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Research Note

Notes on the lesser dung flies emerged from fungi
in Japan (Diptera, Sphaeroceridae)

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Abstract: Seven species of the lesser dung flies emerged from fungi are recorded. Japanese records of fungi as food for sphaerocerid larvae are presented here for the first time. Two species, *Minilimosina (Svarciella) furculisterna* (Deeming, 1969) and *Terrilimosina longipexa* Marshall, 1987 are newly recorded from Hokkaido.

INTRODUCTION

The larvae of the lesser dung flies (family Sphaeroceridae) are generally known to be saprophagous and coprophagous, but their actual rearing records are very scattered. We often regard larval food by the collecting data of adults, but larval food and adult occurrence are not necessarily related. Therefore, it is important to record the substrate of adult emergence to recognize actual larval food.

Many species used fungi as larval food in the family Sphaeroceridae (Buxton, 1960; Hackman and Meinander, 1979; Marshall, 1983; Roháček, 1982, 1983; Roháček and Marshall, 1982), but no species have been recorded in Japan. We reared 7 lesser dung flies from fungi in Japan, and record their data below.

New Japanese name "funkobae" is also proposed for the family Sphaeroceridae.

Crumomyia annulus (Walker, 1849)
(Japanese name: Ashimadara-
oh-funkobae)

Common species, found on decaying vegetable matter, dung of domestic animals and manure.

Specimens examined. HOKKAIDO: 2♀♀, Botanic Garden of Hokkaido University, Sapporo, June 2, 1996, reared from *Coprinus micaceus* (Bulliard : Fries) Fries [Japanese name: Kirara-take].

Crumomyia nipponica (Richards, 1968)
(Japanese name: Yamato-oh-funkobae)

Adults are mainly found on leaf litter and decaying vegetable matter.

Specimens examined. IBARAKI: 2♂♂, 2♀♀, Campus of University of Tsukuba, Tsukuba, April 20, 1998, reared from *Morchella* sp. [Japanese name: Amigasa-take].

Minilimosina (Svarciella) furculisterna
(Deeming, 1969)
(Japanese name: Ashijiro-
tsuyahoso-funkobae)

New to Hokkaido.

Specimen examined. HOKKAIDO: 1♀, Botanic Garden of Hokkaido University, Sapporo, June 9, 1996, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take].

Paralimosina japonica Hayashi, 1985
(Japanese name: Mori-funkobae)

Adults are mainly found on human excrement, but also on decaying vegetable matter.

Specimen examined. IBARAKI: 1♀, Campus of University of Tsukuba, Tsukuba, April 20, 1998, reared from *Morchella* sp. [Japanese name: Amigasa-take].

Spelobia luteilabris (Rondani, 1880)
(Japanese name: Hime-funkobae)

Common polysaprophagous species, known to breed in various kinds of dung, carrion and vegetable matter.

Specimens examined. HOKKAIDO: 4♀♀, Botanic Garden of Hokkaido University, Sapporo, June 4, 1995, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take]; 1♂, ditto, June 11, 1995, reared from *C. atramentarius* (Bulliard: Fries) Fries [Japanese name: Hitoyotake]; 3♂♂, 4♀♀, ditto, June 11, 1995, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take]; 2♂♂, 4♀♀, ditto, June 23, 1995, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take]; 2♂♂, 1♀, ditto, June 28, 1995, reared from *Leucopaxillus giganteus* (Sowerby: Fries) Singer [Japanese name: Oh-ichou-take]; 1♂, ditto, June 16, 1996, reared from *Pluteus atricapillus* (Batsch) Fayod [Japanese name: Shika-take].

Terrilimosina longipexa Marshall, 1987
(Japanese name:
Hoso-kadomaru-funkobae)

Adults are found on decaying vegetable matter and along the stream. New to Hokkaido.

Specimens examined. HOKKAIDO: 1♂, 1♀, Botanic Garden of Hokkaido University, Sapporo, June 9, 1996, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take].

Terrilimosina nana Hayashi, 1993
(Japanese name:
Kogata-kadomaru-funkobae)

Adults are found on decaying vegetable matter and along the stream.

Specimens examined. HOKKAIDO: 1♂, Botanic Garden of Hokkaido University, Sapporo, June 23, 1995, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take]; 2♂♂, 1♀, ditto, June 9, 1996, reared from *C. micaceus* (Bulliard: Fries) Fries [Japanese name: Kirara-take].

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REFERENCES

- Buxton, P. A. (1960) British Diptera associated with fungi. III. Flies of all families reared from about 150 species of fungi. *Entomol. Mon. Mag.*, 96: 61-94.
- Hackman, W. and M. Meinander (1979) Diptera feeding as larvae on macrofungi in Finland. *Ann. Zool. Fenn.*, 16: 50-83.
- Marshall, S. A. (1983) The genus *Bromeloecia* Spuler in North America (Diptera: Sphaeroceridae: Limosininae). *Proc. Entomol. Soc. Wash.*, 85: 32-35.
- Roháček, J. (1982) A monograph and re-classification of the previous genus *Limosina* Macquart (Diptera, Sphaeroceridae) of Europe. Part II. *Beitr. Entomol.*, 32: 195-282.

Roháček, J. (1983) A monograph and re-classification of the previous genus *Limosina* Macquart (Diptera, Sphaeroceridae) of Europe. Part II. *Beitr. Entomol.*, 33: 3-195.

Roháček, J. and S. A. Marshall (1982) A monograph of the genera *Puncticorpus* Duda, 1918 and *Nearcticorpus* gen. n. (Diptera, Sphaeroceridae). *Zool. Jb.*, 109: 357-398.

摘 要

キノコから発生した日本産フンコバエ類 (双翅目, フンコバエ科 (改称))

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キノコ類より発生した日本産フンコバエ科 (改称) 7 種を記録した。日本においてフンコバエ類がキノコより

発生した例は従来知られておらず、今回が初めての記録である。

フンコバエ類と発生したキノコ種は以下のとおりである。アシマダラオオフンコバエ, 新称 *Crumomyia annu-*

lus (Walker), キララタケ; ヤマトオオフンコバエ, 改称 (マダラオオハヤトビバエ) *C. nipponica* (Richards), アミガサタケ; アシジロツヤホソフンコバエ, 新称 *Minilimosina* (*Svarciella*) *furculisterna* (Deeming), キララタケ; モリフンコバエ, 新称 *Paralimosina japonica* Hayashi, アミガサタケ; ヒメフンコバエ, 改称 (ヒメハヤトビバエ) *Spelobia luteilabris* (Rondani), キララタケ・ヒトヨタケ・オオイチョウタケ・シカタケ; ホソカドマルフンコバエ, 改称 (ホソカドマルハヤトビバエ) *Terrilimosina longipexa* Marshall, キララタケ; コガタカドマルフンコバエ, 改称 (コガタカドマルハヤトビバエ) *T. nana* Hayashi, キララタケ。

なお本科の科名には従来ハヤトビバエ科という和名が使われてきたが、飛翔力が非常に弱い本科には実体に合わないで、英名 Lesser dung fly にちなみ、フンコバエ科という和名を新たに提唱した。