



## CHAPTER I

### INTRODUCTION

*Alangium salviifolium* Wang. subsp. *hexapetalum* Wang. belongs to the family Alangiaceae. The name of this plant is synonymous with *A. lamarckii* Thw. and also with *A. hexapetalum* Lamk. This plant is generally found in the tropical regions of India, Sri Lanka, South-China, Malaysia and Philippines (Kirtikar and Basu, 1933). In Thailand, it distributes in the central, eastern and northern parts of the country. It is known in Thai as ปู Pruu, ผลู Phluu (Central); ปู Pruu (Northern, North eastern); มะเกลือกา Ma kluea kaa (Prachin Buri); and มะต่าปู Ma taa puu (Chiang Mai) (Smitinand, 1980).

According to Smitinand (1980), there are other two species of the genus *Alangium* found in Thailand, namely *A. begoniifolium* Bail. and *A. kurzii* Craib. The name *A. begoniifolium* Bail. is synonymous with *A. chinense* Rehd. It is known in Thai as ข้าวเย็น Khaao yen ( Northern); ข้าวเหิน Khaao hen, คางคก Khaang khok (Lampang); เชน Chen, มะฮังค่าง Mahang- kaang (Karen - Mae Hong Son); ผีเสื้อ Pheesuea (Nakhon Ratchasima); มอน Mon (Mae Hong Son); มะตับชะวาย Matap lawaii (Chiang Mai); หญ้ามา Yaa-mao (Shan - Northern). For *A. kurzii* craib., it is known in Thai as จำปาทอง Champa thong, ผาเก Phaake (Surat Thani); ฝาละมี Faalamee (Pattani); สะลึกดง Saleek dong (Chiang Mai).

*A. salviifolium* has been used in the Indian indigenous systems of medicine from ancient times. The root, root-bark and bark have been claimed to be useful as anthelmintic, emetic, diaphoretic, antipyretic and purgative agents, particularly in the

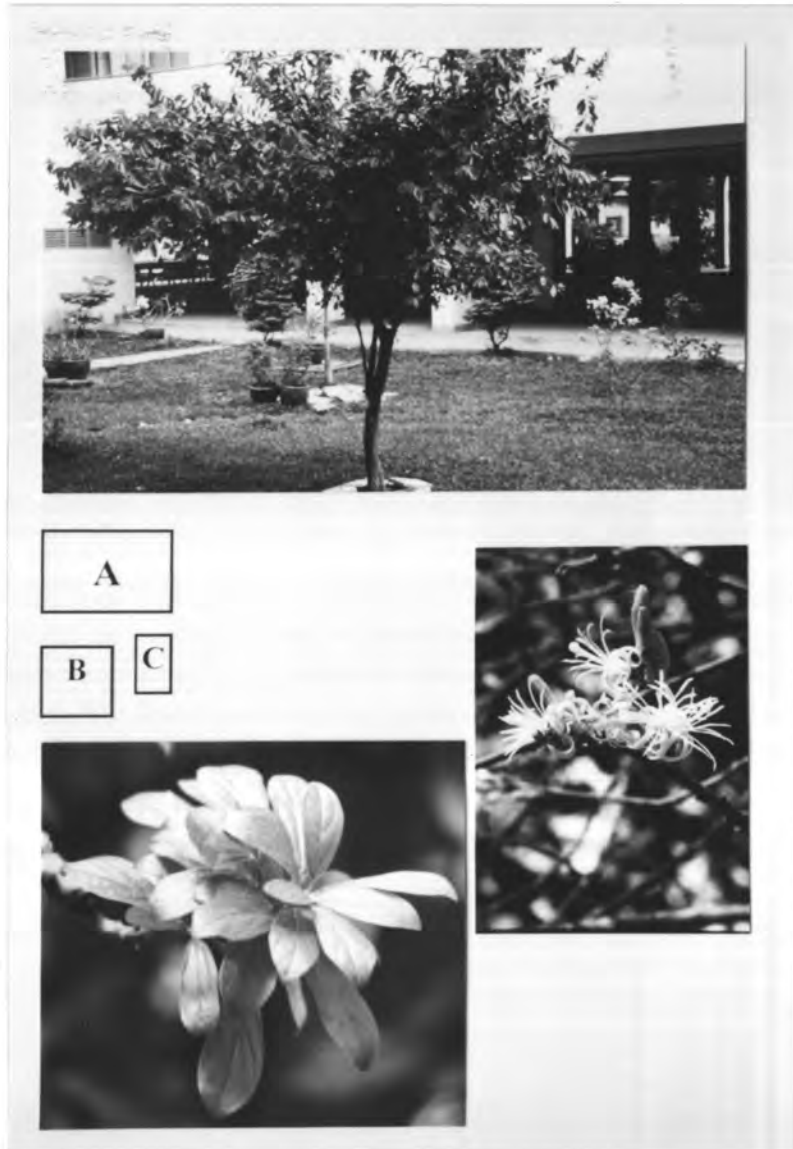


Figure 1 *Alangium salviifolium* Wang. subsp. *hexapetalum* Wang. (A)  
leaves (B), flowers (C)

treatment of leprosy and skin diseases, while the leaves are used as a poultice to relieve rheumatic pains (Kirtikar and Basu, 1933). In Thai traditional medicine, the stem bark, wood and fruits of this plant are used. The stem bark is used as expectorant for asthmatic patient and antidiarrheal agent. The wood is used as tonic and for treatment of hemorrhoid. The fruit is used as anthelmintic and carminative (มหาวิทยาลัยมหิดล, คณะเภสัชศาสตร์, 2535).

Phytochemical works on the alkaloids of *A. salviifolium* yield emetine, cephaeline, and psychotrine as the first isolated alkaloids (Budzikiewicz, Pakrashi, and Vorbruggen, 1964). Subsequently, several more alkaloids have been reported from this plant. Almost all of them are tetrahydroisoquinoline monoterpene alkaloids. All the phytochemical works on *A. salviifolium* have been done on several parts of the plant. It should be noted that most of the previous studies have been performed on plant materials collected from different countries especially from India, but not from Thailand. The variation in geographical races and even chemical composition might occur in the species of *A. salviifolium*. This thesis, therefore, describes the investigation of alkaloids from the root and also from the leaves of *A. salviifolium* collected in Thailand, expecting that there will be interesting variation in the pattern of alkaloids from various plant parts as compared to previously reported alkaloids.