

A New Species of the Genus *Rhinogaster* Fennah (Homoptera, Fulgoroidea, Caliscelidae) from Southern Africa

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Abstract—The genus *Rhinogaster* Fennah, 1949 is recorded from the Afrotropical Region for the first time. *Rhinogaster stilleri* sp. n. well distinguished from other species of the genus by the shape of process of abdominal tergite V is described from the Republic of South Africa. A key with illustrations to all species of the genus is provided.

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The genus *Rhinogaster* was established by Fennah (1949) for *Rhinogaster albivenosa* Fennah, 1949 from Southern India (Nilgiri Hills). Later on one more species, *Rhinogaster sinuata* Menon et Parshad, 1961 from Northwestern India (New Delhi), was described in the genus (Menon and Parshad, 1961). The genus *Rhinogaster* Fennah, 1949 belongs to the tribe Caliscelini Amyot et Serville of the subfamily Caliscelinae Amyot et Serville; it differs from all the other genera of the tribe by a finger-shaped process of abdominal tergite V. All the species of the genus *Rhinogaster* well distinguished from each other by the shape and length of this process (Figs. 2–4). A new species from Southern Africa differs from the Indian species of the genus by the coloration of this process which is totally black.

A new species described below is a first record of the genus *Rhinogaster* from the Afrotropical Region. This is the second genus within Afrotropical Caliscelidae, together with *Chirodisca* Emeljanov, 1996, recorded also from the Oriental Region (Gnezdilov and Bourgoïn, 2009). Apparently both genera originated in Eurasia and spread to Africa “between Miocene and Pliocene (5–7 millions years ago) after the Tethys sea closed” and they are remnants of the Hippurion fauna which was widely distributed in Eurasia in Miocene (Mekaeiev, 1987).

The type specimens of the new species are deposited in the Agricultural Research Council, Pretoria, Republic of South Africa (ARC) and Zoological Institute of the Russian Academy of Sciences, Saint Petersburg, Russia (ZIN).

The photos are made using light microscope Leica MZ95 with video camera DFC290. Images are pro-

duced using the software Helicon Focus 4.61 and Photoshop®.

