

CHAPTER 3

STUDY SITE

3.1 Huai Yang Waterfall National Park

Huai Yang Waterfall National Park was established in 1971. It is located in Tanao Sri Range, and becoming natural border between Thailand and the Union of Myanmar, covers an area of approximately 161 km². The park occupies parts of 5 subdistricts i.e.: Huai Yang, Khao Lan, Sang Arun, Na Hu Kwang and Ang Thong of Tubsakae district, and subdistrict Chaikasame of Bang Saphan district, Prachuap Khiri Khan province (Figure 3.1). This area is marked out approximately by geographical coordinates of 11°37'-11°41' north latitude and 99°24'-99°37' east longitudes. It is bounded on the north by Hin Chaung Canal in Huai Yang subdistrict, Tubsakae district; on the south by Morasuap Canal in Chaikasame subdistrict; on the east by Tubsakae Reserve Forest, Tubsakae district and Bang Saphan district; and on the west by the Union of Myanmar (Plerdpling, 2000).

The park ranges in elevations from 100 to 1,250 m at the summit of Khao Laung. Most of the park are mountainous areas, plains are observed only in the valley. Generally, the mountain slopes in the park are about 10-30% (Plerdpling, 2000).

The climate of the area is Tropical savannah Climate of high temperature all year round and a distinctive dry season occur, i.e., a rainy season from May to November, a winter season from December to February and summer season from March to April (Meteorological Department, 2002). Prachuap Khiri Khan Climatic Station in Muang district is the nearest station. Climatological data from 1972 to 2002 indicates an average annual temperature of 27.1 °C. The average maximum temperature is about 33.2 °C during April and May, and the average minimum 19.9 °C occurred in January (Figure 2). The average annual relative humidity is 78%, while the average maximum relative humidity is 89% and the average minimum relative humidity is 63%.

The average annual rainfall is 1,150 mm. The highest average annual rainfall of approximately 230 mm was observed in October, whilst the lowest annual rainfall of about 28 mm and a few rain days were observed in December which is the driest month (Figure 3.2).

The vegetation of Huai Yang Waterfall National Park consists of mixed deciduous forest, dry evergreen forest, tropical evergreen forest and hill evergreen forest (Plerdpling, 2000).

3.2 Khao Laung

Khao Luang is one of the high peaks of Tanao Sri Range. It ranges in elevations from 1,000 to 1,250 m, covers an area of approximately 3.5 km² or about 2% of the park area (Plerdpling, 2000). The primary forest is near the summit of Khao Luang. The vegetation is a hill evergreen forest, covered by rich humus with high humidity. This area composed of 4 sub-habitats i.e. 1) humus rocks and grass land in open field, 2) small stream area, 3) the valley with tree more than 15 m high and shade area, and 4) the summit with small tree ca. 8-10 m with loose canopy. From the observation period between May 1999-July 2002, this area had higher humidity

than Climatological data from Climatic Station in Muang District. Khao Luang is the important water sources and streams which flow into waterfall such as Huai Yang Waterfall and Bua Sawan Waterfall (Figure 3.3).

