

**DESCRIPTION OF A NEW WATER MITE SPECIES
OF THE GENUS *HYDRODROMA* KOCH
(ACARI, HYDRACHNIDIA, HYDRODROMIDAE) FROM VIETNAM**

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ABSTRACT: A description of the male and female of a new water mite species *Hydrodroma* from Vietnam is given.

KEY WORDS: Hydrodromidae, *Hydrodroma vietnamica*, water mite, new species, male, female

INTRODUCTION

The goal of this paper is to describe the male and female of a new water mite species of the genus *Hydrodroma* Koch, 1837 from Vietnam.

In the description, nomenclature of idiosomal setae follows Tuzovsky (1987).

The following abbreviations are used: P-1–5, pedipalp segments (trochanter, femur, genu, tibia and tarsus); I–Leg-1–6, first leg, segments 1–6 (trochanter, basifemur, telofemur, genu, tibia and tarsus); L — length, W — width; acg — accessory gland; n = number of specimens measured. The length of appendage segments was measured along their dorsal side; all measurements are given in micrometers (μm).

DESCRIPTIONS

Hydrodroma vietnamica Tuzovskij, sp. n.

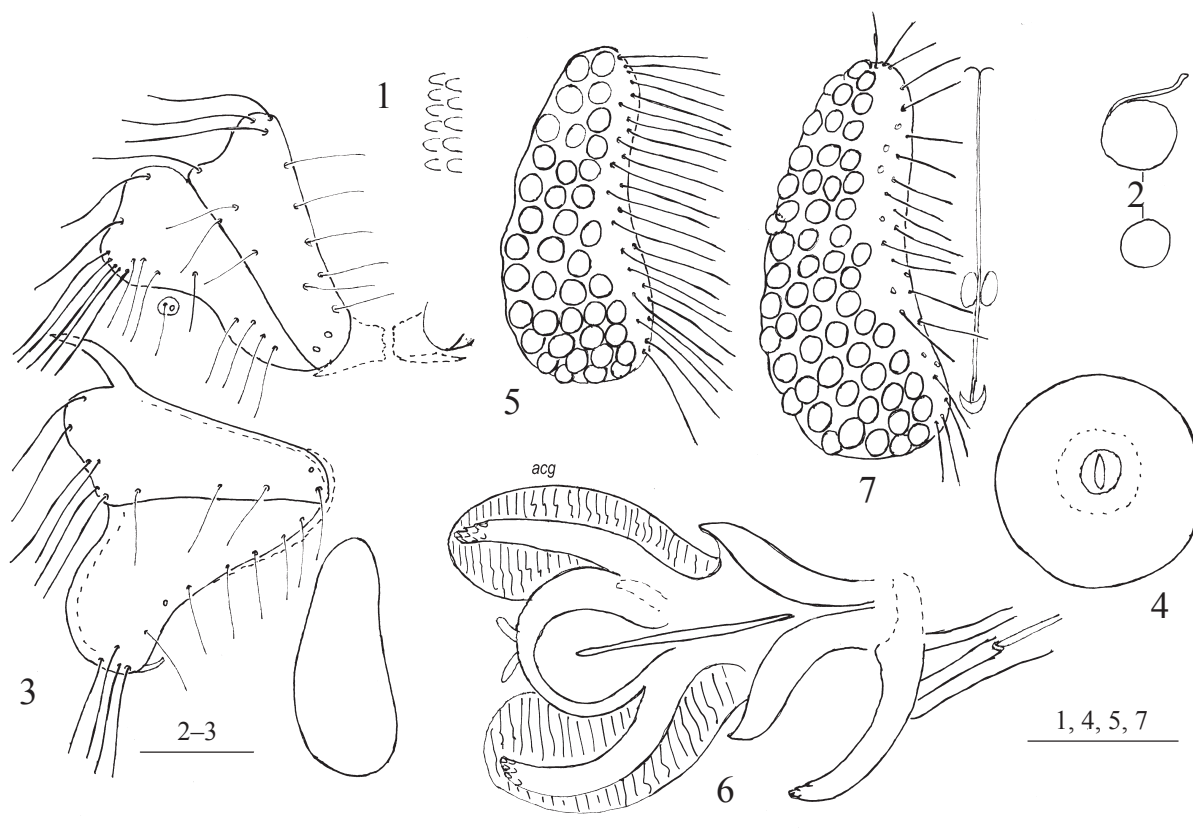
Figs 1–13

Type material. Holotype: male, slide 9766, Vietnam, Dong Nai (Đồng Nai) Province, National park Cat Tien (Cát Tiên), Bau Chau Lake (Bàu Sấu) (N 11°27.668', E 107°20.376'), altitude 139 m, depth 1.2 m, water temperature 33.9°C, pH 6.8, 11 May 2012 (leg. V.A. Gusakov). Paratypes: 1 male and 1 female from the same locality and collection date as holotype. The holotype is deposited in the collection of Institute for Biology of Inland Waters (Borok, Russia).

