

## Chemical composition of three *Xylopi*a leaf essential oils from Pasoh Forest Reserve, Negeri Sembilan, Malaysia.

### ABSTRACT

Hydro distillation of the leaves of *Xylopi*a malayana, *X. fusca* and *X. elliptica* collected from Pasoh Forest Reserve, Negeri Sembilan, Malaysia yielded 1.39, 1.25 and 0.56% (v/w) of pale yellow and yellowish oils respectively. The chemical compositions of the oils were analysed by gas chromatography (GC) and gas chromatography mass spectrometry (GCMS). A total of 29 (94.4% of the total oil), 22 (78.8%) and 34 (80.7%) compounds were identified from essential oils of the leaves of *X. malayana*, *X. fusca* and *X. elliptica* respectively. Analyses of the oils revealed that the main components from *X. malayana* leaf oil were  $\beta$ -pinene (42.0%),  $\alpha$ -pinene (15.2%), elemol (11.6%) and bicyclogermacrene (5.2%) whilst the principal components of the *X. fusca* leaf oil were germacrene D (17.0%), bicyclogermacrene (12.0%),  $\beta$ -elemene (11.5%) and  $\beta$ -pinene (10.1%). Major compounds of *X. elliptica* leaf oil were bicyclogermacrene (11.5%), sabinene (10.6%),  $\alpha$ -pinene (9.0%), elemol (8.1%) and  $\beta$ -pinene (5.4%).

**Keyword:** *Xylopi*a malayana; *X. fusca*; *X. elliptica*; Annonaceae.