

Far Eastern Entomologist



Дальневосточный энтомолог

Journal published by
Far East Branch of the
Russian Entomological Society
and Laboratory of Entomology
Institute of Biology and Pedology,
Vladivostok

Number 17: 1-4

August 1995

NEW SPECIES OF THE GENUS *PULICIPHORA* DAHL (DIPTERA, PHORIDAE) FROM THE RUSSIAN FAR EAST

M.V. Michailovskaya

*Mountain-Taiga Station, Far Eastern Branch, Russian Academy of Sciences,
Gornotayozhnoe, Primorskii krai, 692533, Russia.*

New species *Puliciphora omnivora* sp.n. is described. Genus *Puliciphora* is recorded for the first time from Russia. New species was reared from dead snails (*Bradybaena maacki*, *B. middendorffi*), dead larva and cocoons of Lepidoptera (*Lymantria dispar asiatica*).

KEY WORDS: Diptera, Phoridae, new species.

М.В. Михайловская. Новый вид рода *Puliciphora* Dahl (Diptera, Phoridae) с Дальнего Востока России // Дальневосточный энтомолог. 1995. N 17. С. 1-4.

Описан новый вид мух *Puliciphora omnivora* sp.n. Впервые для России указывается род *Puliciphora*. Новый вид развивается на мертвых улитках (*Bradybaena maacki* и *B. middendorffi*) и на мертвых гусеницах и коконах бабочек (*Lymantria dispar asiatica*).

Горно-таежная станция, Дальневосточное отделение Российской Академии Наук, Горнотаежное, Приморского края, 692533, Россия.

INTRODUCTION

Species of the genus *Puliciphora* are mainly minute-sized scuttle flies (0.5-1.5 mm) with apterous females and winged males. Sixty two Oriental, Neotropic, Nearctic and Palaearctic species of the genus *Puliciphora* have been described: 46 species are known in female sex only, 5 ones in male and 11 species in both sexes (Schmitz, 1929; Borgmeier, 1960; 1963; 1969; Borgmeier & Prado, 1975; Disney & Kistner, 1989b; Disney, 1990). The single Palaearctic species, *P. tokyoensis* Kinoshita, is known from Japan. Species of *Puliciphora* are parasitoids or specialized predators of ants and termites (Disney 1988; Disney & Kistner 1989a).

Description of a new species is given below. Holotype of new species is deposited in the Zoological Institute of Russian Academy of Sciences, St.-Petersburg; paratypes deposited in the collection of Mountain-Taiga Station.

***Puliciphora omnivora* Michailovskaya sp.n.**

Fig. 1-8

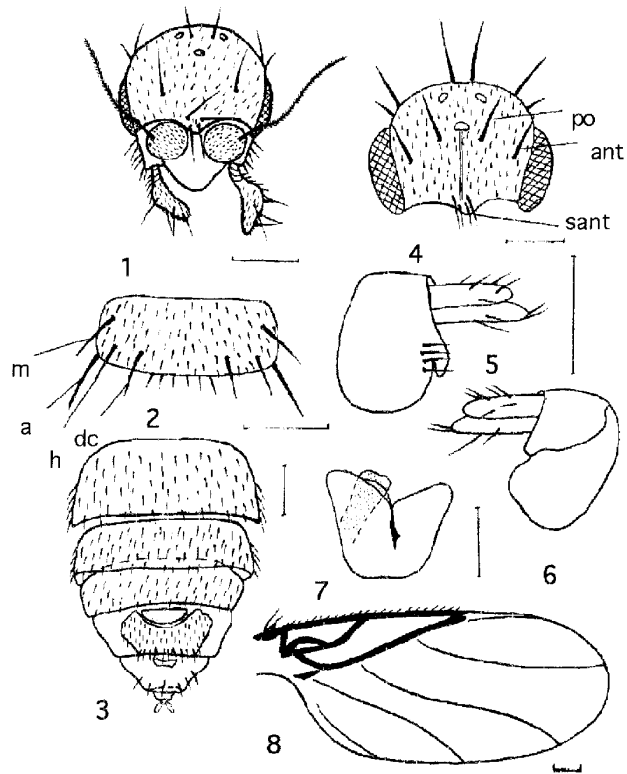
MATERIAL. Holotype - female, Russia: Primorskii krai, 18 km SE Ussuriysk, Gornotayozhnoe, 29.VII 1986 (M.Michailovskaya). Paratypes - 3 females, 5 males from the same locality, 9.VI 1986, 25.VII 1986, 16.VII. 1986, 29.VII 1986 (M.Michailovskaya). Besides more then 50 males and females, have been reared during 1986, 1987 and 1989 from dead snails and tussock-moth larvae and pupae in the laboratory, were studied.

