

New records, new combination and two new species in the genus *Achaenops* Suffrian, 1857 (Coleoptera: Cryptocephalinae)

Новые находки, новая комбинация и два новых вида *Achaenops* Suffrian, 1857 (Coleoptera: Cryptocephalinae)

M. Schöller
M. Шёллер

Biologische Beratung, Storkower Str. 55, D-10409 Berlin, Germany. E-mail: schoeller@tricho.b.shuttle.de

Key words: Coleoptera, Chrysomelidae, Cryptocephalinae, Cryptocephalini, Achaenopina, Afrotropical, South Africa, taxonomy.

Ключевые слова: Coleoptera, Chrysomelidae, Cryptocephalinae, Cryptocephalini, Achaenopina, Афротропика, Южная Африка, таксономия.

Abstract. Two new species in the genus *Achaenops* Suffrian, 1857 are described and illustrated, *A. lopatini* sp. n. and *A. nanus* sp. n. from South Africa. *A. lopatini* sp. n. differs from all other species with impunctate pronotum and dark brown to black pronotum and elytra, by the confused puncturation of the elytra and the expanded pronotal side margins. *A. nanus* sp. n. is the smallest species in the genus, with sparse puncturation of pronotum, yellowish fore legs and dark brown mid- and hind legs. *Coptocephala klassi* Medvedev, 2006 is transferred to *Achaenops*: *A. klassi* (Medvedev, 2006) **comb. n.** New records are given for *A. monstrosus* Schöller, 2006, *A. klassi* and *A. sericinus* (Suffrian, 1857). The previously unknown male of *A. sericinus* is described. The genus is recorded for the first time from Free State, North West and Mpumalanga Provinces of South Africa. A check-list and a distribution map for the ten species in this genus endemic to South Africa are given.

Резюме. В статье даны описания и иллюстрации двух новых видов рода *Achaenops* Suffrian, 1857 – *A. lopatini* sp. n. и *A. nanus* sp. n. из Южной Африки. *A. lopatini* sp. n. отличается от всех других видов непунктированной переднеспинкой и темно-коричневыми или черными переднеспинкой и надкрыльями, беспорядочной пунктировкой надкрылий и расширенными сторонами переднеспинки. *A. nanus* sp. n. – самый маленький вид рода, с редкой пунктировкой переднеспинки, желтоватыми передними ногами и темно-коричневыми средними и задними ногами. *Coptocephala klassi* Medvedev, 2006 перенесен в род *Achaenops*: *A. klassi* (Medvedev, 2006) **comb. n.** Для видов *A. monstrosus* Schöller, 2006, *A. klassi* и *A. sericinus* (Suffrian, 1857) приведены новые находки. Описан ранее неизвестный самец вида *A. sericinus*. Род *Achaenops* впервые указан для провинций ЮАР: Фри-Стейт, Северо-Запад и Мпумаланга. Для десяти эндемичных для ЮАР видов рода приводятся чек-лист и карта распространения.

Introduction

The subtribe Achaenopina Clavareau, 1913 of the leaf

beetle subfamily Cryptocephalinae with the only genus *Achaenops* Suffrian, 1857 is endemic to South Africa. *Achaenops* was described by monotypy and remained unknown until recently it was shown to be more diverse and distributed predominantly in the Western Cape Province [Schöller, 2006]. From species of *Cryptocephalus* Geoffroy, 1762 of similar size, *Achaenops* spp. can be readily distinguished by the bordered basal margin of the pronotum [Schöller, 2013], and from Clytrini by the combination of filiform to slightly serrate antennae, and the fore coxae separated by the fairly wide prosternal process. In this contribution, a species described in the tribe Clytrini is shown to belong to *Achaenops*, two new species are described, and new records and characters for additional species are given.

Material and methods

Included in this study are specimens located in the following collections:

BMNH = Natural History Museum, London, Great Britain (M. Barclay);

DSPC = Davide Sassi personal collection, Castelmarte (Como), Italy;

FKPC = Frantisek Kantner personal collection, Lipí u Českých Budejovic, Czech Republic;

JBPC = Jan Bezdek personal collection, Budweis, Czech Republic;

MESC = Matthias Schöller personal collection, Berlin, Germany;

NMPC = National Museum Prague collection (J. Hajek);

NMW = Naturhistorisches Museum Wien, Austria (H. Schillhammer);

SANC = South African National Collection of Insects, Pretoria, South Africa (E. Grobbelaar);

SMNH = Swedish Museum of Natural History, Stockholm, Sweden (B. Viklund);

SMTD = Senckenberg Museum für Tierkunde Dresden, Germany (K.-D. Klass);

TMSA = South Africa, Gauteng, Pretoria, Transvaal Museum (R. Müller);

UHPC = Uwe Heinig personal collection, Berlin, Germany;

ZMHB = Museum für Naturkunde, Berlin, Germany (J. Frisch and M. Uhlig);

ZSM = Zoologische Staatssammlung, München, Germany (M. Balke).

The exact label data are cited for the type specimens. The type localities are cited in the original spelling. A double slash (//) divides data on different labels and a single forward slash (/) divides data in different rows. The data are printed if not otherwise mentioned, the author's remarks are presented in brackets: (ink) = preceding data are handwritten, [white] = white label.

The dried adults were dissected by separating the abdomen in water, the contents were soaked in cold diluted KOH and then washed in water. The eye length was measured in lateral view, the interocular space in frontal view. All measurements were made using an ocular grid mounted on the stereomicroscope (at 20 × magnification for the body length and 40–70 × magnification for the remaining measurements). Habitus pictures were taken with a Nikon D5100, and the photos stacked with Combine Z software.

Achaenops lopatini sp. n.
(Fig. 1–9)

Type locality. Republic of South Africa, Mpumalanga, 10 km South of Carolina, on Chrissiesmeer road, 26.09S 30.09E.

