

A new species of the water mite genus *Mideopsis* Neuman from Japan (Acariformes: Mideopsidae)

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An illustrated description of the female of the water mite *Mideopsis biwaensis* sp. n. from Japan (lake Biwa, Honshu) is given.

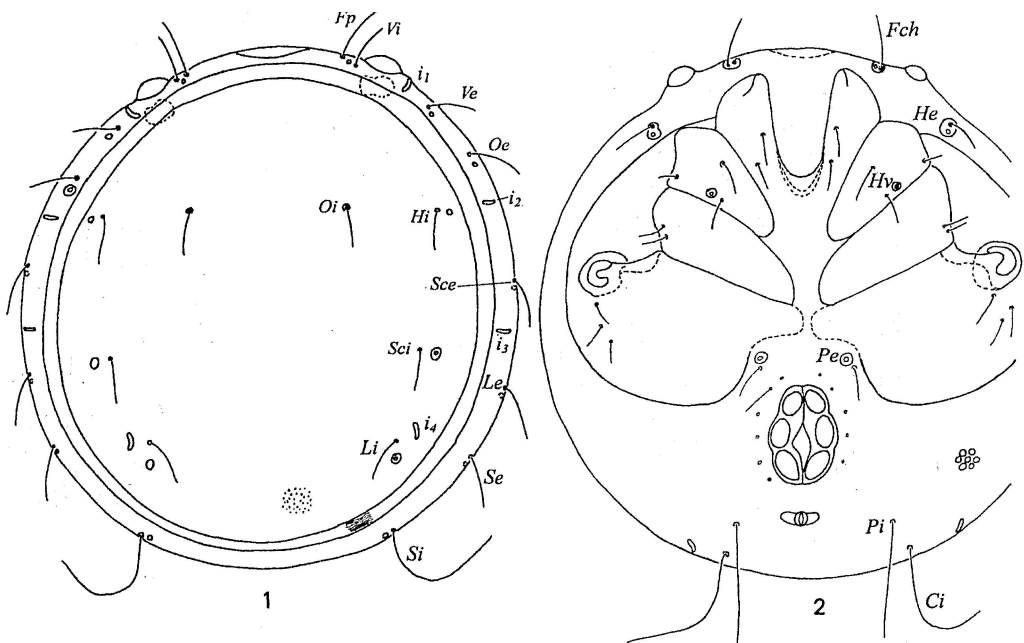
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Mideopsis (*Mideopsis*) *biwaensis* sp. n. (Figs 1-5)

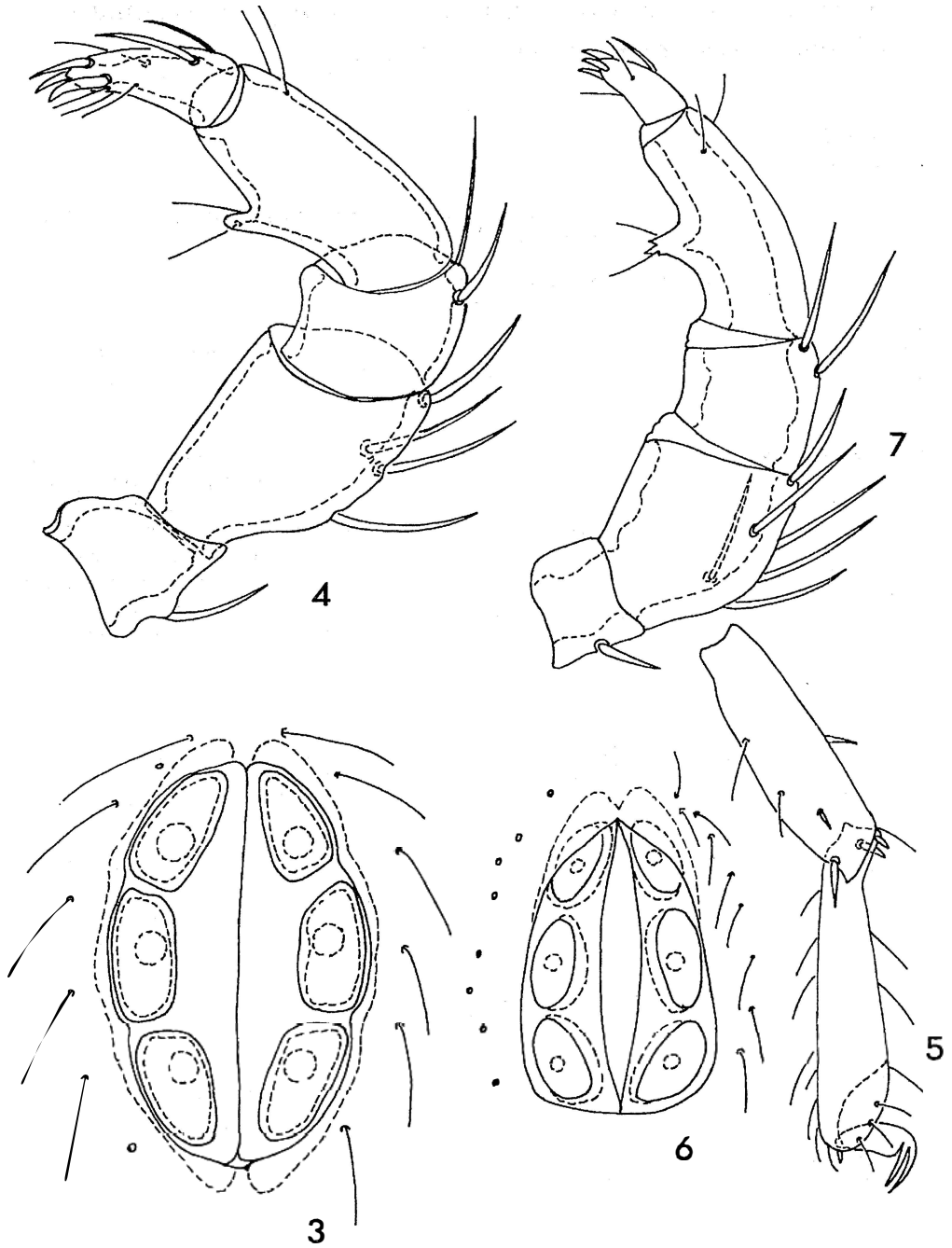
Holotype. ♀, Japan, Honshu, northern part of lake Biwa, depth of 2 m, sandy ground, 25.VI.1996 (Oleg Timoshkin); slide 7628, deposited in the collection of the author.

