

**A revision of the genus *Antireicheia* Basilewsky from Tanzania with descriptions of two new species (Coleoptera: Carabidae: Scaritinae)**

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**Taxonomy, key, new species, Coleoptera, Carabidae, Scaritinae, Clivinini, Reicheiina, *Antireicheia*, Eastern Africa, Tanzania**

**Abstract.** Holotypes and additional material of four to date known species of the endogean carabid genus *Antireicheia* Basilewsky, 1951, from Tanzania are studied, redescribed and new records are given. Two Tanzanian species are described as new: *A. alesi* sp. nov. from Uluguru Mts. and *A. nguruensis* sp. nov. from Nguru Mts., and all species including their aedeagi and female styli are illustrated. A key to Tanzanian *Antireicheia* species is provided.

## INTRODUCTION

The endogean carabid genus *Antireicheia* Basilewsky, 1951 is known from the eastern, western, southern Africa and eastern Madagascar. From the eastern African region 22 taxa were described to date: 13 of them by Basilewsky (1951a,b, 1953, 1960) and Jeannel (1957, 1958) from the Kivu region; next five species by Basilewsky (1951b), Jeannel (1957) and Bulirsch & Magrini (2007) from Rwanda, and finally four species by Basilewsky (1962, 1976) and Bulirsch & Magrini (2007) from Tanzania: *A. ulugurana* (Basilewsky, 1962), *A. bergeri* Basilewsky, 1976 and *A. debeckeri* (Basilewsky, 1976) from Uluguru Mts., and *A. grebennikovi* Bulirsch et Magrini, 2007 from Usambara Mts. We have studied all holotypes and some paratypes of these species as well as a rich material recently collected by Vasily Grebennikov. Among the latter specimens, two new species were recognized as follows: the first species in two males from Uluguru Mts. and the second one in a male and female from Nguru Mts.

## MATERIAL AND METHODS

The specimens were dry-mounted and studied, including measurements and examination of the microsculpture, at a magnification of 56×. All the type specimens of each species were measured. Length of body is given with 0.05 mm accuracy; other measurements including ratios and means are down to two decimal places. Label locality data of all specimens are quoted verbatim except standardized dates. Aedeagi and stylomeres were slide-mounted in Euparal. All photographs were prepared with a Nikon D1 digital camera mounted on a Nikon Labophot II binocular microscope equipped with lenses containing diaphragms.

The following abbreviations are used to indicate the depository of specimens:

HNHM Hungarian National History Museum, Budapest, Hungary;

MRAC Royal Museum of Central Africa, Tervuren, Belgium;

PBPC collection of Petr Bulirsch, Prague, Czech Republic;

PMFI collection of Paolo Magrini, Firenze, Italy.

Other abbreviations:

HT: Holotype(s); PT Paratype(s); BSP basal (prescutellar) setiferous puncture(s); DSP dorsal setiferous puncture(s); /, // by locality labels: end of line, label.

## RESULTS

### *Antireicheia ulugurana* (Basilewsky, 1962)

(Figs 1, 1a,b,c,d,e)

*Afroeicheia ulugurana* Basilewsky, 1962: 81.

*Antireicheia ulugurana*: revised generic placement.

**Type material examined.** Holotype (♂): 'Holotypus// Genit. ♂/ pm 59.240// Forêt de/ montagne// Mission Zoolog. I.R.S.A.C. en Afrique orientale/ P. Basilewsky et/ N. Leleup// Coll. Mus. Congo/ Tanganyika Terr.: Uluguru/ Mts., sommet du Kidunda/ 1800-1950 m. 3.v.1957// Afroeicheia/ ulugurana n. sp./ P. Basilewsky det. 1959', (MRAC). Paratypes: (2 ♂) with the same labels as HT except label 'Paratypus', (MRAC).

