

Battaglia Donatella

## Curriculum vitae

Attuale posizione: Professore associato, SSD AGR11 Entomologia generale e applicata

Laurea in Scienze Agrarie presso l'Università degli Studi di Napoli nel 1982;

Dottorato di Ricerca in Entomologia presso l'Università degli Studi di Napoli nel 1987;

Ricercatore Universitario presso l'Università degli Studi della Basilicata dal 1986 al 1998;

Professore associato presso l'Università degli Studi della Basilicata dal 1998 ad oggi.

Principali temi di ricerca: etologia degli insetti, interazioni multitrofiche, effetti degli stress abiotici (siccità, estremi termici) sui tratti vitali degli afidi e dei loro nemici naturali.

### ATTIVITÀ SCIENTIFICA

Dal 1982 al 1986, presso l'Istituto di Entomologia Agraria dell'Università "Federico II" di Napoli, ha studiato il comportamento, la morfologia e la sistematica degli Hymenoptera Aphelinidae.

Dal 1986 to 1998, Ricercatore Universitario presso l'Università degli Studi della Basilicata, la principale tematica di studio ha riguardato il comportamento di foraggiamento del parassitoide di afidi *Aphidius ervi* (Hymenoptera: Braconidae) e la lotta biologica agli organismi dannosi alla fragola e agli agrumi.

"Visiting scientist" presso la IACR-Rothamsted Experimental Station, Harpenden, UK (Entomology and Nematology Department) da luglio 1995 a febbraio 1996 e da agosto 1996 ad agosto 1997, per studiare il comportamento di ricerca e accettazione dell'ospite da parte dei parassitoidi degli afidi.

Dal 1998 a oggi, Professore associato presso l'Università degli Studi della Basilicata, le principali tematiche di ricerca hanno riguardato l'etologia degli insetti, le interazioni multitrofiche, gli effetti degli stress abiotici (siccità, estremi termici) sui tratti vitali degli afidi e dei loro nemici naturali.

### ESPERIENZA DIDATTICA

Ha insegnato presso l'Università degli Studi della Basilicata i seguenti corsi:

-Dal 2008 ad oggi "Entomologia e Zoologia";

-dal 1990 al 1994 e dal 1999 al 2007, Zoologia generale;

-nel 1993, Apicoltura;

-nel 1995 e dal 2012 al 2015, Entomologia Forestale

-dal 1999 al 2006, Lotta biologica e integrate

-relatrice o correlatrice di numerose tesi di laurea;

-nel 2016-2017, ha fatto parte del collegio dei docenti del corso di dottorato in "Agricultural, Forestry and Food Sciences";

-dal 2011 al 2012, ha fatto parte del collegio dei docenti del corso di dottorato in "Bio-Ecosistemi e Biotecnologie";

-dal 2004 al 2009, ha fatto parte del collegio dei docenti del corso di dottorato in "Biologia e Biotecnologie";

-nel 2003, ha fatto parte del collegio dei docenti del corso di dottorato in "Biologia Applicata".

- supervisore nella veste di tutor o cotutor, di diverse tesi di dottorato tra cui:

“*Macrolophus pygmaeus* and Host Plant-Insects Pest Systems: Multitrophic Interactions and Integration between Biological Control and Multifunctional Cultural Practices” (International PhD in BioEcoSystems and BioTechnology, XXVII Cycle) – dottoranda Juliana Duran Prieto;

“Insect - plant relationship: influence of the plant on the second and third trophic level” (PhD in Biology And Biotechnology, XXII Cycle) - dottoranda Irene Toma.

-è stata membro della Commissione per l’esame finale di dottorato in AGROBIOLOGY AND AGROCHIMICA (Curriculum in Genetic Improvement and Horticulture / Agricultural Chemistry), XXVI cycle, all’Università Federico II di Napoli, D.R. n. 911 of 27/03/2014

## CONGRESSI E WORKSHOPS

Ha partecipato a diversi congress e workshop, presentando lavori come poster o presentazioni orali.

Alcuni di essi sono:

- XI European Congress of Entomology, Naples, Italy, 2-6 July 2018;

-13th International Symposium “Ecology of Aphidophaga”, Freising, Germany, 29 August - 2 September, 2016, 2 poster presentations;

-VIII Congreso Nacional de Entomología Aplicada / XIV Jornadas Científicas de la Sociedad Española de Entomología Aplicada (SEEA), Mataró (Barcelona), 21 - 25 octubre 2013. p. 211, Mataró (Barcelona), 21 - 25 ottobre 2013, 1 poster presentation;

-12th Congress of the European Society for Agronomy. 20-24 Aug. 2012 , Helsinki, Finland, 1 poster presentation;

-ECRO XXI Congress. Manchester, UK, September 7-10, 2011, 1 poster presentation;

- X European Workshop on Insect Parasitoids, Erice- Italy, September 17-21 2007, 1 poster presentation;

- XXI, XXIV, XXV Italian National Congress of Entomology - 1 oral presentations, 4 poster presentations;

-Antonie van Leeuwenhoek Symposium Harlem, The Netherland, 1-6 October 2000, 1 poster presentation.