Paratype. ♀, as holotype, but depth of 3 m and 8.VIII.1996.

Description (nomenclature of body setae and lyriform organs according to Tuzovskij, 1987). *Female*. Colour yellow-brown. Body flat, round (Figs 1-2). Frontal margin wide and weakly convex, with two small tubercles (eye lenses). Dorsal shield large, occupying almost whole dorsal surface, with 4 pairs of setae (*Oi*, *Hi*, *Sci*, and *Li*) and one pair of lyriform organs



Figs 1, 2. *Mideopsis biwaensis* sp. n., female: 1, dorsal view; 2, ventral view.



Figs 3-7. 3-5, *Mideopsis biwaensis* sp. n., female: 3, genital opening; 4, pedipalp; 5, tibia and tarsus of leg I; 6, 7, *M. orbicularis* (Müll.), female: 6, genital opening; 7, pedipalp.

(i₄). Three anterior pairs of setae (*Fch*, *Fp*, and *Vi*) close together, situated on frontal margin near eyes; setae *Fp* and *Vi* occupy dorsal position and setae *Fch* situated on ventral side of body. Setae *Ve*, *Oe*, *Sce*, *Le*, *Si*, and *Se* and the first 3 pairs of lyriform organs (*i₁-i₃*) situated along lateral margins of body.

Fore coxae fused, so that suture line in their medial part disappears (Fig. 2). Coxae II and III with distinct borders on all sides. Coxae IV with posteromedial hollows, in which are situated setae and glandularia *Pe*; hind margins of these coxae convex. Suture lines between coxae I-II, II-III, and III-IV directed obliquely to the longitudinal axis of body. Setae *Hv* situated on hind margin of coxae II, and setae *He* situated lateral to these coxae. Setae *Pi* and *Ci* and the fifth pair of lyriform organs (*i₅*) situated in hind part of body. Setae *Fp*, *Oi*, *Ci*, and *Pi* lacking glandularia, whereas in other body setae they are present.

Genital opening (Fig. 3) elongate, oval, widest in the middle, with fore and hind margins similar in size and shape. Acetabula large, elongate, their combined length almost equal to length of genital opening; on either side of the opening 6-8 thin hairs arranged in arched line.

Trochanter of pedipalp (Fig. 4) well-developed; dorsal seta attached before middle of trochanter. Femur of pedipalp with straight ventral margin; proximal part of femur thinner; medial and distal parts of equal thickness; dorsal margin of femur armed with 4 setae of subequal length. Genu of pedipalp short, its ventral margin weakly concave, dorsodistal end with 2 setae. Tibia of pedipalp long, its ventral margin with small conical projection bearing 2 thin hairs at its rounded apex; this projection directed at acute angle to distal part of tibia. Tarsus of pedipalp rather long, tapering to distal end.

Proximal parts of all legs thin, slightly bent in dorsoventral plane (Fig. 5). Number of swimming hairs as follows: leg II: 2-3 at genu and 4-7 at tibia; leg III: 7 at genu and 7 at tibia; leg IV: 9-11 at genu and 6-7 at tibia. Claws with well-developed plate and two long teeth of subequal length.

Measurements (µm). Lengths: body 780-795 (its width 780-805); segments of pedipalp (on dorsal margin): 33-36, 57-66, 38-42, 68-72, 36-42; genital opening 132-138 (its width 78-90); segments of legs: I – 54-60, 78-84, 66-72, 78-80, 108-112, 132-138; II – 60-66, 84-90, 72-78, 90-96, 125-132, 144-150; III – 66-72, 92-96, 78-82, 105-120, 132-145, 135-140; IV – 80-85, 130-135, 96-100, 125-138, 160-165, 150-156.

Etymology. The species name is formed from name of lake Biwa, the type locality.

Distribution. Known from the type locality only.

Comparison. *Mideopsis biwaensis* is somewhat similar to the Japanese species *M. ryugaensis* (Imamura, 1957) living in underground waters and to *M. orbicularis* (Müller 1776) widely distributed in Europe, Asia and North America. With the first species it is similar in the structure and armament of the pedipalp segments and with the second in the body shape and structure of coxal plates. Both these species clearly differ from *M. biwaensis* in the position of the anal aperture, which opens in them on the distal end of the body. In addition, in *M. ryugaensis* the setae and glandularia *Pe* are situated on coxae IV and medial border of coxae II is indistinct. In female of *M. orbicularis* (Fig. 6), the genital opening is narrow in the anterior part and wide in posterior; the pedipalp (Fig. 7) is less slender, its second segment bears larger number of setae (6-7); the ventral projection on tibia is directed at almost right angle to the ventral margin of the segment.

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References

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