



Gembloux Agro-Bio Tech  
Université de Liège

# Séverin HATT

PhD student



Functional & Evolutionary Entomology

# Agriculture Is Life.be





## Des résidus de pesticides dans les fraises vendues en France

Le Monde.fr | 10.07.2013 à 18h42 • Mis à jour le 11.07.2013 à 08h01 |

Par Paul Benkimoun



17/07/2014

**the guardian**  
Winner of the Pulitzer prize 2014

[Home](#) UK world politics sport football opinion culture business lifestyle fashion environment tech travel [≡ all sections](#)

[home](#) > environment climate change wildlife energy pollution

Pesticides

## Over 60% of breads sold in the UK contain pesticide residues, tests show

mardi 12 mai 2015

La Libre.be

12/03/2015

Accueil Actu Sciences - Santé

## Des résidus de pesticides dans près de la moitié des aliments européens

AFP Publié le jeudi 12 mars 2015 à 13h23 - Mis à jour le jeudi 12 mars 2015 à 13h24



Greenpeace warnt vor Pestiziden

## Zu viel Obst ungesund



## Pesticides

Effets sur la santé

Expertise collective

Synthèse et recommandations

“Some epidemiological studies allowed to identify relations between the occurrence of some diseases and exposition to pesticides”

“Risings of significant risks for various pathologies have been linked to exposure to pesticides”

Environ Sci Pollut Res (2015) 22:103–118  
DOI 10.1007/s11356-014-3180-5

WORLDWIDE INTEGRATED ASSESSMENT OF THE IMPACT OF SYSTEMIC PESTICIDES ON BIODIVERSITY AND ECOSYSTEMS

## A review of the direct and indirect effects of neonicotinoids and fipronil on vertebrate wildlife

David Gibbons · Christy Morrissey · Pierre Mineau

Received: 7 April 2014 / Accepted: 6 June 2014 / Published online: 18 June 2014  
© The Author(s) 2014. This article is published with open access at Springerlink.com



Biological  
pest control



**Alternative food**

*Nectar  
Pollen  
Preys*



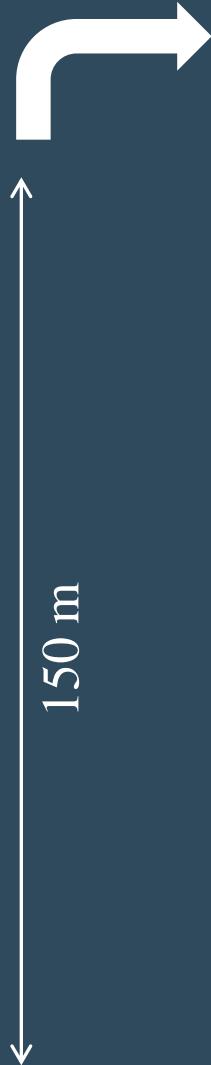
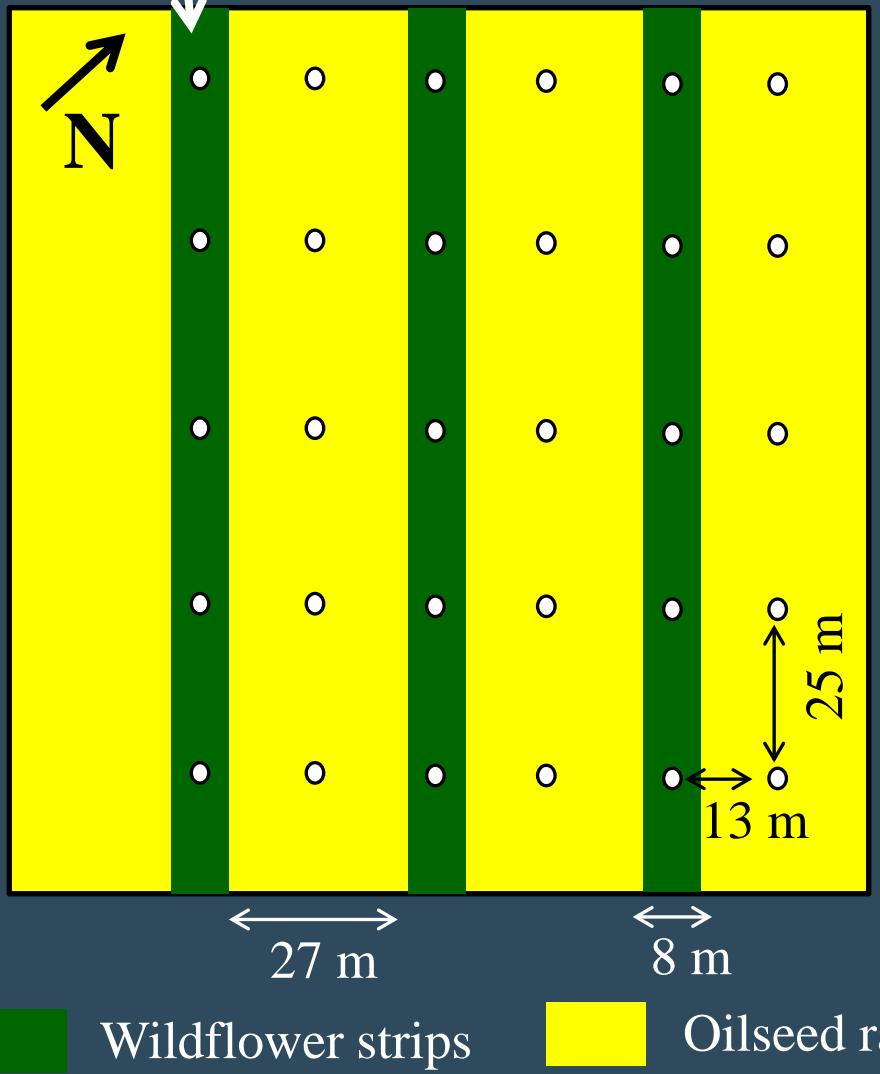
**Shelter**