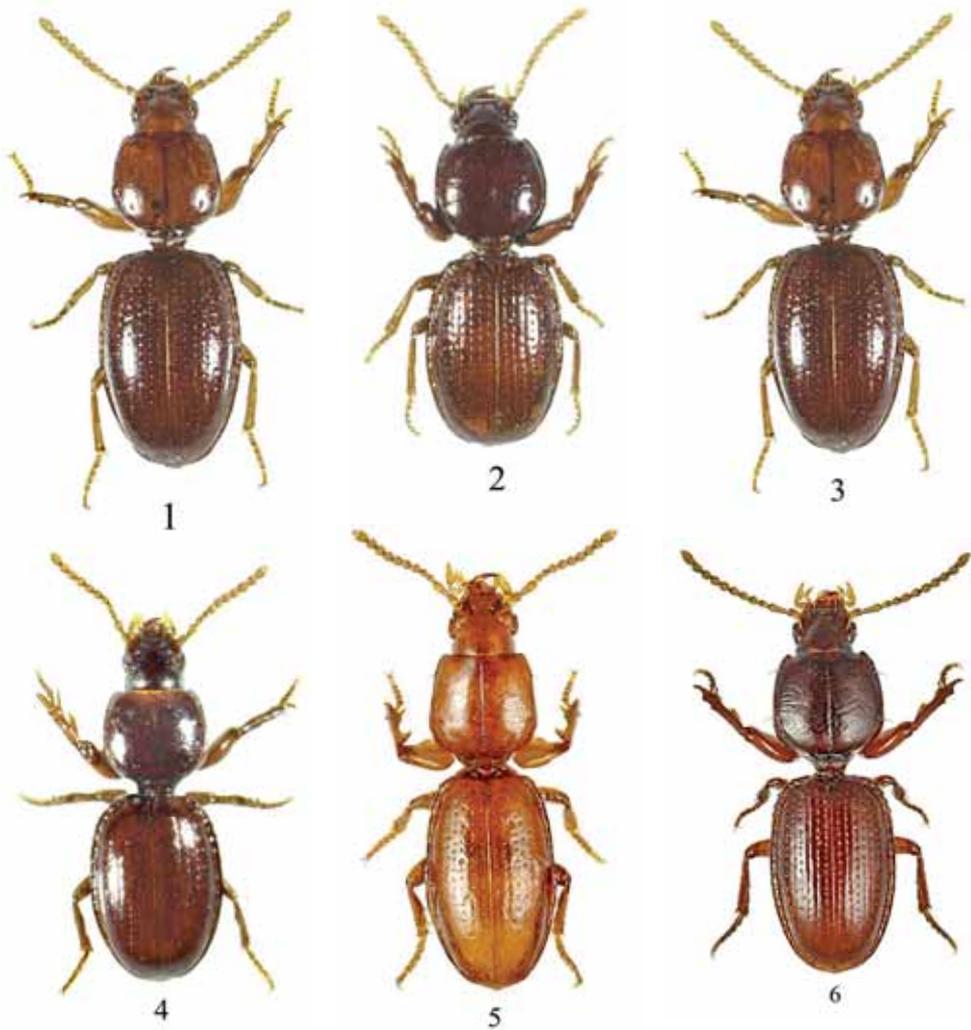
**Additional material examined.** 'Tanzania Uluguru Mts./ at Bunduki vil./ S 7°03'59'' E 037°38'16''/ 25.xi.2010, 1846 m, sifting/ 26; V. Grebennikov lgt.', (1 ♂, 1 ♀), (PBPC); 'Tanzania Uluguru Mts./ at Bunduki vil./ S 7°03'23'' E 037°37'24''/ 23.xi.2010, 2051 m, sifting/ 23; V. Grebennikov lgt.', (1 ♂, 1 ♀), (PBPC, PMFI); 'Tanzania, east slope/ southern Uluguru Mts./ S 7°07'20'' E 037°38'37''/ 18.xi.2010, 2038 m./ sifting 17, V. Grebennikov [leg.]', 1 spec., (PBPC); 'Tanzania, east slope/ southern Uluguru Mts./ S 7°07'20'' E 037°38'37''/ 18.xi.2010, 2058 m./ sifting 18, V. Grebennikov [leg.]', (1 ♂) (PBPC).

**Redescription.** Habitus as in Fig. 1; length 2.25-2.35 mm (HT 2.25 mm, n=3).

Head. Narrow, neck broad; facial furrows moderately long, broad and moderately deep; impressions of clypeus superficial, hardly visible, carina indistinct. Genal posterior angles shortly rounded; strongly vaulted supraantennal plates separated from genae by rather deep and narrow furrow; carina of prolonged supraantennal plates blunt. Eye remnant discernable as small, unfacetted field in anterolateral margin of strongly vaulted genae. Vertex moderately deeply, regularly reticulated. Antennae with antennomere 2 as long as 3 and 4 combined, antennomeres 6-7 as broad as long, 8-10 very slightly transverse.

Pronotum. Moderately convex, shiny, reticulation irregular, indistinct; outline rather slightly to moderately rounded, not to very slightly (in HT) attenuated anteriorly; 0.97-0.98 (HT 0.98) times as long as wide, 1.58-1.64 (HT 1.58) times as wide as head; widest below midlength. Reflexed lateral margin between lateral setiferous punctures hard to recognize, extended almost to base (indistinct above flange), very thin. Median line distinctly impressed, weakened before base, anterior transverse impression very superficial, just visible. Basal part (flange) very small, very slightly produced posteriorly. Proepisterna slightly, irregularly reticulated, ventrally not punctured; distinctly visible from above in apical two thirds.

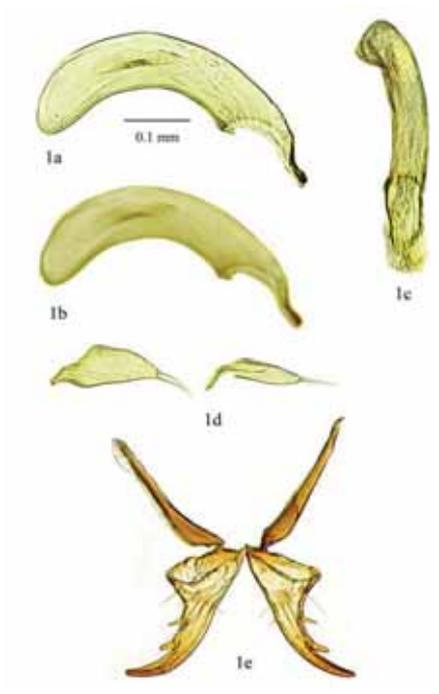
Elytra. Convex, slightly ovate, disc not flattened, 1.55-1.60 (HT 1.55) times as long as wide, 1.19-1.22 (HT 1.22) times as wide as pronotum, 1.91-1.96 (HT 1.92) times as long



