

## ABSTRAK

**Dina Novita Sinaga, NIM 4163220011 (2016), Keanekaragaman Fungi Mikoriza Arbuskula (FMA) Pada Tanaman Teruntum (*Lumnitzera racemosa*) di Ekosistem Mangrove Percut Sei Tuan**

Fungi mikoriza arbuskula (FMA) merupakan salah satu jenis jamur Ordo Glomales (Zygomycota) yang terdapat pada akar dan bersimbiosis mutualisme antara mikoriza dengan akar tanaman untuk membantu menyerap unsur hara. Penelitian ini bertujuan untuk mengetahui persentase kolonisasi mikoriza pada akar, keanekaragaman, indeks keanekaragaman dan indeks dominansi, dan karakteristik habitat atau sifat fisik-kimia lingkungan mikoriza pada rhizosfer pohon teruntum (*Lumnitzera racemosa*) di kawasan ekosistem mangrove Percut Sei Tuan, Kabupaten Deli Serdang. Penelitian ini dilaksanakan pada Oktober – Desember 2020 di Laboratorium Biologi FMIPA Unimed dan sampel diambil di hutan wisata mangrove Mekar Bahari, Desa Pematang Lalang, Percut Sei Tuan, Sumatera Utara. Teknik yang digunakan dalam mengisolasi spora mikoriza arbuskula adalah teknik tuang saring dan dilanjutkan dengan sentrifugasi. Mikoriza yang ditemukan diwarnai dengan larutan PVLG dan Melzer's. Hasil pengamatan diperoleh dengan persentase kolonisasi mikoriza pada rhizosfer sebesar 28 % kategori rendah, keanekaragaman mikoriza diperoleh sebanyak 12 jenis spesies spora mikoriza arbuskula dengan 5 jenis genus, nilai indeks keanekaragaman ( $H'$ ) berkisar antara 0,01-0,04 dengan kategori rendah dan nilai dominansi ( $C$ ) yaitu berkisar antara 0,000004-0,00007 dan di dominasi oleh genus *Glomus*, serta karakteristik habitat sifat fisik-kimia lingkungan mikoriza pada rhizosfer pohon *Lumnitzera racemosa* diperoleh pH 3,7, nilai C-organik 4,63 %, nilai N 0,07 % dan P tersedia adalah 90,91 ppm yang dikategorikan masih tinggi (baik) dengan suhu 28<sup>0</sup>C.

**Kata kunci: Mikoriza, *Lumnitzera racemosa*, Mangrove**

## ABSTRACT

**Dina Novita Sinaga, NIM 4163220011 (2016). Diversity of Arbuscular Mycorrhizal Fungi (AMF) in Teruntum Plants (*Lumnitzera racemosa*) in the Percut Sei Tuan Mangrove Ecosystem**

The arbuscular mycorrhizal fungi (FMA) are one of the Order Glomales (Zygomycota) fungi that are found in roots and have mutualism symbiotic between mycorrhizal and plant roots to help absorb nutrients. This study aims to determine the percentage of mycorrhizal colonization in roots, diversity, diversity index and dominance index, and habitat characteristics or physical-chemical properties of the mycorrhizal environment in the rhizosphere of teruntum trees (*Lumnitzera racemosa*) in the Percut Sei Tuan mangrove ecosystem, Deli Serdang Regency. This research was conducted in October - December 2020 at the Biology Laboratory of FMIPA Unimed and samples were taken in the mangrove forest tourism Mekar Bahari, Pematang Lalang Village, Percut Sei Tuan, North Sumatra. The technique used in isolating arbuscular mycorrhizal spores is the pour-filter technique followed by centrifugation. Mycorrhizae were found stained with PVLG and Melzer's solution. Observations were obtained with the percentage of mycorrhizal colonization in the rhizosphere of 28% in the low category, the diversity of mycorrhizae was obtained as many as 12 species of arbuscular mycorrhizal spores with 5 types of genera, the diversity index value ( $H'$ ) ranged from 0.01-0.04 with the low category and The dominance value ( $C$ ) ranged from 0.000004 to 0.00007 and was dominated by the genus *Glomus*, and the physical-chemical characteristics of the mycorrhizal environment in the rhizosphere of the *Lumnitzera racemosa* tree obtained a pH of 3.7, a C-organic value of 4.63% , the N value of 0.07% and the available P is 90.91 ppm which is categorized as still high (good) with a temperature of 28<sup>0</sup>C.

**Key words: Mycorrhiza, *Lumnitzera racemosa*, Mangrove**

