

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name	LARA MAISTRELLO
Address	UNIVERSITÀ DI MODENA E REGGIO EMILIA
Telephone	+39 0522 522002 (office) +39 0522 522002 (laboratory)
ORCID SCOPUS links	0000-0002-2996-8993 https://www.scopus.com/authid/detail.uri?authorId=6602376754
Other link	http://personale.unimore.it/rubrica/dettaglio/Imaistrello
E-mail	lara.maistrello@unimore.it
Nationality	Italian
Date of Birth	13/09/1968
Place of birth	Ravenna
Gender	Female
Mother Tongue	Italian
Other Languages	English: excellent (written/spoken); Spanish: fluent (written/spoken)

SCIENTIFIC PRODUCTION
(UPDATED 16/06/2024)

- Total Number of publications= 169 articles (100 on Indexed Journals, 69 on non-indexed journals); 10 chapters in books, 97 contributions to International congresses, 67 contributions to Italian congresses, 3 patents, 3 Scientific reviews of books.
- H-INDEX: 33 (calculated on 97 documents); 2758 Citations by 1862 documents (Scopus)

PUBLIC ENGAGEMENT ACTIVITIES

Highly involved in public engagement (PE) activities: carries out intense scientific and technical dissemination activities in Italy and abroad on the results of the research carried out and on topical issues relating to insects. A full list of PE activities can be provided upon request. Below the most relevant ones.

- Invited speaker in 112 scientific-technical seminars in agri-food contexts, 12 of which for non-Italian events/institutions
- Invited speaker in 59 public dissemination seminars
- She has been a guest on national radio and television broadcasts and has granted numerous interviews for agricultural and scientific newspapers, magazines and web portals.

WORK EXPERIENCE

- | | |
|------------------------------------|---|
| • Dates (from - to) | 1/10/2019 - today |
| • Name and address of the employer | University of Modena and Reggio Emilia – Department of Life Sciences |
| • Type of business or sector | Academic |
| • Occupation or position held | Associate professor – General and applied entomology qualified as Full Professor |

- Main activities and responsibilities
 - Teaching to undergraduate, graduate and PhD students
 - Member of the councils of: Dept. of Life Sciences; PhD in Agri-Food Sciences, Technologies & Bio-Technologies (STEBA); member of the scientific committee of the Inter-Department Centre BIOGEST-SITEIA.
 - Referent for the orientation of the following courses:
 - Bachelor's Degree in "Agricultural and Food Sciences and Technologies"
 - Master's Degree in "Integrated Sustainability of Agricultural Systems"
 - Research activity: currently focused on sustainability in the agri-food sector both in terms of environmentally friendly management of pests (focusing on invasive insects), especially biocontrol and behaviour-based strategies and on use of insects as valuable resources in a circular economy perspective
 - Responsible for the Applied Entomology Laboratory, with adequate skills and equipment to carry out applied research projects on innovative solutions for the sustainable management of insect pests in the agro-food supply chains and use of insects in a circular economy perspective, skills on mass rearing of different insect species.
 - Coordinator and principal investigator of projects focused on the biology, biocontrol and sustainable management of invasive insects, in particular the brown marmorated stink bug *Halyomorpha halys* and on projects on the use of the black soldier fly *Hermetia illucens* for the valorization of organic by-products, obtaining products for agriculture and feed/food industry.
 - Obtained important assignments of scientific-technical consultancy, also at an international level, on issues related to pests of foodstuffs, wood and other goods.
 - Holder of dozens of research contracts / agreements financed by companies and organizations on sustainable management of insects in agricultural and urban areas
- Dates (from - to) 31/12/2002 – 30/09/2019
- Name and address of the employer **University of Modena and Reggio Emilia – Department of Life Sciences**
- Type of business or sector Academic
- Occupation or position held **Researcher – General and applied entomology (AGR/11)**
- Main activities and responsibilities Similar to the previously described ones
- Dates (from - to) 1/07/2002 - 30/12/2002
- Name and address of the employer **University of Modena and Reggio Emilia, Faculty of Agricultural Sciences, Spinner Consortium** (European Social Fund and Emilia Romagna Region)
- Type of business or sector Academic
- Occupation or position held **Holder of a "Spinner" fellowship**
- Main activities and responsibilities Develop a technology transfer project involving the Faculty of Agriculture of the University of Modena and Reggio Emilia and the company INTRACHEM BIO Italia S.p.A. on "Evaluation of vetiver oil and its components in the fight against phytophagous arthropods"
- Dates (from - to) 1/10/2001- 31/01/2002
- Name and address of the employer **Louisiana State University - Agricultural Center** (Baton Rouge, LA, USA), Dept. Entomology,
- Type of business or sector Academic
- Occupation or position held **Research Assistant Professor**
- Main activities and responsibilities Research on evaluation of botanicals in urban pest control strategies. Supervisor of graduate students. Management of student workers and lab equipment
- Dates (from - to) 15-08/1999 - 1/10/2001
- Name and address of the employer **Louisiana State University - Agricultural Center** (Baton Rouge, LA, USA), Dept. Entomology,
- Type of business or sector Academic
- Occupation or position held **Post-doctoral Researcher**
- Main activities and responsibilities Research on botanicals efficacy on termite pests (*Coptotermes formosanus*). Management of student workers and lab equipment
- Dates (from - to) 1997-1999
- Name and address of the employer **University of Ferrara, Dept. of Biology**
- Type of business or sector Academic
- Occupation or position held **Post Doctoral Researcher**
- Main activities and responsibilities Research on IGRs effects on termite development /behaviour. Supervisor: Prof. Giovanni Sbrenna