Figs 1-6. Habitus (real length in parentheses behind the name). 1- *A. ulugurana* (PT, male, 2.35 mm); 2- *A. bergeri* (PT, male, 2.30 mm); 3- *A. debeckeri* (PT, male, 2.80 mm); 4- *A. grebennikovi* (HT, 2.40 mm); 5- *A. alesi* sp. nov. (HT, 2.30 mm); 6- *A. nguruensis* sp. nov. (HT, 2.90 mm).

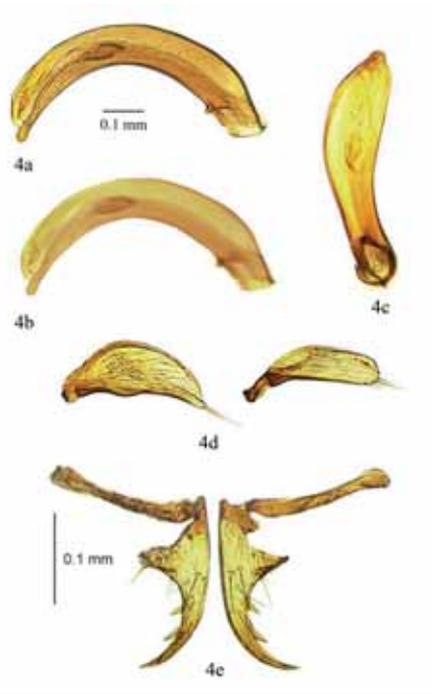
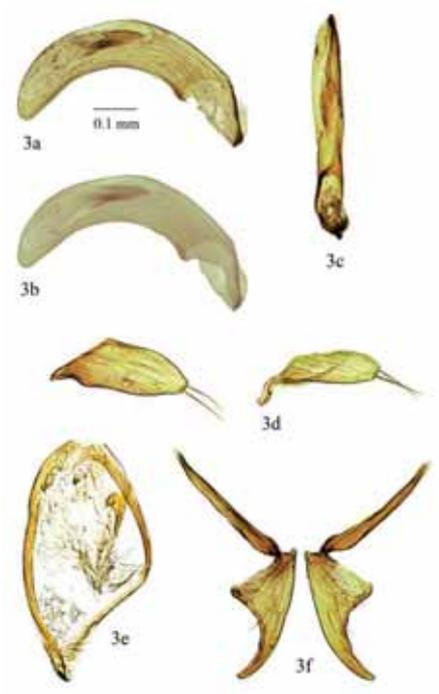
as pronotum; humeri moderately protruded, without humeral teeth, base slightly sloping; outline moderately broadened on sides; broadest above midlength; suture not depressed at base. Base with blunt tubercle and moderately large BSP. Striae 1-2(3) superficial on disc, weakened latero-basally and disappeared latero-apically, striae 3(4)-7 consisting of rows of fine to very fine punctures; striae punctures disappeared latero-basally and latero-apically in apical fourth to half. Intervals flat. Third interval without DSP.

Aedeagus. Shape as in Figs 1a,b,c,d. Median lobe in lateral view (Figs 1a,b) broad and moderately long; moderately and regularly bent down; apical part broad, slightly narrowed



▲ Figs 2a,b,c,d. *A. bergeri* Basilewsky. 2a,b- Aedeagus of PT in left lateral view (2a in acetate, 2b in perspex); 2c- Aedeagus of PT in ventral view; 2d- Parameres of PT.

◀ Figs 1a,b,c,d,e. *A. ulgurana* Basilewsky. 1a,b- Aedeagus of PT in left lateral view (1a in acetate, 1b in perspex); 1c- Aedeagus of HT in ventral view; 1d- Parameres of PT; 1e- Stylomeres of non type female.



apically, apex broadly rounded. Outline of median lobe in ventral view (Fig. 1c) with apical part broadly rounded, distinctly turned left. Parameres as in (Fig. 1d), narrowly rounded apically, bisetose.

Styli as in (Fig. 1e), apical spine rather short and moderately curved.

### *Antireicheia bergeri* Basilewsky, 1976

(Figs 2, 2a,b,c,d)

*Antireicheia bergeri* Basilewsky, 1976: 682.

**Type material examined.** Holotype (♂): 'Holotypus// ♂// Tanzanie: Mts Uluguru/ Chenzema, alt. 1700 m/ dans humus sous buis-/ sons, 21-22.vii.1971// Coll. Museum Tervuren/ Mission Mts Uluguru/ L. Berger, N Leleup/ J. Debecker V-VIII/71// *Antireicheia/ bergeri* n. sp./ P. Basilewsky det. 1976', (MRAC). Paratypes: 3 spec. with the same labels as HT except label 'Paratypus', (MRAC, PBPC).

