

Curriculum vitae

PERSONAL INFORMATION

Family name, First name: BARALDI RITA

Researcher unique identifier(s) (such as ORCID, Research ID, etc. ...):

<https://orcid.org/0000-0003-4837-109X>

<https://publons.com/researcher/AAT-9178-2021/>

<https://scholar.google.it/citations?user=1mTKXNkAAAAJ&hl=it>

Nationality: ITALY

• EDUCATION

1981 Degree of Agricultural Science, University of Bologna, Italy

• CURRENT POSITION

2021 – Research Director, IBE CNR Italy

• PREVIOUS POSITIONS

1999 - 2020 Senior Scientist at IBIMET, CNR, Bologna, Italy

1984 - 1999 Researcher at ISTEА, CNR, Bologna, Italy

• FELLOWSHIPS

1999, 2000 Visiting scientist at the Global Change Research Group, San Diego University, USA for investigation on volatile organic compound emissions from natural ecosystem at different CO₂ levels
1993, 1995, 1996 Visiting scientist at the Departamento de Ciencias Naturales, Universidad de Rio Cuarto, Argentina on the framework of the Bilateral project CNR-CONICET on the relationship between plant hormones and photomorphogenesis

1985, 1986 Visiting scientist at Plant Hormone Laboratory, USDA, Beltsville, MD, USA for projects on plant hormones.

1981-1984 Fellowship at Istituto di Coltivazioni Arboree, University of Bologna, Italy

• SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

1990 – 2021 1 Postdoc/11 Master Students

Department of Vegetable Production, University of Potenza, Italy; Department of Biological, Geological and Environmental Sciences, University of Bologna, Italy; Faculty of Mathematical, Physical and Natural Sciences, University of Bologna, Italy; Department of Experimental Evolutionary Biology, University of Bologna, Italy; Department of Tree Crops, University of Bologna, Italy; Faculty of Agricultural Science, University of Bologna, Italy; Polytechnic university of Valencia, Spain.

• TEACHING ACTIVITIES (selection)

2005 Teaching of doctorate courses “ Agrometeorology and Ecophysiology of agricultural and forestry systems. (XIX Ciclo). “ Function of hormone and sugar metabolism on plant growth and development, also in relation to environmental stresses”

2007 Teaching of doctorate courses “ Agrometeorology and Ecophysiology f agricultural and forestry systems. (XIX Ciclo). “VOC emission: Ecophysiological and environmental roles”, University of Sassari, Italy

2002 - Teaching of doctorate courses of Biology, Environmental Sciences, Agriculture, Environmental Engineering. “Measurements of VOC with the technique of Relaxed Eddy Accumulation (REA)” at the University of Naples, Federico II, Italy

1993 - Teaching of doctorate courses “Plant growth regulators”. “auxin, chemistry, metabolism and physiology” at Rio Cuarto University, Argentina

• **ORGANISATION OF SCIENTIFIC MEETINGS (selection)**

2010- Co-Chair della Air Pollution Session dell’International Phytotechnology Society Conference, Parma, Italy

1993 - Chair and organizing member of the European Symposium Photomorphogenesis in Plants, Pisa, Italy

• **INSTITUTIONAL RESPONSIBILITIES (selection)**

2009 – 2016 Responsible (RUOS) of the detached branch of IBIMET-CNR Bologna, Italy

2008 – 2009 Responsible of the administrative secretary of the detached branch of IBIMET-CNR Bologna, Italy

2006 – 2009 Safety referent of the detached branch of IBIMET-CNR Bologna, Italy

1999 – 2004 Responsible of laboratories of the detached branch of IBIMET-CNR Bologna, Italy

• **REVIEWING ACTIVITIES (selection)**

2011 – Editorial Board, Journal of Plant Growth Regulation

2011 – Editorial Board, South African Journal of Botany

On-going Grants (Please indicate "No funding" when applicable):

