

A new species of *Pseudargyrochlamys* Grichanov, 2006 from South Africa (Diptera: Dolichopodidae)

Новый вид *Pseudargyrochlamys* Grichanov, 2006 (Diptera: Dolichopodidae) из Южной Африки

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КЛЮЧЕВЫЕ СЛОВА. *Pseudargyrochlamys*, новый вид, Тропическая Африка, южная Африка, определитель.

ABSTRACT. The genus *Pseudargyrochlamys* Grichanov, 2006 is endemic to southern Africa. A new species, *Pseudargyrochlamys londti* sp.n. from the KwaZulu-Natal Province of the Republic of South Africa is described. It well differs from other species of the genus in the presence of brown spot on the male wing apex. A key to five known *Pseudargyrochlamys* species is compiled for the first time.

РЕЗЮМЕ. Род *Pseudargyrochlamys* Grichanov, 2006 — эндемик южной части Африки. Описан новый вид *Pseudargyrochlamys londti* sp.n. из провинции Квазулу-Натал Южно-Африканской Республики. Он хорошо отличается от других видов рода по коричневому пятну на вершине крыльев самца. Впервые составлен определитель пяти известных видов *Pseudargyrochlamys*.

The genus *Pseudargyrochlamys* Grichanov, 2006 has been created for four species of *Paracleius* Bigot, 1859 (now synonym to *Pelastoneurus* Loew, 1861) distributed along seashore of Eastern Cape and KwaZulu-Natal provinces of South Africa [Grichanov, 2004, 2006]. Grichanov [2006] compared his new genus with *Argyrochlamys* Lamb, 1922, known from Afrotropics and West Orient. Subsequently Naglis et al. [2013] have described *Phoomyia* Naglis et Grootaert from coastal Sri Lanka and Thailand, related the genus to *Argyrochlamys* and *Pseudargyrochlamys*, and compiled a key to the *Argyrochlamys* group of genera. Grichanov [2010] has reviewed the genus *Argyrochlamys*, and Grichanov [2016] has reported *Phoomyia srilankensis* Naglis et Brooks, 2013 in East India. *Pseudargyrochlamys barracloughi* (Grichanov, 2004) has been illustrated by Grichanov [2011] and Grichanov, Brooks [2017]. New

records of *P. barracloughi* and *P. jasoni* (Grichanov, 2004) from South Africa and Mozambique have been published by Grichanov et al. [2011a, b].

In this paper a new peculiar species of *Pseudargyrochlamys* from South Africa is described, and an identification key to known species is firstly provided.

A new *Pseudargyrochlamys* species discovered is photographed with a ZEISS Discovery V-12 stereo microscope and an AxioCam MRc5 camera. Genitalia preparations have been photographed with a ZEISS Axiostar stereo microscope and an AxioCam ICc3 camera. Morphological terminology and abbreviations follow Cumming, Wood [2017] and Grichanov, Brooks [2017]. Body length is measured from the base of the antenna to the posterior tip of epandrium. Wing length is measured from the base to the wing apex. The types of new species are housed at the Natal Museum, Pietermaritzburg, KwaZulu-Natal, South Africa (NMSA).

Genus *Pseudargyrochlamys* Grichanov, 2006

Type species: *Paracleius michaeli* Grichanov, 2004, by original designation.

DIAGNOSIS. The genus is close to *Argyrochlamys* and *Phoomyia*, differing in head being distinctly higher than wide; female face narrow; female oviscapt with weak ventral lobes; hind basitarsus without strong dorsal seta; male hind tibia without bifurcate posteroapical projection; male hind basitarsus without comma-shaped posterobasal projection; male cercus usually large. Body non-metallic; frons black, grey or brownish pollinose, high, as high as face; male face very narrow, female face slightly wider, both almost parallel sided; thorax mainly yellow-orange with only black longitudinal stripe on mesonotum or mainly black with only metepimerons yellow-brown, weakly to densely pollinose; mesonotum without flattened region in front of scutellum; antennal stylus basodorsal, bare; 5 dorsocentrals in regular rows or

