

Amiota collini, a new European species of *Amiota sensu stricto* (Diptera, Drosophilidae)

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Until now seven species of *Amiota sensu stricto* were known from Europe (Máca, 1980) and the status of the nominal taxon *A. lacteoguttata* (Portschinsky, 1892) is still uncertain. A further European species, described here, is known to occur in Britain, the Czech Republic and Slovakia.

Amiota collini sp. n.

Diagnosis

Blackish species with milky white areas on face, postpronotal lobe and area around the suture between anepisterum and anepimeron. Arista with ventral rays short. Hind femora without outstanding setae. Last segment of at least fore tarsi dark. C_3 range more than 0.6. Male terminalia characteristic in shape.

Description

Terminology generally follows McAlpine (1981). However, the genitalia of *Amiota* are rather complex in structure and we have chosen to follow Máca (1980). Whenever possible the terminology of Wheeler (1987) for the genitalia of Drosophilidae is indicated by brackets. Description based on male.

Head: frons dull, upper part brownish black, the lower part somewhat lighter; proclinate orbital seta very little longer than posterior reclinate orbital seta; anterior reclinate orbital seta little more than half as long as posterior reclinate orbital seta; outer vertical setae about as long as proclinate orbital setae; inner vertical setae little longer than posterior reclinate orbital setae; ocellar triangle with a pair of ocellar setae as long as proclinate orbital setae and about three pairs of shorter setae; postocellar setae very small; about ten short fronto-orbital setulae along each compound eye; interfrontal setulae rather thin and short, about ten in number, half of them scattered on the middle of the frontal vitta, the other half clustered close above the middle of the ptilinal suture on the frontal vitta; ptilinal fissure strongly curved. Face dark brown above a white transverse facial band; carina straight and more or less disappearing in the facial band; genae pale brownish yellow; vibrissae strong, other genal setae short and rather inconspicuous. Occiput dark brown; postocular setae short but these on the postgenae strong. Antennae darkish brown except for extreme base of arista, which is lighter; pedicel (second antennal segment) with one longer and several shorter dorsal

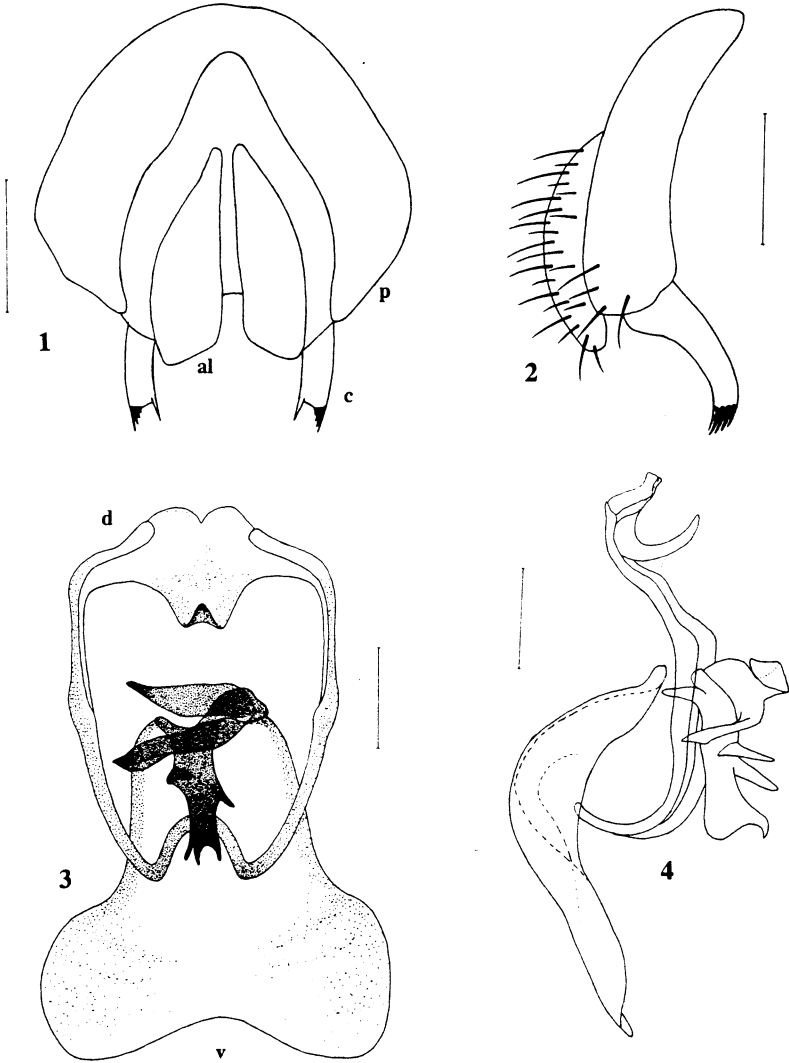
setae; first flagellomere (third antennal segment) covered with pile about as long as the arista is thick at its base; arista with only moderately long dorsal rays (5) and short ventral rays (8). Mouthparts yellowish except for blackish clypeus; palpi with two or three long and several short black setae.

Thorax: mesonotum brownish black, pleura somewhat lighter; postpronotal lobe and area around the suture between anepisterum and anepimeron white; all setae black.

