

## New species of *Moritzoppia* and *Medioppia* from the Beskidy Mountains, Poland (Acarina, Oribatida, Oppiidae)

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*Moritzoppia sharipovi* sp. n. and *Medioppia beskidyensis* sp. n. are described from Poland. *M. sharipovi* is distinguished from other species by the rostrum, sensilli, the crista and the large size. *M. beskidyensis* differs from all other species by the tubercles in the posterior margin of the prodorsum, the form of the rostrum, the number of genital hairs and the fusiform sensilli. A new combination, *Medioppia ordunensis* (Iturrondobeitia & Saloña, 1988) comb. n. is presented.

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### Introduction

The genus *Moritzoppia* Subías & Rodríguez (1987) seems to be distributed only in the Holarctic Region. Subías & Balogh (1989) listed eight species and two subspecies, and later Colloff & Seyd (1991) described *M. oreia*, while Gordeeva & Grishina (1991) described ten new species and one subspecies as belonging to this genus. Most of the species of this genus have a round rostrum, however there are a few species with incisions, such as *M. escotata* Subías & Rodríguez, 1986, *M. longilamellata* Subías & Rodríguez, 1986 and *M. minuta* Gordeeva & Grishina, 1991. In the present paper a new species is described belonging to the species group with a three-part rostrum.

Subías & Balogh (1989) included twelve species in the genus *Medioppia* Subías & Minguez,

1985. Adding *M. templadoi* Pérez-Iñigo, 1988, *M. truncata* Iturrondobeitia & Saloña, 1988, *M. centrodentata* Gordeeva & Niemi, 1990, *M. minimedia* Arillo & Subías, 1990 and the species described here, *M. beskidyensis* sp. n. altogether comprise seventeen species.

### Methods

In the description, chaetotaxic notation and other characters, we follow the terminology of Balogh (1972, 1983) and Mahunka & Zombori (1985), also indicated in Figs. 1 and 3. The illustrations have been made with the aid of a camera lucida attached to a compound microscope and the photographs with the SEM (JEOL JSM-5200).

