

A new species of the genus *Mopsechiniscus* Du Bois-Reymond Marcus, 1944 (Tardigrada) from the Venezuelan Andes

Eine neue Art der Gattung *Mopsechiniscus* Du Bois-Reymond Marcus, 1944 (Tardigrada) aus den Anden von Venezuela

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SUMMARY: *Mopsechiniscus schusteri* sp. n., a new semi-terrestrial tardigrade from the Venezuelan Andes, based on material of GRIGARICK et al. (1983), is described. The species, originally identified as *M. imberbis* (Richters), is characterized by short cirri A and simple chaetotaxy. A note on an undescribed *Mopsechiniscus* species from Tierra del Fuego, lodged in the R. M. Bohart Museum (Davis, California), is included.

Tardigrada, Mopsechiniscus, the Andes, Venezuela

ZUSAMMENFASSUNG: Eine neue Tardigraden-Art, *Mopsechiniscus schusteri* sp. n., wird auf Grund des Materials von GRIGARICK et al. (1983) aus den venezuelanischen Anden beschrieben. Diese Art war ursprünglich von den Autoren als *M. imberbis* (Richters) bestimmt worden, doch sie unterscheidet sich von den anderen Arten dieser Gattung durch kürzere Cirri A und eine einfache Chaetotaxie. Eine andere neue Art dieser Gattung aus Tierra del Fuego, auch aus der Sammlung des R. M. Bohart-Museums in Kalifornien (Davis), wird kurz diskutiert, aber nicht als neue Art beschrieben.

Tardigrada, Mopsechiniscus, die Anden, Venezuela

1. Introduction

Tardigrades of the semi-terrestrial genus *Mopsechiniscus* are unique within the ancestral family Echiniscidae due to the total reduction of their anterior head sensory cirri. Four species of the genus have so far been described [*M. imberbis* (Richters, 1908); *M. frenoti* Dastych, 1999; *M. granulatus* Mihelcic, 1967; *M. tasmanicus* Dastych & Moscal, 1992]. They are widely distributed in the Southern Hemisphere and have been reported from the Sub-Antarctic, Neotropical, and Australian region.

Two other *Mopsechiniscus* spp., originally identified as *M. imberbis* and reported from Brazil (DU BOIS-REYMOND MARCUS 1944) and Venezuela (GRIGARICK et al. 1983) represent taxa of unclear taxonomic status (DASTYCH 1999b). Recently, due to the kindness of Dr. S. L. Heydon (R. M. Bohart Museum, University of California, Davis), the opportunity was given to examine microslides with *Mopsechiniscus* from Venezuela. The taxon turned out to be a new species; its description is presented in this paper.

2. Material and methods

The material, deposited in the R. M. Bohart Museum (Davis), originates from the Sierra Nevada range in the Venezuelan Andes (GRIGARICK et al. 1983) and includes 13 specimens from Merida and 15 from La Carbonera. Strangely, GRIGARICK et al. (1983) reported totally only six specimens of *Mopsechiniscus*, i.e. five from La Carbonera and one from Merida. Altogether 28 tardigrades have here been examined (females and juveniles, but no 'larvae'), all mounted singly on 28 microslides in Hoyer's medium.

To describe quantitative properties of some structures in the members of the family Echiniscidae, a new length index (= "*sp* index") is introduced. It expresses the ratio between the length of the structure considered and the length of shoulder plate (*sp*), since its length (measured along median anteroposterior axis of the plate) is relatively constant, being only insignificantly influenced by preparation techniques. Thus, the index values can be used for reliable description of the lateral and dorsal projections (e.g. $A \div sp$, $m1d \div sp$, etc.), cuticular plates, legs, claws and so on. The *sp* index has here been applied to cirri *A*, *C* and *D*.

The shape and size of the median spur (*ms*) on the internal claw represent a good taxonomic character. Similarly, the space (*sms*) between the spur and the claw base (the latter formed by a more or less developed claw base cusp) is a useful species-specific feature. The space can be roundish, oval or shaped as a acute angle and should be examined in exactly laterally positioned claw.

The term "chaetotaxy" (= cirrotaxy) refers to the arrangement (number and disposition) of dorsal and lateral cuticular projections on the body; these depending on their length and shape, alternately being named as cirri, appendages, spines or teeth.

The new species is compared with other *Mopsechiniscus* spp. mentioned in recent papers by DASTY-CH (1999a, b). Interference contrast photomicrographs were taken with a ZEISS "Axiomat". Measurements are given in micrometers (μm).