Material. Holotype, ♀ (SANC): "SOUTH AFRICA, TVL / 10km S Carolina on / Chrissiesmeer Rd. / 26.09S 30.09E / 19.i.1989 / V.M. Uys" // "NATIONAL COLL. / OF INSECTS / Pretoria, S.Afr" // "Holotypus Achaenops / lopatini n. sp. des. M. / Schöller" [red label]. Paratypes: 102 specimens, sex (collection) (paratype number on label): 1♀ (SANC) (1): "SOUTH AFRICA, TVL / 10km S Carolina on / Chrissiesmeer Rd. / 26.09S 30.09E / 19.i.1989 / V.M. Uys" // "NATIONAL COLL. / OF INSECTS / Pretoria,

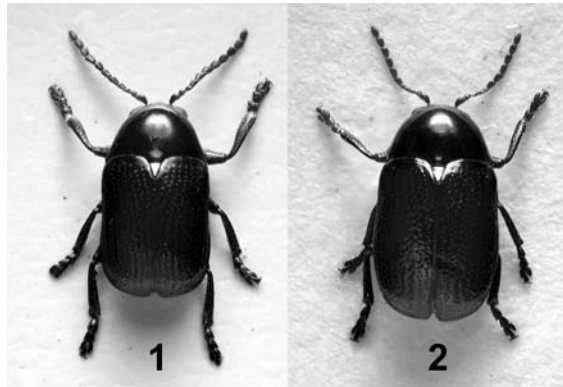


Fig. 1–2. *Achaenops lopatini* sp. n., habitus.
1 – male; 2 – female.

Рис. 1. *Achaenops lopatini* sp. n., общий вид.
1 – самец; 2 – самка.

S.Afr"; 1♂ (SANC) (2): "SOUTH AFRICA, TVL / 2km SW Chrissies- / meer, 26.18S / 30.11E / 19.i. / 1989 B. Grobbelaar" // "NATIONAL COLL. / OF INSECTS / Pretoria, S.Afr"; 1♂, 2♀ (SANC) (3, 4, 5): "SOUTH AFRICA, TVL / 2km SW Chrissies- / meer, 26.18S / 30.11E / 19.i. / 1989 V.M. Uys" // "NATIONAL COLL. / OF INSECTS / Pretoria, S.Afr"; 1♂ (SANC) (6): "SOUTH AFRICA: MPU / Carolina, 10km S, on / Chrissiesmeer road / 26.09S 30.09E / 19.i.1989 E. Grobbelaar" // "COLLECTING TECHNIQUE / Collected by sweepin" // "NATIONAL COLL. / OF INSECTS / Pretoria, S.Afr"; 1♀ (SANC) (7): "SOUTH AFRICA: MPU / Chrissiesmeer, 2km S W / 26.18S 30.11E / 19.i.1989 E. Grobbelaar" // "COLLECTING TECHNIQUE /

Collected by sweeping" // "NATIONAL COLL. / OF INSECTS / Pretoria, S.Afr"; 1♂ (SANC) (8): "SOUTH AFRICA / Grahamstown [33.18S 26.32E] / C.P. i. 1979 / C. Kok / S.J. v. Tonder"; 1♀ (SANC) (9): "SOUTH AFRICA, C.P. / Hogsback Mnt, 32.35S / 27.05E. 03.xii.1983 / R. Oberprieler" // "NATIONAL COLL. / OF INSECTS / Pretoria, S.Afr"; 1♂ (SANC) (10): "SOUTH AFRICA, TVL. / Rustenburg Nature / Res. 25.40S 27.12E / 23-26. ii.1981 / R.G. Oberprieler" // "NATIONAL COLL. OF INSECTS / Pretoria, S.Afr" // "Sweeping"; 4♂, 2♀ (BMNH) (11–16): "Natal: / Van Reenen, / Drakensberg. / 1-22.i.1927" // S. Africa (blue line) / R.E. Turner. / Brit. Mus. / 1927-54"; 1♀ (BMNH) (17): "NATAL. / Weenen [28.84S 30.07E] / - iii 1928 / H.P. Thomasset" // "Pres. By / Comm Inst Ent / B.M. 1981-315"; 1♀ (ZMHUB) (18): "South Africa: Free State / Golden Gate Highlands / NP: Brandwag / 28°30'12"S/28°36'47"E / 23.xii.2003, lg.M. & B. Uhlig"; 5♂, 4♀ (MESOC) (19–27), 2♂, 2♀ (ZMHUB) (28–31), 1♂, 1♀ (ZSM) (32–33), 7♂, 23♀ (UHPC) (34, 41–46, 49–71): "RSA, O.F.S. / N of FICKSBURG / R-70, 17.1.2003 / LGT. M. SNIZEK"; 2♂, 1♀ (MESOC) (100–102), 1♂, 1♀ (SNGC), 1♂, 1♀ (SMTD), 1♂, 1♀ (FKPC), 2♂, 2♀ (NMPC), 1♂, 1♀ (TMSA), 1♂, 1♀ (SMNH), 6♂, 8♀ (JBPC) (72–102): "RSA, O. F. S., / N of Ficksburg / R-70, 17.i.2003, / lgt. V. Krivan"; 5♂ (UHPC), 1♂ (MESOC) (35–40): "RSA, O.F.S. / FOURIESBURG / env. 18.1.2003 / LGT. M. SNÍZEK"; 1♂ (UHPC), 1♂ (MESOC) (47–48): "RSA, O.F.S. / GOLDEN GATE / N.P., 19.1.2003 / LGT. M. SNÍZEK"; all paratypes numbered and with my label / "Paratypus Achaenops / lopatini n.sp. (number); des. M. / Schöller" [red label].

Differential diagnosis. A medium sized blackish brown species with black head and pronotum, with non-modified clypeus in males, differs from all other species by the combination of impunctate pronotum with expanded side margins, black pronotum and elytra, and partly confused puncturation of elytra (fig. 1–2).