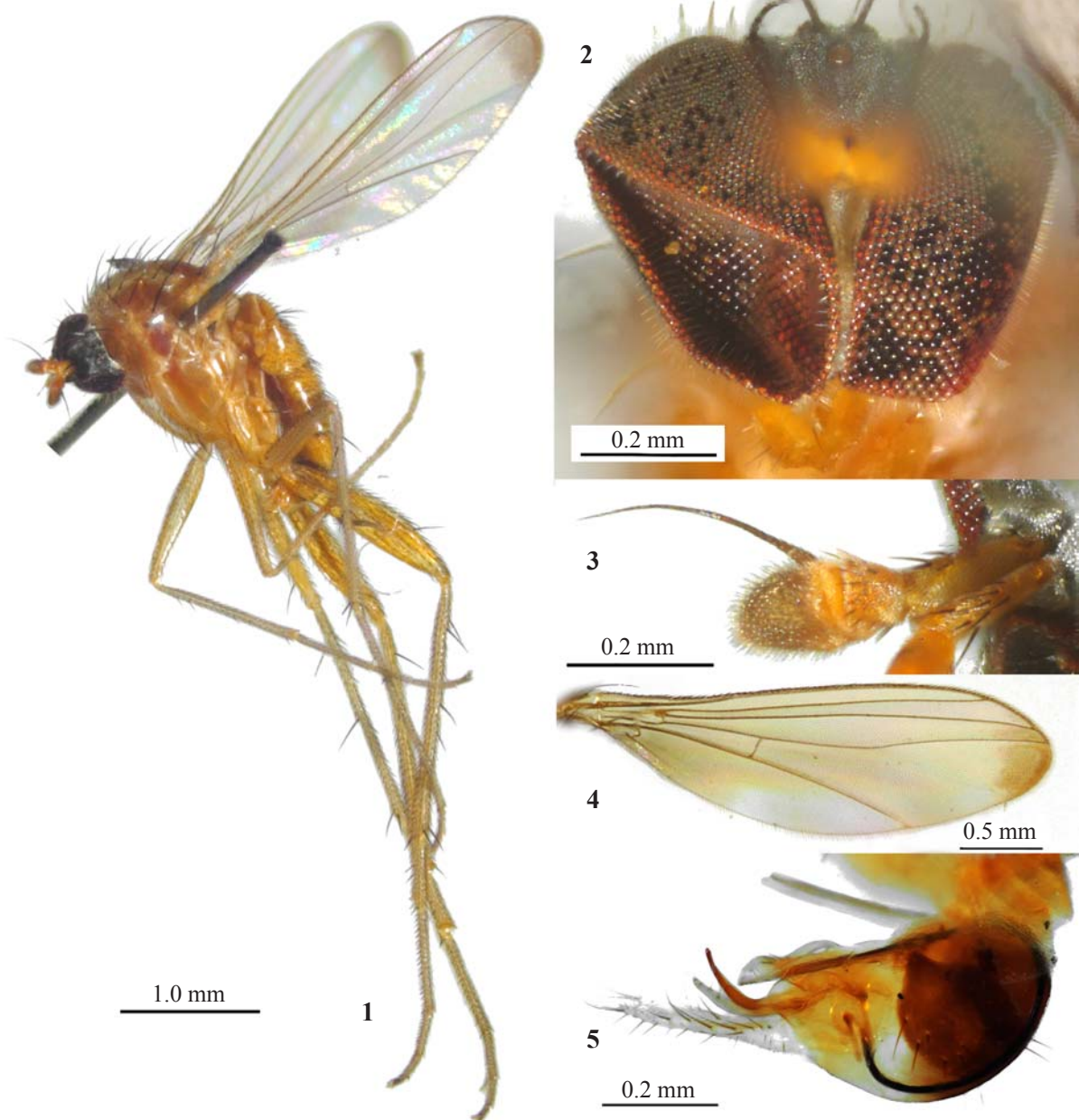
6 dorsocentrals, with 1st and 5th pairs small, and 5th pair strongly offset medially; vein M_{1+2} distinctly bent in distal part, reaching costa near the tip of wing; R_{4+5} and M_{1+2} nearly parallel at apex; $dm-m$ located at about basal third of wing, very short; hind femur bearing one true anterior subapical seta located far from distal apex; hind coxa with 1 strong external seta; hind basitarsus without setae above; hind basitarsus of male without comma-shaped posterobasal projection; abdomen mostly orange-yellow with black dorsolateral spots; male genitalia with proctiger brushes absent; female oviscapt hidden, with weak ventral lobes. Males differ from females in some male secondary sexual characters (MSSC). Females of close species are indistinguishable.

