

ThaiLife

The Wild Flowers of Thailand



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Cover :

This climber grows in one of Kanchanaburi's mixed deciduous forests. First discovered in 1971, it was named *Afgekia mahidolae* Burt & ChermSirivathana after Her Royal Highness Princess Sri Nakharindra, the Princess Mother, as a tribute to her predilection for wild flora in Thailand. "Kanphai" bears strikingly beautiful flowers. Because vernacular name, Kanphai, means "protection from dangers", it is a favourite ornamental plant to be grown either in front of the house or on fences.





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OF LIFE





INTRODUCTION

"The Wild Flowers of Thailand" commemorates the auspicious 90th birthday anniversary of Her Royal Highness Princess Srinakarindra, the Princess Mother, which fell on October 20, 1990. Her Royal Highness' predilection for wild flowers of Europe has been well publicized but very few people are aware of her equal if not greater penchant for our own indigenous wild flowers.

During her innumerable visits to promote health and welfare of the Thai people living in the remotest corners of the kingdom, she has shown great interest in conserving nature and the environment of which wild flowers form an integral part.

This publication attempts to give several dimensions to this aspect of Her Royal Highness' activities, ranging from an account of her early interest in flowers and nature that culminates in a large-scale reforestation project in the North, an illustrated description of indigenous flowering plants, a detailed description of all the 12 Princess Mother's parks that commemorated her 80th birthday anniversary, to the cultural aspect of flowers in the Thai lifestyle.

National Identity Board
September 1992

H.R.H. THE PRINCESS MO



The unique beauty and aesthetic forms of wild flowers have always attracted the Princess Mother's interest since her days abroad. In her early married years at Sa Prathum Palace in Bangkok the Princess Mother enjoyed gardening to beautify the grounds of the Royal Residence.

During her summer vacations in Switzerland, whenever she ventured into the surrounding fields and mountain slopes, alpine flowers, such as edelweiss, gentians, gnaphalium, azaleas and polygonum attracted her attention. These dainty flowers were collected and pressed, either in albums as reference for further study, or in frames, greeting cards, book-marks, and paperweights as souvenirs or rewards for her retinue and acquaintances.



CHAPTER 1

HER AND WILD FLOWERS







Sometimes, on these vacations, wild mountain flowers were picked and arranged in small containers, such as sugar and jam dishes, washing bowls and such like. Occasionally, she quietly placed her flower arrangements on the hotel tables of certain acquaintances without their knowledge. This amusing practice drew the attention of a French author, Pierre Daninos, who often spent summer vacations at the same hotel, though without knowing whom she was. He remarked upon this romantic trait in his book *"Vacances à Tous Prix"* : "Il y a une demoiselle très gentille qui cueille des fleurs dans la montagne et compose de petits bouquets qu'elle pose en secret sur la table des amoureux. Elle est de ces personnes qui connaissent chaque chose par son nom : plantes, arbres, glaciers. Le soir, sur la terrasse, elle récite les étoiles—Antarès, Cassiopée, la Lyre—et renseigne les gens comme moi qui, après la Grande Ourse, nagent." (Galyani Vadhana, 1987) ★

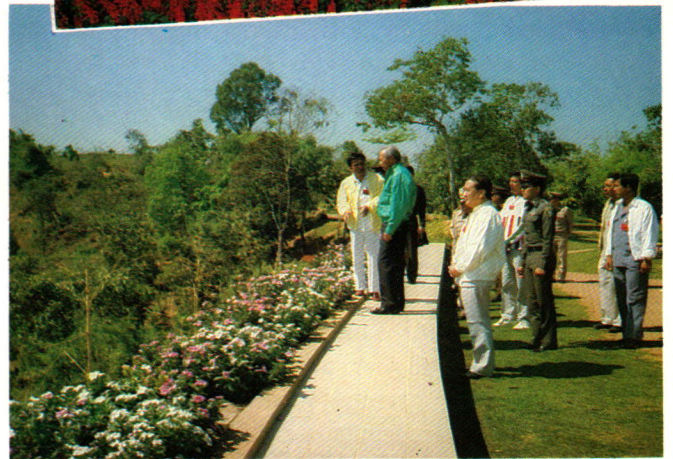
★ "There is a very charming young lady who picks flowers in the mountains and makes up little bouquets which she puts secretly on the tables of people in love. She is one of those people who knows everything by its name : plants, trees, and glaciers. At night on the terrace she recites the names of the stars—Antares, Cassiopeia, Lyra—and teaches people like me, who, after the Great Bear, are completely lost." (1958)



During the Princess Mother's visits to promote the health and welfare of the people in remote areas of Thailand, she often stays in mountain resorts such as Phu Kradeung National Park in Loei Province where she can continue to enjoy the beauty of wild flowers.

Her knowledge of botany is immense, enabling her to compare and identify native genera and species similar to those of the alpine region ; for example, oaks, pines, birches, rhododendrons, azaleas, gentians, primroses, polygonums, violets and lilies.

Her favourites are those herbaceous wild plants with blue flowers, such as bladderworts (utricularias), gentians and violets. Her attention is also attracted to dainty, small-flowered plants like orchids, such as spathoglottis, habenarias, pachystoma ; and the white-flowered eriocaulons.





The front cover of the book *"Busy Fingers"*, written by H.R.H. Princess Galyani Vadhana (1987), shows H.R.H. the Princess Mother holding a cardamine at Chalet-à-Gobet, near Lausanne, while out collecting wild flowers. She seems to be admiring the flower's natural beauty whilst contemplating how best to preserve this fragile beauty forever ; this appears to be the source of inspiration for all her artistic creations : flower paintings on ceramics and porcelain, and tapestry.





The Doi Tung Development Project, covering 493,515 rai, came into being under Royal Patronage through the Mae Fa Luang Foundation and the auspices of the Ministry of Agriculture and Cooperatives in 1988, since the Princess Mother had established her Royal Residence on a mountain ridge of Doi Tung, in Mae Chan district of Chiang Rai. The idea for the project was conceived by the Princess Mother several years ago during one of the flying trips to the area. The sight of barren mountains deteriorated through "slash and burn" farming commonly used by hilltribes, and the ecological damage brought on by commercial deforestation, brought home the fact that something had to be done to restore the natural balance of the mountains. Trees needed to be planted—not just a few hundred, but millions. Furthermore, there was also the problem of eliminating opium cultivation, which the hilltribes had adopted since ancient times as their major source of income, and how to improve their living standards without destroying their ethnic culture. This needed to be done in a way that would gain their cooperation and support.





The Project was implemented in 1989, and conceived as a programme of integrated development research and study into the recovery of natural forest and catchment areas, taking in improvements in the living standards of both hilltribes and lowland people.

Such development would not be only to establish social stability, but logistical security for the North. The initiation of systematic development would also be a model for other



areas to follow in future.

Under this project the Princess Mother has concentrated on botanical activities, such as the propagation of cut-flowers of economic value like chrysanthemums, carnations, gladioli, and roses as well as ornamentals, such as dianthus, salvias and petunias. She has also encouraged orchard development of fruit trees like persimmons, apples and pears, for example, because of the economic value of such fruit.





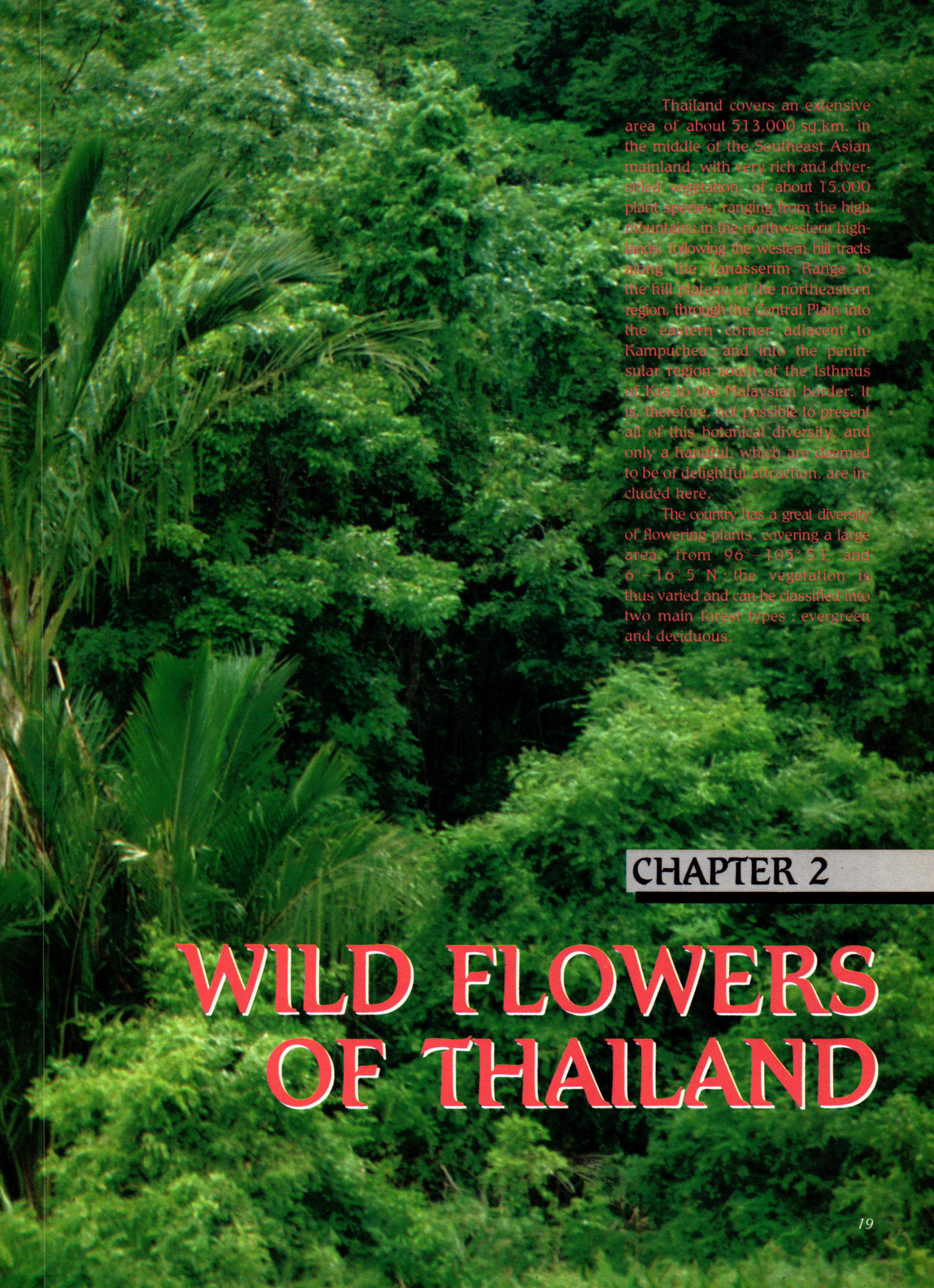
Besides, she has been involved in the introduction of tissue culture techniques for well-known economic plants and attractive indigenous species which merit large-scale propagation.

The natural environment surrounding her Royal Residence is being conserved and developed as an arboretum, arranged systematically for a complete taxonomic study of the indigenous plant. She has beautified the mountainous landscape in that area with trees and flowers, such as maples, cherries, azaleas and rhododendrons.

All of these activities, we assume, have stimulated the Princess Mother's inquiring and energetic mind into pursuing her botanical interest with great pleasure. Her restoration of the mountainous region surrounding her Royal Residence will ensure her health and happiness for many years to come.







Thailand covers an extensive area of about 513,000 sq.km. in the middle of the Southeast Asian mainland, with very rich and diversified vegetation, of about 15,000 plant species, ranging from the high mountains in the northwestern highlands, following the western hill tracts along the Tanasserim Range to the hill plateau of the northeastern region, through the Central Plain into the eastern corner adjacent to Kampuchea; and into the peninsular region south of the Isthmus of Kra to the Malaysian border. It is, therefore, not possible to present all of this botanical diversity, and only a handful, which are deemed to be of delightful attraction, are included here.

The country has a great diversity of flowering plants, covering a large area, from $96^{\circ}-105^{\circ} 5' E$ and $6^{\circ}-16^{\circ} 5' N$; the vegetation is thus varied and can be classified into two main forest types: evergreen and deciduous.

CHAPTER 2

WILD FLOWERS OF THAILAND





EVERGREEN FOREST

The evergreen forest is divided into four main categories, namely the lower montane or hill evergreen forest ; the lowland evergreen ; brackish-water swamp or mangrove forest ; and fresh-water swamp.

LOWER MONTANE FOREST

The lower montane forest occupies a higher elevation of 1,000 m. from the mean sea level upwards. It is distributed all over the country with a diversity of temperate flowering plants. The more extensive area is in the northern region, where it can be divided into sub-types depending on the composition of plant community and soil derivation from granite, sandstone or limestone bed rocks.