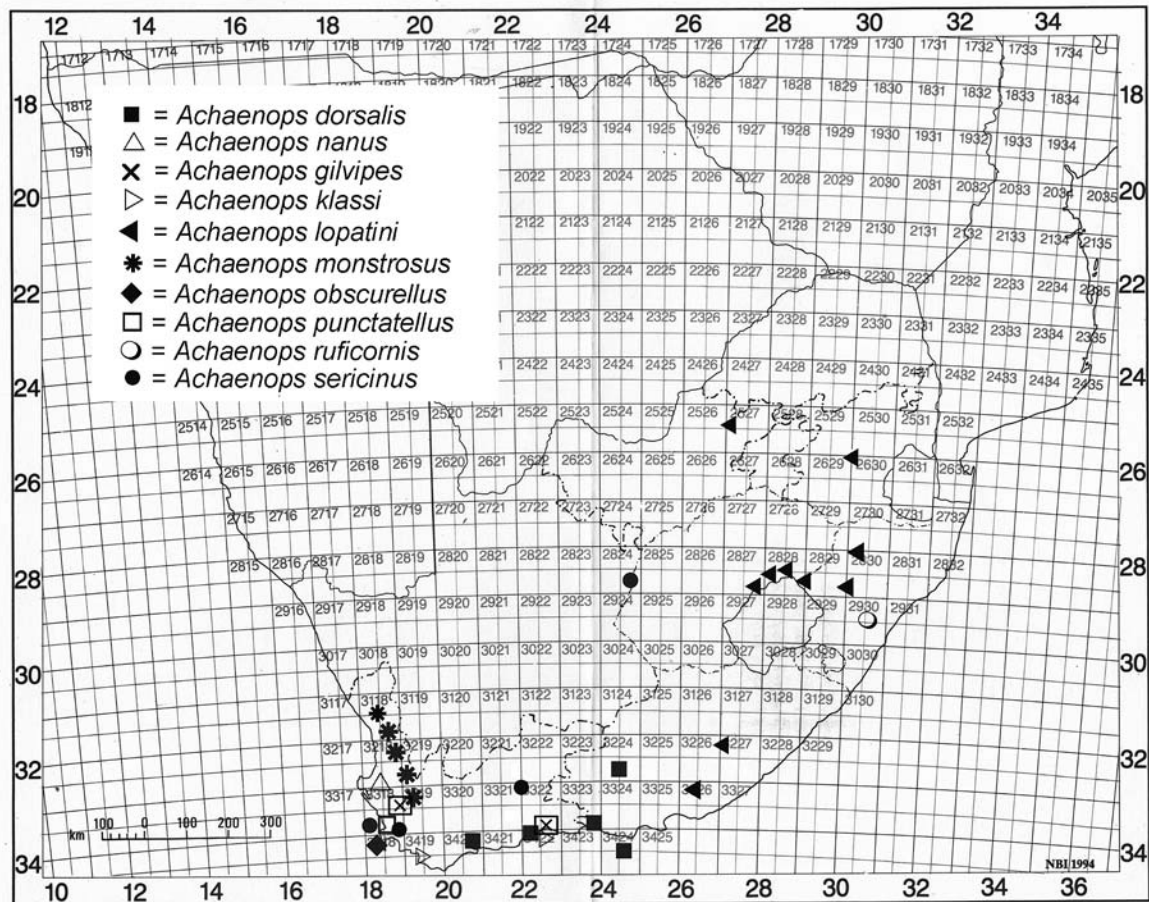
Description. Holotype (male). Size (mm): length 2.4, width of elytra at humeri 1.3, length of pronotum 0.8 and width 1.25.

Head. Head visible in dorsal view, shiny, with sparse coarse punctures, not shagreened, labrum black, mandibles brown; labial palpi acute; eyes small and upper lobes distant, therefore distance between upper lobes as long as eye length in lateral view, eyes evenly convex, canthus deep; antenna 0.6 × body length, segments 1–3 of antennae dark brown, 4–11 black, 5–11 apically expanded, antennae inserted low on frons.

Thorax. Pronotum black, wet showing feeble blue metallic reflex, lateral margins expanded, simultaneously visible in dorsal view; median lobe of basal margin truncate, slightly raised, pronotum shiny and practically impunctate (at 70 × magnification very small and shallow puncturation detectable), prothorax black, intercoxal prosternal process elongate, as wide as coxal cavity, apically straight, front margin with a broad carina, basally blunt triangular; hypomeron not punctured; scutellum narrowly triangular, apically raised above elytra; elytra blackish brown, with confused puncturation on disk, partly regular rows apically, basally and laterally, interstices shiny, smooth; epipleuron half the length of the elytra; legs blackish brown, external edge of tibiae simple, fore tibiae only slightly longer than hind tibiae, and only slightly bent, tarsi brown, claws simple, small; no tibial spurs.

Abdomen. Venter dark brown, sternites and pygidium with coarse punctures and short white setae, pygidium shagreened; elytra covering 50% of pygidium; aedeagus well sclerotized, ventrally almost straight in lateral view (fig. 3), aedeagus with a rounded, slightly asymmetric tip, a pair of lobate frenulae and a broad, wide transverse endosclerite visible in ostium (fig. 4), ventral side irregularly depressed with a sharp longitudinal ridge (fig. 5), tegmen as in fig. 6, length of aedeagus 0.85 mm.

Female. Head. Head as in male, eyes relatively small, distant, ratio eye width 1.28 times eye length, canthus triangular; egg-hollow shallow; spermatheca light brown, hook-shaped, pump longer than reservoir, spermathecal ductus emerging from a cone-shaped extension of spermatheca, spermathecal ductus narrow and densely coiled up close to spermatheca, getting wider basally (fig. 9); kotpresse with ventral sclerite a crosswise band of almost regular length, apodemes small, wider than rectum, ventral chitinpolster present, ventral sclerotisations of lateral fold present (fig. 8), dorsal sclerites triangular, transverse, dorsal sclerites not

Fig. 10. Collection localities of *Achaenops* Suffrian, 1857 species.Рис. 10. Точки находок представителей рода *Achaenops* Suffrian, 1857.

attached to sinuose sclerotisation of the lateral fold, a pair of sclerotized areas posterior to dorsal sclerites present (fig. 7).