OTHER WORK EXPERIENCES

- 2009 Appointed by AKTC (Aga Khan Trust for Culture) as a scientific-technical specialist consultant in the restoration project of the Djingarey Ber Mosque in Timbuktu (Mali, Africa), with the aim to monitor and assess the condition of the timber elements of the Mosque, infested by xylophagous insects, and to propose an effective, durable and sustainable pest control strategy. The full report of the activity was delivered to the Ministry of Culture of Mali.

- 2011 Appointed by AKTC (Aga Khan Trust for Culture) as a scientific-technical specialist consultant in the restoration project of three historical buildings in Damascus city (Siria), with the aim to monitor and assess the conditions of the structural and decorated timber elements of the buildings, infested by xylophagous insects.

EDUCATION AND TRAINING

- Dates (from - to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded

2022 (June-July)

Wageningen University and Research

Use of insects for organic substrate valorization, industrial mass rearing of insects, quality, safety and legal aspects

Successfully attended "**Summer School Insects as Food & Feed**"

- Dates (from - to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded

2008 (15-27 June)

Michigan State University. (MI, USA)

Arthropod-mediated ecosystem services, management of agroecosystem with agroecology principles, case studies and field visits

Successfully attended "**International Short Course in Agroecology, IPM and Sustainable Agriculture**"

- Dates (from - to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded

1994 – 1996

University of Bologna

Castal differentiation in the Isoptera. Study of the behaviour and of the interaction patterns involved in the regulation of social equilibrium in the termite *Kaloterme flavicollis*. Thesis supervisor: Prof. Giovanni Sbrenna

PhD school in Animal Biology

- Dates (from - to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded

1989 - 1992

University of Parma

Experimental thesis on "Social transmission of food preferences in the mouse (*Mus domesticus*): observations on wild populations bred in captivity". Thesis supervisors: Proffs. Danilo Mainardi, Marisa Mainardi Berti, Paola Valsecchi.

Bachelor in Biological Sciences, with honours

QUALIFICATIONS - NOMINATIONS

-2017 Qualification as Full Professor, obtained by MIUR, Bando D.D. 1532/2016, Sector 07/D1 Plant Pathology and Entomology.

-2014 Qualification as Associate Professor, obtained by MIUR, Bando 2013 (DD n.161/2013), Sector 07/D1 Plant Pathology and Entomology.