Pseudargyrochlamys londti Grichanov, **sp.n.**

Figs 1–11.

MATERIAL. Holotype ♂, South Africa: [KwaZulu-] Natal, Umhlali [River] mouth, collected on seashore, [29.46°S, 31.28°E], 19.VI.1962, B. and P. Stuckenberg (NMSA); paratypes: 1♂, South Africa: KwaZulu-Natal, Prince's Grant country Estate ca. 10 km E Stanger, 29°21'33"-S, 31°22'08"-E, 30 m, 18.IX.2000, J.G.H. Londt (NMSA); 1♀, South Africa: [KwaZulu-] Natal, Umhlali, La Mercy, coastal bush, seashore, 24.I.1963, B. and P. Stuckenberg (NMSA).

DESCRIPTION. **Male** (Figs 1–5). *Head* (shrunk in all specimens). Frons as high as face, black, grey pollinose; face densely white pollinose; one long and strong vertical at the top of head, one shorter postvertical as a linear continuation



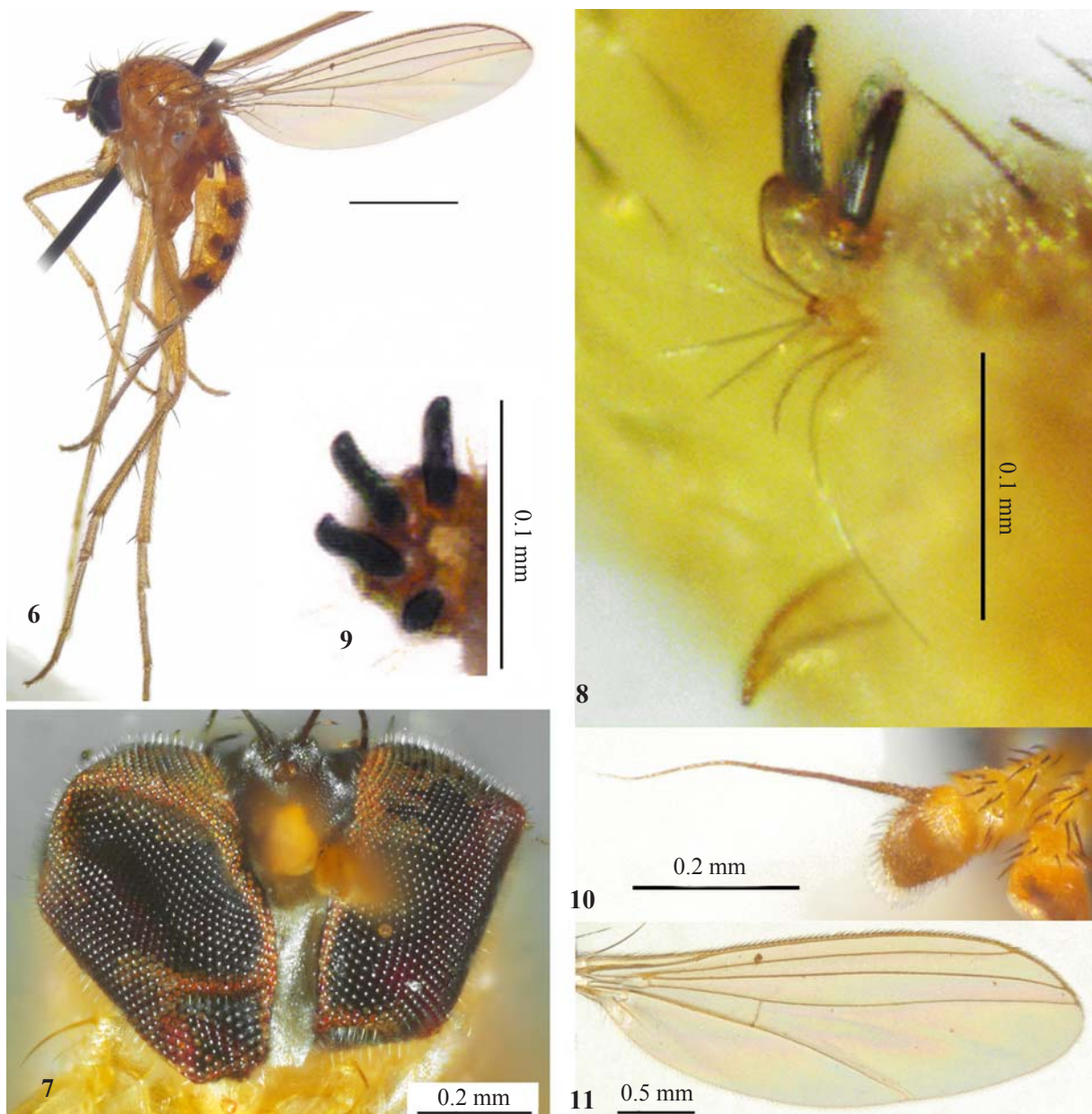
Figs 1–5. *Pseudargyrochlamys londti* Grichanov, **sp.n.**, male: 1 — habitus, 2 — head, 3 — antenna, 4 — wing, 5 — hypopygium, lateral view.