Variability. Size (mm) (mean \pm standard deviation (max., min., n)): length of male 2.55 ± 0.12 (2.75, 2.45, 5), female 3.08 ± 0.15 (3.35, 3, 5), width of elytra at humeri in male 1.41 ± 0.04 (1.45, 1.35), in female 1.74 ± 0.07 (1.85, 1.7), length of elytron in male 1.76 ± 0.07 (1.85, 1.65), in female 2.23 ± 0.1 (2.4, 2.15), length of pronotum in male 0.82 ± 0.07 (0.9, 0.75), width 1.37 ± 0.04 (1.4, 1.3), length of pronotum in female 0.96 ± 0.05 (1, 0.9) and width 1.63 ± 0.07 (1.75, 1.6), length of antenna in male 1.5, in female 1.51 ± 0.02 (1.55, 1.5).

The ridge on the ventral side of the aedeagus is narrow and distinct in some males, but blunt and less distinct in others.

Etymology. This species is dedicated to Prof. Dr. Igor Lopatin (1923–2012), who devoted his research to the taxonomy of Chrysomelidae, especially to the Cryptocephalinae. His published work guided me from my early beginnings as a school boy interested in beetles via our personal meeting in Munich within the frame of the Entomofaunistic Society to the honour of a joint publication for the Catalogue of Palaearctic Coleoptera.

Distribution and biology. Known from the provinces Free State, KwaZulu-Natal, North West, Eastern Cape and Mpumalanga (fig. 10). No information on the biology is available, one specimen is known to be obtained by beating.

Achaenops nanus sp. n.

(Fig. 11–19)

Type locality. Republic of South Africa, Western Cape, 80 km North of Cape Town, route R27 (33.15S, 18.15E).

Material. Holotype, ♂ (SANC): "RSA, W. CAPE / 80 km N of CAPE / TOWN, route R27 / 21.11.2002 / LGT. M. SNIŽEK" // "Holotypus *Achaenops / nanus* n. sp. des. M. / Schöller" [red label]. Paratypes: 18 specimens, sex (collection) (paratype number on label): 1♀, (SANC) (1), 2♂, 2♀ (ZMHUB) (2–5), 1♀ (BMNH) (6), 1♀ (ZSM) (7); 2♂, 2♀ (MESC) (8–11), 2♂, 4♀ (UHPC) (12–18): same label as holotype; all paratypes numbered and with my label "Paratypus *Achaenops / nanus* n.sp. (number); des. M. / Schöller" [red label].

Differential diagnosis. A small species with reddish dark brown head and pronotum, and black elytra, with non-modified clypeus in males, differs from the similar *A. dorsalis* by the combination of size, sparse puncturation of pronotum, dark brown mid- and hind legs (fig. 18–19), and male and female genitalia.

Description. Holotype (male). Size (mm): length 1.65, width of elytra at humeri 0.4, length of pronotum 0.4 and width 0.35.

Head. Head visible in dorsal view, shiny, with sparse coarse punctures, not shagreened, labrum reddish brown with yellowish margin, mandibles brown, gena yellowish brown; labial palpi acute; eyes small and upper lobes distant, therefore distance between upper lobes 1.3 times eye length in lateral view, eyes evenly convex, canthus moderately deep; antenna short, i.e. $0.46 \times$ body length, segments 1–6 of antennae yellowish brown, 7–11 dark brown, 7–11 apically expanded, antennae inserted low on frons.

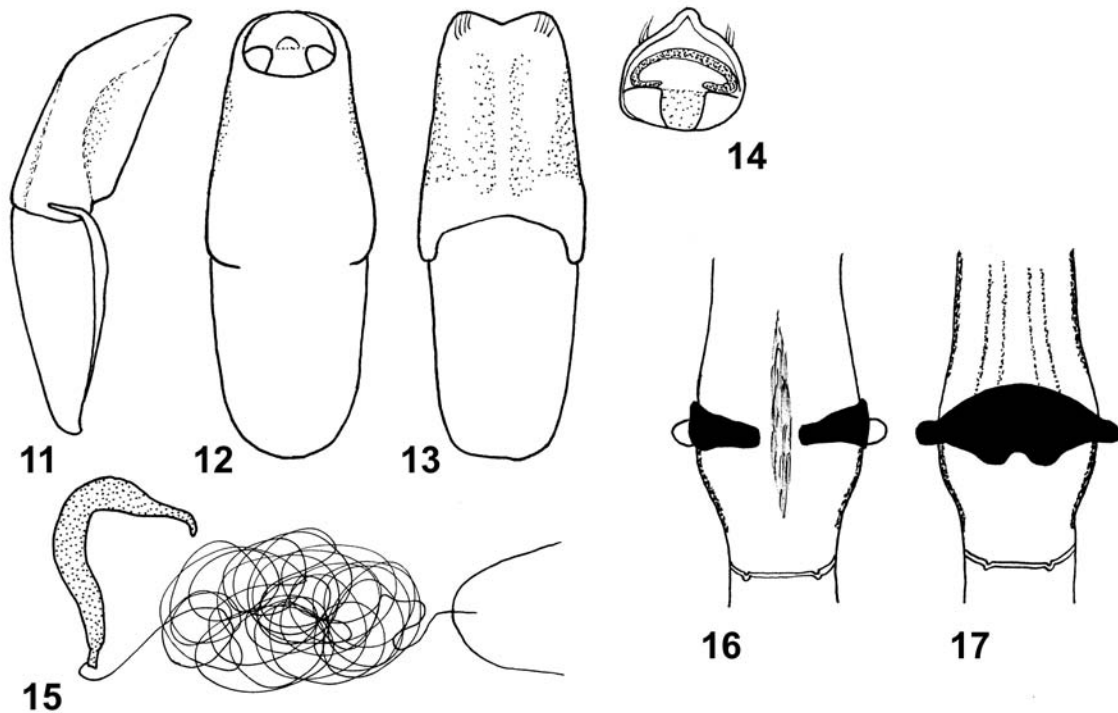


Fig. 11–17. *Achaenops nanus* sp. n., details of structure.

11–14 – aedeagus: 11 – lateral view, 12 – dorsal view, 13 – ventral view, 14 – orificium, tip; 15 – spermatheca and spermathecal ductus; 16–17 – kotpresse: 16 – dorsal view, 17 – ventral view.

Рис. 11–17. *Achaenops nanus* sp. n., детали строения.

11–14 – эдеагус: 11 – вид сбоку, 12 – вид сверху, 13 – вид снизу, 14 – орифициум, вершина; 15 – сперматека и ее протоки; 16–17 – ректальный аппарат: 16 – вид сверху, 17 – вид снизу.



