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Report on the fieldtrip to Southern Thailand 2 to 29 April 1996

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INTRODUCTION

Southern (or Peninsular) Thailand runs from the Isthmus of Kra in the north to the Thai-Malaysian border in the south. The climate and the vegetation are different from those of the northern parts and central region of the country. The bamboo flora in the Peninsula tends to be different too. Many native species in the Peninsula are not found in the north or in the central parts, and many native species from the north do not extend their distribution to the south.

Lin (1968) listed about nine bamboo species found in the Peninsula, one of them being *Thyrsostachys siamensis* Gamble, a native species of the dry regions but introduced and planted elsewhere. Smitinand (1988) mentioned only generic names. Wong (1995), in his account of the Bamboos of Peninsular Malaysia, mentions about nine species which also occur in southern Thailand. A preliminary observation on the bamboo species occurring in the country, especially from the south, has been presented in the Bamboo Workshop, in Chiangmai, Thailand in 1991 (Dransfield, 1994). The purpose of the 1996 fieldtrip was to refind, to collect and to study the living plants of all native species of bamboos in the Peninsula, as part of the taxonomic account of Thai bamboos for the Flora of Thailand project. This collecting trip was funded from a grant donated by Dr. R.-C. Zimmermann of Canada and the Estate of Liliana Zimmermann of Switzerland, through Kew Foundation, and was fully supported by The Forest Herbarium (BKF), Royal Forest Department, Bangkok, Thailand.

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Itinerary

2 April 1996	Leave for Bangkok
3 April	Arrive in Bangkok
4–5 April	Working in the Forest Herbarium (BKF), Bangkok, and preparing for fieldwork
6 April	Leave Bangkok for the south, accompanied by Dr. Duangchai Sookchaloem, Mr. Chandee Hamarat (assistant) and Mr. Nian Ponhai (driver), overnight in Surat Thani
7–10 April	Khao Luang National Park
11 April	Khaopra-Bangkram Wildlife Sanctuary, near Khlong Thom, Krabi
12–14 April	Phanom Bencha National Park and Khao Lak, Krabi
15 April	Leave for Trang and Had Yai, overnight in Had Yai, Dr. Duangchai and the others return to Bangkok
16 April	Khao Chong Wildlife Conservation Development and Extension Center, accompanied by Mr. Prakart Sawangchote and Mr. Channong (driver), overnight in the Center
17 April	Return to Had Yai, stop in Ton-ngachang Wildlife Sanctuary
18 April	Leave for Pattani, accompanied by Prof. Puangpen Sirirugsa, Mr. Prakart Sawangchote and the driver, overnight in Pattani
19 April	Leave for Banang Sata, and Wang Sai (near the border with Malaysia), overnight in Pattani
20 April	Leave for Narathiwat, and back to Had Yai
21–22 April	Preparing the specimens in Songkhla Herbarium, Had Yai, leave for Bangkok, overnight in Bangkok
23 April	Leave for Khao Yai National Park and Prachin Buri, overnight in Prachin Buri, accompanied by Dr. Duangchai, Mr. Chandee and Mr. Nian
24 April	Leave for the Sakaerat Environmental Research Station, south of Nakhon Ratchasima (Korat), return to Bangkok
25–27 April	Working in BKF, preparing the specimens etc.
28 April	Leave Bangkok
29 April	Arrive in London

Results

Fourty five numbers were collected, representing 17 species of 5 genera of bamboos. It was dry season in the southern Thailand, bamboo shoots (which are one of the important characters for recognising bamboo species) were not to be found or collected. Some species, however, produced flowers.

Genera observed are *Dendrocalamus*, *Dinochloa*, *Gigantochloa*, *Schizostachyum* and *Vietnamosasa*. In this fieldtrip species of *Bambusa* (*B. vulgaris*, *B. blumeana*, *B. multiplex* etc.) were not collected, because there are lots of specimens (in Kew and BKF) which are enough to represent the variation within each species.