Рис. 1–5. *Pseudargyrochlamys londti* Grichanov, **sp.n.**, самец: 1 — внешний вид, 2 — голова, 3 — усик, 4 — крыло, 5 — гипопигий, сбоку.

of postocular setal row, a pair of strong ocellar setae present; postocular setae white, few upper postoculars brown or black; eyes with short hairs; face glabrous, very narrow (MSSC), almost parallel-sided; clypeus not reaching lower margin of eyes; antenna positioned at middle of head, shorter than height of head; mostly orange-yellow; scape simple, with several black dorsal setulae; pedicel small, internally convex anteriorly, with short distal setulae; postpedicel brown-black in distal half, with short hairs, ovate, 1.6 times longer than high at base (19/12; MSSC); arista-like stylus basodorsal, short, simple, black, with microscopic hairs; length ratio of scape to pedicel to postpedicel to stylus (1st and 2nd segments), 16/9/19/4/33; palpus and proboscis small, yellow, with short hairs; palpus with 1 short yellow seta.

Thorax mostly yellow, weakly pollinose; mesonotum mostly orange, having black longitudinal stripe, broad posteriorly and very narrow in anterior half of mesonotum; scutellum black dorsally. 6 pairs of dorsocentral setae with 5th seta short and shifted towards acrostichal row; acrostichals biseriate; proepisternum with 1 strong white seta above fore coxa and several short white hairs; scutellum with 2 strong setae and 2 short lateral hairs.

Legs including coxae yellow; last 2–3 segments of tarsi brownish; femora without long hairs; fore tibia with 2 anterodorsal, 1 posterodorsal, 2–3 apical short setae; mid femur with 1 anterior subapical setae; mid tibia with 2 anterodorsal, 2 posterodorsal, 3 very short posteroventral and 5 apical setae; 1st–4th segments of mid tarsus each with several very short



Figs 6–11. *Pseudargyrochlamys londti* Grichanov, **sp.n.**, female: 6 — habitus, 7 — head, 8 — apex of oviscapt, lateral view, 9 — hemitergites of oviscapt, dorsal view, 10 — antenna, 11 — wing.

Рис. 6–11. *Pseudargyrochlamys londti* Grichanov, **sp.n.**, самка: 6 — внешний вид, 7 — голова, 8 — верхина яйцеклада, сбоку, 9 — гемитергиты яйцеклада, сверху, 10 — усик, 11 — крыло.

apical setae; hind femur 5 times longer than high, with 1 anterodorsal seta at 7/10; hind tibia with 2 anterodorsal, 3–4 posterodorsal and 4 apical setae, without strong ventral setae; hind basitarsus with 2–3 ventral setulae; 1st–4th tarsomeres each with several apicoventral setulae. Femur, tibia and tarsomere (from first to fifth) length ratio (in mm): fore leg: 0.94/0.97/0.56/0.29/0.21/0.12/0.1, mid leg: 1.11/1.49/0.81/0.42/0.3/0.19/0.13, hind leg: 1.34/1.66/0.41/0.64/0.31/0.21/0.13.

