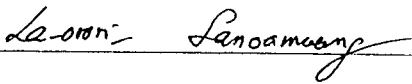
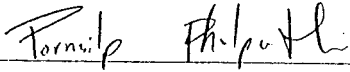



THESIS TITLE: BIODIVERSITY OF ROTIFERS IN NAKHON RATCHASIMA PROVINCE

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Abstract

Aspects of the species composition and distribution of rotifers from 77 habitats (207 samples) in Nakhon Ratchasima province were examined in this study during July 1996- April 1997. One hundred and ninety species belonging to 42 genera of rotifers were identified, one of which, *Lecane baimaii* n. sp., is new to science. One species, *Scaridium elegans* Segers and De Meester is new to Asia, and 10 (*Lecane decipiens* (Murray), *Lecane donneri* Chengalath and Mulamoolil, *Lecane grandis* (Murray), *Lecane punctata* (Murray), *Lecane serrata* (Hauer), *Lecane thienemanni* (Hauer), *Lepadella akrobeles* Myers, *Lepadella elongata* Koste, *Trichocerca porcellus* (Gosse), *Wolga spinifera* (Western)) are new records for Thailand. Additionally, 6 species (*Brachionus donneri* Brehm, *Brachionus niwati* Sanoamuang, Segers and Dumont, *Lecane blachei* Berzins, *Lecane segersi* Sanoamuang, *Lecane shieli* Segers and Sanoamuang, *Lecane superaculeata* Sanoamuang and Segers) appear to be endemic to south and southeast Asia. The occurrence of four species, *Brachionus dichotomus reductus* Koste and Shiel, *Brachionus kostei* Shiel, *Filinia novaezealandiae* Shiel and Sanoamuang, *Lecane batillifer* (Murray), previously considered endemic to Australia illustrates a relation

between the rotifer faunas of southeast Asia and Australia. This result brings the total Rotifera of Thailand from 276 to 288 species.

The majority of species recorded are cosmopolitan and pantropical. The most diverse genus was *Lecane* with 56 species (29%), followed by *Lepadella*, *Trichocerca* and *Brachionus* with 20 species (10%), 17 species (9%) and 16 species (8%), respectively. The average numbers of species were highest (40 species) in cool season, followed by rainy season (37 species) and summer (32 species), respectively. When considering data from all seasons, the maximum numbers of rotifer species (106 species) were found in a canal near Lam Phra Pluong Dam, Pak Thong Chai district, followed by Nong Khla (swamp), Chakkarat district (104 species) and Mun River, Phimai district (99 species), respectively. The relationships between rotifer species and physical factors were also observed.