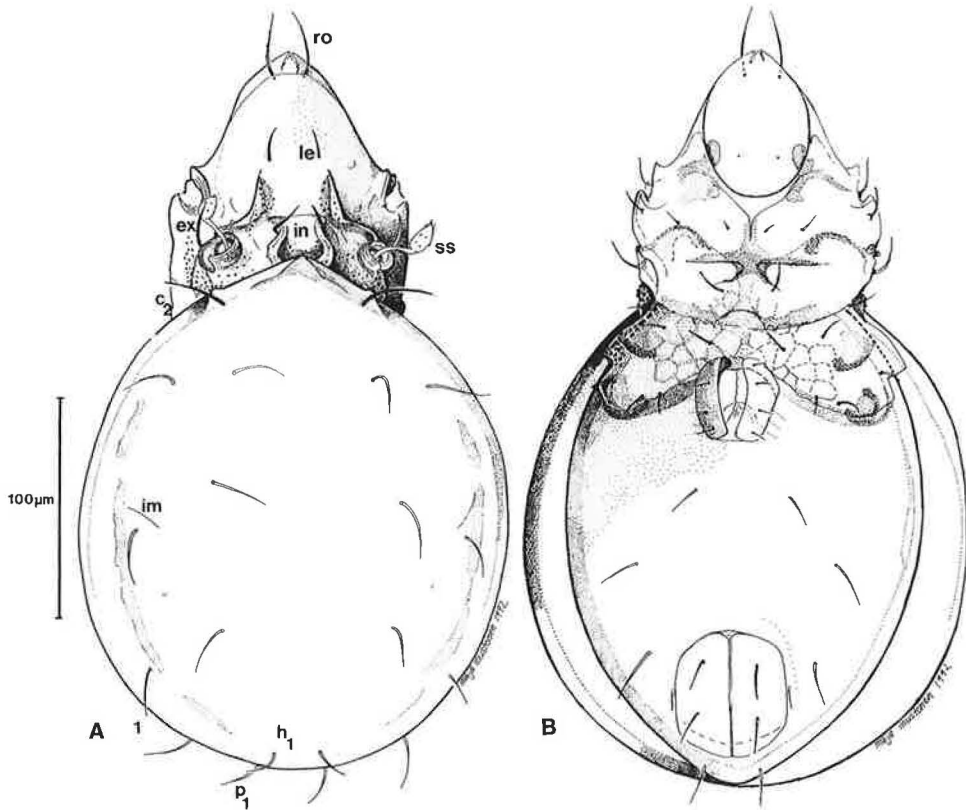


Fig. 1. *Moritzoppia sharipovi* sp. n. (holotype): dorsal (A) and ventral (B) side.

***Moritzoppia sharipovi* sp. n.**

Figs. 1, 2

Type material. — Holotype: ♀, Poland, Beskidy Mountains, (Pod Rysianka), 1080 m a.s.l. mixed forest (beech & spruce) iii.84, P. Skubała, deposited in the Department of Ecology, University of Silesia, no.1. Paratypes: 3 ♂♂ & 2 ♀♀, same data as for holotype, deposited in the Zoological Museum, University of Turku, Finland, and 7 specimens (in beech forest – 1000 m a.s.l.), 26 specimens (mixed forest 1080 m a.s.l.) and 4 specimens (spruce forest 1170 m a.s.l.), deposited in the Department of Ecology, University of Silesia.

Diagnosis: *Moritzoppia sharipovi* can be distinguished from other species of this genus by the form of the rostrum, the shape of the sensilli, the crista and the large size. In addition to the

combination of characters stated, it differs from following, other morphologically very similar species with a three-part rostrum by the costulae; the lamellae of *M. longilamellata* extend some distance anterior of the bases of setae *le* and those of *M. minuta* and *M. escotata* extend as far as the bases of setae *le*. Additionally the epimeral hairs, *4<sub>b</sub>* of *M. longilamellata* and *M. escotata* are at least twice the length of *4<sub>a</sub>* and *4<sub>c</sub>*. The epimeral setae of the 4 series in *M. sharipovi* and *M. minuta* are subequal in length. *M. sharipovi* differs from *M. escotata* by the round form of the notogaster and the slit-like pori *im*.

Description: Length 315–333 µm (6 ex.) (327 µm holotype), width 173–209 µm (6 ex.) (197 µm holotype). Colour light brown.

