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The Chinese *Diplotoxa* (Diptera: Chloropidae)*

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Abstract

The genus *Diplotoxa* LOEW is newly recorded from China with descriptions of the following 2 new species: *D. basinigra, D. xantha.* A key to the Palaearctic species of the genus is also presented.
Key words: Chloropidae; taxonomy; *Diplotoxa*; new species; China.

Introduction

The genus *Diplotoxa* LOEW belongs to the tribe Diplotoxini of the subfamily Chloropinae, which is characterized by having the crossveins r-m and m-m closely approximated with the distance between them shorter than length of m-m (NARTSHUK, 1983). It may be separated from its closely related genus *Pseudopachychaeta* STROBL by having the 6-9 orbital bristles rather short; in *Pseudopachychaeta,* the 2-4 orbital bristles are stronger (ANDERSSON, 1977).

The genus *Diplotoxa* LOEW is a typical representative of the Holarctic Region with 8 known species (SABROSKY, 1965; NARTSHUK, 1984). There are 2 following species known from the Palaearctic Region: *D. dalmatina* STROBL; *D. messoria* (FALLÉN). In this paper this genus is recorded from China for the first time and contains 2 new species. A key to the species of the genus *Diplotoxa* LOEW known from the Palaearctic Region is presented for the convenience of future study.

Genus *Diplotoxa* LOEW

Diplotoxa LOEW, 1863, Berl. Ent. Zeitschr., 7: 54. Type species. *Diplotoxa verscicolor* LOEW, 1863.

Anthobia LIOY, 1864, Atti R. Inst. Veneto Sci., (3)9: 1124.

Type species. *Chlorops lateralis* MACQUART, 1835.

Diplotoxoides ANDERSSON, 1977, Entom. scand. Suppl., 8: 150 (as subgenus of *Diplotoxa* LOEW, 1863). Type species.

Diplotoxa dalmatina STROBL, 1900.

Diagnosis

Head as high as long. Eye oval, bare, with long axis diagonal. Gena narrower than 3rd antennal segment; parafacial indistinct. Frons not distinctly projecting beyond eyes, wider than long, somewhat narrow in front; frontal triangle shiny black, its apex extending near anterior margin of frons. Face concave, without distinct facial carina. Antenna black, with 3rd segment as long as high, somewhat quadrate; arista moderately long, short pubescent. 6-9 orbital bristles (*orb*) rather short; ocellar bristles (*oc*) proclinate and divergent; post-vertical bristles (*pvt*) weakly proclinate and somewhat divergent, shorter than oc; outer vertical bristle (*vte*) longer than inner vertical bristle (*vti*). Mesonotum moderately convex with shallow impressions along dorso-central lines; scutellum subconical, weakly flattened on disc. Hairs on mesonotum and scutellum short; mesopleuron bare; humeral bristle (*h*) indistinct; 1+2 notopleural bristles (*npl*); 1 dorsocentral bristle (*dc*); 1 anterior postalar bristle (*a pa*) and 1 posterior postalar bristle (*p pa*); apical scutellar bristles (*ap sc*) distinctly shorter than scutellum. Mid tibia with an apical spur; hind tibia without tibial organ. Wing with veins R_{4+5} and M_{1+2} distinctly divergent, vein R_{4+5} strongly forcurving, cross-veins r-m and m-m closely approximated and distance between them shorter than length of m-m. Male genitalia: Surstylus with a separated basal sclerite; postgonites, pregonites, phallapodeme and phallapodemic sclerite more or less fused.

Distribution

Palaearctic Region (2 species, of which 1 species is also present in the Nearctic Region), Nearctic Region (7 species).

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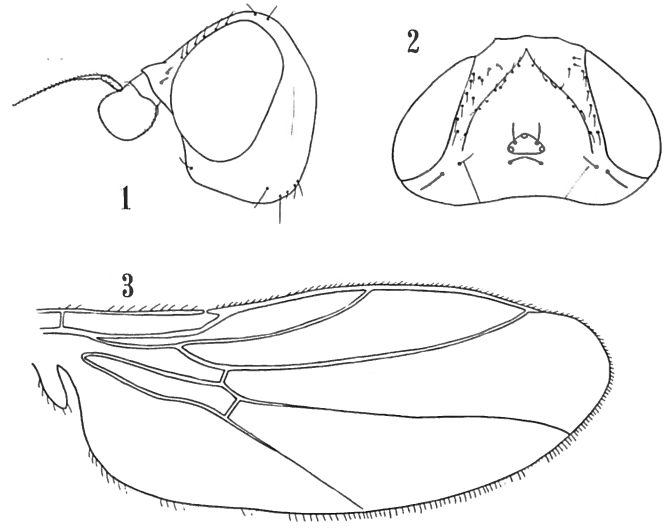
Key to the species of *Diplotoxa* from the Palaearctic Region

1. Mesonotum blackish brown, mat and gray pollinose 2
– Mesonotum brownish, subshiny, with indistinct dark brown stripes (after ANDERSSON, 1977). Europe ..... *D. dalmatina* STROBL

2. Legs chiefly brownish black; frontal triangle extending near anterior margin of frons 3
– Legs yellow except for femora and apex of tarsi somewhat darker; frontal triangle with yellow apex extending to anterior margin of frons. North China ..... *D. xantha* sp. nov.

