

Two new species of *Argyra* Macquart (Diptera: Dolichopodidae) from Tropical Africa

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A. robinsoni sp. n. from Kenya and *A. kireichuki* sp. n. from Ethiopia are described. A key to three Afrotropical species of *Argyra* is given.

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Introduction

The genus *Argyra* Macquart numbers about 100 mostly Holarctic species. Two doubtful species were known from Afrotropical Region. Record of Palaeo-arctic *A. discedens* Becker from Kenya (Dyde and Smith, 1980), probably, belongs to undescribed species and should be excluded from the fauna of the Region. I have seen two females of apparently two different undescribed species from Kenya and Congo (Kinshasa) in the collection of the Royal Institute for Natural Sciences (Brussels). The second species, *A. amicta* was described by Wiedemann (see 1830) in terms of only colour features and could not be distinguished from several Palaeo-arctic species having silvery-white face and dorsum, yellow legs and base of abdomen. However, silvery pruinosity of mesonotum and abdomen and larger body distinctly differ this species from the two new ones described here.

Holotypes and paratypes of the new species are deposited in the Natural History Museums in London (*A. robinsoni*) and Budapest (*A. kireichuki*).

List of known Afrotropical species *Argyra* Macquart, 1834

ARGYRA Macquart, 1834: 456. Type-species: *Musca diaphana* Fabricius, 1775, by designation of Rondani (1856: 141).

amicta Wiedemann, 1824: 39 (*Dolichopus*); 1830: 228 (*Porphyrops*); Becker, 1923: 16. [Type in Zoological Museum, Universitets Copenhagen, not seen]. <Guinea>.

kireichuki sp. n. Ethiopia.

robinsoni sp. n. Kenya.