The following abbreviations are used in text and illustrations:

A- lateral appendage (cirrus) *A*, *ad*- adult, *bc*- claw basal cusp, *bp*- basal leg plate, *C*- lateral appendage (spine) *C*, *c2*- secondary clava (= cephalic papilla), *D*- lateral appendage (cirrus) *D*, *e*- eye spot, *ec*- external cushion on leg, *fd*- lateral folds on median plate 2, *ga*- granular area (pillars) on leg, *hs*- head shield, *i*- triangular insertion of the paired plate II, *juv*- juvenile, *lg III*- leg III, *mc*- mouth cone, *ms*- claw median spur, *m 1-3*- median plate 1-3, *n*- notch, *np*- neck plate, *pl 1-4*: platelet 1-4, *ps*- pseudosegmental plate, *psd*- projections on pseudosegmental plate, *s*- leg spur, *sp*- shoulder plate, *sa*- subcephalic area, *sms*- space between median claw spur and the claw base i.e. the claw basal cusp, *tp*- terminal plate, *I, II*- the first and the second paired plate.

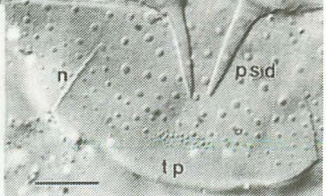
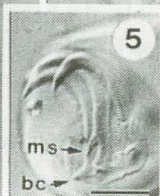
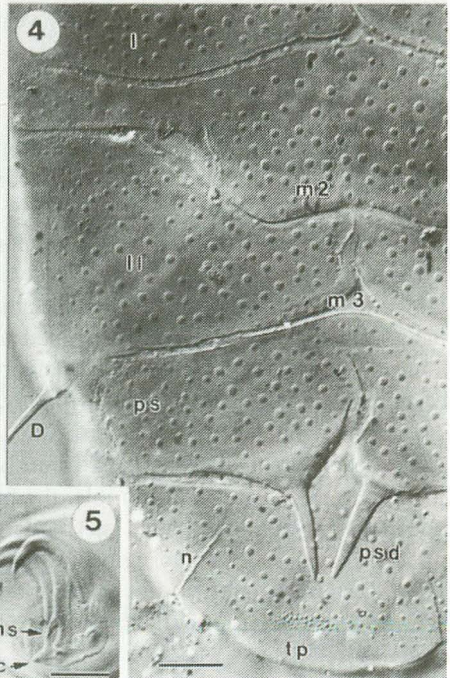
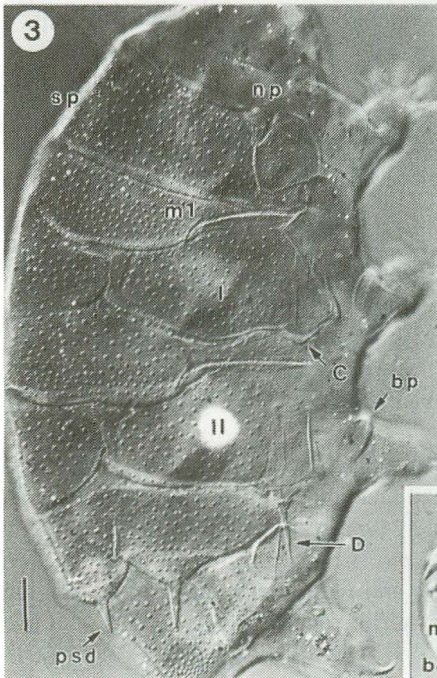
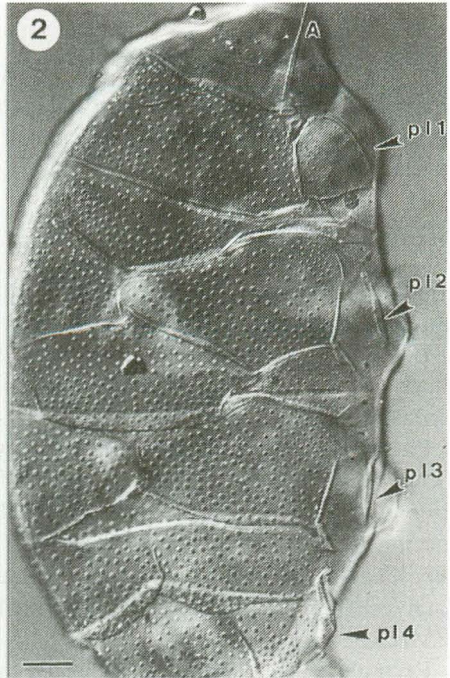
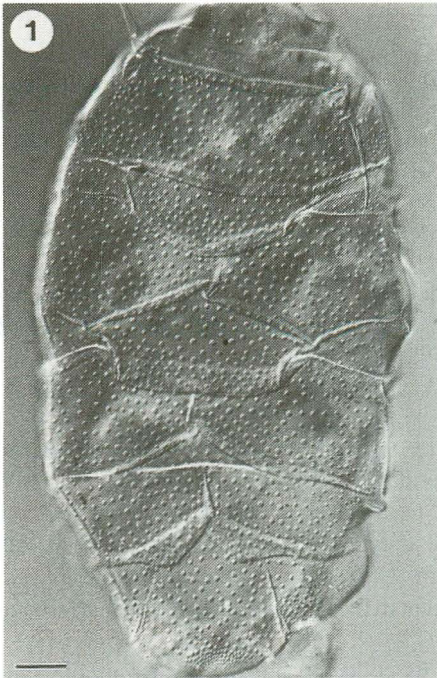
3. Description of species