3. Coxae yellow; femora and hind tibia black with base and apex yellow, fore and mid tibiae predominantly yellowish brown (after DUDA, 1932). Holarctic Region .... *D. messoria* (FALLÉN)

– Basal portion of fore coxa and bases of mid and hind coxae blackish to black; femora black except for apex brownish yellow to yellow; tibia black except for basal portion of fore tibia, basal portion and apex of mid tibia, and base and apex of hind tibia brownish yellow to yellow. North China ..... *D. basinigra* sp. nov.



Figs 1-3 – *Diplotoxa basinigra* sp. nov., female. 1, Head, lateral view; 2, head, dorsal view; 3, wing.

Diplotoxa basinigra sp. nov.
(Figs 1-3)

Female

Body length 2,4-2,6 mm; wing length 2,5-2,7 mm.

Head yellow with grayish white pollinosity; occiput dark brown except for latero-upper corners and lower portion yellow; frons yellow; frontal triangle shiny black with apico-lateral margins pale, its apex extending near anterior margin of frons; ocellar tubercle shiny black. Head 1,1 times higher than long; eye sparsely short haired, 5,0-5,1 times as high as width of gena; gena 0,5 times as broad as 3rd antennal segment; parafacial indistinct; face weakly concave, without distinct facial carina; clypeus blackish, polished anteriorly. Cephalic bristles and hairs black except for hairs on gena and oral margin pale. 6 *orb* rather short; *oc* proclinate and divergent; *pvt* somewhat vertical and divergent, subequal to *oc; vte* stronger, longer than *vti*. Antenna entirely brownish black and thickly grayish pollinose, 3rd segment as broad as long, rounded dorsally and ventrally; arista pale except for basal portion brownish yellow to brown, 2,2-2,5 times as long as 3rd antennal segment. Proboscis brownish yellow with pale hairs; palpus yellowish with black hairs.

Thorax yellow to brownish yellow with grayish white pollinosity; humerus yellow with a black spot; mesonotum brownish black except for lateral portion brownish yellow. Scutellum blackish brown, 1,8-1,9 times as wide as long; *ap sc* shorter than scutellum. Metanotum brownish black. Pleuron shiny except for lower portion of sternopleuron, upper and posterior portion of pteropleuron, metapleuron and hypopleuron with grayish white pollinosity; mesopleuron and pteropleuron largely reddish blackish, ventro-median portions of sternopleuron and hypopleuron largely black. Hairs and bristles rather short and black except for mesopleuron with long pale hairs; *h* indistinct; 1+2 *npl*, of which 1 postero-outer *npl* is strong; *a pa* strong, *p pa* and *dc* hair-like. Legs brownish black, but coxae and trochanters yellow except for basal portion of fore coxa, bases of mid and hind coxae blackish to black; apices of femora yellow to brownish yellow; basal portion of fore tibia, basal portion and apex of mid tibia, base and apex of hind tibia brownish yellow to yellow; legs with thick grayish white pollinosity, but dorsal surfaces of all tibiae subshiny; hairs on legs chiefly black, but coxae only with pale hairs. Mid tibia with a black spur which is slightly longer than diameter of tibia. Wing Hyaline, 2,7-2,8 times as long as wide; veins brownish yellow; veins R_{4+5} and M_{1+2} distinctly divergent apically, vein R_{4+5} strongly procurved; relative lengths of costal sectors 2nd: 3rd: 4th as 1: 1: 0,9; crossveins r-m and m-m closely approximated, crossvein r-m at basal 0,9 times of discal cell. Halter stem brown, knob pale yellow.

Abdomen brownish with grayish white pollinosity except for lateral portions of tergites 3-5 shiny; hairs on abdomen chiefly pale.

