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## In Memoriam: Gheorghe Racoviță (1940-2015)

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Dr. Gheorghe Racoviță, an eminent Romanian biospeleologist, died on 1 December 2015, at the age of 75. His passing leaves many in the national and international speleological community (and beyond) reflecting on his significant contributions to the discipline and the various ways he impacted the careers of those who knew him.

Dr. Racoviță was a Senior Scientist at the “Emil Racoviță” Institute of Speleology (ERIS) in Cluj-Napoca, where he joined the research group in 1963. He also held an appointment as Associate Professor in the Department of Biology, Babeș-Bolyai University in Cluj-Napoca. Gheorghe earned his BS (1962) and PhD (1978) in Biology from Babeș-Bolyai University in Cluj and the Institute of Biological Research in Bucharest, respectively. As a grandson of the great Romanian scientist Emil Racoviță - well-known for his role as chief biologist of the “Belgica” scientific expedition in Antarctica (1897-1899) and later as the founder of world’s first Speleological Institute (1920) in Cluj - Gheorghe Racoviță was inspired by his grandfather’s passion for researching and understanding the subterranean fauna. Gheorghe’s legacy is evidenced by almost five decades of scientific contributions to the fields of quantitative taxonomy, origin and evolution of cave fauna, cave climatology, and karst protection. While serving in the ERIS, he authored and co-authored more than 140 papers, 12 books, 20 book chapters, and 20 articles, disseminating science to a broader audience. A selection of his publications are listed below.

Dr. Racoviță helped establish quantitative taxonomy and statistical analysis of cave climate data as viable and important tools in biospeleological and physical karstology studies. Like his grandfather, he was a strong advocate for using science to promote and advance environmental protection of karst regions. He supervised over 25 Bachelors, Masters, and PhD students at the Babeș-Bolyai University and ERIS. Gheorghe was soft-spoken, a good listener, a tireless worker, a very conscious editor, and a patient supportive mentor.

Listed below are some of Racoviță’s many scientific accomplishments:

- spent decades working on quantitative taxonomy and analysis of cave beetles (e.g., systematics, distribution, phylogeny, and ecology);

- collaborated with other ERIS researchers to study cave topoclimate (e.g., statistical analysis of various climate parameters, modeling cave ventilation, etc.);
- pioneered cave glaciology by investigating ice dynamics and climate evolution studies based on the ice block from Scărișoara Ice Cave;
- studied the anthropic impact on cave climate and fauna;
- made definitive contributions to the success of the biospeleological research conducted during the 1969 Cuban-Romanian Expedition. The monograph that published the results of this expedition received the Romanian Academy Award for Excellence in Research (1973).

Dr. Racoviță was truly extraordinary - he was revered by generations of scientists and colleagues worldwide, and also by the eclectic group of biologists, geologists, geographers, paleontologists, and others that make up the Speleological Institute.

The karst and cave community will deeply miss this awe-inspiring scientist, mentor, and friend.

### Selected books, chapter, edited (co-edited) volumes, and papers by Gheorghe Racoviță:

- Racoviță, G., Moldovan, O., Onac, B.P. (eds.) 2002. *Karst monography of the Pădurea Craiului Mountains*. Presa Universitară Clujeană, Cluj-Napoca, 264 p.
- Racoviță, G., Onac, B.P. 2000. *Scărișoara Glacier Cave. Monographic study*. Carpatica, Cluj-Napoca, 139 p.
- Racoviță, G. 1999. *Knowing or not knowing. The truths of life of Emile Racovitza*. Romanian Academy Publishing House, Bucharest, 560 p. (in Romanian).
- Racovitza, G. 2000. *Ice caves in temperate regions*. In: Wilkens H., Culver D.C., Humphreys B. (Eds.), *Ecosystems of the world*. vol. 30: Subterranean Ecosystems. Elsevier Sciences, Amsterdam, p. 567-574.
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- Racovitza, G. 2004-2005. *Révision systématique des Leptodirinae souterrains des Monts Apuseni, IV. Le sous-genre Parapholeuon (s. str.) du bassin de l’Arieș*. Travaux de l’Institut de Spéologie “Emile Racovitza”, **XLIII-XLIV**: 155-181.

- Racovitza, G. 1999. *Étude taxonomique quantitative du sous-genre Parapholeuon Ganglbauer 1887 (Coleoptera, Cholevidae, Leptodirinae)*. Entomologica Romanica, **3**: 79-117.
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- Racovitza, G. 1993. *Modélisation mathématique des données dans les bilans topoclimatiques souterrains*. Bulletin Societe Géographique de Liège, **29**: 115-118.
- Racovitza, G., Boghean, V., Silvestru, E., Petrescu, M. 1991. *Étude thermométrique des substratums de la Grotte de Scărișoara*. Travaux de l'Institut de Spéologie "Emile Racovitza", **30**: 159-184.
- Racovitza, G., Șerban, M. 1990. *Interprétation en vue d'une reconstitution paléoclimatique des particularités structurales et dynamiques du dépôt de glace pérenne de la Grotte de Scărișoara*. Studia UBB Geologia, **35 (2)**: 47-61.
- Racoviță, G. 1984. *Sur la structure méroclimatique des cavités souterraines*. Theoretical and Applied Karstology, **1**: 123-130.
- Racovitza, G. 1980. *Étude écologique sur les coléoptères Bathysciinae cavernicoles*. Mémoires de Biospéologie, **6**: 1-199. (**G. Racoviță's PhD thesis**).
- Racoviță, G., Șerban, M. 1975. *Recherches sur la biologie de la population de coléoptères cavernicoles de la Peștera cu apă din Valea Leșului*. Annales de Spéléologie, **30**: 351-363.
- Racoviță, G. 1967. *Nouvelles contributions à l'étude du topoclimat de la grotte "Ghetarul de la Scarisoara"*. Annales de Spéléologie, **22 (4)**: 757-786.



Gheorghe Racoviță in his office (September 2004; photo: B.P. Onac).