1. Scientific Curriculum of Andrea Battisti

Institution: Department DAFNAE, University of Padova, Italy

2. Educational background

Ph.D. 1987, Bologna University, Italy, Entomology
M.S. 1982, Padova University, Italy, Forestry

3. Work experiences

2002-present: Professor, Università di Padova Italy.
1998-2002: Associate Professor, Università di Firenze, Italy.
1990 – 1997: Assistant Professor, Università di Padova Italy.
1987 – 1990: Forest Entomologist, Forest Service of Veneto District, Italy.

4. Academic qualifications and organisation activities

2016-2019: coordinator of teaching activities in the DAFNAE department.
2013-2016: Head of the School of Agriculture and Veterinary Medicine, University of Padova.
2005-2011: Head of the Doctoral School of Crop Sciences at the University of Padova.
2008-2011: vice Dean of the Faculty of Agraria, University of Padova.
2003-2009: vice Head of the Department of Environmental Agronomy, University of Padova.

5. Teaching courses

1994-present: two to three courses per year (on average 18 ECTS) in entomology, zoology, biotechnology, ecology at the Universities of Firenze and Padova.

6. Editorial activity

Associate Editor of Agricultural and Forest Entomology (since 2005), Journal of Pest Science (since 2006), Forest Ecology and Management (since 2017).

Reviewer for the following journals in the last 5 years: Acta Oecologica, Agricultural and Forest Entomology, Annals Forest Science, Annales de la Société Entomologique de France, Basic and Applied Ecology, BioControl Biological Invasions, Biological Journal of the Linnean Society, Bulletin of Insectology, Bulletin of Entomological Research, Canadian Journal of Botany, Canadian Entomologist, Canadian Journal of Forest Research, Diversity and Distribution, Ecography, Ecology and Evolution, Ecological Entomology, Ecological Research, Ecology, Ecosphere, European Journal of Entomology, Entomologia, Environmental Entomology, European Journal of Forest Research, Forest Ecology and Management, Forest Pathology, Global Change Biology, Global Ecology and Biogeography, Heredity, Hortscience, Insect Science, Insects, Integrative Zoology, Journal of Biogeography, Journal of Forest Science, Journal of Pest Science, Journal of Applied Entomology, Journal of Animal Ecology, Journal of Insect Science, Journal of Tropical Forest Science, Oecologia, Oikos, Phytoparasitica, PNAS, Population Ecology, Silva Fennica, Tree Physiology

7. Scientific Research Activities

The scientific research activity is demonstrated by more than 200 publications (Scopus papers on July 2020: 163, H index 33) in international and national journals, books, and proceedings and by the coordination and participation to several international and national projects.

The scientific research activity regards the following topics:

1) Ecology of forest insects PI - Mechanisms of response of insects to climate, population genetics, host plant quality, population dynamics. Model species: processionary moths, spruce and web-spinning sawflies, cone and seed insects, bark beetles.
2) Biological and integrated control of forest pests PI - Assessment of damage thresholds and cost-benefit analyses of IPM in forestry.
3) Invasive species Co-I - Surveillance networks at ports of entry for invasive species of insect herbivores, with the development of automatic devices designed for quarantine species.
4) Insects harmful to humans PI - Mechanism of action and ecological significance of urticating hairs of arthropods.
5) Biodiversity and conservation of insect populations Co-I – Evaluation of ecosystem services provided by insects in natural and managed ecosystems.

8. POST GRADUATE TRAINING ACTIVITY IN THE LAST 5 YEARS

PhD main supervisor of 10 students: Fabio Chinellato, Laura Berardi, Mauro Simonato, Ewelina Czwienczek, Teshale Assefa, Andrea Aimi, Andrea Basso, Salman Habibur Rahman, Enrico Ruzzier, Mizuki Uemura.

PhD main co-supervisor of 11 students: Riccardo Favaro, Davide Rassati, Diego Inclan, Caterina Villari, Alexis Marchesini, Alessio Saviane, Giovanni Tamburini, Yuri Gori, Fernanda Colombari, Ines Pevere, Davide Nardi.

External examiner of 11 PhD students: University of Bordeaux (Bastien Casteignerol, Jean Sebastien Jacquet, Maimiti Dulaurent), University of Orleans (Coralie Bertheau, Charles-Edouard Imbert, Vincent Lesieur, Nabil Nemer), University of Grenoble (Laurent Sachet), Agricultural University of Uppsala SLU (Olle Rosenberg), University of Joensuu (Henri Vanhanen), University of Naples (Ilaria Di Lelio).

9. LANGUAGE SKILLS

Fluent English and French, basic German.

