

## Article

# *Brevinasia*, a New Genus of Edaphic Weevils with Description of 13 New Species from South Africa (Coleoptera: Curculionidae: Entiminae) <sup>†</sup>

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<sup>†</sup> Zoobank: urn:lsid:zoobank.org:pub:23E5E807-74CD-4D13-A452-2E31D1EAA8E9.

**Abstract:** *Brevinasia* gen. n., a new genus of edaphic weevils with 14 species from the South African provinces of Western Cape, Eastern Cape, KwaZulu-Natal, and Limpopo, is described. The genus is described and illustrated, its taxonomic placement is discussed, and a key to the species is given. The specimens are usually associated with leaf litter in forest habitats and were generally sampled by sifting forest soil. Its type species, *B. brevicollis* (Voss, 1974), is redescribed, and 13 new species are described: *B. albonigra* sp. n. (type locality: Hills east of Stilbaai); *B. bulirschii* sp. n. (type locality: Marloth Nature Reserve); *B. inconspicua* sp. n. (type locality: Robinson's Pass); *B. janaki* sp. n. (type locality: Hawequas); *B. leleupi* sp. n. (type locality: Humansdorp); *B. limpopoensis* sp. n. (type locality: Kruger National Park); *B. litoralis* sp. n. (type locality: West Gouritsmond); *B. longiseta* sp. n. (type locality: Grootvadersbosch Nature Reserve); *B. maior* sp. n. (type locality: Salem); *B. micros* sp. n. (type locality: Royal Natal National Park); *B. nigratarsis* sp. n. (type locality: Olifantsbos); *B. rotundipennis* sp. n. (type locality: Mkhambati Nature Reserve); *B. wanati* sp. n. (type locality: Lillyvlei Nature Reserve). COI sequences of *B. brevicollis*, *B. nigratarsis*, and *B. wanati* were deposited on GenBank.



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## 1. Introduction

The edaphic faunae of South Africa are very poorly known, and most taxa at the genus and species levels are still unknown. In recent years, a large number of new species have been discovered as a result of research specifically aimed at collecting edaphic weevils. Other new species have been found in unstudied specimens preserved in South African and European museums. This research has already led to the description of a new tribe of Entiminae, with six new genera [1]. The results of this research will be published in a series of papers.

In this paper, the genus *Brevinasia*, with 14 species, 13 of which are new, is described.

## 2. Material and Methods

The specimens used in this study, collected by the authors, were usually found by sifting underneath shrubs and then examining the sifted soil or by sweeping grasses at dusk. Full details of the South Africa Entiminae project, as well as collection methods and data on the expeditions, are given in the cited paper [1]. The majority of the specimens examined in this study were received from colleagues; these were collected by sifting forest soil and subsequent sorting using Berlese equipment. The preparation of the specimens, the dissections, and the photographs were made as previously described [1]. Terminology of external morphological traits and genitalia is used according to [2].



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Since no precise knowledge of the phylogenetic relationships among the 14 species is available, they are described in alphabetical order, with the exception of the type species *Brevinasia brevicollis* (Voss, 1974), which is re-described first.

Acronyms for repositories of the material:

BMNH: Natural History Museum, London, United Kingdom (formerly British Museum of Natural History) (Maxwell Barclay);  
 CMNC: Canadian Museum of Nature Collection, Ottawa, Canada (Robert Anderson);  
 ECRI: Enzo Colonnelli private collection, Rome, Italy;  
 JJRC: Jiří Janák private collection, Rtyň nad Bílinou, Czech Republic;  
 MFNB: Museum für Naturkunde, Berlin, Germany (Bernd Jaeger);  
 MMTI: Massimo Meregalli private collection, Torino, Italy;  
 MNHW: Museum of Natural History, Wrocław University, Poland (Marek Wanat);  
 MSNV: Museo Civico di Storia Naturale, Verona, Italy;  
 MZLU: Museum of Zoology, Lund, Sweden (Christoffer Fägerström);  
 NHRS: Naturhistoriska Riksmuseet, Stockholm, Sweden (Johannes Bergsten);  
 NMBH: National Museum, Bloemfontein, South Africa (Burgert Muller);  
 NMPC: National Museum Prague, Czech Republic (Jiří Hájek);  
 RBSC: Roman Borovec private collection, Sloupno, Czech Republic;  
 RMCA: Royal Museum of Central Africa, Tervuren, Belgium (Marc de Meyer);  
 SANC: National Collection of Insects, Pretoria, South Africa (Riaan Stals);  
 SMNS: Staatliches Museum Für Naturkunde, Stuttgart, Germany (Wolfgang Schawaller);  
 TMSA: Ditsong National Museum of Natural History (formerly Transvaal Museum), Pretoria, South Africa (Werner Strümpher).

### 3. Taxonomy

***Brevinasia Borovec & Meregalli, gen. nov.***

**Type species:** *Trachyphloeosoma brevicolle* Voss, 1974, by present designation.

**Gender:** feminine.

**Zoobank:** urn:lsid:zoobank.org:act:5FD22A2B-D9D2-4192-B115-26DADC9CC7CE

**Diagnosis.** Very small Entiminae, at most 3.1 mm, with body covered with appressed scales and variously shaped raised setae, extremely short rostrum, continuous with head, lacking transverse sulcus at base; epifrons at base touching inner margin of eyes; frons short, glabrous; epistome developed; scrobes in dorsal view visible, in lateral view short, distinctly widened posteriad, directed towards eyes, not reaching them; antennae slender; sides of pronotum with various number of laterally prominent protuberances; metatibial corbels not developed; claws free; ventrite 1 about as long as ventrite 2, ventrite 2 longer than ventrites 3 and 4 combined; tegmen with parameres; female sternite VIII with long and narrow apodeme and small, oval to subtriangular plate with short basal margin.

**Description.** Body length 1.3–3.1 mm. Integument dark brownish to blackish, sometimes with reddish sutural interval, antennae and tarsi frequently paler than remaining part of body, reddish brown to yellowish red. Entire body, except for funicle with club and tarsi, covered with appressed scales. Raised setae from short, spatulate to rounded to long, almost bristle-shaped, forming one regular row on each elytral interstria. Raised setae on pronotum and head with rostrum identical or shorter than elytral ones, irregularly scattered, directed anteriorly. Inner side of antennal scape with row of sparse, but long and conspicuous, erect setae. Outer side of tibiae with dense row of frequently semi-erect setae. Funicle setose, club tomentose.

Rostrum extremely short and wide, 1.7–2.3× as wide as long, subparallel-sided or tapered anteriorly, continuous with head, lacking basal transverse sulcus; in lateral view vaulted. Epifrons wide and flat, at base touching inner margin of eyes, with concave sides, in majority of species tapered anteriorly, with median longitudinal stria, in some species longitudinally finely striate. Frons short, glabrous, not separated from epifrons by carina. Epistome developed, small, V-shaped, separated from frons by very narrow raised line. Scrobes in dorsal view visible as narrow furrow in apical half to two thirds of rostrum, in



several species visible along entire length; in lateral view short, widened posteriad, weakly curved, directed towards eyes, not reaching them and separated from them by narrow squamous stripe. Eyes very small, convex, mostly not prominent from outline of head in dorsal view; in lateral view placed in dorsal half of head or at middle. Head in several species finely longitudinally striate in dorsal or in lateral view.

Antennae slender. Scape distinctly curved at or before midlength, basal half extremely slender, apical half gradually enlarged, at apex narrower or as wide as antennal club. Scape slightly exceeding anterior margin of pronotum, slightly longer than funicle. Funicle 5-, 6- or 7-segmented, last segments distinctly narrower and well separated from club.

Pronotum wide to very wide,  $1.3\text{--}2.1\times$  as wide as long, widest behind midlength or in basal third, anteriorly more tapered than posteriorly. Disc without any furrow, keel or depressions, regularly domed. Sides of pronotum with protuberances, aligned in one row or in group, protuberances long and narrow, needle-shaped, subtriangular or small, hump-shaped, with one long erect seta at top. Protuberances visible in dorso-lateral view and in some species also in dorsal view. Lateral part of anterior margin without postocular lobes or vibrissae. Procoxal cavities contiguous, semiglobular, situated very near to anterior border.

Scutellum very small, hardly visible.

Elytra oval to long oval,  $1.1\text{--}1.3\times$  as long as wide, often with regularly rounded sides, apically broadly rounded. Striae narrow, finely punctate, often hidden under appressed scales; interstriae wide, flat or almost flat. Mesocoxae semiglobular, mesoventral process about as wide as  $1/4$  of width of mesocoxa. Metacoxae transverse, distance between them as long as their transverse diameter. Metaventral process obtuse.

Femora unarmed. Tibiae short and robust, inner mesal margin of protibiae weakly sinuate, lateral margin straight, only occasionally very weakly enlarged near apex. Apex rounded or obliquely subtruncated, with a fringe of fine and short setae, occasionally with very short and small spines. All tibiae mucronate. Metatibial corbels not developed, apical surface of metatibiae glabrous, fringed with fine setae, in some species with short spines. Tarsi short, segment 2 wider than long, segment 3 distinctly wider than others, deeply bilobed. Onychium as long as segment 3, thickened at apex. Claws free.

Ventrites  $1.1\text{--}1.3\times$  as long as wide, ventrite 1 in middle about as long as ventrite 2, ventrite 2 longer than ventrites 3 and 4 combined. Suture 1 fine, sinuate, other sutures straight, deep, wide. Ventral side covered with very sparse setae or narrow scales, occasionally glabrous or densely squamous.

Sexual dimorphism. Not apparent in morphological characters.

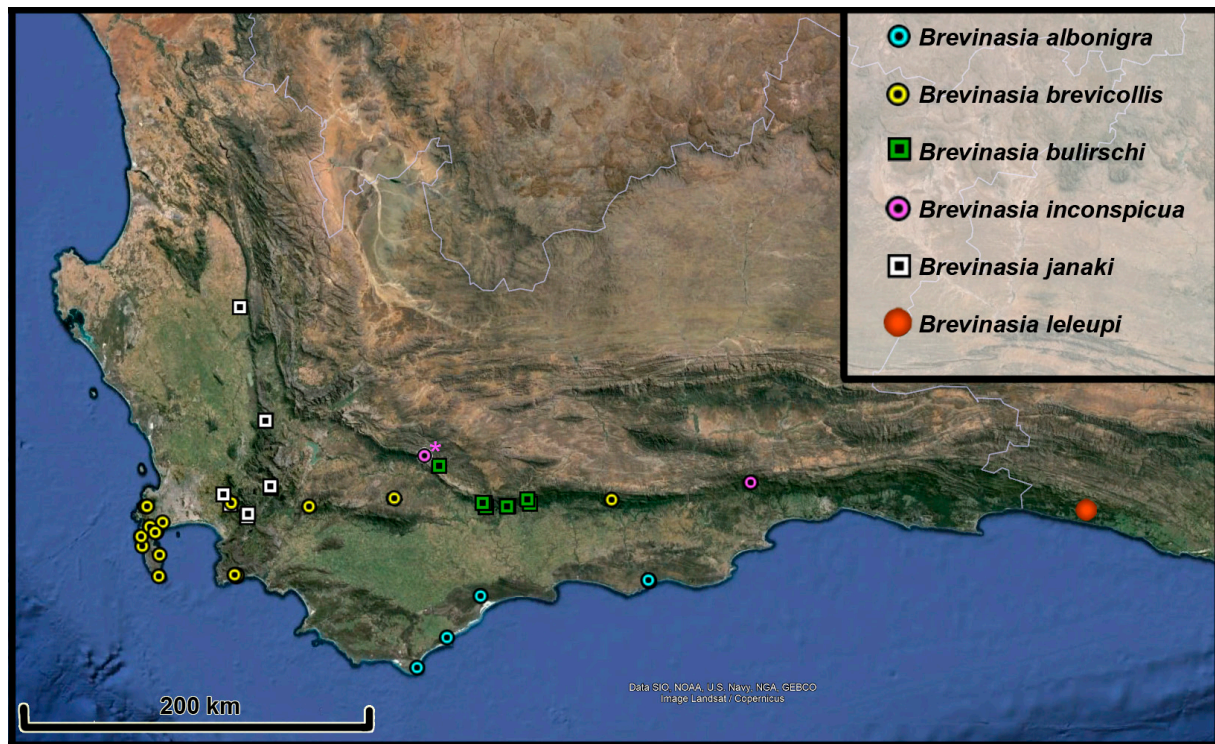
Male genitalia. Penis short, weakly sclerotised, apically rounded to somewhat obtuse, with small and short median tip, scarcely differing in shape of apex between the species. Temonies  $1.5\text{--}2\times$  as long as body of penis and  $1.5\text{--}2\times$  as long as tegminal manubrium; endophallus with long and narrow sclerites. Tegmen with narrow ring bearing short parameres, manubrium about twice as long as diameter of ring. Sternite IX with spiculum gastrale moderately long, anteriorly weakly curved and enlarged to short and wide plate, posteriorly with fused basal arms; hemisternites moderately large, horn-shaped.

Female genitalia. Sternite VIII with very long and narrow apodeme and with small, translucent plate, oval, rhomboidal or subtriangular, with short basal margin and apical margin very slender, often indistinctly delimited, fringed with sparse short setae. Gonocoxites regularly tapered anteriorly, often long and slender, with apical styli of different length, short, moderately lengthened or extremely long, bearing tuft of apical setae. Spermatheca C-shaped with distinct ramus and collum, differing between the species.

*Distribution.* The genus is mainly diffused in the south-western part of South Africa, with most species known from Western Cape. Two species are known from Eastern Cape, one from KwaZulu-Natal and one from Limpopo (Figures 1 and 2).

*Biology.* Most species of *Brevinasia* are apparently associated with leaf litter and have been sifted into the forest or forest remnants. The only exceptions are *B. litoralis* sp. n., sifted from litter under small Chenopodiaceae shrubs, and *B. albonigra* sp. n., which lives

in fynbos habitats and has been collected by evening sweeping at several locations. This species also has a weakly lobed apex of the protibiae, like some terricolous species of Entiminae living in fynbos or steppe grasslands.



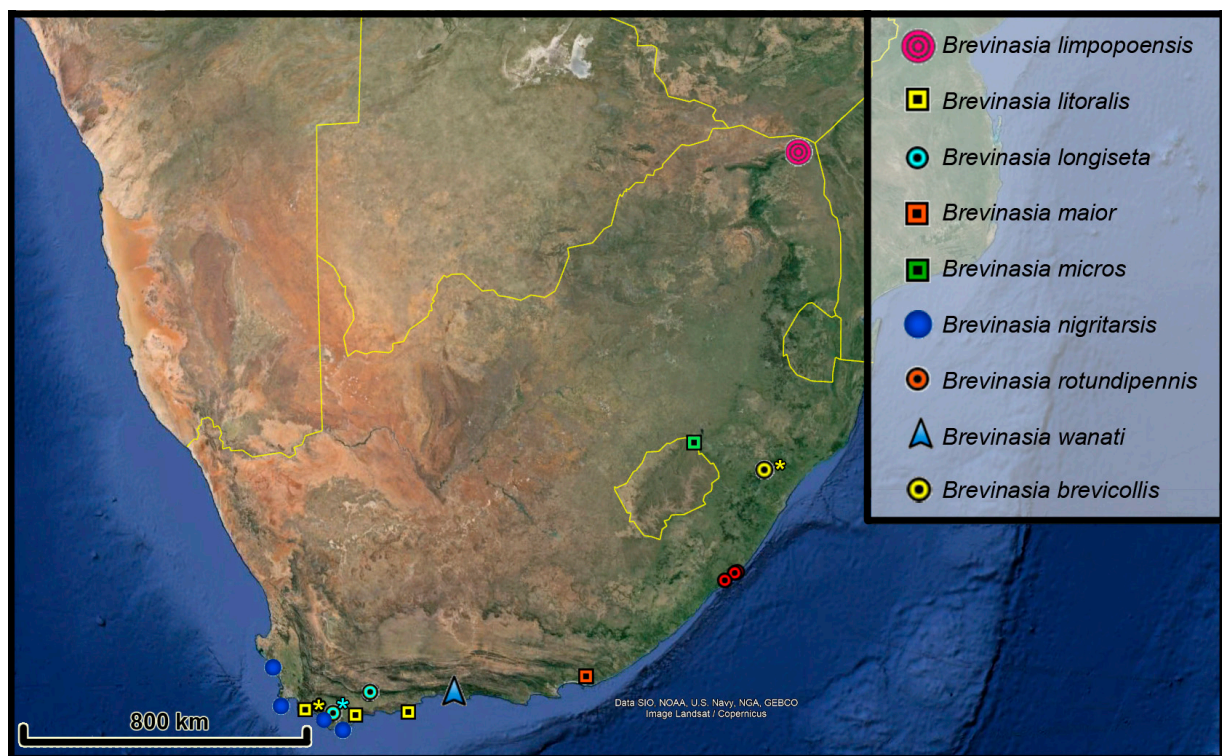
**Figure 1.** Distribution of some species of *Brevinasia* (South Africa, Western and Eastern Cape Province). \*: Specimens excluded from the type material, as indicated in the list of examined material. Map from Google Earth Pro (2024), Maxar Technologies, used according to Google Earth Terms of Service.

**Included taxa.** The new genus includes 14 species, 13 of which are new and are described here.

**Etymology.** The name of the new genus was suggested by its peculiar trait, the very short rostrum, from Latin *brevis* (short).

**Remarks.** *Brevinasia* gen. n. is phylogenetically related and morphologically close to the tribe Namaini Borovec & Meregalli, 2021, with which it shares its small size, winglessness, densely squamous body with rostrum conspicuously wider than long, posteriorly continuous with head, epifrons at base touching inner margin of eyes, scrobes in lateral view distinctly enlarged posteriad, small eyes, anterior margin of pronotum laterally without ocular lobes or vibrissae, elytra with humeral calli not developed, femora unarmed, metatibiae lacking corbels and free claws. In a previous COI-based phylogenetic analysis [1], three of the species that are included in *Brevinasia* clustered in a sister clade to Namaini [1] (Figure 1, species 481, sp. “Wanat” and “*Trachyphloeosoma brevicolle*”). Actually, two more species were part of the same clade: species 583, whose placement was not supported (36% posterior probability), and species 642, fully supported, but with a very long branch. Morphologically, however, these two species show strong differences from all other species described here as *Brevinasia*, although they have free claws and therefore are definitely related. In a morphology-based phylogenetic analysis (unpublished), both taxa clustered in clades different from all *Brevinasia* species, the clade of which had a 98% post probability support. Conflicting morphological and molecular phylogenies are a fairly common finding [3], but the monophyly of *Brevinasia*, as suggested by the morphological analysis, is better preserved if the last two species are excluded from the new genus.





**Figure 2.** Distribution of some species of *Brevinasia* (South Africa). \*: Specimens with eccentric distribution or excluded from the type material, as indicated in the list of examined material. Yellow lines: country borders. Map from Google Earth Pro (2024), Maxar Technologies, used according to Google Earth Terms of Service.

Regarding the tribal placement, either *Brevinasia* (and the two related other undescribed genera mentioned above) could be included in Namaini, broadening the concept of the tribe, or maintained as an independent clade. For the time being, we prefer the second choice and do not assign *Brevinasia* to any tribe, also because there are several other undescribed species that cluster morphologically as sister taxon to *Brevinasia*, and sampling for molecular analysis in this group is highly incomplete; the phylogeny of this group remains uncertain. Morphologically, the species of *Brevinasia* differ from those of the genera of Namaini in having a very short rostrum and generally smaller size, but these characters do not apply to the other species mentioned above.

The species of this genus are easily defined by several characters: extremely short and wide rostrum, frons glabrous, antennal scrobes at least in part distinctly visible in dorsal view, antennae very slender, tegmen with parameres, metaventral process moderately slender, as wide as transverse diameter of metacoxa, ventrite 1 about as long as ventrite 2 and suture between ventrite 1 and 2 sinuate. The combination of all these characters distinguishes *Brevinasia* from the other South African Entiminae with free claws.

*Brevinasia* shares the short and wide rostrum, continuous with the head, with the genus *Afromuelleria* Borovec & Skuhrovec, 2018, known from the northern part of Limpopo province [4]. *Brevinasia* differs from *Afromuelleria* by the free claws (claws solidly fused at basal half in *Afromuelleria*), the rostrum at base narrower than the head including eyes (rostrum at base wider than the head including eyes in *Afromuelleria*), the antennal scrobes in lateral view separated from the eyes by a squamous stripe (scrobes in lateral view reaching the eyes in *Afromuelleria*), the frons glabrous (densely squamous in *Afromuelleria*), the head and rostrum, when cleared from scales, matt, finely and densely irregularly punctate (head and rostrum, when cleared from scales, shiny, deeply and densely longitudinally striate along the whole length in *Afromuelleria*), the pronotum in lateral part with laterally protruding protuberances (pronotum in lateral part without laterally protruding protuberances in

*Afromuelleria*), and the tegmen without a tegminal plate (tegmen with ring expanded into a tegminal plate in *Afromuelleria*).

The only previously described species, *Brevinasia brevicollis*, was named by Voss [5] under the genus *Trachyphloeosoma* Wollaston, 1869. This genus is known from China, Japan, Vietnam, the Moluccas and the Philippines; it has been introduced to the U.S.A. (Alabama, Florida), Hawaii in the Pacific Ocean and St. Helena in the Atlantic [6]. *Brevinasia* shares with *Trachyphloeosoma* the small body and the densely squamous dorsal part of the body, but mainly the scrobes in lateral view subtriangular, enlarged posteriad. *Brevinasia* can be clearly distinguished from all species of *Trachyphloeosoma* by the presence of protuberances in the lateral parts of the pronotum (completely missing in *Trachyphloeosoma*), the apical quarter of the protibiae not curved inwards (curved mesally in apical quarter in *Trachyphloeosoma*), the metaventral process as wide as the transverse diameter of the metacoxa (wider than the transverse diameter of the metacoxa in *Trachyphloeosoma*), the ventrites not coarsely punctuated (coarsely punctuated in *Trachyphloeosoma*), the tarsal claws short, shorter than the onychium (long, longer than the onychium in *Trachyphloeosoma*).

***Brevinasia brevicollis* (Voss, 1974), comb. n.**

Figures 1, 2, 3, 17a, 17b, 18e, 18q and 19g

*Trachyphloeosoma brevicolle* Voss, 1974: 415

**Type material examined.** Nine specimens from MZLU, labelled as follows: “S. Afr. Cape Prov., Cape Town, Table, Mnt. Alt. 2400 Ft, 18.XII.50, No 84 [printed, excluding “2400 Ft”, handwritten]/Swedish South African Expedition, 1950–1951, Brinck-Rudebeck [printed]/Type No. 795.2 [partly printed, partly handwritten]/Paratype *Trachyphloeosoma brevicolle* Voss, R. Borovec vid. 2014 [red, printed]/*Brevinasia brevicollis* (Voss), R. Borovec det. 2014 [printed]”. The other specimens have the following type numbers (the third label): ‘795.4–795.10’.

