

Assessment on the Aphidophagous Guild Related to Nettle (*Urtica dioica*) Strips Closed to Different Field Crops: Invasion of *Harmonia axyridis*

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Currently, the field margins are a principal key of the agricultural landscapes. The common nettle (*Urtica dioica*) is a marginal, perennial and cosmopolitan plant species and is known to be the source of food for a great diversity of insects. To understand the agronomic importance of the nettle in integrated pest management, entomological diversity and more particularly the aphid and related beneficial populations were weekly observed from March to September 2005 in the nettle strips but also in the closed crop fields (wheat, green pea and rape) by using yellow traps and by visual observations. Aphids community on nettle was represented by two species, namely *Microlophium carnosum* Buckt and *Aphis urticaria* Kalt. Aphidophagous predators were the most common beneficials (75% of aphidophagous natural enemies). Whether predatory hoverflies (*Episyrphus balteatus*, *Platycheirus scutatus*, *Metasyrphus luniger*), Miridae (*Deraeocoris rubi* and *Heterotoma meriopterum*) and Anthocoridae (*Orius minutus*, *Anthocoris nemorum* and *A. nemoralis*) bugs were present (12 and 10% of the aphidophagous predators), the ladybirds was the most abundant group with 63% of the collected aphid predators. Among the ladybirds, 70% of the individuals belonged to the *Harmonia axyridis* species. This exotic beetle for Belgium was so invasive for the few last years that it only let few niches for local *Coccinella septempunctata* (20%) and *Propylea 14-punctata* (7%). The massive presence of *H. axyridis* in the Belgian fields will be discussed in terms of aphidophagous guild relations with other species but also of inter-guild interactions such as their role on aphid crop populations.

Key words: Aphidophagous guild, Nettle, *Harmonia axyridis*