Mopsechiniscus schusteri sp. n. (Figs 1-18)

Mopsechiniscus imberbis: GRIGARICK et al. 1983 (p. 61, Figs 3-5); MCINNES 1994 (in part)

Figs. 1-5: *Mopsechiniscus schusteri* sp. n. 1- adult, dorsal; 2- adult, dorso-lateral; 3- juvenile, dorso-lateral; 4- juvenile, posterior fragment of the dorsum; 5- claws on leg IV (abbreviations explained in text. Scale bar for Figs 1-3: 20 μm ; Figs 4, 5: 10 μm).

Abb. 1-5: *Mopsechiniscus schusteri* sp. n. 1- adult, dorsal; 2- adult, dorso-lateral; 3- juvenil, dorso-lateral; 4- juvenil, hinterer Teil des Rückens; 5- Krallen des IV. Beinpaars (Abkürzungen im Text. Maßstab für Abb. 1-3: 20 μm ; für Abb. 4, 5: 10 μm).



3.1. Diagnosis

Small to median sized *Mopsechiniscus* with short cirri *A*. Cirri *C* and *D* variable in shape, formed either as wide, short and blunt teeth or thin spines. Adults without dorsal appendages and only with more or less marked lobes on *ps* plate; juveniles with strong spines *psd*.

3.2. Material examined

Holotype. Female, 295 µm long; microslide No. 25, deposited in the R. M. Bohart Museum, University of California, Davis.

Locus typicus. Venezuela, the Andes, Sierra Nevada range. La Carbonera, Capo Elias, 30 June 1979, coll. R. W. Brooks, A. A. Grigarick, J. McLaughlin, R. O. Schuster (see GRIGARICK et al. 1983).

Paratypes. The locality data as for holotype: 9 females, 5 juveniles, Nos 1-14. Other locality: as above, Sierra Nevada range. Merida, Libertador, 3 July 1979, coll. R. W. Brooks, A. A. Grigarick, J. McLaughlin, R. O. Schuster: 4 females, 8 juveniles, one specimen of undetermined sex (Nos 15-27). Paratypes Nos 1-10, 13-27 (25 specimens) deposited in the R. M. BOHART Museum, University of California, Davis; two paratypes (female, juvenile: No. 11, 12) are kept in the Zoologisches Museum Hamburg (ZMH Reg. No. A1/00).

Etymology. The species is dedicated to its collector and the deceased colleague, Robert O. Schuster, who worked many years on Tardigrada, Acari and Coleoptera.

3.3. Description

Body yellowish in slide preparations, living specimens presumably red (no such data in GRIGARICK et al. 1983). Eye-dots median sized, dark-brownish. Adults 277-319 (holotype 295), juveniles 185-253 µm long.

Most specimens with well developed dorsal plates. In some individuals the median fold dividing the segmental paired plates vertically is poorly marked or absent. Median plates are not always separated from the adjoining lateral areas (Fig. 4). Venter without plates. Subcephalic area poorly defined and limited by two more or less distinct, elongated and obliquely directed cuticular thickenings (Fig. 6), is barely marked or absent in juveniles. Ventral cuticle with tiny, barely visible and dense granulation, often discernible only in the genital region.

