

CHAPTER II

LITERATURE REVIEW

So far, taxonomic survey of vascular plants that includes ferns and fern allies in northern Thailand are as followed.

During 1902-1932, Dr. A.F.G. Kerr was among the pioneer botanists who explored plant diversity in Thailand. Previously, he was a medical doctor, but later he was appointed as a director of the first botanical institute in Thailand which is now called the Bangkok Herbarium (BK). Throughout 25 years Dr. Kerr collected plant specimens mostly from northern Thailand. His collection is about 25,000 in numbers, including several type specimens. Most of specimens were sent to Kew Herbarium for identification. At that time, fern materials were studied by Dr. Eryl Smith. Whilst most of flowering plants were studied by Dr. W.G. Craib who published his taxonomic work in *Florae Siamensis Enumeratio* based on Dr. Kerr's collection (Larsen, 1979).

H.B.G. Garret, an Englishman who worked at the Forest Department during 1902-1951, collected plant specimens from Doi Angka and Doi Chiangdao, Chiang Mai province. His collections were more than 1,500 in numbers, and now these specimens were deposited at Bangkok Forest Herbarium (BKF), British Museum(BM), Kew Herbarium(K), and the other herbaria in Europe. Unfortunately, most specimens in Europe were destroyed during the Second World War (Larsen, 1979).

In 1904-1905, C.C. Hosseus, a German botanist, collected 830 plant specimens from northern Thailand; most of them were deposited in Munich and the others in Berlin, Germany (Larsen, 1979).

In 1912-1920, Phya Wanapruek Phichara (Vanpruk), in cooperation with the Forest Department, Bangkok, collected about 1,200 plant specimens, mainly from northern Thailand. Most specimens were deposited at BKF and K. He published *List of Common Tree and Shrubs of Siam* in 1923 (Larsen, 1979).

During 1914-1931, Phya Winit wanandorn (To Komes), another important associate of the Forest Department, collected more than 2,000 specimens, mostly from the north of Thailand. He published a book in reference to Thai plants names, i.e. *Vernacular Names-Botanical Names* (Larsen, 1979).

Between 1919 and 1921, J.F. Rock collected 1,912 plant specimens from northern Thailand in his 3 trips to Chiang Mai. Most of his specimens were deposited at the US National Herbarium (Larsen, 1979).

Nearly at the same time (1919-1931), A. Marcan, a mining engineer who accompanied Dr. Kerr in botanical exploration, collected 2,814 specimens most of which are being kept at Kew Herbarium (Larsen, 1979).

Meanwhile, F.H.W. Kerr, a younger brother of Dr. Kerr, had a short visit to Chiang Mai in 1921 where he collected 455 plant specimens (Larsen, 1979).

One of Dr. Kerr's plant collectors, Mr. Put had important contribution to our knowledge of Thai flora. During 1926 -1936, he collected about 5,000 specimens. At present, most of his collections are deposited at K, BK and BKF (Larsen, 1979).

Another assistant, Rabil Bunnag who joined the Botanical Section, the Agricultural Department in 1926, gathered about 360 plant specimens for BK (Larsen, 1979).

During 1957-1960, about 3,000 specimens were reported from the jointed project by Thailand and Denmark entitled "Studies in the Flora of Thailand." Some parts of these collections were published in *Dansk Botanist Arkiv*, *Botanisk Tidsskrift* and *Opera Botanica*. Most of the specimens were deposited in many herbaria (Larsen, 1979).

During 1963-1975, Danish botanists, together with Dr. H. Sleumes, Dr. E. Hennipman, Dr. A. Touw, Dr. H.P. Nooteboom, Dr. C.F. van Beusekomd and Dr. R. Geesink, made several visits to Thailand; consequently 4,200 specimens were collected and deposited at many herbaria in Europe (cited in กองกานดา, 2538).

Other important botanists are G. Seidenfaden and T. Smitinand. G. Seidenfaden used to be the Danish ambassador to Thailand. He initiated the fruitful Thai-Danish cooperation. The expeditions were taken mainly in the North and Northeast of Thailand, and about 4,000 specimens were collected (Seidenfaden and Smitinand, 1959).

In 1966 J.O. Sawyer and C. Chermisrivatana collected plants from Doi Suthep and Doi Pui, in Chiang Mai. Twenty-one genera and 33 species of fern were listed (Sawyer and Chermisrivathana, 1969).

During July-August, 1968, T. Smitinand, the curator of the Forest Herbarium of Royal Forest Department, studied the vegetation of Khao Yai. He reported 20 genera, 25 species of ferns and fern allies found in this area (Smitinand, 1968).

Several expeditions to Thailand were made by Japanese botanists. During 1979-1989, Dr. M. Tagawa and Dr. K. Iwatsuki from Kyoto University collected more than 7,000 specimens of pteridophytes from many provinces of Thailand. These specimens were deposited at BK, BKF, Tokyo University (TO), and the other herbaria in Europe and USA. Their contributions to Pteridophytes were published in *Flora of Thailand*, Vol. III part 1-4 (cited in ก่องกานดา, 2538).