**Additional material examined.** 29 spec., South Africa, Western Cape, Table Mts. National Park, Echo valley, indig. forest, 34°7' S 18°27' E, 10.x.2013, P. Bulirsch lgt. (RBSC); 33 specs., same data as above but J. Janák lgt. (JJRC); 17 spec., South Africa, Western Cape, Table Mts. National Park, Orangekloof, 33°59.8' S 19°23.5' E, 14.x.2013, P. Bulirsch lgt. (RBSC); 33 specs., same data as above but J. Janák lgt. (JJRC); 5 specs., South Africa, Western Cape, TMNP, ravine of Wynber-Bat cave, 33°59.2' S 18°24.2' E, 730 m, 10.xi.2022, leaf & log litter sifting, J. Janák lgt. (JJRC); 6 specs., South Africa, Western Cape, TMNP, Silvermine, river banks, 34°5.3' S 18°25.1' E, 17.xi.2022, J. Janák lgt. (JJRC); 19 specs., ZA [South Africa, Western Cape], Table Mount., Wynberg Cave, Ravine C.P., xi.–xii.1960, Humus, N. Leleup lgt. (TMSA); 113 specs., South Africa, Western Cape, TMNP, ravine of Wynberg-Bat cave, 33°59.2' S 18°24.2' E, 730 m, 10.xi.2022, J. Janák lgt. (JJRC); 21 specs., ZA, C.P. [South Africa, Western Cape], Muizenberge [34°04' S 18°29' E], xi.–xii.1960, N. Leleup lgt. (TMSA); 14 specs., ZA [South Africa, Western Cape], Table Mountain, Doline Bats cave, Humus, xii.1960, N. Leleup lgt. (TMSA); 1 spec., ZA [South Africa, Western Cape], Table Mountain, Orange Kloof, Humus, xii.1960, N. Leleup lgt. (TMSA); 2 specs., same data as above but 31.i.2020, P. Bulirsch lgt. (RBSC); 4 specs., South Africa, Western Cape, Table MNP Misty Cliffs, Langkloof, 34°11.1' S 18°22.0' E, 11.xi.2022, brook banks sifting & treading, J. Janák lgt. (JJRC); 1 spec., South Africa, Western Cape, Table Mts. NP, NW of Cape Point, 34°20.2' S 18°27.8' E, 11.xi.2022, leaf & log litter, fynbos, sifting, J. Janák lgt. (JJRC); 67 spec., South Africa, Western Cape, Table Mts. National Park, Spes Bona, indig. forest, 34°6.9' S 18°27.5' E, 10.x.2013, P. Bulirsch lgt. (RBSC); 97 specs., same data as above but J. Janák lgt. (JJRC); 7 spec., South Africa, Western Cape, Table Mts. NP, S of Simon's town, indig. forest, 34°13.8' S 18°28.3' E, 13.x.2013, P. Bulirsch lgt. (RBSC); 1 spec., South Africa, Western Cape, Kommetjie, nr. Wildevolvlvlei reeds, 34°8.1' S 18°21.6' E, 7.xi.2019, P. Bulirsch lgt. (RBSC); 34 spec., South Africa, Western Cape, Table Mts. National Park, Kirstenbosch NG, Skeleton, 33°59.3' S 18°23.5' E, 12.x.2013, P. Bulirsch lgt. (RBSC); 4 specs., South Africa, Western Cape, Langeberge Mts., Garcia NR, 33°57.9' S 21°12.4' E, 570 m, 16.x.2017, J. Janák lgt. (JJRC); 30 spec., South Africa, Western Cape, Kogelberg

Nature Reserve, Oudebos forest, 34°20.1' S 18°56.7' E, 16.x.2013, P. Bulirsch lgt. (RBSC); 51 specs., same data as above but 6.–11.xi.2021, J. Janák lgt. (JJRC); 8 specs., same data as above but J. Janák lgt. (JJRC); 2 specs., the same locality but 34°20' S 19°00' E, 11.xii.2009, J. Janák lgt. (JJRC); 1 spec., the same locality but Kogelberg NR, Platbos, 34°20.0' S 18°55.8' E, 16.x.2013, Berlese extraction leaf & log litter sifting, J. Janák lgt. (JJRC); 92 specs., the same locality but Kogelberg NR, Simonsbos for., 34°20.5' S 18°56.4' E, 11.xi.2021, J. Janák lgt. (JJRC); 86 specs., South Africa, Western Cape, Kogelberg NR, Oudebos forest, 34°20.1' S 18°56.7' E, 19 + 21.xi.2022, J. Janák lgt. (JJRC); 6 specs., South Africa, Western Cape, Assegaaibosch NR, 33°58.5' S 18°55.45' E, 2.xii.2022, brook banks sifting & treading, J. Janák lgt. (JJRC); 4 spec., South Africa, KwaZulu-Natal, District Richmond, Indaleri [29°53' S 30°14' E] (RMCA, MMTI). The specimens from KwaZulu-Natal may have been introduced from Western Cape and are reported with an asterisk in the distribution map.

**COI sequence:** GenBank PP798206

*Redescription.* Body length 1.75–2.38 mm. Body brownish to dark brownish, basal part of scapes, funicles, short basal and apical part of tibiae and tarsi reddish brown to yellowish brown. Appressed scales on dorsal body in part rounded, finely and shortly fringed on circumference, depressed at middle, three across width of one interstria, not completely covering integument. Semi-erect elytral setae inconspicuous, short, at most as long as half width of one interstria, subspatulate, aligned in one moderately dense row on each interval, distance between two setae about twice as long as one seta, interstria 3 with twenty–twenty-two setae from base to apex. Semi-erect setae on pronotum and head with rostrum similar to elytral setae, densely and irregularly scattered. Inner side of scapes with five–six long and conspicuous erect setae; outer side of tibiae with relatively long semi-erect setae. Scales on elytra dark brownish with small irregular spots of greyish scales, in some specimens limited to few posthumeral and preapical spots. Pronotum with greyish longitudinal middle stripe and wider lateral stripes; head and pronotum in majority of specimens with dominant greyish scales. Semi-erect setae light brownish.

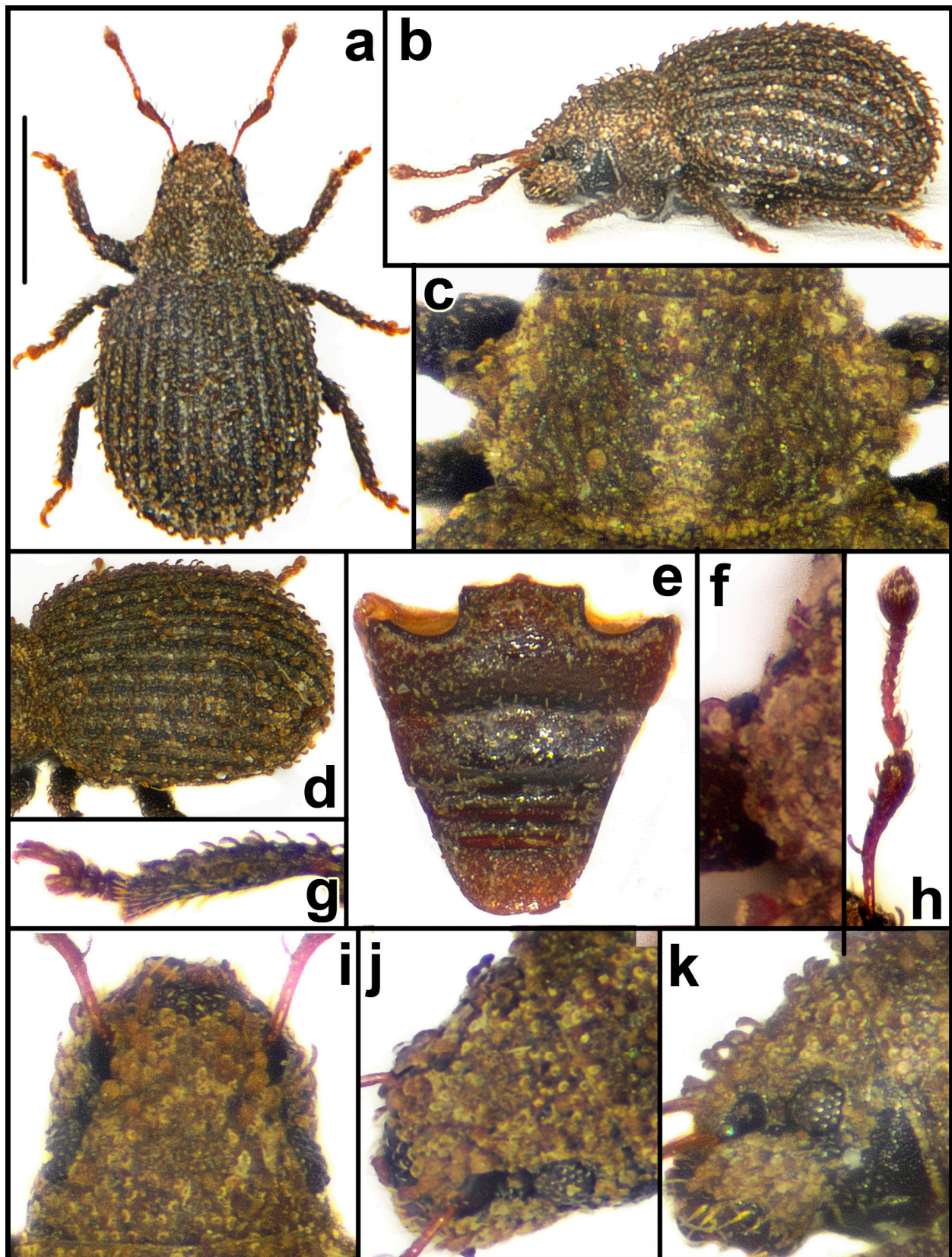
Rostrum 1.81–2.02× as wide as long, slightly tapered anteriorly with straight sides. Epifrons wide, flat, distinctly tapered anteriorly, with concave sides, with narrow median longitudinal stria reaching basal part of rostrum. Antennal scrobes in dorsal view well visible in anterior two thirds, drop-shaped; in lateral view short, somewhat slender, with dorsal margin directed to dorsal margin of eye and ventral margin directed to ventral margin of eye, separated from eyes by wide squamous space. Eyes moderately big, vaulted, weakly prominent from outline of head; in lateral view placed at mid thickness of head.

Antennal scapes distinctly curved at midlength, in apical half gradually enlarged apically, 1.2× as long as funicle, at apex 0.9× as wide as clubs. Funicles 7-segmented. Funicle segment 1 long, conical, twice as long as wide, 1.6–1.8× as long as segment 2, this 1.6–1.7× as long as wide; segments 3–6 as long as wide; segment 7 1.1× as wide as long; club 1.7–1.8× as long as wide.

Pronotum 1.60–1.88× as wide as long, widest at basal third, with strongly rounded sides, distinctly more tapered anteriorly than posteriorly, with anterior margin distinctly narrower than posterior, behind anterior margin constricted. Pronotal sides with 2 short protuberances, not visible in dorsal view, sometimes covered with scales, hardly visible. Pronotum in lateral view slightly vaulted only in basal part.

Elytra shortly oval, 1.15–1.29× as long as wide, with distinctly rounded shoulders and broadly rounded apex and with slightly rounded sides; vaulted in lateral view. Striae wide, interstriae almost flat.





**Figure 3.** *Brevinasia brevicollis* (Voss), Table Mts. National Park. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): ventrites; (f): detail of sides of pronotum; (g): protibia; (h): antenna; (i): rostrum, dorsal view; (j): rostrum, dorsolateral view; (k): rostrum, lateral view. Bar: 1 mm.

Apex of protibiae rounded, with fringe of fine yellowish setae, shorter at inner part and longer at outer part. Metatibial corbels fringed with short and fine yellowish setae.

Tarsal segment 2  $1.7\text{--}1.8\times$  as wide as long; segment 3  $1.4\text{--}1.5\times$  as wide as long and  $1.3\times$  as wide as segment 2; onychium  $0.9\times$  as long as segment 3.

Male genitalia. Penis short, subparallel, apically rounded with small and short tip. In lateral view regularly curved, almost regularly tapered apicad.

Female genitalia. Sternite VIII with long and slender apodeme and narrowly subtriangular plate with weakly concave sides, slender at apical part, with slender basal and apical margins. Gonocoxites slender, long triangular, regularly tapered apicad, with extremely long styli. Spermatheca with short, irregularly curved cornu; corpus elongated and ramus and collum subparallel; ramus slightly longer than wide, distinctly shorter and slightly wider than tube-shaped collum.

**Biology.** All recently collected material was sifted from forest litter.

**Distribution.** The species is native to the southwestern part of Western Cape; the population from KwaZulu-Natal appears to have been introduced and is not reported in the map (Figures 1 and 2).

**Differential diagnosis.** *Brevinasia brevicollis* is similar to *B. janaki* sp. n. in the general shape of the body and the rostrum, and in the colour combination of the antennae and legs. It is easily distinguished from this species by the distinctly shorter raised setae over the whole body and by the different shape of the spermatheca and the apex of the penis.

**Remarks.** Voss [5] based the description of this species on 68 specimens from “Cape Prov.: Cape Town, Table Mnt., 2400 feet, 18.XII.1950, Lok. Nr. 84, Brinck & Rudebeck”. A part of the type material was examined by Borovec and Skuhrovec [7].

***Brevinasia albonigra* Borovec & Meregalli, sp. n.**

Figures 1, 4, 17d, 18i, 18o and 19c

**Zoobank:** urn:lsid:zoobank.org:act:CBD718F1-DEA5-48A2-959B-792842507CB3

**Type locality:** RSA, Western Cape, E of Stilbaai,  $34^{\circ}21' S$   $21^{\circ}25' E$

**Type material.** **Holotype:** ♂, RSA, Western Cape, Hills E of Stilbaai,  $34^{\circ}21.616' S$ ,  $21^{\circ}25.667' E$ , 82 m, 7.xi.2011, R. Borovec lgt., evening sweeping of fynbos with dominant Ericaceae and Restionaceae (TMSA). **Paratypes:** 180 specs., same data as the holotype (BMNH, MMTI, RBSC); 13 specs., RSA, Western Cape, S Swellendam De Hoop N.R. [Nature Reserve],  $34^{\circ}26.613' S$ ,  $20^{\circ}25.297' E$ , 40 m, 8.xi.2011, 40 m, R. Borovec lgt., sweeping, sandy area, fynbos with dominant Ericaceae and Restionaceae (MMTI, RBSC); 1 spec., South Africa, CP [Cape Province, Western Cape], Stilbaai Nature Res. [Reserve],  $34.22 S$   $21.26 E$  [ $=34^{\circ}22' S$   $21^{\circ}26' E$ ], 02.xii.1988, R. Oberprieler [lgt.] (SANC); 1 ♂, S. Afr. [South Africa], SW Cape Prov. [province], Struisbaai, cemetery,  $34^{\circ}48' S$   $20^{\circ}02' E$  [ $=34^{\circ}48' S$   $20^{\circ}02' E$ ], 28.8.1983, E-Y: 1990, groundtraps, 60 days, groundtrap with meat bait, leg. Endrödy, Penrith (TMSA); 5 specs., S. Afr. [South Africa], S.W. Cape [Western Cape], Arniston, inland,  $34.39 S$   $20.13 E$  [ $=34^{\circ}39' S$   $20^{\circ}13' E$ ], 29.8.1983, E-Y [Endrödy-Younga]: 1995, groundtraps, 59 days, groundtrap with banana bait, leg. Endrödy, Penrith (TMSA); 1 ♀, S. Afr. [South Africa], S.W. Cape [Western Cape], Arniston, inland,  $34.39 S$   $20.13 E$  [ $=34^{\circ}39' S$   $20^{\circ}13' E$ ], 26.10.1983, E-Y [Endrödy-Younga]: 2021 grassnetting, leg. Endrödy-Younga (TMSA).

**Description.** Body length 1.50–1.94 mm, holotype 1.78 mm. Body integument black, basal half of antennal scapes and tibiae brownish black. Appressed scales on elytra irregularly angular, with very short, hardly visible fringe on perimeter, three across width of one interstria, not covering integument, distance between two scales about half diameter of one scale. Appressed scales on pronotum and head with rostrum similar, pronotal scales slightly bigger. Suberect setae on elytra inconspicuous, short, spatulate, almost rounded, shorter than half width of one interstria, aligned in one irregular row, distance between two setae more than five times as long as length of one seta. Raised setae on dorsum of pronotum and head with rostrum identical as elytral setae, setae on lateral parts of pronotum distinctly longer than those scattered on disc. Inner side of scapes with 4–5 long and conspicuous erect setae; outer side of tibiae with very short and inconspicuous



semi-erect setae. Elytra marbled with white and grey scales with irregular small spots of contrasting blackish scales. White scales slightly bigger than grey ones. Pronotum with three wide white longitudinal stripes and two wide grey longitudinal stripes between them. Head with rostrum with mostly white scales. Raised setae greyish.

Rostrum  $2.08\text{--}2.25\times$  as wide as long, slightly tapered anteriorly, with straight sides. Epifrons flat, tapered anteriorly, with concave sides, with narrow median longitudinal stria from anterior part to interocular space. Antennal scrobes in dorsal view visible in two apical thirds of rostral length as slender, drop-shaped furrows; in lateral view scrobes short, weakly curved, distinctly enlarged distad, triangular, with dorsal margin directed slightly above eyes and ventral margin directed to middle of eyes. Eyes moderately big, weakly vaulted, somewhat protruding from outline of head; in lateral view placed at about middle of rostrum thickness. Rostrum in lateral view distinctly vaulted.

Antennal scapes distinctly curved at midlength,  $1.5\text{--}1.6\times$  as long as funicles, in apical half gradually enlarged apically, at apex  $0.9\times$  as wide as club. Funicles 6-segmented. Funicle segment 1 conical,  $1.4\text{--}1.5\times$  as long as wide and  $1.6\text{--}1.7\times$  as long as segment 2, this  $1.5\times$  as long as wide; segment 3  $1.3\times$  as wide as long; segments 4 and 5  $1.5\times$  as wide as long; segment 6  $1.7\text{--}1.8\times$  as wide as long; club  $1.4\text{--}1.5\times$  as long as wide.

Pronotum  $1.67\text{--}1.98\times$  as wide as long, widest at basal third, with strongly rounded sides, significantly more tapered anteriorly than posteriorly, with anterior margin distinctly narrower than posterior, behind anterior border constricted. Pronotum in dorso-lateral view with two–three narrow, needle-shaped protuberances, not visible in dorsal view, armed with one long erect seta. Pronotum in lateral view almost flat, lowered in apical quarter.

Elytra short oval,  $1.08\text{--}1.18\times$  as long as wide, with distinctly rounded sides and broadly rounded apex, vaulted in lateral view. Striae narrow, intervals flat.

Apex of protibiae rounded, with short shallow incurvation in outer part. Apex armed with three–five very small, short black spines and long, yellowish brown mucro at inner portion; outer lobe at apex of lateral margin of protibia armed with one, distinct, long spine. Metatibial corbels fringed with ten–twelve sparse, stout, black spines. Tarsal segment 2  $1.4\text{--}1.5\times$  as wide as long; segment 3  $1.6\text{--}1.7\times$  as wide as long and  $1.6\text{--}1.7\times$  as wide as segment 2; onychium  $1.0\text{--}1.1\times$  as long as segment 3.

Male genitalia. Penis short, weakly and regularly tapered apically, with obtuse apex armed with short apical point at middle. In lateral view regularly curved with short lengthened point. Endophallus with three long and narrow sclerites, reciprocally distorted.

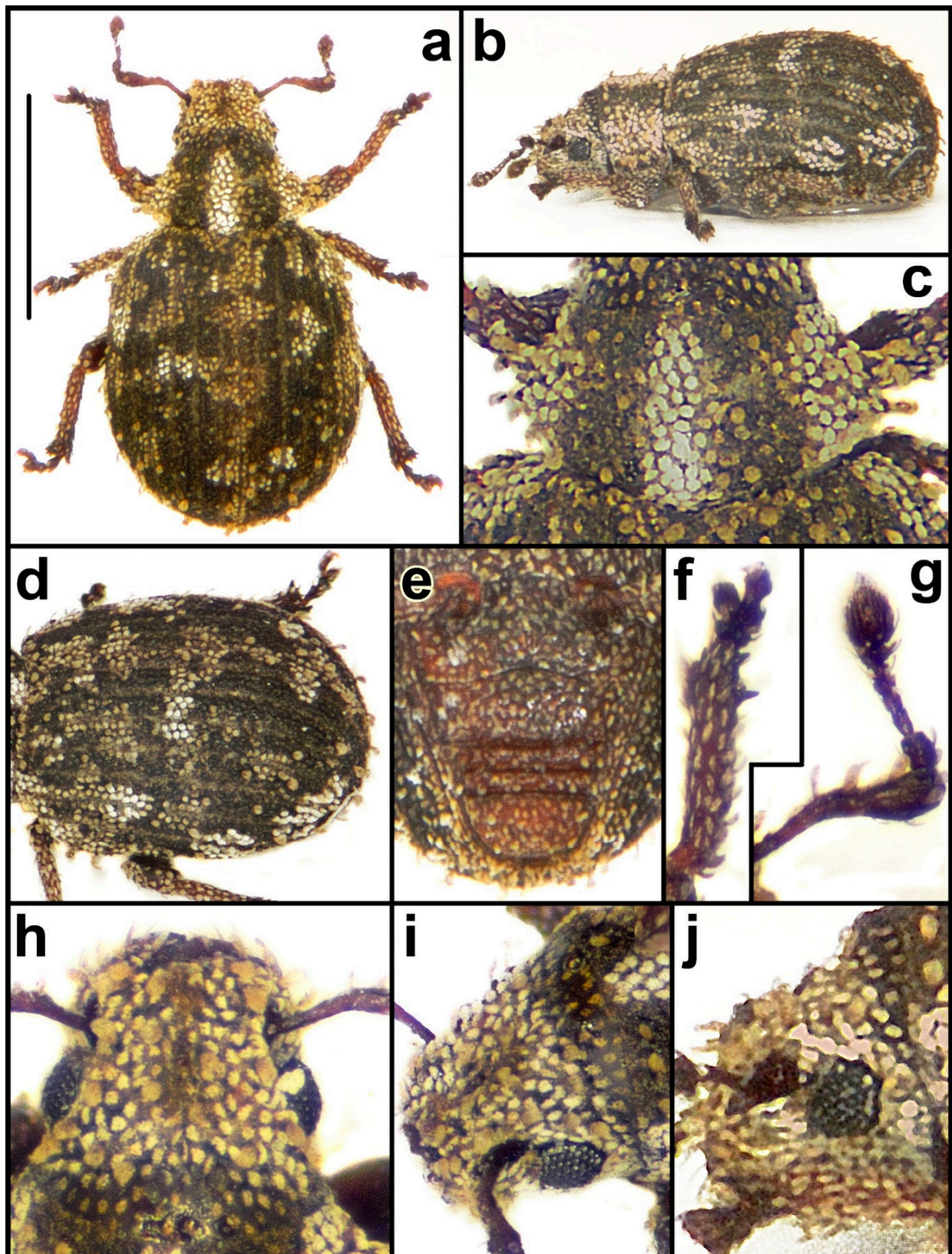
Female genitalia. Sternite VIII with long and slender apodeme and large, transverse, semicircular plate, distinctly wider than long, with very short basal margin and very slender apical margin armed with fringe of very short setae. Gonocoxites large, triangular, regularly tapered apically with short apical styli. Spermatheca with short and wide, regularly curved cornu and rounded corpus; ramus robust, subquadrate, slightly longer and wider than subtriangular collum.

