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WAHLGRENIELLA OSSIANNILSSONI HILLE RIS LAMBERS, A NEW HOST FOR *APHIDIUS MICROLOPHII* PENNACCHIO AND TREMBLAY (HYMENOPTERA, BRACONIDAE, APHIDIINAE).

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Successful use of parasitoids as biocontrol agents depends on correct identification of species, as well as knowledge of their ecology, ethology, and genetics (C l a r i d g e, 1991; H o p p e r *et al.*, 1993; P o w e l l, 1994).

Aphidius ervi Haliday is a parasitoid of many pest aphid species in agroecosystems and natural ecosystems with great impact in biocontrol programs worldwide (H a g v a r and H o f s v a n g, 1991). It is one of the most common species of the genus *Aphidius* Nees and is distributed throughout the whole Palaearctic, where it parasitizes a large number of aphid hosts, mainly from the tribe Macrosiphini. The most common aphid hosts belong to the genera *Acyrthosiphon* Harris, *Macrosiphum* Passerini, *Myzus* Passerini, *Sitobion* Mordvilko, *Brachycaudus* van der Goot, and *Capitophorus* van der Goot (S t a r ý, 1973; K a v a l l i e r a t o s *et al*., 2004; T o m a n o v i ć *et al*., 2003).

The large distribution area and large number of aphid hosts can lead to great variability and specialization of *A. ervi* populations, which is confirmed by investigation of color patterns (S t a r ý, 1983), olfactometry (P o w e l and Z h a n g, 1983; S t a r ý *et al.*, 1985), host preferences (C a m e r o n *et al.*, 1984; P u n g e r l, 1984), and enzymatic activity (N e m e c and S t a r ý, 1983). New genetic knowledge confirms great polymorphism of *A. ervi* populations from different aphid hosts, as well as from the same aphid hosts (U n r u h *et al.*, 1989). U n r u h *et al.* (1989) defined A*phidius ervi* as a species complex that is clearly separated from other *Aphidius* species by rugosity of the anterolateral area of tergite 1 (E a d y, 1969).

Investigating *A. ervi* populations reared from *Acyrthosiphon pisum* Harris and *Microlophium carnosum* Buckton, Pennacchio and Tremblay described a new species – *Aphidius microlophi* Penn. & Tremblay (P e n n a c c h i o and T r e m b l a y, 1986).

Breeding experiments between *A. ervi* and *A. microlophii* showed significant reproductive isolation, while olfactometry experiments showed existing different sexual attractants in these species (P e n n a c c h i o *et al.*, 1994; T r e m b l a y and P e n n a c c h i o, 1988). In the laboratory, females of *A. ervi* were attracted by kairomones of the aphid host, *A. pisum*, while *A. microlophii* did not show such a reaction (P e n n a c c h i o *et al.*, 1994; B a t t a g l i a *et al.*, 1993).

The previously known aphid host for this newly described species was *Microlophium carnosum* from stinging nettle (*Urtica dioica*). Recently, in samples from the Mt. Durmitor Biosphere Reserve, we reared many specimens of *A. microlophii* from the *W. ossiannilssoni/ Arctostaphylos uva ursi* association (Figs.1-5).