## PROGETTI DI RICERCA

PRIN 2004, titolo “Direct and indirect defences induced by herbivores insects in Solanaceae and Leguminosae: comparison of induction by different pests, and biological and genetic” ( coordinatore di unità locale);

PRIN 2006, titolo “Agronomical practices and plant quality: influence on second and third trophic levels”, ” ( coordinatore di unità locale);

PRIN 2009, titolo “The role of root symbionts in induced indirect defense against aphids: the release of volatile organic compounds attracting predators” ” ( coordinatore di unità locale).

Responsabile scientifico progetti finanziati dalla Regione Basilicata, in particolare, dal 2005 al 2010, Progetto SeDI (Servizio di Difesa Integrata), in collaboration con l’area doi Patologia Vegetale dell’Università della Basilicata, l’ALSIA Regione Basilicata e l’AGROBIOS, riguardante l’allevamento massale di entomofagi da utilizzare in programmi di controllo biologico; nel 2010 un progetto sul monitoraggio e controllo biologico di Tuta absoluta; negli anni 2011-2015 e nell’anno 2017 progetti per il controllo biologico dell’imenottero galligeno del castagno, *Dryocosmus kuriphilus*.

Dal 2016, responsabile scientifico di un progetto triennale intitolato "Studio della dinamica di popolazione dei potenziali vettori di *Xylella fastidiosa* in Basilicata e dei rischi associati all’introduzione del batterio.

## INFORMAZIONI ADDIZIONALI

- Ha collaborato, come revisore, con diverse riviste indicizzate come: *Phytoparasitica*, *Entomologia experimentalis et applicata*, *Physiological Entomology*, *Italian Journal of Agronomy*; *European Journal of Entomology*, *Plos one*.

-nel 2014 è stata membro della Commissione per la conferma dei professori associati - SSD AGR 11,

## BIBLIOMETRIA

Scopus, 19 documenti, H-index 8, 297 citazioni

ISI WEB, 20 documenti, H-index 8, 308 citazioni

Google Scholar, 76 documenti, H-index 11, 612 citazioni

## Curricul vitae in English

### POSITION

Assistant Professor at the University of Basilicata from 1986 to 1998 ;

Associate Professor at the University of Basilicata from 1998 - present

Research topics: Insect behavior, multitrophic interactions including tomato belowground–aboveground interactions, effects of abiotic stress (drought and heat shock) on aphid and parasitoid life history traits.

### EDUCATION

Degree (Laurea) in Agricultural Sciences at the University of Naples in 1982 ;

PhD in Entomology at the University of Naples in 1987 ;

### SCIENTIFIC ACTIVITIES

From 1982 to 1986, at the Institute of Agricultural Entomology of the University “Federico II “of Naples, she studied the behavior, the morphology and the systematics of the Hymenoptera Aphelinidae.

From 1986 to 1998, Assistant Professor at the University of Basilicata, she mainly studied the foraging behavior of the aphid parasitoid *Aphidius ervi* (Hymenoptera: Braconidae) and the biological control of strawberry and citrus pests.

Visiting scientist at the IACR-Rothamsted Experimental Station, Harpenden, UK (Entomology and Nematology Department) from July 1995 to February 1996 and from August 1996 to August 1997, to study the “host location and host attack behaviour of aphid parasitoids”.

from 1998 to present, Associate Professor at the University of Basilicata. Main research fields are insect behavior, multitrophic interactions including tomato belowground–aboveground interactions, effects of abiotic stress (drought and heat shock) on aphid and parasitoid life history traits.

