. Kraszkó, head physician in phthisiotherapy, Institute of Phthisiotherapy, Edelény; Dr. S. Takács, head physician, county sanitary-epidemic station

The patients treated in the Sanatorium are mainly miners.

The Sanatorium is in service from May to September, receiving patients in 7 turns, comprising 60 persons each.

2. Cave Health Resort of the Hospital of Tapolca (Tapolcai kórház barlangi gyógyhelye)

Operated by the Municipal Council of Tapolca

H-8300 Tapolca, Municipal Council

Director of scientific research: Dr. J. Somogyi, head physician in internal medicine

Staff: Dr. I. Fábsics, specialist in pulmonary diseases, dr. R. Czelehnik, laboratory specialist

3. Aspecific Local Unit of the Institute for Consumptives of the Council of County Baranya, (Baranya megyei Tanács Tüdő Gyógyintézetének Aspecifikus kihelyezett részlege), Abaliget. Operated by the Balneological Institute of the Council of Baranya.

Director: Dr. J. Hábel, head physician. Pécs-Mecsek, Tel.: 13-755
Scientific research work is directed by: Dr. Gy. Kövesi, section head physician.

4. Experimental Health Resort on Gellért Hill (Gellérthegyi Kísérleti Gyógyhely)

Topics: Investigation of possibilities for developing a speleotherapeutical health resort in dolomite rocks by utilizing natural resources. Under construction.

Investment by: the Administration of the Bathing Establishment of Budapest (chief engineer J. Horváth)

V. Touristic Establishments

1. Aggtelek-Jósvafő Cave Administration (Aggtelek-Jósvafői Barlang Igazgatóság)

H-3758 Jósvafő, Kültelek 2. Tel.: 7

Operated by the County Tourist Office "Borsod Tourist".

H-3525 Miskolc, Széchenyi út 35. Tel.: 14-876, telex: 62-273.

Head of office: I. Tózsá, tel.: 35-592.

Cave Director: mining engineer Gy. Zsolczai

Deputy Director: B. Várnay, Aggtelek, Hotel Barlang

The cave is open to visitors: April 1 to October 31 from 8 a.m. to 6 p.m. November 1 to March 31 from 8 a.m. to 4 p.m. Upon request previously presented, special trips may be conducted to the cave even in "off-duty" hours.

2. Lillafüred Cave Organization, István Cave and Forrás (Petőfi) Cave

Operated by the County Tourist Office "Borsod Tourist".

H-3525 Miskolc, Széchenyi út 35. Tel.: 14-876, telex: 62-273

Head of office: I. Tózsá, tel.: 35-592.

Cave operation directed by Lajos B. Tóth, economist specialized in business administration.

H-3525 Miskolc, Széchenyi út 35.

Managing director of the István Cave: Mrs. H. Dévai. H-3517 Lillafüred, István Cave.

Managing director of the Forrás (Petőfi) Cave: Edit Kovács. H-3517 Lillafüred, Forrás (Petőfi) Cave. The caves are open to visitors every day but Monday from 9 a.m. to 5 p.m.

3. Cave Bath of Miskolc-Tapolca (Miskolc-Tapolcai Barlangfürdő)

Operated by the Municipal Waterworks, Bathing Establishment and Canalization Works Enterprise (Miskolci Vízművek, Fürdők és Csatornázási Vállalat)

H-3532 Miskolc, Vas u. 18. Tel.: 16-438.

Director: Dr. B. Konczvald.

Operation directed by M. Delneky, technician. Address of the bathing establishment: Thermal and Cave Bath, Miskolc-Tapolca, Tel.: 33-451

Open from 9 a.m. to 6 p.m. the year round (closed at Christmas and on 1 January).

4. Földváry Aladár Cave (Esztramos-Felső-barlang) Operated by the Speleological Institute of the National Nature Conservancy Office.

Managing director: I. Saskó.

H-1121 Budapest, Költő u. 21. Tel.: 366-744.

Upon special declaration, the cave can be visited by research workers, specialists and members of study tour groups.

5. Lóczy Cave of Balatonfüred

Operated by the Tourist Office of Veszprém County.

H-8201 Veszprém, Münnich F. tér 3. Tel.: 13-750.

Director of the office: Mrs. J. Papp

Director of the cave: J. Simon

The cave is open to visitors round the year every day but Monday:

April 1 to October 31 from 9 a.m. to 1 p.m. September 1 to March 31 from 10 a.m. to 12 a.m. and from 2 p.m. to 6 p.m.

6. Tapolca's Tavas Cave

Operated by the Tourist Office of Veszprém County.

H-8201 Veszprém, Münnich F. tér 3. Tel.: 13-750.

Director of the cave: Mrs. L. Oravecz

The cave is open round the year: May 1 to September 30 from 8 a.m. to 5.30 p.m. October 1 to April 30 from 8 a.m. to 4.30 p.m.

7. Szemlő-hegy Cave

Operated by the Speleological Institute of the National Nature Conservancy Office.

Managing director: I. Saskó

H-1121 Budapest, Költő u. 21. Tel.: 366-744.

The cave is under construction and is to be opened in 1978.

8. Pál-völgy Cave

Operated by the Speleological Institute of the National Nature Conservancy Office.

H-1121 Budapest, Költő u. 21. Tel.: 366-744

Managing director: I. Saskó.

Director of the cave: P. Börcsök.

The cave is open Fridays, Saturdays and Sundays from 10 a.m. to 5 p.m.

9. Buda Castle Cave

Operated by the Hungarian Speleological Society.

H-1055 Budapest, Kossuth Lajos tér 6-8. Tel.: 311-793.

Director: K. Barátosi, engineer.

The cave is open on Sundays from 10 a.m. to 5 p.m. (Presently closed because of repair.)

10. Tata's Kálvária Hill

Nature Conservation Area administered by the Hungarian Geological Institute.

H-1143 Budapest, Népszabadság út 14. Tel.: 837-940.

Carbonate rocks of different age and type are shown "in situ". Visits are possible upon previous agreement with the administering organization.

11. Buda's Sas Hill

Nature Conservation Area administered by the Budapest State Forest Administration.

H-1054 Budapest, Széchenyi-rkpt 6.

Original open-air show of Hungary's dolomite flora. Only organized visits directed by expert guides are possible.

12. Paleokarst of Urkut.

Nature Conservation Area administered by the Hungarian Geological Institute.

H-1143 Budapest, Népszabadság út 14. Tel.: 837-940.

The Nature Conservation Area comprises tropical karstic landforms of Cretaceous age unearthed in the course of the extraction of manganese ore.

Visits can be organized with participation of the staff of the Hungarian Geological Institute.

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