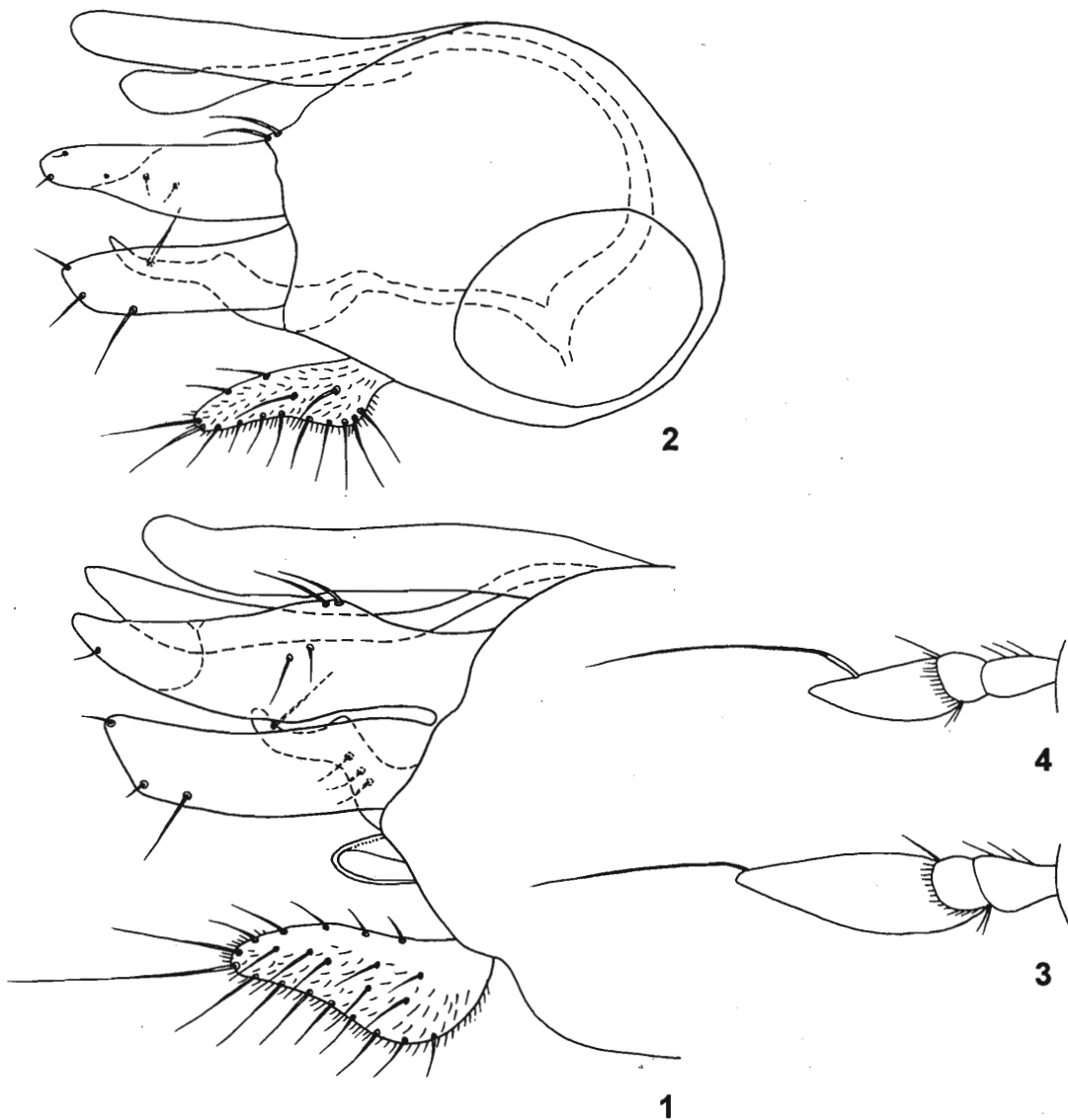
Descriptions

Argyra (Argyra) robinsoni sp. n. (Figs 1, 3)

Holotype. Male, Kenya, Aberdare Range, X.1934, B.M.E. Afr. Exp. B.M. 1935-203 / Mt. Kinangop, 8000 ft., F.W. Edwards.

Paratypes. 2 females, the same labels, but height 9000 ft. and one of the females with collection date 25.X.1934.

Description. Male. Frons and face densely silvery-white pollinose. Face narrow, three times as high as wide at clypeus. Occiput concave, bronze-black, grey pollinose. One pair of long ocellar, short but strong vertical, and strong postvertical setae. Postocular bristles black in upper part and white in lateral and lower parts of head. Eyes with short white hairs. Antennae inserted above middle of head, black-brown, slightly longer than height of head; scape with several dorsal setulae; pedicel simple, with dorsal and ventral setulae; 1st flagellomere bare, blade-like,

Figs 1—4. *Argyra* Macquart.

1, 3, *A. robinsoni* sp. n.: 1, apex of hypopygium, lateral view; 3, antenna, lateral view. 2, 4, *A. kireichuki* sp. n.: 2, hypopygium, lateral view; 4, antenna, lateral view.

elongate, thrice as long as high at base; arista subapical with microscopic hairs. Length ratio of scape to pedicel to first flagellomere to arista, 10 : 5 : 35 : 31. Palpi and proboscis short, brown, with dark hairs. Mesonotum dark-brown with metallic reflection; pleura densely greyish-white pollinose. Propleura with at least one white hair. 1 *h* with 1 or 2 hairs, 1 *ph*, 2 *ntpl*, 2 *ia*, 2 *sa*, 1 *pa* present. Six pairs of dorso-central setae, acrostichals in one or two irregular rows. Scutellum with two long and two short fine setae, dorsally bare.

Legs and coxae yellow, middle coxa with brown spot at base, apical segments of anterior four tarsi darkened, posterior tarsus darker. Fore coxa anteriorly with yellow hairs at base and five or six dark setae of various length in apical half. Middle coxa anteriorly and apically with dark hairs and two long black external setae. Hind coxae with vertical row of 3 or 4 fine black external setae decreasing in length ventrad. Hind trochanter with one fine brown dorsal seta. Fore femora with elongate posterior hairs, not longer than femur's diameter. Fore tibia with

two inconspicuous dorsal setae. Length ratio of fore coxa to femora to tibia to tarsus (segments from first to fifth), 40 : 66 : 67 : 45 : 15 : 11 : 8 : 9. Middle femora with one or two fine subapical anterior setae. Middle tibia with 3 anterodorsal, 3 posterodorsal and 3 to 5 ventral setae. Length ratio of middle coxa to femora to tibia to tarsus (segments from first to fifth), 35 : 78 : 89 : 51 : 21 : 15 : 10 : 8. Hind tibia with 3 anterodorsal, 4 posterodorsal, 3 or 4 ventral setae. Length ratio of hind coxa to femora to tibia to tarsus (segments from first to fifth), 22 : 95 : 124 : 34 : 34 : 20 : 13 : 8.

