



EHRETIA MICROPHYLLA (TSAANG GUBAT) AS AN ANTI-BACTERIAL SOAP

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ABSTRACT

This study examines the effectiveness of the ethanolic extract of Tsaang gubat as an anti-bacterial soap. *Ehretia microphylla*, also known as Fukien tea tree and locally known as Tsaang gubat in the Philippines, is an abundant shrub kind of plant that can be found in the northern part of the Philippines. Tsaang gubat is among the few plants that are registered with the Bureau of Foods and Drugs as medicine and recommended by the Department of Health for stomach pain. Possessing antimicrobial properties, it is not only ideal for medicine but also in cosmetic production, such as soap. In the phytochemical screening of the leaf extract of *E. microphylla*, the presence of these phytomolecules, namely, alkaloids, saponins, tannins, flavonoids, and steroids is revealed to be responsible for the antibacterial activity of Tsaang gubat (Sharma et al., 2022). The ethanolic extract of the Tsaang gubat was then made into an antibacterial soap through the cold saponification process and examined using petri dishes. During the first-day

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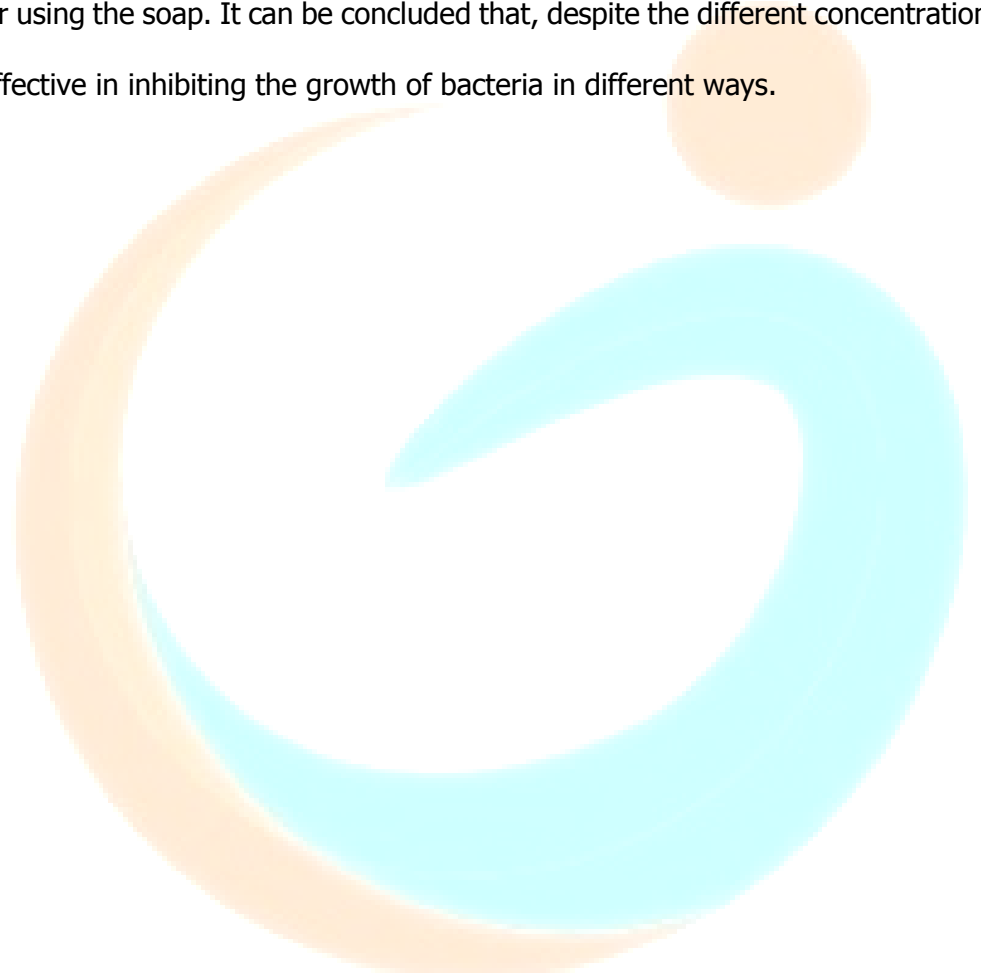
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observation after using the soap, there were no signs of bacteria forming on the petri dish at all concentration levels of the tsaang gubat extract soap: 5g, 10g, and 15g. The present study revealed the effectiveness of the antibacterial soap as it halts the growth of bacteria a day after primarily using it, as well as lessening the visibility and number of bacteria on the second day after using the soap. It can be concluded that, despite the different concentration levels, the soap is effective in inhibiting the growth of bacteria in different ways.



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