**Redescription.** Habitus as in Fig. 2; length 2.25-2.50 mm (HT 2.25 mm, n=4).

Head. Narrow, neck broad; facial furrows moderately long, broad and deep; impressions of clypeus oblique, broad and deep, carina rather short, sharp. Genal posterior angles shortly rounded; strongly vaulted supraantennal plates separated from genae by deep and narrow furrow; carina of prolonged supraantennal plates rather blunt. Eye remnant not protruded laterally, discernable as small, unfacetted field in anterolateral margin of strongly vaulted genae. Vertex distinctly, regularly reticulated. Antennae with antennomere 2 slightly shorter than 3 and 4 combined, antennomeres 6-10 slightly transverse.

Pronotum. Convex, shiny, reticulation irregular, indistinct; outline moderately rounded, very slightly to slightly attenuated anteriorly; 0.97-0.98 (HT 0.98) times as long as wide, 1.61-1.66 (HT 1.61) times as wide as head; widest below anterior two thirds. Reflexed lateral margin entire, extended almost to base (indistinct above flange); rather broad, narrower in basal part. Median line distinctly impressed, slightly weakened before base, anterior transverse impression very superficial, just visible. Basal part (flange) medium sized, moderately produced posteriorly. Proepisterna slightly, irregularly reticulated, ventrally not punctured; distinctly visible from above in apical two thirds.

Elytra. Convex, ovate, disc slightly flattened, 1.45-1.53 (HT 1.47) times as long as wide, 1.20-1.23 (HT 1.23) times as wide as pronotum, 1.82-1.91 (HT 1.84) times as long as pronotum; humeri rather strongly protruded, with 4-6 distinct humeral teeth, base very slightly sloping; outline rather slightly broadened on sides; broadest above midlength; suture deeply depressed at base. Base with sharp, elongate tubercle along suture and with another blunt tubercle in third interval and with very deep and large BSP. Striae 1-4 rather deep on disc, weakened latero-basally and disappeared latero-apically, striae 5-7 consisting of rows of rather deep punctures; striae punctures disappeared latero-apically and latero-basally: stria

◀◀ Figs 3a,b,c,d,e,f. *A. debeckeri* Basilewsky. 3a,b- Aedeagus of HT in left lateral view (3a in acetate, 3b in perspex); 3c- Aedeagus of HT in ventral view; 3d- Parameres of HT; 3e- Urite IX of non type male; 3f- Stylomeres of non type female.

◀ Figs 4a,b,c,d,e. *A. grebennikovi* Bulirsch et Magrini, 2007. 4a,b- Aedeagus of HT in left lateral view (4a in acetate, 4b in perspex); 4c- Aedeagus of HT in ventral view; 4d- Parameres of HT; 4e- Stylomeres of PT female.

1 just before apex, other striae in apical fourth to half. Intervals slightly vaulted, flattened latero-apically. Third interval without DSP.

Aedeagus. Shape as in (Figs 2a,b,c,d). Median lobe in lateral view (Figs 2a,b) rather narrow and slightly bent down; apically with distinct apical hook. Outline of median lobe in ventral view (Fig. 2c) slightly irregular, apex truncate. Parameres as in (Fig. 2d), narrowly rounded apically, bisetose.

***Antireicheia debeckeri* (Basilewsky, 1976)**

(Figs 3, 3a,b,c,d,e,f)

*Afroeicheia debeckeri* Basilewsky, 1962: 683.

*Antireicheia debeckeri*: revised generic placement.

**Type material examined.** Holotype (♂): 'Holotypus// ♂// Tanzanie: Mts Uluguru/ Lukwangule Plateau/ alt. 2400-2600 m./ humus, 2-22.ii.1971// Coll. Museum Tervuren/ Mission Mts Uluguru/ L. Berger, N. Leleup/ J. Debecker V/ VIII/71// Afroeicheia /debeckeri n. sp./ P. Basilewsky det. 1976', (MRAC). Paratypes: 4 spec. with the same labels as HT except label 'Paratypus', (MRAC).

**Additional material examined.** 'Tanzania: Mts Uluguru/ W slope between Tchenzema and Lukvangule Plateau, H-2200 m, 19-21.x.2002, V Grebennikov leg.', 3 spec., (PBPC); 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°06'50''E 037°36'18''/ 11.xi.2010, 2318 m, sifting/ 12; V. Grebennikov lgt.', 6 spec., (PBPC); 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°05'38''E 037°37'09''/ 10.xi.2010, 2654 m, sifting/ 11; V. Grebennikov lgt.', 11 spec., (PBPC, MRAC, PMFI); 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°06'54''E 037°36'34''/ 8.xi.2010, 2408 m, sifting 10; V.Grebennikov lgt.', 22 spec., (PBPC, MRAC, PMFI); 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°06'47''E 037°36'51''/ 15.xi.2010, 2547 m, sifting/ 15; V. Grebennikov lgt.', 35 spec., (PBPC, MRAC, PMFI); 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°06'38''E 037°36'11''/ 16.xi.2010, 2135 m./ sifting 16; V. Grebennikov [lgt.]. 1 spec., (PBPC); 'Tanzania Uluguru Mts./ at Bunduki vil./ S 7°03'23''E 037°37'24''/ 23.xi.2010, 2051 m, sifting/ 23; V. Grebennikov lgt.', 2 spec., (PBPC).