Wing long and narrow, almost hyaline; veins yellowish-brown. R_1 relatively short, ending at basal 3/7 of wing. Ratio of parts of costa from humeral crossvein to M_{1+2} , 77 : 105 : 33 : 15. R_{4+5} and M_{1+2} almost parallel at apex. M_{1+2} slightly undulate before middle of apical part. Crossvein $m-cu$ oblique; ratio of $m-cu$ to apical part of CuA_1 , 24 : 55. Lower calypter yellow, with brown margin and light cilia. Halter yellow. Abdomen mostly dark-brown with metallic reflection; yellow ventrally and laterally at base, with light hairs and dark setae. 8th segment with 2 long fine posterior setae. Hypopygium dark-brown, with light-brown appendages and dark hairs. Epandrium rounded. Two strong epandrial setae just before the middle of ventral side of ventral epandrial lobe. Two pairs of broad, massive epandrial (?) lobes. Ventral lobe parallel to dorsal, with acute apex, small apicodorsal setula and two midlateral setae. Dorsal lobe distinctly shorter than ventral, with narrowed, though rounded apex, two apicodorsal setulae and one dorsal seta at apical third. Surstylus half as long as dorsal epandrial lobe, narrow and curved ventrad in apical half, with rounded apex, three lateral setae in basal half and one strong ventral subapical seta. Cercus short, narrowed apicad, with strong dark, though shining light setae.

Female. Similar to male except lacking male secondary sexual characters. Face wide, slightly narrowed below antennae, approximately twice as high as wide. Vertical seta longer than in male. Antenna black; 1st flagellomere as long as high, with long arista. Palpus black, grey pollinose. Middle coxa brownish in basal half; hind coxa dark at base. Tergites 9+10 with 4 pairs of short thick acanthophorites; cercus short, with rounded apex.

Length: male body without antennae 3.3 mm, female body 4.0 mm, antenna 0.9 mm, male wing-length 3.8 mm, female wing-length 4.5 mm, male wing-width 1.3 mm, female wing-width 1.7 mm.

Distribution. Kenya.

Etymology. The species is named for American dipterologist and botanist, Dr. Harold Robinson.

Diagnosis. This new species together with the next one cannot be associated with the old Afrotrop-

ical species, *A. amicta* (Wiedemann) from "Guinea". Becker (1923) included the latter species in the Palaearctic group comprising *A. setulipes* Becker, *A. argentina* (Meigen), *A. discedens* Becker, and *A. perplexa* Becker and having silvery-white mesonotum, although the author noted that the description by Wiedemann did not contain reliable diagnostic characters. However, *A. robinsoni* is keyed to Palaearctic *A. spoliata* Kowarz and *A. grata* Loew (Parent, 1938; Negrobov and Stackelberg, 1969), strongly differing from these and other Palaearctic species in length of antenna as a whole, 1st flagellomere and arista, setosed pedicel and many other features.

Argyra (Argyra) kireichuki sp. n.
(Figs 2, 4)

Holotype. Male, Ethiopia: Akaki river, Addis Abeba/16.X.1980, leg. Demeter [HNHM].

Description. Male. Frons and face densely silvery-white pollinose. Face narrow, nearly 4 times as high as wide under antennae and nearly 5 times as high as wide at clypeus. Occiput concave, bronze-green, grey pollinose. One pair of strong ocellar, vertical, and postvertical setae. Postocular bristles black in upper part and white in lateral and lower parts of head. Eyes with short white hairs. Antennae inserted above middle of head, brown-black, slightly longer than height of head; scape with several dorsal setulae; pedicel simple, with dorsal and ventral setulae; 1st flagellomere blade-like, elongate, twice longer than high at base, with short hairs at apex; arista positioned at apical third of dorsal side, with microscopic hairs. Length ratio of scape to pedicel to first flagellomere to arista, 10 : 6 : 18 : 36. Palpi and proboscis short, brown, with dark hairs. Mesonotum metallic green, weakly brownish pollinose; pleura including humeri densely white pollinose. Propleura with one white seta and at least one white hair. Six pairs of dorsocentral setae, short acrostichals in one or two irregular rows. Scutellum with two long and two short fine setae, dorsally bare.