*Less disturbed  
Less sprayed  
Species diverse*

# And if wildflowers supported pests ?



# 17 wildflower species



April → June 2014

Emptied and refilled once a week



- Yellow pan trap

Anova ( $P < 0.05$ )



*Meligethes spp.*



*Ceutorhynchus spp.*



*Psylliodes chrysocephalla*

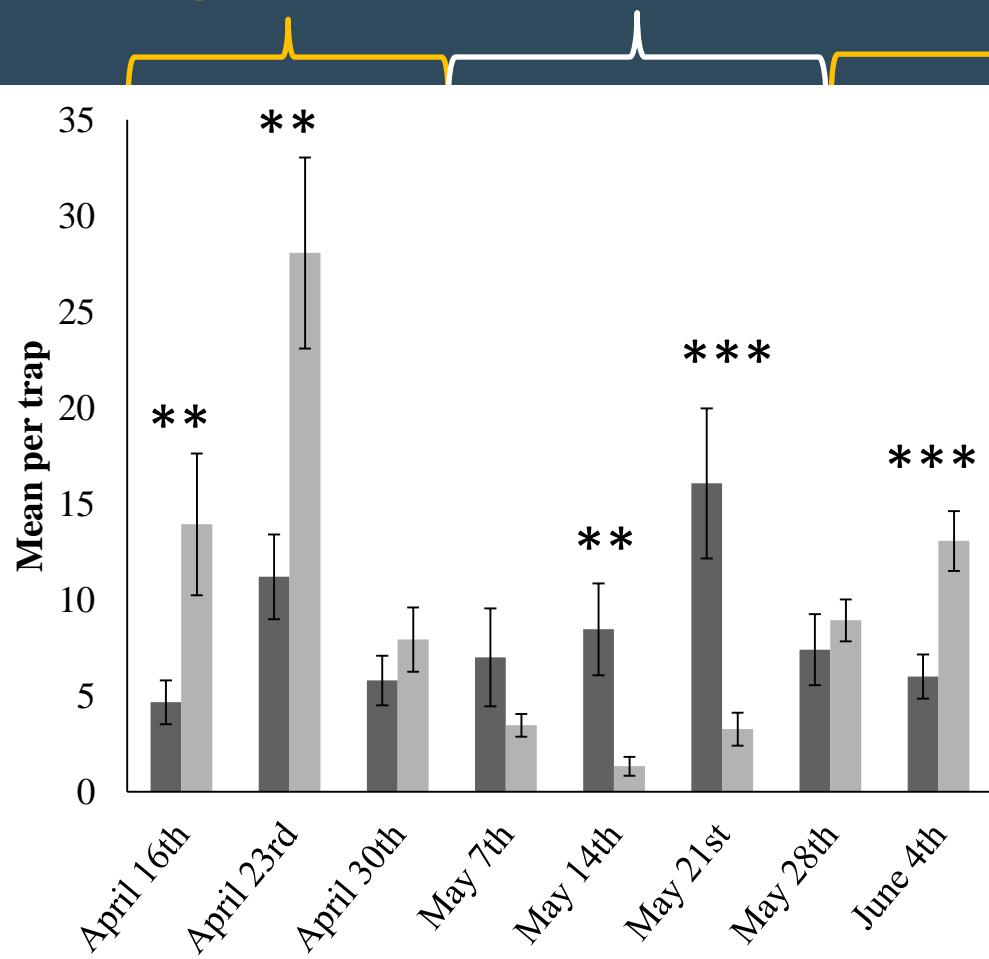


# *Meligethes* spp.

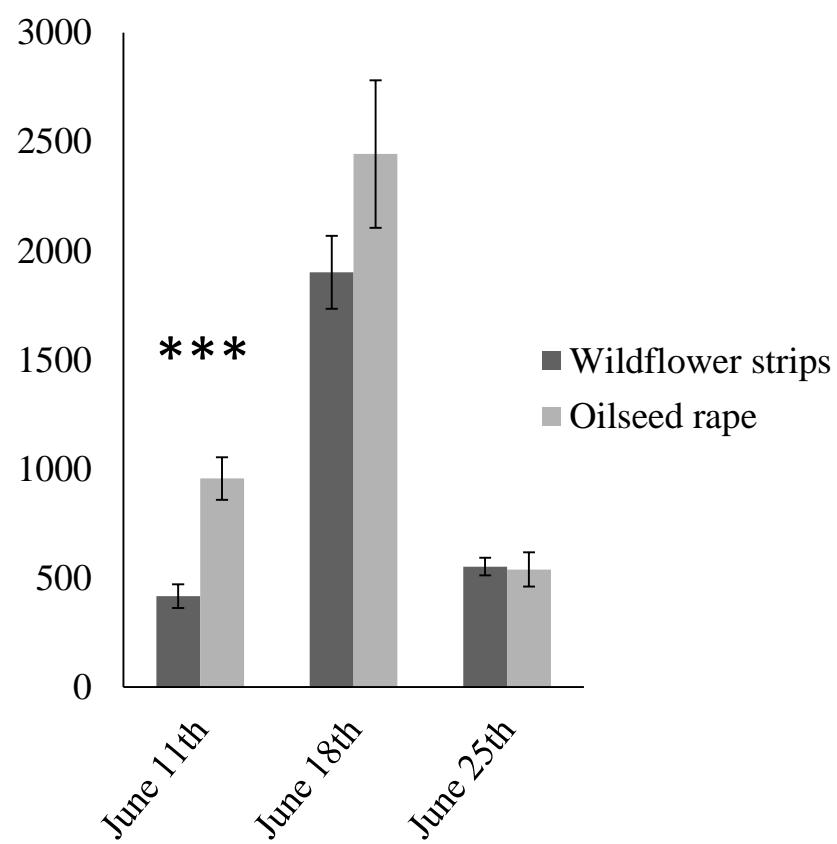
104 000 indv. trapped

Anova ( $P < 0.05$ )

