

***Muscaphis musci* BÖRNER, 1933 (Hemiptera, Aphidoidea) – an aphid species new to Poland**

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ABSTRACT. The first record of *Muscaphis musci* is given from Poland. The alate viviparous females and male were described.

KEY WORDS: Aphidoidea, *Muscaphis musci*, mosses.

INTRODUCTION

According to REMAUDIÈRE & REMAUDIÈRE (1997) the genus *Muscaphis* BÖRNER, 1933 belongs to the family Aphididae, tribus Macrosiphini and consists of eighth species. BLACKMAN & EASTOP (1994) give information that there are seven or eighth species host-alternating between Pyroidea and mosses, or known only from either the primary or the secondary host. HEIE (1992) reviewed the European species, both in Scandinavia. There were: *Muscaphis drepanosiphoides* (MACGILLIVRAY & BRADLEY, 1961) and *Muscaphis musci* BÖRNER, 1933. The fundatrices of *M. drepanosiphoides* live on *Sorbus* in curled leaves in spring and early summer. All individuals of next generation are alate and leave tree in summer. The secondary hosts are unknown but probably mosses. *M. musci* only been found on mosses. Also HEIE (1992) suggest that the *M. musci* is probably host-alternating, but the primary host is unknown. In Denmark it was found on mosses: *Acrocladium cuspidatum*, *Brachythecium rutabulum*, *Catharinaea undulata* and *Mnium undulatum*.

STUDY AREA AND MATERIAL EXAMINED

All individuals of aphids were captured into Moericke traps in faunistic studies of aphidofauna carried out in urban green space (the Botanical Garden of the Adam Mickiewicz University and green spaces around the buildings of the University of Life Science in Poznań) and in bush complexes occurring in the neighbourhood of apple orchard in Gorzyczki located in the south of Poznań. The first record of species occurrence was in Poland in 2001. The material examined was: 7 alate viviparous females and 1 male (leg. WILKANIEC B., BOROWIAK-SOBKOWIAK B., det. WILKANIEC B., BOROWIAK-SOBKOWIAK B.).

Material examined

Gorzyczki (XT27) 23.09.2001, 1 ♀. Poznań (XU30) 10.09.01, 2 ♀♀, 12.09.06 1 ♀, 22.09.06 1 ♀, 10.09.07, 3 ♀♀, 20.09.07, 6 ♀♀, 22.10.07, 1 ♂. Kórnik (XT49) 27.09.07, 2 ♀♀.

Description (based on BLACKMAN & EASTOP, 1994)

Alate viviparous female:

antenna 6-segmented, about 0,8 x body; processus terminalis 2.4-3.1 x basal part of segm.VI; segm.III with 18-24 rather large, transverse oval, protruding secondary rhinaria irregularly arranged from base to apex, IV with 10-16, V with 6-11. Siphunculus 0.09-0.13 x body, about 2.6 x cauda. Cauda with broad basal part and a smaller, much narrower distal part. Body 1.1-1.4 mm.

Alate male:

antenna 6-segmented; processus terminalis about 3.4 x basal part of segm.VI; segm.III with 9-32 secondary rhinaria, IV with 15-20, V with 15-17. Siphunculus about 0.13 x body, 2.4 x cauda. Body 1.0-1.1 mm.

Description and measurements (WILKANIEC B., BOROWIAK-SOBKOWIAK B.)

Alate viviparous female (Fig. 1)

Body: 1.05 mm mean (0.89-1.23); length of antenna: 1.07 mm mean; length of antennal segments: III – 0.27 mm (0.25-0.3), IV – 0.17 mm (0.14-0.19), V – 0.19 mm (0.17-0.20), VI – 0.34 mm (0.3-0.38); PT – 0.26 mm (0.25-0.27); PT/Base: 5; secondary rhinaria situated on antennal segments : III – 17-23, IV – 10-15, V – 8-12; length of leg: 1.04 (0.91-1.1); length of rostrum: 0.28 mm (0.23-0.39); siphunculus: 0.18 mm (0.13-0.28); cauda: 0.036 mm (0.02-0.05) (Fig. 2).

Alate male (Fig. 3)

Body: 0.78 mm; length of antenna: 1.2 mm; length of antennal segments: III – 0.26 mm, IV – 0.18 mm, V – 0.21 mm, VI – 0.46 mm; PT – 0.37 mm; PT/Base: 4.11; secondary rhinaria

situated on antennal segments: III – 25, IV – 17, V – 15; length of leg: 1.0 mm; length of rostrum: 0.24 mm, siphunculus: 0.11 mm; siphunculus about 0.14 x body; cauda: 0.04 mm.



Fig. 1. *Muscaphis musci* – alate viviparous female.



Fig. 2. *Muscaphis musci* – cauda and siphunculi.



Fig. 3. *Muscaphis musci* – alate male.

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