The genus *Dendrocalamus* is distributed mainly in the lowlands from India to Indo-China, the two species native in the Peninsula (Thailand and Malaysia) are not to be found north of the Isthmus of Kra. They are *D. elegans* (Ridl.) Holtt. and *D. dumosus* (Ridl.) Holtt., both are restricted to limestone hills. Culms of *D. elegans*, local name "Phai Khao" (Ban Na Tiabor, Trang), are used by villagers for making fishing rods and for supporting vegetables.

The genus *Dinochloa* is distributed from the Andaman Islands and southern Thailand throughout western Malesia (Malaysia, Indonesia, Singapore, Brunei, Philippines, Papua New Guinea), with its centre of diversity in Sabah (East Malaysia), the Philippines and Sulawesi. There are about 25 species, as climbers growing scattered in primary rain forest. *D. malayana* S. Dransf.., described only recently (1996), is found from Khao Luang National Park to Peninsular Malaysia. In southern Thailand this species can be found in undisturbed or disturbed forest, and also in secondary growth/forest by rubber plantations.

The genus *Gigantochloa* contains about 25 species, which are found growing wild, naturalized or cultivated, and which are the most useful bamboos in tropical Asia. The genus is distributed mainly the tropical mainland South-East Asia. *G. ligulata* Gamble, a species which is easily identified by its remarkable long ligule of leaf-blade, is found abundantly in wastelands, as well as in the forest (such as in Khao Pra Bang Khram Wildlife Sanctuary, Krabi). This species is distributed from Chumphon to Endau Rompin, Malaysia (pers. obs.; Wong 1995). *Gigantochloa* sp., local name "Phai Pa", is very common, planted or naturalised, especially in the middle and eastern parts of the peninsula. It has no name, but it is related to *G. balui* K.M. Wong from Brunei, and *G. albopilosa* K.M. Wong from Peninsular Malaysia. "Phai Pa" is utilised intensively locally.

The genus *Schizostachyum* is distributed widely in tropical Asia, and widely used by local people. There are about 35 species, mostly growing wild; *S. brachycladum* is introduced in cultivation as ornamental plants. Culms of most species have thin walls, and are easily split for making various baskets or for other purposes. *S. grande* Ridl., one of the common bamboo species in the Main Range of Peninsular Malaysia, grows commonly in the southern part of Yala District. Leaf-blades can be very large, and are used for wrapping glutinous rice. *S. zollingeri* Steud., local name "Phai Po", was found floweirng gregariously in Krabi areas. This species was recorded flowering gregariously in Kedah, Malaysia, in 1981 (Wong, 1981). It is not known whether the population in Thailand also produced flower in the same year. "Phai Po" is also found commonly in Khao Sok National Park (Dransfield, 1992). As we did not visit the park during this recent trip, we did not know if the plants here were also producing flowers. It would be very interesting to observe during the next ten years how and whether the species would recover from this gregarious flowering. During the trip we have noticed that there were a lot of seeds produced, and seedlings can be found under the clumps. Also we observed that we could not find clumps with leafy culms, all the culms we saw bore flowers. Wong (1981) stated that gregarious flowering of *S. zollingeri* in Peninsular Malaysia was the effect of a long dry season in the region. It is not known, however, the cause of gregarious flowering of this species in Thailand.

After the trip in the south, we made a short trip to Korat to look for "Pek" or " Chote", a small bamboo growing in the dry dipterocarp forest, identifiefd as *Arundinaria pusilla* A. Camus or *A. ciliata* A. Camus. These two taxa were described from Vietnam, and in 1990 were transfered to a new genus *Vietnamosasa* Nguyen. Its position in the tribe Bambuseae is not certain, and a study on it is being carried out at Kew. This interesting bamboo can adapt to fire during the annual burning in the dry season. Our visit was just after it rained in the region, and so we could observe the new growths from above the soil and new branches from the unburnt culms or stems. Herbarium collections from various parts of the north-east of Thailand do not show everything we saw on this trip, therefore it was most exiting to find this bamboo. Another fire-adapted bamboo has been recorded from Brazil (Soderstrom, 1981).