The head dorsal plate with two poorly formed head shields (*hs*), „W“ pattern mostly absent or hardly discernible, the head faceting is thus indistinct. Neck plate wide (Figs 1-3). Shoulder plate (*sp*) moderately long, more or less of the length of the paired trunk plates. Pseudosegmental plate (*ps*) shorter than the main dorsal trunk plates. Terminal plate (*tp*) not faceted, wide and with two distinct, relatively long notches (incisions: *n*). Median part of the posterior edge of *tp* plate broadly rounded (Figs 1, 4).

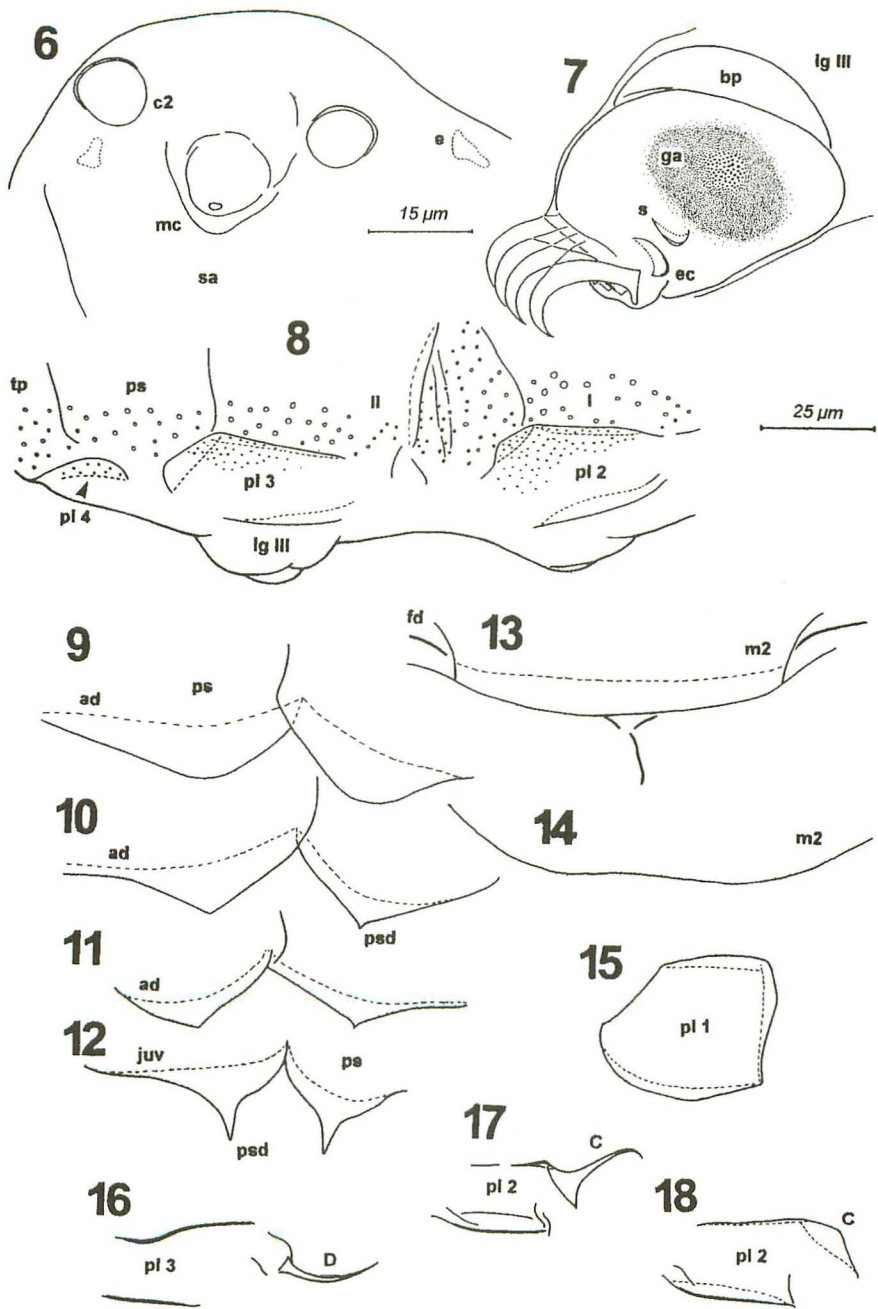
The main dorsal trunk plates with a smaller plate (platelets 1-4) on either side (Figs 2, 3, 8). Platelets 1-3 separated from the main plate by a distinct cuticular fold; a similar fold limits each platelet posteriorly, separating it from closely located leg base (Fig. 8). Platelet 1 in the shape of a more or less irregular polygon (Figs 2, 3, 15), without cuticular projection at the level *B*. The platelet is fully separated from *sp* plate. Platelet 2 and 3 elongated, the latter slightly longer. Lateral sides of platelet 2 and 3 often without a bordering edge; if present, then formed by a more or less indistinct cuticular fold (Figs 8, 16-18). Platelets 2 and 3 variably associated (not directly terminated) with respective appendages *C* and *D*. These appendages are located posteriorly behind the platelets and are shaped either as a moderately long, thin spine or a very short, wide and blunt projection (tooth) (Figs 2, 3, 8, 18). The teeth are sometimes poorly formed and then barely visible. Platelet 4 distinct, shaped as a lateral lobe of the *tp* plate and located between the notch and anterolateral edge of the plate (Figs 2, 3, 8).