Male

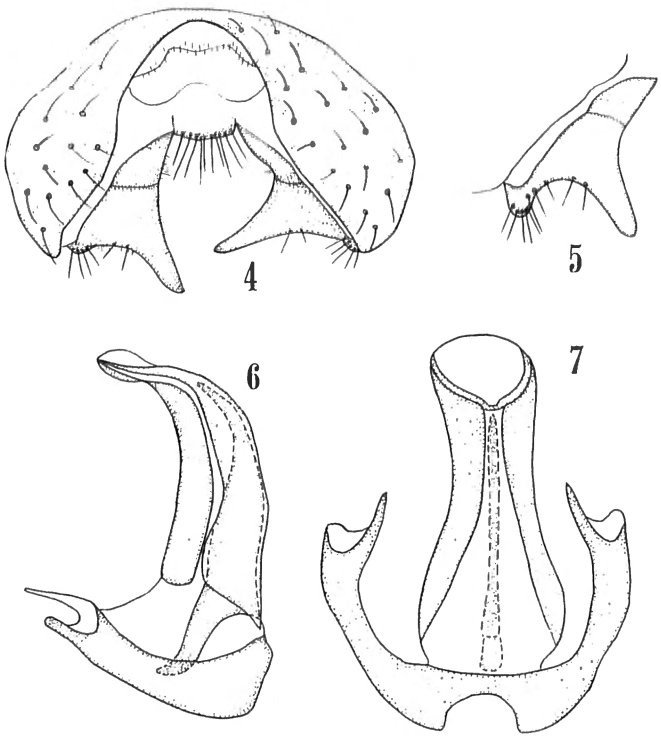
Unknown.

Holotype ♀, paratype ♀, Mengyuan, Qinghai, 18. vii. 1989, Guoqing LIU.

Remarks
This species is very similar to *D. messoria* (FALLÉN) from the Holarctic Region, but may be distinguished from the latter by the characters as shown in couplet 3 of the key.

Diplotoxa xantha sp. nov.
(Figs 4-7)

Male
Body length 2,3 mm, wing length 2,3 mm.
Head yellow with grayish white pollinosity; occiput dark brown except for latero-upper corners and lower portion yellow; frons yellow; frontal triangle subshiny black with yellow apex extending to anterior margin of frons; ocellar tubercle black with grayish white pollinosity. Head as high as long; eye sparsely short haired, 5,2 times as high as width of gena; gena 0,5 times as broad as 3rd antennal segment; parafacial indistinct; face weakly concave, without distinct facial carina; clypeus blackish, polished brownish yellow anteriorly. Cephalic bristles and hairs brownish to black except for hairs on gena and oral margin pale. 5 *orb* rather short; *oc* hair-like, proclinate and somewhat parallel; *pvt* somewhat vertical and divergent, subequal to *oc*; *vte* strong, longer than *vti*. Antenna entirely brownish black and thickly grayish pollinose, 3rd segment as broad as long, rounded dorsally and ventrally; arista broken. Proboscis brownish yellow with pale hairs; palpus yellowish with black hairs.



Figs 4-7 – *Diplotoxa xantha* sp. nov., male. 4, Male genitalia, posterior view; 5, surstylus, lateral view; 6, hypandrium and aedeagal complex, lateral view; 7, hypandrium and aedeagal complex, ventral view.

Thorax yellow to brownish yellow with grayish white pollinosity; humerus yellow with a black spot; mesonotum brownish black except for lateral portion brownish yellow. Scutellum brown, 1,9 times as wide as long; *ap sc* shorter than scutellum. Metanotum brownish black. Pleuron shiny except for lower portion of sternopleuron, upper and posterior portion of pteropleuron, metapleuron and hypopleuron with grayish white pollinosity; ventral margin of mesopleuron and anterior margin of pteropleuron blackish, ventro-median portions of sternopleuron and hypopleuron largely black. Hairs and bristles rather short and black except for mesopleuron with long pale hairs; *h* indistinct; 1 + 2 *npl*, of which 1 postero-outer *npl* is strong; *a pa* and *dc* strong, *p pa* weak. Legs yellow, but femora somewhat darker; apical portions of tarsi brown; legs with thick grayish white pollinosity, but dorsal surfaces of tibiae subshiny; hairs on legs chiefly black, but coxae only with pale hairs. Mid tibia with a black spur which is subequal to diameter of tibia. Wing hyaline, 3,0 times as long as wide; veins brownish yellow; veins R_{4+5} and M_{1+2} distinctly divergent apically, vein R_{4+5} strongly procurved; relative length of costal sectors 2nd: 3rd: 4th as 1: 1.1: 0,9; crossveins r-m and m-m closely approximated, crossvein r-m at basal 0,9 times of discal cell. Halter stem reddish brown, knob pale yellow.
Abdomen brownish with grayish white pollinosity except for postero-lateral portion of tergite 3 and lateral portion of terigites 4-5 subshiny; hairs on abdomen chiefly pale. Male genitalia (Figs 4-7): Epandrium with postero-distal opening moderately large; surstylus elongate and somewhat acute apically, and with a nearly triangular basal sclerite which is not distinctly separated; pregonite and postgonite separated and long; pregonites fused ventrally; aedeagal apodeme very long, with basal stalk somewhat curved.

Female
Unknown.
Holotype ♂, Liancheng, Nei Mongol, 4. viii. 1978, Heming CHEN.

Remarks
This species may be distinguished from *D. messoria* (FALLÉN) and *D. basinigra* sp. nov. by having the yellow legs except for femora and apical portions of tarsi somewhat darker and frontal triangle with yellow apex extending to anterior margin of frons.

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