**Biology.** The Stilbaai specimens were collected by sweeping fynbos with Ericaceae and Restionaceae dominant plants at dusk. Those from De Hoop were swept in fynbos with the same dominant plants in a sandy area. The Cape Arniston specimens were collected by “grassnetting” and the Struisbaai specimens in groundtraps.

**Distribution.** South Africa, southwestern part of Western Cape (Figure 1).

**Etymology.** The specific epithet was suggested by the contrasting colours of the vestiture of scales, from Latin *albus* (white) and *niger* (black).

**Differential diagnosis.** *Brevinasia albonigra* sp. n. is very easily distinguishable from all other species by the 6-segmented funicle. Furthermore, it differs from all other *Brevinasia* species in the apex of the protibiae slightly enlarged laterally, with a short lateral incurvation, and in the female sternite VIII with the plate large, distinctly wider than long.



**Figure 4.** *Brevinasia albonigra*, paratypus. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): ventrites; (f): protibia; (g): antenna; (h): rostrum, dorsal view; (i): rostrum, dorsolateral view; (j): rostrum, lateral view. Bar: 1 mm.



***Brevinasia bulirschii* Borovec & Meregalli, sp. n.**

Figures 1, 5, 17k, 18b and 19l

**Zoobank:** urn:lsid:zoobank.org:pub:23E5E807-74CD-4D13-A452-2E31D1EAA8E9**Type locality:** RSA, Western Cape, Marloth Nature Reserve, 33°59' S 20°27' E

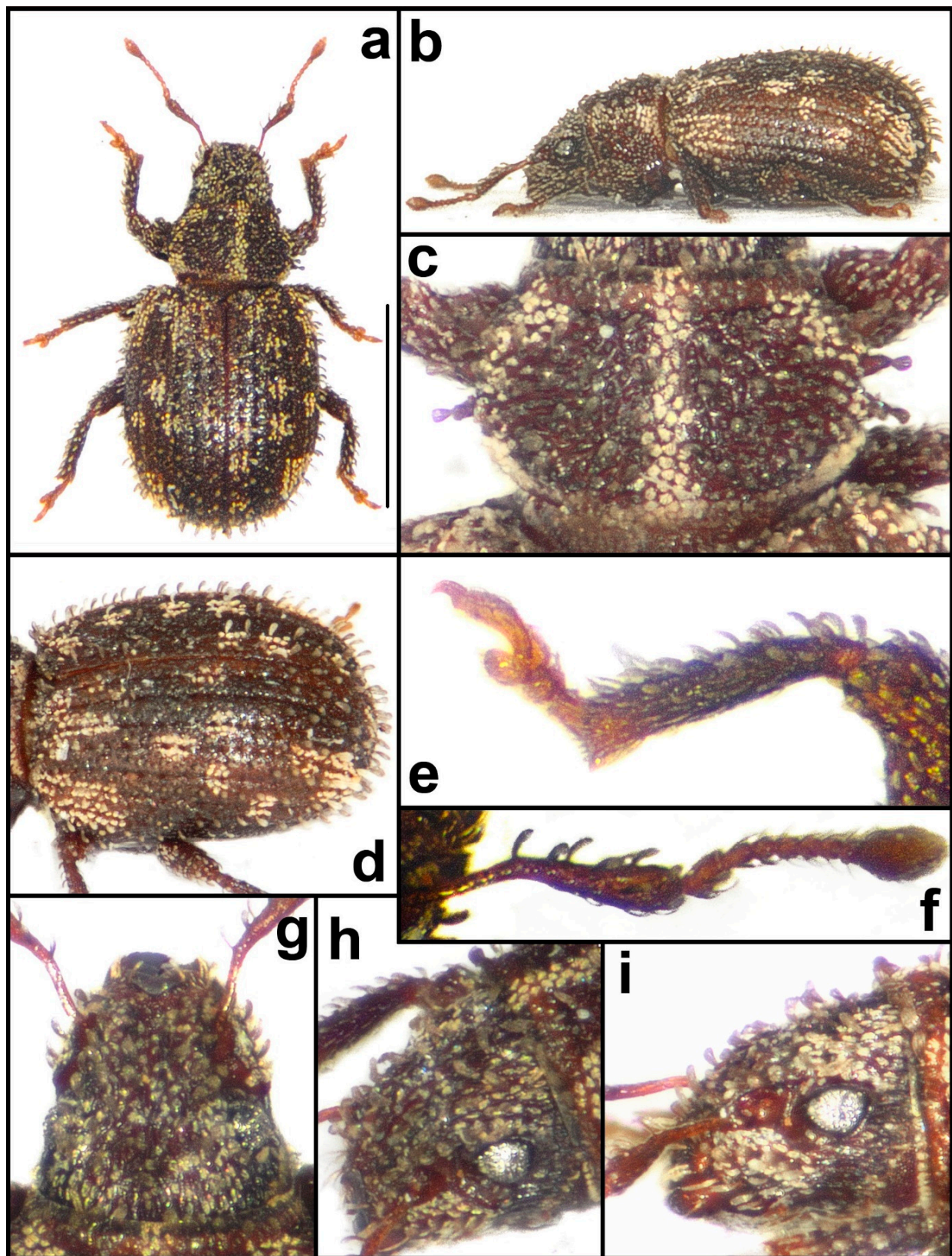
**Type material.** **Holotype:** ♂, [Nature Reserve], Kolonielsbos, indig. forest, 33°59.5' S, 20°27.1' E, 22.x.2013, P. Bulirsch leg. (TMSA). **Paratypes:** 8 specs., same data as the holotype (BMNH, MMTI, RBSC); 2 specs., same data as the holotype, but J. Janák lgt. (JJRC); 1 spec., South Africa, Western Cape, Marloth NR, Koringlandsrivier banks, 34°0.13' S 20°27.45' E, 28.xi.2022, river banks, sifting & treadings, J. Janák lgt. (JJRC); 2 ♂♂, South Africa, Western Cape, Langeberge Mts., Tradouw pass env., 33°57.9' S 20°42.3' E, 20.x.2013, P. Bulirsch lgt. (RBSC); 5 specs., ZA [South Africa], W [Western] Cape, Swellendam, Marlot n.r. [Nature Reserve], 33°58'58" S 20°26'18" E, 450 m, 14.XI.2005, waterfall, sifting, E. Colonnelli lgt. (ECRI, MMTI); 12 specs., SOUTH AFRICA: W. [Western] Cape, Andries Uys Bridge, 33°59'11" S 20°43'13" E, 20.XI.2007, 100 m, E. Colonnelli lgt. (ECRI, RBSC, MMTI); 16 specs., same data as above but G. Osella lgt. (MSNV); 8 spec., South Africa, Western Cape, Swellendam, Marloth Nat. Res. [Nature Reserve], 34°00.25' S 20°27.34' E, 6.XI.2005, G. Osella lgt. (MSNV, MMTI); 2 specs., same data as above, but 15.XI.2005, 500 m (MSNV); 18 specs., same data as above, but 19.XI.2007 (MSNV); 1 spec., RSA, W. Cape Pr., Swellendam, Marloth Nature Reserve, Doktorsbos, 300 m, 17–31.xii.1997, afro-montane forest, S.&J. Peck (CMNC); 3 ♂♂ 2 ♀♀, RSA, Western Cape, 6 km W Suurbraak, Summerset Getaway Farm above river, 33°59.94' S 20°35.33' E, 29.xi.2015, 120 m, Arriaga-Varela & Seidel lgt. (NMPC); 1 ♂, RSA, Western Cape, 6.8 km W Suurbraak, across river from Summerset Getaway Farm, 34°0.0' S 20°34.96' E, 2.xii.2015, 115 m, Arriaga, Fikáček & Seidel lgt. (NMPC); 2 specs., RSA, Western Cape, W of Suurbraak, Buffeljacks r. trib. 1, 33°59.95' S 20°35.35' E, 27.xi.2022, J. Janák lgt. (JJRC).

**Description.** Body length 1.97–2.38 mm, holotype 2.25 mm. Entire body dark brownish, antennae, tarsi and short apical part of tibiae paler, reddish to yellowish brown, sometimes apical half of scape darker, tibiae often reddish brown but darker than tarsi or antennae. Appressed scales on elytra, pronotum and head with rostrum rounded, visibly longitudinally striate, dense, almost covering integument, three–four across width of one interstria. Erect setae on elytra subspatulate, at posterior declivity longer than half width of one interstria, dense, distance between two scales subequal to its length. Erect setae on pronotum and head with rostrum similar to setae placed on elytral disc, densely irregularly scattered, prominent from outline of pronotum and rostrum. Inner side of scapes with 4–5 long, erect setae, outer side of tibiae with dense row of semi-erect, short setae. Predominant colour of appressed scales dark brownish, elytra with irregular small spots formed by whitish grey scales; pronotum with narrow, longitudinal median stripe and wide lateral stripes; head with rostrum greyish. Erect setae light brownish.

Rostrum 1.94–2.13× as wide as long, slightly tapered apicad with slightly rounded sides. Epifrons tapered anteriad with concave sides, shallowly longitudinally depressed, under vestiture finely longitudinally striate. Scrobes in dorsal view visible in entire length, in lateral view short, strongly enlarged distad, triangular, with dorsal margin directed slightly above eye and ventral margin directed distinctly below eye. Eyes small, not or barely prominent from outline of head, in lateral view placed in dorsal third of head. Head behind eyes finely longitudinally striate.

Antennal scapes 1.3× as long as funicles, before the midlength curved, in basal two thirds gradually enlarged apicad, at apex 0.9× as wide as clubs. Funicles 7-segmented, slender. Funicle segment 1 conical, 1.8–1.9× as long as wide and 1.5–1.6× as long as segment 2, this 1.6–1.8× as long as wide; segments 3–6 1.1–1.3× as long as wide; segment 7 1.1× as long as wide; club slender, 1.6–1.7× as long as wide.

Pronotum 1.63–1.76× as wide as long, widest slightly behind midlength, more tapered anteriad than posteriad, with three long, slender, needle-shaped protuberances subequal in size, clearly visible in dorso-lateral view and partly distinct also in dorsal view. Pronotum in lateral view vaulted, behind anterior border lowered.



**Figure 5.** *Brevinasia bulirschii*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): protibia; (f): antenna; (g): rostrum, dorsal view; (h): rostrum, dorsolateral view; (i): rostrum, lateral view. Bar: 1 mm.



Elytra oval,  $1.17\text{--}1.24\times$  as long as wide, with moderately rounded sides, broadly rounded at apex, with narrow striae and almost flat intervals. Elytra in lateral view somewhat vaulted.

Apex of protibiae subtruncated with fringe of fine, yellowish setae, distinctly shorter at inner than outer part, mucronate, short apical part of mesal margin with dense brush of short brownish setae. Metatibial corbels fringed with yellowish setae. Tarsal segment 2  $1.7\text{--}1.8\times$  as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.3\text{--}1.4\times$  as wide as segment 2; onychium  $1.2\text{--}1.3\times$  as long as segment 3.

Male genitalia. Penis with slightly rounded sides, tapered apicad with apex obtuse, shortly pointed; in lateral view dorsal border more curved than ventral, regularly tapered apicad. Endophallus with 3 narrow sclerites, distorted, different in length.

Female genitalia. Sternite VIII with long and narrow apodeme and slender, subtriangular translucent plate with short basal and very slender apical margin. Gonocoxites long and slender, tapered apicad, with long styli. Spermatheca with short, regularly curved and tapered cornu; corpus large; ramus longer than wide, parallel-sided; collum tapered apicad, slightly curved.

*Biology.* The type material was sifted from forest litter.

*Distribution.* South Africa, southwestern part of Western Cape, limited to a narrow stripe along the southern slopes of the Langeberg (Figure 1).

*Etymology.* The species is named after Petr Bulirsch (Prague, Czech Republic), a Carabidae specialist, who provided us with an extensive material of small sifted entomines from South Africa.

*Differential diagnosis.* *Brevinasia bulirshi* sp. n., together with *B. litoralis* sp. n., can be distinguished from the other species of the genus by the long erect, subspatulate and densely inserted, elytral setae and by the head with thin longitudinal stripes behind the eyes, visible in lateral view. The distinguishing characters between *B. bulirshi* sp. n. and *B. litoralis* sp. n. are detailed in the key.

***Brevinasia inconspicua* Borovec & Meregalli, sp. n.**

Figures 1, 6, 17m, 18a and 19m

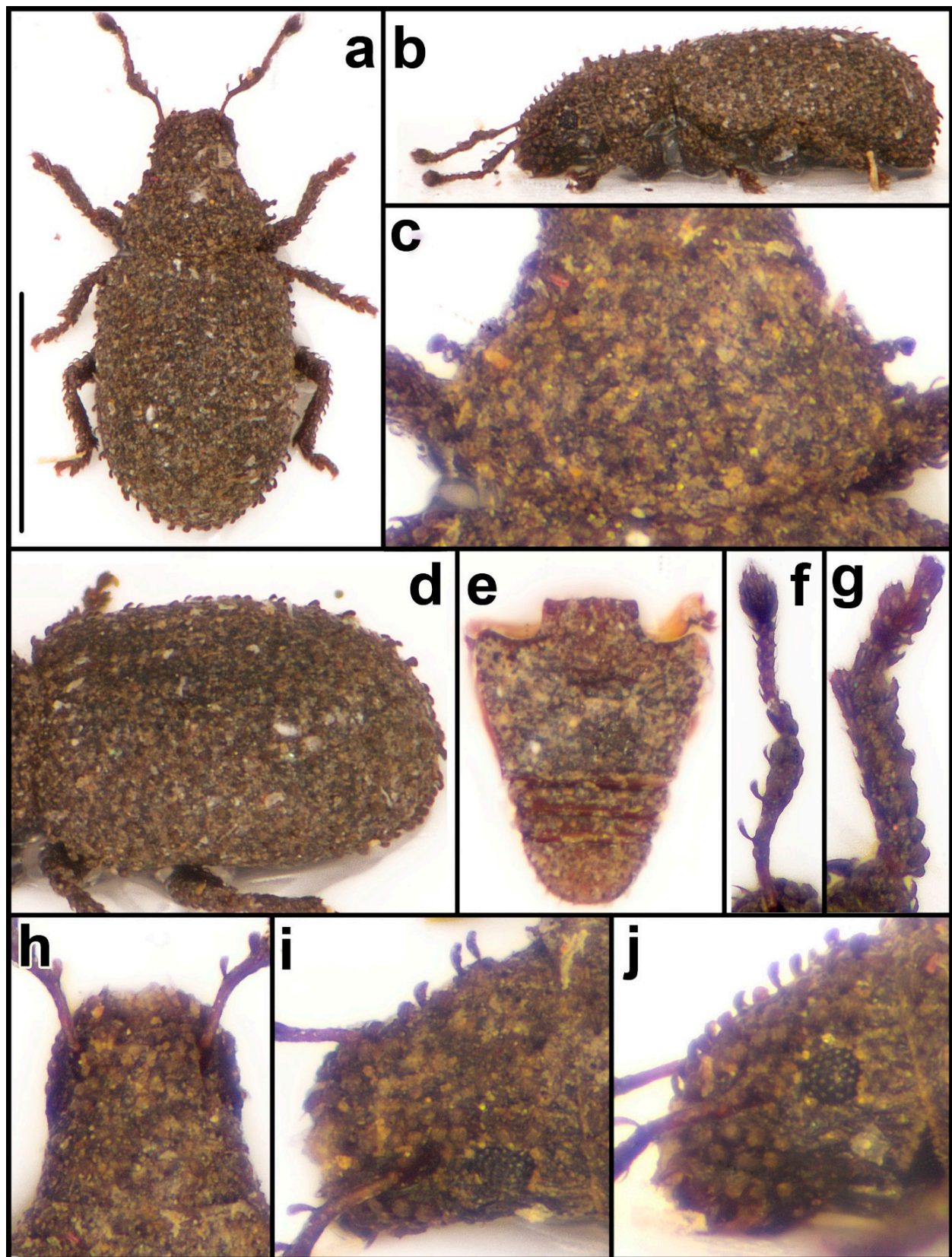
**Zoobank:** urn:lsid:zoobank.org:act:34891377-9C24-4F16-85C9-F8F3E502A83D

**Type locality:** RSA, Western Cape, Robinson's Pass,  $33^{\circ}52' \text{ S } 22^{\circ}02' \text{ E}$

**Type material.** **Holotype:** ♂, RSA, Western Cape, Robinson's Pass,  $33^{\circ}52.377' \text{ S}, 22^{\circ}01.871' \text{ E}$ , 858 m, 25.x.2019, sifting roots below ground leaves of different small plants in fynbos, R. Borovec & M. Meregalli lgt. (SANC). **Paratypes:** 8 specs., same data as holotype (MMTI, RBSC).

**Additional material examined:** 1 ♂ South Africa, Western Cape, Montagu, Strada per Talana, 10 km S-O da Montagu, 290 m, 19.xii.2007, G. Osella lgt. (MSNV); 1 ♀, same data as above one plus  $33^{\circ}47.96' \text{ S } 20^{\circ}10.74' \text{ E}$  (MSNV). The specimens from Montagu differ slightly in the tinner and longer funicle segments, longer onychium and head with longitudinal striae in both dorsal and lateral view. Considering also the relatively distant geographical origin of these specimens, they may belong to a different sister species. They have been indicated with an asterisk in the distribution map.

*Description.* Body length 1.44–1.81 mm, holotype 1.56 mm. Body black, basal half of scape, funicle and tarsi dark brownish black. Appressed scales on entire body lacking a distinct structure. Suberect setae on elytra short, inconspicuous, slightly shorter than half width of one interstria, spatulate, about as long as wide, finely longitudinally striate, forming one spaced row on each interstria, distance between two setae as long as  $3\text{--}4\times$  length of one seta. Semi-erect setae on pronotum and head with rostrum identical to setae in basal half of elytra, irregularly scattered, prominent from outline of pronotum and rostrum. Inner side of scape with three–four long, raised setae and outer side of tibiae with fringe of suberect, short setae. Entire body unicoloured dark blackish.



**Figure 6.** *Brevinasia inconspicua*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): ventrites; (f): antenna; (g): protibia; (h): rostrum, dorsal view; (i): rostrum, dorsolateral view; (j): rostrum, lateral view. Bar: 1 mm.

Rostrum  $1.71\text{--}1.85\times$  as wide as long, subparallel-sided, with straight sides. Epifrons tapered anteriad with concave sides, dorsally with median longitudinal stria. Antennal scrobes in dorsal view visible in apical half of rostrum as narrow furrow; in lateral view short and strongly enlarged distad, with dorsal margin directed above eye and ventral margin directed distinctly below ventral margin of eye. Eyes small, not prominent from outline of head; in lateral view placed just in the middle of head.

Antennal scapes  $1.1\times$  as long as funicles, curved before midlength, in apical half evenly enlarged apicad, at apex  $0.9\times$  as wide as clubs. Funicles 7-segmented. Funicle segment 1 long, conical,  $1.9\text{--}2.0\times$  as long as wide and  $2.0\text{--}2.2\times$  as long as short segment 2, this  $1.1\text{--}1.2\times$  as long as wide; segments 3 and 4 as long as wide; segments 5 and 6  $1.1\times$  as wide as long; segment 7  $1.2\text{--}1.3\times$  as wide as long; clubs slender,  $1.7\text{--}1.8\times$  as long as wide.

Pronotum  $1.75\text{--}1.83\times$  as wide as long, widest at basal third, anteriorly distinctly more tapered than posteriorly. Pronotum in dorso-lateral view with three short protuberances subequal in size; in lateral view vaulted, behind anterior border lowered.

Elytra slender, subparallel-sided with straight sides,  $1.31\text{--}1.37\times$  as long as wide, apically broadly rounded, with narrow striae and almost flat interstriae. Elytra in lateral view flat.

Apex of protibiae rounded with fringe of short and fine, black spines and unobtrusive mucro. Metatibial corbels fringed with short, fine black setae. Tarsal segment 2  $1.4\text{--}1.5\times$  as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.4\text{--}1.5\times$  as wide as segment 2; onychium equally long as segment 3.

Male genitalia. Penis subparallel-sided, apically rounded, with very small, inconspicuous tip in middle; in lateral view regularly curved without lengthened point. Endophallus with four sclerites, subequal in length and slightly different in width.

Female genitalia. Sternite VIII with long and narrow apodeme and subrhombic, translucent plate, with short basal or very slender apical margin. Gonocoxites slender, long, regularly tapered anteriad, with long styli. Spermatheca with short cornu; corpus large and rounded; and V-shaped ramus and collum; ramus short, slightly shorter than wide; collum longer than ramus, subtriangular, slightly curved.

**Biology.** The type specimens were sifted below ground leaves of different small plants in fynbos.

**Distribution.** South Africa, southwestern part of Western Cape (Figure 1).

**Etymology.** The specific epithet was suggested by the small size of this species, from Latin *inconspicuus* (unremarkable).

**Differential diagnosis.** *Brevinasia inconspicua* sp. n. is moderately different from all others in the dark brownish funicles and tarsi, the blackish spines at apex of the protibiae and around the metatibial corbels, and the flat, slender, subparallel-sided elytra. *Brevinasia inconspicua* sp. n. is similar to *B. albonigra* sp. n. and especially to *B. nigratarsis* sp. n. for the blackish protibial spines. From the former it can be easily distinguished by the slender, subparallel-sided elytra and the 7-segmented funicle, from the latter by the characters described in the key.