Fig. 18–19. *Achaenops nanus* sp. n., habitus.

18 – male; 19 – female.

Рис. 18–19. *Achaenops nanus* sp. n., общий вид.

18 – самец; 19 – самка.

horizontally bend (fig. 11), in dorsal view gradually narrowing towards apex (fig. 12), aedeagus with a rounded, asymmetric tip, a pair of triangular frenulae and a wide transverse endosclerite visible in ostium (fig. 14), ventral side with a blunt longitudinal ridge (fig. 13), length of aedeagus 0.5 mm.

Female. Head. Head as in male, eyes relatively small, distant, eye width 1.53 times eye length, canthus triangular, moderately deep; egg-hollow shallow, punctured; spermatheca dark brown, hook-shaped, slender, pump as long as reservoir, spermathecal ductus emerging from a cone-shaped extension of spermatheca, spermathecal ductus fine and densely coiled up (fig. 15); kotpresse with ventral sclerite a broad crosswise band, hind margin convex, apodemes small, wider than rectum, with four longitudinal sclerotized rows parallel to lateral fold, ventral sclerotisations of

lateral fold present (fig. 17), dorsal sclerites triangular, transverse, wider than rectum, dorsal sclerotisation of the lateral fold present (fig. 16).

Variability. Size (mm) (mean \pm standard deviation (max., min., n)): length of male 1.52 ± 0.09 (1.63, 1.4, 5), female 1.81 ± 0.08 (1.9, 1.75, 5), width of elytra at humeri in male 0.82 ± 0.04 (0.88, 0.78), in female 0.93 ± 0.03 (0.98, 0.9), length of elytron in male 1.09 ± 0.09 (1.23, 1.03), in female 1.37 ± 0.03 (1.4, 1.33), length of pronotum in male 0.42 ± 0.03 (0.48, 0.4), width 0.78 ± 0.04 (0.83, 0.75), length of pronotum in female 0.46 ± 0.03 (0.5, 0.43) and width 0.87 ± 0.02 (0.9, 0.85), length of antenna in male 0.71 ± 0.03 (0.73, 0.65), in female 0.67 ± 0.01 (0.68, 0.65).

The puncturation on the disk of the pronotum ranges from sparse but regular to almost absent.

Etymology. The name refers to the small size of the species, nanus (Latin) means dwarf.

Distribution and biology. Known from the type locality in the Western Cape Province only (fig. 10). No information on the biology is available.

Achaenops klassi (Medvedev, 2006) **comb. n.**
(Fig. 20–27)

Coptocephala klassi Medvedev, 2006: 139 (described in Clytrinae).

This species was described based on 6 males and 7 females (fig. 20–21) from South Africa, Western Cape Province, Grootbos N Gansbaai (34°54'S, 19°41'E), 31.08.2003. Three paratypes from SMTD were re-examined.

Material. 1♂, 2♀ (SMTD): "South Africa / Western Cape Province / Grootbos N Gansbaai / 34,54°S 19,41°E / 31.viii.2003, leg. K.-D. Klass" // "Cooperation Project 2003 / MTD – RSA Western Cape / coll. permit

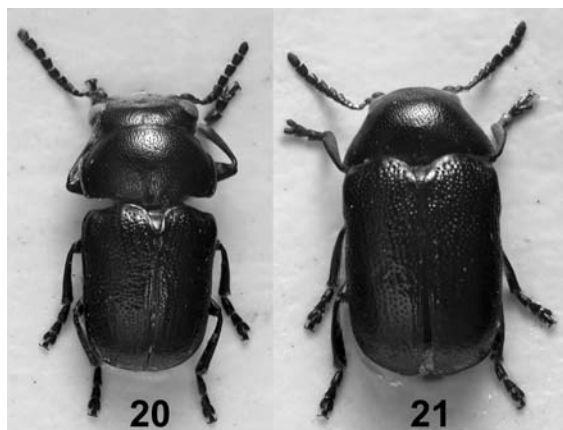


Fig. 20–21. *Achaenops klassi* (Medvedev, 2006), habitus. 20 – male; 21 – female.

Рис. 20–21. *Achaenops klassi* (Medvedev, 2006), общий вид. 20 – самец; 21 – самка.

Thorax. Pronotum reddish dark brown, lateral margins narrow, not simultaneously visible in dorsal view; median lobe of basal margin truncate, apically slightly raised, pronotum not vaulted in lateral view, in one level with elytra, pronotum shiny, punctures coarse, on disk very sparse, more dense laterally; prothorax blackish brown, intercoxal prosternal process elongate, half as wide as coxal cavity, front and hind margin straight without carina; hypomerion with sparse coarse punctures; scutellum triangular, apically not raised above elytra; elytra blackish brown, wet showing feeble blue metallic reflex, with regular rows of fine punctures, striae not impressed, interstices shiny, smooth; epipleuron 2/3 the length of the elytra; hind legs blackish brown, mid legs dark brown and fore tibia and fore femur yellowish brown, external edge of tibiae simple, fore tibiae only slightly longer than hind tibiae, and only slightly bent, all tarsi dark brown, claws simple, small; no tibial spurs.

Abdomen. Venter dark brown, sternites with coarse punctures and short white setae, with longer setae at mid of last ventrite, hind margin of last ventrite convex, pygidium with fine punctures; elytra covering 50% of pygidium; aedeagus well sclerotized, dark brown, ventrally almost straight in lateral view, wide, apex with ostium

