CHAPTER I

INTRODUCTION

Piper is a genus of tropical herbs or somewhat woody climbers, rarely shrubby (Burkill, 1935, vol.II). Piperaceae is composed of 8 genera and about 2000 species, more than one-half of which belong to the genus *Piper* (Hooker, 1886, vol.V ; Ridley, 1924, vol.III). Several species furnish pepper and other similar spices. The chief spice is the pepper of *Piper nigrum* Linn. (Burkill, 1935, vol.II).

The following 14 species are endemic to Thaliand

1.	*Piper aurantiacum* Wall.	ชะพลูป่า	Cha phluu paa
2.	*Piper betle* Linn.	พลู	Phluu
3.	*Piper chaba* Hunt.	ดีปลี	Dee plee
4.	*Piper chuvya* Roxb.	พริกนก	Phrik nok
5.	*Piper flavimarginatum* C.DC.	ย่านพริกนก	Yaan phrik nok
6.	*Piper kurjii* Ridl.	พริกนก	Phrik nok
7.	*Piper longamentum* C.DC.	พริกหาง	Phrik haang
8.	*Piper longum* Linn.	พริกหาง	Phrik haang
9.	*Piper nigrum* Linn.	พริกไทย	Phrik thai
10.	*Piper porphyhyrophyllum* N.E.Br.	พลูตุ๊กแก	Phluu tukkae
11.	*Piper ribesioides* Wall.	ตะค้าน	Ta Khaan
12.	*Piper sarmentosum* Roxb.	ช้าพลู	Chaa phluu
13.	*Piper subpeltatum* Willd. (*Piper umbellatum* Jaeq.).	พลูตีนช้าง	Phluu teen chaang

14. *Piper subpenninerve* Ridl. พลูดง Phluu dong

(Hill, 1926, 1929: Hooker and Jackson, 1895;Prain, 1921;Smitinand, 1980).

Phytochemical study of genus *Piper* revealed the presence of phenylpropanoid derivatives as a key components (Likhitwitayawuid, 1988).

The phenylpropanoids is a large group of natural products possessing a carbon skeleton in which a phenyl group is linked to an n-propyl side chain. For example, coumarins, chromones, flavonoids, lignans and neolignans belong to this group of compounds(Goodwin and Murcer, 1983;Luckner, 1972;Tyler, Brady and Robbers, 1981).

The purpose of this investigation is to study the distribution of phenylpropanoids in the fruits and stems of *Piper ribesioides* Wall. Owing to the fact that little work has been done on the chemistry of *Piper ribesioides* Wall. previously, the results obtained from this investigations might contribute to our knowledge on phytochemical evaluation.

In Thailand the fruits and stems of *Piper ribesioides* Wall. are used in Thai folk-loric medicine as a carminative and a stimulant (Pongboonrod, 1976). In Malaysia, the crushed leaves of *Piper ribesioides* Wall. are used for poulticing in case of swellings, including dropsy (Burkill, 1935).

Piper ribesioides Wall. is distributed as in forests plant in the southern part of Thailand. The characteristic features of *Piper ribesioides* Wall. are described as follow :

A strong creeper on trees. Leaves coriaceous, glabrous, oblong ovate acute, base broad or blunt, often cordate, equally strongly 8- or 9 nerved, 15 to 20 cm long, 75 to 10 cm wide ; petioles

stout, 5 to 20 cm long. Peduncle 2.5 cm long in flower. Male spikes ; bracts glabrous, oblong. Stamen 2 ; rachis glabrous. Female spikes 7.5 cm long. Flowers rather distant ; pedicels thick, 0.63 cm long. Stigma 3. Drupe globose, large, red, pedicel nearly as long (Ridley, 1924, vol. III).

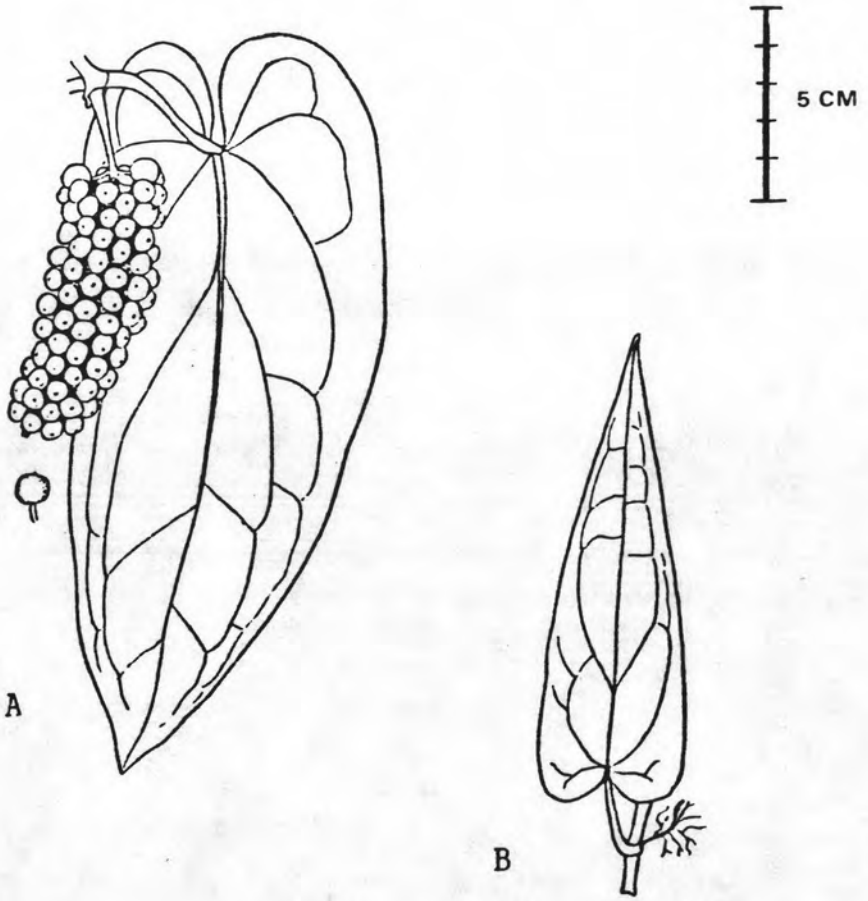

Fig. 1 *Piper ribesioides* Wall., Piperaceae

A. Leaf and fruiting spike

B. Leaf from a young shoot (Henderson, 1974)