Family **CALISCCELIDAE** Amyot et Serville

Subfamily **CALISCCELINAE** Amyot et Serville

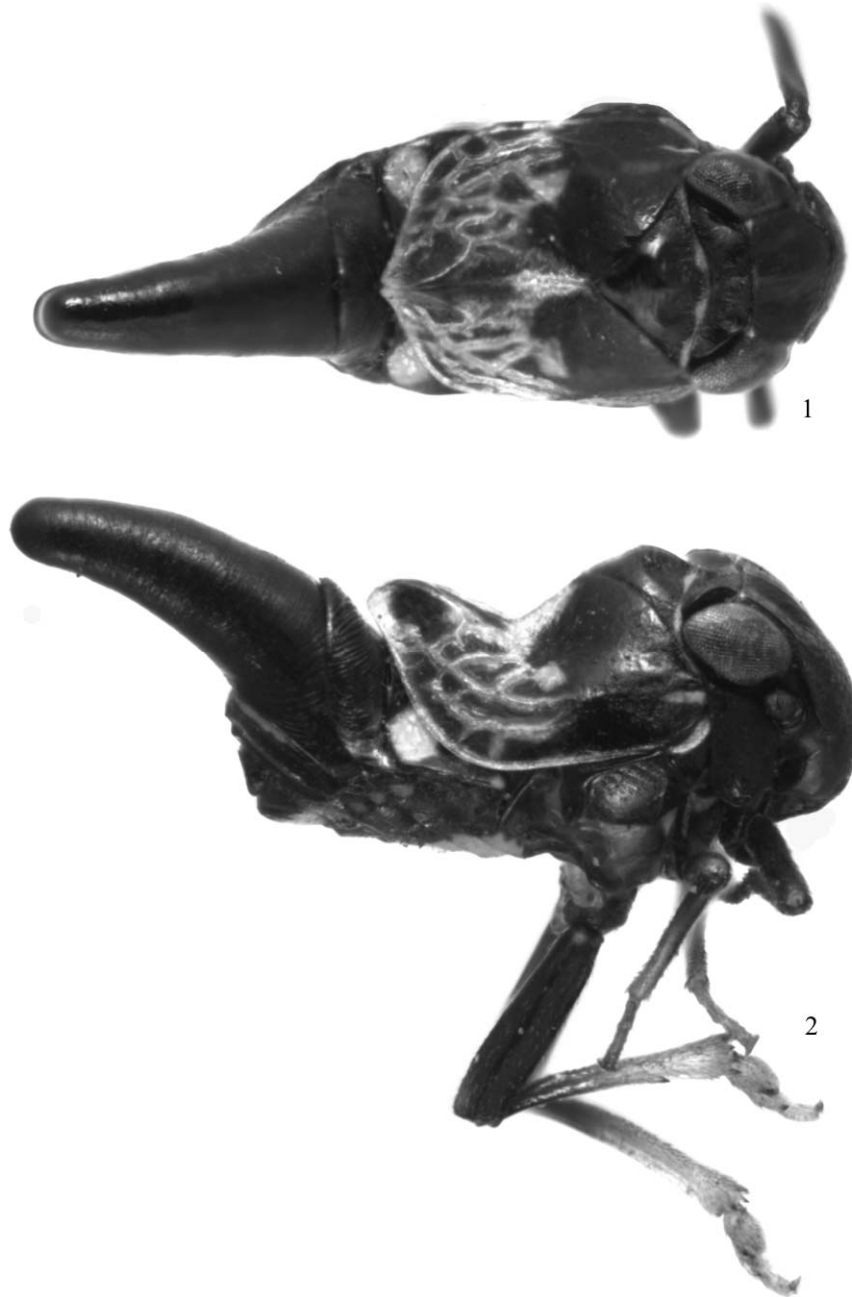
Tribe **Caliscelini** Amyot et Serville

Genus *Rhinogaster* Fennah, 1949

Rhinogaster stilleri Gnezdilov, sp. n.
(Figs. 1–2, 5–10)

Description. Male. Metope wide, enlarged below eyes, dotted, with no intermediate carinae. Metopoclypeal suture indistinct. Lower part of postclypeus and anteclypeus with median carina. Rostrum reaching hind coxae. Apical segment of rostrum very short. Pedicel short, with short apical projection. The border between coryphe and metope smoothed with no carina (Fig. 2). Coryphe and metope joint at obtuse angle. Coryphe twice as wide as long medially, with median carina (Fig. 1). Coryphe with straight hind margin. Pro- and mesonotum with median carina. Fore wings saddle-shaped, with inner-apical angles drawn off and closed like claw-shaped peak reaching the middle of abdominal tergite IV. Venation of fore wings distinct only in its distal parts. Abdominal tergite V with large, smoothly curved finger-shaped process directed to abdominal apex (Fig. 2). Hind tibia with single lateral spine medially and 5 apical spines. First and second metatarsomeres each with 2 latero-apical spines.