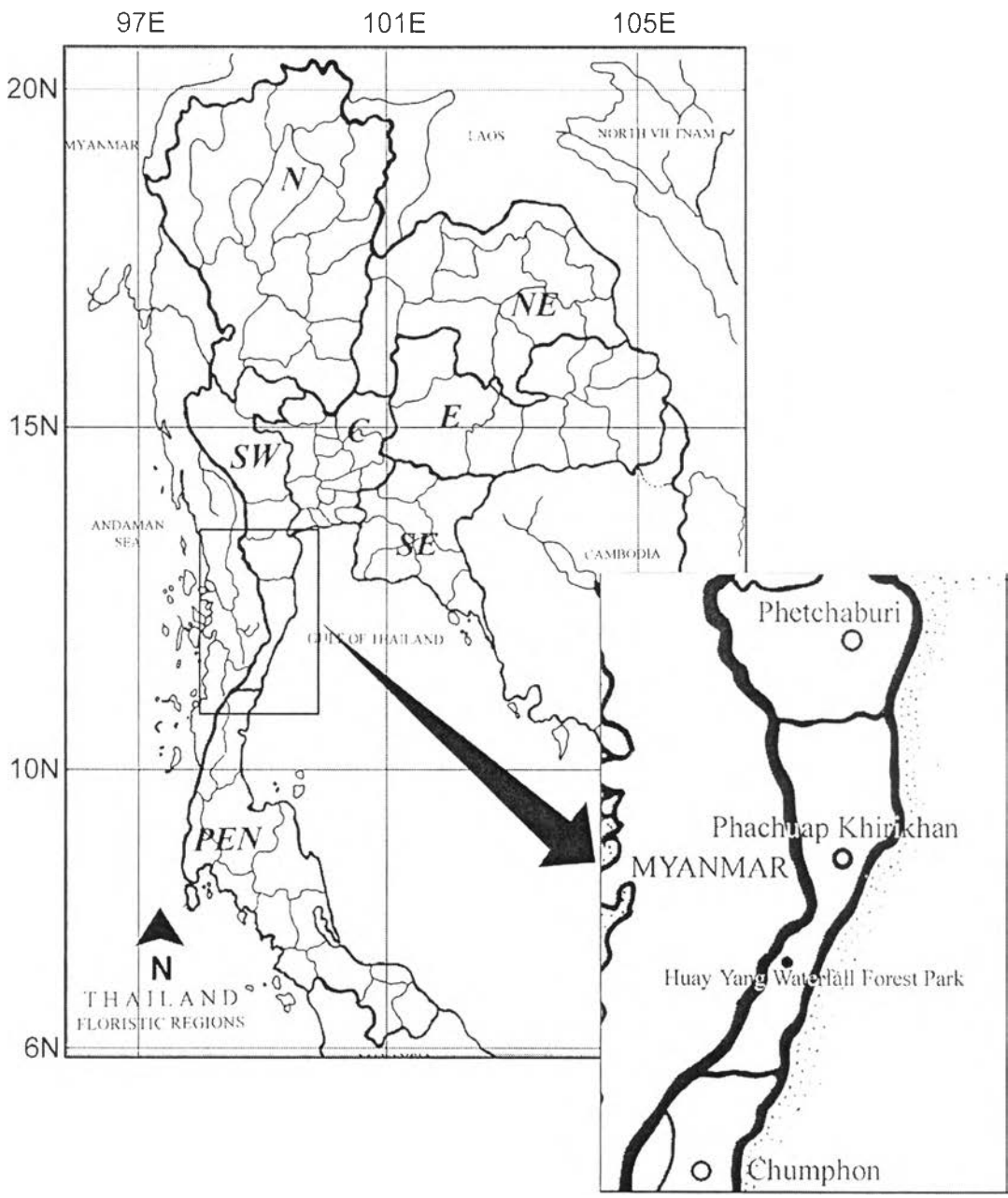


Figure 3.1 Maps showing the location of Huai Yang Waterfall National Park.

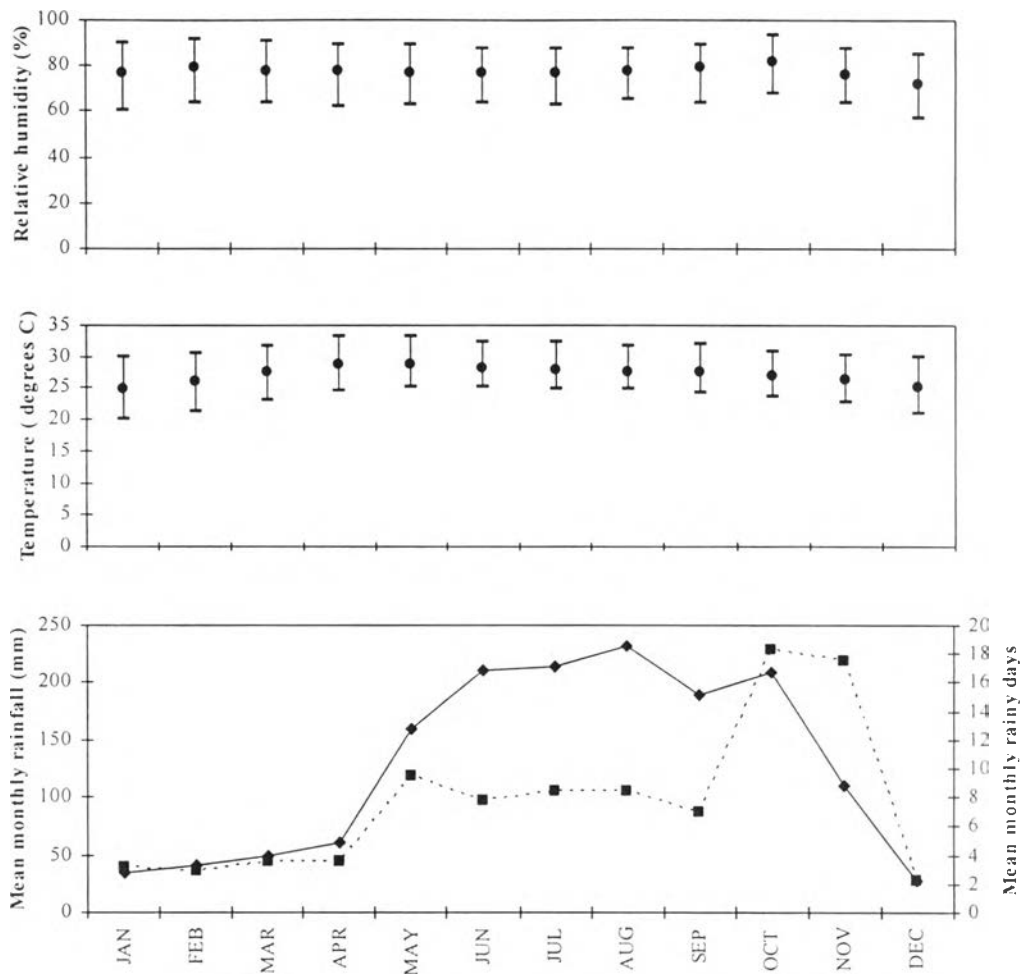


Figure 3.2 Climatological data during the period, 1972-2002, from Prachuap Khiri Khan Station (Data from the Department of Meteorology, Bangkok, Thailand).
 ■-----■ Mean monthly rainfall ◆-----◆ Mean monthly rainy days

