

## CHAPTER 3

### STUDY SITE

#### 3.1 Status and location of Pha Taem National Park

Pha Taem, the 74<sup>th</sup> national park in Thailand, was established on November 27, 1991, after the historical cave paintings were discovered by a Silpakorn University research group. It locates on the east side of Ubon Ratchathani Province, and its total area is 340 square kilometers. The park occupies part of Pho Sai district, Si Mueang Mai District and Khong Chiam District. It is bounded on the north, east and south by the Mae Khong River. This national park is situated on 15° 23' - 15° 46' North latitude and 105° 28' - 105° 34' East longitude (Figure 1). It consists of many interesting places not only the cliff historical wall paintings but also the mushroom rockpillars and a few waterfalls, i.e. Soi Sawan and Saeng Jan. (การท่องเที่ยวแห่งประเทศไทย. 2543)

#### 3.2 Topography

Pha Taem National Park is located on Korat Plateau and is the part of the Phanom Dongrak mountain range. The topography of this area in general is an undulating plain consisting of rock pillars, rock platforms, sandstone, a thin layer of sandy soil, and several short streams which flow into the Mae Khong River. In addition, there are many cliffs at the eastern part of the park. The altitude is about 250-300 meters above sea level. (ไชยศ วิชยพงศ์ และ คณะ. 2543.)

#### 3.3 Climate

The climate of Pha Taem National Park is a monsoonal climate with three distinct seasons, i.e. rainy season from May-September, winter season from October to February and the summer season from March-April. According to the climatological data from the last 3 decades, the average annual relative humidity was about 73%, and the average maximum and minimum relative humidity were 88% and 53%, respectively. While the average annual temperature was 26.9°C. the average maximum temperature was 42.0°C in April and the average minimum temperature was 8.5°C in December. The average annual rainfall was 1848.7 mm. The highest average monthly rainfall of approximately 443.2 mm was observed in August. There is no rainfall from December -February (Figure 2).

### 3.4 Vegetation

This study site's elevation, climate and topography, cause it to be classified into two types.

#### 3.4.1 Dry dipterocarp forest.

This vegetation can be found in the area where some sandy soils are not eroded by rainfall. Some big trees, not more than 10 meters tall are scattered in this area. Several species in the family Dipterocarpaceae are dominant species. The ground layers are covered with saplings and small shrubs, including many bamboos, etc.

#### 3.4.2 Open rock platform

There are a lot of annual herbs that grow in the rainy and winter season, such as *Utricularia* spp., *Kaempferia* spp., *Xylis* spp., some terrestrial orchids and some grasses, etc. During the rainy season, soil erosion occurs on the day of heavy rain. The ground cannot absorb water and moisture. In the dry season, therefore, almost all the species cannot survive in this arid land, except those drought resistant species.

