

ABSTRACT

Rahmawati, Ririn. 2014. Antibacterials Activity Test Sisik Naga Leaf Ethanol Extract (*Drymoglossum piloselloides* (L.) Presl) and Binahong (*Anredera cordifolia* (Ten.) Steenis) Against Bacteria *Streptococcus mutans*. Supervisor of Biology: Anik Ma'unatin, M.P., Supervisor of Religion: Andik Wijayanto, M.Si

Keyword: Sisik Naga Leaf (*Drymoglossum piloselloides* (L.) Presl), binahong leaf (*Anredera cordifolia* (Ten.) Steenis), *Streptococcus mutans*

Streptococcus mutans is pathogenic bacterium capable that producing acid resulting in a decline pH fluid surrounding the teeth, this condition strong enough to dissolve the minerals from the surface of the teeth that cause dental caries. The growth of *Streptococcus mutans* can be inhibited by the compound of polyphenols. Polyphenols compounds are containing plant is sisik naga leaf (*Drymoglossum piloselloides* (L.) Presl) and binahong (*Anredera cordifolia* (Ten.) Steenis). This research aims to know the antibacterial activity of ethanol extracts of sisik naga leaves of (*Drymoglossum piloselloides* (L.) Presl) and binahong (*Anredera cordifolia* (Ten.) Steenis) against *Streptococcus mutans* bacteria growth.

The research is an experimental laboratory with three stages. The first stage is to know the antibacterial activity, the second stage is to determine the minimum inhibitory concentration, and the third stage is to know the minimum kill concentration. The second stage use a group random design (GRD) that consisting of 2 to 3 times the factor of Deuteronomy. The first factor is the type of leaves that is sisik naga leaves and binahong leaves. For the second factor is the concentration of ethanol extract 12.5% (b/v), 25% (b/v), 50% (b/v), and 100% (b/v). The extraction of sisik naga and binahong leaves in this research using the method of maceration. The results of this research include by the antibacterial activity, the minimum inhibitory concentration (MIC) and the minimum kill concentration (MBC). The evidence can be obtained analyzed by ANOVA *two way*, when there is a very real difference then continued further test Test Distance Duncan (UJD) significance level at 5%.

The result showed that, extract of sisik naga leaves can inhibit by 19 mm and in extract binahong leaves can inhibit by 17 mm. Test of MIC extract by sisik naga leaves the concentrations at 25% and extract binahong leaves the concentrations at 50%. Test of MBC extract by sisik naga leaves the concentrations at 50%, but in extract binahong leaves the concentrations at 100 %. The indicates that extracts sisik naga leaves and binahong leaves effective to inhibit growth of *Streptococcus mutans* bacterial is sisik naga leaves.