The granite formations are well covered with a forest of unbroken crown canopy, composed of large trees belonging to the magnoliads, myrtles, laurels, oaks, chestnuts, elm and birch together with small trees and shrubs such as the ericads. Of all these plants the magnoliads and ericads have the most beautiful flowers. The magnoliads are represented by members of the genera *Magnolia*, *Manglietia*, and *Michelia* ;



Manglietia garrettii
Monthaa paa (มณฑาป่า)



Bretschneidera sinensis
Chomphu phuuukaa (จันทน์ผา)



Prunus cerasoides
Naang phayaa 'sdea khong (ชาวนางยอดดอยไถ่)

the most attractive one is *Manglietia garrettii*, a large tall tree 20–25 m. high, with smooth, cylindric stem ; the large purple flowers appear in February–April. Recently a unique flowering tree, *Bretschneidera sinensis*, with showy pink flowers was discovered at an altitude of 1,500 m. at Doi Phu Kha, in Nan province, being the first record for Thailand. It had previously been found in South China, North Vietnam, and Taiwan. The ericads are comprised the genera : *Agapetes*, *Craibiodendron*, *Gaultheria*, *Lyonia*, *Rhododendron*, and *Vaccinium*. Many members of this group of plants have showy flowers, namely : *Rhododendron arboreum* subsp. *delavayi*, a tree 5–15 m. high with bright red bunches of flowers, blooming in February–May, *Rhododendron moulmeinense*, a tree 2–6 m. high with white flowers, blooming in February–April. The crab apple, *Docynia indica*, a tree with white flowers blooms in March and is not uncommon at 1,000–1,500 m.; and the wild cherry *Prunus cerasoides*, a pink-flowered tree with red fruit also frequent at the same altitude.



Rhododendron moulmeinense
Kham Khaao (คันท้า)



Docynia indica
Mak khee nuu (มักชีหนู)



Hymenopogon parasiticus
Pho aasai (โพอาไซ)



Agapetes hosseusii
Saphao lom (สะภาอลอม)



Agapetes variegata
Prathat yai (ประพัตใหญ่)



Agapetes moorei
Prathat lek (ประพัตเล็ก)



Agapetes parishii
Prathat doi (ประพัตดอย)



Premna interrupta var. *smitinandii*
Piat aasai (เปี้ยตอฮัย)



Aeschynanthus garrettii
Waan kai saet (วันไคแซต)



Aeschynanthus hildebrandii
Waan kai daeng (วันไคแดง)



Aeschynanthus bracteatus
Waan kai tong (วันไคตอง)



Aeschynanthus hosseusii
Waan kai noi (วันไคน้อย)

Epiphytes are abundant on trees in this type of forest, composed of shrubs, ferns, orchids and mosses. The epiphytic shrubs with distinctive flowers are the ericads such as *Agapetes hosseusii*, *A. moorei*, *A. parishii*, and *A. variegata*. All have bright red flowers, which bloom in February–April. Other epiphytic shrubs are *Hymenopogon parasiticus*, with white flowers and one large white sepal; *Premna interrupta* var. *smitinandii*, with small whitish flowers. Other epiphytes with showy flowers are members of the genus *Aeschynanthus*, e.g. : *A. garrettii* and *A. hildebrandii*, with bright red flowers blooming in October–November; *A. hosseusii* with orange-red flowers, from October–November; *A. bracteatus*, with large red flowers, from February–March.



Ascocentrum semiteretifolium
Ueang chambang (เอื้องชามบง)



Coelogyne nitida
Ueang maak lueam (เอื้องหมากเลียม)



Dendrobium traceyanum
Ueang chang (เอื้องช้าง)



Dendrobium crystallinum
Ueang saai saam see (เอื้องสายสามสี)



Dendrobium parishii
Ueang kirang (เอื้องกรัง)



Dendrobium infundibulum
Ueang ngoen luang (เอื้องเงินหลวง)



Dendrobium devonianum
Ueang miang (เอื้องเมี่ยง)

Dendrobium senile
Ueang chanee (เอื้องชะนี)





Pholidota imbricata
Ueang kaap dok (เอื้องกานดอก)



Vanda liouvillei
Ueang liao vilai (เอื้องเลี้ยววิล)



Vanda coerulea
Ueang faa mui (เอื้องฟ้ามุย)



Eria vittata
Ueang phong phan (เอื้องพองพรม)



Vanda coerulescens
Faa mui noi (ฟ้ามุยน้อย)



Arachnis limax
Ueang kaap hoi (เอื้องกานหอย)

The epiphytic orchids are more varied in species, and mostly bloom at the approach of the rainy season, i.e. March–April. The following have quite pleasant flowers *Ascocentrum semiteretifolium*, a rather rare endemic orchid at altitude 2,000–2,100 m. ; *Coelogyne nitida*, at 2,000–2,500 m. ; *Cymbidium traceyanum*, rather common at 1,200–1,500 m. ; *Dendrobium crystallinum*, *Dendrobium parishii*, and *Dendrobium devonianum*, frequent at 1,000–1,200 m. ; *Dendrobium infundibulum*, frequent at 1,300–1,800 m. ; *Dendrobium senile*, at 1,300–1,500 m. ; *Eria vittata*, at 2,000–2,200 m. ; *Pholidota imbricata*, at 1,000–1,100 m. ; *Vanda liouvillei*, at 1,000–1,100 m. ; *Vanda coerulea*, at 1,000–1,500 m. ; *Vanda coerulescens*, and *Vanda denisoniana* at 1,000 m. An endemic and rare orchid *Arachnis limax* is frequent at 1,500–2,000 m. ; a rare orchid *Pleione praecox*, also occurs at the same elevation.



Pleione praecox
Ueang phlaai ngaam (เอื้องพลายงาม)



Alpinia bracteata
Kaa kuk (หมื่น)



Impatiens violaeiflora
Thian doi (เทียนดอย)



Comphostemma strobilinum var. *aeaulis*
Waan nok kabaa (วันนอคาบ)



Begonia palmata
Kaam kung bai laan (คัมภีร์ใบลาน)



Impatiens mengtzeana
Thian thara (เทียนธารา)



Impatiens jurpia
Thian chaap (เทียนจวบ)



Cyrtandromea grandiflora
Chong kaeo (ช้องแก้ว)



Hypericum uralum
Bua kham (บัวขาม)

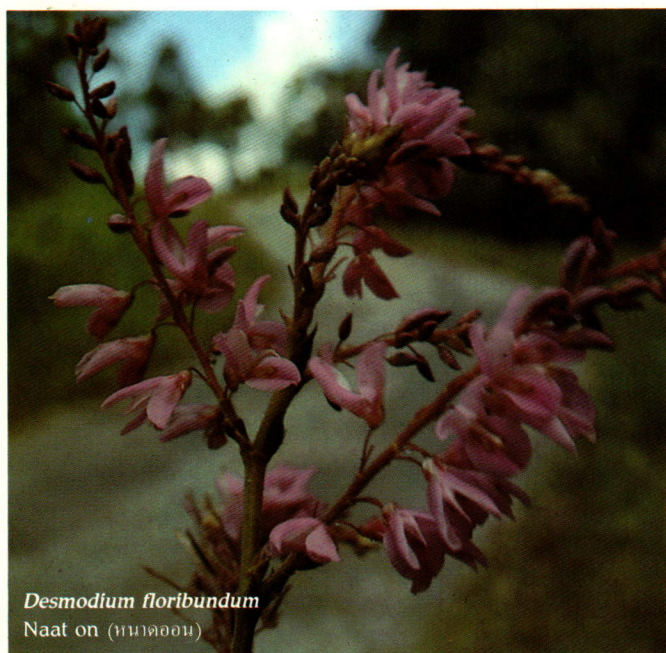


Mahonia siamensis
Khumin ton (ขุมินตัน)



Bauhinia variegata
Sieo dok khaao (เสี้ยวดอกขาว)

The forest floor is well covered with herbaceous plants, some with beautiful flowers, such as : *Alpinia bracteata*, and *A. zerumbet*, both being rhizomatous herbs over 1 m. tall with white and orange-red flowers, blooming in December–April. During September–November many balsams are in bloom, namely: *Impatiens jurpia*, with yellow flowers, *I. mengtzeana*, with white and brown flowers, *I. violaeiflora*, a succulent plant with reddish-purple flowers. *Begonia palmata*, a succulent plant with pink-tinted flowers is also common ; scattered close to the ground is a variegated-leaved, *Gomphostemma strobilinum* var. *acaulis*, with orange-red flowers. Shrubs with beautiful flowers are also scattered among the lower substrate all over the area, i.e. *Mahonia siamensis*, 2–3 m. tall with bright sprays of yellow flowers, blooming in January–February ; *Cyrtandromoea grandiflora*, 1–2 m. tall with white flowers, blooming in January–March. *Hypericum uralum*, a shrub 1–1.5 m. tall, is common in open spaces, with bright yellow flowers, blooming in February–March. On open slopes *Bauhinia variegata*, a tree 5–10 m. tall with white flowers is rather



Desmodium floribundum
Naat on (หนาดอ่อน)



Jasminum auriculatum
Phut-thachaat (พุทธรักษา)



Indigofera sootepensis
Khraam paa (ครามป่า)



Chonemorpha fragrans
Ra khang ngoen (ระกำเงิน)



Abelmoschus crinitus
Krachiap lawaa (กระเจี๊ยบลาว)

common, blooming in March–April ; *Abelmoschus crinitus*, a shrub 1–1.5 m. tall with yellow flowers is scattered together with other shrubs such as *Desmodium floribundum*, *Desmodium oblongum*, *Indigofera sootepensis*, and *Astibe speciosum*, all in bloom from August to December.

Climbers with attractive flowers are frequent such as *Apios carnea*, with slender, wiry stems and pink flowers, scattered in the open spaces among tall grasses and bushes ;

Jasminum auriculatum, straggling over shrubs and trees, the flowers are pink-tinted, and sweet-scented. A few woody climbers with showy flowers also sporadically occur, namely : *Mucuna macrocarpa*, with bunches of creamy and purple flowers, and *Mucuna thailandica*, an endemic species with jade-green flowers in long pendulous inflorescences ; *Chonemorpha fragrans*, a latex-bearing woody climber, with roughly tubercled stem ; the flowers, are white with yellow centre, and fragrant.



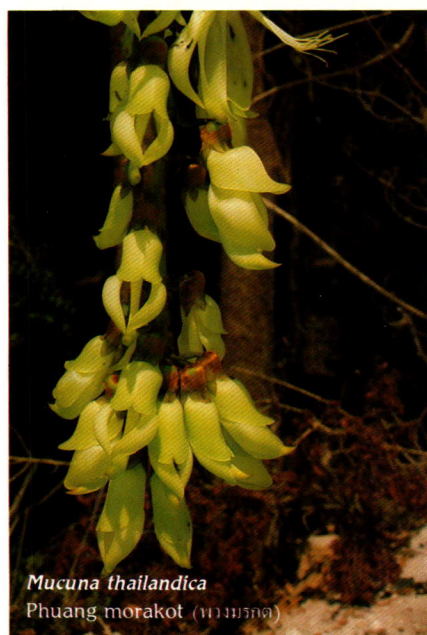
Desmodium oblongum
Naat kham (หนาดคำ)



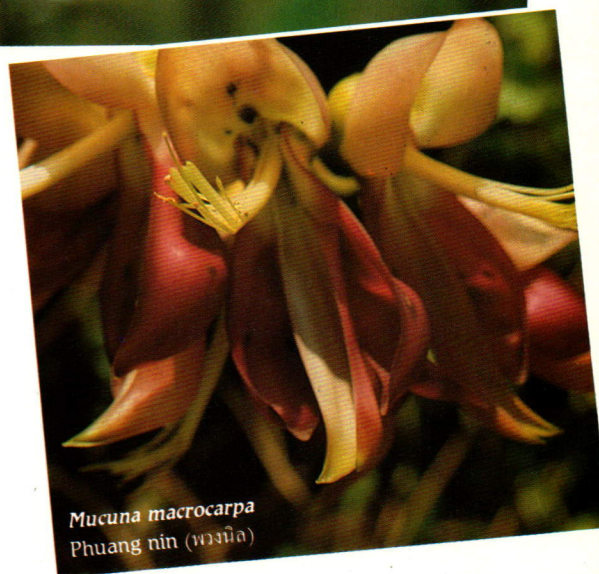
Astilbe speciosum
Atsadong (อัสตัง)



Apios carnea
Aphichat (อภิชาติ)



Mucuna thailandica
Phuang morakot (พuangมรกต)



Mucuna macrocarpa
Phuang nin (พuangนิน)

Pine forest (ป่าสน)



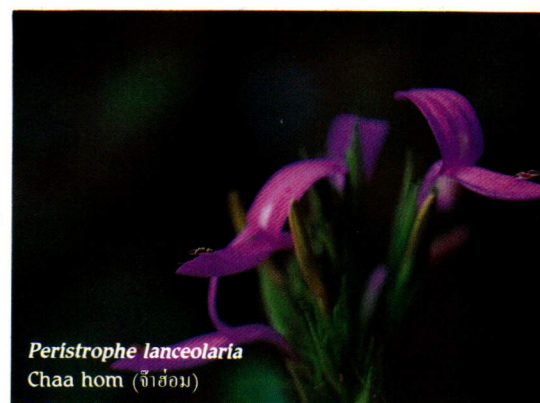
Osbeckia stellata var. *marginulata*
Thao nang hung (เต้านางหุง)



Lyonia foliosa
Dok tai bai (ดอกไต้ใบ)



Melastoma sanguineum
Mung khre chang (มั่งกระช้าง)



Peristrophe lanceolaria
Chaa hom (จ๊าฮ่อม)



Rhododendron lyi
Dok saam see (ดอกสามสี)



Melastoma normale
Chuk naaree (ชุกนารี)



Rhododendron simsii
Kulaap daeng (กุลาแปดแดง)

Sandstone formations, easily recognised by flat-topped mountains bearing more open types of various vegetation such as pine forest, savanna, and evergreen forest along the streams and valleys. In the pine forest there are two tropical pines, *Pinus kesiya*, and *P. merkusii* with members of the oak family belonging to the genera *Castanopsis*, *Lithocarpus*, and *Quercus*, together with other small trees and low shrubs. Some of the low shrubs have attractive flowers, namely : *Lantana trifolia*, 1 m. tall with purple flowers, blooming in August–September ; *Osbeckia crinita*, a low shrub ; *Melastoma sanguineum* and *M. normale*, 1–1.5 m. tall with pinkish-purple flowers, blooming from March to May ; *Peristrophe lanceolaria*, 1 m. tall with bright purple flowers, blooming from April to June ; *Rhododendron lyi*, 1–3 m. tall with white flowers and *R. simsii*, 1–2 m. tall with pink flowers, both blooming from February to April ; *Lyonia foliosa*, 1–2 m. tall with hanging white flowers, blooming in March–May ;

Vaccinium bracteatum var. *eberhardtii* 1 m. tall with white flowers, and *V. sprengelii*, 1–3 m. tall with hanging white and pink-tipped flowers, both blooming from March to May.

