



Freshwater Rotifera of the genus *Lecane* from Songkhla Province, southern Thailand

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Abstract

Eighteen freshwater bodies in Songkhla Province, southern Thailand were investigated for rotifers of the genus *Lecane*. A total of 23 species were identified. The majority of species found were cosmopolitan (43%) or tropicopolitan (39%). The rest were oriental (9%) and palaeotropical (9%). The most common species was *L. bulla* (61% of the plankton samples taken), while *L. aculeata*, *L. arcula*, *L. blachei*, *L. stenroosi* and *L. tenuiseta* were rare (only found once). The greatest species diversity was found in Khlong-Hla reservoir (14 species).

Introduction

Although there have been several contributions dealing with the Thai rotifer fauna (Boonsom, 1984; Sanoamuang et al., 1995; Segers & Pholpunthin, 1997; Segers & Sanoamuang, 1994), most of these studies were conducted on plankton samples from several localities in north or northeast Thailand. Information on the freshwater rotifers from the southern part of Thailand is restricted to Thale-Noi Lake (Segers & Pholpunthin, 1997). The aim of the present study, reporting on the diversity of the genus *Lecane* in Songkhla province, was to inform on the rotifer fauna in the south.

Materials and methods

Plankton samples were collected from 18 freshwater habitats, ranging from dams, reservoirs, ponds, and roadside canals to rivers of Songkhla province (Figure 1). They were collected quantitatively by several oblique hauls, using a 26- μ m mesh plankton net during September and October 1996. All samples were preserved in 4% formaldehyde. Specimens were examined and photographed using an Olympus VM dissection, and a Nikon OPTIPHOT-2 microscope with differential interference contrast equipment. Nomenclature follows Segers (1995).

All measurements are in μ m.

Results and discussion

To date, 54 species of Thai rotifer fauna of the genus *Lecane* were recorded (Segers & Pholpunthin, 1997; Sanoamuang et al., 1995), 26 of which appeared in both the northeastern and southern part of Thailand. Twenty-one species were only reported from the northeast and seven species were exclusively found in the south. In the present study, a total of 23 species were identified as shown in Table 1. Of these, 20 species have been previously recorded in Thale-Noi Lake (Segers & Pholpunthin, 1997) and three species (*Lecane blachei*, *L. stenroosi* and *L. thailandensis*) were found for the first time in the south of Thailand. The finding of *L. blachei* (Figures 2 and 3), which has been reported from several northeastern localities (Sanoamuang et al., 1995), is an extension of its distribution to the south. *L. stenroosi* (Figure 4) is considered to be a cosmopolitan species (Segers, 1996). *L. thailandensis* (Figure 5) was previously recorded from Nam Pung reservoir (Sakon Nakhon province, northeast Thailand) and Donqian Lake (Zhejiang province, China) (Segers & Sanoamuang, 1994). The present finding is the third record for the species. Its general morphology agrees with the original description by Segers & Sanoamuang (1994).

The greatest number of species was found in Khlong-Hla reservoir (14 species). In contrast, the genus *Lecane* was not represented in Rawa dam, Ban-Sauntoon reservoir and PSU reservoir. The most

