Silvy Sistria Wulandari, 2019, **Isolasi dan Uji Potensi Kapang Selulolitik dari Tanah Mangrove Jenu Tuban**, Skripsi ini di bawah bimbingan Tri Nurhariyati, S.Si., M.Kes. dan Prof. Dr. Ir. Tini Surtiningsih, DEA. Departemen Biologi, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.

ABSTRAK

Penelitian ini bertujuan untuk mengetahui jumlah isolat kapang seluolitik, nilai indeks selulolitik yang tertinggi, dan menentukan genus kapang selulolitik yang dapat diisolasi dari tanah mangrove Jenu Tuban. *Sampling* tanah dilakukan dengan metode *purposive sampling*. Sampel tanah ditumbuhkan di media *Potato Dextrose Agar* (PDA) dengan ditambahkan *chloramphenicol* 1% dan diinkubasi selama 7 hari pada suhu ruang. Uji potensi kapang selulolitik diindikasikan dengan terbentuknya zona bening di media CMC (*Carboxylmethyl Celullose*) setelah diberi pewarna *Congo red* 1%. Isolat kapang diidentifikasi secara makroskopis dan mikroskopis. Data dianalisis secara deskriptif. Jumlah isolat kapang selulolitik yang dapat diisolasi sebanyak 5 isolat.. Kapang yang memiliki indeks selulolitik tertinggi adalah genus *Aspergillus* (0,7 mm). Hasil identifikasi didapatkan 2 genus kapang selulolitik yaitu *Aspergillus* dan *Penicillium*.

Kata kunci: Mangrove Jenu Tuban, Kapang, Selulolitik, Aspergillus, Penicillium

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ABSTRACT

The aims of this study are to determine the number of cellulolytic mold isolates, the highest cellulolytic index values, and determine the cellulolytic fungi genus that can be isolated from Mangrove Jenu Tuban soil. Soil sampling was conducted by purposive sampling technique. Soil samples were grown in Potato Dextrose Agar (PDA) media with added by chloramphenicol 1% and incubated for 7 days at room temperature. The potential test for cellulolytic mold was indicated by the formation of clear zones in CMC (Carboxylmethyl Celullose) media after being given the Congo red 1% dye. Mold isolates were identified by morfological macroscopic and microscopic. The data were analyzed descriptively. The number of cellulolytic mold isolates that could be isolated were 5 isolates. The mold which had the highest cellulolytic index was the genus *Aspergillus* (0.7 mm). The results of the identification found 2 genus of cellulolytic molds, namely *Aspergillus* and *Penicillium*.

Key words: Jenu Tuban Mangrove, Molds, Cellulolytic, Aspergillus, Penicillium