**Redescription.** Habitus as in Fig. 3; length 2.65-2.80 mm (mean 2.73, HT 2.80 mm, n=5).

Head. Narrow, neck broad; facial furrows moderately long, broad and moderately deep; impressions of clypeus superficial, hardly visible, carina indistinct. Genal posterior angles shortly rounded; strongly vaulted supraantennal plates separated from genae by moderately deep and rather broad furrow; carina of prolonged supraantennal plates indistinct. Eye remnant moderately protruded laterally, discernable as small, unfacetted field in anterolateral margin of strongly vaulted genae. Vertex moderately distinctly, regularly reticulated. Antennae with antennomere 2 slightly shorter than 3 and 4 combined, antennomeres 6-10 as broad as long.

Pronotum. Moderately convex, shiny, reticulation irregular, indistinct; outline slightly to very slightly rounded, slightly to very slightly attenuated anteriorly; 0.96-1.01 (mean 0.99, HT 1.01) times as long as wide, 1.59-1.67 (mean 1.63, HT 1.61) times as wide as head; widest in anterior two thirds. Reflexed lateral margin very fine, extended almost to base (indistinct above flange). Median line distinctly impressed, not disappeared before base, anterior transverse impression very superficial, just visible. Basal part (flange) very small, very slightly produced posteriorly. Proepisterna slightly, irregularly reticulated, not punctured ventrally; distinctly visible from above in apical two thirds.

Elytra. Convex, long ovate, disc slightly flattened, 1.67-1.80 (mean 1.73, HT 1.79) times as long as wide, 1.25-1.28 (mean 1.26, HT 1.27) times as wide as pronotum, 2.16-2.34 (mean 2.23, HT 2.26) times as long as pronotum; humeri rather slightly protruded, without humeral

teeth, base slightly sloping; outline slightly broadened on sides; broadest above midlength; suture slightly depressed at base. Base with small tubercle and moderately large BSP. Striae 1-6(7) consisting of rows of fine to very fine punctures; striae punctures slightly weakened latero-basally and disappeared latero-apically in apical fourth to half. Intervals flat. Third interval without DSP.

Aedeagus. Shape as in Figs 3a,b,c,d. Median lobe in lateral view (Figs 3a,b) rather narrow, regularly bent down; apical part distinctly narrowed apically, apex rather narrowly rounded. Outline of median lobe in ventral view (Fig. 1c) with apical part narrowly rounded, not turned left. Parameres as in (Fig. 3d), broadly rounded apically, bisetose; write IX as in (Fig. 3e).

Styli as in (Fig. 3f), apical spine short, slightly curved.

### *Antireicheia grebennikovi* Bulirsch et Magrini, 2007

(Figs 4, 4a,b,c,d,e)

*Antireicheia grebennikovi* Bulirsch & Magrini, 2007: 23

**Type material examined.** Holotype (♂): 'Tanzania, Tanga reg./ Amani/ Berlese sampl./ No. 155, 18.ii.1987/ S. Mahunka & A. Zicsi', (HNHM). Paratypes : 2 spec. with the same data as HT; 2 spec: 'Tanzania, Tanga reg./ Amani/ Berlese sampl./ No. 120 or 124, 14.ii.1987/ S. Mahunka & A. Zicsi'; 6 spec. 'Tanzania, Tanga reg./ Kwamsambia For. Res./ 10 km S Kwamkoro// sifted, No. 105, 10.ii.1987, 1050 m/ S. Mahunka & A. Zicsi'; 1 spec.: 'Tanzania, Tanga reg./ Kwamsambia For. Res./ 10 km S Kwamkoro// sifted, No. 103, 10.ii.1987/ S. Mahunka & A. Zicsi'; 7 spec. 'Tanzania, Tanga reg./ Kwamsambia For. Res./ 10 km S Kwamkoro// sifted, No. 158 and 159, 19.ii.1987/ S. Mahunka & A. Zicsi'; 1 spec.: 'Tanzania, Tanga reg./ Kwamkoro, Berlese sample// No 108, 12.ii.1987/ S. Mahunka & A. Zicsi'; 3 spec. 'Tanzania: E. Usambara Mts./ 12-16.x.2002, H-950 m./ Amani Nat. res. Headquarter./ V. Grebennikov leg.', (HNHM, PBPC, PMFI, MRAC).

**Redescription.** Habitus as in Fig. 4; length 2.15-2.55 mm (mean 2.36 mm, HT 2.40 mm, n=23).

Head. Narrow, neck broad; facial furrows moderately long, deep; impressions of clypeus oblique, broad and deep, carina very short. Genal posterior angles moderately rounded; rather strongly vaulted supraantennal plates separated from genae by rather deep and moderately broad furrow; carina of prolonged supraantennal plates blunt. Eye remnant slightly protruded laterally, discernable as small, unafaceted field in anterolateral margin of moderately vaulted genae. Vertex shiny, irregularly reticulated. Antennae with antennomere 2 slightly longer than 3 and 4 combined, antennomeres 6-10 (especially 6-7) slightly longer than broad.