Median plates 1-3 (*m1-3*) well developed. Plate *m1* shaped as more or less distinct triangle, often with posteriorly directed, rounded apex. Posterior edge of the plate mostly formed as a cuticular fold overlapping the median part of the (segmental) paired plates I (Figs 1-3). Plate *m2* the largest, more or less trapezoid, with a distinct, characteristically long transversal fold overlapping the anterior margin of the paired plates II and their median insertion (Figs 1, 14). In adults the fold edge is broadly rounded or, rarely, slightly incurved (Figs 1, 14); in most juveniles the edge is distinctly incurved (Fig. 4). Lateral edges of plate *m2* mostly with two smaller folds, each usually indistinctly formed (Figs 2, 13). Plate *m3* the smallest, triangularly-shaped and with wide base (Figs 1-4). The lateral edges of plates *m1-2*, particularly in juveniles, often poorly marked or absent, forming then an aberrantly wide (fused) dorsal cuticular plate (Fig. 4).

Dorsal plates and the adjacent lateral sides of the body, including area between the plates, covered with distinct but small knob-like structures (Figs 1-4), which represent modified subcuticular pillars. The knobs (small hemispherical tubercles) protrude slightly above the cuticular surface and are more or less evenly and widely distributed. These tubercles are up to 2.7 μm in diameter (mostly 1.5-2.0 μm) and more or less of the same size on all main trunk plates. Head and neck plate with distinctly smaller knobs (c. 0.5-1.0 μm), irregularly and very widely spaced. Platelets covered with knobs of size similar to those on head or neck plate, but more closely placed and occurring mainly in the anterior (dorsal) part of each platelet (Figs 2, 8). Cuticular surface between knobs mostly smooth, sometimes though with barely visible, tiny and dense punctation, representing pillars within the cuticle.

Head segment ventrally with a pair of flattened, dome-shaped cephalic papillae (= secondary clavae, *c2*: Fig. 6), which are mostly roundish (6-10 μm diameter) or slightly oval (5.5-6.3 x 9-10 μm). External and internal cephalic sensory cirri absent.

Lateral appendages (cirri) *A* always present, *B* and *E* absent. The appendages *A* short (Figs 1, 2), mostly slightly longer than the length of plate *sp*, and with relatively wide, onion-shaped base; in juveniles 33-54 μm long, in adults 48-68 μm . The length index *sp* for cirri *A* (= $A \div sp$) ranges from 1.0 to 1.3 in juveniles and 0.9-1.4 in adults, it is mostly the same (1.1) for both stages (n=28). Primary clava (= clava, *c1*) conical with roundish



apex and relatively wide base; the structure is located in a small protective cavity near (posterior of) the base of cirrus *A*, between dorsoanterior edge of platelet I and anteriolateral edge of *sp* plate. The clava, directed backwards, is 5.5-11 μm long. Cirri *C* and *D* variable, shaped either as a very short, blunt tooth with very wide base (Figs 2, 8), a relatively short and distinct thin spine (Figs 5, 16, 17) or, rarely, with some of indiscernable shape. The appendages *C* and *D*, when spine-like, mostly 1/3 -1/2 of the length of *sp* plate, never longer than the plate. The cirri *C* 20 μm in juveniles, 21-33 μm in adults; cirri *D* are 13-20 μm and 15-33 μm , respectively. When shaped as wide teeth, the projections *C* and *D* are up to 4 μm long, mostly about 2 μm .

