



DETECTION OF PHENOLIC COMPOUNDS IN STINGLESS BEE (*Tetragonula biroi* Fries) PROPOLIS AND FIVE TREE SOURCES USING TANDEM LIQUID CHROMATOGRAPHY-MASS SPECTROMETRY

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**ABSTRACT** – Tandem liquid chromatography-mass spectrometry (LC-MS) was used to identify possible phenolic compounds in propolis of stingless bees, *Tetragonula biroi* Fries and exudates from five tree species that are utilized by T. biroi as propolis source namely avocado (*Persea americana* Mill), jackfruit (*Artocarpus heterophyllus* Lam), mango (*Mangifera indica* L.), pili (*Canarium ovatum* Engl), and rambutan (*Nephelium lappaceum* L.).

The results strongly suggest the presence of two phenolic compounds namely Artepillin C and pinobanksin-3-O-hexanoate in the propolis and in all the plant extracts.

Identification of phenolic compounds present in propolis is necessary in determining its plant source, biological properties, and therapeutic activity.

*Keywords: Tetragonula biroi, propolis, flavonoids, phenolic compounds, LC-MS*



JOURNAL OF NATURE  
STUDIES  
(formerly Nature's Bulletin)

To cite this paper: Belina-Aldemita, M.D., Lechuga, J.A., Mateo, J.M.C., Micor, J.R.L., Cervancia, C.R., and Hizon-Fradejas, A.B. 2013. Detection of Phenolic Compounds in Stingless Bee (*Tetragonula biroi* Fries) Propolis and Five Tree Sources using Tandem Liquid Chromatography-Mass Spectrometry. Journal of Nature Studies. 12 (1): 30-38