- November 2019: Appointed member of the "National scientific-technical coordination table for the biological control of the brown marmorated stink bug *Halyomorpha halys*" by the Italian Ministry of Agriculture Food and Forestry.

TEACHING ACTIVITIES and STUDENT SUPERVISION

Presently at UNIMORE she teaches:

"Entomology" (module of the course Entomology and Plant Pathology) (6CFU) for the Bachelor's Degree in "Agricultural and Food Sciences and Technologies"

"Sustainable approaches for integrated management of plant pests" (6CFU) for the Master's Degree in "Integrated Sustainability of Agricultural Systems"

At UNIMORE since 2002 she is/has always been the only holder of all courses related to general/applied entomology (6CFU), including Plant Protection from Insect Pests.

• She teaches the course "Animal pests of stored agrifood products and their management" for the International Inter-University Master course "Food Safety and Food Risk Management"

(6CFU).

- Lecturer for STEBA PhD School, topic: Insect Farming: Sustainable approaches for biowaste valorization and the production of feed and food (since 2021)
- Lecturer for STEBA PhD School, topic: Management of Invasive Alien Species (since 2014)
- Lecturer for Biology PhD School of the University of Seville (Spain), topic: "The invasive *Halyomorpha halys*, an emerging threat for agricultural crops in Europe. An overview on its biology, ecology, spread patterns, and innovative IPM approaches" (18/11/17)
- Lecturer at Univ. Seville, Erasmus Teaching Mobility Program, 2009. Topic: Sustainable control of insects in agro-ecosystems (6 hours, in Spanish)

• Tutor of the research activity of 11 PhD students (two in progress); supervisor of the abroad experience for a PhD Student from Un. Cluj-Napoca (Romania); tutor of the Master's thesis of a student from IAMB (Mediterranean Agronomic Institute of Bari); supervisor of 63 undergraduate and of 24 Master students' thesis.

SCIENTIFIC ORGANISATION and COORDINATION OF ACADEMIC ACTIVITIES

- Host of the visiting Professor Dr Alejandro Tena (IVIA) (March-April 2024)
- Promoter of agreements for academic/cultural/scientific-technological collaboration between UNIMORE and: Un. Liege (Belgium), Un. Surrey (UK), Un. Seville (Spain); Un. Huddersfield
- Organizer/lecturer: "*Halyomorpha halys*: from threat to concrete problem. A very difficult 2015 and an uncertain future". Modena, 6/2/2016
- Organizer/lecturer: "Workshop: recent research trends on *Halyomorpha halys*", Reggio Emilia, UNIMORE, 5/2/2016
- Scientific-organizing committee "XV CONVEGNO NAZIONALE A.I.S.A.S.P", Reggio Emilia, 18-19/9/2014
- Organizer/lecturer: "Theoretical-Practical Course of Forensic Entomology", 2nd-4th editions, run by GIEF. Reggio Emilia, 27-29/1/2011; 18-21/9/2013
- Organizing committee of "5th EURO-IUSSI". Montecatini Terme (PT), 26-30/8/2012
- Organizing committee of "Evolution in Communication and Neural Processing" Modena, 18-19/11/2010
- Scientific Committee of the exhibition "Darwin: Modena and 200 years of evolution," where she was also lecturer and curator of panels related to eusociality and coevolution. Modena, 14/9/2009–24/1/2010.