Dorsal appendages occur on *ps* plate, but almost exclusively only in juveniles. The projections are mostly formed as strong spines (*psd*) of variable length (3-16 μm ; Figs 3, 4, 12), attached to mostly lobe-like, wide bases, each base representing a large, usually lobe-like posterior fold of the *ps* plate. These lobes are less distinct in adults, when the spines *psd* are also mostly absent (Figs 1, 2, 9). However, when present, they are vestigial and tiny (Figs 10, 11), up to 3.5 μm long and found unilaterally on the plate. The *sp* index for spine-like cirri *C* ($= C \div \sqrt{sp}$) is 0.1 and 0.6 (n= 2) in juveniles and 0.4- 0.6 (n= 4) in adults; that for appendages *D* ($= D \div \sqrt{sp}$) is 0.5-0.6 (n= 3) and 0.3-0.6 (n= 9), respectively. In specimens with projections *C* and *D* formed as wide teeth, the index value is lower than 0.1. Median plates without appendages; only one juvenile has a thin, 12 μm long spine (*m2d*) attached on one side.

Legs small, these of I-III pair externally with a distinct basal plate (*bp*) formed by strongly sclerotized cuticular fold and more distally with granular patch (*ga*) (Figs 3, 7). The patch, more or less oval in shape, is composed of tiny (*c.* 0.5 μm) and closely placed cuticular punctation and has indistinctly marked edges. On leg IV the size range of that area is larger and covers also the lateral and partly internal side of the leg, the granules being the largest on the external side of the leg. The feet of all legs are slightly asymmetrical due to the presence of differently sized cuticular structure on both sides of the row of claws. The structure located on the internal side of a leg (at the base of external claw) is slightly larger and somewhat cushion-shaped; the smaller structure occurring on the external side of leg is more cusp-like (Fig. 7). These cushions are often partly covered with a barely visible punctation.

Leg I without sensory spine. Legs II and III (Fig. 7) with poorly defined cuticular papilla (*spur*) located slightly above the external cushion. The spur on leg II is always less distinct and smaller than that on leg III. Leg IV with small, hemispherical sensory papilla, but without without spine fringe. A barely visible trace of a spur (?) was observed on leg I in six (of 28) juvenile and adult specimens. Some individuals without

Figs. 6-18: *Mopsechiniscus schusteri* sp. n. 6- head, ventral; 7- leg III, lateral; 8- platelets 2-4, dorso-lateral; 9-11: posterior edge of *ps* plate (adults); 12- the same, juvenile; 13, 14: posterior edge of *m2* plate; 15-18: platelets 1-3 (Fig. 8: holotype. Scale bar for Figs 6, 7: 15 μm ; Figs 8-18: 25 μm).

Abb. 6-18: *Mopsechiniscus schusteri* sp. n. 6- Kopf, ventral; 7- III. Beinpaar, lateral; 8- Plättchen 2-4, dorso-lateral; 9-11: Hinterrand der Pseudosegmentalplatte (adult); 12- das gleiche, juvenil; 13, 14: Hinterrand der Medianplatte *m2*; 15-18: Plättchen 1-3 (Abb.8: Holotypus. Maßstab für Abb. 6, 7: 15 μm , für Abb. 8-18: 25 μm).

the spur on either leg II or III, no such structures could be discern on legs I-III in some specimens (whether the absence of spurs is primary or they disappeared in the mounting medium, cannot be stated).

Claws relatively small, increasing moderately in size from leg I to III; on legs IV about 20 % longer than on legs III. External claws smooth and slightly shorter than internal ones, the latter with a small, thin and sharp median spur located close to the claw base (Fig. 5). Length of external claws IV in juveniles 10-14.5 μm , in adults 14.5-18 μm , that of internal claws 11-16 μm and 17-19 μm , respectively. The basal claw cusp on internal claws is poorly formed (Fig. 5), that of external claws (Fig. 7) more distinct and slightly longer. The median spur of claws I to III strongly curved towards the claw base on claws I to III, so that, when observed exactly in profile, only a small "elongated" space remains between the spur edge and the edge of the claw base, i.e. the basal cusp. Since the spur on legs IV is less curved, the space is slightly larger and more "rounded" (Fig. 5).

Mouth cone (Fig. 6) distinct, buccal apparatus relatively large; poorly preserved and greatly cleared in slide preparations. Mouth tube with a double cuticular wall, its pharyngeal part strongly sclerotized and wide, but with single wall, which is thinner in its posterior part. Placoids curved.

^{7/}sp Holotype (the body length 295 μm): cirrus *A* 53 μm long and 7 μm wide at the base (\overline{fs} index 1.1), projections *C* and *D* (blunt, wide teeth: Figs 2, 8) *c*. 3.5 μm long (*ps* index 0.07), 12 μm wide, neck plate 16 long, plate *sp* 48 long, *c1* 11 long and 7 wide at the base, *c2* roundish 7 x 8, external claw IV 16, internal one 19 long; leg IV sensory papilla 4.5, genital papilla 13 μm in diameter.

