**Short Curriculum vitae of Frederic Francis** *(2014)*

Name : FRANCIS

Firstname : Frederic

Location and date of birth : Huy, the 16th of August 1974

Address : Edmond Leburton Avenue 137A, 4300 Waremme, Belgium

Nationality : Belgian

Family situation : married, 2 children

Languages : French (mother tongue), English (excellent), Deutch (understanding)

### Qualifications

* 1. :Ph.D. in Agricultural Sciences and biological ingineering at the Gembloux

Agricultural University (GAU)

*1998-1999* : Diplôme d’Etudes Approfondies in Agricultural Sciences and biological

ingineering (DEA) at the GAU

*1992-1997* : Bsc and Msc (Agronomical Ingeneer) in Crop protection at the GAU

# Post held

1997: Researcher at the University of Reading, UK (6 months)

*1998* : Research Assistant at the Crop Production Department, GAU

2002 : Post doc at Toulouse 3 University (6 months)

*1998 -2008*  : Professor assistant at the Pure and applied Zoology department, GAU

2009-2011: Professor (part time) at the Functional and evolutionary Entomology department,

Gembloux Agro-Bio Tech – University of Liege (GxABT-ULg)

2011: Full time Professor at GxABT-ULg

2012: Head of Entomology Department GxABT-ULg

2012: Dean of Agricultural Science Institute GxABT-ULg

2013: Visiting Professor, Chinese Academy of Agricultural Sciences, Beijing, Chine

2013: Visiting Professor, Shandong Agricultural University, Taian, Chine

2015: Professeur ordinaire at GxABT-ULg

# Teaching activities

Applied Entomology for natural and biodiversity management (24 h)

River and fish management (24 h)

Forest Entomology (24h)

Biotechnology applied to pest control (24h)

Techniques in entomological diagnosis (15h)

Insect Systematics and ecology (30h)

Entomology applied to agriculture (45h)

Applied Entomology in natural management and biodiversity (30h)

Applied Zoology (24h)

Specialised plant protection (24h)

Limnology (24h)

*Supervision of student research periods*

BSc stages : 18 Final year MSc thesis : 58 students PhD thesis : 34 students

###### **Research activities**

I am leading fundamental research activities to understand the interactions between insects and their environment (particularly the host plants but also the insect – symbiotic microorganisms relations and the virus - insect vectors intercations) but also developping applied investigations to promote the biological control of insect pests. For that, «Omics» approaches in the laboratory (genomic, metabolomic and proteomic) are coupled to field experiments to apply some interesting results. By example, the plant defensive mechanism’s and the insect salivary elicitors, the role of aphid and termite symbionts are some research topics performed to identify interesting molecules or physiological process to promote new applications in the use of insect in a sustainable way.

I am also interested by the insect faunistic and ecology, particularly focusing on Aphididae, Coccinellidae et Syrphidae. The development of pest control strategies based on the management of field crop closed environment and the beneficial entomofauna promotion is an applied aspect of the faunistic studied.

Finally, a particular attention for the last ten years focus on edible insects. Several approaches are developped to understand and promote insect in food and feed from mass rearing, composition analysis and formulation – valorisation from whole body to insect powder.

###### Publications

Papers published in international journals with editorial board : 121

Papers published in national journals with editorial board : 39

Papers published in journals without editorial board : 5

Papers published in meeting and conferences proceedings and abstract books : 135

Research projects and reports : 42

Invited conferences and seminars at international level: 22

***Community services***

From 2003 to 2009, I was member of the administration board of the Gembloux Agricultural University and of several comitees and work groups.

From 2003, I chair the a.s.b.l. « Nature et Agronomie » based in the Functional & Evolutionary Entomology Department in Gembloux. I assume the management of the staff and activities of the Entomological Conservatory of Gembloux and I am the Chief Editor of the journal « Entomologie faunistique » (formely Notes fauniques de Gembloux) realised in synergy with this asbl.

As the chairman of an other asbl called « Environnement et Progrès » based at the Maison de Hesbaye at Waremme, I manage the development of diversified activities to promote environment, agriculture and nature aspects. A project directly linked to my professional works in Gembloux Agro-Bio Tech (GxABT) – University of Liège is under progress (start in end of June 2010) : the opening of a Walloon Insectarium at the Maison de Hesbaye in Waremme in collaboration with the Functional & Evolutionary Entomology Department in GxABT.