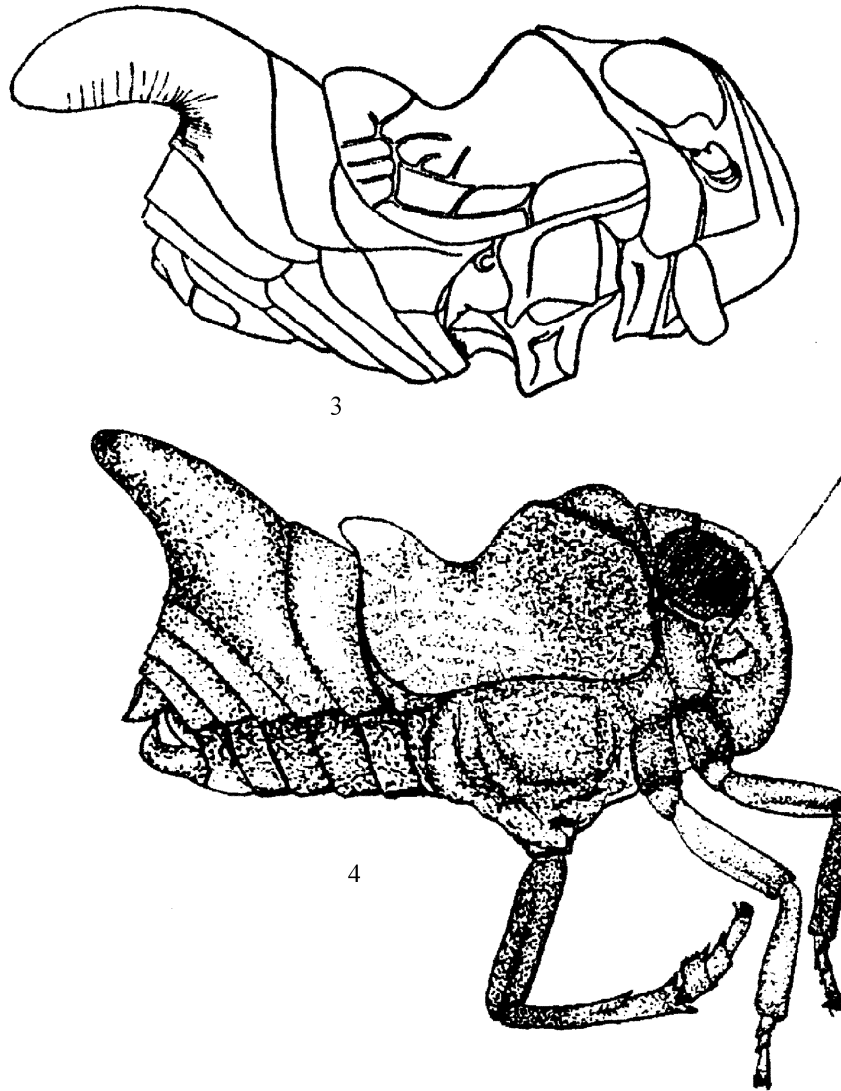
Dominant coloration black. Pleural wing suture of mesothorax ivory. Fore wings with brown light yellowish veins, light yellow costal margin excluding



Figs. 1, 2. *Rhinogaster stilleri* sp. n., total view: (1) dorsal, (2) lateral view.

basally and claval margin proximally. Each wing with oval ivory spot medially and light yellow mark basally. Abdominal tergite III with pair of large oval ivory spots in hind angles. Hind margin of abdominal sternite III and middle parts of abdominal sternites IV–VII light yellow. Lateral parts of abdominal sternites IV–VII with rounded ivory spots. Styles basally ivory. Fore and middle coxae each with ivory spot at the base externally. Hind tibiae except basally, apices of middle tibiae, and hind tarsi light yellow. Middle tarsi brown or dark brown.

Male genitalia (Figs. 5–10). Hind margin of pygofer deeply concaved, with small lobe above the concavity (Fig. 6). Anal tube wide, with rounded apex (Fig. 10). Phallobase wide (in lateral view) (Figs. 5, 9), narrowing apically (in ventral view) (Fig. 7), with hemicircular lobe under one of the ventral aedeagal hooks (Figs. 5, 7). Dorso-lateral phallobase lobes with marginal denticles (Fig. 7). Aedeagus with pair of ventral hooks, one of which directed basally and abruptly narrowed before apex and another one directed perpendicular to the first one and gradually



Figs. 3, 4. *Rhinogaster* spp., lateral view: (3) *R. albivenosa* Fennah (after Fennah, 1949); (4) *R. sinuata* Menon et Parshad (after Menon and Parshad, 1961).

narrowed apically (Fig. 7). Style with straight hind margin, capitulum narrow, without lateral tooth (Fig. 8).