Males not known, 'larvae' (2-clawed forms) not in the material examined. However, a single larva had been reported by GRIGARICK et al.(1983).

3.4. Variability

The shape of projections *C* and *D* varies markedly. In juveniles the projections *C* are mostly formed as strikingly short teeth, up to 3.5 μm long (mostly 1-2 μm) being found in 11 of 14 specimens (Figs 2, 4, 8, 18). One juvenile with a longer tooth *C* (6 μm) located unilaterally, another has the projections *C* formed as thin 20 μm long spines and a further one with no such structures. Projections *D* in nine juveniles shaped a wide tooth, in remaining four shaped as 13-21 μm long spine. These spines are located either on both sides of the body or (rarely) on only one side.

In 9 of 14 adults the projections *C* broad, short and therefore blunt teeth (9 of 14 specimens); only in four they are thin spines (19-30 μm long). In two specimens the spines are found only on one side of the body: in one damaged individual no spines could be found. Appendages *D* shaped as spines are present in 9 of 14 adults and are on average also slightly longer (15-33 μm). In some specimens projections *C* are formed as teeth, while *D* occurs as spines.

The space (*sms*) between the edge of the median spur and the edge of basal cusp can vary slightly even in the same individual. The external claw has in some specimens a slight thickening, located somewhat above the claw's basal cusp.

3.5. Differential diagnosis

M. schusteri sp. n. differs from all its congeners through its distinctly shorter cirri A, which are mostly only slightly longer than the length of shoulder (*sp*) plate. Consequently, its *sp* index is lower, with a range between 0.9 and 1.4 (an average 1.1). Other *Mopsechiniscus* species have cirri A are much more longer, so that their *sp* index values are correspondingly higher, i.e. in adults *M. tasmanicus* 6.2 and 7.5 (n= 2), in *M. imberbis* 3.4-3.9 (n= 3), in *M. frenoti* 2.8-3.0 (n= 3) and *M. granulosis* 1.9-2.6 (n= 5). Moreover, adults of the new species can be distinguished from other congeners not only by the values of the *sp* index, but also the characters listed below.

M. schusteri sp. n. can easily be separated from *M. tasmanicus* by, 1) the lack of lateral cirri E and 2) the presence of dorsal projections *psd* (see DASTYCH and MOSCAL 1992).

The new species differs from *M. imberbis*, for which it was originally identified by GRIGARICK et al. (1983), by, 1) the absence of lateral projection B, 2) the lack of dorsal appendages *m2d*, 3) the shape of lateral appendages D (short spines or very short teeth v. long filamentous cirri in *M. imberbis*: see RICHTERS 1908; DASTYCH 1999b).

The new taxon can be distinguished from *M. frenoti* by, 1) dorsal appendages *m2d* (absent v. present in *M. frenoti*), 2) lateral appendages D (short spines or very short teeth v. long, filamentous cirri), 3) the pattern of dorsal sculpture, i.e. the cuticular knobs relatively widely spaced and rather variably positioned v. more closely spaced and uniformly distributed in *M. frenoti*, 4) spur on leg II and III (the distinct v. poorly marked), 5) platelet IV (present v. absent), 6) claws (shorter v. longer) and lastly, 7) internal claw median spur (closer to the basal cusp v. located further from the base) (see DASTYCH 1999a).

The new species resembles most closely *M. granulosis*, an insufficiently described and poorly known taxon, in that the differences in the *sp* index values between these taxa are the smallest (see above). Moreover, the chaetotaxy, the pattern of dorsal sculpture and the shape and size of their claws, are also very similar in both species. Compared to other congeners, these taxa appear indeed to be closely related. Nevertheless, adults of *M. schusteri* sp. n. can be separated from those of *M. granulosis* through, 1) the length of cirri A (shorter v. longer), 2) the shape of platelet 1 (irregular polygon v. irregular trapezium (the latter with more or less elongated dorso-posterior apex which is either rounded or terminated by a tooth-like projection B), and 3) appendages C and D (either short, wide and blunt teeth or short thin spines v. longer, filamentous cirri in *M. granulosis*). Furthermore, these taxa differ also in other, more variable characters, i.e. 4) the shape of the posterior edge of *m2* plate (mainly incurved in the new species v. mostly broadly rounded in *M. granulosis*), 5) the shape of the posterior edge of the *ps* plate (mostly smooth, i.e. without *psd* projections or, if present, then only poorly formed and unilaterally located v. mostly present and distinct), 6) the shape of the posterior edge of terminal plate (*tp*) (broadly rounded v. mostly slightly incurved or straight), 7) subcephalic area (hardly delimited v. poorly marked), 8) claws (in *M. schusteri* sp. n. claws are smaller and the median spur is more curved).

