Chapter I

Introduction

Fissistigma polyanthoides (DC.) Merr. is an ingredient in folk medicine known in Thai (Petchaboon province) as Khaa hot (ข่าหด). The genus *Fissistigma* belongs to the tribe Xylopieae in the family Annonaceae (Sinclair, 1955).

In Thailand, besides *Fissistigma polyanthoides*, there are also two plants called "Khaa hot". These plants are *Engelhardtia acerifolia* Bhome and *Engelhardtia spicata* Burkill. Both of them belong to the family Juglandaceae (Suvatti, 1978; Smitinand, 1980).

The species of *Fissistigma* have been used widely in Malay Peninsula, Taiwan and China. Various parts of them are administered in different forms.

In Malay Peninsula, A poultice of the leaves of *Fissistigma fulgens* (Hook.f. & Thoms.) Merr. (*Melodorum fulgens* Hook.f. & Thoms.) is applied to sore legs and a decoction of the leaves is administered as a post partum protective medicine. A decoction of the flowers of *Fissistigma kingii* (Boerb.) Burkill (*Melodorum kingii* Boerb.) is used to treat stomach trouble. A decoction of the root of *Fissistigma lanuginosum* (Hook.f. & Thoms) Merr. is given post partum and also perhaps to treat

stomach trouble. A decoction of the roots of *Fissistigma manubriatum* (Hook.f. & Thoms.) Merr. (*Melodorum manubriatum* Hook.f. & Thoms.) is administed for stomachache, as well as for febrifuge (Perry, 1980).

In Taiwan, a decoction of *Fissistigma oldhamii* Merrill is used for antiinflammatory effects, rheumatism and as an antitumor agent (Wu *et al.*, 1993).

In China, the dried stem of *Fissistigma polyanthum* (Wall.) Mor. is used topically to treat body sores (Pei, 1985).

In Thailand, a poultice of the stem bark of *Fissistigma polyanthoides* is used to treat fungal infections by the people in Petchaboon province.

Phytochemical study is widespread in many genus of Annonaceae. As for the genus of *Fissistigma*, the author found that four species have been investigated (Lu *et al.*, 1985; Wu *et al.*, 1990; Xu *et al.*, 1982, 1983). Almost all of the chemical constituents found are isoquinoline alkaloids (Lu *et al.*, 1985; Wu *et al.*, 1990; Xu *et al.*, 1982, 1983). Up to the present time, the phytochemical work on *Fissistigma polyanthoides* has not been done. The investigation of chemical compounds from the stem bark of *Fissistigma polyanthoides* in this study is undertaken with the hope of getting novel naturally occurring compounds as well as information concerning chemotaxonomic aspects.