Wing (Fig. 4) hyaline, with brown spot at apex (MSSC), veins yellow-brown; costa simple; R₂₊₃ almost straight; ratio of part of costa between R₂₊₃ and R₄₊₅ to this between R₄₊₅ and M₁₊₂, 34/12; R₄₊₅ slightly curved posteriad at apex; M₁₊₂ having weak but distinct curvature at middle of distal part, then forming gentle arc, gradually converging to R₄₊₅, almost parallel to R₄₊₅ at wing apex, joining costa just before wing apex; crossvein *dm-m* positioned just before middle of wing, straight, forming right angles with longitudinal veins; ratio of *dm-m* to distal part of M₄, 15/106; posterior wing margin evenly convex; anal vein fold-like; anal lobe narrow; anal angle absent; lower calypter yellow, with black setae; halteres orange-yellow.

Abdomen mostly orange-yellow, weakly pollinose; 2nd–5th tergites with small brown-black lateral spots at base; 7th segment yellow, very short, 3/5 length of epandrium; 8th segment brown-black, with sparse fine dark cilia; epandrium brown-black in basal half, yellow in distal half, as long as 4th–5th tergites combined, semirounded, 1/3 longer than high; hypandrium and phallus narrow, simple; distoventral epandrial lobe long and broad, slightly swollen in basal half, with 3 long setae at apex; postgonite as long as surstylus, brown, narrow, gently curved ventrally; surstylus yellow, with 2 lobes; ventral lobe short and broad, with 3 short subapical setae; dorsal lobe of surstylus narrow, strongly curved, with a few short setae; cercus yellow, long, narrow, 2/3 as long as epandrium, 4 times longer than wide at base, with simple white hairs and black setae along entire length.

Female (Figs 6–11). Similar to male except lacking MSSC; ratio of face height to face width under antenna to face width in middle, 34/11/7; postpedicel slightly longer than high at base (13/11); length ratio of scape to pedicel to postpedicel to stylus (1st and 2nd segments), 9/6/13/3/36; oviscapit with weak ventral lobes; each hemitergite with two thick spines (Figs 8–9).

Measurements (in mm). Body length 3.2–3.3, antenna length 0.6, wing length 3.1–3.2, wing width 0.9 (♂)–1.1 (♀).

ETYMOLOGY. The species is named for one of the collectors, Dr. Jason Londt (NMSA).

DISTRIBUTION. South Africa.

DIAGNOSIS. The new species is a sister species to *P. jasoni* and *P. michaeli* (Grichanov, 2004), differing distinctly in the presence of brown spot on wing apex. Hypopygium of *P. londti* **sp.n.** is quite similar to that in other species of the genus [Grichanov, 2004]. Nevertheless, the cercus length and length of setae on the distoventral epandrial lobe are somewhat different in males of all species.

KEY TO KNOWN *PSEUDARGYROCHLAMYS* SPECIES

1. Thorax mostly blackish grey; 5 dorsocentral setae; body length 2.2 mm (female) *P. umngazi* (Grichanov)
— Thorax mostly yellow; 6 dorsocentral setae (males only) 2
2. Wing with brown spot at apex; body length 3.2–3.3 mm *P. londti* **sp.n.**
— Wing hyaline 3
3. Stylus 2 times longer than antennomeres combined, flagellate; body length 2.3–2.5 mm *P. barracloughi* (Grichanov)

- Stylus as long as antennomeres combined, simple 4
- 4. Cercus half as long as epandrium; body length 1.7–2.6 mm *P. michaeli* (Grichanov)
— Cercus nearly as long as epandrium; body length 2.3 mm *P. jasoni* (Grichanov)

Conclusion

Pseudargyrochlamys species are confined to coastal band of southern Africa between East London (South Africa) and Maputo (Mozambique). The described species inhabit coastal bush and dunes, seashore, forest and open woodland areas near bays and estuaries (Grichanov, 2004, and this paper). Species of the related *Argyrochlamys* and *Phoomyia* populate similar sandy habitats [Grichanov, 2010; Naglis et al., 2013], which caused apparently such adaptation as densely grey pruinose, non-metallic body with the domination of yellow-orange or blackish brown or grey colour. The great majority of other members of the subfamily Dolichopodinae have mainly metallic green or violet shine on thorax and abdomen.

Pseudargyrochlamys londti **sp. n.** is found only in the KwaZulu-Natal Province, in three habitats at the Umhlati River lower reach, being probably endemic of the territory. As a result of this study, the genus *Pseudargyrochlamys* includes five species known from South Africa, two from the Eastern Cape and four species from the KwaZulu-Natal province.

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