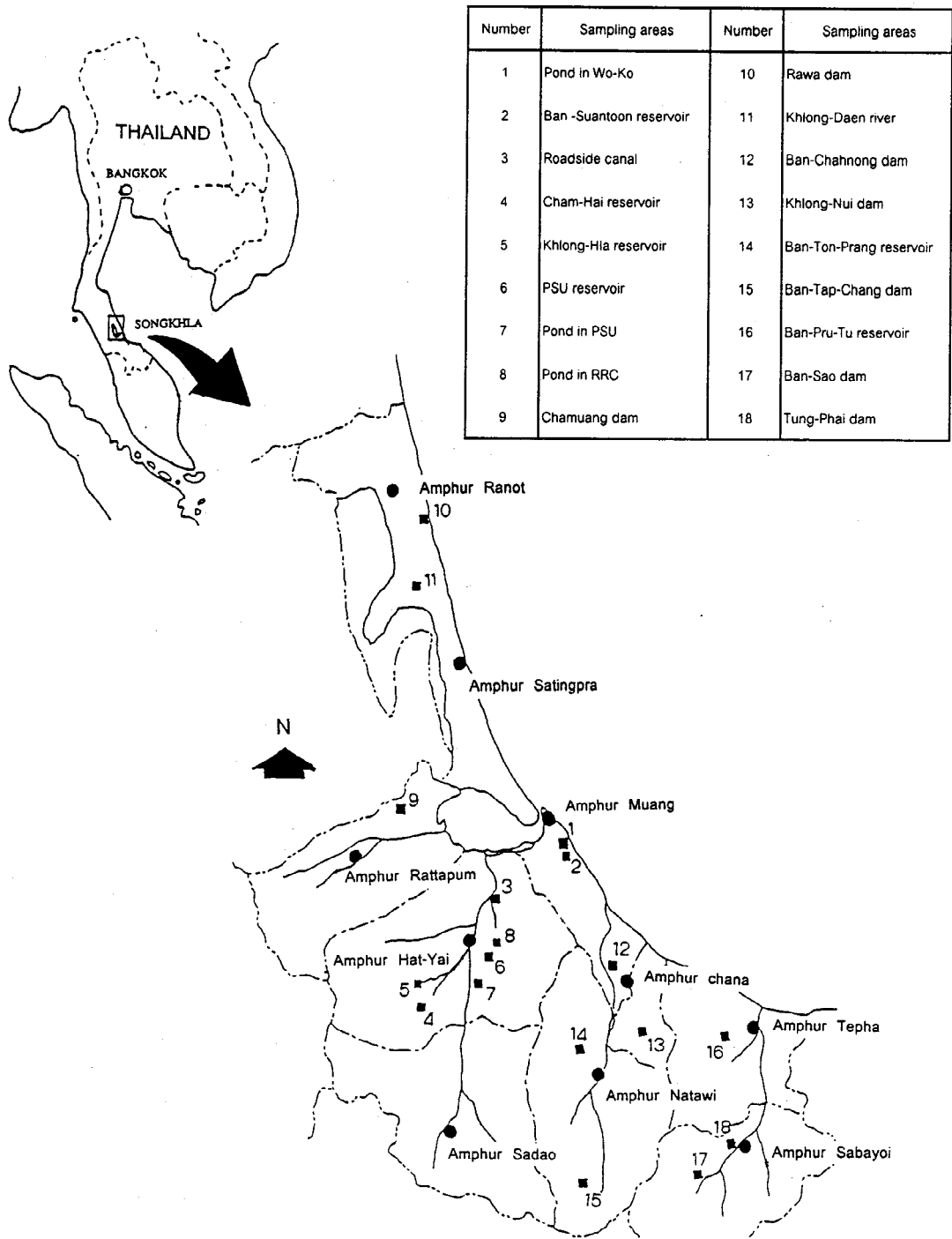
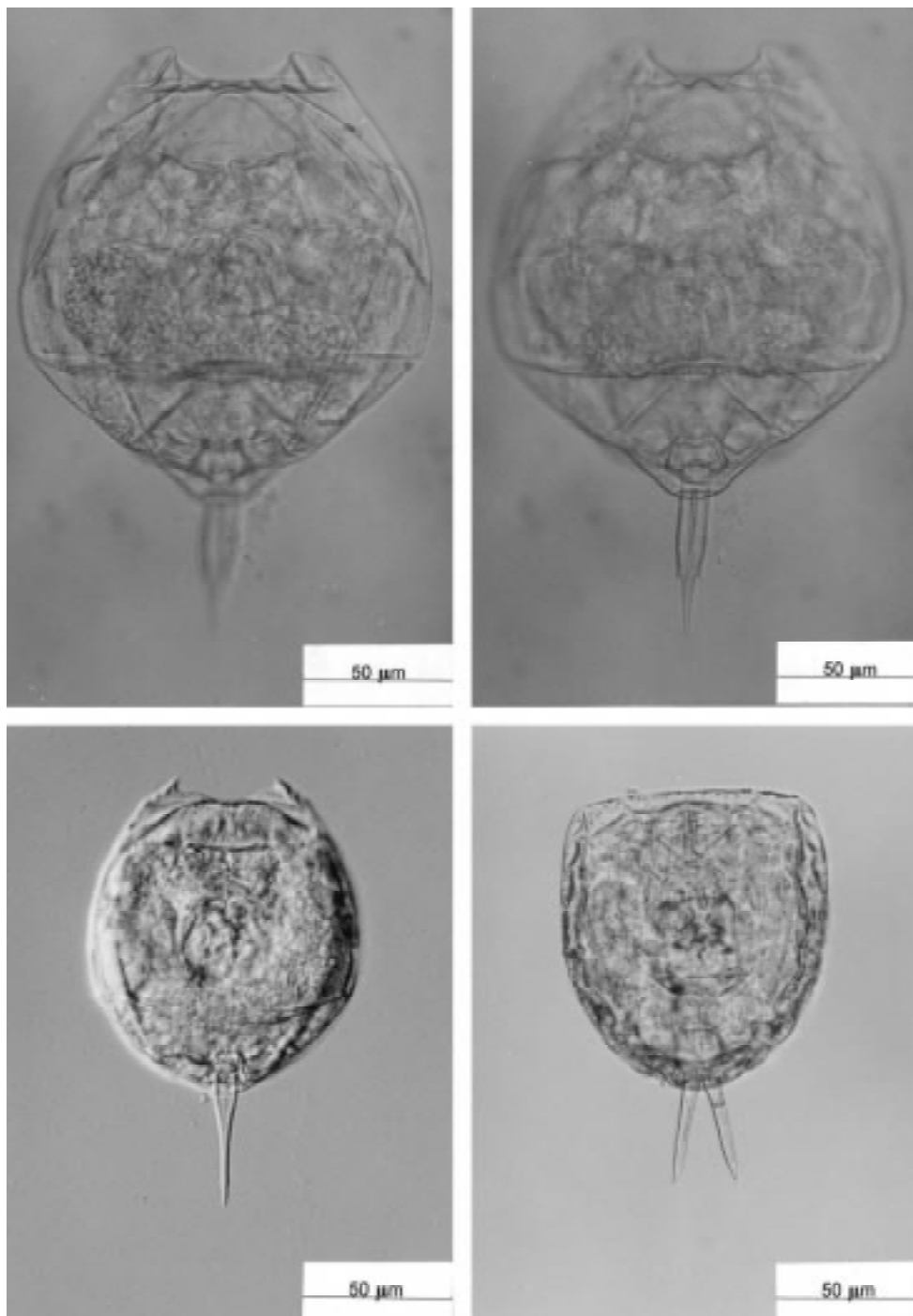


