Isolation and Culture Collection of Invertebrate-Pathogenic Fungi in Protected Area

Winanda Himaman^{1*}, Chanjira Ayawong¹, Kittima Duengkae¹, Baramee Sakolrak¹ and Krisna Pongpanich¹

¹Forest Entomology and Microbiology Group, Forest and Wild Plant Conservation Office, Department of National Parks, Wildlife and Plant Conservation, Bangkok 10900, Thailand

The biodiversity of invertebrate-pathogenic fungi has been carried out in various protected areas in Thailand since 1998. As a country rich in biological resources, Thailand is a rich source of invertebrate-pathogenic fungi. Naturally, invertebrate-pathogenic fungi found in the leaf litter/soil of the forest floor or on the underside of living leaves. Specimens were collected from various sites on the search for biodiversity database of Department of National Parks, Wildlife and Plant Conservation. However, novel bioactive compounds from invertebrate-pathogenic fungi have been regarded as alternative medicines and biological control agent. Thus, special attention was directed towards fungal isolation and collection. Isolation methodology follows Luangsa-ard *et al.* (2006). In fact, the insect fungi have two states to their life cycle, an asexual phase (anamorphs) and a sexual phase (teleomorphs). Fungi in both phases have been collected from various insect and spider hosts and then isolated; interestingly, after germinated all revert to the anamorph phase in culture. In this study, a fungal culture collection comprises over 250 isolates and is preserved by freezing at -80°C. About 99 isolates were supplied for the academic students.

Key word: Isolation, Culture Collection, Invertebrate-Pathogenic Fungi, Protected Area

Abstracts book 5th Thai Mycological Conference in Bangkok, Thailand 2010. "Progress on Mycological Researches in Thailand".

^{*}E-mail: winandah@dnp.go.th