

## **CHAPTER 3**

### **MATERIALS AND METHODS – TAXONOMIC STUDY**

#### **Study site**

This study concentrated on the occurrence of genus *Curcuma* L. in Thailand only. Thailand situated between 96°-105° 5' E and 6°-16° 5' N. It is bordered by Myanmar in the West, Laos in the North, Cambodia and Laos in the East and Malaysia in the South. The vegetation in Thailand is classified into two main types, i.e. deciduous and evergreen forests, based on species composition and environmental factors.

#### **Herbarium specimens examined**

Specimens of *Curcuma* collected from Thailand and neighboring countries deposited in the following herbaria in Thailand and abroad were consulted: AAU, BCU, BK, BKF, BM, C, CMU, E, HN, K, KEP, KLU, KUN, L, P, PNH, PSU, QBG, SING and TCD (abbreviation according to Index Herbariorum).

#### **Field study**

Surveying and collecting were conducted from March to October during 2001 and 2004. Field works were concentrated in the eastern and western regions where were less explored in the past.

#### **Method**

Plant materials were conducted for herbarium specimens, each with at least four duplicate if possible to deposit at AAU, BKF, PSU and QSBG. Specimens were prepared follow Bridson and Forman (1992). Flowers were preserved in 70% Ethanol. Rhizomes were collected to plant in the sursery of Prince of Songkla University and Queen Sirikit Botanic Garden for closely observe. Pieces of leaf were stored in silica gel for DNA extraction. Herbarium specimens seen have been studied and annotated by traditional methods of herbarium taxonomy.