The showy-flowered epiphytic plants in the pine forest are orchids such as : the white-flowered *Dendrobium christyanum*, *D. formosum* and *D. virgineum* ; the yellow-flowered *Dendrobium trigonopus* : the orange-red-flowered, *D. unicum*, an endemic species ; a white-flowered *Coelogyne viscosa* ; the brown and purple-spotted-flowered *Epigeneium magnum*, is more frequent. Among open ground and savanna, grasses and sedges are abundant ; during the months of September to November many herbs with dainty flowers bloom, such as : the yellow-flowered



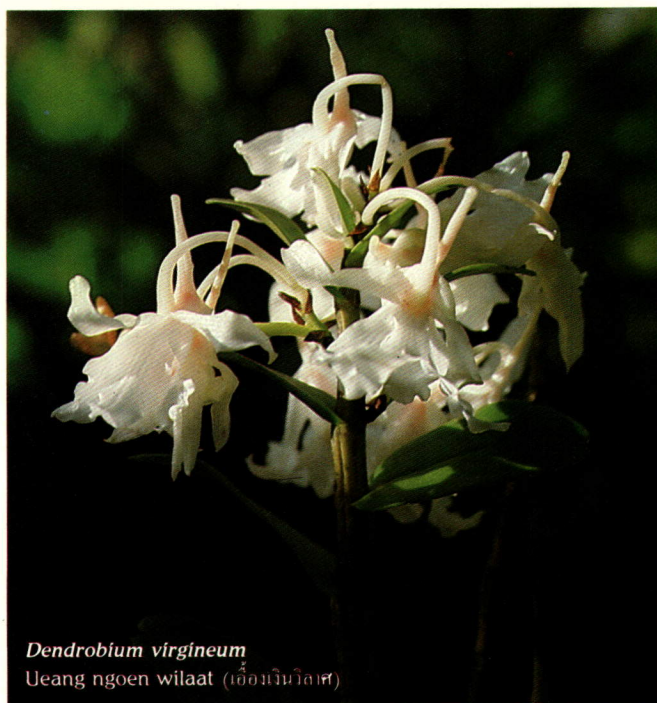
Vaccinium sprengelii
Hua waen (หัวเหวน)



Dendrobium christyanum
Ueang sae phud (เอื้องสายพุด)



Vaccinium bracteatum var. *eberhardtii*
Cho khai muk (ชอ Khai Muk)



Dendrobium virgineum
Ueang ngoen wilaat (เอื้องนงนวิลาศ)



Coelogyne viscosa
Ueang saam dok (เอื้องสามดอก)



Dendrobium unicum
Ueang kamlang eek (เอื้องกำลังเอ็ก)



Dendrobium formosum
Ueang taa hoen (เอื้องตาเหิน)



Dendrobium trigonop
Ueang kham liam (เอื้องขามลิ้ม)



Epigeneium magnum
Ueang krachiang luang (เอื้องกระเจิงหลวง)



Anisopappus chinensis
Daao rueang paa (ดาวเรืองป่า)



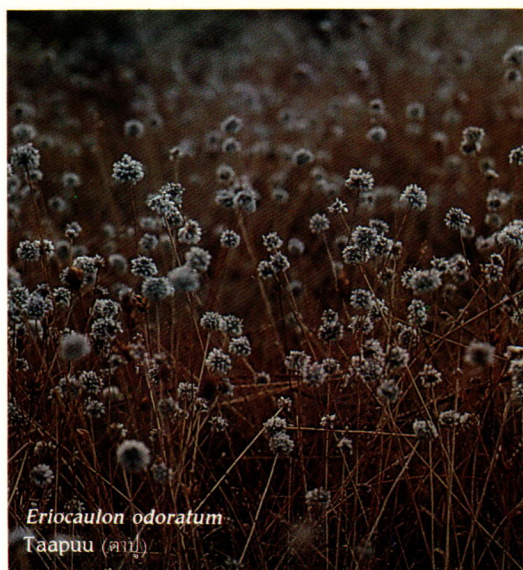
Caulokaempferia thailandica
Proh phung kradueng (ประพองคราดู่ง)



Cyanotis axillaris
Phak plaap naa (ผักปลานนา)



Caulokaempferia calcicola
Proh hin (ประหะหิน)

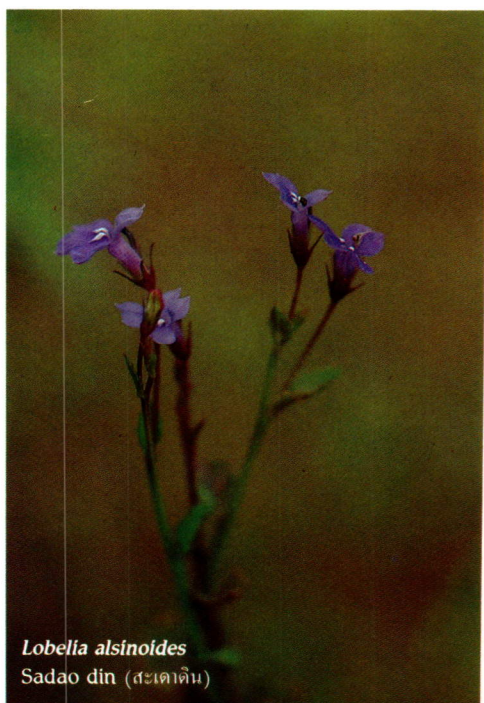


Eriocaulon odoratum
Taapuu (ต๊าปู้)



Caulokaempferia alba
Proh phuu miang (ประพองเมี่ยง)

Anisopappus chinensis, about 1 m. tall ; the faded-purple *Caulokaempferia alba* ; yellow-flowered *C. calcicola* ; the white-pink-flowered *C. thailandica*, with underground rhizome. From March to May a number of annual herbs are in bloom, namely : the blue-flowered *Cyanotis axillaris*, a decumbent plant ; white-flowered *Eriocaulon odoratum* ; bluish-purple-flowered *Lobelia alsinoides* ; *Murdannia gigantea* sending up bluish flowers on a 1 m. long stem ; purple-flowered *Viola betonicaefolia*, with tufted radical leaves ; blue-flowered *Gentiana hesseliana*, and its var. *lakshnakarae*, growing among sphagnum mosses ; purple-flowered *Osbeckia stellata* var. *crinita*, about 30 cm. tall and the pink-flowered *Polygonum affine* with radical leaves.



Lobelia alsinoides
Sadao din (สะเดาดิน)



Gentiana hesseliana
Dok reet thon (ดอกกรวดโหนด)



Polygonum affine
Praeng puen (แปรงปิ่น)



Osbeckia stellata var. *crinata*
En aa khon (เอ็นआขน)



Viola betonicaefolia
Bai phai (ใบพาย)



Gentiana hesseliana var. *lakshnakarae*
Dok reet ko (ดอกกรวดกอ)



Murdannia gigantea
Nam khang klaang thiang (น้ำค้างกลางเที่ยง)

In wet areas marsh-loving temperate plants are frequent, e.g. yellow-flowered *Ranunculus japonicus* trailing over the ground ; yellow-flowered *Torenia hirsutissima* and yellow-flowered *Xyris pauciflora* ; pink-flowered balsams, e.g. *Impatiens chinensis*, *I. pseudochinensis* and *I. masonii*, together with a ground

orchid, *Arundina graminifolia*, of about 1 m. in height ; and the pink-flowered *Cirsium lineare*. Insectivorous plants are also common in this area such as the pitcher plant, *Nepenthes thorelii* ; members of the bladder-worts (*Utricularia*) ; and the sundews (*Drosera peltata* and *Drosera burmannii*)







Gordonia axillaris
Miang luang (มิ่งหลวง)



Vandopsis lissochiloides
Ueang rafa (เอื้องระฟ้า)



Acer calcaratum
Kuam daeng (ควมแดง)



Phaius indigoferus
Ueang phraodong (เอื้องพราวทอง)



Dacrydium elatum
Son haang krarak (สนหางกระรอก)



Impatiens claviger
Thian duei pong (เทียนเดือยปอง)



Cymbidium insigne
Samphao ngaam (သံပေါ့ငါးမ)



Agapetes lobbii
Sa mek (သံမေ)

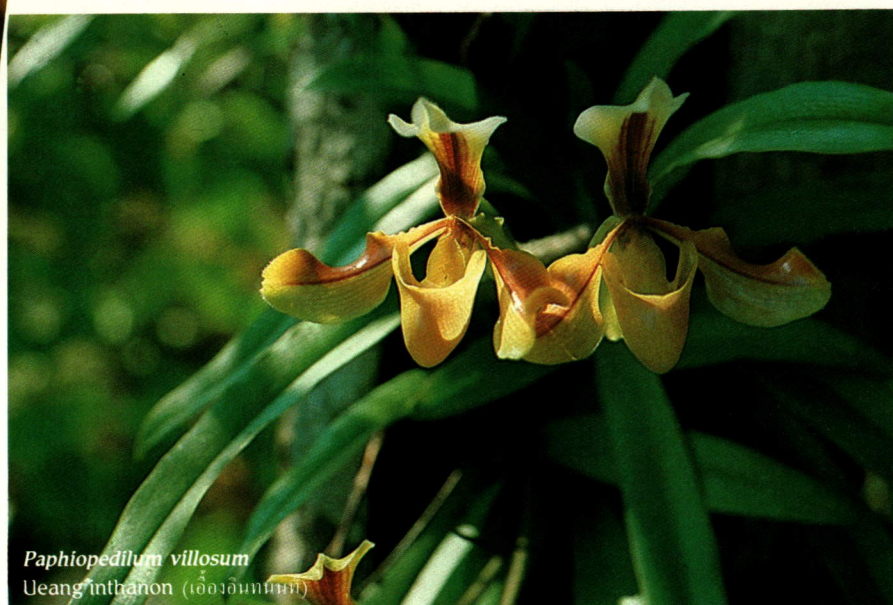
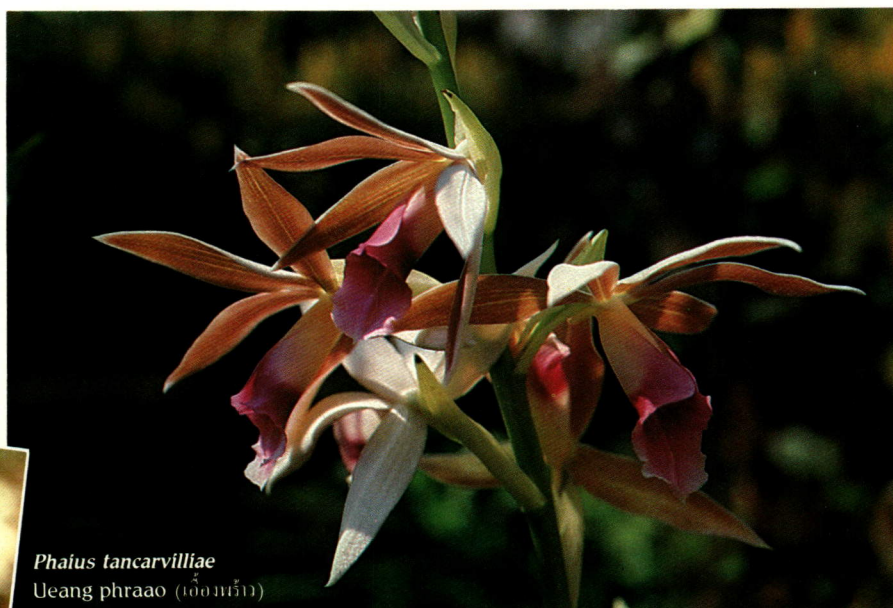


Cycas pectinata
Prong khao (ပြွန်ခေါ) (Female)