## 1st generation pupation



## 2nd generation



■ Wildflower strips  
■ Oilseed rape

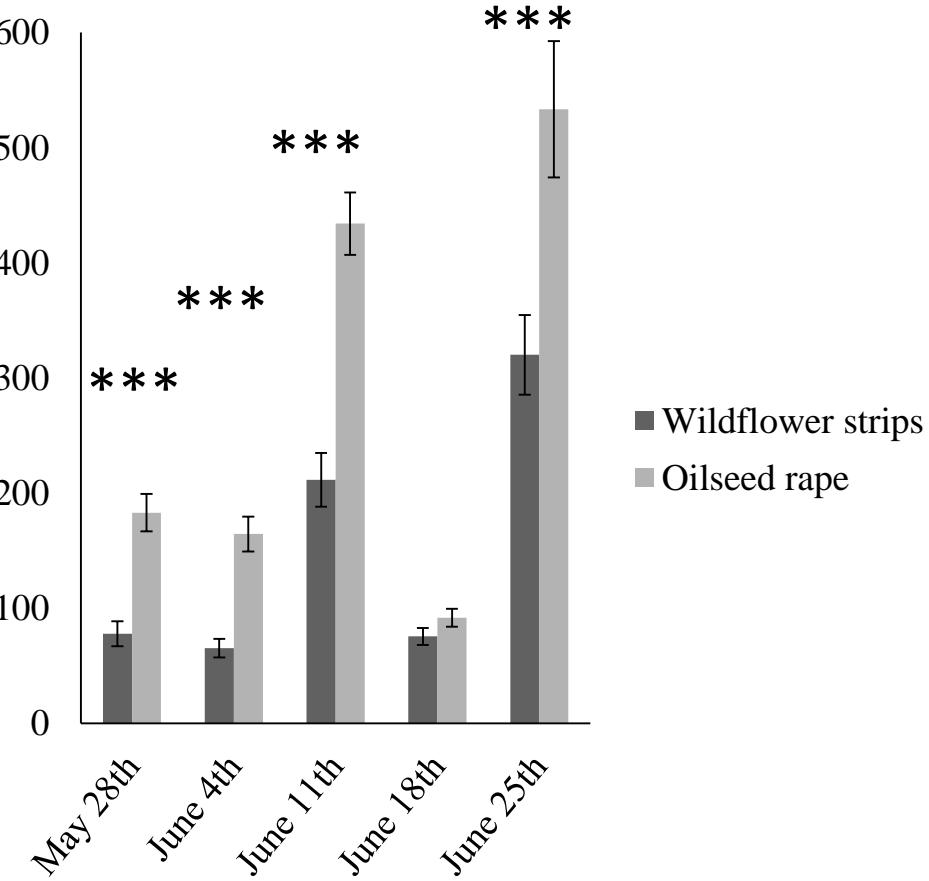
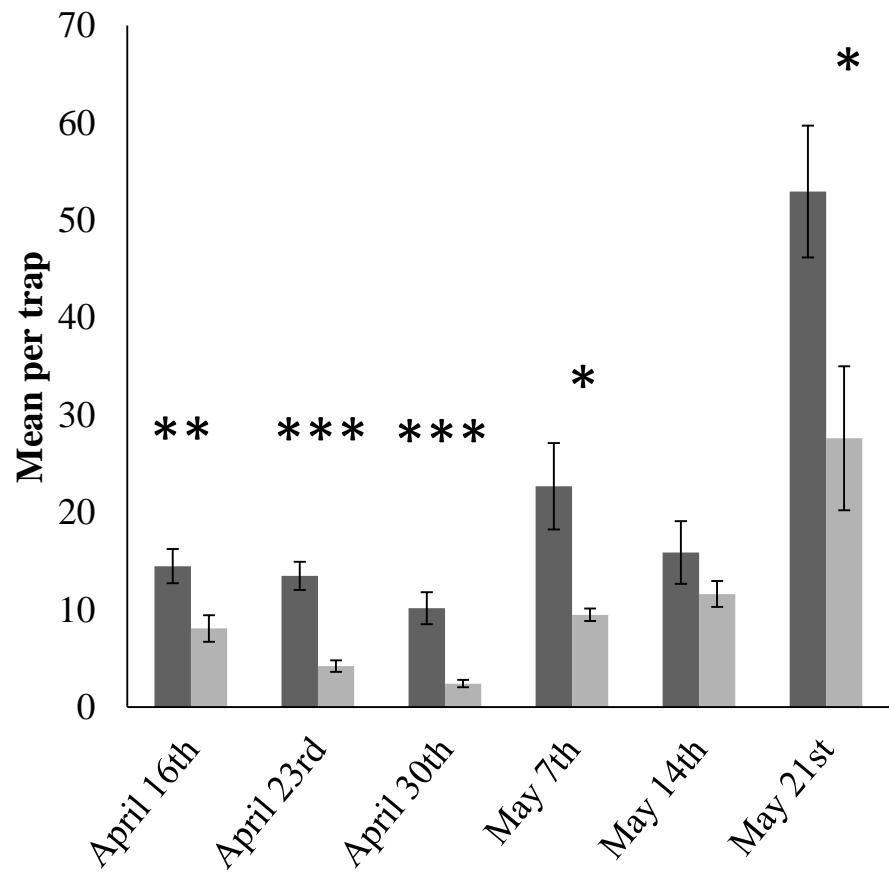


# *Ceutorhynchus* spp.

35 000 indv. trapped

Anova ( $P < 0.05$ )

## Ripening stage of oilseed rape





# *Psylliodes chrysocephalla*

*128 indv. trapped*

*Very few adults were trapped*

*Usually occurred in autumn*

*Crops remained  
more attractive  
than wildflowers  
at adult peaks*

*Pest populations  
remained low in  
flower strips  
(no Brassicae sp.)*



# *Biological pest control ?*



With the collaboration of

**Roel Uyttenbroeck**

**Thomas Mendes Lopes**

**Aman Paul**

**Dr. Sabine Danthine**

**Pr. Bernard Bodson**

**Dr. Julien Piqueray**

**Dr. Arnaud Monty**

**Pr. Frédéric Francis**

***Severin.hatt@ulg.ac.be***  
***orbi.ulg.ac.be***

**Agriculture Is Life.be**