Figure 1. Situation of Songkhla province. Inset: sampling stations of freshwater habitats in Songkhla Province.



Figures 2–5. **Figures 2 and 3.** *Lecane blachei*. **Figure 4.** *Lecane stenroosi*. **Figure 5.** *Lecane thailandensis*.

Table 1. List of Rotifera of the genus *Lecane* from Songkhla Province, Thailand

<i>Lecane aculeata</i> (Jakubski, 1912): 5
<i>L. arcua</i> (Harring, 1914): 5
* <i>L. blachei</i> (Berzins, 1973): 13
<i>L. bulla</i> (Gosse, 1851): 1, 3, 5, 7, 9, 11, 13, 14, 17
<i>L. curvicornis</i> (Murray, 1913): 3, 8, 11, 12, 14, 16
<i>L. furcata</i> (Murray, 1913): 4, 5, 8, 11
<i>L. hamata</i> (Stokes, 1896): 4, 5, 7, 8, 11, 14, 15, 17, 18
<i>L. hornemanni</i> (Ehrenberg, 1834): 1, 5, 13, 14, 16
<i>L. lateralis</i> (Sharma, 1978): 11, 17
<i>L. leontina</i> (Turner, 1892): 3, 4, 5, 7, 8, 9, 13, 14
<i>L. ludwigii</i> (Eckstein, 1883): 3, 5
<i>L. luna</i> (O.F. Müller, 1883): 4, 5, 7, 13, 14, 16
<i>L. lunaris</i> (Ehrenberg, 1832): 7, 8, 9, 13, 16
<i>L. obtusa</i> (Murray, 1913): 4, 13
<i>L. papuana</i> (Murray, 1913): 1, 3, 5, 8, 11, 17
<i>L. quadridentata</i> (Ehrenberg, 1832): 3, 5, 11, 13, 14
<i>L. rhenana</i> (Hauer, 1964): 5, 11
<i>L. signifera</i> (Jennings, 1896): 1, 3, 4, 5, 8, 17
* <i>L. stenroosi</i> (Meissner, 1908): 11
<i>L. tenuiseta</i> (Harring, 1914): 11
* <i>L. thailandensis</i> (Segers & Sanoamuang, 1994): 5, 16
<i>L. unguitata</i> (Fadeev, 1925): 3, 4, 7, 8, 9, 13, 17
<i>L. ungulata</i> (Gosse, 1887): 3, 8, 9

The numbers refer to the sampling station. *New to southern part of Thailand.

common species was *L. bulla* (61% of the plankton samples taken), followed by *L. hamata* (50%) and *L. leontina* (45%). *L. aculeata*, *L. arcua*, *L. blachei*, *L. stenroosi* and *L. tenuiseta* were rare and only found at one sampling station each. Among the 23 species found in the present study, 10 (43%) are cosmopolitan and nine (39%) are tropicopolitan.

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