

Somjit Am-In 2008: Yeast Diversity in Water from Mangrove Forest in Laem Son National Park, Ranong Province. Master of Science (Microbiology), Major Field: Microbiology, Department of Microbiology. Thesis Advisor: Associate Professor Savitree Limtong, Dr.Eng. 198 pages.

Diversity of yeast in waters from a mangrove forest in Laem Son National Park, King Amphoe Suksamran, Ranong Province was studied by isolation using membrane filtration technique and identification based on comparative sequence analysis of the D1/D2 domain of the 26S rDNA. The fifty-six strains obtained from waters collected in 1998-1999 were identified to be 17 described species in the Phylum Ascomycota namely *Candida berthetii*, *C. boidinii*, *C. glabrata*, *C. pseudolambica*, *C. rugosa*, *C. silvae*, *C. thaimueangensis*, *C. tropicalis*, *Debaryomyces nepalensis*, *Issatchenkia occidentalis*, *I. orientalis*, *I. siamensis*, *Kodamaea ohmeri*, *Pichia caribbica*, *P. sporocuriosa*, *Torulasporea maleeae*, *Williopsis saturnus*, four described species in the Phylum Basidiomycota namely *Trichosporon asahii*, *T. coremiiforme*, *T. japonicum* and *Rhodotorula mucilaginosa* and two undescribed ascomycetous species, similar to *Candida* sp. NRRL Y-27127 and *Hanseniaspora* sp. ST-464. Thirty-two strains isolated from waters collected in 2005 were identified as six described species in the Phylum Ascomycota namely *C. phangngensis*, *C. pinguabensis*, *C. rugosa*, *C. thaimueangensis*, *C. tropicalis*, *K. ohmeri*, one described species in the Phylum Basidiomycota namely *T. asahii* and two undescribed ascomycetous species similar to *Candida* sp. NRRL Y-27127 and *Hanseniaspora* sp. CS-2008b. Among 61 strains isolated from waters collected in 2006 were identified to be 14 described species in the Phylum Ascomycota namely *C. butyri*, *C. parapsilosis*, *C. silvae*, *C. tropicalis*, *D. nepalensis*, *Galactomyces geotrichum*, *I. occidentalis*, *I. orientalis*, *I. siamensis*, *I. terricola*, *K. ohmeri*, *P. burtonii*, *P. galeiformis* and *P. kluyveri* and four undescribed ascomycetous species similar to *Candida* sp. NRRL Y-27665, *Hanseniaspora* sp. CS-2008b, *Hanseniaspora* sp. ST-250 and *Hanseniaspora* sp. YS DN19. From this study, 34 strains obtained from the water samples collected in the three collecting periods were identified to be seven novel species. They were named as *Candida andamanensis* sp. nov. (3 strains), *Candida laemsonensis* sp. nov. (2 strains), *Candida mangrovei* sp. nov. (1 strain), *Candida ranongensis* sp. nov. (2 strains), *Candida sanittii* sp. nov. (8 strains), *Kluyveromyces siamensis* sp. nov. (17 strains) and *Pichia ranongensis* sp. nov. (1 strain). The results of this study showed that different yeast species could be detected in different period. This may result from different water conditions. Yeast species which were found in all three collecting periods were *Candida tropicalis*, *Kodamaea ohmeri* and *Candida sanittii* sp. nov.

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Student's signature

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Thesis Advisor's signature

