



John Mylroie

Professor
Geology

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While a biology major at Syracuse University in the late 1960's, I became interested in recreational caving through the Outing Club, and decided to make a career out of it. As cave geology was more interesting to me than cave biology, after I completed my military obligation, I went back for a PhD in geology. I began my research career by looking at the effects of glaciation on cave development in New York and Norway. I also did a lot of work on cave development in western Kentucky. However, glaciation also causes sea level change, so soon I was looking at cave development on Bermuda and the Bahamas in response to sea level fluctuations. The island work led to a research program on the deposition of limestones. This research, coupled with the cave research, drew me in to looking at paleoclimate.

My current research involves cave and karst development on oceanic carbonate islands such as San Salvador Island, Bahamas; Isle de Mona, Puerto Rico; and Guam & Saipan in the Marianas, with an eye to determining global paleoclimate, and development of water resources.

I feel that I have one of the best jobs in America. I get to do interesting research, I get to go to exotic places, I get to interact with students in the classroom and on field trips, and I get to spend time with enjoyable colleagues.

[Bahamian Field Station](#)

Education

Ph.D., Rensselaer Polytechnic Institute, 1977

U. S. Navy Fleet Sonar "A" School; U. S. Navy Fleet Electronics, 1972

BS (Zoology), Syracuse University September, 1971

Experience

Professor of Geology, Mississippi State University, 1987-present.

Head of Department of Geology & Geography, Mississippi State University, 1985-1989.

Associate Professor of Geology, Mississippi State University, 1985-1987.

Associate Professor of Geology, Murray State University, 1982-1985.

Assistant Professor of Geology, Murray State University, 1977-1982.

Instructor of Geology, Rensselaer Polytechnic Institute, 1976.

Recent Publications

Mylroie, J.E., Jenson, J.W., Taborosi, D., Jocson, J.M. U., Vann, D.T., and Wexel, C., 2001, Karst features of Guam in terms of a general model of carbonate island karst: *Journal of Cave & Karst Studies*, v. 63, no. 1, p. 9-22.

Onac, B. P., Mylroie, J. E., and White, W. B., 2001, Mineralogy of cave deposits on San Salvador Island, Bahamas: *Carbonates and Evaporites*, v. 16, no. 1, p. 8-16.

- Carew, J. L., and Mylroie, J. E., 2001, Quaternary Eolianites of the Bahamas: Useful analogues for the interpretation of ancient rocks? In Abegg, F. E., Harris, P. M. and Loope, D. B., *Modern and Ancient Carbonate Eolianites: Sedimentology, Sequence Stratigraphy and Diagenesis*. SEPM Special Publication No. 71, p. 33-45.
- Vacher, H. L., and Mylroie, J. E., 2002, Eogenetic karst from the perspective of an equivalent porous medium: *Carbonates and Evaporites*: v. 17, no. 2, p. 182-196.
- Bosak P., Mylroie J.E., Hladil J., Carew J.L., Slavik L., 2002, Blow Hole Cave: An unroofed cave on San Salvador Island, the Bahamas, and its importance for detection of paleokarst caves on fossil carbonate platforms: *Acta Carsologica*, Vol. XXXI, No. 3, pp. 51-74. Ljubljana. ISSN 0583-6050
- Hladil, J., Bosak, P., Slavik, L., Carew, J. L., Mylroie, J. E., and Gersl, M., 2003, Early diagenetic origin and persistence of gamma-ray and magnetosusceptibility patterns in platform carbonates: comparison of Devonian and Quaternary sections: *Physics and Chemistry of the Earth*, v. 28, p. 719-727.
- Gamble, D. W., Taborosi, D., Mylroie, J. E., Jenson, J. W., Carew, J. L., Jocson, J. M. U., Mylroie, J. R., and Vann, D. T., 2003, The use of water temperature to characterize groundwater discharge of a coastal fracture on Guam, U.S.A.: *Journal of Coastal Research*, V. 19, no. 2, p. 462-471.
- Florea, L. J., Mylroie, J. E., and Price, A., 2004, Sedimentation and porosity enhancement in a breached flank margin cave: *Carbonates and Evaporites* p. 82-92.
- Mylroie, J. E. and Mylroie, J. R., 2004, Glaciated karst: How the Helderberg Plateau revised the geologic perception: *Northeastern Geology and Environmental Sciences*, v. 26, nos 1&2, p. 82-92.
- Taborosi, D., Jenson, J.W. and Mylroie, J.E. 2004. Karren features in island karst: Guam, Mariana Islands: *Zeitschrift fur Geomorphologie*. N.F. 48: 369-389.
- Hladil, J., Carew, J. L., Mylroie, J. E., Pruner, P., Kohout, T., Jell, J. S., Lacka, B., Langrova, A., 2004, Anomalous magnetic susceptibility values and traces of subsurface microbial activity in carbonate banks on San Salvador Island, Bahamas: *Facies*, v. 50, p. 161-182.
- Stafford, K. W., Mylroie, J. E., Taborosi, D., Jenson, J. W., and Mylroie, J. R., 2005, Karst development on Tinian, Commonwealth of the Northern Mariana Islands: Controls on dissolution in relation to the carbonate island karst model: *Journal of Cave and Karst Studies*, V. 67, no. 1, p. 14-27.
- Jenson, J. W., Keel, T. M., Mylroie, J. R., Mylroie, J. E., Stafford, K. W., Taborosi, D., and Wexel, C., 2006, Karst of the Mariana Islands: The interaction of tectonics, glacioeustasy and fresh-water/sea-water mixing in island carbonates: *Geological Society of America Special Paper 404*, p. 129-138.
- Taboroši, D., Mylroie, J. E., and Kirakawa, K. 2006, Stalactites on tropical cliffs: Remnants of breached caves or subaerial tufa deposits? *Zeitschrift fur Geomorphologie*, v. 50, p. 117-139.
- Mylroie, J. E., (In Press), Late Quaternary sea level position: Bahamian carbonate deposition and dissolution cycles: *Quaternary International*.