Pronotum. Slightly convex, shiny, reticulation irregular, indistinct; outline faintly rounded, slightly attenuated anteriorly; 0.91-1.00 (mean 0.94, HT 0.94) times as long as wide, 1.62-1.72 (mean 1.66, HT 1.69) times as wide as head; widest in anterior two thirds. Reflexed lateral margin very distinct, extended from rather sharp, distinctly protruded anterior angles to base of pronotum as prebasal groove; in anterior part broad, at base joined basal furrow. Median line broad and distinctly impressed towards basal furrow; front transverse impression missing. Basal part (flange) distinctly produced posteriorly, separated of pronotal disc by deep furrow. Proepisterna slightly, irregularly reticulated, ventrally not punctured; slightly visible from above in apical half.

Elytra. Rather slightly convex, almost oval, disc not flattened, 1.50-1.59 (mean 1.54, HT 1.57) times as long as wide, 1.12-1.20 (mean 1.16, HT 1.2) times as wide as pronotum, 1.89-2.12 (mean 2.01, HT 2.09) times as long as pronotum; humeri protruded, each elytron with

8-10 long humero-lateral teeth and with fine lateral denticulation disappearing apically, base very slightly sloping; outline strongly broadened on sides; broadest before middle; suture deeply depressed at base. Base with very distinct, elongate tubercle in prolongation of third interval and with large BSP. Striae 1-4 rather deep, stria 5 and especially striae 6-7 much finer, consisting of rows of moderately deep punctures; all striae, except first, strongly weakened apically; striae 2-4 disappearing in posterior fifth, lateral ones in apical third. Striae 1-2(3) distinct up to base, lateral ones shortened basally. Intervals 1-4 in basal part moderately convex, lateral ones flattened. Third interval with 3 DSP.

Aedeagus. Shape as in (Figs 4a,b,c,d). Median lobe in lateral view (Figs 4a,b) strongly and regularly bent down; apical part rather small, apex narrowly rounded. Outline of median lobe in ventral view (Fig. 4c) regularly broadened in apical part, with oblong bulging on left side. Parameres as in (Fig. 4d), bisetose, left paramere often with 1-2 additional, much finer setae.

Styli as in (Fig. 4e), apical spine long, strongly curved.

**Comment.** In the original description (Bulirsch & Magrini, 2007: p. 27, Fig. 3a) there is an incorrect scale by the length of the aedeagus (instead of 0.5 mm should be 0.1 mm).

*Antireicheia alesi* sp. nov.

(Figs 5, 5a,b,c,d)

**Type material.** Holotype (♂): 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°06'47'' E 037°36'51''/ 15.xi.2010, 2547 m, sifting/ 15; V. Grebennikov lgt.', (MRAC). Paratype: (1 ♂): 'Tanzania Uluguru Mts./ at Tchenzema vil./ S 7°06'38'' E 037°36'14''/ 11.xi.2010, 2208 m./ sifting 13, V. Grebennikov [lgt.]', (PBPC).

**Description.** Habitus as in Fig. 5; length 2.30 mm in HT and 2.20 mm in PT.

Head. Rather broad, neck very broad; facial furrows moderately long, broad and moderately deep; impressions of clypeus superficial, hardly visible, carina indistinct. Genal posterior angles shortly rounded; strongly vaulted supraantennal plates separated from genae by moderately deep and rather broad furrow; carina of prolonged supraantennal plates long, blunt. Eye remnant, slightly vaulted laterally, discernable as small, unfaceted field in anterolateral margin of strongly vaulted genae. Vertex roughly, regularly reticulated. Antennae with antennomere 2 as long as 3 and 4 combined, antennomeres 6-10 slightly transverse.

Pronotum. Slightly convex, shiny, reticulation irregular, indistinct; outline very faintly rounded, subparallel, very slightly attenuated anteriorly; in HT and PT 1.13 times as long as wide, in HT 1.48 and PT 1.45 times as wide as head; widest in anterior three fourths. Reflexed lateral margin entire, extended to base (indistinct above flange); rather thin, especially in basal part. Median line distinctly impressed, not disappearing before base, anterior transverse impression very superficial, just visible. Basal part (flange) moderately large, distinctly produced posteriorly. Proepisterna distinctly visible from above in apical half.

Elytra. Rather slightly convex, long oval, disc flattened, in HT 1.74 and in PT 1.75 times as long as wide, in HT 1.25 and in PT 1.26 times as wide as pronotum, in HT 1.93 and in PT 1.96 times as long as pronotum; humeri protruded, each elytron with about 6-8 humeral teeth weakening apically, base slightly sloping; outline slightly broadened on sides; broadest before midlength; suture broadly and finely depressed at base. Base with distinct tubercle and

moderately large BSP. Striae 1-2 very fine on disc, disappeared basally and apically, striae 3-7 consisting of rows of fine to very fine punctures; striae punctures strongly weakened latero-basally and disappearing latero-apically in apical third to half. First two intervals very slightly vaulted, flattened latero-apically. Third interval with three large DSP.

