PHYTOCHEMICAL SCREENING, TOTAL PHENOLICS CONTENT AND ANTIMICROBIAL ACTIVITY OF *Syzygium malaccense* EXTRACT AGAINST *Staphylococcus aureus* AND *Pseudomonas aeruginosa*

NUR ATMA BT OTHMAN

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ABSTRACT

PHYTOCHEMICAL SCREENING, TOTAL PHENOLICS CONTENT AND ANTIMICROBIAL ACTIVITY OF *Syzygium malaccense* EXTRACT AGAINST *Staphylococcus aureus* AND *Pseudomonas aeruginosa*

Syzygium malaccense is such a widespread medicinal plant that traditionally used in Hawaii. This plants species is poorly studied regarding the biochemical compounds and antimicrobial activity. The purposes of this study was to reveal the phytochemical contents by phytochemical screening, to determine antimicrobial activity against *Staphylococcus* aureus and *Pseudomonas aeruginosa* and to measure total phenolic content that act as antioxidant. The leaves samples were extracted in different solvent which are hexane and methanol. Phytochemical screening showed the crude extract contains proteins, tannins, saponins, phenols and flavonoids. All of these compounds present in methanolic extraction except for the phenol content that found in both hexane and methanol extraction. Methanol extract demonstrated significant antimicrobial activities against both bacteria strain of *S. aureus* and *P. aeruginosa*. 80µg/ml concentration of extract showed most effective antimicrobial activities against *S. aureus* by yielding the highest average inhibition zone of 12.5± 0.58 mm. For the *P. aeruginosa*, the most effective concentration is 40µg/ml extracts that yield 11.25±1.89 mm inhibition zone. However, hexane extract showed zero antimicrobial activity and therefore there is no inhibition zone formed. Total phenolic content of methanol extract yield the highest absorbance compared to the hexane extraction indicated it contained more phenolic content. Total phenolic content was expressed in mg Gallic acid equivalents (GAE)/100 g.