

Lycoriella postconspicua Mohrig, 1985 (Sciaridae, Diptera) new to Svalbard and records of some other Diptera from Svalbard

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Hågvar, S., Heller, K. & Greve, L. 2007. *Lycoriella postconspicua* Mohrig, 1985 (Sciaridae, Diptera) new to Svalbard and records of some other Diptera from Svalbard. Norw. J. Entomol. 54, 65-68.

During the summer of 1968, twelve species of Diptera were sampled along the western coast of Spitsbergen, including Prins Karls Forland. *Lycoriella postconspicua* Mohrig, 1985 (Sciaridae) is a new record from Svalbard and northern Europe. Until now it was only known from the Austrian Alps in altitudes above 2000 m. *Parapiophila vulgaris* (Fallén, 1820) (Piophilidae) was published as new to Svalbard by Lohm (1978), but the present records were made ten years earlier.

Key-words: Diptera, Svalbard, Spitsbergen, *Lycoriella postconspicua*, Sciaridae

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INTRODUCTION

Svalbard has a rather rich Diptera fauna, comprising of many families as reviewed by Coulson & Refseth (2004). However, this fauna is poorly known. In connection with an expedition arranged by the Norwegian Polar Institute in 1968, the first author sampled invertebrates at a number of localities along the western coast of Spitsbergen. Except for the Chironomidae, this paper presents the Diptera species recorded. The Sciaridae were recently identified by Kai Heller.

MATERIAL AND METHODS

The material was sampled during a six week period using various methods including hand catching, turning of stones, sampling in flowers

and pitfall trapping. Table 1 lists the localities and provides information concerning dates, methods and habitats. Among 63 Sciaridae specimens collected, 26 were identified to species, the rest consisting of unidentifiable females.

RESULTS AND DISCUSSION

Table 2 shows sample numbers and selected references for each species. The sample numbers in Table 1 give further information. *Lycoriella postconspicua* is new to Svalbard and northern Europe. One male was found in a pitfall trap from a dry habitat at Isfjord Radio (sample 6). Six males and seven females were collected in pitfall traps at Ny-Ålesund (sample 52). Until now *L. postconspicua* was only known from four locations in the Austrian Alps at altitudes above

Table 1. Sampling of Diptera on Svalbard 1968: Sample number, locality, date and information on habitat and sampling.

Sample No.	Locality	Date	Habitat and sampling
1	Isfjord Radio	13 June	Inside house
2	Isfjord Radio	14 June	Inside house
6	Isfjord Radio	23-27 June	Pitfall traps in dry ridges and slopes, with <i>Saxifraga oppositifolia</i> , mosses and lichens
11	NW of Forlandsletta, Prins Karls Forland	2 July	On snow near bird cliff
17	Levinhamna, Prins Karls Forland	5 July	Flying on beach with extensive decomposing marine algae
26	Signehamna, Krossfjorden	11 July	Below bird cliff
33	Signehamna, Krossfjorden	14 July	Below bird cliff, on snow. Rich vegetation
34	Signehamna, Krossfjorden	15 July	From <i>Dryas octopetala</i> flowers. Stony slope
35	Signehamna, Krossfjorden	15 July	Under stone in slope below bird cliff
40	SE corner of Kongsfjorden	19 July	From <i>Dryas octopetala</i> flowers. Above a small bird cliff
41	Gerdøya, Kongsfjorden	20 July	Under stone, dense moss vegetation, moist
44	Irgensfjellet, Kongsfjorden	22 July	Below bird cliff, in copulation on guano
46	Ossian Sars-fjellet, Kongsfjorden	23 July	Under stone in bird cliff. Rich vegetation
48	Ossian Sars-fjellet, Kongsfjorden	23 July	Below bird cliff, in flowers of <i>Taraxacum</i> sp.
49	Sigridholmen, Kongsfjorden	28 July	Under stone, some vegetation
51	Ny-Ålesund	31 July	Inside house, dead
52	Ny-Ålesund	18-31 July	Pitfall trap. Vegetation: <i>Poa</i> sp., <i>Oxyria digyna</i> , <i>Deschampsia cespitosa</i>

2000 m (Mohrig 1985) and seems to have a boreoalpine distribution. The two other species of Sciaridae are common on Svalbard.

Nearly half of the Sciaridae material, including the unidentified females, was collected in pitfall traps in rather dry habitats, but this group was also recorded under stones in moister habitats and in flowers of *Dryas octopetala*.

Parapiophila vulgaris was published as new to Svalbard by Lohm (1978), but the present records were made ten years earlier among rich vegetation below bird cliffs. Lohm (1978) collected it

from the inner parts of Isfjorden and two of the specimens were taken in the fur of a dead arctic fox. *Parapiophila vulgaris* has a holarctic distribution and is widely distributed in Norway and elsewhere in Europe (Greve 2005). The fly is also recorded from Iceland and the Faroes (Zuska 1984).

Several fly species seem to be favoured by bird cliffs, where there is a lush vegetation, guano and periodically dead birds. A typical such species is *Neoleria prominens*, which may hatch in great numbers from decaying organic matter below bird cliffs (Sendstad 1977). *Coelopa frigida*

Table 2. List of species (Diptera) collected during an expedition to Svalbard in 1968. Sample numbers refer to Table 1, which gives locality names and short habitat descriptions. References to selected earlier publications are given.

Species	Sample No.	References
Sciaridae		
<i>Schwenckfeldina tridentata</i> (Rübsaamen, 1898)	6	Coulson & Refseth (2004)
<i>Camptochaeta delicata</i> (Lengersdorf, 1935)	49	Coulson & Refseth (2004)
<i>Lycoriella postconspicua</i> Mohrig, 1985	6, 52	New to Svalbard
Calliphoridae		
<i>Protophormia terraenovae</i> (Robineau-Desvoidy, 1830)	51	Nuorteva (1967), Hinz (1976), Hoffmann (1976), Lohm (1978)
Coelopidae		
<i>Coelopa frigida</i> (Fabricius, 1805)	1, 2, 11, 17	Thor (1930), Hackman (1968), Hinz (1976), Lohm (1978)
Empididae		
<i>Rhamphomyia caudata</i> Zetterstedt, 1838	40, 41	Thor (1930), Hackman (1968), Hinz (1976), Hoffmann (1976), Lohm (1978)
Heleomyzidae		
<i>Heleomyza borealis</i> (Boheman, 1865)	51	Thor (1930), Hackman (1968)
<i>Neoleria prominens</i> (Becker, 1897)	26, 40, 44, 46, 48	Hackman (1968), Sendstad (1977), Lohm (1978)
Muscidae		
<i>Spilogona dorsata</i> (Zetterstedt, 1845)	41, 49	Thor (1930), Tiensuu (1968), Lohm (1978)
<i>Spilogona megastoma</i> (Boheman, 1866)	33, 34	Thor (1930), Tiensuu (1968), Lohm (1978)
Piophilidae		
<i>Parapiophila vulgaris</i> (Fallén, 1820)	35, 48	Lohm (1978)
Sphaeroceridae		
<i>Norbomia fumipennis</i> (Stenhammar, 1855)	41	Boheman (1866), Lohm (1978)

is, however, an exclusively littoral species developing in decomposing algae along the shore. It is holarctic and has been recorded from several localities on Svalbard (Hackman 1968).

Hugo Andersson, Lund, Sweden, for species identifications. Sampling was undertaken in connection with an expedition arranged by the Norwegian Polar Institute in June and July 1968.

Acknowledgements. We are greatly indebted to Knut Rognes, Stavanger, Norway and to

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Received 7 March 2007,
accepted 13 April 2007