



Congress Theme

Caves in an Ancient Land

The theme chosen for the Congress captures features of the Australian landscape as evident in its caves and karst. Proterozoic dolomites (1.4 – 1.8 billion years old) in Australia had not been explored by speleologists until 25 years ago but have now been shown to have significant caves. Jenolan Caves are rightly celebrated as beautiful and one of the first tourist caves to be electrically lit. More recent discoveries at Jenolan demonstrate their antiquity. Carbonate dunes less than 250,000 years old on the southern coast contain much younger caves several kilometres in length.

Karst research in Australia has been rejuvenated with the application of many new techniques. Extended dating methods show that there are Nullarbor speleothems up to 10 million years old. At Chillagoe in North Queensland, detailed studies of speleothems have been done which correlate cyclone (hurricane or typhoon) events in the past 100 years with contemporary historical accounts of damage in coastal areas. The frequency of such events are important in understanding climate patterns and frequency of such events and to manage their risks. Other studies from southern Australia and New Zealand are elaborating climate histories for comparison with the Northern Hemisphere climate records.

The original descriptions of the marsupial megafauna of Australia were from cave deposits from Wellington, NSW by Sir Richard Owen in the nineteenth century. Caves continue to provide bones to elaborate this history. The Nullarbor caves have had megafauna dated at 3.5 million years belonging to animals reliant on trees no longer present. The World Heritage Area at Naracoorte Caves in South Australia has also contributed to these paleontological studies. The marsupial megafauna is now better known from the study of cave deposits.

These themes of modern speleological study will form part of the Seminar program at the Congress and will be integrated with other exciting new areas of speleological investigation across the world.