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Notes on Three Hypopi (Acarina, Sarcoptiformes) Phoretic on Mammals in Japan

With 5 Text-figures

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ABSTRACT The present paper deals with the three species of heteromorphic deutonymphs (=hypopi) which have been found on voles or insectivores in Japan. Among these materials, there are one new species and one new subspecies.

In Japan, many acarologists have noticed that hypopi of the family Glycyphagidae are commonly phoretic on small mammals and insectivores. However, close examinations on these hypopi have not so far been made in this country. We found three species belonging to different genera on various hosts. New host records for a known subspecies and descriptions of a new species and a new subspecies will be given below.

Genus *Dermacarus* Haller, 1880

1. *Dermacarus hypudaei japonicus* Fain, 1969

This subspecies has been described from *Glirulus japonicus*, in Fujisan, Japan. We found specimens of this subspecies from five new hosts:

1. *Clethrionomys rufocanus bedfordiae*, from Kaminopporo, Hokkaido, Japan. Coll. K. Hattori, 30–V–1956 (5 hypopi).
2. *Microtus montebelli*, from Tappi-zaki, Aomori-ken, Japan. Coll. N. Taka-

da, 6–IX–1969.

3. *Urotrichus talpoides*, from Hakuba Village, Nagano-ken, Japan. Coll. K. Uchikawa, 5–V–1973 (5 hypopi).
4. *Sorex shinto*, Hakuba Village, Nagano-ken, Japan. Coll. K. Uchikawa, 8–VII–1973 (2 hypopi).
5. *Crocidura dsinezumi*, Hakuba Village, Nagano-ken, Japan. Coll. K. Uchikawa, 5–V–1973 (5 hypopi).

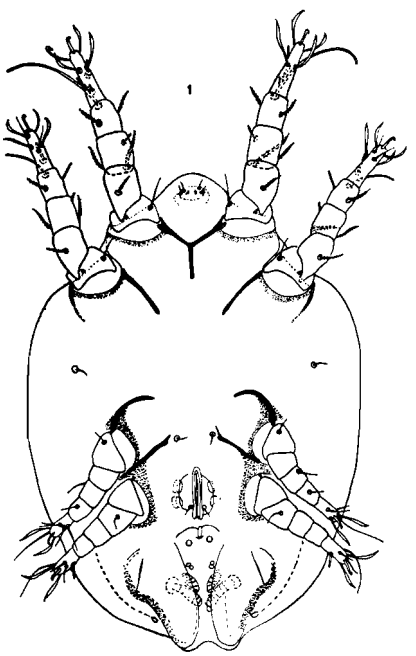


Fig. 1. *Xenoryctes krameri japonensis* subspec. nov. Hypopus, in ventral view.

Genus *Xenoryctes* Zachvatkin, 1941

1. *Xenoryctes krameri japonensis* subspec. nov.

This new subspecies is distinguished from the nominate form by the following characters:

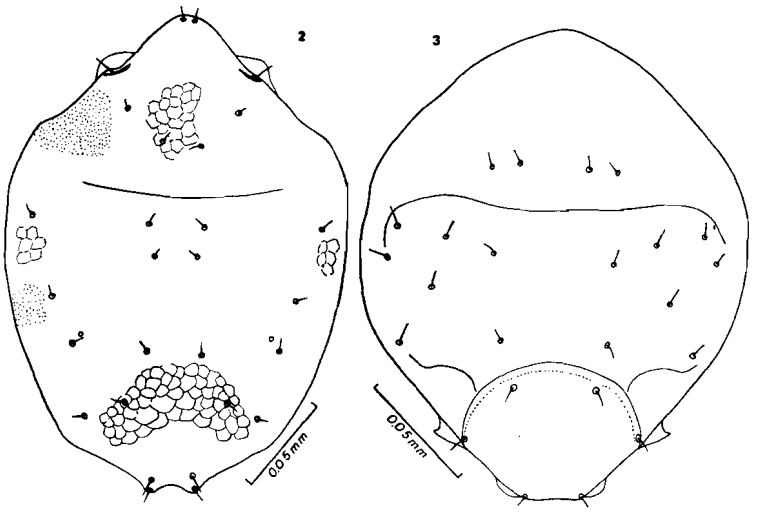
1) Smaller size of the body.

2) Network pattern of the dorsum very faint and visible only in some parts of the dorsum.

3) Anterior extremity more rounded.

4) Epimera III shorter.

HYPOPUS (holotype) (Figs. 1–2): Length 237 μ, width 160 μ. In two paratypes (length$\times$width): 230 $\mu\times$150 μ and 236 $\mu\times$154 μ.



Figs. 2–3. *Xenoryctes krameri japonensis* subspec. nov. (Fig. 2) and *Scalopacarus sasai* spec. nov. (Fig. 3). Hypopi in dorsal view.