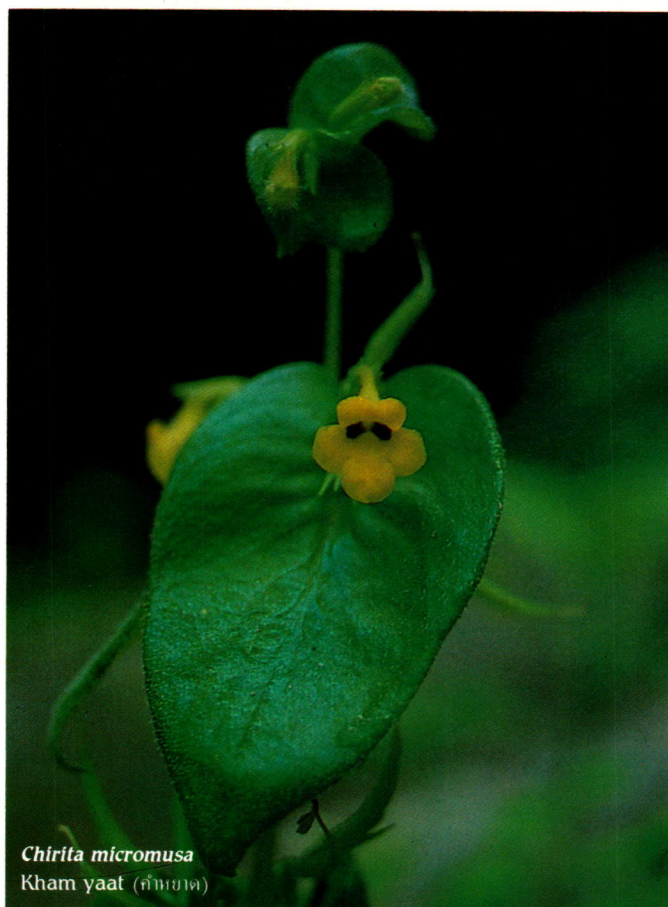


Cycas pectinata
Prong khao (ပြွန်ခေါ) (Male)

In the evergreen forest along the streams and in the valleys, tall trees are forming rather dense stands with *Dacrydium elatum*, a coniferous species ; *Castanopsis acuminatissima*, a false chestnut, *Quercus auricoma*, an oak ; the white-flowered *Gordonia axillaris* and *Schima wallichii*, belonging to the tea family ; the red maple, *Acer calcaratum*. Other plants worth mentioning are : *Cycas pectinata*, a living fossil up to 5 m. tall ; an epiphytic shrub, *Agapetes lobbii* with pink flowers ; and a yellow-flowered balsam, *Impatiens claviger*, found scattered among the undergrowth. Some ground orchids with showy flowers are represented by *Cymbidium insigne*, with tufted stems, sending up a 1.5 m. long inflorescence bearing large purple-lipped, white flowers frequent among grasses, and a monopodial orchid, *Vandopsis lissochiloides*, with up to 2 m. tall inflorescence bearing large, yellowish-brown flowers, growing in rock crevices along the edge of the evergreen



forest ; *Phaius indigoferus*, with purple flower and white, purple-streaked lips and *Ph. tancarvilleae*, with purplish-brown flowers and pinkish-purple lips ; the salmon-red-flowered *Habenaria rhodocheila*, a herbaceous orchid with a fleshy rootstock frequent on rocks by streams ; *Pleione maculata*, a white-flowered orchid with orange lips, flowering without leaves and frequent on barren rocks by streams and on mossy rocks in evergreen forests ; on exposed, lichen-covered rocks, *Luisia recurva*, an endemic species is rather common. On wet rocky walls *Chirita micromusa*, with yellow flowers and maroon spots in the throat is also frequent. The lady's slipper orchids found scattered in this forest are : *Paphiopedilum sukhakulii*, an endemic species and *P. villosum*, which blooms between December and February.





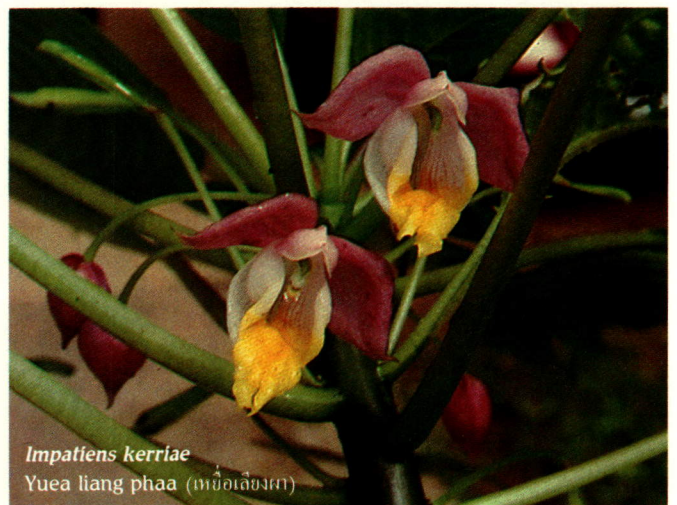
Rhododendron ludwigianum
Kulaap khaab (มณฑลพม่า)



Luculia gratissima
Phimchai (พม่า)



Pedicularis siamensis
Chomphu chiang dao (พม่า)



Impatiens kerriæ
Yuea liang phaa (พม่า)



Impatiens cardiophylla
Thian sawaang (พม่า)



Impatiens psittacina
Thian nok khao (เทียนนกแก้ว)



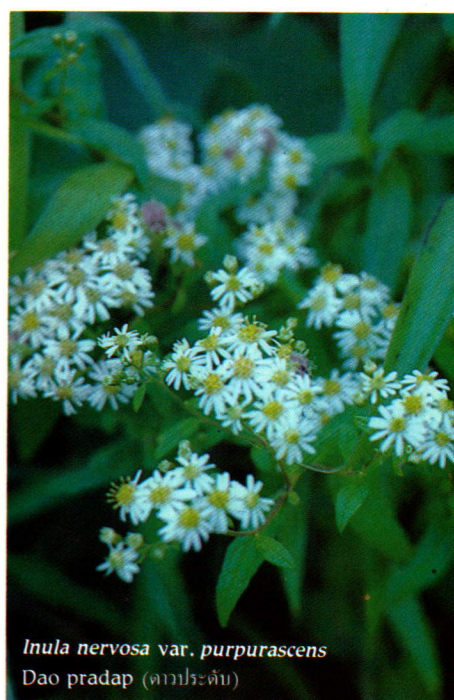
Impatiens larsenii
Thian hin (เทียนหิน)



Impatiens nalampoonii
Thian phaa thai (เทียนศาลา)

Limestone formations are extensive and widespread in all regions and are detected by their jagged profiles and steep slopes. They are often barren with abrupt ridges, caverns, and underground streams, bearing sparse vegetation consisting of medium-sized trees and crooked stems, they are the temperate oaks : *Quercus lanata*, *Q. semecarpifolia*, and *Q. floribunda* together with *Sterculia siamensis* and the temperate palm, *Trachycarpus martianus*. Others are drought-resistant plants such as *Luculia gratissima*, a pink-flowered shrub about 2 m. tall, blooming in December–January ; *Rhododendron ludwigianum*, a white-flowered shrub up to 2 m. tall, blooming in February–March ;

and an undershrub, *Inula nervosa* var. *purpurascens*, with white flowers, blooming in November–December. There occur many succulent balsams or touch-me-nots, e.g. the purple-flowered *Impatiens cardiophylla*, blooming in July–August ; *I. kerrii* with white and pinkish-purple flowers blooming in January–February ; the yellow-flowered *I. larsenii*, blooming in September–October ; the purple-flowered *I. nalampoonii*, blooming in July–August ; and *I. psittacina*, with purple flowers blooming in January–February. These latter four species are endemic to Thailand. A half parasite, *Pedicularis siamensis*, feeding on root of other plants, bears pink flowers in December–January.



Inula nervosa var. *purpurascens*
Dao pradap (ดาวประดัม)



Paphiopedilum barbatum
Rong thao naaree muang (รองเท้านารีม่วง)



Paphiopedilum bellatulum
Ueang ueng (เอื้องอุ้ง)



Paphiopedilum callosum
Ueang khaang kop (เอื้องคางคก)

Orchids with beautiful flowers, confined to limestone formation are the lady's slippers : *Paphiopedilum barbatum*, blooming in December–March and from May to July ; *P. bellatulum*, with white purple-spotted flowers, blooming from March to August ; *P. callosum*, blooming in July ; *P. charlesworthii* blooming in October–November, with purple and brown flowers ; *P. concolor*, with yellowish purple-speckled flowers, blooming from April to August ; *P. godefroyae*, with white, purple-dotted flowers, blooming from March to August ; *P. exul* with greenish, purple-dotted flowers and yellow lips blooming in January ; and the white-flowered *P. niveum*, blooming from November–December and June–July. A narrow-leaved orchid, *Aerides krabiensis*, with pinkish-purple flowers is endemic to Thailand on limestone cliffs by the sea, blooming in March–April. A terete-leaved monopodial orchid *Papilionanthe teres*, with white and pinkish-purple flowers blooms in March–April.



Paphiopedilum charlesworthii
Rongthao naang ngaam (รองเท้านางงาม)



Paphiopedilum godefroyae
Ueang faa hoi (เอื้องฝ้ายหอย)



Paphiopedilum niveum
Rongthao naaree khao (รองเท้านารีขาว)



Paphiopedilum concolor
Rongthao naaree lueang praacheen (รองเท้านารีเหลืองปราจีน)



Papilionanthe teres
Ueang mok (เอื้องโมก)



Aerides krabiensis
Si krabee (ศรีกระบี่)



Shorea henryana
Kham khanong (หมื่นนกขุนทอง)



LOWLAND EVERGREEN FOREST

The lowland evergreen forest was quite extensive in the past, but owing to increasing economic development at present only remnants of this forest-type are scattered over the country, confined to water ways and at the peripheries of either national parks or wildlife sanctuaries. The main tree species belong to the dipterocarpaceous and the leguminous families.

Members of the dipterocarpaceous family belong to the genera *Anisoptera*, *Balanocarpus*, *Dipterocarpus*, *Hopea*, *Shorea*, and *Vatica*; except *Vatica*, they are large, tall trees of important economic value. The white-flowered *Shorea henryana*, is one of the common species distributed all over the country, blooming from March to April.



The leguminous family provides many beautiful flowering trees: *Butea monosperma*, a medium-sized tree 10–15 m. tall with bright red flowers blooming from April to June; *Derris dalbergioides* a medium-sized tree of 10–15 m. in height, confined to the peninsular region from Surat Thani southwards, blooming from May to June; the bluish-flowered *Millettia kangensis* a medium-sized tree of 10–15 m. in height, frequent along stream banks in the northern region, blooming in March–May; *Parkia*

speciosa a large, tall tree 20–30 m. tall, confining to the peninsular region, blooming in December–January and *Parkia sumatrana*, a large, tall tree, 20–30 m. tall, confined to the south-eastern region, blooming in November–December; the orange-red-flowered *Saraca decandra*, a medium-sized tree, 10–15 m. tall, frequent by streams and humid slopes, blooming in March–May; *Saraca indica* a medium-sized tree, frequent by streams with yellow to orange flowers, blooming in December–January.



Saraca indica
Sok naam (โสมน้ำ)



Saraca decandra
Sok khao (โสมเขา)



Parkia sumatrana
Luuk ding (ลูกดิ่ง)





Kerriodoxa elegans
Thang lang khao (กุ่มดงขาว)



Licuala sp.
Krapho (กระพ้อ)



Gardenia tubifera
Phut paa (พุดป่า)

Besides the aforementioned trees there are *Mesua ferrea* a large tree 20–25 m. tall bearing white flowers from February to June; *Duabanga grandiflora*, a large tree, 20–30 m. tall, frequent by streams and humid valleys, bearing large, white flowers at the end of twigs, in March–April; *Radermachera ignea*, a deciduous medium-sized tree, 10–15 m. tall, frequent by streams and humid slopes in the northern region bearing tufts of orange-red flowers on branches without leaves during March–May; *Gardenia campanulata* a small-sized tree, 5–8 m. tall, frequent on slopes in the peninsular region, bearing white, sweet-smelling flowers in April–May; and *Gardenia tubifera*, a small-sized tree, 5–8 m. tall, confined to the peninsular region, bearing white to yellow sweet-scented flowers in April–May. A few palms are also frequent, e.g. *Licuala* sp., and *Kerriodoxa elegans*, an endemic species confined to the peninsular region.



Vanilla albida
Ngot khao (นงอขาว)



Strophanthus wallichii
Mangkong daeng (มังกรแดง)



Spatholobus pallidus
Thao khaoomu thuean (เถาขาวหมื่นเดือน)

Some climbers are frequent in this type of forest, namely: a succulent orchid, *Vanilla albida*, creeping on trees and shrubs bearing white flowers in September–October; *Spatholobus pallidus*, an extensive, woody climber, 10–15 m. long, bearing sprays of pink flowers in February–March; *Beaumontia breviflora*, a latex-bearing woody climber, 10–12 m. long, bearing bunches of large white flowers at the twig-ends in September–October; *Strophanthus wallichii*, a latex-bearing woody climber, 10–15 m. long, with brownish-purple flowers borne at twig-ends in February–March.

The ground is covered with rather dense vegetation, some of

which bear quite attractive flowers: *Achasma macrocheilos*, and *A. megacheilos* rhizomatous herbs up to 2 m. tall, the former bearing bright red flowers, the latter having yellow and red flowers in March–April. The purplish-red-flowered undershrub, *Ceratanthus rotundifolius* an endemic species blooming in October–November; *Labisia punctata*, an undershrub with yellow flowers, blooming in August–October; *Orchidantha siamensis*, an endemic herb confined to the peninsular region, bearing dark purple flowers with white lips in March–April; *Uraria rufescens* an undershrub bearing sprays of pinkish-purple flowers in October–November.



