

UPCOMING SYMPOSIUM

THE SCIENCE of JENOLAN CAVES: WHAT DO WE KNOW?

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Caves and karst regions are unique natural laboratories and fertile areas for scientific research. Caves provide numerous case studies about the evolution of highly adapted species of animals and plants. Karst areas are also home to unusual suites of animals and plants, oftentimes serving as refugia for species that may be rare or extinct in less protected or more changeable environments. Cave minerals, interesting scientifically as well as aesthetically, may also be economically or medically important. Studies of cave morphology, hydrology and atmosphere are critical to such issues as subterranean water flow and climate change. Cave/karst science, or karstology, is therefore an important and increasingly relevant field of research both regionally and globally.

Cave-related research is conducted in both wild caves and show caves as well as in surrounding karst. Show-cave research was the subject of the first International Congress on Scientific Research in Show Caves recently held in Park Skocjanske Jame, Slovenia (see ACKMA Journal No. 89, December 2012). This was a fitting venue, since karst was first described from this area between Slovenia and Italy and it has long been an area of active scientific research.



An upcoming symposium in May on current scientific research at Jenolan Caves aims to bring together researchers working on projects at the Jenolan Karst Conservation Reserve. This symposium also hopes to attract other interested scientists, cavers, guides and members of the public. The event, entitled The Science of Jenolan Caves: What do we know?, is co-sponsored by The Linnean Society of New South Wales and the Australian Speleological Federation.

Symposium goals include a summary of what is known to date about the science of Jenolan, drawing the threads together with talks from a range of experts. A



Above. Cave invertebrates such as this cave-adapted harvestman in the Orient show cave are of great scientific interest. Photos: Anne Musser.

Left. Measuring and recording vertebrate bones in the Northern Limestone, Jenolan. Pictured: Stephen and Richard Kennedy.

wide range of topics will be covered, including recent scientific research on the caves and karst and the contribution of exploration, mapping and cave diving.

Why Jenolan? Impetus for the symposium came from the realisation that recent research results on Jenolan are scattered in many places and can be hard to find – probably to be expected given the many aspects of research conducted. Renewed interest in Jenolan Caves has also been generated by the recent publication of an estimated age for some of the oldest open caves (around 340 million years: Armstrong et al. 2006), opening a window into our deep past.

The symposium will run from Thursday, 23 May to Friday, 24 May 2013, with talks and presentations scheduled for Thursday from 10 am, and Friday from 9am to 5pm. Talks will be given in the Kanangra-Boyd Room in the heritage-listed Jenolan Caves House. The program will include talks from experts, posters, maps and displays, karst walks and specially scheduled cave excursions. The Keynote Speaker will be Prof. Richard Mackay AM, the former president of Sydney University Speleological Society (SUSS), veteran of the exploration of Spider Cave, former Chair of the Jenolan Caves Reserve Trust and now Chair of the Greater Blue Mountains World Heritage Area Advisory Committee.

Topics to be covered by a raft of speakers include geology, cave minerals, cave dynamics, environmental monitoring, vertebrate faunas and vertebrate palaeontology, stromatolitic stalagmites, spiders, mobile mapping, cave surveying, diving and recent exploration.

The Symposium registration cost will include several complementary cave tours. The cost will be \$55 for the two days.

If you plan on staying in the area, Jenolan Caves House is offering excellent discounts on a range of accommodation options. To obtain these special rates, make reservations directly through Caves House reception (1300 763 311), not via their on-line booking engine or through an agent. You must also mention that you are attending the Science Symposium.

Those interested in attending in May should follow this link to The Linnean Society website: <http://linneansocietynsw.org.au/>.

Reference

Osborne, R. A. L., Zwingmann, H., Pogson, R. E. and Colchester, D. M., 2006. Carboniferous clay deposits from Jenolan Caves, New South Wales: implications for timing of speleogenesis and regional geology. *Australian Journal of Earth Sciences*, Vol. 53(3), 377-405.



Top left. Geologist John Pickett searching a limestone outcrop for invertebrate fossils. Bottom left. Rare or endangered species that make the Jenolan karst home include this female Brush-tailed rock-wallaby (Petrogale penicillata) and her joey. Grand Arch, Jenolan. Top right. Narawan Williams examining an Eastern bentwing-bat (Miniopterus schreibersii oceanensis). Bottom right. Many Reserve animals, such as this Eastern water-dragon (Physignathus lesueurii), are accustomed to visitors and provide 'photo opportunities' for both domestic and overseas tourists. Photos: Anne Musser