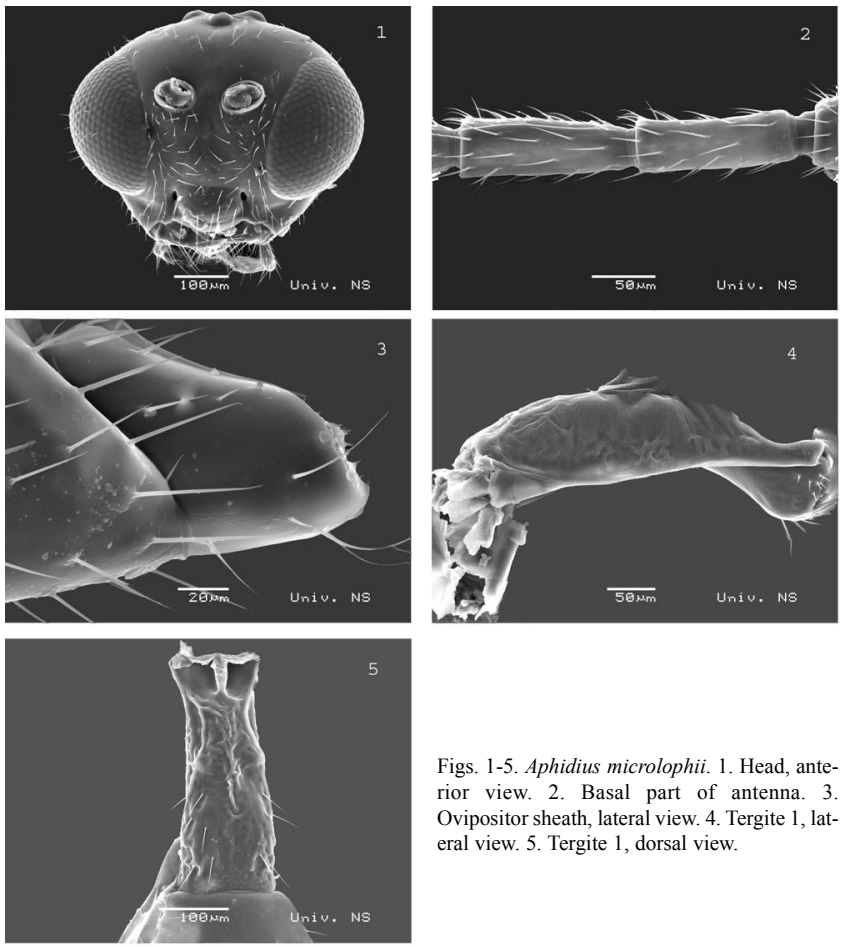
Material: Mt. Durmitor - Škrka Lake, 1700 m, 23 July 2004, 50 specimens, leg. Ž. Tomanović and V. Žikić.

Table 1 presents the most important comparative characters among specimens of *A. ervi/Acyrthosiphon pisum*, *A. microlophii/Microlophium carnosum* and *A. microlophii/W. ossiannilssoni*.

Aphidius microlophii can be easily differentiated from *A. ervi* by the following characters: more elongated pterostigma and petiole (Figs. 4-5); shorter and more concave ovipositor sheath (Fig. 3); and color pattern (scapus, pedicoel and first and second flagellomeres lighter). Also, *Aphidius ervi* has a world-

Table 1. Values of characters: F - number of antennal segments, LPF_1 - number of longitudinal placodes on first flagellar segment, LPF_2 - number of longitudinal placodes on second flagellar segment, F_1l/w - first flagellar segment - length/width ratio, F_2l/w - second flagellar segment - length/width ratio, Ptl/w - pterostigma length/width ratio, Ptl/Mtl - pterostigma length/metacarpus width ratio, T_1l/w – petiole length/width ratio,Ovl/w - third valvula length/width ratio.

	A. microlophii / *W. ossianilssoni*	*A. microlophii* / *M. carnosum*	*A. ervi* / *A. pisum*
F	18	18-19 (20)	(17) 18-19 (20)
LPF_1	0-2	0-1	0-2
LPF_2	3	2-3	1-3
F_1l/w	3-3.43 (3.22)	2.40-3.67 (3.19)	2.80-4.00 (3.46)
F_2l/w	2.89-3.25 (3.07)	2.6-3.75 (3.26)	2.75-3.88 (3.38)
Ptl/w	4.29-4.55 (4.42)	3.61-4.71 (4.05)	3.18-4.21 (3.66)
Ptl/Mtl	1.32-1.44 (1.38)	1.15-1.47 (1.27)	1.00-1.56 (1.16)
T_1l/w	3.4	2.83-3.83 (3.40)	2.43-3.73 (3.18)
Ovl/w	1.88-2.14 (2.01)	1.75-3.00 (2.27)	1.86-4.00 (2.62)



Figs. 1-5. *Aphidius microlophii*. 1. Head, anterior view. 2. Basal part of antenna. 3. Ovipositor sheath, lateral view. 4. Tergite 1, lateral view. 5. Tergite 1, dorsal view.

wide distribution and parasitizes a broad spectrum of aphid hosts, while *A. microlophii* is restricted to the Western Palaearctic, where it is a specialized parasitoid of *M. carnosum* and W. *ossiannilssoni*. Electroforetic study were supported the taxonomic status of *A. microlophii* (A t a n a s s o v a *et al.*, 1998). Further investigations of different genes will resolve taxonomic relations within the *A. ervi* species complex. Our findings confirm that species of the *A. ervi* complex (e.g., *A. microlophii*) are extremely diverse.

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