***Brevinasia janaki* Borovec & Meregalli, sp. n.**

Figures 1, 7, 17c, 18c and 19e

**Zoobank:** urn:lsid:zoobank.org:act:775B9417-1AEC-40F7-97DD-9ECD2F1FB848

**Type Locality:** RSA, Western Cape, Hawequas State Forest,  $33^{\circ}34' \text{ S } 19^{\circ}80' \text{ E}$

**Type material. Holotype:** ♂, RSA, Western Cape, Hawequas SF, Tweede Tol. env., indig. forest path,  $33^{\circ}34.2' \text{ S } 19^{\circ}8.3' \text{ E}$ , Berlese extraction, leaf & log litter sifting, 5.ii.2014, J. Janák lgt. (TMSA). **Paratypes:** 10 specs., same data as the holotype (JJRC); 34 specs., same data as the holotype but 23.x.2013 (JJRC, MMTI); 2 specs., same data as the holotype but 22.i.2015 (JJRC); 1 ♂1 ♀, South Africa, Western Cape, Assegaaibosch N.R., indig. forest,  $33^{\circ}59' \text{ S } 18^{\circ}55' \text{ E}$ , sifting, 14.xii.2009, J. Janák lgt. (JJRC, MMTI); 2 ♀♀, South Africa, Western Cape, Limietberg NR [Nature Reserve], Tweede Tol env.,  $33^{\circ}34.2' \text{ S } 19^{\circ}8.3' \text{ E}$ , indig. forest path, 23.x.2013, P. Bulirsch lgt. (RBSC); 33 specs., RSA, Western Cape, Hottentots Holland,



NR [Nature Reserve] borders, Mt. Rochelle-Perdekloof, Nr. [near] Franschhoek pass, 33°54.2' S 19°9.8' E, 26.x.2013, sifting, J. Janák lgt. (JJRC); 28 specs., same data as above but P. Bulirsch lgt. (RBSC); 7 specs., South Africa, W. Cape, Hottentots Holland NR borders, Mt. Rochelle, sifting, 33°54.2' S 19°9.8' E, 18.xi.2022, J. Janák lgt. (JJRC); 1 spec., same data as above but 33°53.7' S 19°9.7' E, 21.i.2015, leaf & log litter sifting (JJRC); 8 specs., South Africa, Western Cape, Hottentots Holland NR [Nature Reserve], Dwarfsberg-Boegoekloof, 34°1.8' S 19°1.45' E, 13.x.2017, sifting, J. Janák lgt. (JJRC); 8 specs., South Africa, Western Cape, Jonkershoek NR, Tweede Waterval, 33°0.3' S 18°59.6' E, 12.ii.2012, J. Janák lgt. (JJRC); 3 specs., same data as above, but 14.x.2017, 600 m, leaf & log litter sifting (JJRC); 3 specs., South Africa, Stellenbosch [33°56' S 18°52' E], Aug. 1967, J.G. Theron (NMBH); 50 specs., S. Afr., W. [Western] Cape, Dwarsberge, 34.02 S–19.01 E [=34°02' S 19°01' E], 15.11.1973, E-Y: 253, sifted litter, leg. Endrödy-Younga (TMSA).

*Description.* Body length 1.78–2.16 mm, holotype 1.84 mm. Body dark brownish, basal half of scapes, funicles with clubs and tarsi lighter, rusty brownish, clubs sometimes darker than funicle. Appressed scales on entire body irregularly drop-shaped, dense, on elytra two–three across width of one interstria, distance between two scales distinctly shorter than diameter of one scale, on pronotum and head with rostrum almost covering integument. Erect setae on elytra varying in length, in some populations slightly longer, in other populations slightly shorter than width of one elytral interstria, narrowly subspatulate, at apex slightly wider than diameter of one appressed scale, forming one regular row on each interstria, distance between two setae from slightly longer to twice as long as length of one seta; interstria 3 with sixteen–eighteen setae from base to apex. Erect setae on pronotum and head with rostrum similar as those on basal part of elytra, sparsely irregularly scattered. Inner side of scapes with four–five long erect setae, outer sides of tibiae with dense fringe of short, semi-erect setae. Predominant colour of appressed scales dark brownish with scattered small irregular spots of greyish scales. Pronotum dark brownish with narrow median longitudinal stripe and wider lateral stripe of greyish scales, rostrum and head mainly greyish. Erect setae light brownish.

Rostrum  $1.68\text{--}1.89\times$  as wide as long, in basal half parallel-sided, in apical half tapered anteriorly, with slightly rounded sides. Epifrons tapered anteriorly, with weakly concave sides, flat, with distinct median longitudinal stria along entire length. Antennal scrobes in dorsal view visible in apical two thirds as narrow, drop-shaped furrows; in lateral view short, with dorsal margin directed to dorsal margin of eyes and ventral margin directed below eyes. Eyes small, in dorsal view not prominent from outline of head; in lateral view placed in dorsal half of head.

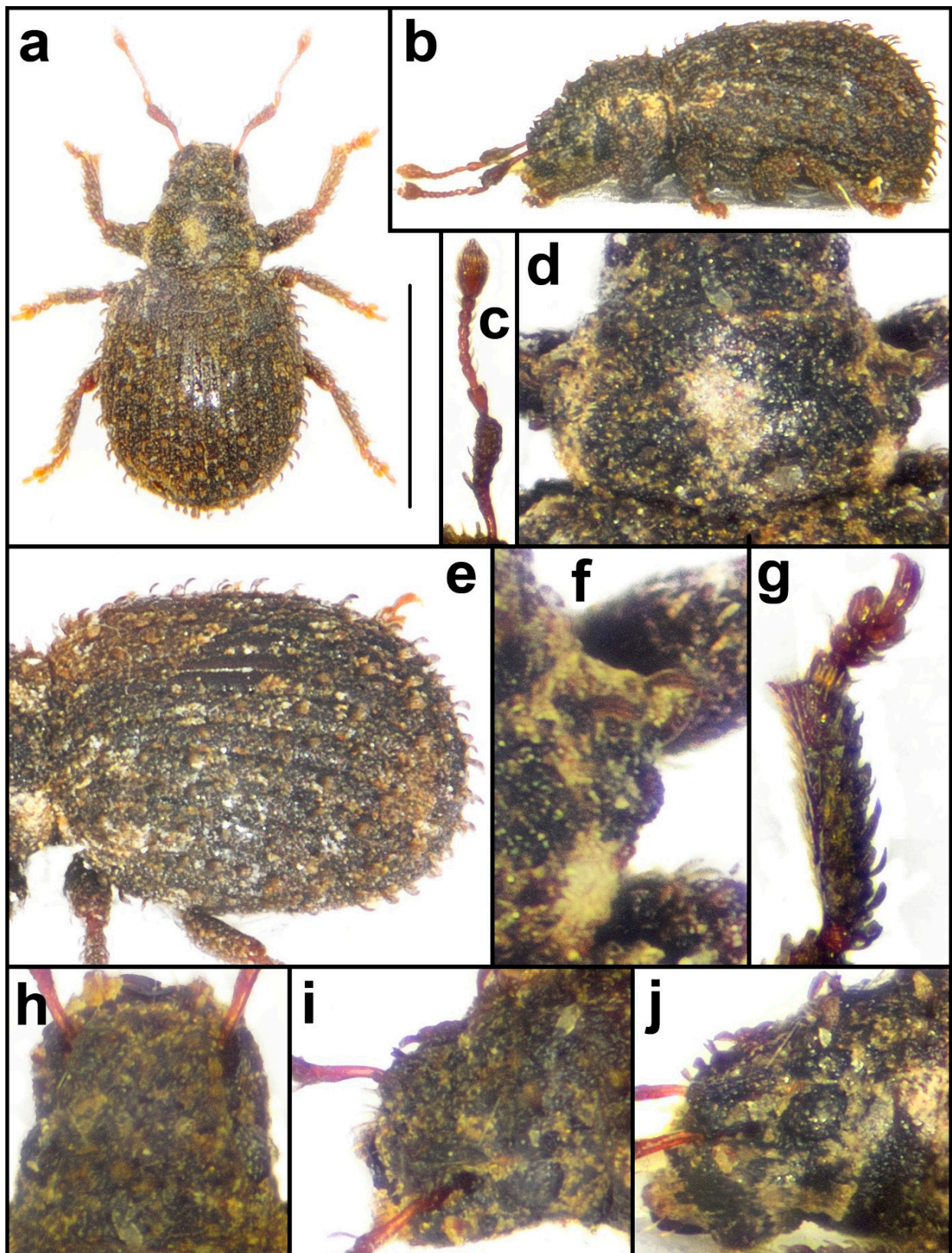
Antennal scapes  $1.3\times$  as long as funicles, curved at midlength, in apical half regularly enlarged apically, at apex as wide as clubs. Funicles 7-segmented. Funicle segment 1 conical, long,  $1.8\text{--}1.9\times$  as long as wide and  $2.1\text{--}2.2\times$  as long as segment 2, this  $1.3\text{--}1.4\times$  as long as wide; segments 3–6 as long as wide; segment 7  $1.2\text{--}1.3\times$  as wide as long; clubs  $1.3\text{--}1.4\times$  as long as wide.

Pronotum  $1.87\text{--}2.07\times$  as wide as long, widest just behind midlength, with rounded sides, anteriorly more tapered than posteriorly. Pronotal sides with two short protuberances, visible mainly in dorso-lateral view, sometimes hardly visible, posterior one rounded. Pronotum in lateral view weakly vaulted, anterior border lowered.

Elytra oval,  $1.21\text{--}1.27\times$  as long as wide, with rounded sides and broadly rounded apex. Striae narrow, interstriae almost flat. Elytra in lateral view weakly vaulted.

Apex of protibiae subtruncated with fringe of fine, yellowish-brown setae, distinctly shorter on inner than outer part, short apical part of mesal margin with dense brush of short brownish yellow setae. Metatibial corbels fringed with moderately long yellowish setae. Tarsal segment 2  $1.6\text{--}1.7\times$  as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.4\times$  as wide as segment 2; onychium  $0.9\text{--}1.0\times$  as long as segment 3.

Male genitalia. Penis short, with slightly rounded sides, apically rounded with well separated small tip. In lateral view regularly curved, apically tapered with short lengthened point. Endophallus with two short, V-shaped, well sclerotised sclerites.



**Figure 7.** *Brevinasia janaki*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): antenna; (d): pronotum; (e): elytra, dorsolateral view; (f): detail of side of pronotum; ventrites; (g): protibia; (h): rostrum, dorsal view; (i): rostrum, dorsolateral view; (j): rostrum, lateral view. Bar: 1 mm.

Female genitalia. Sternite VIII with long and narrow apodeme and narrowly subtriangular, translucent plate, with short basal margin and slender apical margin. Gonocoxites slender and long, regularly apically tapered, with long and slender apical styli. Spermatheca with regularly curved cornu; corpus straight; ramus twice as long and wide as collum; ramus long oval, distinctly longer than wide, directed upwards; collum as long as wide, perpendicular to ramus.

**Biology.** The specimens were sifted from forest leaf litter.

**Distribution.** South Africa, southwestern part of Western Cape (Figure 1).

**Etymology.** The new species is named after a long-standing friend of one of authors, Jiří Janák (Rtyně nad Bílinou, Czech Republic), an eminent specialist in Staphylinidae from the Palaearctic and Afrotropical Regions and collector of most of the type material.

**Differential diagnosis.** *Brevinasia janaki* sp. n. is similar to *B. longiseta* sp. n. in the long and slender elytral erect setae; it can be distinguished by the characters stated in the key. Specimens with shorter raised setae are similar to *B. brevicollis* in the shape of the body and the rostrum with epifrons, and in the colour combination of antennae and legs. It is easily distinguished from this species by the distinctly longer raised setae over the whole body and also by the different shape of the spermatheca and the apex of the penis.

***Brevinasia leleupi* Borovec & Meregalli, sp. n.**

Figures 1, 8, 17h, 18j and 19i

**Zoobank:** urn:lsid:zoobank.org:act:F1A1434D-D7C7-47E1-AB4C-FFDE93839FB4

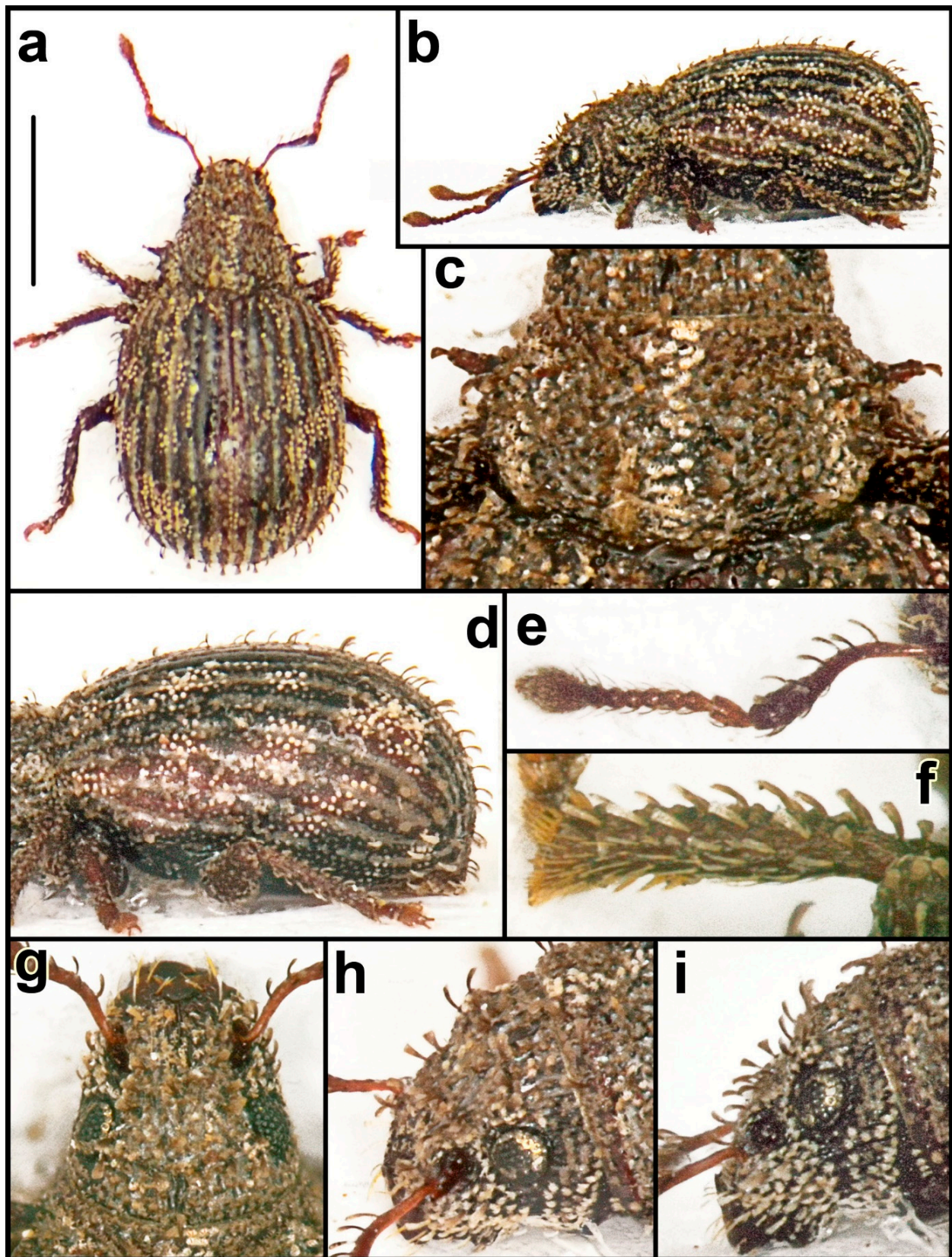
**Type locality:** RSA, Eastern Cape, Witelsbos, 33°58' S 24°02' E

**Type material.** **Holotype:** 1 ♂, Z. A. 63 [South Africa, Eastern Cape] Cape Prov. [Province]: Humansdorp distr. [district] Wit. Els bos [=Witelsbos, 33°58' S 24°02' E], I-1961, Humus, N. Leleup (RMCA). **Paratypes:** 1 ♂, 1 ♀, same data as the holotype (TMSA); 1 ♂, 2 ♀♀, S. Afr. S. Cape Prov. [South Africa, Eastern Cape], Tsitsikama, Witelsb., 33.58 S–24.02 E [=33°58' S 24°02' E], 10.12.1978, E-Y: 1529, sift. forest litter, leg. Endrödy-Younga (TMSA).

**Description.** Body length 2.09–2.38 mm, holotype 2.09 mm. Body dark brownish, elytra paler, reddish brown, also basal part of scapes, funicle with clubs and tarsi reddish brown. Appressed scales on elytra small, rounded, scarce, not covering integument, three across width of one interstria, distance between two scales shorter than diameter of one scale. Appressed scales on pronotum and head with rostrum irregularly star-shaped, with different number of tips, denser placed than elytral ones. Erect elytral setae subspatulate, forming one spaced row on each interstria, slightly longer than half width of one interstria, distance between two setae about 2–3× longer than length of one seta. Erect setae on pronotum and head with rostrum identical to elytral ones, irregularly scattered, setae on protuberances short. Inner side of scape with five–six long erect setae, outer side of tibiae with dense fringe of semi-erect setae. Body with predominant dark brownish scales and with irregular spots of light scales with feeble pearly sheen. Pronotum with greyish narrow longitudinal median stripe and wider lateral stripes, head with rostrum with greyish scales.

Rostrum 1.78–1.85× as wide as long, distinctly tapered anteriorly, with slightly rounded sides. Epifrons relatively narrow, tapered anteriorly, with concave sides, flat. Antennal scrobes in dorsal view visible in apical two thirds; in lateral view with dorsal margin directed to dorsal margin of eyes and ventral margin directed to ventral margin of eyes. Eyes small, in dorsal view not prominent from outline of head; in lateral view placed at middle.





**Figure 8.** *Brevinasia leleupi*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): antenna; (f): protibia; (g): rostrum, dorsal view; (h): rostrum, dorsolateral view; (i): rostrum, lateral view. Bar: 1 mm.

Antennal scapes  $1.1\text{--}1.2\times$  as long as funicle, distinctly curved at midlength, in apical half weakly, regularly enlarged, at apex  $0.8\text{--}0.9\times$  as wide as clubs. Funicles 7-segmented. Funicle segment 1 conical,  $1.8\text{--}1.9\times$  as long as wide and  $1.5\text{--}1.6\times$  as long as slender segment 2, this  $1.3\text{--}1.4\times$  as long as wide; segments 3 and 4  $1.1\text{--}1.2\times$  as long as wide; segments 5 and 6 as long as wide; segment 7 as long as wide to  $1.1\times$  as wide as long. Clubs oblong  $1.9\text{--}2.0\times$  as long as wide.

Pronotum  $1.81\text{--}1.88\times$  as wide as long, widest just behind midlength, with rounded sides, weakly constricted behind anterior margin. Pronotum in dorso-lateral view with lower row of three protuberances, anterior one needle-shaped, very long, prominent laterally also in dorsal view, posterior two protuberances short, hump-shaped and upper row of three–four short, hump-shaped protuberances, partly visible in dorsal view. Pronotum in lateral view slightly vaulted, behind anterior border lowered.

Elytra subglobose,  $1.14\text{--}1.17\times$  as long as wide, with rounded sides and broadly rounded apex, with narrow striae and almost flat interstriae; in lateral view vaulted.

Apex of protibiae obliquely subtruncated with fringe of fine, yellowish setae. Metatibial corbels fringed with yellowish setae. Tarsal segment 2  $1.5\text{--}1.7\times$  as wide as long; segment 3  $1.3\text{--}1.4\times$  as wide as long and  $1.4\text{--}1.5\times$  as wide as segment 2. Onychium from 1 to  $1.1\times$  as long as tarsal segment 3.

Male genitalia. Penis long, well sclerotised, with weakly concave sides, apex regularly tapered, with concave sides and small rounded tip; in lateral view regularly curved with shortly lengthened apical part. Endophallus with small, short, indistinct U-shaped sclerite with distorted arms.

Female genitalia. Sternite VIII with narrow and moderately long subtriangular plate, narrowed at apical portion with concave sides; basal margin short; apical margin well visible. Gonocoxites slender, tube-shaped with long and slender styli. Spermatheca with cornu short and robust, evenly tapered apicad; corpus elongated; ramus short, as long as wide; collum long,  $4\text{--}5\times$  as long as wide and as long as ramus, curved.

*Biology.* Endrödy-Younga sifted the type material from forest litter, Leleup from humus.

*Distribution.* South Africa, southwestern part of Eastern Cape (Figure 1).

*Etymology.* The new species is named after the collector of a part of the type material, the Belgian specialist in Scydmaeninae, Narcisse Leleup (1912–2001), who carried out numerous researches in the subequatorial part of Africa and in South Africa and who made great contributions to the discovery of terricolous weevils.

*Differential diagnosis.* *Brevinasia leleupi* sp. n. only approaches *B. wanati* sp. nov by the short, sparse, semi-erect, subspatulate elytral setae, the sparse appressed elytral scales, the ventral margin of the antennal scrobes directed to the ventral margin of the eyes, the reddish funicles and tarsi and the dorsally visible anterior pronotal protuberance. It is distinguishable from this species by the pronotum with seven–eight protuberances, the longer rostrum, the scapes narrower at the apical part, the long penis with the regularly tapered apex and the spermatheca with a developed ramus and the collum directed upwards.

***Brevinasia limpopoensis* Borovec & Meregalli, sp. n.**

Figures 9, 18m and 19f

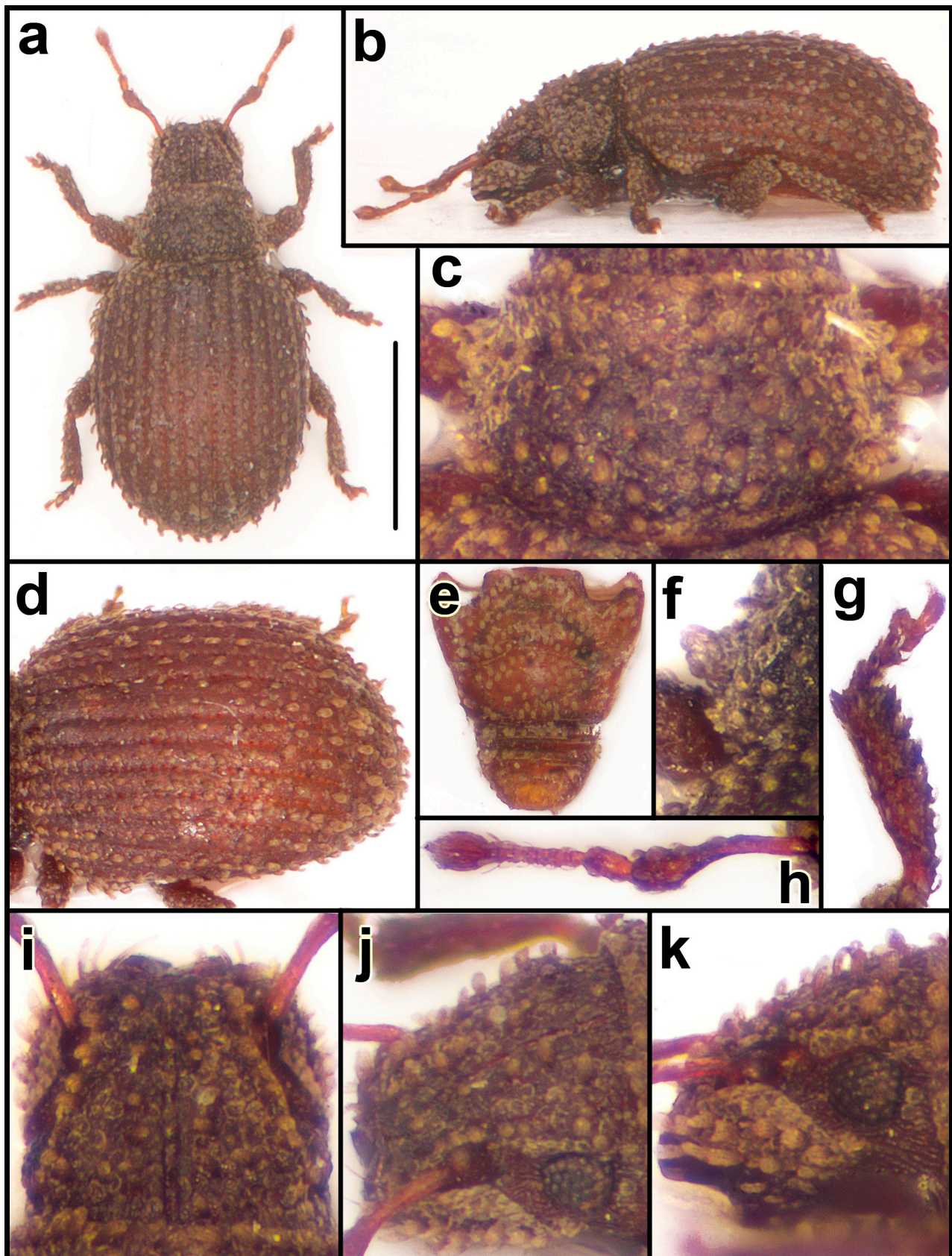
**Zoobank:** urn:lsid:zoobank.org:act:03503E71-94F7-4640-9C7A-54EE070572D1

**Type locality:** RSA, Limpopo, Kruger National Park,  $22^{\circ}38' \text{ S } 30^{\circ}59' \text{ E}$

**Type material.** **Holotype:** ♀, S. Afr [South Africa, Limpopo]: Kruger Nat. Pk [National Park], Punda Maria sands,  $22.38 \text{ S--}30.59 \text{ E}$  [ $=22^{\circ}38' \text{ S } 30^{\circ}59' \text{ E}$ ], 19.11.1994: E-Y [Endrödy-Younga]: 3055, groundtraps, 60 days, Endrödy-Bellamy [lgt.] (TMSA).