Beaumontia breviflora
Hiran yikaa (หิรันยิก้า)



Labisia punctata
Waan naang tat (ว่านนางตัด)



Uraria rufescens
Khonthee din (กอนทีดิน)



Ceratanthus rotundifolius
Kaphrao dong (กะเพราดอง)



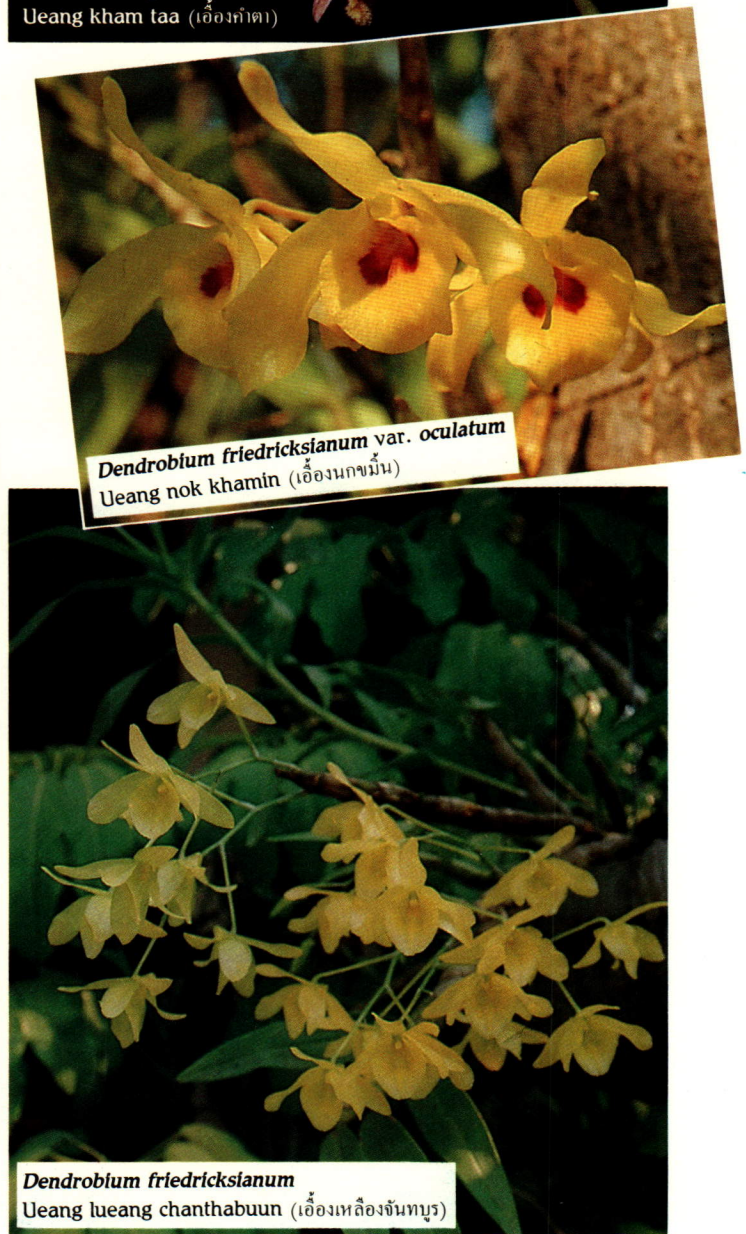
Ahasma megacheilos
Put khaang khok (ปลูดกอก)



Ahasma macrocheilos
Put yai (ปลูดใหญ่)



Orchidantha siamensis
Waan khlaa (ว่านกล้วย)





Rhynchostylis retusa
Ueang phuang malai (เอื้องพuangมลายู)



Vanda vipani
Ueang suea khong (เอื้องเสือโคร่ง)



Dendrobium lituiflorum
Ueang saai muang (เอื้องสายมวง)

Epiphytic orchids are abundant but a few species bear exquisite flowers: *Calanthe rubens* with constricted succulent stems bearing pinkish flowers in December–January; *Dendrobium gibsonii*, bearing yellow flowers with large maroon spots on leafless stems in May–June; the yellow-flowered *D. friedricksianum*, and the variety *oculatum* blooming from February to April; the purple-flowered *D. lituiflorum* blooming in July–August; *D. primulinum* bearing purple and creamy flowers in March–April; *Rhynchostylis retusa* a monopodial orchid with pinkish-purple flowers blooming in May–June; and *Vanda vipani*, a monopodial orchid, bearing yellowish-brown flowers in December–February.



Acanthus ilicifolius
Ngueak plaamo namngoen
(เหงือกปลาหมอไม้เงิน)



MANGROVE FOREST

The mangrove forest is found along the estuaries of the rivers; the main species in this forest type are members of the genera *Bruguiera*, *Ceriops*, *Kandelia*, and *Rhizophora* in the family Rhizophoraceae, all have no significant flowers except *Bruguiera sexangula*, a tree, 15–20 m. tall with hanging reddish flowers. Few flowering species occur namely the bluish-purple flowered *Acanthus ilicifolius*, a shrub up to 1 m.



Bruguiera sexangula
Prasak daeng
(ประดาดง)

tall with spiny leaf-margins; *Aegiceras corniculatum*, a white-flowered shrub 1.50 m. tall; and the yellow-flowered twining plant, *Tristellateia australasica*, often cultivated as an ornamental. All of these plants flower almost all-year-round. Other trees associated in the back mangrove bearing showy flowers are : the white-flowered *Cerbera manghas* and *Cerbera odollam*, latex-bearing trees, 10–15 m. tall, the flowers of the former with yellow centre the latter orange-red centre blooming in November–January ; *Dolichandrone spathacea*, a tree, 10–15 m. tall, bearing white-tubular flowers in May–July ; the red-flowered *Lumnitzera coccinea*, a tree 15–20 m. tall blooming in April–May; a white-flowered *Sonneratia griffithii*, a tree up to 20 m. flowering in October–November; and the yellow-flowered *Hibiscus tiliaceus*, a tree 10–15 m. tall, with maroon blotches in the throat of the flower, flowering in July–September.



Aegiceras corniculatum
Lep naang (เลี่ยนนาง)



Tristellateia australasica
Phuang thong khrua (พวงทองเครือ)



Cerbera manghas
Teenpet saai (ตีนเป็ดทราย)



Hibiscus tiliaceus
Po thalae (ปอทะเล)



FRESH—WATER SWAMP



Limnocharis flava
Taalapat ruesee (ตาลปัตรฤๅษี)



Monochoria hastata var. *elata*
Phlong (โพลอง)



Crinum thalium
Phlapphueng thaen (พลับพลึงธาร)

In fresh-water swamps some aquatic species occur in stagnant water, namely; *Limnocharis flava* with yellow flowers is abundant and blooms all year-round; *Monochoria hastata* and var. *elata*, with bluish- purple flowers, blooming between July - August ; *Nymphaea nouchali*, with submerged stem embedded in mud, and leaves floating on the water surface, bears single pale blue flowers well above the water in January-February; and *Nymphoides indicum*, floating on the water surface bearing white flowers in August–October. In the running stream a peculiar plant, *Crinum thalium*, endemic to Thailand, with stem embedded in the bottom of the stream and leaves trailing along the water-flow for 1–2 m., bears an erect bunch of sweet-scented, white flowers well above the water surface in August–September. In the marshy area the yellow-flowered, *Sesbania javanica*, bears hanging flowers in September–October.



Nymphaea nouchali
Bua phuean (บัวเผื่อน)



Nymphoides indicum
Taptao yai (ตบเต้าใหญ่)



Monochoria hastata
Phak top thai (ผักตบไทย)



Sesbania javanica
Sano (โสน)



Xylia xylocarpa
Daeng (ดอแดง)



Randia uliginosa
Talumphuk (ตะลุมพุก)



Cassia bakeriana
Chaiyaphruek (ชัยพฤกษ์)



Peltophorum dasysachis
Aeang (เอื้อง)

DECIDUOUS FOREST



Lagerstroemia macrocarpa
Intharin bok (อินทนิล)



Gmelina arborea
So (จ้อย)

The deciduous forests occur widely in the drier parts of the country, composed of trees which mostly shed their leaves during the hot dry season and flower from March to May, such as teak (*Tectona grandis*), a tree of economic importance; the yellow-flowered, *Xylia xylocarpa*, and *Pterocarpus macrocarpus*; *Terminalia alata*, *Gmelina arborea*; the pinkish-purple-flowered, *Lagerstroemia macrocarpa*, and *L. speciosa*; the yellow-flowered *Peltophorum dasysachis*; the white-flowered *Randia uliginosa*; the pink-flowered *Cassia bakeriana*, blooming without leaves and the

oranged-red-flowered *Cassia javanica* subsp. *nodosa*; the bright crimson-flowered *Erythrina suberosa*, and *Bombax celba*, also blooming without leaves ; and the purple-flowered *Callicarpa arborea*.

In drier habitats the structure of the forest becomes more open, and dipterocarpaceous species are preponderant, the trees shed their leaves completely during the hot dry season and flower from November to April. The most common species are : *Dipterocarpus intricatus*, *D. obtusifolius*, and *D. tuberculatus* ; *Shorea obtusa*, and *S. siamensis* ; together with *Cassia fistula*, and *Dillenia obovata*. The evergreen trees are few such as the yellow-flowered *Dillenia ovata*, and *Quercus kerrii*.



Erythrina suberosa
Thong bok (ทองบ๊อง)



Callicarpa arborea
Phaa (ผา)



Bombax celba
Ngiu (เงี้ยว)

Cassia javanica subsp. *nodosa*
Kanlapapruek (กัลปพฤกษ์)



Dipterocarpus intricatus
Yaang kraat (ยางกรวด)



Shorea siamensis
Rang (รัง)



Dillenia obovata
Saan yai (सानใหญ่)



Dillenia ovata
Saan bai lek (सानใบเล็ก)



Cassia fistula
Ratchapruet (ราชพฤกษ์)



Ochna integerrima
Taan lueang (ตานเหลื่อง)



Dillenia hookeri
Saan din (सानดิน)



Holarrhena curtisii
Phut nam



Clerodendrum urticaefolium
Phumphee daeng (พุ่มพื้แดง)



Blinkworthia lycioides
Sum krataai (ซุ่มกระต่าย)



Dry dipterocarp forest
(ป่าเต็งรัง)

Cycas siamensis
Prong liam (ปรงลิ้น)



Habenaria corymbosa
Ueang dok chum (เอื้องดอกชุม)



Brachycorythis helferi
Waan naang bua (วานนางบัว)

Notable among the ground shrubs that form open undergrowth are the yellow-flowered *Ochna integerrima*, and *Dillenia hookerii*, a low shrub with large rootstock; the dirty white-flowered *Blinkworthia lycioides*; the white-flowered *Holarrhena curtisii*. *Cycas siamensis* is scattered all over the area, flushing leaves in April and fruiting in September. Few ground orchids are coming up and in bloom during September, e.g. *Brachycorythis helferi*, and *Habenaria corymbosa*.



Climbers are scattered in mixed deciduous forests, such as the pinkish-purple-flowered *Afgekia mahidolae*, an endemic graceful twiner, named in honour of H.R.H. the Princess Mother, blooming in August–September; the fragrant, white-flowered woody climber *Tetracera loureiri* blooming in October–December; *Bauhinia strychnifolia*, an extensive woody climber with sprays of red flowers blooming in April; the white-flowered *Bauhinia winifii*, an extensive woody climber

endemic to Thailand, named in honour of the late Phya Winit Wanandorn, the forest botanist; *Millettia kityana*, a yellow-flowered woody climber also endemic to Thailand, was named after the late H.R.H. Prince Kitiyakara, during whose position as Minister of Finance, a botanical survey of the country was financially supported, under the directorship of the late Dr. A.F.G.Kerr; and the thorny straggling shrub, *Caesalpinia sappan*, with yellow flowers blooming in July–August.