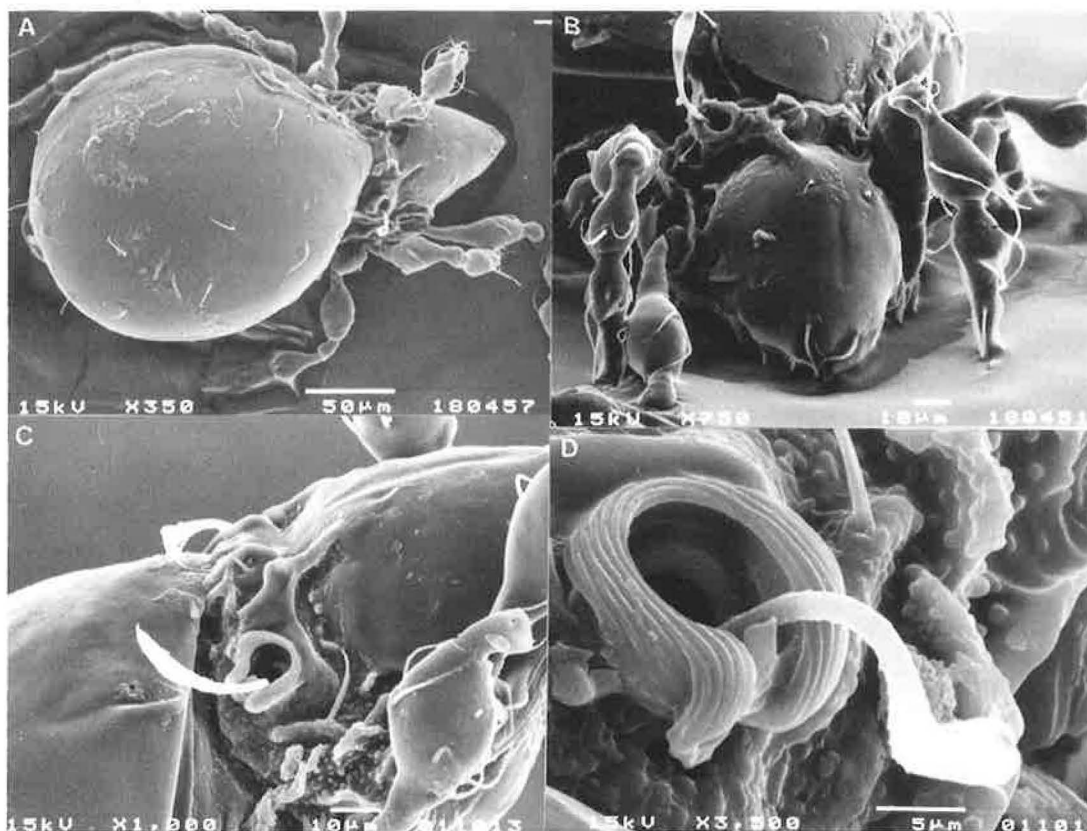


Fig. 2. *Moritzoppia sharipovi* sp. n. (paratype): A. dorsal side B. front of the prodorsum C. (other paratype) exobothridial region D. bothridial region.

Prodorsum. Rostrum in three parts, the middle part shorter than the lateral ones (Figs. 1A, 2A, B). Rostral setae (*ro*) long and slightly serrate, reaching over the point of the rostrum. Lamellar setae (*le*) nearer to interlamellar setae than *ro*. *Le* short and smooth, situated some distance anterior to apices of the costulae on about the same level as tectopodia first. Interlamellar setae (*in*) long and smooth, situated outside lyre-shaped prodorsal ornamentation. The bothridium round (Fig. 2C, D). Sensilli (*ss*) fusiform, head with a few rows of minute hairs. Exobothridial hairs (*ex*) long and smooth. The relative lengths of setae:  $ro > ex = in > le$ .

Notogaster round; ten pairs of notogastral setae. All setae smooth and progressively shorter from setae  $C_2$  to setae  $p_1$ . Distance between hairs  $h_1$  smaller than the distance between hairs  $p_1$ . Pori *im* slit-like. Surface smooth. Crista small.

Ventral side. The surface of the epimeral plate  $ep_4$  with polygonal reticulation. Epimeral setal formula 3-1-3-3 (Fig. 1B). All setae short and smooth. Setae  $I_c$  on pedotecta 1. Four pairs of genital hairs. Setae  $ad_3$  in preanal position,  $ad_2$  in adanal position and setae  $ad_1$  in postanal position. All adanal setae simple. Pori *iad* in adanal position.

Etymology. We dedicate the new species to deceased oribatologist and friend Dr. Sarvar Sharipov, Uzbekistan, Tashkent.

#### *Medioppia beskidensis* sp. n.

Figs. 3–5

Type material. — Holotype: ♀, Poland, Beskidy Mountains, (Pod Rysianka), 1080 m a.s.l. mixed forest (beech & spruce), iii.84, P. Skubała, in the Department of

