

Botanical study of the family Zingiberaceae in Cambodia, Laos and Vietnam

LOEUNG Chanthy¹ & Mark NEWMAN²

¹ Royal University of Phnom Penh, Faculty of Science, Department of Botany, Bld of
Confederation of Russia, Phnom Penh, Cambodia.

² Royal Botanic Garden Edinburgh, 20A Inverleith Row, Edinburgh EH3, 5LR, Scotland.

Zingiberaceae is a family of flowering plants consisting of aromatic perennial herbs with creeping horizontal or tuberous rhizomes, comprising ca. 52 genera and more than 1300 species, distributed throughout tropical Africa, Asia, and tropical America. Cambodia, Laos and Vietnam have a good representation of Zingiberaceae. The majority of specimens collected in Indochina are housed at the Muséum national d'histoire naturelle, Paris making access difficult for Indochinese botanists. This research project proposes a botanical study of the family Zingiberaceae in southern Indochina. The main goals of the study are:

1/ to revise and update the Zingiberaceae flora of southern Indochina and to contribute towards a revision of the family in the “Flore du Cambodge, du Laos et du Vietnam”;

2/ to study the biological, ecological and ethnobotanical characteristics of the Zingiberaceae in southern Indochina ;

3/ to establish a botanical database and a living collection of Zingiberaceae species in Indochina.

The activities of this research were: training students and participants of the Zingiberaceae project (24 May 2010); field work in the area of Veal Veng District, Pursat province; studying the diversity of biological characteristics of Cambodian Zingiberaceae species; collecting herbarium vouchers using the alcohol method with associated DNA samples and living specimens.

Fourteen collections were made as a result of this research over two days (26–27 May 2010), namely, 1 *Alpinia*, 4 *Amomum*, 3 *Curcuma* (1 living species), 1 *Etilingera*, 2 *Globba* (2 living species), 1 *Kaempferia* and 2 *Zingiber* (2 living species). These Cambodian Zingiberaceae species were collected and recorded in sets of 6 duplicates (Cambodia, Laos, Vietnam, Scotland, France and Singapore). The morphology of almost all genera of Cambodian Zingiberaceae was studied and herbarium vouchers were prepared with liquid and DNA samples.