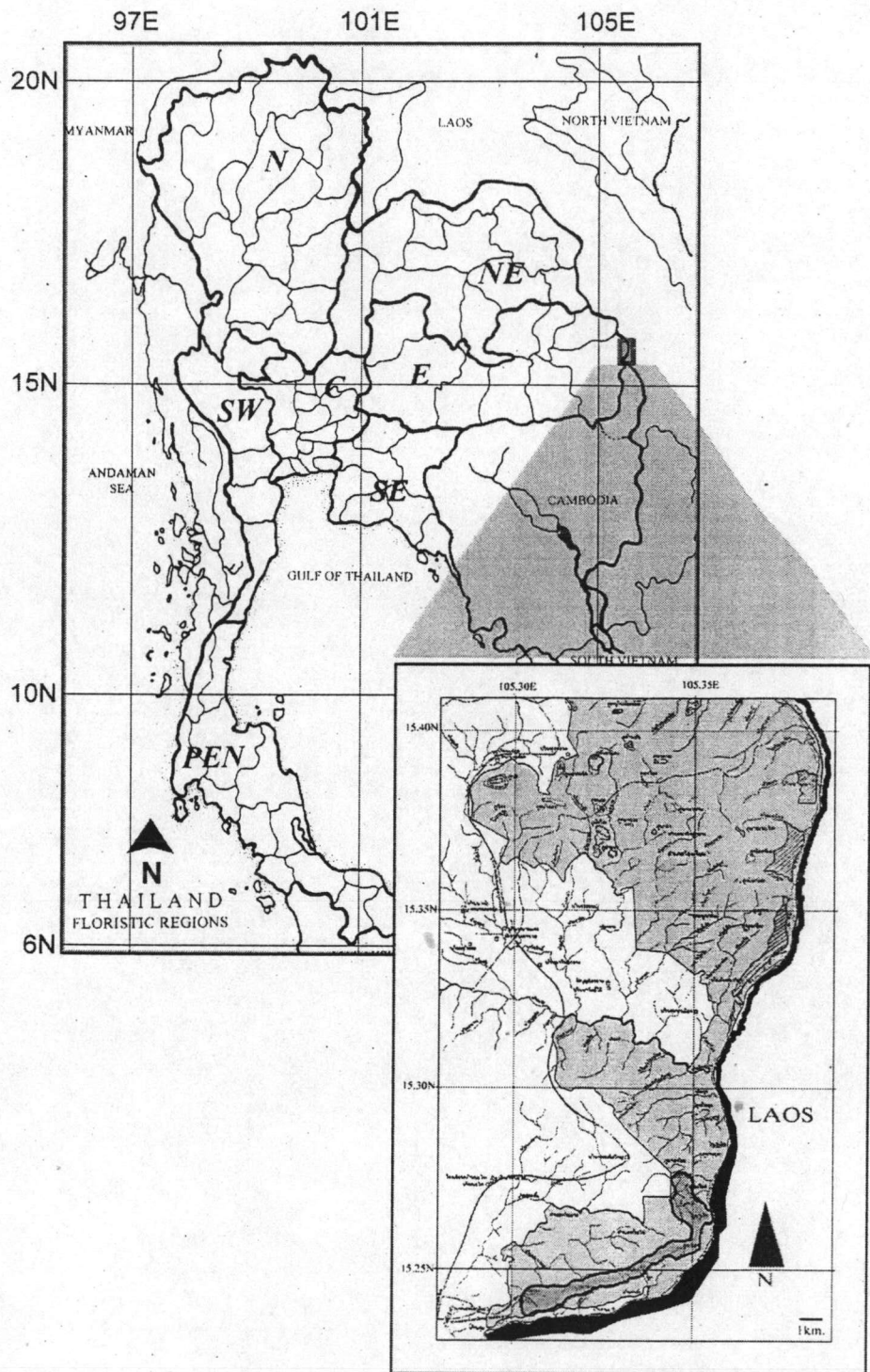
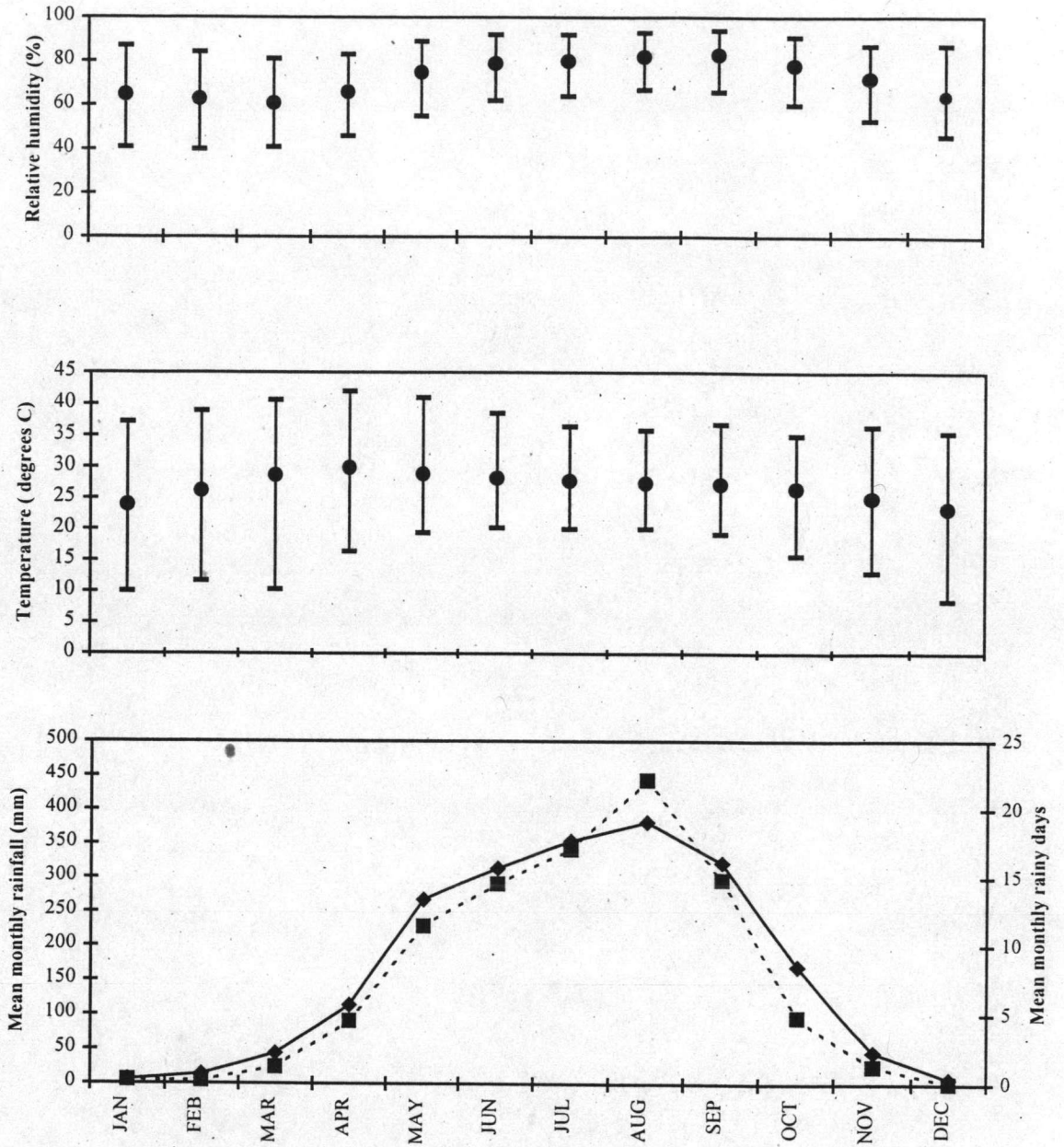


Figure 1 Location of Pha Taem National Park.



**Figure 2** Climatological data during the period, 1972-2002, from Ubon Ratchathani Station (Data from the Department of Meteorology, Bangkok, Thailand).

- - - -  Mean monthly rainfall  
 — — — —  Mean monthly rain days