

## **Phytochemical content and antioxidant properties of Bornean wild durian from Sabah**

### **ABSTRACT**

Borneo is the centre of diversity of the genus *Durio* (family: Malvaceae; local name: durian). Durian fruit is known to contain high amounts of the major bioactive compounds (as antioxidants) such as anthocyanins, carotenoids, polyphenols and flavonoids. Two types of wild durian species, namely *Durio kinabaluensis* Kosterm. & Soegeng (durian tupoloh) and *Durio oxleyanus* Griff. (durian sukang) were studied. The 80% methanolic extracts of flesh, seed and peel (mesocarp and exocarp) were analysed for antioxidant activities, total phenolic and total flavonoid content. The antioxidant activities were determined using three parameters; 2,2-diphenyl-1-picrylhydrazyl radical assay (DPPH), 2,2'-Azino-bis (3-ethylbenzothiazoline-6-sulphonic acid) radical cation assay, and Ferric reducing antioxidant power assay (FRAP). *Durio kinabaluensis* mesocarp extract displayed the highest antioxidant properties and total phenolic content. The non-edible parts of both durians (seed and peel) exhibited higher phytochemical contents and antioxidant properties compared to the flesh parts. This data may contribute to the pharmaceutical applications, health benefit information of wild durians and helps in popularising the potential of these fruits in international markets and ultimately protects them from extinction.