EKSPLORASI MIKROFLORA ALAMI CAIRAN *Nepenthes mirabilis* (Lour) Druce. DI KAWASAN HUTAN PENDIDIKAN DAN PENELITIAN BIOLOGI UNIVERSITAS ANDALAS

SKRIPSI SARJANA BIOLOGI

Oleh :

HANIA TITAMI
1910423004

PEMBIMBING :

1. **Dr. phil. nat. Periadnadi**
2. **Dr. phil. nat. Nurmiati**

DEPARTEMEN BIOLOGI
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
UNIVERSITAS ANDALAS
PADANG

2023

ABSTRAK

Penelitian tentang Eksplorasi Mikroflora Alami Cairan *Nepenthes mirabilis* (Lour) Druce di Kawasan Hutan Pendidikan dan Penelitian Biologi Universitas Andalas telah dilaksanakan dari bulan Januari 2023 sampai Juni 2023, di Laboratorium Riset Mikrobiologi, Departemen Biologi, Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Andalas, Penelitian ini bertujuan untuk mengeksplorasi mikroflora alami dari cairan *Nepenthes mirabilis*, menentukan proporsional keberadaan bakteri potensif, dan mengetahui potensi*in vitro* bakteri kitinolitik dari cairan *Nepenthes mirabilis*. Penelitian ini menggunakan metode survey yang dianalisa secara deskriptif. Hasil penelitian menunjukkan bahwa pada sampel cairan *Nepenthes mirabilis* terdapat keberadaan bakteri Fermentatif, Amilolitik, Proteolitik, Kitinolitik dan Lipolitik. Dalam cairan *Nepenthes mirabilis* kantong terbuka terdapat bakteri kitinolitik, keberadaan bakteri kitinolitik tertinggiterdapat pada sampel MBB (20.10^4 cfu/ml) dan sampel MBA (18.10^4 cfu/ml) secara *in vitro* isolat paling potensif IB1 dan IB2 memiliki kemampuan kitinolitik (1,83 dan 1,28), fermentatif (2,33 dan 2,00), amilolitik (1,42 dan1,28), proteolitik (2,00 dan 2,00), lipolitik (1,75 dan 1,28).

Kata kunci: Kitinolitik, *Nepenthes mirabilis* (Lour) Druce, potensif, potensi *in vitro*

ABSTRACT

Research on Exploration of Natural Microflora of *Nepenthes mirabilis* (Lour) Druce Liquid in the Forest Area of Biology Education and Research, Andalas University, was carried out from January 2023 to June 2023, at the Microbiology Research Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, This research aims to explore the natural microflora of *Nepenthes mirabilis* fluid, determine the proportional presence of potential bacteria, and determine the in vitro potential of chitinolytic bacteria from *Nepenthes mirabilis* fluid. This study used a survey method which was analyzed descriptively. The results showed that the fluid samples of *Nepenthes mirabilis* contained fermentative, amylolytic, proteolytic, chitinolytic and lipolytic bacteria. In the *Nepenthes mirabilis* liquid of the open bag there were chitinolytic bacteria, the highest presence of chitinolytic bacteria was found in MBB samples (20.10^4 cfu/ml) and MBA samples (18.10^4 cfu/ml). in vitro the most potent isolates IB1 and IB2 had chitinolytic (1.83 and 1.28), fermentative (2.33 and 2.00), amylolytic (1.42 and 1.28), proteolytic (2.00 and 2.00) .00), lipolytic (1.75 and 1.28).

Keywords: Chitinolytic, *Nepenthes mirabilis* (Lour) Druce, potent, in vitro potency