*Description.* Body length 1.88 mm. Entire body dark brownish, antennae and tarsi slightly paler. Appressed scales on body rounded, completely hiding integument, partly imbricate, three across one elytral interstria.





**Figure 9.** *Brevinasia limpopoensis*, holotype (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): ventrites; (f): detail of side of pronotum; (g): protibia; (h): antenna; (i): rostrum, dorsal view; (j): rostrum, dorsolateral view; (k): rostrum, lateral view. Bar: 1 mm.

Semi-appressed setae on elytra hardly visible in lateral view, subspatulate, about as long as half width of one interstria, forming one dense regular row on each interstria, distance between two setae about  $3\times$  as long as length of one seta. Semi-appressed setae on pronotum and head with rostrum shorter than elytral ones, densely irregularly scattered. Tibiae on outer side with short, semi-appressed setae, not exceeding outline of tibiae.

Rostrum  $1.88\times$  as wide as long, enlarged in very short distance before eyes, then weakly tapered anteriorly, with slightly rounded sides, fringed with dense row of short, rounded, laterally prominent setae. Epifrons distinctly tapered anteriorly with weakly concave sides, flat, with narrow, clearly distinct longitudinal median stria reaching anterior margin of pronotum. Antennal scrobes in dorsal view well visible along entire length, angle-shaped curved at midlength; in lateral view with dorsal margin directed to dorsal margin of eyes and ventral margin directed below ventral margin of eyes. Frons glabrous, moderately large. Eyes small, hardly prominent from outline of head in dorsal view; in lateral view placed at about middle of head thickness.

Antennal scapes  $1.2\times$  as long as funicles, weakly curved at midlength, at apical third abruptly enlarged, at apex equally wide as clubs. Funicles 7-segmented. Funicle segment 1 conical,  $1.6\times$  as long as wide, twice as long as segment 2, this  $1.4\times$  as long as wide; segment 3 as long as wide; segment 4  $1.2\times$  as wide as long; segment 5  $1.3\times$  as wide as long; segment 6  $1.4\times$  as wide as long and segment 7  $1.5\times$  as wide as long; clubs  $1.6\times$  as long as wide.

Pronotum transverse,  $1.69\times$  as wide as long, widest just behind midlength, behind anterior margin distinctly constricted; base weakly arched. Pronotal sides with one indistinct, short and wide protuberance, visible only in dorso-lateral view. Pronotum in lateral view almost flat.

Elytra oval,  $1.28\times$  as long as wide, with moderately rounded sides, with narrow striae and weakly convex interstriae. Elytra in lateral view vaulted.

Apex of protibiae obliquely subtruncated, with a fringe of very short, fine, brownish yellow setae. Metatibial corbels fringed with short, and fine, yellowish-brown setae. Tarsal segment 2  $1.4\times$  as wide as long; segment 3  $1.8\times$  as wide as long and  $1.7\times$  as wide as segment 2; onychium  $0.9\times$  as long as segment 3.

Male genitalia unknown.

Female genitalia. Sternite VIII with very long and narrow apodeme and with small, semicircular translucent plate, with slender but visible apical margin fringed with very short setae and short basal margin. Gonocoxites long and slender, regularly tapered apically, with moderately long styli, obtuse at apex. Spermatheca with slender and regularly curved cornu; indistinct corpus; rounded ramus and curved, rounded collum.

*Biology.* Unknown.

*Distribution.* South Africa, Limpopo (Figure 2).

*Etymology.* This species is named after the Limpopo province, where it was found.

*Differential diagnosis.* *Brevinasia limpopoensis* sp. n. differs from the other species of the genus in the semi-appressed elytral setae, on disc and declivity hardly visible in lateral view, the rostrum with narrow median longitudinal stria, reaching the anterior margin, the scrobes in dorsal view visible along the entire length and the plate of the female sternite VIII semicircular.

***Brevinasia litoralis* Borovec & Meregalli, sp. n.**

Figures 2, 10, 17f, 18l, 18p and 19d

**Zoobank:** urn:lsid:zoobank.org:act:23B621AD-4D86-4663-9BD6-E751CF389607

**Type locality:** RSA, Western Cape, W Gouritsmond,  $34^{\circ}22' S$   $21^{\circ}48' E$

**Type material.** **Holotype:** ♂, RSA, Western Cape, 8 km W Gouritsmond,  $34^{\circ}22.748' S$   $21^{\circ}48.571' E$ , 20 m, 7.xi.2011, M. Meregalli lgt. Sifting of detritus and dead leaves below *Chenopodiaceae* shrub. Cliff, sandy area (TMSA). **Paratypes:** 48 specs., same data as the holotype (BMNH, MMTI, RBSC, SANC, TMSA); 1 ♂, R. S. Africa, Cape Province [Western



Cape], De Hoop Nat. Res., 34°27' S 20°24' E, 16–18.xi.1993, pitfall traps with Cantharidin, leg. M. Uhlig (MFNB).

**Additional material examined:** 1 spec., S. Africa, C.P. [Cape Province, Western Cape now], Gansbaai, SE 3419 Cb, 17 Nov. 1982, C.M. Engelbrecht (NMBH); 5 specs., S. Afr. S.W. Cape [Cape Province, Western Cape now], Gansbaai, 10 km NE, 34.31 S–19.25 E [=34°31' S 19°25' E], 27.8.1983; E-Y: 1983, groundtraps, 63 days, leg. Endrödy, Penrith, groundtrap with faeces bait (TMSA); 2 specs., S. Africa, C.P. [Cape Province, Western Cape now], Betw. Kogelbaai & Gordonsbaai [Kogelbaai: 34°14' S 18°51' E; Gordonsbaai: 34°09' S 18°02' E], SE 3418 Bb, 4 May 1983, C.M. Engelbrecht (NMBH). We do not include in the type series the specimens from Gansbaai and between Kogelbaai and Gordonsbaai because they have longer erect elytral setae, on the disc as long as, on declivity longer than, the width of one interstria, and these localities are relatively distant from the type locality. They have been reported with an asterisk in the distribution map.

*Description.* Body length 1.81–2.13 mm, holotype 2.03 mm. Entire body dark brownish to blackish, antennae and tarsi reddish brown, in some specimens also tibiae paler, reddish brown. Appressed scales on body flat, lacking striae or marginal fringes, irregularly oval, almost hiding integument. Erect elytral setae conspicuous, subspatulate, slightly longer than half width of one interstria, forming one dense row on each interstria, distance between two setae almost equal to length of one seta. Erect setae on pronotum and head with rostrum identical as elytral ones, densely irregularly scattered. Long lateral protuberances on pronotum armed with distinct, long setae; setae distinctly prominent from outline of pronotum and elytra in dorsal view. Inner side of scapes with four–six long erect setae; outer margin of tibiae with inconspicuous, dense, semi-erect short setae. Scales on body dark brownish black, only erect setae light brown.

Rostrum 2.15–2.33× as wide as long, weakly tapered anteriorly with straight sides. Epifrons flat, tapered anteriorly, with weakly concave sides, with sometimes indistinct longitudinal median striae, very finely longitudinally striate. Scrobes in dorsal view visible in apical half to two thirds as narrow, drop-shaped furrows; in lateral view with dorsal margin directed above eyes and ventral margin directed to middle of eyes. Eyes small, convex, prominent from outline of head; in lateral view placed about middle of head thickness. Head in dorsal and lateral view finely longitudinally striate.

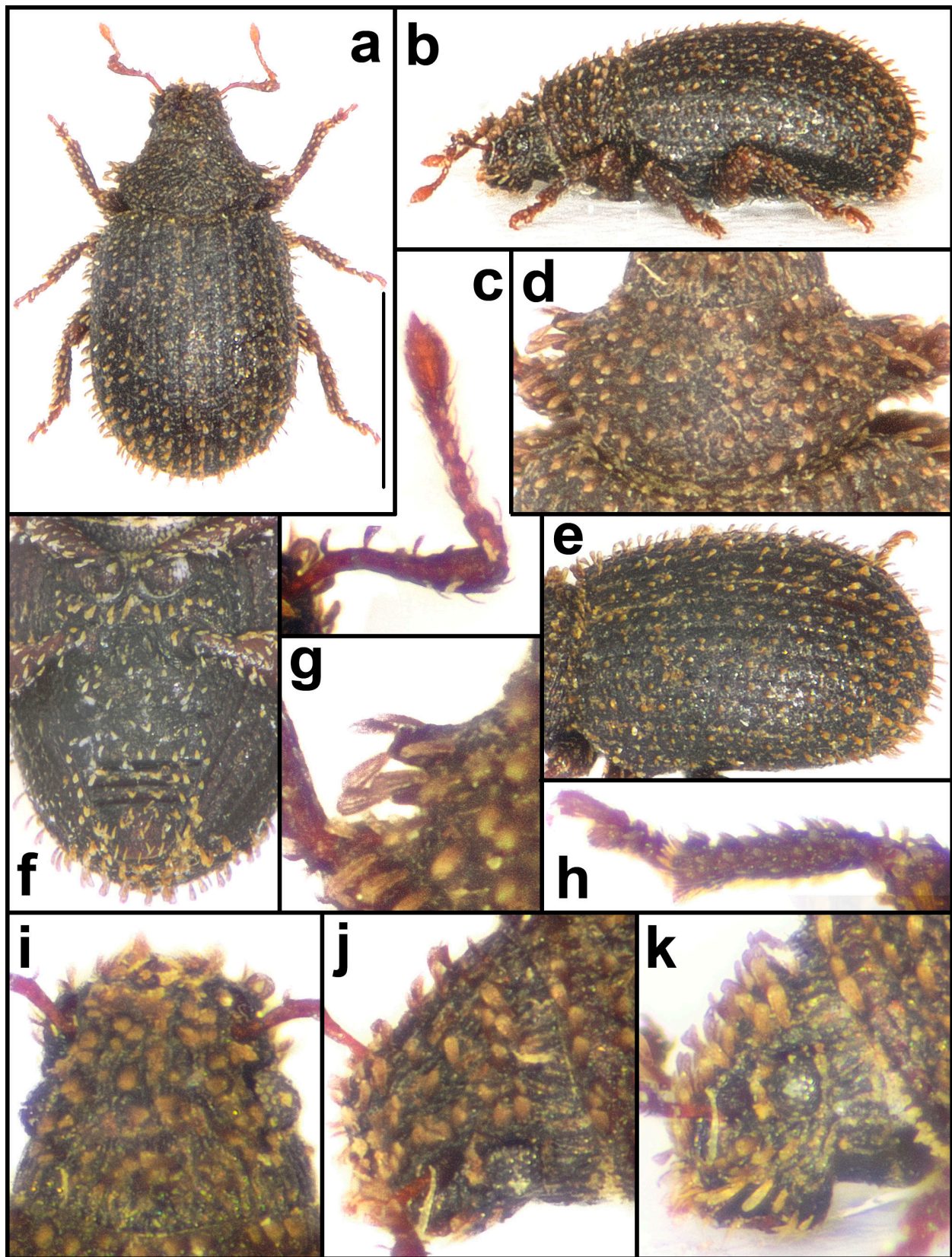
Antennal scapes 1.3–1.4× as long as funicles, distinctly curved before midlength, in apical half gradually enlarged to apex, at apex equally wide as clubs. Funicles 7-segmented. Funicle segment 1 conical, long, 1.7–1.8× as long as wide and 1.5–1.6× as long as segment 2, this 1.5–1.6× as long as wide; segments 3 and 4 1.1× as long as wide; segments 5 and 6 as long as wide; segment 7 1.2–1.3× as wide as long; clubs slender, 1.6–1.7× as long as wide.

Pronotum 2.00–2.14× as wide as long, widest at basal third, with strongly rounded sides, more tapered anteriorly than posteriorly, weakly constricted behind anterior margin. Pronotum in dorso-lateral view with three distinct, long, needle-shaped protuberances bearing long setae, anterior protuberance twice as wide as two basal ones. Pronotum in lateral view weakly vaulted.

Elytra long oval, 1.17–1.27× as long as wide, with weakly rounded sides and broadly rounded apex, striae narrow, punctured, interstriae almost flat. Elytra in lateral view weakly vaulted.

Apex of protibiae rounded, with fringe of short and fine, yellowish setae and at short portion of mesal edge with dense row of yellowish setae. Metatibial corbels fringed with fine, yellowish setae. Tarsal segment 2 1.7–1.8× as wide as long; segment 3 1.4× as wide as long and 1.2–1.3× as wide as segment 2; onychium 1.2× as long as segment 3.

Male genitalia. Penis widest at basal third, slightly tapered apically, with slightly rounded sides, apex dull, pointed. In lateral view dorsal border more curved than ventral. Endophallus with well sclerotised, spermatheca-shaped sclerite.



**Figure 10.** *Brevinasia litoralis*, holotype. (a): body, dorsal view; (b): body, lateral view; (c): antenna; (d): pronotum; (e): elytra, dorsolateral view; (f): ventrites; (g): details of side of pronotum; (h): protibia; (i): rostrum, dorsal view; (j): rostrum, dorsolateral view; (k): rostrum, lateral view. Bar: 1 mm.

Female genitalia. Sternite VIII with long narrow apodeme and subtriangular plate with slender apical and short basal margin. Gonocoxites slender, tapered apicad, with short styli. Spermatheca with short irregularly curved and tapered cornu, elongated corpus and ramus longer and wider than collum; ramus long oval; collum tube-shaped.

**Biology.** The specimens from Gouritsmond were sifted under Chenopodiaceae shrubs in coastal dunes.

**Distribution.** South Africa, southern coast of Western Cape (Figure 2).

**Etymology.** This species was only found at a short distance from the sea, hence the name.

**Differential diagnosis.** Together with *B. bulirschii* sp. n., *B. litoralis* sp. n. is distinguished from all other species by the long, subspatulate, densely inserted elytral setae and the head with longitudinal striae behind the eyes, visible in lateral view. The distinguishing characters between *B. litoralis* sp. n. and *B. bulirschii* sp. n. are detailed in the key.

***Brevinasia longiseta* Borovec & Meregalli, sp. n.**

Figures 2, 11, 17e, 18f and 19b

**Zoobank:** urn:lsid:zoobank.org:act:ED1E393D-1931-4DBC-AA42-DB40D812585D

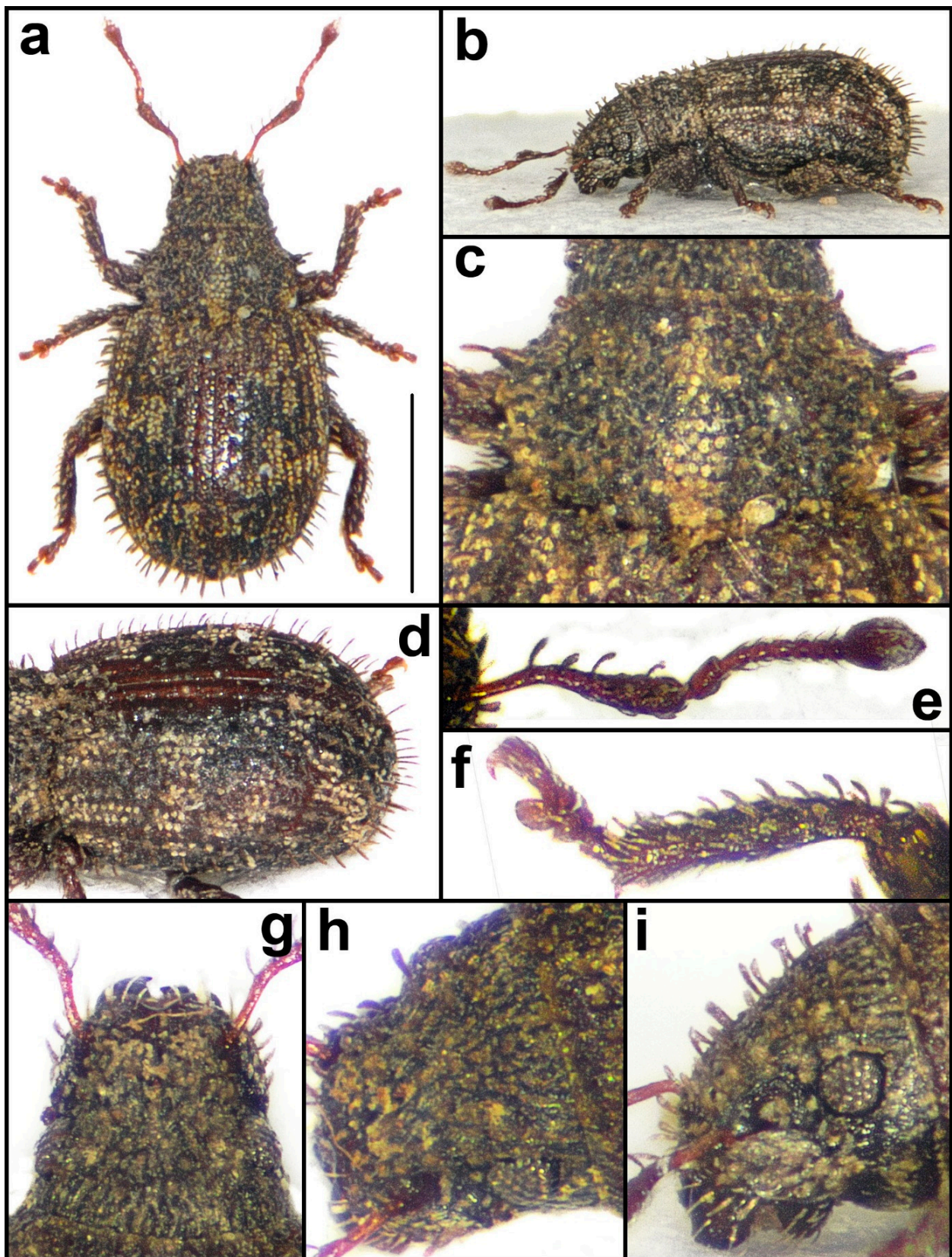
**Type locality:** RSA, Western Cape, Grootvaderbosch NR, 33°59' S, 20°49' E

**Type material. Holotype:** ♂ South Africa, Western Cape, Grootvaderbosch NR [Nature Reserve], 33°59' S, 20°49' E, 300–400 m, 8.xii.2009, indig. forest, sifting, J. Janák lgt. (TMSA). **Paratypes:** 7 specs., same data as holotype (JJRC, MMTI); 10 specs., RSA, Western Cape, Grootvadersbosch N.R. [Nature Reserve] 33°59.39' S 20°48.32' E, 350 m, 25.–26.i.2004, sifting litter, P. Hlaváč lgt. (BMNH); 6 specs., RSA, Western Cape, Grootvadersbosch NR [Nature Reserve], 25.–26.i.2004, Hlaváč leg. (SMNS, MMTI); 9 specs., RSA, Western Cape, Grootvaderbosch NR [Nature Reserve], 33°58.4' S, 20°50.0' E, 300–400 m, 21.x.2013, indig. forest, P. Bulirsch lgt. (RBSC); 2 specs., same data as above, but J. Janák lgt. (JJRC); 2 specs., RSA, Western Cape, Grootvaderbosch NR [Nature Reserve], Melkhoutpat, 33°59.05' S, 20°49.75' E, 375 m, 27.xi.2015, Arriaga, Fikáček, Seidel lgt. lgt. (NMPC); 3 specs., S. Afr. [Western Cape] Langeberge, Boesmansbos, 33.56 S–20.53 E, 1050 m, 9.3.1979, E-Y: 1563, sift. forest litter, leg. Endrödy-Younga (TMSA); 21 specs., S. Afr. [Western Cape], S. Cape Mt., Helderfontein, 33.56 S–20.52 E, 1150 m, 7.3.1979; E-Y: 1560, sift. forest litter, leg. Endrödy-Younga (TMSA).

**Additional material examined:** 3 ♂♂, South Africa, Western Cape, Salmonsdam NR [Nature Reserve], ca 34°25.4' S 19°38.7' E, 19.x.2013, forest patch, J. Janák lgt. (JJRC). These three specimens correspond perfectly with those of the typical range, but the locality is rather distant from all the other locality of this apparently localized species, and is even located in another mountain range. The geographic labelling may be incorrect, but, in any case, we exclude them from the type series; the locality is indicated with an asterisk in the distribution map.

**Description.** Body length 1.71–2.44 mm, holotype 2.06 mm. Body brownish to dark brownish, with reddish sutural interstriae, in some specimens with interstriae 5 and 6 reddish. Antennae, tarsi and short apical portion of tibiae reddish brown. Appressed scales irregularly rounded, with distinct longitudinal lines, sparse, distance between two scales on elytra only slightly shorter than diameter of one scale, on pronotum and head denser. Erect elytral setae slender, parallel-sided, as long as width of one interstria or slightly longer, distance between two setae as long as length of one seta. Erect setae on pronotum and head with rostrum slightly shorter than elytral ones, irregularly scattered. Inner side of scape with row of five–six long erect setae; outer side of tibiae with dense row of erect setae, shorter than setae on scape. Predominant colour of body dark brownish with irregular spots of greyish white scales. Pronotum with narrow middle and wide lateral longitudinal light grey stripes. Vestiture of head with rostrum predominantly greyish.





**Figure 11.** *Brevinasia longiseta*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): antenna; (f): protibia; (g): rostrum, dorsal view; (h): rostrum, dorsolateral view; (i): rostrum, lateral view. Bar: 1 mm.

Rostrum  $1.87\text{--}2.02\times$  as wide as long, distinctly tapered anteriorly with straight sides. Epifrons flat, wide, slightly tapered anteriorly, with concave sides, finely longitudinally striate along entire length, with one more distinct longitudinal median stria reaching distad interocular space. Scrobes in dorsal view visible along entire length, in lateral view short, with dorsal margin directed to dorsal margin of eyes and ventral margin directed below ventral margin of eyes. Head behind and below eyes with fine longitudinal striae. Eyes small, in dorsal view not prominent from outline of head; in lateral view placed in dorsal third of head.