Chaetotaxy: one strong postpronotal seta; two strong notopleural setae; one strong presutural supra-alar seta; two postsutural supra-alar setae, the anterior seta less than half as long as the posterior one; one weak postalar seta; two pairs of dorsocentral setae, the anterior dorsocentral setae about half the length of the posterior dorsocentral setae; two prescutellar setae almost as long as the anterior dorsocentral setae; acrostichal setae in about ten rows, laterally of the acrostichals the mesonotum is covered with setae in about the same density; katepisternum with two long setae along the upper margin and several short setae on the median surface, pleura otherwise bare. Scutellum same colour as mesonotum, the pair of lateral as well as the pair of apical scutellar setae strong. Wings hyaline, all veins brownish yellow. $c.i.=1.95$, $4v-i=2.7$, $4c-i=1.95$, $5x-i=1.5$, $Ac-i=3.5$, $Cx-i=0.7$, $M-i=0.8$, $C3-range=0.68$. Wing length = 2.6mm. All measurements concern holotype. Halteres yellowish brown. Legs: coxae yellow, at most basally a little darkened. Femora yellow, fore femora a little darker than posterior femora; fore femora with an anteroventral and a posteroventral row of slender setae; hind femora bare on posterior surface. Tibiae yellow, fore tibia may be little tannish; all tibiae with short pre-apical setae but on the fore tibiae rather inconspicuous; mid tibia with short apical seta. Tarsi: extreme tip of fourth and whole of fifth tarsal segment of fore legs dark, the darkening of same tarsal segments in mid and hind legs varying from to the same extent as in the fore tarsi in some specimens to complete absence in other specimens; first tarsomere (metatarsus) of mid leg with about 32 posteroventral cuneiform setulae. No other conspicuous setae on legs.

Abdomen: tergites and sternites rather dark brownish, of about the same colour as thoracic pleura. Genitalia: peripheral organs: perianthrium (epandrium) narrowed medially, ventroapically with four setae, anal lamellae (cerci) covered with long as well as short setae, claspers (surstyli) slender, apically with four teeth on the outer side and with a pale spine posteromedially (Figs 1, 2), on the inner side are some hardly discernible hairs; phallic organs (aedeagus and parameres) apparently fused, asymmetrical (Figs 3, 4), the tips of this structure show some slight variation. Ejaculatory apodeme as in Fig. 5.

Type material: holotype male, Chippenham Fen, 30.vii.1951 (Cambridgeshire, Great Britain, no collector given but most likely J.E. Collin) [Hope Entomological Collections of the Oxford University Museum, Oxford, United Kingdom]; paratype male: Slovakia: Kamenín, salty meadow, $47^{\circ}53'N/18^{\circ}39'E$, 130m, Barták, 25.iv.1986 [collection Barták]; 3 paratypes males: Czech Republic: Pečky, *Salix* shrubs, $50^{\circ}05'N/15^{\circ}02'E$, 200m, Barták 16.v.1988 [collection Barták]. The paratypes will be deposited in the collection of the Department of Entomology of National Museum at Prague. The female is unknown. The species is named after the late Mr J.E. Collin who most likely collected the type specimen and recognised it as a new species but never described it.



Figs. 1-4. *Amiota collini* n.sp. male genitalia, scale 0.10mm: (1) posteroventral view of the periphallalic organs, p = periandrium (epandrium), al = anal lamellae (cerci), c = claspers (surstyli) (setae omitted); (2) lateral view of the periphallalic organs; (3) posteroventral view of the phallic organs, d: dorsal side; v ventral side; (4) lateral view of the phallic organs.

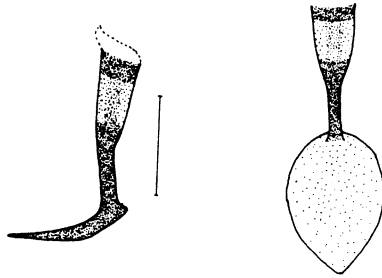


Fig. 5. *Amiota collini* n.sp. male genitalia: ejaculatory apodeme, scale 0.05mm.

Systematic position: *Amiota collini* is probably closely related to *A. nigrescens* Wheeler, 1952. The periphallic organs are similar to those of that species although less hairy (Hsu, 1949: pl. 1, fig. 9 [as *Amiota "arizonensis"* Wheeler]; Okada, 1960: 92). The phallic organs, however, are different from those of *A. nigrescens* (G.C. Steyskal, *pers. comm.*).

Acknowledgements

We thank Dr G.C. Steyskal for his comments on the possible relationship between *A. nigrescens* and *A. collini* and data on the genital morphology of the former species. Dr G. McGavin made it possible to study the Collin Collection at the Hope Entomological Collections at the Oxford University Museum, Oxford. Dr M. Barták (College of Agriculture, Prague) kindly allowed us to study his private collection.

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***Spelobia clunipes* (Diptera, Sphaeroceridae) reared from toad**

faeces - Throughout the summer of 1993 a large common toad (*Bufo bufo bufo* (Linnaeus, 1758)) lived in a small depression scooped out of the soil under a piece of metal sheeting lying on my allotment garden in Blackford, Edinburgh (NT2571; V.C. 83). When I checked under the metal sheet on 10.x.1993 the toad had gone but strategically placed in the depression was a piece of toad excrement. It was black with fragments of beetle exoskeletons discernable and very large. The U-shaped sausage was some 6cm long with a diameter of 12mm. Smith (1951, *New Naturalist, British Amphibians & Reptiles*, Collins) remarks that in keeping with the toad's large appetite its excretions are also large, however the extra large size of this one suggests a prehibernation clean-out. The faecal material was carefully transferred to a clean screw-topped plastic pot and placed in an unheated outside shed. In spite of the prevailing cold temperatures, on 11.xii.1993 seven imagines of *Spelobia clunipes* (Meigen, 1930) emerged from the excreta. Identification was confirmed from the male genitalia using Pitkin (1988, *Handbooks Identification British Insects 10(5e)*). This species has been reared from a wide range of mammal and bird-associated substrates but this seems to be the first record of its association with amphibian waste material. - **K.P. BLAND**, 35 Charterhall Road, Edinburgh EH9 3HS.