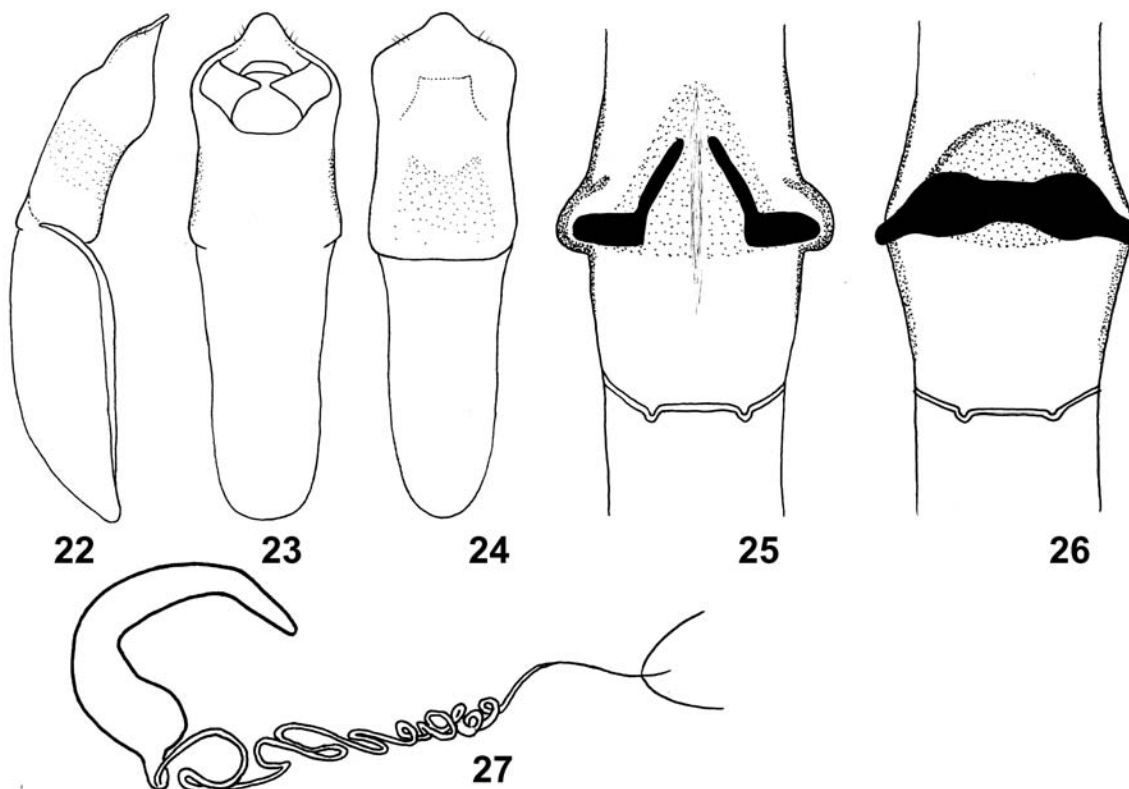


Fig. 22–27. *Achaenops klassi* (Medvedev, 2006), details of structure.

22–24 – aedeagus: 22 – lateral view, 23 – dorsal view, 24 – ventral view; 25–26 – kotpresse: 25 – dorsal view, 26 – ventral view; 27 – spermatheca and spermathecal ductus.

Рис. 22–27. *Achaenops klassi* (Medvedev, 2006), детали строения.

22–24 – эдеагус: 22 – вид сбоку, 23 – вид сверху, 24 – вид снизу; 25–26 – ректальный аппарат: 25 – вид сверху, 26 – вид снизу; 27 – сперматека и ее протоки.

277/2003" // Staatl. Museum für Tierkunde Dresden" // "PARATYPUS *Coptocephala klassi* L. Medvedev" [red label] // "*Achaenops klassi* (Medvedev, 2006) Schöller 2013, det. M. Schöller".

Additional material. 1♀ (BMNH): "S. Africa, R.E. Turner, Brit. Mus. 1930-416, Cape Province: Mossel Bay, viii.1930".

Additional characters. Aedeagan lobe relatively narrow in lateral view, ventral side bulging in lateral view (fig. 22), aedeagus with a rounded, symmetric tip, a pair of triangular frenulae and a narrow transverse endosclerite

visible in ostium (fig. 23), ventral side regularly rounded except for a basal depression, endosclerite visible through aedeagan lobe (fig. 24), length of aedeagus 0.8 mm.

Spermatheca light brown, hook-shaped, pump longer than reservoir, spermathecal ductus emerging from a cone-shaped extension of spermatheca, spermathecal ductus thick and coiled up close to spermatheca, but not spiral, getting very thin basally (fig. 27); kotpresse with ventral sclerite,

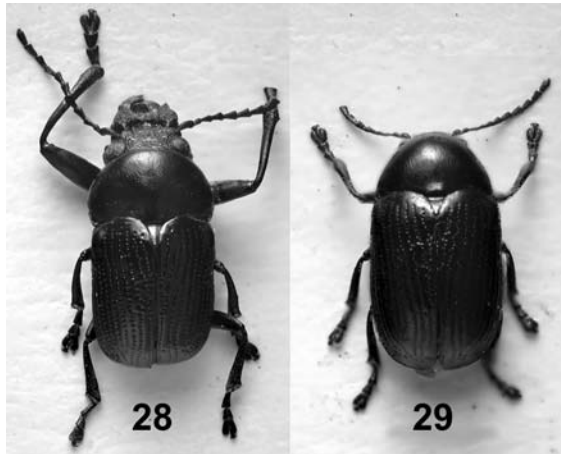


Fig. 28–29. *Achaenops monstrosus* Schöller, 2006, habitus.
28 – male; 29 – female.
Рис. 28–29. *Achaenops monstrosus* Schöller, 2006, общий вид.
28 – самец; 29 – самка.

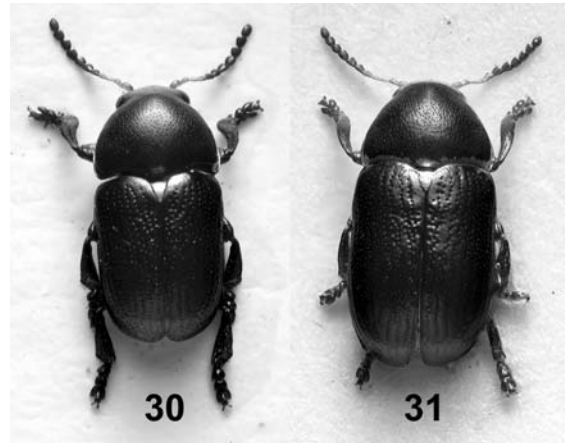


Fig. 30–31. *Achaenops sericinus* (Suffrian, 1857), habitus.
30 – male; 31 – female.
Рис. 30–31. *Achaenops sericinus* (Suffrian, 1857), общий вид.
30 – самец; 31 – самка.

i.e. a crosswise band narrowing towards centre, apodemes small, slightly wider than rectum and bend downwards, ventral chitinpolster present, ventral sclerotisations of lateral fold present (fig. 26), dorsal sclerites transverse, semi-rectangular, with an extension directed posteriorly towards dorsal fold, dorsal sclerites not attached to the broad sclerotisation of the lateral fold (fig. 25).