Bauhinia strychnifolia
Khayan (ขยัน)



Caesalpinia sappan
Faang (ฝาง)



Millettia kityana
Khrua khaao yen (เครือข้าวเย็น)



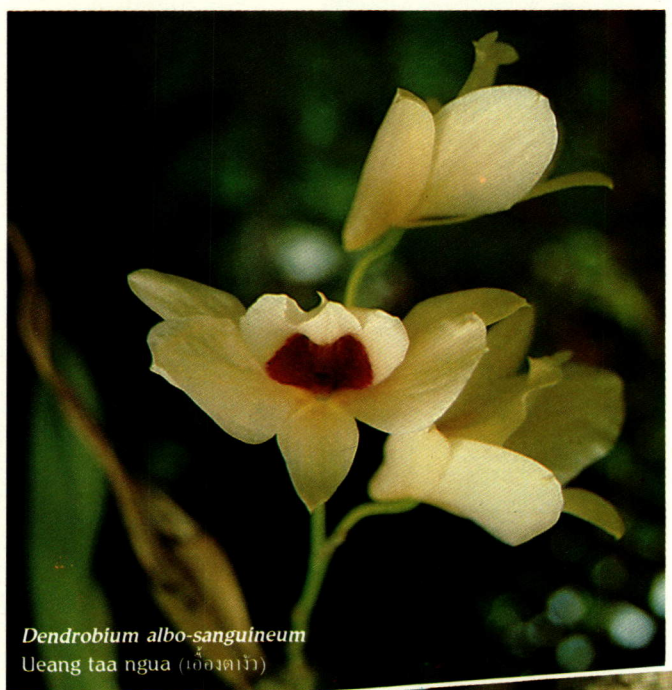
Aerides multiflora
Ueang aiyaret (เอื้องน้อย)



Aerides houlletiana
Ueang kulaap khoraat (เอื้องกุลาหมื่น)



Dendrobium draconis
Ueang ngoen (เอื้องงอน)



Dendrobium albo-sanguineum
Ueang taa ngua (เอื้องตาวัว)



Dendrobium heterocarpum
Ueang see taan (เอื้องสีเตา)



Dendrobium lindleyi
Ueang phueng (เอื้องพุ่ม)



Vanda lilacina
Ueang khem khao (เอื้องเข็มขาว)

Epiphytic orchids are rather abundant but only a few have showy flowers e.g.: the red-flowered *Aerides crassifolia*; the white and purple-flowered, *Aerides falcatum*, and the fragrant-flowered *A. houlletiana*, the pink-flowered *A. multiflorum* bloom from April–July; the white-flowered with red lips, *Dendrobium denisonianum*, the straw-coloured with maroon blotches on the lips, *D. albo-sanguineum*, the yellowish-flowered *D. heterocarpum*, the bright yellow-flowered *D. lindleyi*; and the lilac-flowered *Vanda lilacina*. All of these orchids are blooming during February–March. Another epiphytic worth mentioning here is the waxy white-flowered *Hoya pachyclada* which blooms in March–April.



Aerides crassifolia
Ueang kulaap daeng (เอื้องกุหลาบแดง)



Hoya pachyclada
Taang yai (ต้างใหญ่)



Helixanthera gracilis
Kaafaak lot rleo (กาฝากหลอดเขียว)



Helixanthera coccinea
Kaafaak yaan tong (กาฝากย่านตง)



Balanophora abbreviata
Hora thao sunak (โหรเท้านูน)

Among the forest type already described there occur quite a number of parasitic plants on trees or roots, some of which have beautiful flowers.

The epiphytic parasites are as follows: *Helixanthera coccinea* with red flowers on oak trees in hill evergreen forest at an elevation of 1,000–1,100 m., blooming in March–April; *H. gracilis*, with orange-red flowers on shrubs in the lowland evergreen forest at an elevation of 50 m.,

blooming in April–May; *H. parasitica*, with red and white flowers on *Anthocephalus chinensis* in the hill evergreen forest at 1,000–1,100 m., blooming in March–May; *Macrosolen avenis*, with bright red flowers on oak trees in the hill evergreen forest at 1,000–1,200 m., blooming in March–May; *M. platyphyllus* with bright yellow flowers on the para rubber tree in the lowlands at about 20 m., blooming in March–April.



Helixanthera parasitica
Kaafaak ko (กาฬกาบ)



Aeginetia indica
Dok din daeng (ดอกดินแดง)



Macrosolen platyphyllus
Prathat lueang (ประพัตเลื่อง)



Macrosolen avenis
Prathat thong (ประพัตทอง)





Root parasites are scattered in evergreen forests, namely: *Aeginetia indica* with dark purple flowers found both in the lowlands and higher elevations, blooming in April–May; *Balanophora abbreviata*, with white male flowers and dark red female flowers occurring at 900–1,000 m., blooming in September–October; *B. fungosa* with whitish male flowers, brownish-red female flowers, occurring at 50–1,000 m., blooming in September–October; *B. harlandii*, with white male flowers, dark-red female flowers occurring at 1,000–1,100 m., blooming in September–October; *B. latiseppala*, with white male flowers, orange-brown female flowers, occurring at 50 m., blooming in October–November; *Christisonia siamensis* with dark purple and yellow flowers feeding on grasses in deciduous and evergreen forests at 100–900 m., blooming in September–October; and *Sapria himalaya* with orange-red flowers, feeding on a vine in hill evergreen forest at 1,000–2,000 m., blooming in December–January.





SOMDECH PHRA SRINAKARINDRA PARKS

H.R.H. Princess Srinakarindra, the Princess Mother, reached the remarkable age of 80 in 1980. All Thai subjects rejoiced at this auspicious occasion for they had long recognized H.R.H.'s personal sacrifices and tireless devotion to the well-being of Thai people across the kingdom. In gratitude and loyalty to H.R.H., the Ministry of Education proposed a project to build public parks as a tribute to the Princess Mother. Since Thailand still lacks public parks where children and grown-ups can relax and play during their leisure hours, to pay

tribute to the Princess Mother on this occasion in the form of public parks would not only demonstrate the Thai people's loyalty but also directly bring happiness to the Thai people. On the one hand, the parks would serve as the country's lungs, thus fulfilling the government's environmental policy, on the other, they would also testify to the Princess Mother's concern for her subjects' happiness. Government agencies, private enterprises, and loyal members of the general public who would like to contribute to society, were

invited to support the construction of 12 public parks at each of the 12 educational regions. H.R.H. the Princess Mother has graciously allowed those public parks to be called by her name, each starting with "Somdech Phra Srinakarindra Park.....", followed by the name of the province where the park is sited; the 12 parks include, Somdech Phra Srinakarindra Park Si Sa ket, Roi Et, Phra Nakhon Si Ayutthaya, Chachoengsao, Phichit, Sakon Nakhon, Chiang Rai, Kanchanaburi, Phangnga, Chumphon, Pattani and Nonthaburi.





Thanks to the Princess Mother's popularity and the Thai people's loyalty, construction of each Somdech Phra Srinakarindra Park has drawn out the best from all sectors. Everyone has contributed his/her utmost in terms of physical and mental energy, ideas and funds to the project until its objectives are achieved.

These parks have instilled a new awareness in Thai people of the value of public parks. The idea has inspired construction of many more public parks in the Princess Mother's honour across the country. The parks will serve as prototypes for others in the future since they are living proofs of a novel way to commemorate and celebrate significant birthday anniversaries of the most beloved members of the Royal Family.



Somdech Phra Srinakarindra Park Si Sa Ket

Somdech Phra Srinakarindra Park Si Sa Ket is located in an area of 237 rai (95 acres) on the grounds of Si Sa Ket Agricultural College at Nong Khrok sub-district, about 1 kilometre away from the town centre. The park has kept its natural wildness and is fed by rich water resources. A lot of Lamduan (*Melodorum fruticosum*) trees grow in the park. Their winter blossoms fragrance give the park its unique character and the flowers become the park's symbol. The park is also known for having best preserved its natural state. It serves as a public place for recreation and a workshop for Si Sa Ket Agricultural College students' practicum.

Somdech Phra Srinakarindra Park Si Sa Ket was graciously opened by H.R.H. the Princess Mother on December 19, 1981.



Somdech Phra Srinakarindra Park Roi Et

Somdech Phra Srinakarindra Park Roi Et surrounds Phalanchai lake in front of the town hall, northeastern province of Roi Et, covering an area of about 227 rai (91 acres). This urban park features a spacious ground where the provincial authorities hold official functions and the locals take their exercise. The park is adorned with flowering and ornamental plants of all kinds. Its well-kept grass lawn is shaded by trees, large and small. A refreshing fountain, that

can be adjusted to great heights, provides a focus at the centre of the park. Visitors to the park may also take time off to read books in a pavilion set aside for the purpose.

The park has been made possible by cooperation from both the private and public sectors. In creating the park, an area in the town centre, which would have been developed commercially, has been preserved for the general public's recreational use.



Somdech Phra Srinakarindra Park Phra Nakhon Si Ayutthaya

Somdech Phra Srinakarindra Park Phra Nakhon Si Ayutthaya covers an area of about 100 rai (40 acres) within former capital city's historical park. Historical buildings and monuments in the park area have been restored, while trees, roads, bridges and more buildings have been added to the site to recreate contemporary setting and atmosphere. Another 230 rai (92 acres) of the adjoining area is ear-marked for development into a herbal garden and historical park.

This park features three notable historical monuments, all of which can be reached by rowing boats. Situated on an artificial islet, the park is served by historical streets as well as an ancient system of canals and drainage ditches where fish are released. A section of the historical park is set aside for plants and trees that have been mentioned in classical Thai literature. Their sizes will be kept to a certain height to allow a clear view of the historical monuments from afar.



Somdech Phra Srinakarindra Park Chachoengsao

Somdech Phra Srinakarindra Park Chachoengsao is created around the headquarters of the provincial authorities. An area of 90 rai (36 acres), taking in the existing Kasem Park, the provincial stadium, has been developed. The park has kept the local flavour with a restored Thai-style pavilion for recreation and a traditional Thai house for a reading room. Among its flowering and ornamental plants, bougainvilleas are most noticeable in their natural surroundings. A cool spot can be found in the middle of the park where a large pond is shaded by trees grown on its banks. The park also contains a playground, a spacious yard and a large lawn in front of the town hall where people can relax or exercise.



Somdech Phra Srinakarindra Park Kanchanaburi

Covering about 600 rai (240 acres) of Ban Thung Nagaraj, Nong Ya sub-district, at Muang district in the western province of Kanchanaburi, Somdech Phra Srinakarindra Park Kanchanaburi is located on flat land at the foot of a hill. There is a natural rock garden where each rock resembles some animal, from elephant to tiger, lion, fish and dinosaur. Some rocks are overgrown with verdant plants, while others resound like a bell when tapped. There are also attractive caves and naturally grown medicinal plants. Wild animals, such as hares, pheasants and deer, occasionally appear around the rock garden.

A flowering tree, *Barnettia pagetii*, was first discovered in Kanchanaburi Province and officially named "Kanchanika". Its flower has since been adopted as the park's symbol.





Somdech Phra Srinakarindra Park Chumphon

Somdech Phra Srinakarindra Park Chumphon is sited in area of Tham Khao Ngoen, the "Silvery Hill Cave" at Tha Ma Phla sub-district, Lang Suan district in the southern province of Chumphon. The hilly terrain has been preserved in its natural state, dominated by Khao Ngoen hill on the right bank of the Lang Suan river. Six beautiful caves are found in the area. Inside those caves, visitors may admire and pay homage to Buddha images, and the engraved initials of King Chulalongkorn who once visited the area. There is also a Buddha footprint shrine on the hill, the path to which is dotted with pavilions where visi-

tors may take a rest while admiring the scenery. There are rambutan orchards whose colourful fruits further enhance the park's natural beauty.



Somdech Phra Srinakarindra Park Pattani

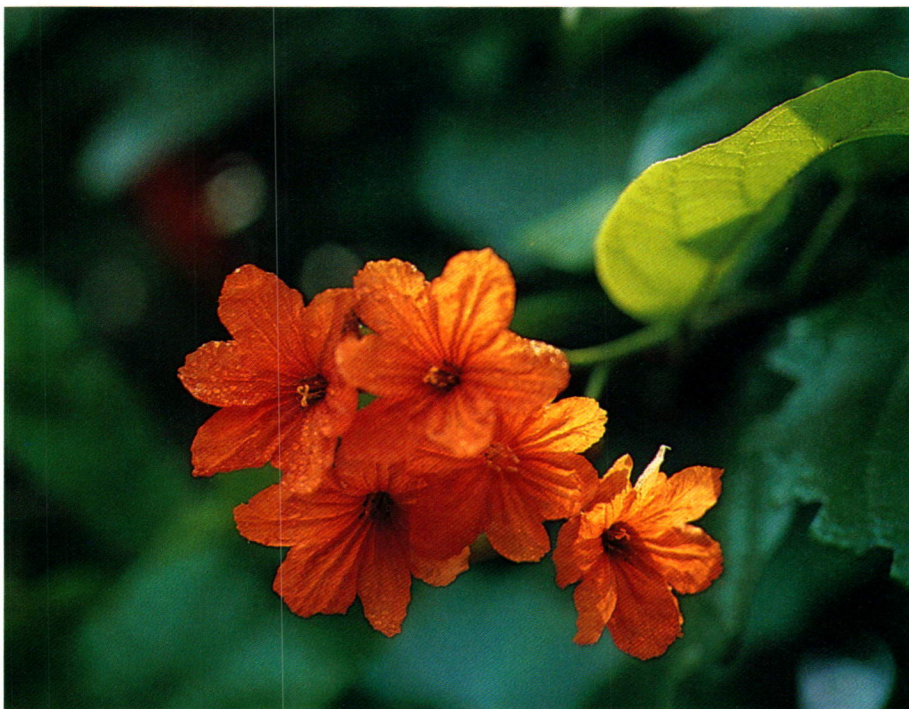
This coastal park covers an area of 155 rai (62 acres) of mangrove forest at Rusamilae sub-district, Muang district of the southern province of Pattani, is the seventh Somdech Phra Srinakarindra Park Pattani. A recreational and viewpoint area is provided for tourists who come to admire the beautiful scenery of Pattani estuary. A statue of H.R.H. Krommaluang Chumphon Khate-Udomsak, much revered by seamen, is located to the west of the park.

The park's mangrove forest serves as a recreational area as well as a field study area for students of marine biology and mangrove forest.