The result of the trip to southern Thailand, combined with previous data presented in the Bamboo Workshop in 1991, will be presented in full detail in the Flora of Thailand Meeting in Phuket, Thailand, in September 1996. The budget allocated for the fieldtrip 1996 will also cover the air fare from London to Phuket, accommodation and registration fee for the Conference.

Specimens collected by S. Dransfield (Thailand 1996)

1385	Gigantochloa sp. 1
1386	Gigantochloa sp. 2
1387	Gigantochloa sp. 2
1388	Dinochloa malayana S. Dransf.
1389	Dinochloa malayana S. Dransf.
1390	Dendrocalamus asper (Schult.) Backer ex Heyne
1392	Schizostachyum brachycladum Kurz
1393	Dendrocalamus aff.. dumosus
1394	Gigantochloa sp. 2
1395	Gigantochloa sp. 2 (small variety)
1396	Dendrocalamus asper (Schult.) Backer ex Heyne
1397	Dinochloa malayana S. Dransf.
1398	Gigantochloa sp. 2 (flowering specimen)
1399	Schizostachyum sp. (aff. grande)
1400	Schizostachyum sp.
1401	Dinochloa malayana S. Dransf.
1402	Gigantochloa sp. 3
1403	Dinochloa malayana S. Dransf.
1405	Schizostachyum zollingeri Steud.
1406	Gigantochloa sp. 4
1407	Gigantochloa sp. 2
1408	Gigantochloa sp. 2 (small diameter)
1409	Schizostachyum cf. zollingeri Steud. (seedlings)
1410	Dendrocalamus asper (Schult.) Backer ex Heyne (flowering specimen)
1411	Dendrocalamus elegans (Ridl.) Holtt.
1412	Dinochloa malayana S. Dransf.

1413 Gigantochloa sp. 4
1414 Schizostachyum brachycladum Kurz
1415 Gigantochloa albociliata (cult.)
1416 Gigantochloa sp. 5
1417 Dinochloa malayana S. Dransf.
1418 Dendrocalamus cf. elegans
1419 Gigantochloa ligulata Gamble
1420 Dendrocalamus aff.. dumosus
1421 Schizostachyum grande Ridl.
1422 Gigantochloa cf. scortechinii
1423 Gigantochloa cf. scortechinii
1424 Gigantochloa ligulata Gamble
1425 Dinochloa malayana S. Dransf.
1426 Gigantochloa albociliata (wild)
1427 Vietnamosasa pusilla (A.Camus) Nguyen
1428 Vietnamosasa pusilla (flowering specimen)

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REFERENCES

Dransfield, S. (1994). Bamboo Resources in Thailand: how much de we know. In Bamboo in Asia and the Pacific, Proceedings of the Fourth Interntaional Bamboo Workshop, Chiangmai, Thailand, November 27–30, 1991. FAO, IDRC and FORSPA. pp.1–3.

Dransfield, S. (1996). New species of *Dinochloa* (Gramineae-Bambusoideae) in Malesia and notes on the genus. Kew Bull. 51(1): 103–117.

Lin, Wei-chich (1968). The Bamboos of Thailand. Special Bull. Taiwan Forestry Res. Ints. no.6 Taiwan Forestry Research Institute, Taipei, Taiwan. pp.52.

Smitinand, Tem (1988). Thailand in Campbell & Hammond (eds), Floristic Inventory of Tropical Countries. pp.65–82.

Soderstrom, T.R. (1981). Observations on a fire-adapted bamboo of the Brazilian cerrado, *Actinocladum verticillatum* (Poaceae: Bambusoideae). Amer. Journ. Botany, 68(9): 1200–1211.

Wong, K.M. (1981). Flowering, fruiting and germination of the bamboo *Schizostachyum zollingeri* in Perlis. The Malaysian Forester, 44(4): 453–463.

Wong, K.M. (1995). The Bamboos of Peninsular Malaysia. Malayan Forest Record no.41. Forest Research Institute Malaysia (FRIM), Kepong, 52019 Kuala Lumpur. pp.200.