Achaenops monstrosus Schöller, 2006
(Fig. 28, 29)

From this species described based on 6 specimens, more material was made available for study by SANC.

Material. 2♂, 1♀ (SANC) (fig. 28, 29): "SOUTH AFRICA, C.P., Middelberg Pass nr Citrusdal, 32.38S, 19.09E. 19.ix.1986 R. Oberprieler, collected on *Protea nitida*" [holotype locality]; 4♂, 5♀ (SANC): "SOUTH AFRICA, C.P. Gydo Pass near Prince Alfred, 33.14S 19.20E. 19.ix.1986, R. Oberprieler, collected on *Protea nitida*" [paratype locality]; 1♂, 1♀ (SANC): "SOUTH AFRICA, C.P. Gifberg Pass, 250-560m, 31.45S 18.47E, 17.ix.1986, R. Oberprieler" [new, most northern collection locality known].

Achaenops sericinus (Suffrian, 1857)
(Fig. 30–34)

Material. 3♂, 1♀ (SANC) (fig. 30, 31): "SOUTH AFRICA, CP, Swartberg Pass, 1400m, 33.19S, 22.04E. 30.xi.1988, R. Oberprieler"; 1♀ (ZSM): "Rep. of S.-Africa, Kapstadt, Kirstenbosch, 11.11.88, leg. Spornraft"; 1♂ (SANC): "SOUTH AFRICA, Stellenbosch, 201.1988, M. Wright, Ac.H.R.P."; 1♂ (MESC): "USA, Texas, Houston, on airplane ex S. Africa, on *Protea* sp., October 30, 1979, C.H.May".

Description of a male of *A. sericinus*. Size (mm): length 3, width of elytra at humeri 1.5, length of pronotum 1.05 and width 1.5.

Head. Head visible in dorsal view, matt, densely punctured and shagreened, clypeus simple, apically convex, labrum and mandibles brown; labial palpi acute, brown; a shallow, short longitudinal impression on frons; eyes small and upper lobes distant, therefore distance between upper lobes 1.44 times eye length in lateral view, eyes evenly convex, canthus deep, rounded; antenna short, 0.42 × body length, segments 1–4 of antennae light brown, 5–11 dark brown, 5–11 apically expanded, antennae inserted low on frons.

Thorax. Pronotum black, lateral margins expanded, simultaneously visible in dorsal view; median lobe of basal margin truncate, slightly raised, pronotum matt, densely punctured,

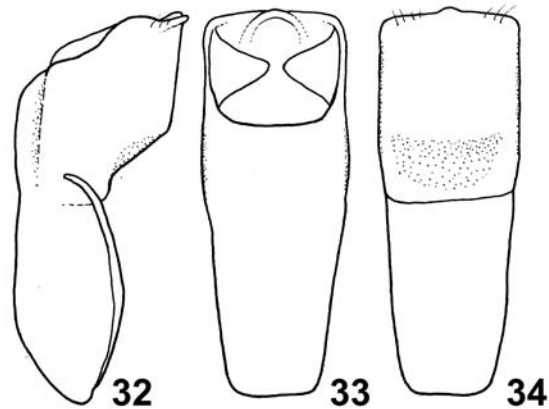


Fig. 32–34. *Achaenops sericinus* (Suffrian, 1857), aedeagus.
32 – lateral view; 33 – dorsal view; 34 – ventral view.
Рис. 32–34. *Achaenops sericinus* (Suffrian, 1857), аedeagus.
32 – вид сбоку; 33 – вид сверху; 34 – вид снизу.

punctures fine but deep, explanate lateral margin with a row of punctures, whole pronotum shagreened; scutellum narrowly triangular, in one level with elytra except for very tip only raised above elytra; prothorax black except for brown mesosternal process, intercoxal prosternal process very narrow, about 1/3 of coxal width, apically straight, basally blunt triangular; hypomerion with dense coarse punctures, elytra blackish brown, with puncturation on disk confused by extra-punctures and some irregular rows, almost regular rows at base and apex of elytra, elytra shagreened, matt, elytral lateral margins explanate; epipleuron 2/3 the length of the elytra, basally broad and gradually narrowing, with a row of punctures; legs dark brown except for lighter brown trochanter, all tibiae explanate and with a longitudinal ridge, external edges of tibiae triangularly broadened, all tibiae of similar length, tarsal claws black, claws appendiculate, no tibial spurs.

Abdomen. Venter blackish brown, sternites and pygidium with punctures and shagreened, with short white setae; elytra covering 50% of pygidium; aedeagan lobe broad in lateral view, ventral side bulging in lateral view (fig. 32), aedeagus apically straight, a pair of triangular frenulae and a semi-circular endosclerite visible in ostium (fig. 33), ventrally a minute rounded symmetric tip visible,

aedeagus regularly rounded on ventral side except for a basal depression (fig. 34), length of aedeagus 0.7 mm.

Check-list for the genus *Achaenops* Suffrian, 1857

- Achaenops* Suffrian, 1857: 234.
 = *Protinocephalus* Reineck, 1913: 648, synonymised by Schöller [2006: 280].
Achaenops dorsalis Suffrian, 1857: 236.
Achaenops gilvipes (Suffrian, 1857: 77): Schöller, 2006: 274.
 = *Protinocephalus wiseanus* Reineck, 1913: 648.
Achaenops klassi (Medvedev, 2006: 139): Schöller, 2013: this publication.
Achaenops lopatini **sp. n.**
Achaenops monstrosus Schöller, 2006: 282.
Achaenops nanus **sp. n.**
Achaenops obscurellus (Suffrian, 1857: 76): Schöller, 2006: 275.
Achaenops punctatellus Schöller, 2006: 282.
Achaenops ruficornis (Suffrian, 1857: 75): Schöller, 2006: 274.
Achaenops sericinus (Suffrian, 1857: 80): Schöller, 2006: 280.