Host and locality. On *Urotrichus talpoides*, Hakuba Village, Nagano-ken, Japan. Coll. K. Uchikawa, 20–VI–1973 (holotype and 9 paratypes, hypopi).

Holotype (NSMT–Ac 8548) in the collection of the National Science Museum (Nat. Hist.), Tokyo, Japan.

Paratypes in Institut de Médecine Tropicale Prince Léopold, Antwerpen, Belgium; Department of Zoology, Catholic University, Nijmegen, The Netherlands; and Department of Parasitology, Shinshu University, Matsumoto, Japan.

Genus *Scalopacarus* Fain et Whitaker, 1973

1. *Scalopacarus sasai* spec. nov.

This species, known only from the hypopial form, is distinguished from *Scalopacarus obesus* Fain et Whitaker, 1973, the only species known in the genus, by the following characters:

1) Anterior hair of tibiae I–II much thicker and barbed. This hair is thin and simple in *S. obesus*.

2) Epimera III slightly bifid apically.

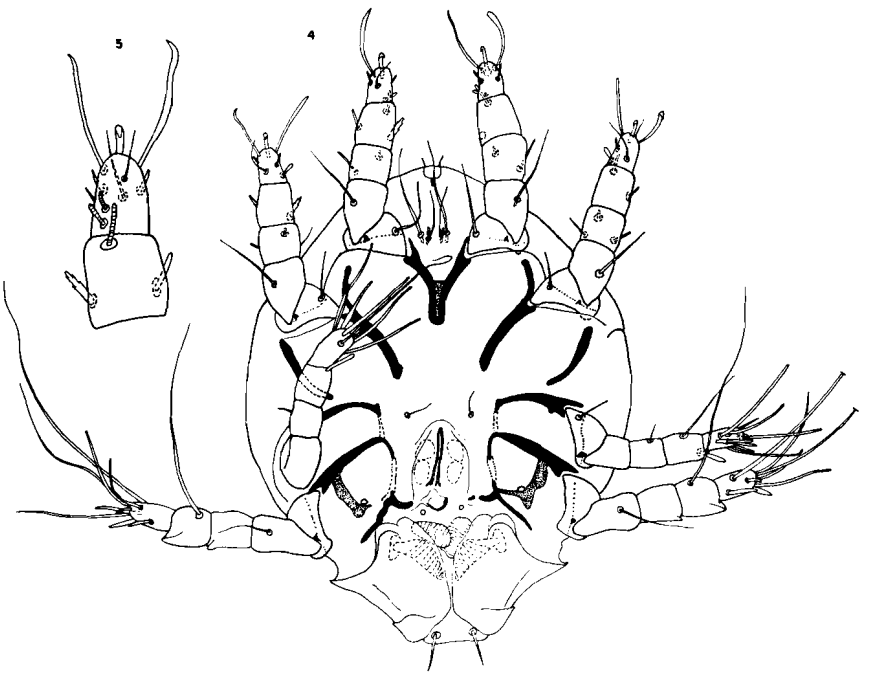
3) Epimera IV recurved internally. In *S. obesus* these epimera are straight and not recurved internally.

4) Epimerite IV short and thin.

5) Lateral hooks of clasper organ strongly developed and projecting beyond the lateral borders of the opisthosoma. In *S. obesus* these hooks, when visible, are short, blunt and do not reach the margins of the body.

6) Sternum much thicker.
7) Setae l_5 simple, not spatulate apically.
8) Body size much smaller.

This species is named after Prof. M. Sasa, the prominent Japanese specialist in acarology.



Figs. 4–5. *Scalopacarus sasai* spec. nov. Hypopus in ventral view (Fig. 4) and tibia and tarsus I (Fig. 5) in dorsal view.

HYPOPUS (holotype) (Figs. 3–5): Length 186 μ, width 149 μ. In two paratypes (length × width): 181 μ × 147 μ and 186 μ × 157 μ. *Dorsum* with two transverse median and two smaller lateral furrows. The cuticle is slightly punctate behind the postero-median furrow. *Ventral surface*: as in *Scalopacarus obesus* except for the differences as given above. Pilicolous clasper very wide with two antero-lateral and two postero-lateral hooks. Palposoma as in *S. obesus*. *Legs*: tibia IV with a posterior apical expansion. Tarsi I–IV with 7–7–8–8 setae. Tibia and tarsus IV each with one long hair, 80 μ and 110 μ long, respectively.

Host and locality. On *Urotrichus talpoides*, Hakuba Village, Nagano-ken, Japan. Coll. K. Uchikawa, 5-V-1973 (holotype and 6 paratypes, hypopi).

Holotype (NSMT-Ac 8549) in the collection of the National Science Museum (Nat. Hist.), Tokyo, Japan.

Paratypes in Institut de Médecine Tropicale Prince Léopold, Antwerpen, Belgium; Department of Zoology, Catholic University, Nijmegen, The Netherlands; and Department of Parasitology, Shinshu University, Matsumoto, Japan.

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