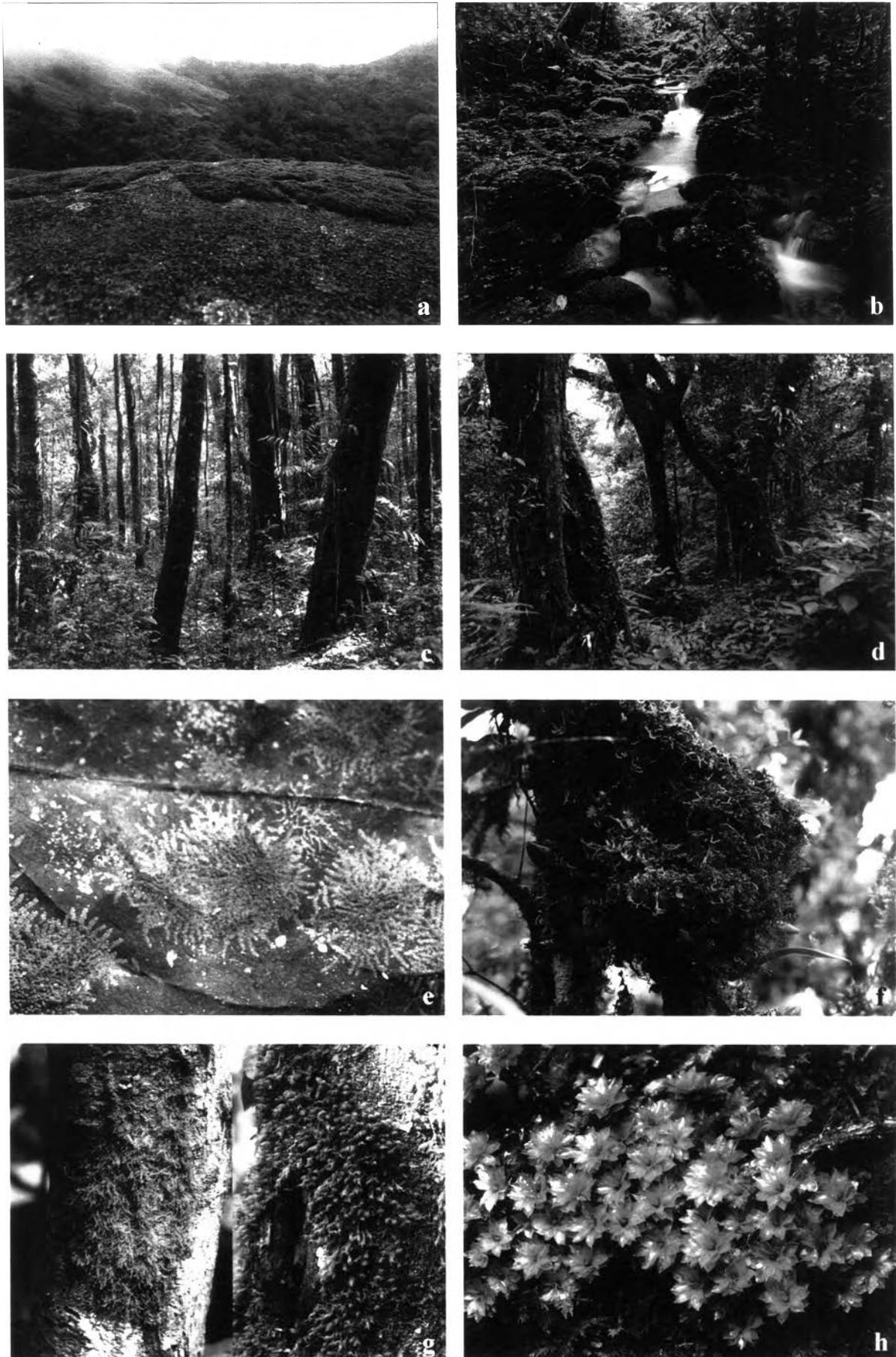


Figure 3.3 The study sites and habitats of bryophytes; a. humus rich rocks and grassland; b. small stream area; c. the valley and slope; d. the summit area; e.-g. epiphytes, e. epiphyllous, f. ramicolous, g. corticolous; h. terrestrial.