Diagnosis. Adults. Integument papillae distally rounded; P-2 with six setae, P-3 with two long unequal dorsodistal setae; II–Leg-5 with single swimming seta; excretory pore plate large; **male:** genital field with 35–38 acetabula and 25–30 long, thin subequal setae, ejaculatory complex with two very large accessory glands, proximal and distal arms subequal; **female:** genital field with 45–52 acetabula and 22–25 short subequal setae.

Both sexes. The idiosoma oval, integument papillae relatively long and distally rounded (Fig. 1). Lateral eyes not capsulated, on each side with two lenses well separated from each other, anterior lenses larger than posterior ones (Fig. 2). Number and position of idiosomal setae typical for the genus *Hydrodroma*. Coxal plates I+II forming subcutaneous posteromedial extensions embracing gnathosomal bay, but medially separated by a membranous strip (Fig. 3). Coxal plate III trapezoidal with long anterolateral process, coxal plate IV triangular with acute medial corner and very short posterolateral process. Coxal setae numbers: coxal plates-I 11–15; coxal plates-II 11–13; coxal plates-III 11–12, coxal plates-IV 9–11. Excretory pore plate large and circular (Fig. 4). Legs II–IV with swimming setae (Figs 11–12). Leg setae numbers: II–Leg-5 posterior 1; III–Leg-4 anterior 3–4, III–Leg-5 posterior 4–5; IV–Leg-4 anterior 3–5, IV–Leg-4 posterior 3–4; IV–Leg-5 anterior 0; IV–Leg-5 posterior 3–4. Leg claws hook-like, with long ventral clawlet and short dorsal one (Fig. 13). Capitulum (Fig. 8) with short rostrum and large mouth disk, capitular base strong convex. Chelicera (Fig. 9) with large basal segment and short chela. Pedipalp moderately slender (Fig. 10): P-1 with single dorsodistal seta; P-2 with six pectinate setae (three long mediolateral and three relatively short dorsal); P-3 with two long unequal dorsodistal setae (distal seta longer than proximal seta); P-4 with long pointed dorsodistal projection reaching tip of elongated P-5.

Male. Acetabular plate elongate (L/W ratio 2.2–2.3), with long subequal setae (Fig. 5). Acetabula number 35–38, setae number 25–30. Proximal chamber of ejaculatory complex (Fig. 6) moderately in size, with two short proximal horns; proximal and distal arms subequal, accessory glands very large.



Figs 1–7. *Hydrodroma vietnamica* sp. n., adults: 1 — fragment of integument, 2 — eye lenses; 3 — coxal plates, 4 — excretory pore plate; 5, 7 — acetabular plate; 6 — ejaculatory complex; 1–6 — male, 7 — female. Scale bars: 1, 4–7 = 50 μm , 2–3 = 100 μm .

Measurements (n=2). Idiosoma L 510–600; coxal plates I+II L 115–125, W 125–140; coxae III+IV L 150–165, W 130–150; genital plate L 135–150, W 120–130; genital setae L 45–50; capitulum L 108–125; basal segment of chelicera L 145–162, cheliceral chela L 40–43; pedipalpal segments (P–1–5) L: 35–37, 36–42, 35–40, 90–102, 40–43; leg segments L: I–Leg–1–6: 35–40, 48–60, 55–62, 75–95, 120–135; II–Leg–1–6: 35–40, 48–60, 65–80, 120–135, 135–150, 145–155; III–Leg–1–6: 35–40, 48–60, 65–72, 100–115, 125–150, 125–135; IV–Leg–1–6: 60–80, 78–90, 95–115, 150–165, 165–185, 155–170.

Female. Acetabular plate elongate (L/W ratio 2.3), with short subequal genital setae (Fig. 7). Acetabula number 45–52, setae number 22–25.

Measurements (n=1). Idiosoma L 850; coxal plates I+II L 145, W 155; coxae III+IV L 190, W 175; genital plate L 160, W 70; capitulum L 150; basal segment of chelicera L 190, cheliceral chela L 42; pedipalpal segments (P–1–5) L: 42, 42, 36, 117, 42; leg segments L: I–Leg–1–6: 45, 55, 65, 120, 135, 125; II–Leg–1–6: 45, 65, 72, 140, 170, 155; III–Leg–1–6: 45, 65, 78, 130, 155, 140; IV–Leg–1–6: 85, 95, 120, 185, 190, 175.