### TEACHING EXPERIENCE

She taught, at the University of Basilicata (Italy) the courses below:

-From 2008 to present Entomology and Zoology

- From 1990 to 1994, and in 1999-2007, General Zoology;
- 1993 , Apiculture;
- 1995, from 2012-2015, Forestry Entomology
- 1999-2006, Biological control and IPM
- Supervisor and co-supervisor of MS students in Entomology.
- Year 2016, member of the teaching staff of the PhD course in “Agricultural, Forestry and Food Sciences”;
- From 2011 to 2012, member of the teaching staff of the PhD course in “Bio-Ecosystems And Biotechnologies”;
- From 2004 to 2009, member of the teaching staff of the PhD course in “Biology And Biotechnology”;
- Year 2003, member of the teaching staff of the PhD course in “Applied Biology”.
- Supervisor and Co-supervisor of several PhD thesis, e.g.:
  - “*Macrolophus pygmaeus* and Host Plant-Insects Pest Systems: Multitrophic Interactions and Integration between Biological Control and Multifunctional Cultural Practices” (International PhD in BioEcoSystems and BioTechnology, XXVII Cycle) - PhD candidate Juliana Duran Prieto;
  - “insect - plant relationship: influence of the plant on the second and third trophic level” (PhD in Biology And Biotechnology, XXII Cycle) - PhD candidate Irene Toma.
- She was a member of the Examination Committee for the award of the Ph.D. in AGROBIOLOGY AND AGROCHIMICA (Curriculum in Genetic Improvement and Horticulture / Agricultural Chemistry), XXVI cycle, at the Federico II University of Naples, D.R. n. 911 of 27/03/2014

#### CONGRESSES AND WORKSHOPS

Prof. Battaglia’s scientific activity has been improved also through the participation to congresses and workshop, presenting papers as poster or oral presentation. Some of these are:

- XI European Congress of Entomology, Naples, Italy, 2-6 July 2018;
- 13th International Symposium “Ecology of Aphidophaga”, Freising, Germany, 29 August - 2 September, 2016, 2 poster presentations;
- VIII Congreso Nacional de Entomología Aplicada / XIV Jornadas Científicas de la Sociedad Española de Entomología Aplicada (SEEA), Mataró (Barcelona), 21 - 25 octubre 2013. p. 211, Mataró (Barcelona), 21 - 25 ottobre 2013, 1 poster presentation;
- 12th Congress of the European Society for Agronomy. 20-24 Aug. 2012 , Helsinki, Finland, 1 poster presentation;
- ECRO XXI Congress. Manchester, UK, September 7-10, 2011, 1 poster presentation;
- X European Workshop on Insect Parasitoids, Erice- Italy, September 17-21 2007, 1 poster presentation;
- XXI, XXIV, XXV Italian National Congress of Entomology - 1 oral presentations, 4 poster presentations;
- Antonie van Leeuwenhoek Symposium Harlem, The Netherland, 1-6 October 2000, 1 poster presentation.

#### RESEARCH PROJECTS

- PRIN 2004, title “Direct and indirect defences induced by herbivores insects in Solanaceae and Leguminosae: comparison of induction by different pests, and biological and genetic” ( local coordinator).
- PRIN 2006, title “Agronomical practices and plant quality: influence on second and third trophic levels”, ( local coordinator);
- PRIN 2009, title “The role of root symbionts in induced indirect defense against aphids: the release of volatile organic compounds attracting predators” ( local coordinator); -

Coordination of local research projects supported by the regional governments of Basilicata, in particular,

from 2005 to 2010, SeDI (Integrated Defence Service) project in collaboration with the area of Plant Pathology of the University of Basilicata, ALSIA Regione Basilicata and AGROBIOS, focused on mass-rearing of insects used in biological control programs, on the quality control of commercial entomofagous insects used in the field, on the validity of local strategies of integrated defense; and projects focused on the monitoring and implementation of biological control of *Tuta absoluta* (2010) and of the oriental chestnut gall wasp, *Dryocosmus kuriphilus* Yasumatsu (2011-2015).

Since 2016, responsible for a three-year research project entitled "Study of population dynamics of *Xylella fastidiosa* vectors in Basilicata and the risks associated with the introduction of the bacterium", funded by the Basilicata Region.

#### ADDITIONAL INFORMATION

- She is peer reviewer for several ISI journals, such as: *Phytoparasitica*, *Entomologia experimentalis et applicata*, *Physiological Entomology*, *Italian Journal of Agronomy*; *European Journal of Entomology*, *Plos one*.

-She was a member of the Commission for the confirmation of associate professors - SSD AGR 11, regarding the comparative evaluation for the sector AGR 11 announced on 11/21/2008 at the University of Bologna, Appointment of the Ministry of Education MIUR) 0001385-15-04-2014

#### PUBLICATIONS and BIBLIOMETRICS

Her main research topics are insect behavior, multitrophic interactions including tomato belowground–aboveground interactions, effects of abiotic stress (drought and heat shock) on aphid and parasitoid life history traits. Her scientific production is documented by about seventy papers published on national or international scientific journals, on congress proceedings and book chapter. Her h-index is 8 and total number of citations 297 (source Scopus), or h-index 8 and total number of citations 308 (source ISI Web of Science), or h-index 11 and total number of citations 612 (source Google Scholar).