A second species of the water mite genus *Sinhaladwipabates* Gledhill & Wiles, 1997 from Thailand (Acari: Hydrachnidia: Hygrobatidae)

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**Abstract**

A new species, i.e. *Sinhaladwipabates scutatus* is described from Thailand. This is the second known species of the genus and requires an emendation of the diagnosis of the genus.

**Key words**: Systematics; new species; water mites; Hygrobatidae; Thailand.

**Introduction**

The Hygrobatidae are a large water mite family with 71 genera described. Of these, 89 % is known from the tropics only or from the southern hemisphere areas of moderate climate (Gerecke et al. 2016). According to Di Sabatino et al. (2008), the Oriental region is relatively poor in hygrobatid genera, the Neotropical and Australasian regions having the richest fauna. However, our knowledge of the Oriental fauna is far from complete (Di Sabatino et al. 2008) although recently a number of papers have been published which improved our knowledge considerably (e.g. Pešić & Smit 2014, 2016, Pešić et al. 2018a,b, Smit 2016, Smit & Pešić 2014).

During a collecting trip in NE Thailand, a new species of the hygrobatid genus *Sinhaladwipabates* Gledhill & Wiles, 1997 was collected which will be described in this paper. Thus far, this genus was known from one species only from Sri Lanka.

**Material and Methods**

The holotype will be lodged in Naturalis Biodiversity Center, Leiden. Abbreviations used: a.s.l. – above sea level; Cx-I – first coxal plate; Cxgl-4 – coxoglandularia 4; IV-leg-6 – sixth segment of fourth leg; P-2 – second palp segment; RMNH – Naturalis Biodiversity Center (Leiden). All measurements are in µm, measurements of palp and leg segments are of the dorsal margins. Ventral length is measured from the tip of Cx-I till posterior idiosoma margin.
Systematic part

Family Hygrobatidae Koch, 1842

Genus *Sinhaladwipabates* Gledhill & Wiles, 1997

*Sinhaladwipabates scutatus* n. sp.

Type material. Holotype female, Huai Chan Waterfall, Ubon Ratchathani Province, Thailand, 14° 31.403 N 104° 22.120 E, alt. 222 m a.s.l., 11-xi-2017, leg. H. Smit (RMNH).

**Description.** Female: Idiosoma dorsally 384 long and 308 wide, ventrally 354 long. Dorsum with a large dorsal shield, 356 long and 270 wide, with four pairs of glandularia, the preocularia and the postocularia.
Dorsal furrow with three pairs of small glandularia platelets. Eyes large. Gnathosoma separated from Cx-I, with a large upturned rostrum; dorsal of the rostrum a long seta; gnathosoma without an anchoral process. Venter with large ventral shield incorporating the coxae but the genital field is lying in a half-circular area of membranous integument. All suture lines of coxae incomplete. Cxgl-2 located near posterior suture line between Cx-II and Cx-III, Cxgl-4 located near suture line between Cx-III and Cx-IV. Genital field with four pairs of unequal acetabula, 114 wide; genital plate 32 wide. Pregenital scerite fused with ventral shield. Excretory pore posterior to ventral shield. Lengths of P1-5: 16, 30, 26, 42, 26. P4 with two stiff ventral setae and a very large stout seta. Length of I-leg-4-6: 40, 44, 58 (tip of segment). First leg much stockier than the three other legs. I-leg-5 with two short, stout distoventral setae and one moderately long hair-like setae.

Length of IV-leg-4-6: 70, 78, 64. II-, III- and IV-leg-5 with two swimming setae.

Male: Unknown.

Etymology. Named for the presence of a large dorsal plate.

Remarks. The new species differs from Sinhaladwipabates kumariae Gledhill & Viets, 1997 in the following characters (in parentheses S. kumariae): Dorsal shield with four pairs of glandularia, the preocularia and the postocularia (only two pairs of glandularia), gnathosoma with one long seta dorsal of rostrum (two setae), P5 stocky (P5 slender) and I-leg-5 anteroventrally with two short setae (two long setae). The anteroventral hair-like seta of I-leg-5 of the new species is not found in S. kumariae, but this seta is easily lost during mounting.

The finding of a new species of Sinhaladwipabates requires an emendation of the diagnosis of the genus: Characters of the genus as described by Gledhill & Wiles (1997). Dorsal shield with 2-4 pairs of glandularia, with or without the preocularia and the postocularia. Gnathosoma with 1-2 long setae dorsally of rostrum.

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References