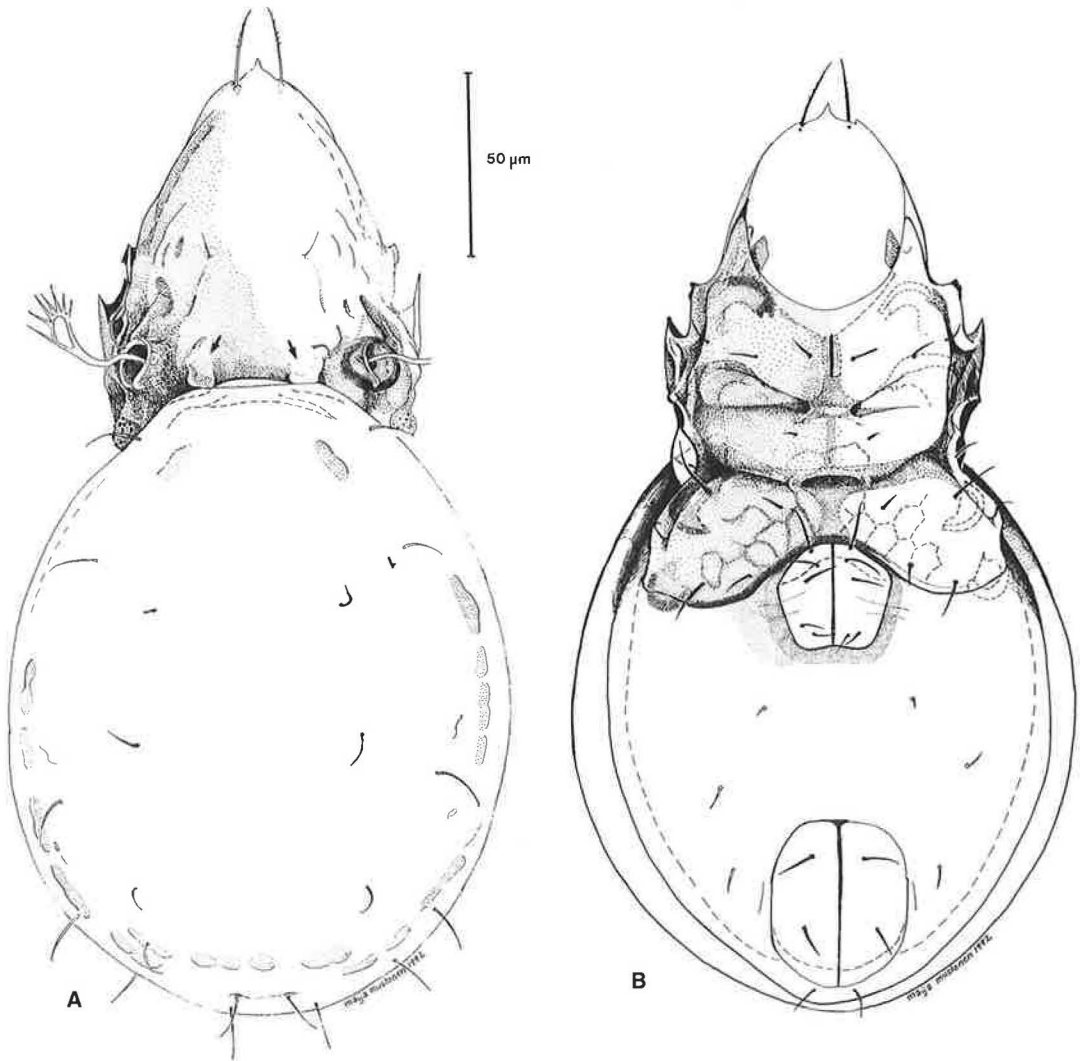


Fig.3. *Medioppia beskidyiensis* sp. n. (holotype): dorsal (A) and ventral (B) side.

Ecology, University of Silesia, no. 2. Paratypes: 2 ♂♂ & 2 ♀♀, with the same data, deposited in the Zoological Museum, University of Turku, Finland and 79 specimens (in beech forest 1000 m a.s.l.), 16 specimens (in mixed forest) and 68 specimens (in spruce forest) with same local data, deposited in the department of Ecology, University of Silesia, Poland.

Diagnosis: This new species has five pairs of genital setae like *M. loksai* (Schalk, 1966) and *M. vera* (Michelčič, 1956) but it differs from those and all other species by the tubercles at the basal part of the prodorsum, the form of the rostrum and the sensilli.