DESCRIPTION. FEMALE. Body length 1.15 mm. Frons dark brown, wider than high (4:3) with three ocelli. Only 2 antials present between the 4 supra-antennals and 6 bristles on the vertex. Eyes partly reduced. Third antennal segment large, with apical pubescent arista. Palps brownish, with 4 bristles. Thorax black, about twice as broad as long. Scutellum, wings and halteres absent. There are 1 humeral, 1 marginal, 1 dorso-central bristles on each side of thorax. Alar bristles are located on a pale area which is not protuberant. Abdominal tergites 1-4 black, 5-6 tergites brown. The anterior flap of tergite 5 median size, semicircular form and hairless. Anterior margin of tergite 5 narrower than posterior margin of tergite 4. Tergite 6 with anterolateral apodemes. Terminalia simple. Legs pale. Hind metatarsus with 5 combs of hair.

MALE. Body length 1.4 mm. Frons black with 14 bristles and median furrow. Frontal chaetotaxy: 4 supra-antennals, 2 antials, 2 pre-ocellars and 6 bristles (including ocellars) on vertex. The eyes and ocelli normally developed. Antennae and palps light-brown. Thorax black. Scutellum with 2 posterior bristles and 2 anterior minute hairs. Mesopleura bare. Abdominal tergites black, with hairs on the hind margin of tergite 6. Hypopygium (0.17 x 0.12 mm.) brownish. Anal tube and cerci yellow. Epandrium asymmetrical, higher than

length; right side developed in upper half only; left side with 4 bristles and small rounded process on the hind margin. Ventrit with 1 process. Legs yellowish brown. Hind metatarsus with 7 combs of hairs. Wings 1.1 x 0.55 mm, hyaline with brown veins. Costal index 0.49. Halteres brown.

RELATIONSHIPS. New species closely related to Oriental *Puliciphora beckeri* de Meijere (Disney, 1988), but differs by the presence of bristles on the epandrium in the male and other relation of abdominal tergite 5 width to flap one in female.



Figs. 1-8. *Puliciphora omnivora* sp.n. - 1-3) female: 1) head; 2) thorax (h - humeral, m - marginal, dc - dorso-central, a - alar bristles); 3) 2-6 tergites; 4-8) male: 4) head (sa - supra-antennales, ant - antennals, po - pre-ocellars); 5) left epandrium; 6) right epandrium; 7 - ventrit; 8) wing. Scale = 0.1 mm

BIOLOGY. New species was reared during several years from dead snails (*Bradybaena maacki*, *B. middendorffi*), dead larvae of tussock-moth (*Limantria dispar asiatica* Wnuk.) and rotten fruits during the whole summer. The small and apterous females emerged in the beginning of summer (June 10th). In laboratory conditions the development from egg to imago took 23 days in June and July. The pupal stage represents about half of the total developmental period only.

ACKNOWLEDGMENTS

I am grateful to Dr. I.M.Licharev (St.Petersburg) for determinations of snails.

REFERENCES

- Borgmeier, T. 1960. Geflügelte und undeflügelte Phoridae aus der neotropischen Region nebst Beschreibung von sieben neuen Gattungen (Diptera, Phoridae). - *Studia Entomologica*, 3: 257-374.
- Borgmeier, T. 1963. Revision of the North American Phorid Flies. Part I (Dipt. Phoridae). - *Studia Entomologica*, 6: 1-256.
- Borgmeier, T. 1969. New or little-known Phorid flies, mainly of the Neotropical Region (Diptera, Phoridae). - *Studia Entomologica* 12: 33-132.
- Borgmeier, T. & Prado, A.P. 1975. New or little-known Neotropical Phorid flies, with description of eight new genera (Dipt. Phoridae). - *Studia Entomologica* 18:3-90.
- Disney, R.H.L. 1988. Biology and taxonomy of Old World Puliciphora (Diptera, Phoridae) with descriptions of nine new species. - *Oriental Insects* 22: 267-286.
- Disney, R.H.L. 1990. Revised key to Puliciphora (Diptera, Phoridae) of the Australasian and Oriental Regions, with third report of a larval Parasitica (Hymenoptera) in an adult fly. - *Ent. Scand.* 21(2): 211-218.
- Disney, R.H.L. & Kistner, D.H. 1989a. Neotropical Phoridae from termite colonies, including two new species (Diptera: Isoptera: Termitidae). - *Sociobiology* 15(1): 79-84.
- Disney, R.H.L. & Kistner, D.H. 1989b. Six new species of Oriental Phoridae from termite nests (Diptera: Isoptera, Termitidae and Rhinotermitidae). - *Sociobiology* 15(3): 325-348.
- Schmitz, H. 1929. Revision der Phoridae. Ferd. Dummlers Publ., Berlin & Bonn: 211 p.

© Far Eastern Entomologist

Editor-in-Chief: S.Yu.Storozhenko

Editorial Board: A.S.Lelej Yu.A.Tshistjakov
N.V.Kurzenko V.N.Makarkin

Address: Institute of Biology and Pedology, Far East Branch of Russian Academy of Sciences, 690022, Vladivostok-22, Russia.

FAX: (4232) 310 193

E-mail: entomol@stv.iasnet.com