PRIZES AND AWARDS

- Invited speaker in 2 Public sessions of the Italian National Academy of Entomology (ANIE), on 18/11/2022 (round table on "Edible insects: from biology to applications") and 22/02/2019 ("The brown marmorated stink bug *Halyomorpha halys*: new findings and management applications")
- Invited speaker in 5 seminars held in Academic context
- 2022: Best Demonstration Award for the demo "A Drone-based Application for Scouting *Halyomorpha halys* Bugs in Orchards with Multifunctional Nets", authors: Betti Sorbelli F., Corò F., Das s.K., Di Bella E., Maistrello L., Palazzetti L., Pinotti M.C. IEEE International Conference on Pervasive Computing and Communications, Pisa, March 21-25, 2022
- 2020: Special mention for the POR-FESR "FLIES4VALUE" Project, as part of the "Responsible Innovators Award" 2020 Edition, organized by the Emilia Romagna Region, single winner in the "Second grade secondary schools and universities" category
- 2018: Special mention for the POR-FESR "VALORIBIO" Project, as part of the Award of Excellence "Towards a circular economy" 2018 Edition, organized by KyotoClub and Cogeme Onlus Foundation.

FUNDED PROJECTS

Scientific coordinator/Principal investigator of the following competitive projects:

- 01/04/2023 - 30/12/2025 - INTEGR-HALYS - Integration of innovative techniques for the sustainable management of the Brown marmorated stink bug. Coordinated by CRPV. Role: P.I
- 01/09/2023 - 31/08/2024-MARK-HOVER - Identification of suitable marking methods to implement the efficacy of the predatory hoverfly *Sphaerophoria rueppelli* as an aphid biocontrol agent in greenhouses. Funded by Department of Life Sciences, UNIMORE "FAR2023PD" Role: P.I
- 2021-2024 FLIES4FEED (ID: 5201624) - New animal feed from insects by enhancing agro-industrial waste and biogas plants. Funded by the Emilia Romagna Region, PSR 2014-2020 Op. 16.1.01-GO PEI-Agri - FA 3A, coordinated by CRPA. Role: P.I.
- 2021-2024 HALY.ID - ICT-AGRI-FOOD COFUND 2019 (Project ID 40606) - HALYomorpha halys IDentification: Innovative ICT tools for targeted monitoring and sustainable management of the brown marmorated stink bug and other pests. Funded by MIPAAF. Role: PI of the unit UNIMORE.
- 2020-2023 HALY.BIO (ID 5159269) - Integrated information system to rationalize the application of control means for *Halyomorpha halys* in Emilia-Romagna. Funded by Regione

Emilia Romagna, PSR 2014-2020 Op. 16.1.01-GO PEI-Agri - FA 4B. Coordinated by CRPV. Role: P.I.

- 2020-2023 CIMICE.NET (ID 5159202) - Operational investigations for the implementation of biological control of the invasive *Halyomorpha halys* in Emilia Romagna. Funded by Regione Emilia Romagna, PSR 2014-2020 Op. 16.1.01-GO PEI-Agri - FA 4B. Coordinated by CRPV. Role: P.I.
- 2019-2022 "FLIES4VALUE": Insects for the bioconversion of agri-food by-products in feed and high added value products. Funded by the Region of Emilia Romagna in the POR-FESR 2014-2020, AXIS 1 Research and Innovation. Role: PI and coordinator.
- 2017-2019 "BIOECO-FLIES": Valorization of by-products of vegetable supply chains through insects: new solutions for food, agronomic and energy uses. Funded by the Region of Emilia Romagna in the PSR 2014-2020, Op. 01/16/01 - Agri-GO PEI - FA 5C. Coord. CRPV. Role: P.I.
- 2016-2018 "VALORIBIO": Valorization of organic waste by means of insects to obtain biomaterials for agricultural uses. Funded by the Region of Emilia Romagna in the POR-FESR 2014-2020, AXIS 1 Research and Innovation. Role: PI and coordinator.
- 2016-2019 "HALYS": Monitoring techniques and innovative strategies for the control of *Halyomorpha halys* (brown marmorated stink bug). Funded by the Emilia Romagna under the PSR 2014-2020 Op. 01/16/01 - Agri-GO PEI - FA 4B. Coord. CRPV. Role: P.I.
- 2014-16 Innovative tools and protocols for monitoring and sustainable control of the alien stink bug *Halyomorpha halys*, a new phytosanitary threat, and of other harmful heteropterans for the fruit crops of the territory of Modena. Funded by Fond. Cassa di Risparmio di Modena. Role: PI.
- 2014-16 Improvement of traps and innovative strategies for the control of *Drosophila suzukii*, a new pest of small fruits. Funded by Fond. Cassa di Risparmio di Vignola. Role: PI.
- 2006-2008 Evaluation of repellents for insect resistant packaging. Funded by Fondazione Manodori, Reggio Emilia. Role: PI.