Description: Length 253–271  $\mu\text{m}$  (5 ex.) (263  $\mu\text{m}$  holotype), width 130–136  $\mu\text{m}$  (5 ex.) (136  $\mu\text{m}$  holotype). Colour light brown.

Prodorsum. Rostrum in three parts. The aciculate medial tooth considerably larger and longer than small distantly-spaced lateral teeth (Figs. 3A, 4A). *Ro* long and rough. *Le* and *in* short and smooth. *Le* situated nearer to *in* than *ro*. Lamellae barely visible. *Ss* fusiform with 7–8 hairs of a different size (Fig. 4D). Bothridium a horseshoe shaped (Fig. 4C). At the basal part of the prodorsum, two high tubercles (Figs. 3A,

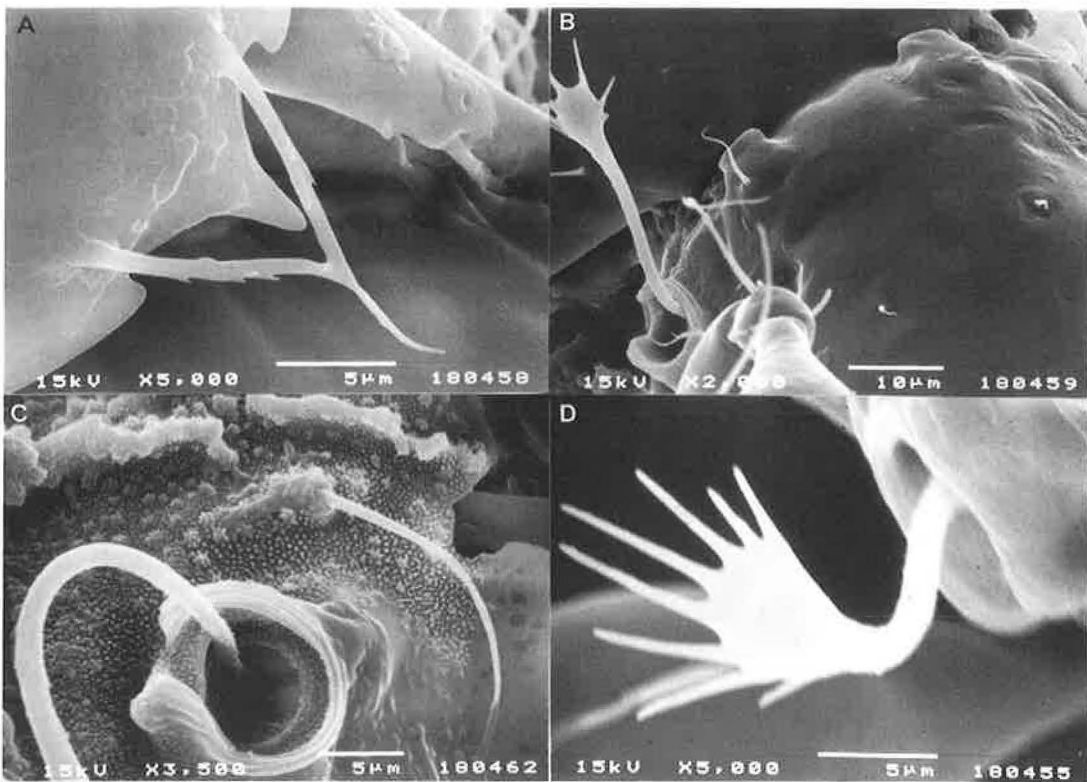


Fig. 4. *Medioppia beskidyensis* sp. n. (paratype): A. rostrum B. tubercles at the basal part C. the exobothridial region D. sensillus

4B). *Ex* long and smooth. The relative lengths of setae:  $ro > ex > le = in$ . Surface of the exobothridial region granulated.

Notogaster generally oval, but with the anterior margin of the notogaster cut off (Figs. 3A, 5A, B). Crista present. Ten pairs of short, smooth setae.