Aedeagus. Shape as in (Figs 5a,b,c,d). Median lobe in dorsal view (Fig. 5a) relatively short and broad; strongly and regularly curved dorsally; apical part rather small, narrowed apically, apex rather narrowly rounded. Outline of median lobe in ventral view (Fig. 5b) with broad, rather broadly rounded apex; write IX as in (Fig. 5c). Parameres as in (Fig. 5d), bisetose.

**Differential diagnosis.** *A. alesi* sp. nov. is the fourth known species from Uluguru Mts.; it can be distinguished from *A. ulugurana* and *A. debeckeri* by its elytra with distinct humeral teeth and three DSP in interval 3 (both latter species are without DSP and humeral teeth) and moreover from the sympatric *A. debeckeri* by much smaller body (2.20-2.35 mm versus 2.65-2.80 mm); from *A. bergeri* by much finer striae, by three DSP and the simple apex of the median lobe of the aedeagus (hooked in *A. bergeri*); from *A. grebennikovi* by a longer pronotum with very faintly rounded outline and by much longer elytra (1.74-1.75 times as long as broad in *A. alesi* sp. nov. and 1.50-1.59 in *A. grebennikovi*) with much finer striae and from all these species by a different shape of its aedeagus.

**Name derivation.** Dedicated to Dr. Aleš Smetana (Ottawa, Canada), famous specialist in Staphylinidae, on the occasion of his 80<sup>th</sup> birthday.

#### *Antireicheia nguruensis* sp. nov.

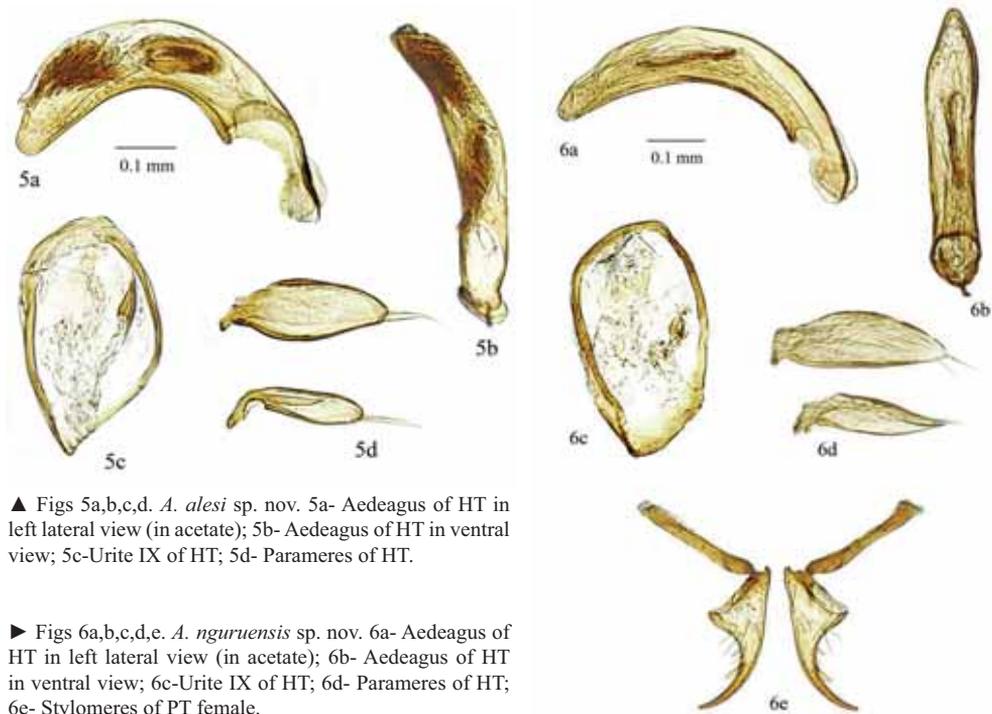
(Figs 6, 6a,b,c,d,e)

**Type material.** Holotype (♂): 'Tanzania Nguru Mts./ at Turiani, S 06°06'24'' E 037°31'48'' 3.xi.2010/ 1236 m, sifting 05/ V. Grebennikov [lgt.]', (MRAC). Paratype: (1 ♀): with the same data as HT, (PBPC).

**Description.** Habitus as in Fig. 6; length 2.90 mm in HT and 2.65 mm in PT.

Head. Narrow, neck broad; facial furrows moderately long, deep; impressions of clypeus oblique, broad and deep, carina moderately long. Genal posterior angles moderately rounded; moderately vaulted supraantennal plates separated from genae by deep and broad furrow; carina of prolonged supraantennal plates indistinct. Eye remnant slightly protruded laterally, discernable as small, unfaceted field in anterolateral margin of moderately vaulted genae. Vertex shiny, irregularly reticulated. Antennae with antennomere 2 very slightly shorter than 3 and 4 combined, antennomeres 6-10 (especially 6-7) very slightly longer as broad.