Female. Unknown.

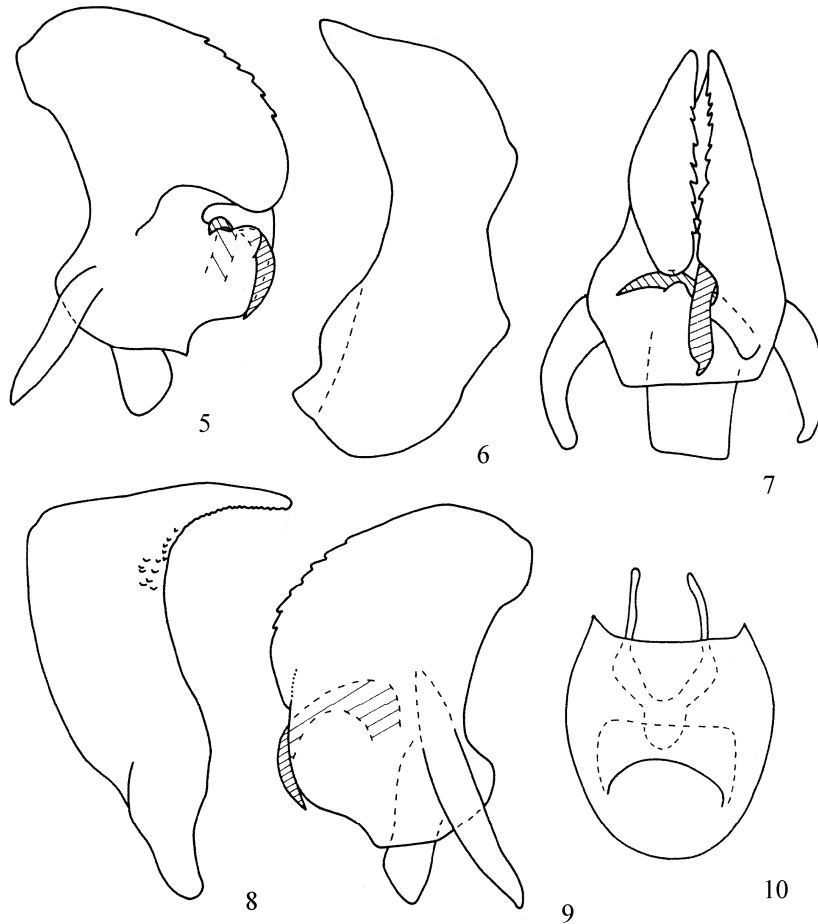
Total length (from postclypeus to apex of finger-shaped process of abdominal tergite V). 2.7–2.8 mm.

Material. South Africa [Republic of South Africa]. Holotype, ♂, MPU [Mpumalanga Province], Kaalrug Farm near Malelane, 25°36'S 31°33'E, 15.V.2004, "DVac [motorized vacuum sampling] grass & forbs [dicotyledons], dry valley, E slope," M. Stiller leg. (ARC). Paratypes: 2 ♂, as holotype (ARC, ZIN).

Etymology. The species name is derived from surname of collector, M. Stiller.

A Key to Species of the Genus Rhinogaster Fennah

- 1(2). Process of abdominal tergite V weakly curved (in lateral view) (Figs. 2, 4) 3.
- 2(1). Process of abdominal tergite V curved at right angle (Fig. 3) *R. albivenosa* Fennah.
- 3(4). Process of abdominal tergite V long (Fig. 2) *R. stilleri* Gnezdilov sp. n.
- 4(3). Process of abdominal tergite V short (Fig. 4) *R. sinuata* Menon et Parshad.



Figs. 5–10. *Rhinogaster stilleri* sp. n., male genitalia: (5, 9) penis, lateral view; (6) pygofer, lateral view; (7) penis, ventral view; (8) style, lateral view; (10) anal tube, dorsal view.

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