Complete Publication List

Honors, Awards, Affiliations and Activities

- Registered Professional Geologist number 165, State of Mississippi.
- BSc., Syracuse University, Summa Cum Laude, 1971. Phi Beta Kappa, 1970. Phi Kappa Phi, 1971.
- Fellow of the National Speleological Society, 1976. Secretary of the 8th International Congress of Speleology, 1981. Editor, Western Kentucky Speleological Survey Annual Report Series, 1978 to 1985. Co-convener, GSA Penrose Conference on "Late Quaternary Sea Level: The Marine and Terrestrial Record", 1987, Bermuda Biological Station. Instructor of the Summer University in the Park Series, Mammoth Cave National Park: Advanced Cave Exploration, Karst Geology, Cave Survey and Cartography, 1985-1995.
- Science Award from the National Speleological Society, 2000, for lifetime achievement in the speleological sciences.
- Leader and Co-leader of numerous field trips to the Bahamas for: Geological Society of America (1985), Society of Economic Paleontologists and Mineralogists (1986), International Geological Congress (1989), Convener, 10th Friends of Karst Meeting, San Salvador Island, Bahamas, 1988. Symposium on the Geology of the Bahamas series [Program Chairman, 4th Symposium, 1988; Co-Chair 9th Symposium 1998; Field trip leader, 5th (1990), 6th (1992), 7th (1994), 8th (1996), and 9th (1998) Symposia]. Convener, Paleokarst Field Conference, 1995. Member, Research Committee, Gerace Research Center (formally the Bahamian Field Station) to review proposals for permits and funding support, 1988 to present. Member, Geology Committee, 1980 to present
- Member, Karst Waters Institute Board of Directors, 1991-present; President of the Institute, 1991-1995; Secretary 2001-present.
- Distinguished Visiting Professor, American University, Spring, 1991. Keynote Speaker: American Association of Petroleum Geologists Hedberg Conference, 1993; Sixth Multidisciplinary Conference on Sinkhole and the Engineering and Environmental Impacts of Karst, 1997.
- Member, National Speleological Society (NSS), 1970 to Present. Chairman, Northeastern Regional Organization of the NSS, 1972-1975. Chairman, NSS Cave Ownership and Management Committee, 1978-1981. Chairman, McFails Cave Committee (research cave owned by the NSS), 1976-1977. Member, Editorial Board of the NSS Bulletin, 1980-1983; Member, Advisory Board, 1999-present.

Society representative to the Member Society Council of the American Geological Institute, 1987-1989. Awards Committee Science Award subchair, 1994-1998.

Member, Geological Society of America, 1983 to Present.

Member, British Cave Research Association, 1980 to Present.

Member, American Geological Institute, 1985 to present.

Member, Sigma Xi, 1977 to present

Member American Cave Conservation Society, 1983 to present.

Member, Explorers Club, 1998 to present

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