Juveniles (4-clawed forms) of *M. schusteri* sp. n. can be distinguished from those of *M. granulosus* by the type of chaetotaxy, which is more variable in the latter taxon. The new species has no projections (spines) *m1d* and *m2d*, while *D2* are mostly absent, all being present in *M. granulosus*. Furthermore, the platelet 1 in *M. schusteri* sp. n. has no tooth-like projection *B*, this occurring in most specimens of *M. granulosus*.

'Larvae' (2-clawed forms) not available in the examined material of *M. schusteri* sp. n. However, such an instar has been already reported by GRIGARICK et al. (1983: p. 67): „A single larva has dorsal spines at the posterior margin of median plates 1 and 2 and the pseudosegmental plate...“. The dorsal larval chaetotaxy of the new species seems thus to be similar to that of *M. granulosus* in the presence of projections *m1d*, *m2d* and *psd*. The larva of *M. schusteri* sp. n. resembles in this respect *M. imberbis* as described by DU BOIS-REYMOND MARCUS (1944) from Brazil, a species which must however be considered as a totally new species, in the sight of present knowledge concerning the genus *Mopsechiniscus*. Unfortunately no data on lateral appendages and the form of platelets are available for the larvae of this undescribed new taxon.

3.6. Notes on a further undescribed *Mopsechiniscus* sp. from R. M. Bohart Museum

Among the the material examined was also a slide with unidentified tardigrade belonging to the genus *Mopsechiniscus* originating from the southernmost part of South America, labeled in pencil „*Mopsechiniscus* new sp. / drawn“ and in ink “Sierra Martial / Tierra del Fuego / tree line / 2000-2500' / I. 19. 1979 / A. M. Shapiro / # 13“. Most probably this specimen was identified by R. O. Schuster, but the record was never published. The specimen is strongly cleared up in mounting medium and partly deteriorated. Its lateral sides are deformed and its cuticle is torn off and displaced in some taxonomically important body regions. However, there is little doubt about its status as a new species. Considering the specimen condition, it would be premature to formally name the taxon, yet a short description and comparison with similar *M. schusteri* sp. n. and *M. granulosus* appears to be appropriate and is therefore provided below.

The dorso-ventrally mounted specimen, a male, has length of 244 μm . Its head which shows no eye-spots (dissolved?), has well marked head plates (*hp*) and a wide, distinct and wide „W“-like pattern. Lateral and dorsal trunk appendages are absent. Double subcephalic plates (*su*) are present, but poorly defined, other ventral plates being absent. The shoulder plate (*sp*) is 36 μm long. The posterior edge of *ps* plate has wide, slightly angular lobes, intermediate in shape between those of *M. schusteri* sp. n. (shown in Figs 9 and 10: see left side of illustrations).

Cuticular sculpture resembles that of *M. imberbis*, i.e. tiny, barely visible punctation occurs between larger knobs. The knobs are more closely placed than in *M. imberbis*, being in their distribution more similar to those in *M. granulosus* and *M. schusteri* sp. n. Nevertheless, in the undescribed taxon the knobs are slightly smaller and more regularly distributed as those in the two latter taxa. Cirri *A* moderately long (77 μm), distinctly shorter than those of *M. schusteri* sp. n., their length however within the variability range of *M. granulosus*. The *sp* index for cirri *A* equals to 2.1.

Platelet 1 more or less similar in shape to that of *M. schusteri* sp. n. On platelets 2 and 3 (strongly cleared and partly damaged, being thus poorly visible and recognizable only on one side of the body) traces of projections *C* and *D* could however just be made out. Platelet 4 not discernible. Legs I-III with distinct and relatively wide papilla-like spurs, their feet with well defined asymmetrical cushions. Internal claws IV 16 µm long. Space (*sms*) between median spur on internal claw and claw basal spur similar to that of *M. granulatus*, i.e. distinctly larger and more oval than in *M. schusteri* sp. n.

The un-named species is characterized by the simplest chatotaxy so far known for the genus *Mopsechiniscus*, in being limited to moderately formed lobes *psd* and simple (projections-less) platelets 1-3. The lack of data on its juvenile instars and the limited information on adult morphology and its variability restrict discussion on its taxonomic position.

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