Participant to the following projects

- 2022-2025 National Biodiversity Future Center (NBFC) funded by NRRP, Mission 4 Component 2 Investment 1.4 funded by NextGenerationEU; Project code CN_00000033,
- 2024-2027 "BIO R&R": Bioconversion of packaging, residues and waste from food supply chains Funded by the Region of Emilia Romagna in the PR FESR 2021-2027, AXIS 1.1.2 Research and Innovation.
- 2021-2022 "GREW- (*Garden from Recycling & Wastes*) New integrated system for house and vertical gardens cultures by synergic application of innovative fertilizer and led lighting: a circular economy strategy giving to waste materials a new second life": FAR UNIMORE Interdisciplinary project.
- 2018-2022 "SCALIBUR": Horizon 2020 Call: H2020-SFS-2018-2020, Topic: CE-SFS-25-2018; Type of action: IA on a WP related to the use of insects as bioconverters of organic substrates for the production of proteins.
- 2015-2017 "Study for the valorization of organic waste using insects for the obtainment of bioplastics": FAR UNIMORE Interdisciplinary project.

Research contracts

- 2023-2025 Contract with RiNova Soc. Coop. on "Integration of innovative techniques for sustainable management of Brown Marmorated Stink bug - INTEGR-HALYS"
- 2023-2024 Contract with MO-EL S.p.A on "Evaluation of effectiveness and selectivity of light traps on tomato insects and in other agricultural contexts".
- 2022-2023 Contract with Zespri Group Limited, New Zealand for a project on "Susceptibility of red and yellow flesh kiwifruit to artificial infestation of Brown Marmorated Stink Bug (BMSB) in the field"
- 2020-2022 Contract with Bioecology S.r.l. on "Innovative strategies for the sustainable control of weed species in livestock farms and in the agri-food sector"
- 2019-2020 Contract with Zespri Group Limited, New Zealand for a project on "Evaluating the timing and type of feeding damage by BMSB on kiwifruit"
- 2020 Contract with Consorzio Fitosanitario di Modena for "Specialized technical service for the mass supply of parasitoids of the genus *Trissolcus*"
- 2019 Contract with Consorzio Fitosanitario di Modena to perform research on "Investigation on the trend of natural populations of *Halyomorpha halys* natural antagonists and verification in the field on the effectiveness of inundative releases of *Anastatus bifasciatus* in Emilia for the control of the same invasive pest"
- 2019 Contract with New Horizont Canary Bugs SL for a project on "Industrial rearing of Black Soldier Fly and other insects for feed/food purposes"
- 2018 Contract with Consorzio Fitosanitario di Modena to perform research on "Evaluation for augmentative biocontrol of *Halyomorpha halys* using the native egg-parasitoid species"

Anastatus bifasciatus: laboratory mass rearing and field release”

- 2013-16 Five projects on IPM in cereal storage facilities and insect resistant packaging, funded by Barilla Spa
- 2011-15 Biological control of the chinese chestnut wasp *Dryocosmus kuriphilus* in Emilia Romagna: mass rearing system management for the field release of the parasitoid *Torymus sinensis*. Funded by Plant Protection Services of Modena e Reggio Emilia
- 2012-14 NANOSOLWOOD: innovative wood treatments against biotic deterioration. Funded by Renner Spa
- 2006-2011 Evaluation of botanicals for control of nematode and insect pests in horticultural crops. Two projects funded by Agrostar srl

EDITORIAL & EXPERT EVALUATOR ACTIVITY, PHD COMMISSIONS

Academic Editor for the journal INSECTS, Topical collection "Biocontrol and Behavioral Approaches to Manage Invasive Insects",
https://www.mdpi.com/journal/insects/special_issues/Invasive_Insects

