Flavonoid composition was studied in leaves of 11 species of the genus *Shorea* using paper chromatography and thin layer chromatography. Proanthocyanidin, flavonol and flavone seem to be the common type of flavonoids found in almost all the species surveyed. Deoxy flavonol was found in only 2 species of *Doona*. The presence of proanthocyanidin was a common character of the genus *Shorea*. According to their leaf flavonoid aglycone patterns, 48% of flavonols, 36% of flavone, 63% of proanthocyanidins and 13% of deoxy compounds were found in leaves of genus *Shorea*. Among flavonols 90% of quercetin, 54% of kaempferol were detected but myricetin was not detected in species examined. 45% of luteolin and 27% of apigenin were found as flavones. 72% pro-cyanidin and 54% of pro-delphinidin were observed as pro-anthocyanidins.

Although morphological characters were widely used as the most important systematic evidence, the chemical characters may also provide useful information to solve the problems in existing classification of the genus.

Therefore this initial work provides important information to a sectional classification for the genus *Shorea* in future.