Somdech Phra Srinakarindra Park Phichit

Somdech Phra Srinakarindra Park Phichit is sited at Bueng Si Fai lake, of Muang district, only one kilometre away from the town centre. Of its 170 rai (68 acres) area, only 50 rai is solid land, bordering the remaining 120 rai of lake-land. Visitors may catch breathtaking sunrise and sunset on the lake from a large pavilion which can be reached by a bridge, linking it with the mainland. The lake teems with fish of various

kinds, swimming in and out of clumps of blooming lotus in all shades of colours. Migrating wild ducks spend the summer here on the lake in their thousands. A 35-metre jet of water is set up in the middle of the lake while the lake bank has been landscaped and planted into shady trees. The entrance to the park features a large sculpture of Chalawan, the legendary great crocodile, the symbol of Phichit Province



Somdech Phra Srinakarindra Park Nonthaburi

Somdech Phra Srinakarindra Park Nonthaburi is located at Nong Prue, Ban Mai sub-district, Pak Kret district, Nonthaburi Province. It is 5 kilometres away from Pak Kret intersection on the route to Pathumthani Province. Since the area of 69 rai of its 109 rai (43.6 acres) is water, a water park has been created, consisting of a water-jet, a raft-house, a Thai-style pavilion, a flower clock, flowering plants and trees, a miniature rock garden and a multi-purpose ground.

Somdech Phra Srinakarindra Park Sakon Nakhon

Somdech Phra Srinakarindra Park Sakon Nakhon covers 120 rai (48 acres), about half of which is solid land, around Sa Phang Thong, or the "Golden Pond". The park is located 1 kilometre away from the town centre, near Nong Han lake. The park area consists of series of miniature gardens of flowering and ornamental plants, surround-

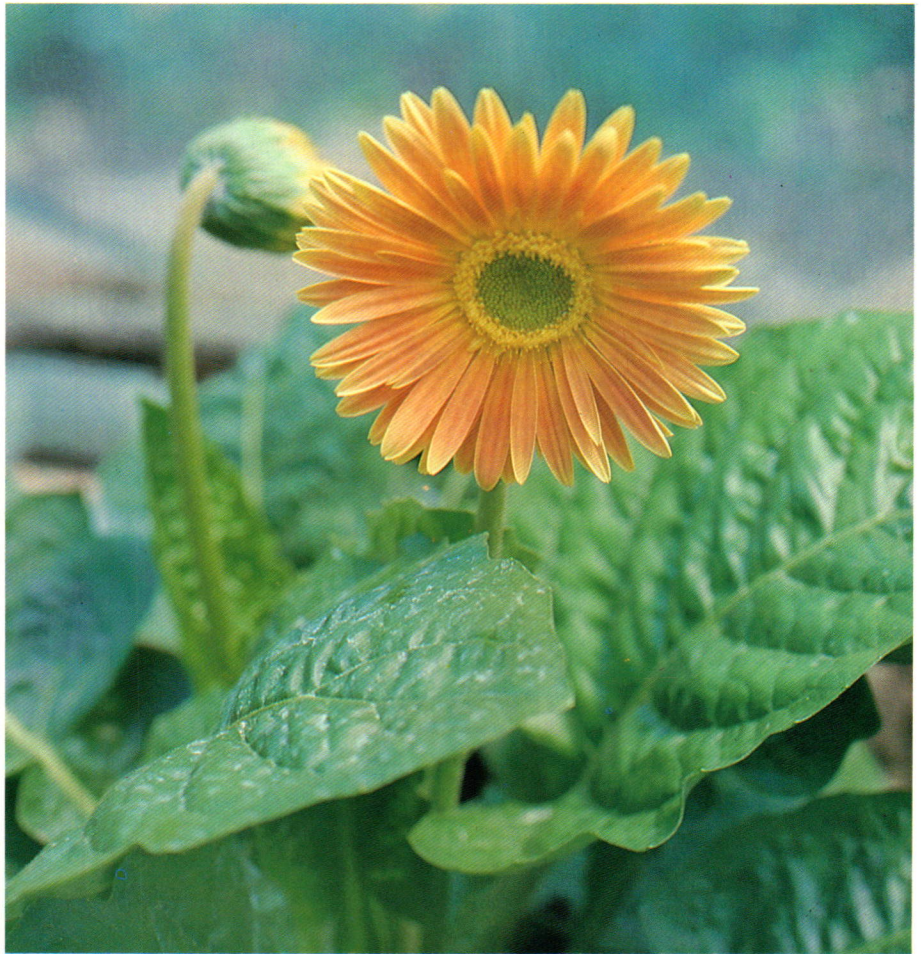
ing the lake. A pathway along the embankment of Nong Han dam is bordered by large trees under which visitors may sit or walk while enjoying the scenery or taking an exercise. On the lakeside, a pavilion is provided for reading. The provincial authorities have declared Inthanin (*Lagerstroemia speciosa*), the tree represents this park.



Somdech Phra Srinakarindra Park Phangnga

Somdech Phra Srinakarindra Park Phangnga covers an area of 100 rai (40 acres) at the Tham Rushi Sawan (Rushi Sawan Cave), in the vicinity of Phangnga municipal hall. Created over an existing public park, the park retains all natural features, the beauty of which has been enhanced for greater harmony. These features include forest, mangrove, limestone hills, magnificent caves, streams and moats surrounding areas where flowering and ornamental plants grow, and where visitors enjoy themselves. A multi-purpose pavilion and a building have been refurbished and set aside as reading and other facilities for the public.

This park is a major nature park for Phangnga and other nearby provinces in the South.



Somdech Phra Srinakarindra Park Chiang Rai

Somdech Phra Srinakarindra Park Chiang Rai is an enormous water park, covering more than 625 rai (250 acres) of Ban Du sub-district, in Muang district, Chiang Rai. The lakeland embraces both the Greater Lotus Lake and the Lesser Lotus Lake which are linked by a "Road of Flowers". That is bordered on either side with banks of multi-coloured flowers, providing the park with its most remarkable attraction. This northern park abounds in exotic temperate climate flowers and features an arboretum where visitors can study plant species while enjoying themselves. An elaborate pavilion for royal visits also greets visitors to the park.





CHAPTER 4



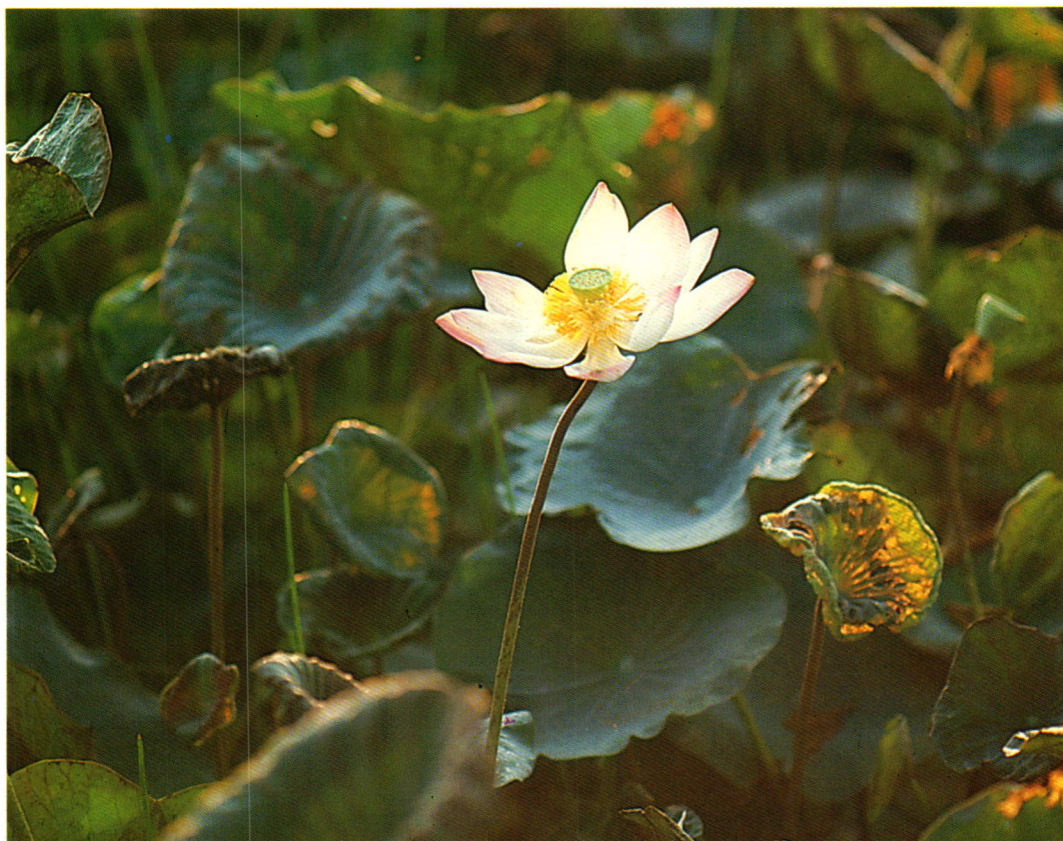
FLOWERS AND THE THAI WAY OF LIFE

The part of a plant that immensely affects human emotions and feelings is its flower, for its variety of shapes, fragrance, and dazzling colours. The feeling aroused by flowers is that of happiness and freshness. Flowers thus symbolize the way we feel towards one another or our needs without, of course, any word expressed. In fact flowers can convey our thoughts and feelings better than words on most occasions, whether it be to express our admiration, congratulations, encouragement, or even commiserations and apology. Flowers have always harmoniously intertwined with the human way of life.



In Thai life flowers impinge in a variety of ways. A number of flowers are used as food. They may be fried, boiled, steamed, stewed, battered, baked, grilled, pickled, or they may simply be eaten raw. It is remarkable how the Thais have found so many ways of cooking flowers*. There are also many flowers whose scents and colours are used in cooking. Certain flowers are dried and infused as teas for refreshment. Apart from the refined art of actual Thai cooking, it is for the elaborate forms of presentation, for example, fruit and vegetable carving or garnishing, that Thai cuisine is renowned world-wide, and has been ever since ancient times. The theme of flowers is ever-recurring in Thai fruit and vegetable carving or garnishing.

* M.L. Tui Jumsai, "Flowers and People" ; Thai Wattana, 1972.



It is amazing that the Thai pharmaceutical handbook of the School of Traditional Medicine Association mentions 92 kinds of flowers which are medicinal and mild tasting. These are mainly used as stimulant, for instance bunnak (*Mesua ferrea*), phikun (*Mimusops elengi*), and mali (*Jasminum sambac*). Some such as thongkwao (*Butea monosperma*) are used for the remedy of fevers, chumhet-yai (*Cassia alata*) are used as laxative. It is interesting that the flowers that are used as medicine or as ingredients for other medicine, are usually edible.

In Thai art, it is the beautiful natural structures of flowers that provide the source of inspiration. The characteristics and structure of a lotus originate Thai decorative patterns. Although the natural beauty of flowers is art in its own right, it is further elaborated in Thai art.

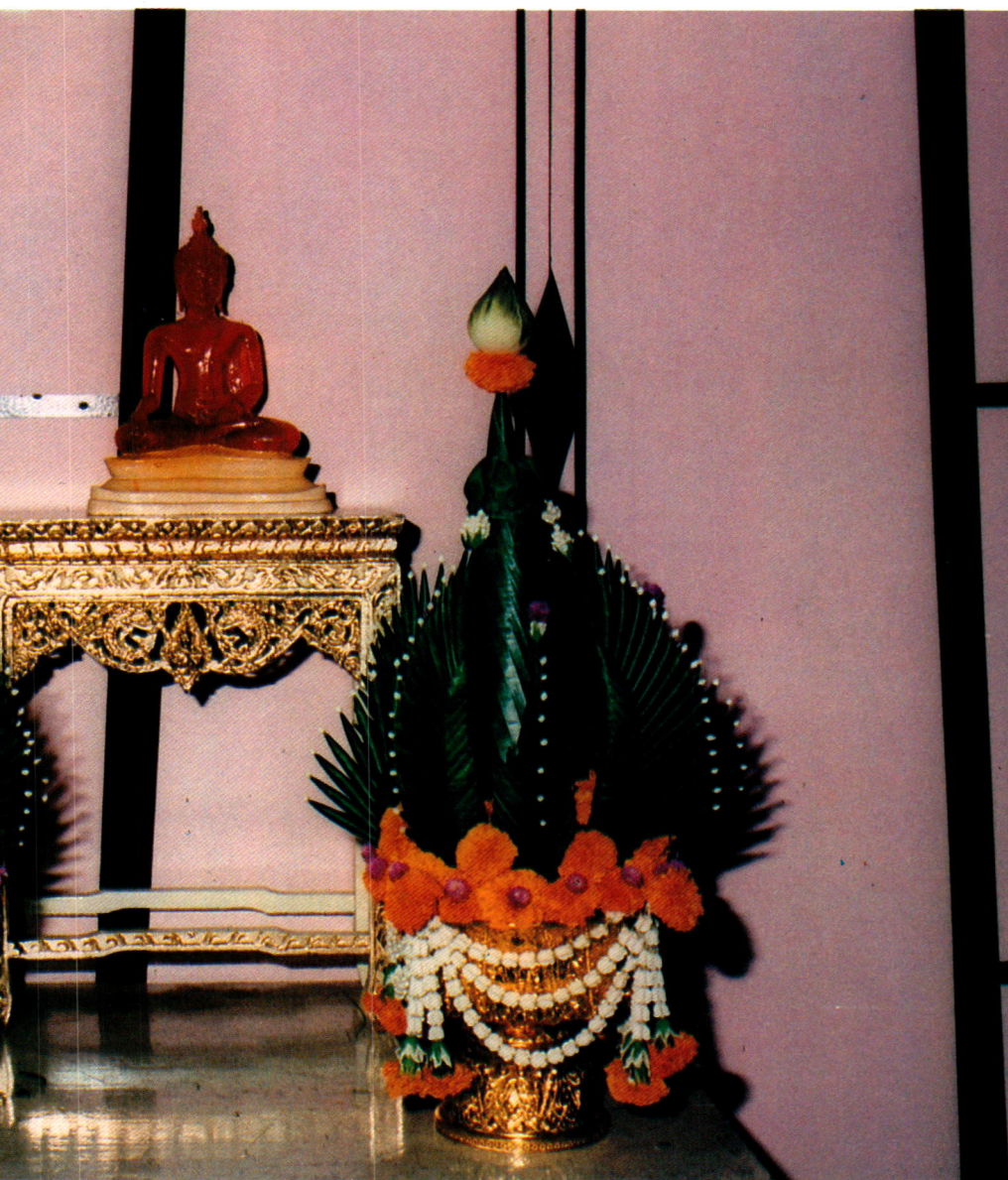


Chumhet-yai (*cassia alata*)



Phikun (*Mimusops elengi*)





Flower arrangement has been practiced in Thailand since ancient days. Evidence for this dates back to the Sukhothai period. In Thao Srichulalak or Nang Nophamat various styles of flower arrangement are referred to as popular pastime among women, and were regarded as one of the important signs of noble Thai womanhood since Thai flower arrangement is a fine art requiring a range of good qualities. Thai garland making, for example, requires a calm and delicate nature, essential qualities of good housewives. On the other hand, women who possessed no flower arrangement skills would be condemned for bringing shame to their families in those days, for traditionally such skills originated in the Court and had been passed on to women of wealth and noble birth.