Peer-reviewer for: African Journal of Agricultural Research, Agricultural and Forest Entomology, Agronomy, Animals, Apidologie, Behavioural Processes, Biocontrol, Biodiversity Data Journal, Biological Control, Biological Invasions, Biosystems, British Microbiology Research Journal, Bulletin of entomological Research, Bulletin of Insectology, Canadian Entomologist, Crop Protection, Crop Science, Entomologia Experimentalis et Applicata, Environmental Entomology, Environmental Pollution, Environmental Science and Ecotechnology, European Journal of Entomology, Food Research International, Frontiers in Ecology And Evolution, Frontiers in Insect Science, Future Foods, Heliyon, Helminthologia, Insect Science, Insects, International Journal of Insect Science, International Journal of Pest Management, International Journal of Tropical Insect Science, Italus Hortus, Journal of Apicultural Research, Journal of Applied Ecology, Journal of Applied Entomology, Journal of Cleaner Production, Journal of Ethology, Journal of Insect Behaviour, Journal of Insects as Food and Feed, Journal of Insect Conservation, Journal of Insect Physiology, Journal of Insect Science, Journal of Invertebrate Pathology, Journal of Plant Protection Research, Journal of Pest Science, Journal of Testing and Evaluation, Management of Biological Invasions, Pakistan Journal of Zoology, Pathogens, Peer J., Pest Management Science, Plant Protection Science, Plants, PLOS One, Phytoparasitica, Research in Veterinary Science, Vie et Milieu, Waste Management, Zoomorphology.

Expert evaluator (reviewer of scientific projects/technical reports): EFSA (European Food Safety Authority); Reviewer of Scientific research projects: Agriculture and Agri-Food Canada Science and Technology Branch, ESF (European Science Foundation – Science Connect), MIUR (Italian Ministry of University and Research, PRIN projects), New Zealand Ministry for Primary Industries, NKFIH (Hungary).

Judging committee for the comparative evaluation of a University Researcher position for the disciplinary scientific sector AGR/11 - General and applied entomology, Faculty of Agriculture of the University of Catania (2007).

PhD final exam evaluation commission. Member of final PhD exams Committee for:

- Ph.D. Course in: CROP SCIENCE (XXXVI Cycle), University of Padua (March 2024)
- PhD Thesis evaluation committee, Swedish University of Agricultural Sciences (June 2022)
- PhD Program In Food Science, XXXIV Cycle, University of Parma (2022)
- Dottorato di Ricerca in “Scienze delle Produzioni Vegetali e Animali”, XXXIII ciclo, Università degli Studi della Tuscia di Viterbo (2020)
- Ph.D. in Civil, Environmental and Mechanical Engineering, University of Trento (2020)
- Dottorato di Ricerca in Biologia, XXIX ciclo – curriculum Etologia ed Ecologia, Univ. di Firenze (2018)
- Doctorado en Biología Integrada, Universidad de Sevilla: (2007, 2018)
- Dottorato di ricerca in Entomologia Agraria, Università di Bologna (2009)

MEMBERSHIP OF SCIENTIFIC SOCIETIES

- S.E.I. (Italian Entomological Society) since 2002
- U.Z.I. (Italian Zoological Society) since 2017
- A.I.S.A.S.P. (Italian session of IUSSI: International Union for the Study of Social Insects) since 1992. Secretary during 2010-14, was managing board member in 2016-2018.
- G.I.E.F. (Italian Group of Forensic Entomology) since 2010
- G.M.S.N.(Gruppo Modenese di Scienze Naturali), was managing board member in 2013-2019
- E.S.A. (Entomological Society of America) 1999-2002
- I.S.C.E. (International Society of Chemical Ecology) 2000-2002

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Reggio Emilia, 17/06/2024

Signature

A handwritten signature in black ink, consisting of a stylized first name and a last name with a circular flourish at the end.