Discussion

The study of the new species described and the male of *A. sericinus* resulted in a number of character states previously not known for the genus *Achaenops*, including dorsal sclerites of kotpresse wider than rectum in females, and asymmetric aedeagus and central pit on frons in males. Within the genus *Achaenops*, now a wide variability of sexual dimorphism can be observed. Males *A. lopatini* **sp. n.** are just smaller in habitus than females. Enlarged head and mandibles in male *A. klassi* resemble the genus *Coptocephala* Chevrolat, 1836, where this species was originally described in. The enlarged head, clypeus, mandibles and fore-legs resemble the characters e.g. of the Clytrini genus *Miopristis* Lacordaire, 1848. In *A. sericinus*, the head is not modified, but the male pronotum is wider than the elytral base and the legs are broader compared to the female. These observations point to specifically different strategies of male agonistic behaviour within the genus *Achaenops*. Moreover, presumably similar mating systems independently developed in *Achaenops* and different genera of Clytrini. Recently Reid and Beatson [2013] reviewed the scattered occurrence of enlarged male mandibles in various tribes and subtribes of Cryptocephalinae, and suggested to use this character with caution as a supraspecific diagnostic character within Cryptocephalinae. The same may apply to enlarged male heads, legs, pronotum or modified clypeus as suggested by the study of *Achaenops*.

A. lopatini **sp. n.** is the second species beside *A. dorsalis* with the ventral side of the aedeagus not being regularly vaulted. Moreover, variability of the ventral aedeagal ridge was recorded for *A. lopatini* **sp. n.** It was found to be distinct in most males, but blunt in some males from the same collection site. Variability in aedeagus-characters was rarely recorded in Cryptocephalini, e.g. in the *Cryptocephalus hypochaeridis*-species group, where a ventral longitudinal impression might be present or lacking [Leonardi, Sassi, 2001].

Another interesting observation is the presence of appendiculate claws in *A. sericinus* while the claws are simple in the other species of *Achaenops*. Appendiculate claws are highly ranked characters in Cryptocephalinae taxonomy, their presence is the main character to separate e.g. *Melixanthus* Suffrian, 1854 spp. from *Cryptocephalus* spp. [Schöller, 2013].

The records of *A. lopatini* **sp. n.** are the first records of *Achaenops* from the provinces Free State, North West and Mpumalanga and consequently the most northern records for the genus, up to 25.5°S. The record from USA shows that *Achaenops* can potentially be imported together with Protea plants to other parts of the world.

Acknowledgements

I would like to express my sincere thanks to the colleagues mentioned in material and methods for the possibility to study the specimens in their respective collections.

References

- Leonardi C., Sassi D. 2001. Studio critico sulle specie di *Cryptocephalus* del gruppo hypochaeridis (Linné, 1758) e sulle forme ad esse attribuite (Coleoptera Chrysomelidae) // Atti della Società italiana di Scienze naturali e del Museo Civico di Storia naturale di Milano. 142(1): 3–96.
 Medvedev L.N. 2006. A new species of *Coptocephala* Chevrolat, 1837 from South Africa (Coleoptera: Chrysomelidae, Clytrinae) // Entomologische Zeitschrift Stuttgart. 116(2): 139–140.
 Reid C.A.M., Beatson M. 2013. Chrysomelid males with enlarged mandibles: three new species and a review of occurrence in the family (Coleoptera: Chrysomelidae) // Zootaxa. 3619(1): 79–100.
 Reineck G. 1913. Eine neue Cryptocephaliden-Gattung aus Süd-Afrika // Deutsche Entomologische Zeitschrift. 1913: 647–648.
 Schöller M. 2006. The genus *Achaenops* Suffrian, 1857 (Chrysomelidae: Cryptocephalinae), designation of neotypes and description of new species // Bonner Zoologische Beiträge. 2005. 54(4): 271–286.
 Schöller M. 2013. Schlüssel zu den Gattungen Afrotropischer Cryptocephalini (Coleoptera: Chrysomelidae: Cryptocephalinae). URL: http://offene-naturfuehrer.de/web/Afrotropische_Cryptocephalini.
 Suffrian E. 1857. Zur Kenntniss der Afrikanischen Cryptocephalen // Linnaea Entomologica. 11: 57–260.

References

- Leonardi C., Sassi D. 2001. Studio critico sulle specie di *Cryptocephalus* del gruppo hypochaeridis (Linne, 1758) e sulle forme ad esse attribuite (Coleoptera Chrysomelidae). *Atti della Societa italiana di Scienze naturali e del Museo Civico di Storia naturale di Milano*. 142(1): 3–96.
- Medvedev L.N. 2006. A new species of *Coptocephala* Chevrolat, 1837 from South Africa (Coleoptera: Chrysomelidae, Clytrinae). *Entomologische Zeitschrift Stuttgart*. 116(2): 139–140.
- Reid C.A.M., Beatson M. 2013. Chrysomelid males with enlarged mandibles: three new species and a review of occurrence in the family (Coleoptera: Chrysomelidae). *Zootaxa*. 3619(1): 79–100.
- Reineck G. 1913. Eine neue Cryptocephaliden-Gattung aus Sud-Afrika. *Deutsche Entomologische Zeitschrift*. 1913: 647–648.
- Schöller M. 2006. The genus *Achaenops* Suffrian, 1857 (Chrysomelidae: Cryptocephalinae), designation of neotypes and description of new species. *Bonner Zoologische Beiträge*. 2005. 54(4): 271–286.
- Schöller M. 2013. Schlüssel zu den Gattungen Afrotropischer Cryptocephalini (Coleoptera: Chrysomelidae: Cryptocephalinae). Available at: http://offenenaturfuehrer.de/web/Afrotropische_Cryptocephalini.
- Suffrian E. 1857. Zur Kenntniss der Afrikanischen Cryptocephalen. *Linnaea Entomologica*. 11: 57–260.