Ventral side. The formula of the epimeral setae 3-1-3-3 (Figs. 3B, 5C, D). All setae simple. The apodemata;  $apo_{sj}$  and  $apo_4$  thicker than the other ones. Five pairs of genital setae, the first pair longer than the others. Setae  $ad_3$  in preanal position,  $ad_2$  in adanal position and setae  $ad_1$  in postanal position. All adanal setae simple. Pori *iad* in adanal position.

*Lauroppia ordunensis* Iturrondobeitia & Saloña, 1988 is a close relative of *M. beskidyensis*, with five pairs of genital hairs and the rostrum in

three parts but is distinguished by longer interlamellar hairs and an "S" shaped form in the posterior margin of the prodorsum. Because of the above mentioned characters and absence of lamellar costulae we wish to include *L. ordunensis* in the genus *Medioppia*.

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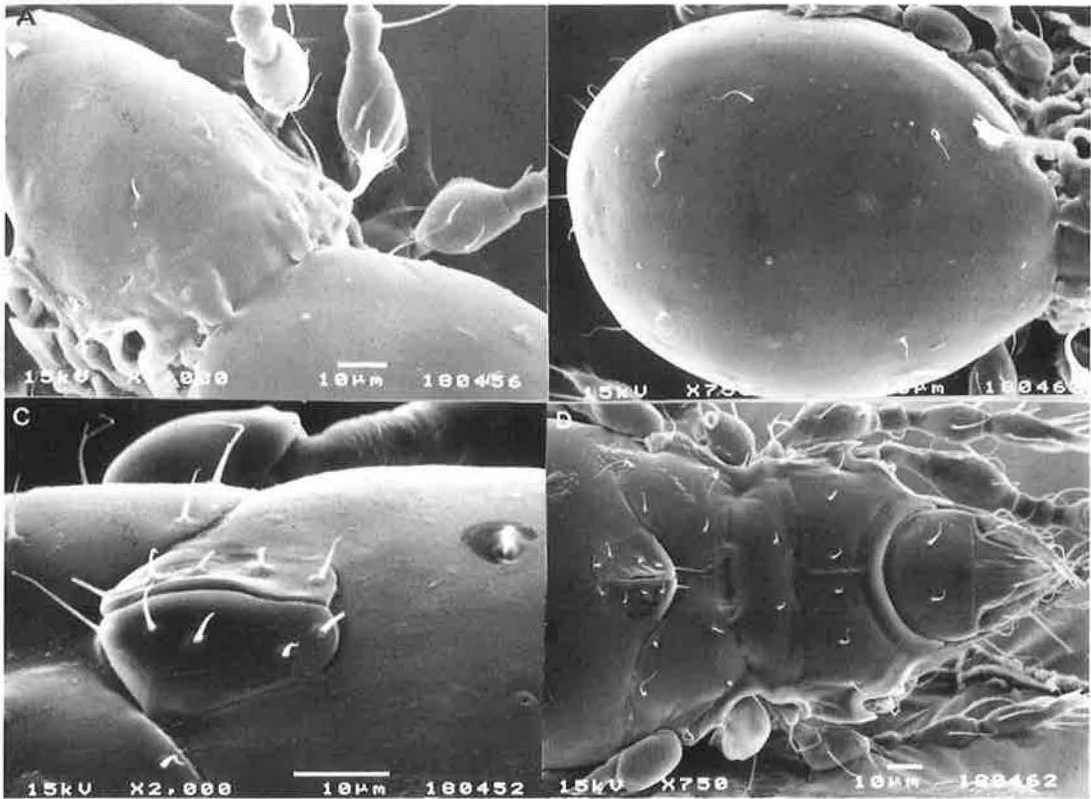


Fig. 5. *Medioppia beskidyensis* sp. n. (paratype): A. margin of the prodorsum with tubercles B. notogaster C. (other paratype) genital plate D. epimeral region.

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