Antennal scapes  $1.2\times$  as long as funicle, distinctly curved at basal third, in apical two thirds regularly gradually enlarged apically, at apex  $0.8\text{--}0.9\times$  as wide as clubs. Funicles 7-segmented. Funicle segment 1 long, conical,  $1.7\text{--}1.8\times$  as long as wide and  $1.4\text{--}1.5\times$  as long as slender segment 2, this  $1.8\text{--}2.0\times$  as long as wide; segments 3 and 4  $1.3\text{--}1.4\times$  as long as wide; segments 5–7  $1.1\text{--}1.2\times$  as long as wide. Clubs  $1.7\text{--}1.8\times$  as long as wide.

Pronotum narrow,  $1.44\text{--}1.53\times$  as wide as long, widest behind midlength, with rounded sides. Pronotum with line of three long and narrow protuberances, partly visible in dorsal view. Pronotum in lateral view vaulted.

Elytra oval,  $1.24\text{--}1.29\times$  as long as wide, with rounded sides and broadly rounded apical part. Striae narrow, punctured, interstriae flat. Elytra in lateral view vaulted.

Apex of protibiae subtruncated, with fringe of fine, yellowish setae, shorter at inner than outer part, with brush of very dense, short setae at short apical part of mesal margin. Metatibial corbels fringed with fine yellowish setae. Tarsal segment 2  $1.6\text{--}1.8\times$  as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.6\times$  as wide as segment 2. Onychium  $1.2\times$  as long as segment 3.

Male genitalia. Penis widest at midlength with slightly rounded sides, apex dull with short tip. In lateral view regularly curved with elongated short point. Endophallus with three extremely narrow sclerites, apically and basally connected.

*Biology.* The type material was sifted from forest litter in indigenous forest.

*Distribution.* South Africa, Western Cape (Figure 2).

*Etymology.* The specific epithet refers to the long elytral setae, from Latin *longus* (long) and *seta*.

*Differential diagnosis.* *Brevinasia longiseta* sp. n. is distinguished from all other species by its erect, long, slender, parallel-sided elytral setae. The specimens provisionally referred to *B. janaki* sp. n. with longer, slender elytral setae can be distinguished on the basis of the characters mentioned in the key. *Brevinasia longiseta* sp. n. also bears some resemblance to *B. leleupi* sp. n. by the brownish elytra with reddish sutural interstriae and the elytra with sparse patches of greyish scales, but can be differentiated by the long, raised setae, the ventral edge of the scrobes directed below the ventral edge of the eye, the three pronotal protuberances of equal length, and the short, obtuse penis at the apex.

Female genitalia. Sternite VIII with translucent, subtriangular plate with weakly concave sides, basal margin short, apical margin distinct. Gonocoxites slender, long, regularly tapered apically, with long styli. Spermatheca with regularly curved cornu; ramus oval, slightly longer than wide; collum subequal in length as ramus, subtriangular.

***Brevinasia maior* Borovec & Meregalli, sp. n.**

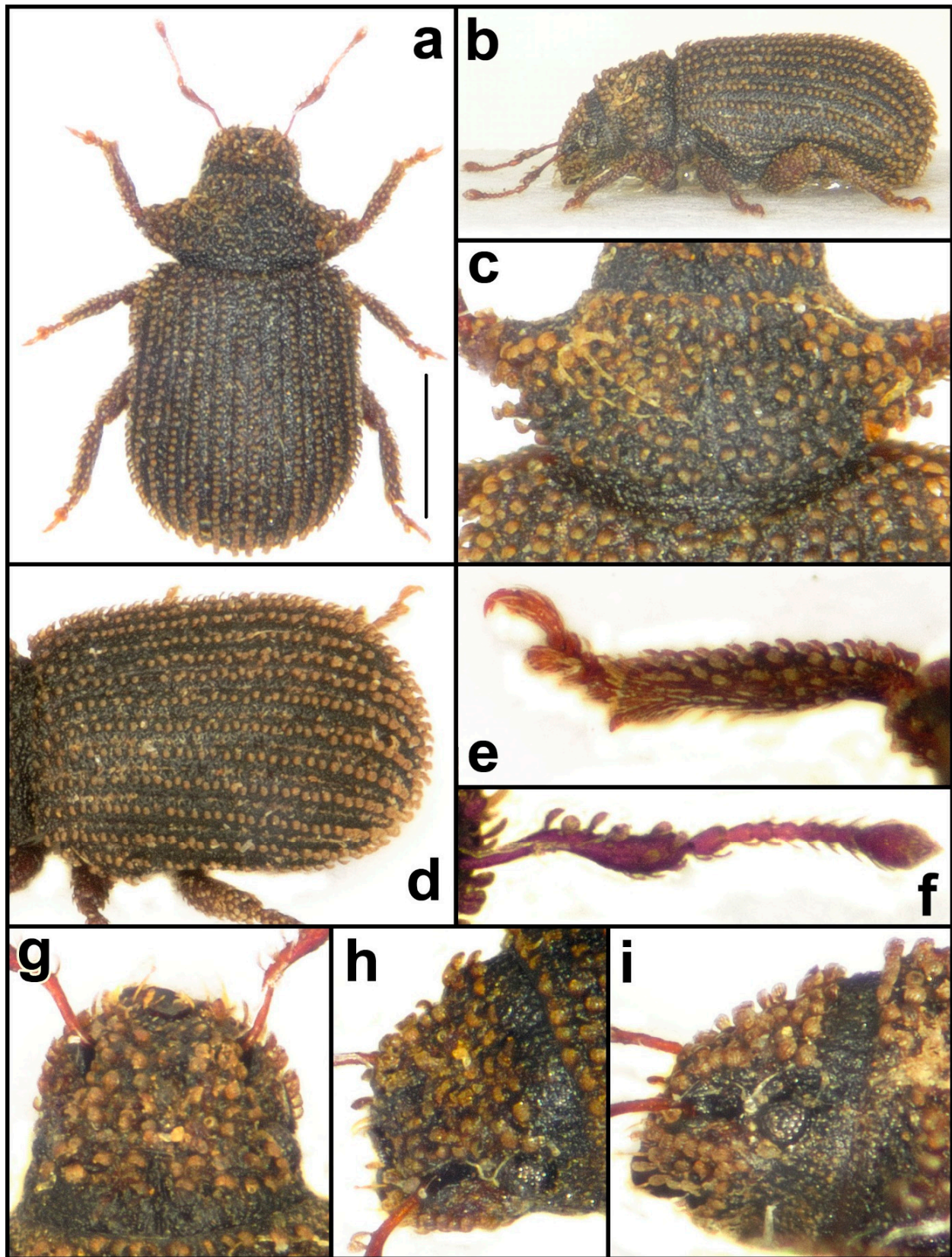
Figures 2, 12, 17i, 18k and 19h

**Zoobank:** urn:lsid:zoobank.org:act:83E2F821-B260-40CD-8B47-1E9DEC685DB3

**Type locality:** RSA, Eastern Cape, vicinity of Salem,  $33^{\circ}33' \text{ S } 26^{\circ}22' \text{ E}$

**Type material.** **Holotype:** ♂, South Africa—Eastern Cape, vicinity of Salem, R 343, near Kikuyu Lodge, Gauda Res.,  $33^{\circ}33.28' \text{ S } 26^{\circ}22.83' \text{ E}$ , 180 m, 11.XI.2005, G. Osella lgt. (MSNV). **Paratypes:** 1 ♂, same data as holotype (MSNV); 2 ♀♀, South Africa: E. [Eastern] Cape, Kikuyu Lodge,  $33^{\circ}33.23' \text{ S } 26^{\circ}22.83' \text{ E}$ , 170 m, 10.XI.2005, sifting, E. Colonnelli lgt. (ECRI).





**Figure 12.** *Brevinasia maior*, holotype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): protibia; (f): antenna; (g): rostrum, dorsal view; (h): rostrum, dorsolateral view; (i): rostrum, lateral view. Bar: 1 mm.

*Description.* Body length 2.63–3.13 mm, holotype 2.88 mm. Body dark brownish with basal part of scapes, funicles with clubs and tarsi rusty brown. Appressed scales on entire body smooth, lacking a defined microsculpture. Semi-erect elytral setae conspicuous, very short, regularly rounded, as long as wide, longitudinally striate, forming one dense row on each interstria, distance between two scales only slightly longer than length of one seta, forty–forty-four setae from base to apex on interstria 3. Pronotum and head with rostrum with setae similar to those on elytra, very densely and irregularly scattered, sides of pronotum and rostrum with short setae, prominent from outline. Scapes with five–six long, erect setae on inner side; tibiae with dense row of short, semi-erect setae on outer side. Body uniformly dark brownish with light brownish erect setae.

Rostrum  $2.05\text{--}2.21\times$  as wide as long, tapered anteriorly with slightly rounded sides. Epifrons wide, tapered anteriorly, with concave sides, longitudinally shallowly depressed. Antennal scrobes in dorsal view visible only in apical half of rostrum, as short narrow furrows; in lateral view very short, weakly curved, distinctly enlarged posteriorly, with dorsal margin directed above dorsal margin of eyes and ventral margin directed below ventral margin of eyes. Eyes very small, hardly prominent from outline of head in dorsal view; in lateral view placed at middle of head thickness. Head behind eyes in dorsal view and below eyes in lateral view with fine longitudinal striae.

Antennal scapes distinctly curved at midlength, at apex  $0.8\text{--}0.9\times$  as wide as clubs, scape  $1.3\text{--}1.4\times$  as long as funicles. Funicles 7-segmented. Funicle segment 1 conical,  $1.7\text{--}1.8\times$  as long as wide,  $1.5\text{--}1.6\times$  as long as slender segment 2, this  $1.6\text{--}1.7\times$  as long as wide; segments 3 and 4  $1.2\text{--}1.3\times$  as long as wide; segments 5 and 6  $1.1\text{--}1.2\times$  as long as wide; segment 7  $1.1\times$  as wide as long. Clubs spindle-shaped,  $1.7\text{--}1.9\times$  as long as wide.

Pronotum very wide,  $1.91\text{--}2.10\times$  as wide as long, widest behind midlength. Pronotum constricted behind anterior margin, base slightly arched. Pronotum in lower part with line of four long and narrow protuberances, visible in dorsal and dorso-lateral view, two anterior protuberances connected at base; in addition, irregular group of short protuberances above bottom line of long and slender protuberances. Pronotum in lateral view flat.

Elytra subangular,  $1.23\text{--}1.27\times$  as long as wide, with almost parallel sides and broadly rounded apex, with narrow striae and almost flat interstriae. Elytra in lateral view almost flat.

Apex of protibiae obliquely subtruncated, with a fringe of very short and fine yellowish setae, mucronate, mesal margin in short apical part with brush of very dense and short yellowish setae. Metatibial corbels fringed with fine yellowish setae. Tarsal segment 2  $1.4\text{--}1.5\times$  as wide as long; segment 3  $1.3\text{--}1.4\times$  as wide as long and  $1.4\text{--}1.5\times$  as wide as segment 2. Onychium  $1.3\text{--}1.4\times$  as long as segment 3.

Male genitalia. Penis long, with concave sides along entire length with obtuse apex with small short point. In lateral view dorsal border more curved than ventral, apex shortly dull with short elongated point. Endophallus with complex of five long, narrow and curved sclerites, basally connected.

Female genitalia. Sternite VIII with long and narrow apodeme and slender, long subrhomboidal, translucent plate, with short basal and apical margins. Gonocoxites long and slender, regularly tapered apically with long, slender styli. Spermatheca with regularly curved cornu; large rounded corpus; ramus and collum rounded, about as long as wide, ramus twice as long and wide as collum.

*Biology.* The type material was collected by sifting in forest leaf-litter.

*Distribution.* South Africa, Eastern Cape.

*Etymology.* This is the largest species of the genus, hence the specific epithet, from Latin *maior* (bigger).

*Differential diagnosis.* *Brevinasia maior* sp. n., other than for its bigger size, is mainly characterised by the semi-erect, very short and extremely dense elytral setae, regularly rounded, forming a very dense row on each interval with 40–44 setae from the base to the apex of interstria 3, the elytra with subparallel sides, the rostrum with slightly rounded sides and the long onychium.



***Brevinasia micros* Borovec & Meregalli, sp. n.**

Figures 2, 13, 18d and 19n

**Zoobank:** urn:lsid:zoobank.org:act:F3946505-AEDF-4051-87FF-04197470AB18

**Type locality:** RSA, KwaZulu-Natal, N Drakensberg, 28°39' S 28°52' E

**Type material. Holotype:** ♀, South Africa: KZN [KwaZulu-Natal], Witsieshoek Road, Royal Natal National Park, N Drakensberg, 28°39' S 28°52' E, 15.iv.2002, Collected from *Metalasia* sp. (Asteraceae), W. Breytenbach leg. (SANC).

**Description.** Body length 1.28 mm. Body dark brownish with scapes, funicles, tibiae and tarsi lighter, yellow brownish. Appressed scales on elytra long-oval, scarce, distance between two scales longer than width of one scale. Appressed scales on pronotum and head with rostrum irregularly star-shaped, scarce, distance between two scales longer than width of one scale. Erect setae on elytra conspicuous, spatulate, distinctly enlarged apicad, several times wider than width of one appressed scale, forming one irregular row, distance between two setae 3–4× longer than length of one raised seta. Erect setae on pronotum and head with rostrum identical as those on elytra, conspicuously prominent from outline of pronotum and rostrum in dorsal view. Three equally long, perpendicularly erect setae prominent from inner side of scape and five–six identical setae from outer margin of all tibiae. Scales and setae uniformly brownish.

Rostrum 2.29× as wide as long, significantly tapered anteriad with straight sides. Epifrons flat, strongly tapered anteriad, with median longitudinal stria, reaching posterior margin of eyes. Antennal scrobes in dorsal view visible as narrow furrows; in lateral view short, ventral margin directed below eyes, distance from eyes almost equal to eye diameter. Eyes small, flat, not protruding from outline of head, in lateral view placed near dorsal surface of head. Head below eyes finely longitudinally striate.

Antennal scapes slender, in apical half S-shaped, enlarged, at apex 0.8× as wide as club. Funicles 5-segmented. Funicle segment 1 robust, 1.9× as long as wide and 1.7× as long as funicle segment 2, this 1.8× as long as wide; segment 3 1.2× as long as wide; segment 4 1.2× as wide as long; segment 5 1.3× as wide as long. Clubs oval, 1.6× as long as wide.

Pronotum 1.67× as wide as long, widest behind the midlength with strongly rounded sides and constricted behind anterior border. Lateral sides of pronotum without projections. Pronotum in lateral view weakly vaulted.

Elytra oval, 1.31× as long as wide, with distinctly rounded sides and narrowly rounded apex, in lateral view slightly vaulted. Interstriae weakly vaulted.

Apex of protibiae subtruncated, with hardly visible fringe of very short and fine, yellowish setae. Metatibial corbels fringed with short and fine, yellowish setae. Tarsal segment 2 1.5× as wide as long; segment 3 1.5× as wide as long and 1.3× as wide as above tarsal segment. Onychium 1.6× as long as segment 2.

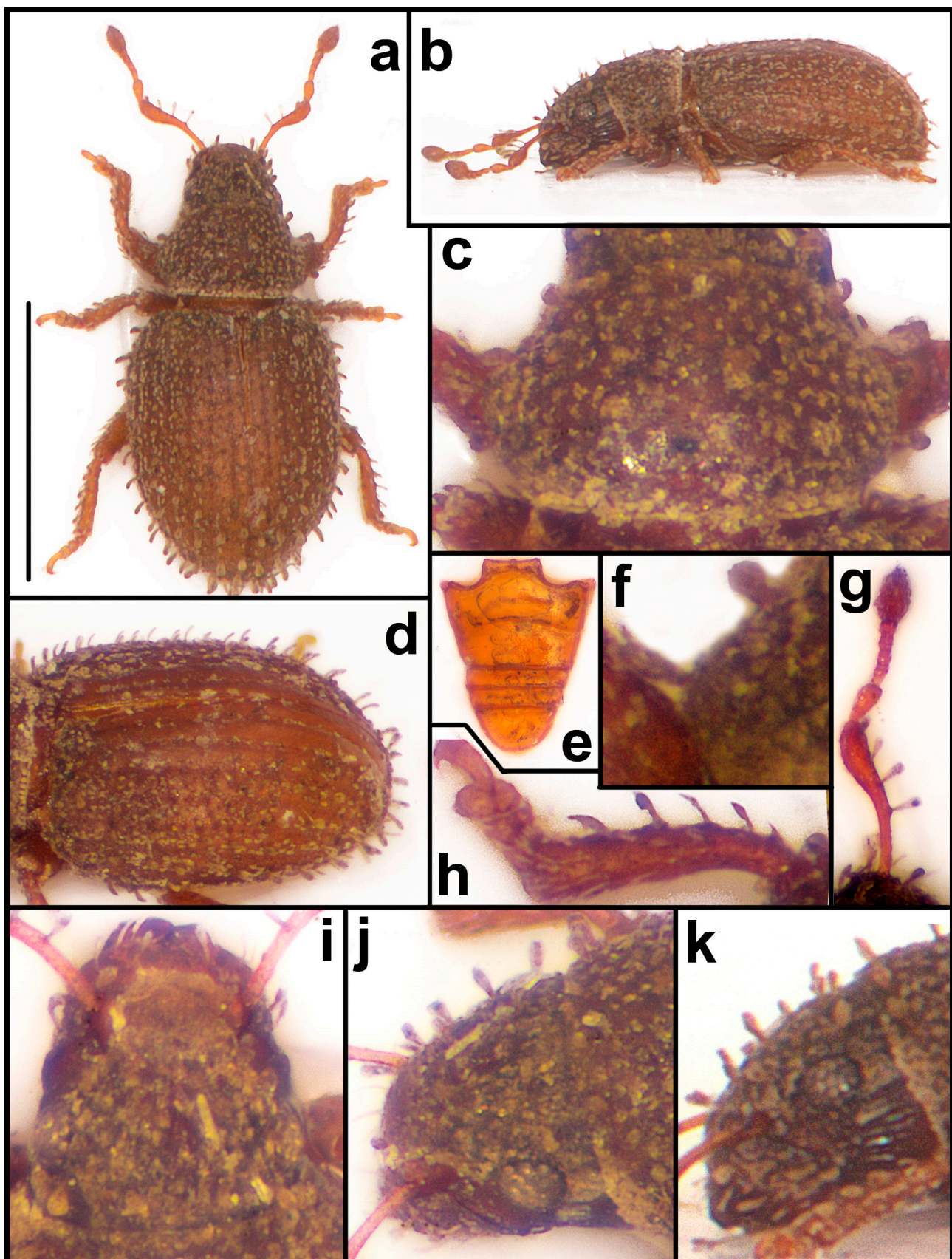
Male genitalia unknown.

Female genitalia. Sternite VIII with very long and narrow apodeme, weakly constricted before plate, this very small, moderately sclerotised, transverse, approximately semicircular, with delimited anterior margin, with fringe of short setae. Gonocoxites long and slender, regularly tapered anteriad, with long and slender styli. Spermatheca with long, regularly tapered and irregularly curved cornu and with long collum, slightly tapered anteriad, in two thirds of its length turned back. Ramus small, slightly longer than wide, perpendicular to collum on its base.

**Biology.** The type specimen was collected from *Metalasia* sp. (Asteraceae).

**Distribution.** South Africa, KwaZulu-Natal (Figure 2).

**Etymology.** This is the smallest species of *Brevinasia* presently known, hence the epithet, from Greek μικρός (very small).



**Figure 13.** *Brevinasia micros*, holotype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): ventrites; (f): detail of sides of pronotum; (g): antenna; (h): protibia; (i): rostrum, dorsal view; (j): rostrum, dorsolateral view; (k): rostrum, lateral view. Bar: 1 mm.



**Differential diagnosis.** This species is easily distinguished from all other species of the genus by the 5-segmented antennal funiculus. It is also characterized by the pronotum without protrusions, the female sternite VIII with a small semicircular and sclerotized plate, and the spermatheca with a rotated collum.

***Brevinasia nigritarsis* Borovec & Meregalli, sp. n.**

**Entiminae sp. #481 in Meregalli & al. [1]**

Figures 2, 14, 17l, 18g and 19j

**Zoobank:** urn:lsid:zoobank.org:act:93ECF914-9C7B-48DB-957D-523A5B47E480

**COI sequence:** GenBank PP798208

**Type locality:** RSA, Western Cape, Cape Peninsula, Olifantsbos, 34°15' S 18°23' E

**Type material. Holotype:** ♂, RSA, Western Cape, Cape Peninsula, Olifantsbos, 34°15.234' S 18°23.089' E, 26.xi.2016, 20 m, sifting of roots and detritus below different plants in coast fynbos, R. Borovec & M. Meregalli lgt. (SANC). **Paratypes:** 20 specs., same data as the holotype (MMTI, RBSC); 1 ♀, [South Africa, Western Cape] Table Mt., Cape of G. [Good] Hope, W. Bevins (BMNH); 1 ♂, [South Africa, Western Cape] Rondebeg, 65 km N Cape Town [33°25' S 18°17' E], 20.III.1980, S. Tait lgt. (ECRI); 1 ♀, S. Afr. [South Africa], S.W. Cape [Western Cape], Struisbaai, 34.46 S–20.03 E [=34°46' S 20°03' E], 28.8.1983; E-Y: 1989, groundtraps, 60 days, leg. Endrödy, Penrith, groundtrap with banana bait (TMSA); 1 ♂ S. Afr. [South Africa], S.W. Cape [Western Cape], Pearly beach, 5 km NE, 34.38 S–19.33 E [=34°38' S 19°33' E], 27.8.1983; E-Y: 1984, groundtraps, 63 days, leg. Endrödy, Penrith (TMSA).