It was Nang Nophamat who invented a floating lantern in the shape of lotus made with colourful flowers of various kinds, adorned by candles, incense sticks and a lantern. This floating lantern was placed on the river at the Royal Ceremony of Chong Prieng on the night of the full moon of the twelfth lunar month. The King was so delighted by the floating lantern in the shape of a lotus that he declared a tradition of floating lanterns on the night of the full moon of the twelfth lunar month, the festival which has been passed on until the present day, now known as the Loi Krathong Festival. The floating lantern is made of banana leaves and decorated with flowers.



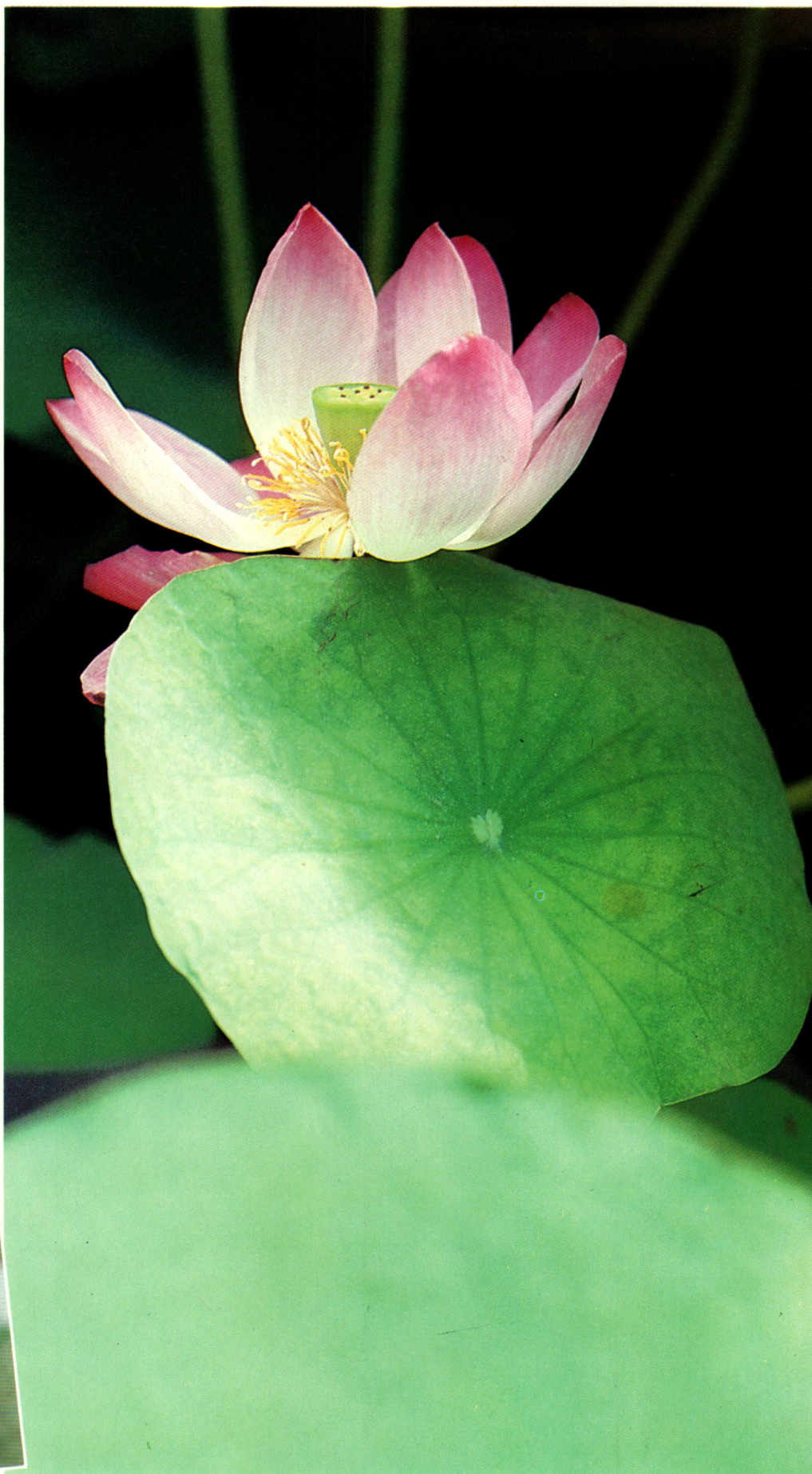


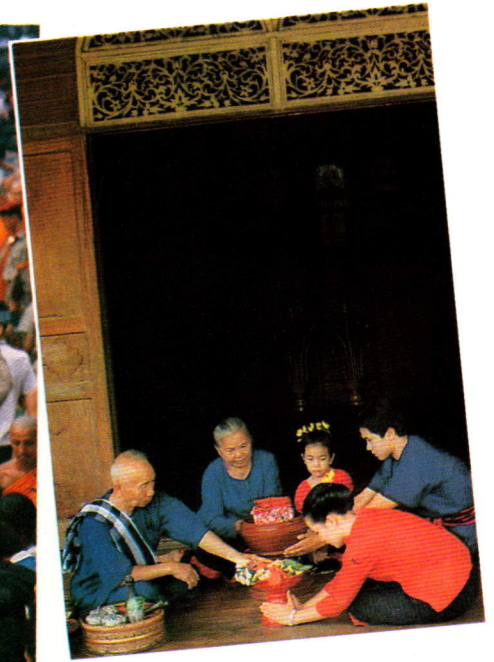
The principle of Thai flower arrangement is to create fine art. Evidence can be seen in floral bouquet arrangements, garland making, floral lace, floral chain, ordination flower arrangements, the Bai Si arrangement and so on, all requiring intricate artistry whereby flowers are rearranged or modified such that they reappear in new forms that are different from their natural states. For example, rose petals are pleated one by one to make a garland or to make artificial flowers

such as Dok Kha; lotus petals are pleated in various styles · flowers of phut (*Ervatamia coronaria*) are made to resemble a bracelet for the Buddhist Lent Candle. Such is the cultural heritage that the Thais should preserve. Difficult as it may be for the younger generation, this aspect of Thai art brings pride to the nation. The traditional Thai floral art is still taught in girls schools, as well as vocational and technological colleges, to preserve the Thai cultural heritage.



The Thais are touched by the benevolence and purity of flowers, which seem to reflect the politeness, gentleness and calm of the Thai, as well as their Buddhist faith. Flowers are selected with care for various occasions. Even the names of flowers should also be suitable for those occasions. Lotus flowers are used to remember the Lord Buddha since the lotus is the flower with which He compared human beings in his sermons. A flower-offering ceremony marks the Buddhist Lent at the site of the Holy Footprint in Saraburi Province.





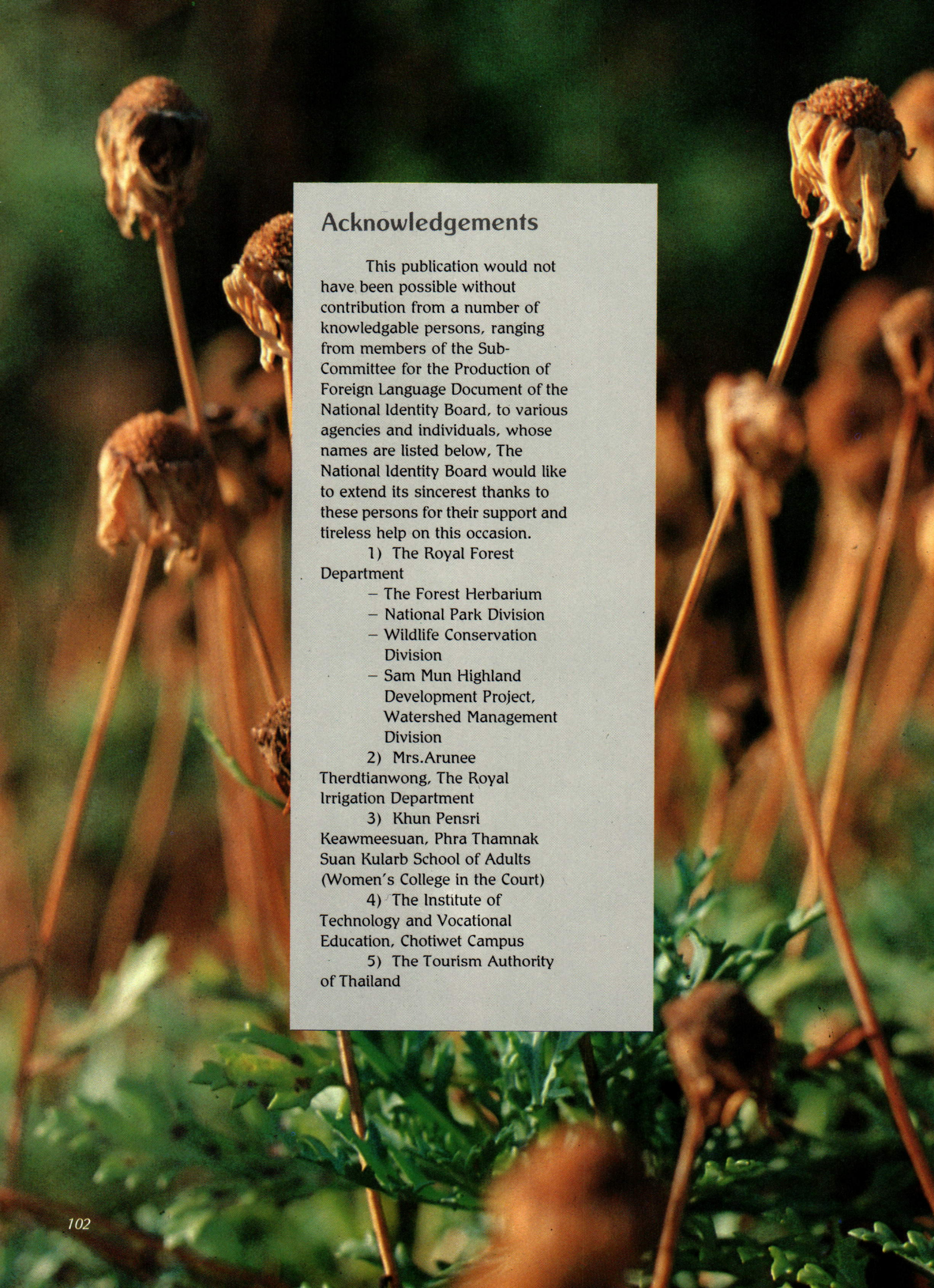
To express gratitude is a good tradition. The Thais are constantly taught to be grateful to those who have been good to them, namely, their parents, teachers, senior family members and others. The Wai Khru Ceremony, the ceremony to pay respect to teachers, and the tradition of paying respect to elder family members on Songkran Day are still widely practised. A Thai family represents a warm, close social unit where children respect senior family members who, at the same time, express their love, kindness, affection and good wishes for

the young. Ya-phraek (*Cynodon dactylon*), flowers of ma-khuea (*Solanum melongenum*) and flowers of khem (*Ixora coccinea*) are traditionally used in the Wai Khru Ceremony to represent and a sharp creative mind as suggested by the shapes and symbolism of those flowers. A garland made of scented flowers symbolizes the beauty and purity of mind of the offerer.

Since nothing on earth can infinitely represent good human feelings better than flowers, it can be rightly assumed that from birth to death we relate to flowers as receivers and givers with the feeling of happiness and freshness aroused by the flowers in our hands.







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The Wild Flowers of Thailand



เอื้องเงินวิลาศ
Ueang ngoen willaat
Dendrobium virgineum