

THE AUSTRALIAN SPELEOLOGICAL EXPEDITIONS TO THAILAND 1985-1986

John Dunkley & Kevin Kiernan

Abstract

Two expeditions of 6 and 10 persons plus local logistical support visited Thailand in May 1985 and April-May 1986. A total of 12km of new cave was discovered and over 20km of surveying carried out. The two longest caves on the mainland of South-East Asia, Tham Nam Mae Lena and Tham Nam Lang each reached 8.4km. These two caves aggregate 14km of superb stream passage, exploration of which required rubber boats and lilos. Further geological and geomorphological work was undertaken and some significant archaeological sites requiring further investigation were located.

During the period 1983-86 six expeditions visited the previously unreported karst and caves of the Nam Khong basin in north-west Thailand. Two of these were moderately large endeavours: in 1985 six cavers spent 9 days in the field, in 1986 10 members were 18 days in the north-west and a further 10 in central and south Thailand.

Exploration and surveying has been the main theme of the expeditions. About 100 caves have been explored, and a total of nearly 26km of caves surveyed. A scientific research programme commenced in 1986, covering geology, geomorphology and archaeology and we expect this to continue in future years. One paper has been published, three more are in press or preparation, and we have completed a 62-page report on the expeditions.

The main accomplishments in north-west Thailand have been:

1. Discovery and exploration of two major river cave systems totalling nearly 17km of passage, of which about 14km are actual stream passages. These are the two longest caves known on the mainland of south-east Asia.
2. Exploration and survey of a further 8km in caves up to 1.4km long. Included is a cave which at 276m is the deepest known in mainland south-east Asia.
3. Recording of over 30 archaeological cave sites in the Nam Land - Nam Phong basin, and publication of preliminary observations. Coffins and timbers have been recorded in all but 5 of these sites, while artefacts of stone, ceramics, bones and metal are also found.
4. A reconsideration of cave genesis and development. While regional strike alignment is common, the influence of plunging folds may be an important factor in cave development. The two longest caves both have trans-structural drainage, and it seems possible that these caves are formed by erosion along favorable bedding planes following the strike of the limestone around the noses of plunging folds. In common with observations elsewhere, the largest caves are found where potentially aggressive water is able to concentrate on non-carbonate rocks before entering the limestone. Even so, we know of caves of the order of 1km in length whose catchment is entirely in limestone. In these cases, streams maintain a brief course on relatively impermeable hillwash sediments before entering caves.

In the south of Thailand a characteristic tower karst prevails. Surveying and exploration was carried out in the more accessible caves near Phangnga, some of it from a rented power boat. Preliminary notes on this karst have been published and a continuing research programme is envisaged. On future trips we hope to pursue the questions of former sea levels, tectonic uplift and the chronology of relief evolution. This is a superb area for those wishing to combine cave exploration with a little scientific snorkelling.

This report supplements the paper published in Helictite 23 (1), 1985. A comprehensive, well-illustrated account of the area may be found in the expedition report:

Dunkley, J.R. & Brush, J.B.: Caves of north-west Thailand.
Speleological Research Council Ltd., Sydney, 1986, 62pp.