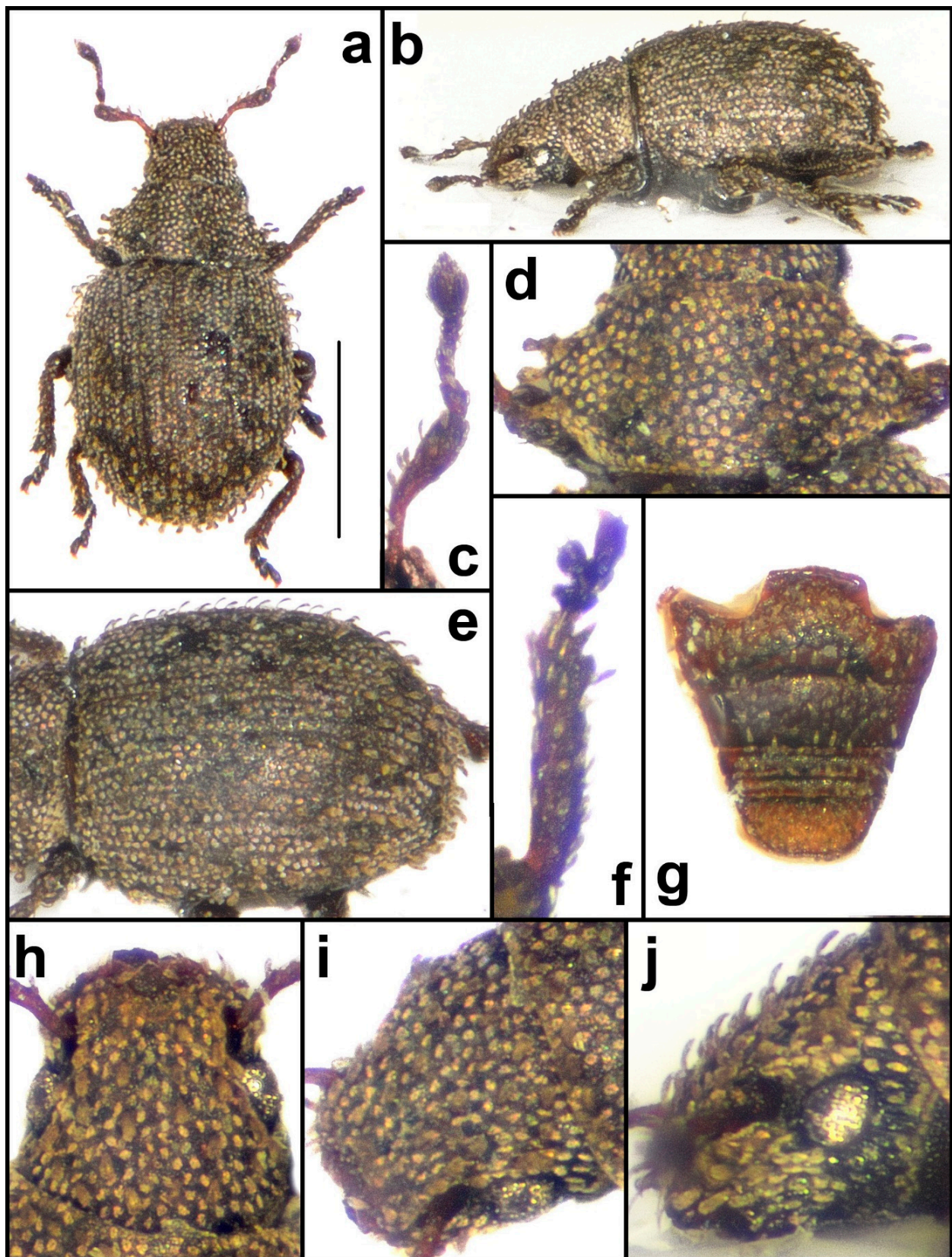
**Description.** Body length of holotype 1.69–2.09 mm, paratype 1.69 mm. Body black, basal half of scape brownish black. Appressed scales on body slightly irregularly angular, dense, almost covering integument, three scales across width of one interstria. Semierect setae on elytra short, inconspicuous, spatulate, twice as wide as diameter of one appressed scale, slightly longer than half width of one interstria, disposed in one spaced row on each interval, distance between two setae about 3–4× length of one seta. Semierect setae on pronotum and head with rostrum similar to those on elytral base, scarcely irregularly scattered, prominent from outline of pronotum and rostrum. Inner side of scape with five–six long, erect setae, outer side of tibiae with very short, semierect, dense setae. Elytral vestiture dark brownish, irregularly spotted with small greyish spots in lateral parts, pronotum with wide greyish median longitudinal stripe and wide lateral stripes, head and rostrum mostly greyish.

Rostrum 1.93–2.06× as wide as long, slightly tapered anteriorly with straight sides. Epifrons very wide, tapered anteriorly with concave sides, with narrow median longitudinal stria along entire length, often hidden by appressed scales. Scrobes in dorsal view visible only in apical two thirds as narrow drop-shaped furrows; in lateral view short, triangular, distinctly enlarged distad, with dorsal margin directed slightly above eyes and ventral margin directed towards middle of eyes. Eyes moderately large, in dorsal view prominent from outline of head, in lateral view placed approximately at middle of head thickness.

Antennal scapes 1.2–1.3× as long as funicles, distinctly curved before midlength, at apical half regularly enlarged distad, at apex as wide as clubs. Funicles 7-segmented. Funicle segment 1 conical, 1.5–1.6× as long as wide, twice as long as segment 2, this 1.1–1.2× as long as wide; segments 3 and 4 1.1–1.2× as wide as long; segment 5 1.3× as wide as long; segment 6 1.5× as wide as long; segment 7 1.6–1.7× as wide as long; clubs 1.6–1.7× as long as wide.

Pronotum wide, 1.63–1.73× as wide as long, widest at basal third, anteriorly more tapered than posteriorly, with strongly rounded sides, constricted behind anterior margin. Pronotum in dorso-lateral view with three short, inconspicuous protuberances; in lateral view somewhat vaulted, behind anterior border lowered.

Elytra short oval, 1.18–1.21× as long as wide, with rounded sides, broadly rounded at apex. Striae narrow, intervals flat. Elytra in lateral view vaulted.



**Figure 14.** *Brevinasia nigratarsis*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): antenna; (d): pronotum; (e): elytra, dorsolateral view; (f): protibia; (g): ventrites; (h): rostrum, dorsal view; (i): rostrum, dorsolateral view; (j): rostrum, lateral view. Bar: 1 mm.



Apex of protibiae rounded with fringe of black short spines, laterally slightly enlarged, with brownish mucro, at short apical mesal part with brush of short, blackish setae. Metatibial corbels fringed with blackish setae.

Tarsal segment 2  $1.4\text{--}1.5\times$  as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.3\text{--}1.4\times$  as wide as segment 2; onychium  $0.8\text{--}0.9\times$  as long as segment 3.

Male genitalia. Penis widest at base, slightly tapered apicad, at apex obtuse with small short point. In lateral view dorsal border more curved than ventral, regularly tapered at apex. Endophallus with dark sclerotised spermatheca-shaped sclerite and with four more narrow and long, weakly sclerotised sclerites, basally placed.

Female genitalia. Sternite VIII with long and narrow apodeme and slightly wide, subtriangular, translucent plate, without distinct basal or apical margins. Gonocoxites wide, regularly tapered anteriad, with short apical styli. Spermatheca with short, regularly curved cornu, large rounded corpus and ramus distinctly longer and wider than collum; ramus parallel-sided, collum tapered apicad.

*Biology.* Unknown.

*Distribution.* South Africa, southwestern part of Western Cape (Figure 2).

*Etymology.* The almost black tarsi suggested the specific epithet, from Latin *niger* (black) and *tarsus*.

*Differential diagnosis.* *Brevinasia nigratarsis* sp. n. is similar to *B. albonigra* sp. n. and *B. inconspicua* sp. n. in the short black spines at the apex of the laterally slightly enlarged protibiae and around the metatibial corbels, the dark brown funicles and the black tarsi. It is distinguished from *B. albonigra* sp. n. by the 7-segmented funicle, the subtriangular plate of the female sternite VIII and the raised elytral setae slightly longer than half the width of one interstria. The differential characters from *B. inconspicua* sp. n. are given in the key. Due to its general habitus, with short elytral setae, *B. nigratarsis* sp. n. is also similar to *B. brevicollis*, from which it is distinguished by the black spines at the apex of the protibiae, the dark brownish funicles, the black tarsi, the penis with a distinct tip, the broad gonocoxites with short styli and the spermatheca with a short collum.

***Brevinasia rotundipennis* Borovec & Meregalli, sp. n.**

Figures 2, 15, 17g, 18h and 19a

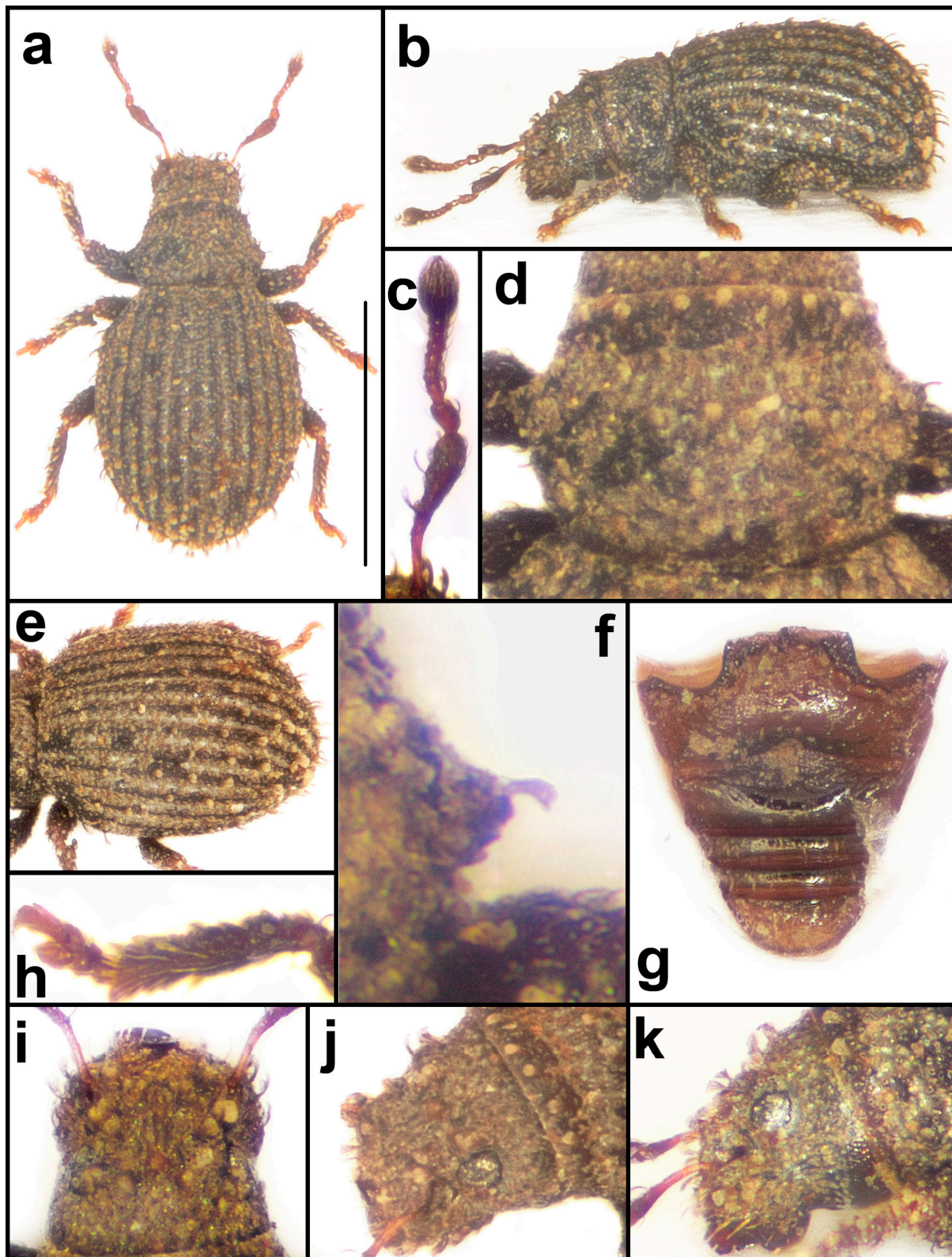
**Zoobank:** urn:lsid:zoobank.org:act:D13A687C-23C3-43D2-9A6B-FCB80C5C6EDB

**Type locality:** RSA, Eastern Cape, Mkhambati Natural Reserve,  $31^{\circ}16' \text{ S } 30^{\circ}00' \text{ E}$

**Type material.** **Holotype:** ♂, South Africa, Eastern Cape, Mkhambati NR [Nature Reserve] indig. forest at Mkhambati river,  $31^{\circ}15.9' \text{ S } 30^{\circ}00.1' \text{ E}$ , 28.i.2012, forest litter, sifting, J. Janák lgt. (TMSA). **Paratypes:** 1 ♀, same data as holotype (RBSC); 1 ♀, South Africa, Eastern Cape, Mkhambati NR [Nature Reserve] swamp forest,  $31^{\circ}17.5' \text{ S } 29^{\circ}56.5' \text{ E}$ , 28.i.2012, treading, J. Janák lgt. (JJRC); 1 ♂ 2 ♀♀, RSA: Eastern Cape (Transkei), Mbotyi Coast and Forest [ $31^{\circ}27' \text{ S } 29^{\circ}43' \text{ E}$ ], 29.XI.–3.XII.2003, leg. W. Schawaller (SMNS).

*Description.* Body length 1.44–1.94 mm, holotype 1.94 mm. Body dark brownish with basal half of scapes, funicle with club, short apical portion of protibiae and tarsi reddish brown to yellowish red. Appressed scales on body rounded, depressed in middle, two–three across width of one interstria, not completely covering integument. Erect elytral setae conspicuous, spatulate, slightly longer than half width of one interstria, spaced, distance between two setae  $5\times$  length of one seta. Semi-erect setae on pronotum and head with rostrum distinctly shorter than those on elytra, subspatulate, irregularly scattered; rostrum with long setae laterally prominent in dorsal view. Inner side of scape with three–four long erect setae, outer side of tibiae with dense fringe of short, semi-erect setae. Body uniformly dark brownish, erect setae light brownish.

Rostrum  $1.85\text{--}2.02\times$  as wide as long, widest at basal third, tapered anteriad, with rounded sides. Epifrons flat, subparallel-sided to slightly widened anteriad with slightly concave sides, with short longitudinal median stria not reaching head and epistome.



**Figure 15.** *Brevinasia rotundipennis*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): antenna; (d): pronotum; (e): elytra, dorsolateral view; (f): detail of sides of pronotum; (g): ventrites; (h): protibia; (i): rostrum, dorsal view; (j): rostrum, dorsolateral view; (k): rostrum, lateral view. Bar: 1 mm.



Scrobes in dorsal view visible only in apical half of rostrum as narrow furrows; in lateral view very short, dorsal margin directed towards dorsal margin of eyes, ventral margin directed below ventral margin of eyes. Eyes small, in dorsal view not prominent from outline of head; in lateral view placed in dorsal third of head.

Antennal scape  $1.3\times$  as long as funicle, distinctly curved at basal third, in apical two thirds regularly gradually enlarged apicad, at apex  $0.9\times$  as wide as club. Funicles 7-segmented. Funicle segment 1 robust, conical,  $1.4\text{--}1.5\times$  as long as wide and  $1.5\text{--}1.6\times$  as long as segment 2, this  $1.3\text{--}1.4\times$  as long as wide; segments 3 and 4 as long as wide to  $1.1\times$  as wide as long; segments 5 and 6  $1.1\text{--}1.2\times$  as wide as long; segment 7  $1.2\text{--}1.4\times$  as wide as long. Clubs wide,  $1.8\times$  as long as wide.

Pronotum narrow,  $1.35\text{--}1.41\times$  as wide as long, widest behind midlength, with rounded sides, anterior margin only slightly narrower than posterior. Pronotum with one large, approximately triangular protuberance at midlength, in part visible in dorsal view, and with one very small, almost indistinct protuberance in posterior third, visible only in dorso-lateral view. Pronotum in lateral view vaulted, behind anterior border lowered.

Elytra oval,  $1.18\text{--}1.23\times$  as long as wide, with strongly rounded sides, at apex narrowly rounded. Striae narrow, interstriae almost flat. Elytra in lateral view strongly vaulted.

Apex of protibiae obliquely subtruncated with a fringe of short and fine, yellowish setae. Short apical part of protibiae at mesal margin with brush of very dense, short, brownish setae. Metatibial corbels fringed with fine yellowish setae. Tarsal segment 2 twice as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.4\text{--}1.5\times$  as wide as segment 3. Onychium short,  $0.9\times$  as long as segment 3.

Male genitalia. Penis subparallel-sided, apically rounded with distinct tip. Endophallus not examined.

Female genitalia. Sternite VIII with long and narrow apodeme and translucent, apically rounded plate. Gonocoxites long and slender, regularly tapered apicad with long styli. Spermatheca with long, slender and curved cornu; corpus small; ramus small, oval, twice as long and wide as hump-shaped collum.

*Biology.* The type material was sifted from forest litter in indigenous forest.

*Distribution.* South Africa, Eastern Cape (Figure 2).

*Etymology.* The considerably rounded elytra suggested the specific epithet, from Latin *rotundus* (round) and *penna* (wing).

*Differential diagnosis.* *Brevinasia rotundipennis* sp. n. is easily distinguished from all the other species of *Brevinasia* by the elytra with strongly rounded sides, the rostrum distinctly sinuated in the basal part, the epifrons subparallel-sided and the narrow pronotum,  $1.3\text{--}1.4\times$  as wide as long, with one large, subtriangular protuberance at midlength and another very small, almost indistinct protuberance in the posterior third.

***Brevinasia wanati* Borovec & Meregalli, sp. n.**

**Entiminae sp. “Wanat” in Meregalli & al. [1].**

Figures 2, 16, 17j, 18n and 19k

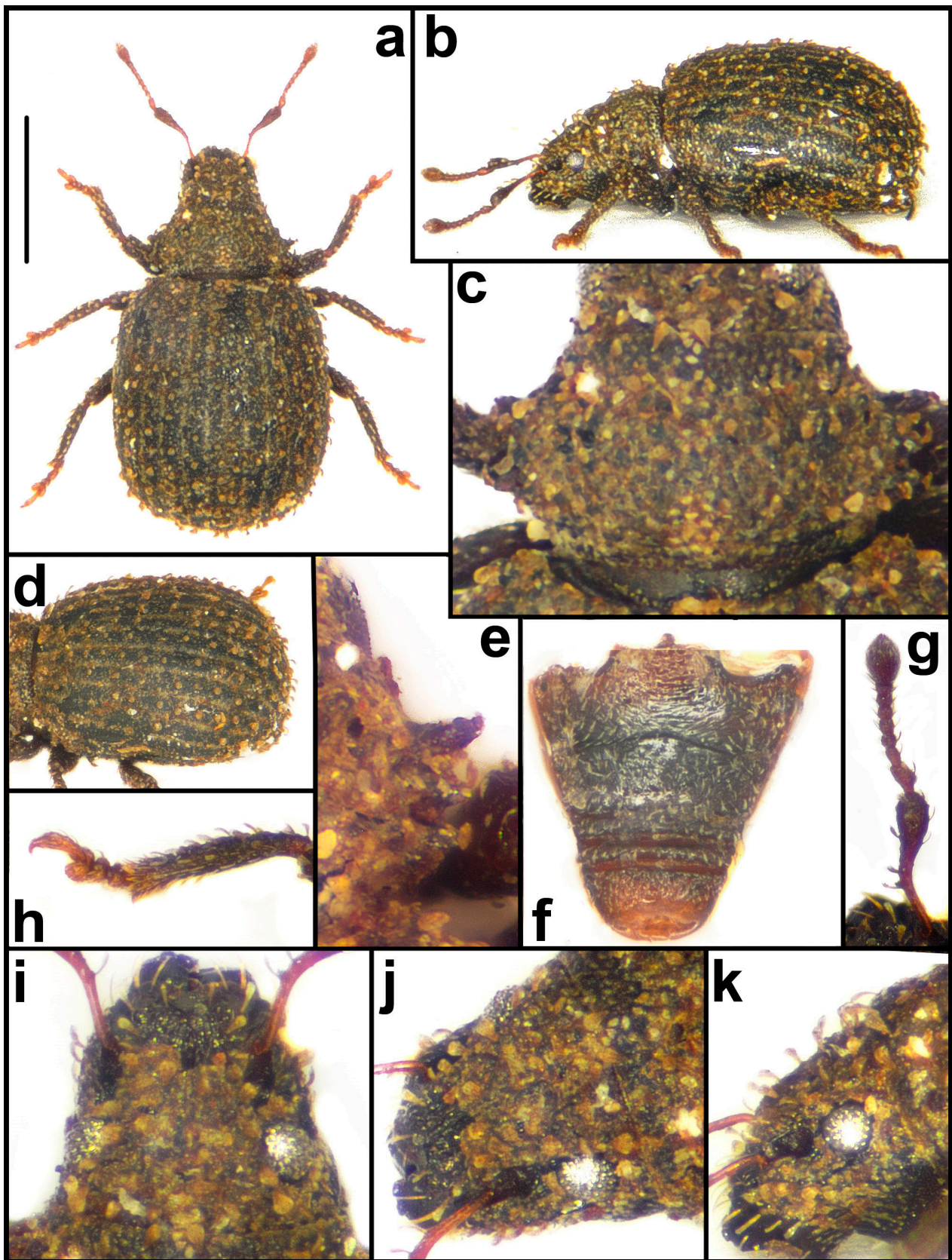
**Zoobank:** urn:lsid:zoobank.org:act:BED21E77-87FB-4599-8919-421664C3AB10

**COI sequence:** GenBank PP798207

**Type locality:** RSA, Western Cape, Lillyvlei Natural Reserve, 33.56' S 23°02' E

**Type material. Holotype:** ♂, RSA (S) [South], W [Western] Cape, Lillyvlei Nat. Res. [Nature Reserve], Gouna, closed rd. [road] to virgin forest, km 2.5, 33.9448 S/23.0371 E, 220 m, 26.11.2013, sifting forest litter nr. [near] bridge, leg. M. Wanat (MNHW). **Paratypes:** 9 specs., same data as the holotype (MNHW, MMTI, RBSC).

*Description.* Body length 2.03–2.38 mm, holotype 2.19 mm. Body dark brownish, in some specimens with sutural interval of elytra and anterior border of pronotum paler, reddish. Basal half of scapes, funicles with clubs, very short basal and apical part of tibiae and tarsi reddish brown.



**Figure 16.** *Brevinasia wanati*, paratype. (a): body, dorsal view; (b): body, lateral view; (c): pronotum; (d): elytra, dorsolateral view; (e): detail of sides of pronotum; (f): ventrites; (g): antenna; (h): protibia; (i): rostrum, dorsal view; (j): rostrum, dorsolateral view; (k): rostrum, lateral view. Bar: 1 mm.



Appressed scales on elytra small, rounded, four across width of one interval, sparse, not covering integument, distance between two scales about as long as half diameter of one scale. Appressed scales on pronotum and head with rostrum irregularly angular, sparse as elytral ones.

Semi-erect elytral setae spatulate, subtriangular, in lateral view curved posteriad, approximately as long as half width of one interstria, slightly longer at apical declivity, forming one spaced row on each interval, distance between two setae about  $3\times$  longer than length of one seta. Suberect setae on pronotum and head with rostrum identical as elytral ones, irregularly scattered. Inner side of scapes with four–five erect setae, outer side of tibiae with dense fringe of suberect setae. Appressed scales brownish, in some specimens with weak pearly sheen. Pronotum with greyish narrow longitudinal median stripe. Erect setae light brownish.

Rostrum  $1.78\text{--}2.02\times$  as wide as long, tapered anteriad, with straight sides. Epifrons tapered anteriad with concave sides, regularly flat. Antennal scrobes in dorsal view visible in apical two thirds; in lateral view with dorsal margin directed to dorsal margin of eye and ventral margin directed slightly below ventral margin of eye. Eyes large, in dorsal view not prominent from outline of head; in lateral view placed in dorsal third of head.