Pronotum. Slightly convex, moderately shiny, reticulation irregular, moderately distinct, surface with fine micropunctures and wrinkles; outline faintly rounded, slightly attenuated anteriorly; in HT 1.02 and in PT 1.00 times as long as wide, in HT 1.66 and in PT 1.61 times as wide as head; widest below anterior two thirds. Reflexed lateral margin entire, extended from rather sharp, distinctly protruded anterior angles to base of pronotum as prebasal groove; in anterior part broad, at base finely joined basal furrow. Median line broad and distinctly impressed towards basal furrow; front transverse impression missing. Basal part (flange) moderately distinctly produced posteriorly, separated of pronotal disc by moderately deep



▲ Figs 5a,b,c,d. *A. alesi* sp. nov. 5a- Aedeagus of HT in left lateral view (in acetate); 5b- Aedeagus of HT in ventral view; 5c-Urite IX of HT; 5d- Parameres of HT.

► Figs 6a,b,c,d,e. *A. nguruensis* sp. nov. 6a- Aedeagus of HT in left lateral view (in acetate); 6b- Aedeagus of HT in ventral view; 6c-Urite IX of HT; 6d- Parameres of HT; 6e- Stylomeres of PT female.

furrow. Proepisterna reticulated, roughly punctured ventrally; slightly visible from above in apical half.

Elytra. Moderately convex, almost oval, disc slightly flattened, in HT 1.61 and in PT 1.56 times as long as wide, in HT 1.18 and in PT 1.24 times as wide as pronotum, in HT 1.87 and in PT 1.93 times as long as pronotum; humeri protruded, elytral margin with about eight long humeral teeth and with very fine lateral denticulation disappearing apically, base slightly sloping; outline strongly broadened on sides; broadest before middle; suture deeply depressed at base. Base with distinct, elongate tubercles in prolongation of intervals 1-2 and moderately large BSP. Striae 1-2(3) moderately deep, striae 4-7 consisting of rows of rather deep punctures; all striae disappearing apically; striae 1-4 in apical fifth, lateral ones in apical third. Stria 1 distinct up to base, lateral ones shortened basally. Intervals in basal part slightly convex, latero-apically flattened. Third interval without DSP.

Aedeagus, Shape as in (Figs 6a,b,c,d). Median lobe in lateral view (Figs 6a) rather long and narrow, slightly bent down; apical part narrow, narrowed apically, apex rather narrowly rounded. Outline of median lobe in ventral view (Fig. 6b) almost symmetric, strongly narrowed apically, apex narrowly rounded; urite IX as in (Fig. 6c). Parameres as in (Fig. 6d), bisetose.

Styli as in (Fig. 6e), apical spine long, moderately curved.

**Differential diagnosis.** *A. nguruensis* sp. nov. is the first known species from Nguru Mts.; it

can be distinguished from all Tanzanian *Antireicheia* by the roughly punctured episterna of the pronotum and by a different shape of the aedeagus; moreover from *A. bergeri*, the habitually most similar species due to its larger body, by the elytra with finer striae and the simple apex of the median lobe of the aedeagus (hooked in *A. bergeri*); from *A. grebennikovi* and *A. alesi* sp. nov. by the elytra without DSP and finally, from *A. ulugurana* and *A. debeckeri* by the elytra with distinct humeral teeth.

**Name derivation.** The species epithet is derived from the place in which the species was found.

#### KEY TO TANZANIAN *ANTIREICHEIA*

- 1(4) Elytral lateral margin without humeral teeth; elytra without DSP in interval 3. Uluguru Mts.
- 2(3) Smaller species (2.25-2.35 mm), pronotal reflexed lateral margin hard to recognize, elytra shorter (1.55-1.60 times as long as wide), with first striae slightly deeper; apex of median lobe of aedeagus in lateral view broader, in ventral view broader, apex turned left (Figs 1a,d) ..... *A. ulugurana*
- 3(2) Larger species (2.65-2.80 mm), pronotal reflexed lateral margin more distinct, elytra longer (1.67-1.80 times as long as wide), with first striae finer; apex of median lobe of aedeagus in lateral view narrower, in ventral view narrow, apex not turned left (Figs 3a,d) ..... *A. debeckeri*
- 4(1) Elytral lateral margin with at least 4-5 distinct humeral teeth; elytra with none or three DSP in interval 3. Uluguru, Nguru or Usambara Mts.
- 5(8) Elytra with three DSP in interval 3
- 6(7) Elytra short ovate (1.50-1.59 times as long as wide), elytral striae rather deep on disc. (2.15-2.55 mm). Usambara Mts. .... *A. grebennikovi*
- 7(6) Elytra elongate (1.74-1.75 times as long as wide), elytral striae superficial on disc. (2.20-2.30 mm). Uluguru Mts. .... *A. alesi* sp. nov.
- 8(5) Elytra without DSP in interval 3
- 9(10) Proepisterna impunctate. Smaller species (2.25-2.50 mm); elytra slightly shorter, with deeper striae. Apex of median lobe of aedeagus hooked (as in Fig. 2a). Uluguru Mts. .... *A. bergeri*
- 10(9) Proepisterna roughly punctate. Larger species (2.65-2.90 mm), elytra longer, with finer striae. Apex of median lobe of aedeagus simple (as in Fig. 6a). Nguru Mts. .... *A. nguruensis* sp. nov.

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