Differential diagnosis. The new species is similar to *Hydrodroma reinhardi* Pesic, 2002. Adults of *H. vietnamica* differ from *H. reinhardi* by the following characters (character states of the adults of *H. reinhardi* follow those given in Pesic 2002 and Tuzovsky 2015, and are indicated in parentheses): the excretory pore is opens on the large plate, Fig. 3 (the excretory pore surrounded by narrow ring), P-2 both dorsal setae situated distally, Fig. 9 (the short dorsal seta is situated proximally to middle of segment); the capitulum short, L in the male 108–125 μm , L in the female 150 μm (relatively long, L in the male 200–228 μm , L in the female 223–266 μm).

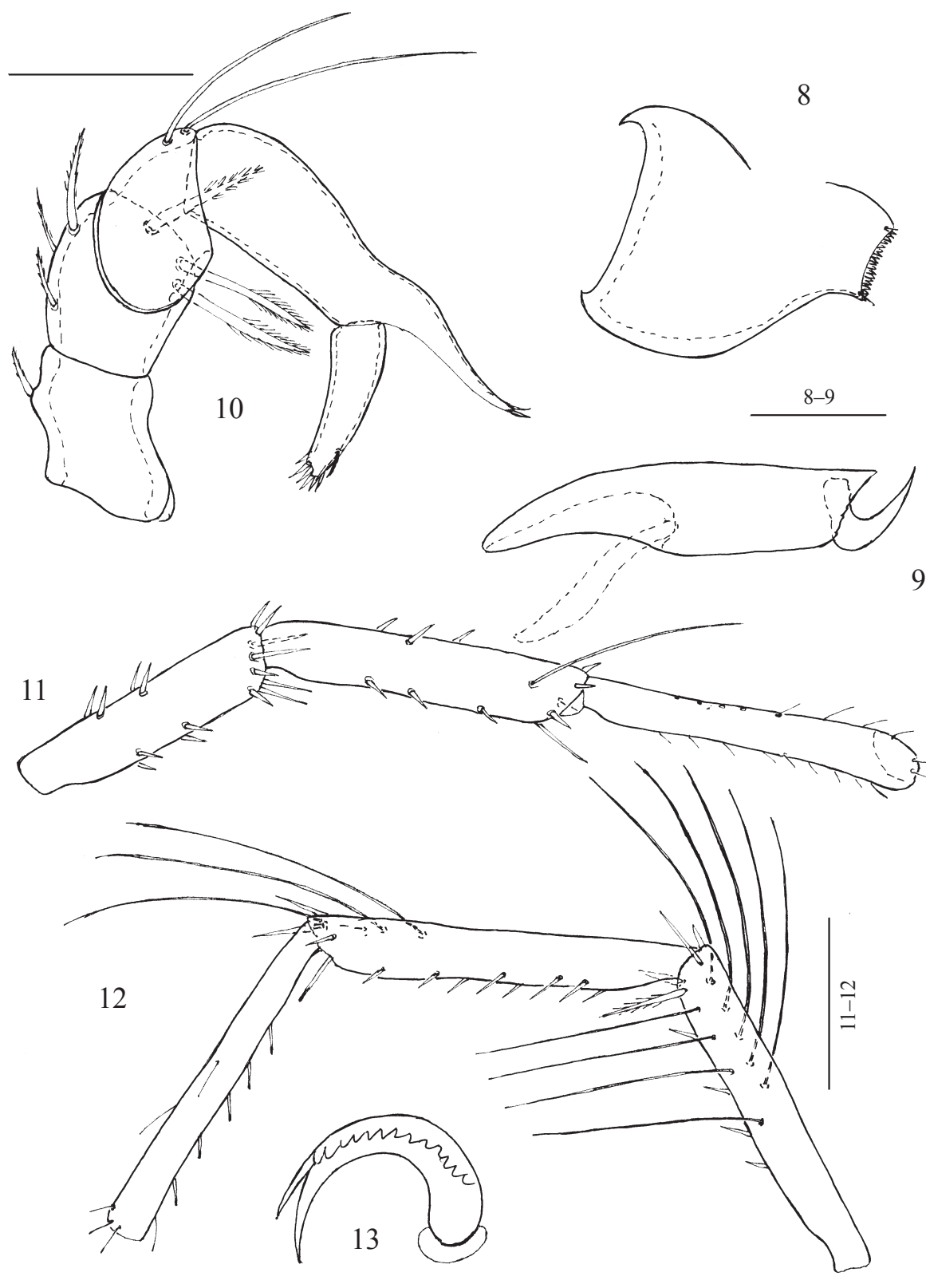
Etymology. The species epithet, *vietnamica*, is derived from the name of the country where it was collected (Vietnam).

Habitat. Standing waters.

Distribution. Asia, Vietnam: Bau Chau Lake.

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Figs 8–13. *Hydrodroma vietnamica* sp. n., male: 8 — capitulum, 9 — chelicera, 10 — pedipalp, 11 — I-Leg-4-6, 12 — IV-Leg-4-6, 13 — claw. Scale bars: 8–10 = 50 μm , 11–12 = 100 μm , 13 = 20 μm .

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