Legs and coxae yellow, middle coxa with brownish external spot, apical segments of anterior four tarsi darkened; hind femur apicodorsally, hind tibia at apex and posterior tarsus brown. Fore coxa anteriorly with yellow hairs at base and black setae of various length in apical half. Middle coxa anteriorly and apically with black hairs and two long black external setae. Hind coxae with vertical row of one strong and two short fine black external setae. Hind trochanter with one dorsal setula. Fore femora with row of long posteroventral cilia, the longest ones situated in apical half, exceeding diameter of femur. Fore tibia with two inconspicuous dorsal setae. Fore tibia, 1st and

2nd joints of fore tarsus with double ventral row of elongate setulae as long as diameter of respective podomeres. Length ratio of fore coxa to femora to tibia to tarsus (segments from first to fifth), 33 : 64 : 61 : 32 : 15 : 9 : 10 : 10. Middle femora with one fine subapical anterior seta and ventral row of hairs nearly as long as diameter of femur. Middle tibia with 4 anterodorsal, 3 short posterodorsal and several inconspicuous ventral setae. Length ratio of middle coxa to femora to tibia to tarsus (segments from first to fifth), 25 : 71 : 85 : 42 : 19 : 12 : 8 : 8. Hind femora with one fine subapical anteroventral seta. Hind tibia with 5 to 8 short dorsal and several inconspicuous ventral setae. Length ratio of hind coxa to femora to tibia to tarsus (segments from first to fifth), 25 : 88 : 104 : 27 : 23 : 15 : 10 : 8.

Wing long and narrow, greyish; veins yellowish-brown. R_1 relatively short, ending at basal 3/8 of wing. Ratio of parts of costa from humeral crossvein to M_{1+2} , 60 : 105 : 26 : 12. R_{4+5} and M_{1+2} almost parallel at apex, both slightly convex in apical part. Crossvein $m-cu$ oblique; ratio of $m-cu$ to apical part of CuA_1 , 19 : 41. Lower calypter yellow, with brown margin and light cilia. Halter yellow. Abdomen mostly dark-brown with metallic reflection, dark hairs and setae; 1st segment yellow, 2nd to 4th with yellow lateral spots becoming smaller towards 4th tergite. Venter mostly yellow. 8th tergite with 2 short posterior macrochaetae. Hypopygium dark-brown, with light-brown appendages, dark hairs. Epandrium rounded. Two strong epandrial setae at apicoventral angle of epandrium. Two pairs of broad, massive epandrial (?) lobes with rounded apices. Ventral lobe parallel to dorsal, with several short setulae. Dorsal lobe nearly as long as ventral, with three apicodorsal setae. Surstylus 4/5 as long as dorsal epandrial lobe, narrow, pointed, curved ventrad, with strong ventral seta at apical fourth. Cercus short, narrowed apically, short setae.

Female unknown.

Length: male body without antennae 3.0 mm, antenna 0.95 mm, wing-length 3.2 mm, wing-width 1.0 mm.

Distribution. Ethiopia.

Etymology. The species is named for Russian entomologist, Dr. A. Kireichuk.

Diagnosis. *A. kireichuki* is close to Palaearctic *A. grata* Loew, differing in length ratio of antennomeres, setosed pedicel etc. It differs from *A.*

robinsoni in shorter 1st flagellomere, longer arista, long cilia on fore legs, and other characters.

Key to Afrotropical species of *Argyra* Macquart (males)

1. Mesonotum and abdomen with silvery-white pollination (front view); size greater than 4.0 mm *amicta* Wiedemann
- Mesonotum and abdomen metallic, at most weakly brownish pollinose; less than 3.5 mm 2
2. 1st flagellomere twice longer than high; arista shorter than 1st flagellomere; fore tibia and tarsus without long ventral setulae *robinsoni* sp. n.
- 1st flagellomere 3 times longer than high; arista twice longer than 1st flagellomere; fore tibia and 1st—2nd segments of fore tarsus with elongate ventral setulae, as long as diameter of corresponding podomeres *kireichuki* sp. n.

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References

- Becker, Th. 1923. Dipterologische Studien: Dolichopodidae. D. Aethiopische Region. *Entomol. Mitteilungen*, 12(1): 1—50.
- Dyte, C. E. & K. G. Smith. 1980. Family Dolichopodidae. In: R. W. Crosskey (ed.), *Catalogue of the Diptera of the Afrotropical Region*, Brit. Mus. (Nat. Hist.), London: 443—463.
- Negrobov, O. P. & A. A. Stackelberg. 1969. Family Dolichopodidae. In: G. Ya. Bei-Bienko (ed.), *Keys to the Insects of the European Part of the USSR*, Leningrad, Nauka, 5(1): 670—751.
- Parent, O. 1938. Dipteres Dolichopodidae. *Faune de France*, Paris, 35: 1—720.
- Wiedemann, C. R. W. 1830. *Aussereuropäische zweiflügelige Insekten*. Hamm., 2: 1—644.

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