Antennal scapes  $1.4\times$  as long as funicles, distinctly curved at midlength, in apical half regularly enlarged, at apex as wide as clubs. Funicles 7-segmented. Funicle segment 1 long, conical,  $1.5\text{--}1.6\times$  as long as wide and  $1.7\text{--}1.8\times$  as long as segment 2, this  $1.3\text{--}1.4\times$  as long as wide; segments 3–6 as long as wide; segment 7  $1.2\text{--}1.3\times$  as wide as long. Clubs long oval  $1.8\text{--}2.0\times$  as long as wide.

Pronotum  $1.69\text{--}1.81\times$  as wide as long, widest slightly behind midlength, with rounded sides, weakly constricted behind anterior margin. Pronotum in dorso-lateral view with lower row of three protuberances, the anterior one longer than others, prominent laterally and visible in dorsal view. Pronotum in lateral view vaulted, behind anterior border lowered.

Elytra subglobose,  $1.15\text{--}1.26\times$  as long as wide, with rounded sides and broadly rounded apex, with narrow punctate striae and almost flat interstriae; in lateral view vaulted.

Apex of protibiae obliquely subtruncated, with fringe of fine, yellowish setae. Apical surface of metatibiae fringed with yellowish setae. Tarsal segment 2  $1.6\text{--}1.7\times$  as wide as long; segment 3  $1.5\text{--}1.6\times$  as wide as long and  $1.5\text{--}1.6\times$  as wide as segment 2. Onychium  $1.2\times$  as long as segment 3.

Male genitalia. Penis short, with weakly rounded sides, apex slightly obtuse with slender and moderately long tip. Penis in lateral view regularly curved with lengthened tip. Endophallus with chaotic group of very short straight sclerites.

Female genitalia. Sternite VIII with very long and narrow apodeme, plate subtriangular, slender, distinctly longer than wide, with short basal margin and very slender apical margin. Gonocoxites long and slender, regularly tapered anteriad with long and slender styli. Spermatheca moderately large and well sclerotised; cornu enlarged at middle; corpus slender; ramus not developed; collum distinctly longer than wide, folded downwards over corpus.

*Biology.* The type specimens were sifted from forest litter.

*Distribution.* South Africa, Western Cape, southern coast (Figure 2).

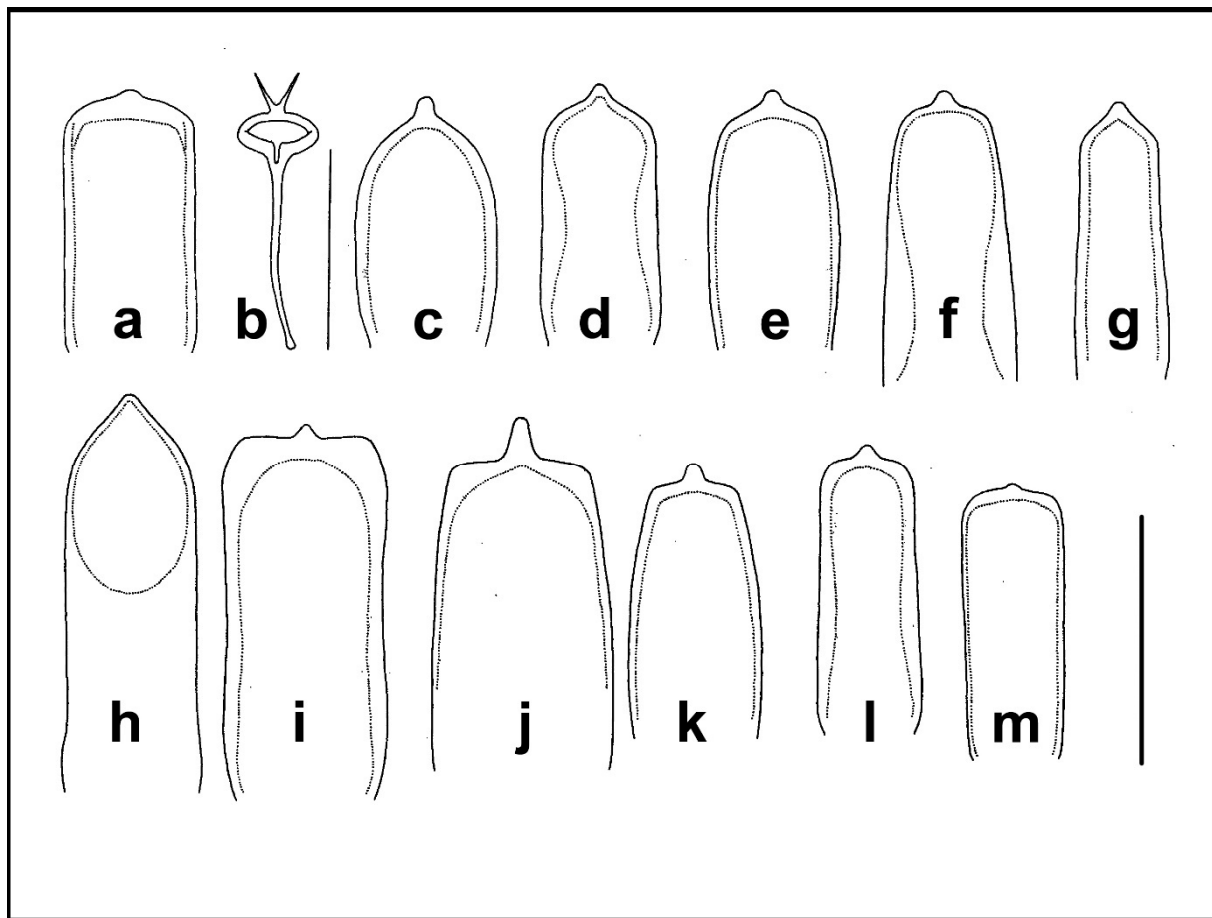
*Etymology.* The species is named after our good friend Marek Wanat (Wrocław, Poland)

*Differential diagnosis.* *Brevinasia wanati* sp. n. shares with *B. leleupi* sp. n. the short, sparse, semi-erect, subspatulate elytral setae, the spaced appressed elytral scales, the ventral margin of the antennal scrobes directed towards the ventral margin of the eyes, the reddish funicles and tarsi and the dorsally visible anterior pronotal protuberance. It is distinguished from this species by the pronotum with only three protuberances, the short rostrum, the scapes wide at the apical part, the short penis with blunt apex and narrow tip and the spermatheca with undeveloped ramus and collum folded downwards.

### Key to the *Brevinasia* species

1. Antennal funicle 5-segmented. Outer side of tibiae with sparse, long, perpendicular setae. Small size, 1.3 mm. .... (*Brevinasia micros* sp. n.)
  - . Antennal funicle 6- or 7-segmented. Outer side of tibiae with dense, short, semiperpendicular setae. At least 1.5 mm long species. .... (2)
2. Antennal funicle 6-segmented. Apex of protibiae with shallow lateral incurvation, armed with black spines. Dorsal vestiture with predominant grey and white appressed scales. Female sternite VIII with plate transverse, distinctly wider than long. Size 1.5–1.9 mm. .... (*Brevinasia albonigra* sp. n.)
  - . Antennal funicle 7-segmented. Apex of protibiae lacking lateral incurvation, armed with yellow setae or black spines. Dorsal vestiture with predominant brownish appressed scales. Female sternite VIII with plate subtriangular, longer than wide. .... (3)
3. Larger species, 2.7–3.1 mm long. Elytra with very dense row of short, as long as wide, regularly rounded setae on each interstria; 40–44 setae from base to apex of interstria 3. .... (*Brevinasia maior* sp. n.)
  - . Smaller species, at most 2.4 mm long. Elytra with sparse or dense row of piliform, spatulate or subspatulate setae, longer than wide, at most 26–28 from base to apex of interstria 3. .... (4)
4. Raised setae on elytra as long as or longer than width of one interstria, slender, parallel-sided. .... (5)
  - . Raised setae on elytra shorter to distinctly shorter than width of one interstria, weakly or strikingly enlarged distad, mostly subspatulate to spatulate. .... (6)
5. Pronotum with line of three long and narrow protuberances, visible partly in dorsal view. Appressed elytral scales irregularly rounded, longitudinally striate, sparse, integument visible. Spermatheca with ramus and collum subequal in length. Size 1.7–2.4 mm. .... (*Brevinasia longiseta* sp. n.)
  - . Pronotal sides with one–two short protuberances, visible only in dorso-lateral view, sometimes hardly visible. Appressed elytral scales irregularly star-shaped to drop-shaped, not striate, dense, covering integument. Spermatheca with ramus distinctly longer than small collum. Size 1.7–2.2 mm. .... (*Brevinasia janaki* sp. n.)
6. Elytra with strongly rounded sides. Rostrum below scrobes distinctly widened, wider than at base. Epifrons subparallel-sided. Pronotum narrow, 1.3–1.4× as wide as long. Size 1.4–1.7 mm. .... (*Brevinasia rotundipennis* sp. n.)
  - . Elytra with weakly rounded to subparallel sides. Rostrum parallel-sided or tapered anteriad. Epifrons tapered apicad. Pronotum wide, 1.6–2.1× as wide as long. .... (7)
7. Elytral setae on disc semi-appressed, hardly visible in lateral view. Rostrum with narrow median longitudinal stria reaching anterior margin of pronotum. Scrobes in dorsal view visible along entire length. Plate of female sternite VIII subrectangular. Size 1.9 mm. .... (*Brevinasia limpopoensis* sp. n.)
  - . Raised elytral setae on disc semi-erect or erect, well visible in lateral view. Rostrum at most with shallow, wide and short stria. Scrobes in dorsal view visible at anterior part or along entire length. Plate of sternite VIII in females subtriangular. .... (8)





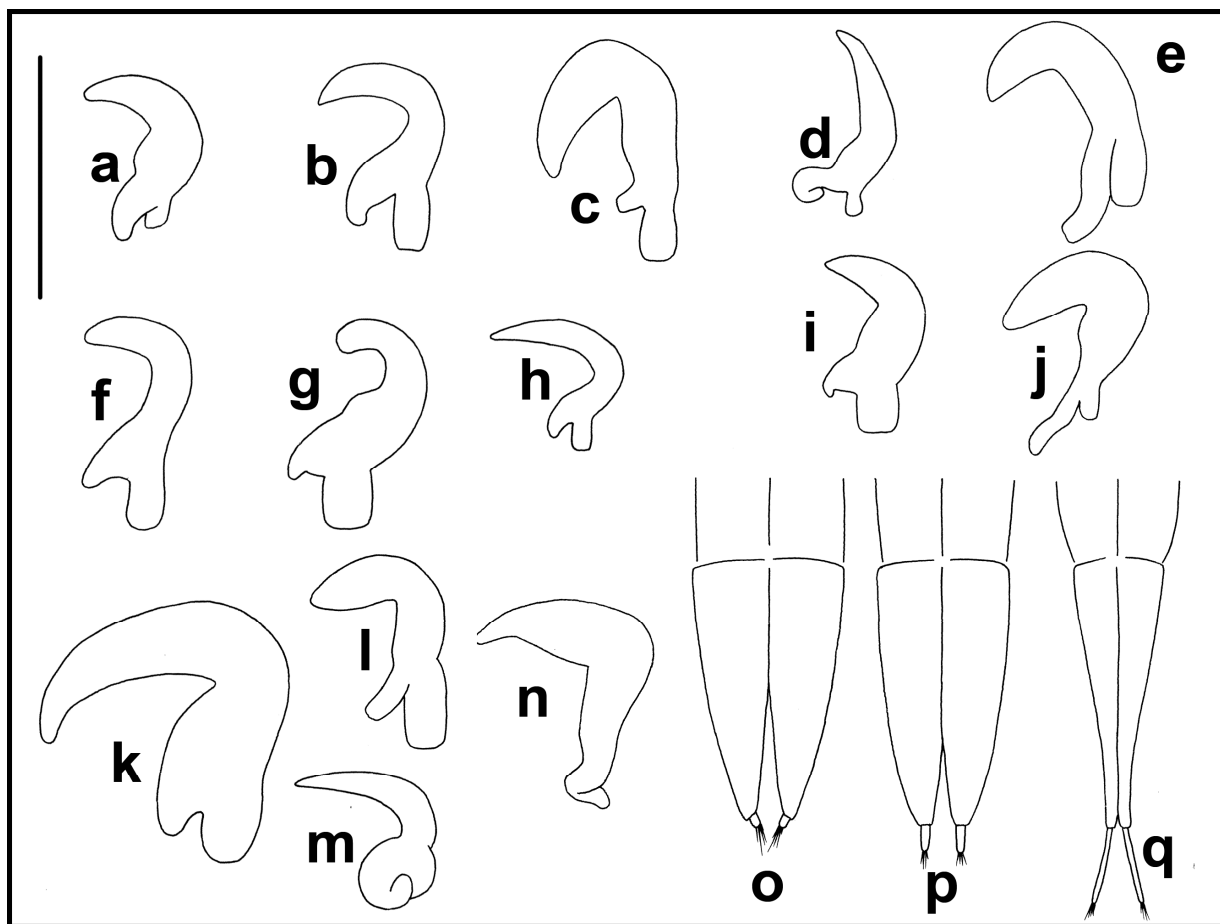
**Figure 17.** Outline of penis of: (a): *Brevinasia brevicollis*; (c): *B. janaki*; (d): *B. albonigra*; (e): *B. longiseta*; (f): *B. litoralis*; (g): *B. rotundipennis*; (h): *B. leleupi*; (i): *B. maior*; (j): *B. wanati*; (k): *B. bulirschi*; (l): *B. nigritarsis*; (m): *B. inconspicua*. Tegmen of: (b): *Brevinasia brevicollis*. Bar: 250  $\mu$ m.

8. Erect elytral setae very dense, distance of two setae subequal to their length, 26–28 from base to apex of interstria 3. Head in lateral view behind eyes finely longitudinally striate. Onychium long, 1.2–1.3 $\times$  as long as segment 3. .... (9)

-. Semi-erect to erect elytral setae sparse, distance of two setae distinctly longer than length of one seta, 16–22 from base to apex of interstria 3. Head in lateral view behind eyes not striate. Onychium short, usually 0.8–1.0 $\times$  as long as segment 3, exceptionally 1.2 $\times$  as long as wide. .... (10)

9. Ventral margin of antennal scrobe directed to middle of eye. Scrobes in dorsal view visible in apical half. Eyes well prominent from outline of head. Pronotum wider, 2.0–2.1 $\times$  as wide as long, with anterior lateral protuberance twice as wide as basal two protuberances. Gonocoxites with short styli. Size 1.8–2.1 mm. .... (*Brevinasia litoralis* sp. n.)

-. Ventral margin of antennal scrobe directed below the eye. Scrobes in dorsal view visible along entire length. Eyes hardly prominent from outline of head. Pronotum less wide, 1.6–1.8 $\times$  as wide as long, with all protuberances subequal in size. Gonocoxites with long styli. Size 1.9–2.4 mm. .... (*Brevinasia bulirschi* sp. n.)



**Figure 18.** Spermatheca of: (a): *Brevinasia inconspicua*; (b): *B. bulirschii*; (c): *B. janaki*; (d): *B. micros*; (e): *B. brevicollis*; (f): *B. longiseta*; (g): *B. nigratarsis*; (h): *B. rotundipennis*; (i): *B. albonigra*; (j): *B. leleupi*; (k): *B. maior*; (l): *B. litoralis*; (m): *B. limpopoensis*; (n): *B. wanati*. Gonocoxites of (o): *Brevinasia albonigra*; (p): *B. litoralis*; (q): *B. brevicollis*. Bar: 250  $\mu$ m.

**10.** Funicles and tarsi dark brown to black. Spines at apex of protibiae and fringed metatibial corbels black. Pronotum behind anterior border distinctly constricted. .... (11)

-. Funicles and tarsi reddish or rusty brown. Spines at apex of protibiae and fringed metatibial corbels yellowish brown. Pronotum behind anterior border weakly constricted ..... (12)

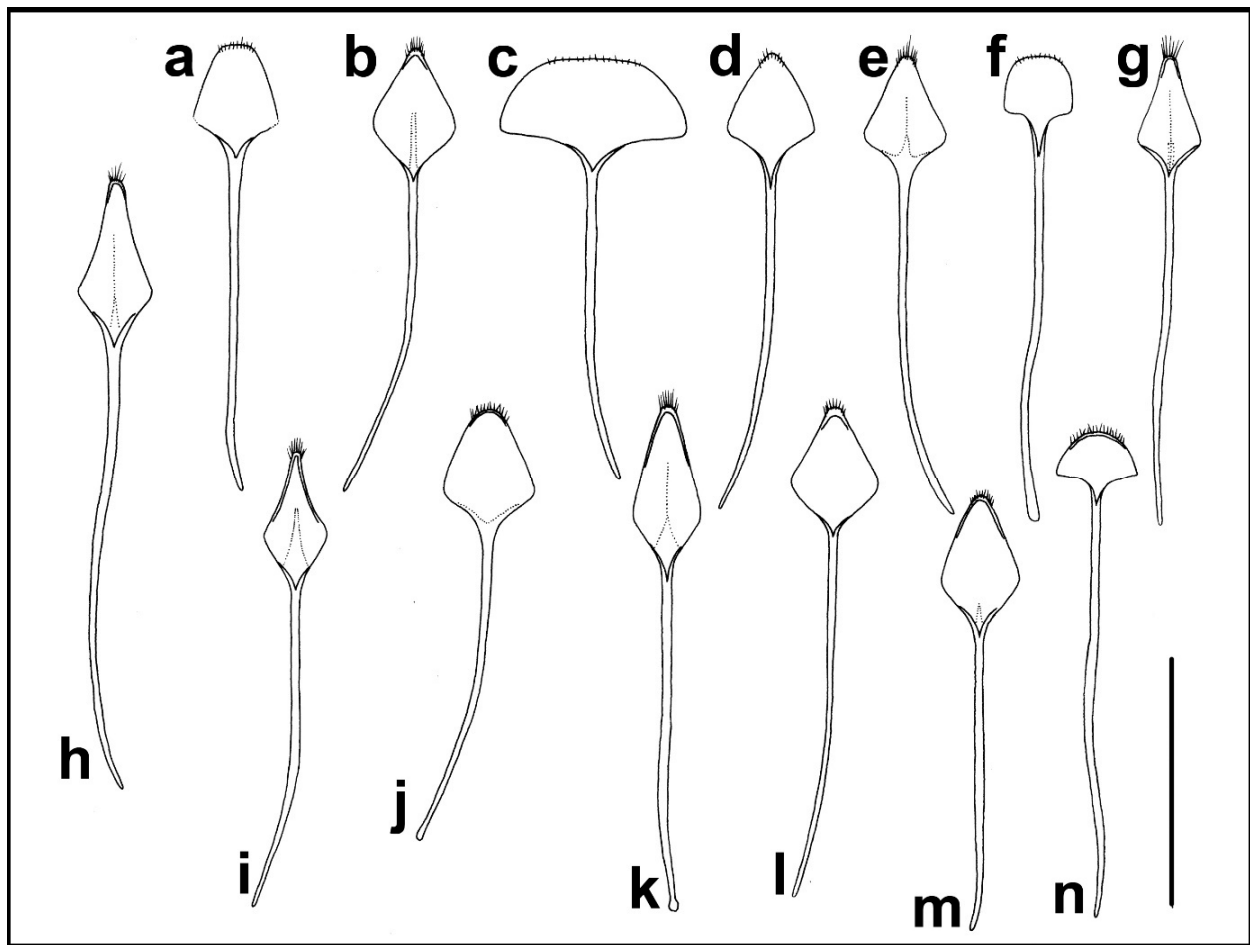
**11.** Elytra short and wide, with rounded sides, in lateral view vaulted,  $1.18\text{--}1.21\times$  as long as wide. Ventral margin of scrobe directed to middle of eye. Eyes in dorsal view prominent from outline of head. Penis with distinct tip. Spermatheca with ramus longer than wide, distinctly longer than collum. Gonocoxites with short styli. Onychium  $0.9\times$  as long as segment 3. Size 2.0–2.1 mm. .... (*Brevinasia nigratarsis* sp. n.)

-. Elytra slender, with subparallel sides, in lateral view flat,  $1.30\text{--}1.37\times$  as long as wide. Ventral margin of scrobe directed to lower margin of eye. Eyes in dorsal view not prominent from outline of head. Penis with indistinct tip. Spermatheca with ramus shorter than wide and shorter than collum. Gonocoxites with long styli. Onychium  $1.2\text{--}1.3\times$  as long as segment 3. Size 1.4–1.8 mm. .... (*Brevinasia inconspicua* sp. n.)

**12.** Anterior pronotal protuberance very long, in dorsal view prominent from outline of pronotum. Ventral margin of antennal scrobe directed to ventral margin of eye. Appressed elytral scales sparse, not covering integument. .... (13)

-. Pronotum in dorsal view without long, laterally prominent protuberances. Ventral margin of antennal scrobe directed below ventral margin of eye. Appressed elytral scales dense, completely covering integument ..... (14)





**Figure 19.** Female sternum 8 of: (a): *Brevinasia rotundipennis*; (b): *B. longisetia*; (c): *B. albonigra*; (d): *B. litoralis*; (e): *B. janaki*; (f): *B. limpopoensis*; (g): *B. brevicollis*; (h): *B. maior*; (i): *B. leleupi*; (j): *B. nigritarsis*; (k): *B. wanati*; (l): *B. bulirschi*; (m): *B. inconspicua*; (n): *B. micros*. Bar: 250  $\mu$ m.

13. Pronotum with lower row of three and upper group of three–four protuberances, most of which visible in dorsal view. Antennal scape at apex 0.8–0.9 $\times$  as wide as club. Penis long and slender, well sclerotised, with weakly concave sides, apex regularly tapered with concave sides. Spermatheca with ramus short but distinct and collum directed upwards. Size 2.1 mm. .... (*Brevinasia leleupi* sp. n.)

-. Pronotum with lower row of three protuberances, only anterior one visible in dorsal view. Antennal scape at apex as wide as club. Penis short, with weakly rounded sides, apex blunt with slender and moderately long tip. Spermatheca with ramus not developed and collum folded downwards. Size 2.0–2.4 mm. .... (*Brevinasia wanati* sp. n.)

14. Raised elytral setae conspicuous, as long as width of one interstria. Eyes not prominent from outline of head. Ventrites with sparse scales. Penis with distinct median point in ventral and lateral view. Spermatheca with ramus distinctly longer than collum. Size 1.7–2.2 mm. .... (*Brevinasia janaki* sp. n.)

-. Raised elytral setae inconspicuous, at most as long as half the width of one interstria. Eyes slightly prominent from outline of head. Ventrites densely squamous. Penis with indistinct median point in ventral and lateral view. Spermatheca with collum distinctly longer than ramus. Size 1.7–2.4 mm. .... (*Brevinasia brevicollis* (Voss))

**Author Contributions:** Conceptualization, R.B. and M.M.; Methodology, R.B. and M.M.; Formal analysis, R.B.; Investigation, R.B. and M.M.; Data curation, R.B. and M.M.; Writing—original draft, R.B.; Writing—review & editing, M.M. All authors have read and agreed to the published version of the manuscript.

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**Conflicts of Interest:** The authors declare that they have no conflict of interest.

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