10. SELECTED PUBLICATIONS (15) (start from the recent ones)

Lehmann P., Ammunét T., Barton M., Battisti A., Eigenbrode S.D., Jepsen J.U., Kalinkat G., Neuvonen S., Niemelä P., Terblanche J.S., Økland B., Björkman C. 2020. Complex responses of global insect pests to climate warming. Front. Ecol. Environ. doi: 10.1002/fee.2160

Ruzzier E, Kadej M, Battisti A. 2020. Occurrence, ecological function and medical importance of dermestid beetle hastisetae. PeerJ 8:e8340 http://doi.org/10.7717/peerj.8340

Uemura M., Perkins L.E., Zalucki M.P., Battisti A. 2020. Movement behaviour of two social urticating caterpillars in opposite hemispheres. Movement Ecology 8:4 doi.org/10.1186/s40462-020-0189-x

Salman Md Habibur Rahman, Giomi F., Laparie M., Lehmann P., Pitacco A. and Battisti A. 2019. Termination of pupal diapause in the pine processionary moth Thaumetopoea pityocampa. Physiological Entomology 44, 53–59. DOI: 10.1111/phen.12277

Salman MHR, Bonsignore CP, El Alaoui El Fels A, Giomi F, Hodar JA, Laparie M, Marini L, Merel C, Zalucki MP, Zamoum M, Battisti A. 2019. Winter temperature predicts prolonged diapause in pine processionary moth species across their geographic range. PeerJ 7:e6530 http://doi.org/10.7717/peerj.6530

Petrucco-Toffolo E, Basso A, Kerdelhué C, Ipekdal K, Mendel Z, Simonato M, Battisti A 2018. Evidence of potential hybridization in the Thaumetopoea pityocampa-wilkinsoni complex. Agricultural and Forest Entomology, 20: 9-17.

Basso A., Negrisolo E., Zilli A., Battisti A., Cerretti P., 2017. A total evidence phylogeny for the processionary moths of the genus *Thaumetopoea* (Lepidoptera: Notodontidae: Thaumetopoeinae). Cladistics, doi: 10.1111/cla.12181

Battisti A, Larsson S, Roques A 2017. Processionary moths and associated urtication risk: global-change driven effects. Annual Review of Entomology 62: 323-342.

Salman HR, Hellrigl K, Minerbi S, Battisti A. 2016. Prolonged pupal diapause drives population dynamics of the pine processionary moth (Thaumetopoea pityocampa) in an outbreak expansion area. For. Ecol Manage. 361:375-381

Tonina L, Mori N, Giomi F, Battisti A 2016. Development of Drosophila suzukii at low temperatures in mountain areas. J Pest Sci DOI 10.1007/s10340-016-0730-2

Ruschioni S., Riolo P., Isidoro N., Romani R., Petrucco-Toffolo E., Zovi D., Battisti A. 2015. Contrasting patterns of host adaptation in two egg parasitoids of the pine processionary moth (Lepidoptera: Thaumetopoeidae). Environmental Entomology, doi: 10.1093/ee/nvv059

Chinellato F, Faccoli M, Marini L and Battisti A 2014. Distribution of Norway spruce bark and wood-boring beetles along Alpine elevational gradients. Agricultural and Forest Entomology, 16: 111-118.

Rassati D, Petrucco Toffolo E, Roques A, Battisti A, Faccoli M 2014. Trapping wood boring beetles in Italian ports: a pilot study. Journal of Pest Science 87: 61–69.

Battisti A, Benvegnù I, Colombari F, Haack RA 2014. Invasion by the chestnut gall wasp in Italy causes significant yield loss in Castanea sativa nut production. Agricultural and Forest Entomology, 16: 75-79.

Rassati D, Faccoli M, Petrucco Toffolo E, Battisti A, Marini L 2014.Improving the early detection of alien wood-boring beetles in ports and surrounding forests. Journal of Applied Ecology doi: 10.1111/1365-2664.12347

Tamburini G, Marini L, Hellrigl K, Salvadori C, Battisti A 2013. Effects of climate and density-dependent factors on population dynamics of the pine processionary moth in the Southern Alps. Climatic Change, DOI 10.1007/s10584-013-0966-2

Battisti A, Marini L, Pitacco A, Larsson S 2013. Solar radiation directly affects larval performance of a forest insect. Ecological Entomology 38: 553–559.

Battisti A, Holm G, Fagrell B, Larsson S, 2011. Urticating hairs in arthropods – their nature and medical significance. Annual Review of Entomology. 56: 203-220

11. SELECTED PROJECTS

European Commission. H2020- SFS-10-2017-2, Research and Innovation action (RIA), HOMED, HOlistic Management of Emerging forest pests and Diseases". Partner.

European Commission. KBBE.2013.1.2-04 (N. 613678) - Control of pests and pathogens affecting fruit crops (DROPSA). Partner.

European Food Safety Agency. CFP/EFSA/PLH/2010/01 - Plant health surveys for the EU territory: an analysis of data quality and methodologies and the resulting uncertainties for pest risk assessment (PERSEUS). Partner.

European Commission. FP7-KBBE-2009-3 (N. 245047) - Developing quarantine pest detection methods for use by national plant protection organizations (NPPO) and inspection services (Q-DETECT). Partner.

European Commission. KBBE-2007-1-2-03 (N. 212459) - Enhancements of pest risk analysis techniques (PRATIQUE). Partner.

European Commission. QLK5-CT-2002-00852 - Global change and pine processionary moth: a new challenge for integrated pest management (PROMOTH). Coordination.