OCCURRENCE OF MACROSCOPIC FUNGI IN DIFFERENT FARMS IN INDANG, CAVITE

Thesis

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ABSTRACT

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This study was conducted to assess the influence of vegetation and determine the occurrence of macroscopic fungi species under Class Basidiomycetes (except rust and smuts) and Ascomycetes, in different farms in Indang, Cavite from August to December, 2010.

Nine sampling sites were identified by random sampling. These include Bancod, Kayquit II, Buna Cerca, Tambo Ilaya, Mahabang Kahoy Cerca, Pulo, Daine II, Carasuchi and Lumampong Halayhay. For every sampling site, 20 m x 50 m quadrat was laid out using intuitive controlled survey method. Macrofungi were collected in the quadrats and were identified solely based on their morphological characteristics.

The frequently occurring macrofungi species were *Schizophyllum commune* (7.30%), *Auricularia auricula-judae* (6.01%), *Coprinus comatus* (3.00%), *Marasmius alvelaris* and *Pluteus* sp.1 (2.58%), *Mycena acicula* (2.15%), *Auricularia mesenterica, Cantharellus aureus, Coprinus fibrillosus, Coprinus* sp.1, *Psathyrella disseminates, Crepidotus variabilis, Ganoderma applanatum, Mycena epipterygia* and *Mycena* sp.2 (1.29%).

Tambo Ilaya had the highest macrofungal diversity among all sampling sites using both Simpson and Shannon-Weiner index while Pulo was the lowest using Simpson index and Kayquit II in Shannon-Weiner. In terms of population density, both Tambo Ilaya and Carasuchi had the highest number of individual species while Pulo was the

lowest. Intensive farm management and use of fertilizer during the interval of first and second visit greatly affected these results. Vegetation in an area influenced the possible number and species of macrofungi present. *A. auricula-judae* favorably grew in coffee logs and stumps; *S. commune*, and *Pluteus* sp.1 in coconut leaf rachis; *C. comatus* in banana trunks and *M. alvelaris* and *M. acicula* in banana leaf litters; *M. epipterygia, Tremella globuspora* and *A. auricula-judae* in mango logs; *Cyathus striatus, Galerina* sp.1, *C. variabilis, Lactarius hortensis, T. mesenterica, Oudemansiella mucida, M. oreades, Galerina* sp.2, *Tricholomopsis* sp.2, *Poria* sp.1, *Daedalea hobsoni* evenly grew in santol but more dominant in logs; *Coprinus* sp.1 and *C. fibrillosus* in madre de cacao; and other species developed in unknown host and soil substrate.

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OCCURRENCE OF MACROSCOPIC FUNGI IN DIFFERENT FARMS IN INDANG, CAVITE

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INTRODUCTION

The estimated magnitude of fungal species worldwide is 1.5 million but only 140,000 are considered to be macroscopic (Hawksworth, 2001; Lull et al., 2005). Macroscopic fungi or macrofungi form large fructifications enough to be seen without the aid of microscope (Redhead, 1997; Swapna et al., 2008). These include species under Class Basidiomycetes and Ascomycetes that produce fruiting bodies greater than 1mm in diameter (Boa, 2004; Packham et al., 2002; Mueller et al., 2007; Huffman, 2008; Lodge et al., 2004; Redhead, 1997; Mendoza, 1938). These macrofungi have the longest history of diversity studies but only 10% are known (Mueller et al., 2007, Lindequist et al., 2005). This is because they remain to be understudied in most part of the world (Mueller et al., 2007).

Recent estimate revealed that Philippines is one of the countries in tropical Asia which did not give in-depth inventories on macrofungi (Mueller et al., 2007). From 1937 to 2002, the number of credited fungal species in the country increased only by 36