<i>Project Title</i>	<i>Funding source</i>	<i>Amount (Euros)</i>	<i>Period</i>	<i>Role of PI or Team Member</i>	<i>Relation to current proposal</i>
Florovivaismo di qualità per la mitigazione e sostenibilità ambientale (VIVAM)	FEASR Regione Lombardia PSR 2014-2020	97500	2019-2021	PI	Urban Forest and air pollution
Cambiamento climatico e servizi ecosistemici nelle aree rurali di Lombardia (CLIMACTIVE 2050)	FEASR Regione Lombardia PSR 2014-2020	453500	2020-2022	Scientific Member	Urban Forest and air pollution

Ten years track-record:

Investigator IBE (ex-IBIMET):

1. 2017-2021, Tecniche di fitorimediao dell'aria e dei suoli inquinati, Società Agricola Green Energy Mantova, € 48.800
2. 2016-2018, Assessing the efficacy of odor reduction treatments in dishwashers, BSH Hausgerate GmbH, Dillingen, € 61.000
3. 2016, SAMBA: Studio dell'AMBIente Acerrano. Collaborazione scientifica con ISAFOM CNR per contratto privato con ditta A2A; € 20.000
4. 2015-2016, BioQuAr: Biogas e qualità dell'aria nell'area vasta di Giugliano, commissario Governativo bonifica Campania Convenzione con ISAFOM-CNR- € 50.000
5. 2015, Caratterizzazione ecofisiologica di diverse specie vegetali per la mitigazione ambientale, Proambiente, Tecnopolo AMBIMAT, € 40.000
6. 2011-2013, Smart Building Envelop for Sustainable Urban Environment” SENSE. Impatto delle soluzioni d'involucro edilizio verde sull'inquinamento: modellazioni ambientali e mitigazione, PRIN Programmi di ricerca scientifica di rilevante interesse nazionale, € 42.155
7. 2010-2013, Green Areas Inner-city Agreement “GAIA”, (LIFE09 ENV/IT/000074), € 600.000
8. 2010-2015, ExpeER (Experimentation in Ecosystem Research), European Project FP7-INFRASTRUCTURES-2010-1- GA 262060, € 49.000

Publications

Total n. peer-reviewed WoS publications = 72; H-index WoS = 19; Averaged citations per WoS item = 16,83

Top publications of the last 10 years

Paoletti E., Hoshika Y., Arab L., Martini S., Cotrozzi L., Weber D., Ache P., Neri L., Baraldi R., Pellegrini E., Müller HM., Hedrich R., Alfarraj S., Rennenberg H. 2021. Date palm responses to a chronic, realistic ozone exposure in a FACE experiment. *Environmental Research*, 195, 110868

Hoshika Y., Brilli F., Baraldi R., Fares S., Carrari E., Zhang L., Badea O., Paoletti E. 2020. Ozone impairs the response of isoprene emission to foliar nitrogen and phosphorus in poplar. *Environmental Pollution* 267, 115679

Dani KGS, Torzillo G, Michelozzi M, Baraldi R and Loreto F 2020. Isoprene Emission in Darkness by a Facultative Heterotrophic Green Alga. *Front. Plant Sci.* 11:598786.

Hoshika Y., De Carlo A., Baraldi R., Neri L., Carrari E., Agathokleous E., Zhang L., Fares S., Paoletti E. 2019. Ozone-induced impairment of night-time stomatal closure in O₃-sensitive poplar clone is affected by nitrogen but not by phosphorus enrichment. *Science of the Total Environment* 692: 713–722.

Baraldi R., Przybysz A., Facini O., Pierdonà L., Carriero G., Bertazza G., Neri L. 2019. Impact of Drought and Salinity on Sweetgum Tree (*Liquidambar styraciflua* L.): Understanding Tree Ecophysiological Responses in the Urban Context. *Forests* 10, 1032

Rita Baraldi, Arkadiusz Przybysz, Osvaldo Facini, Lorenzo Pierdonà, Giulia Carriero, Gianpaolo Bertazza, Luisa Neri . 2019. Impact of Drought and Salinity on Sweetgum Tree (*Liquidambar*

styraciflua L.): Understanding Tree Ecophysiological Responses in the Urban Context. *Forests* 10, 1032; doi:10.3390/f10111032

Baraldi R., C. Chieco, L. Neri, O. Facini, F. Rapparini, L. Morrone, A. Rotondi, G. Carriero. 2019. An integrated study on air mitigation potential of urban vegetation: From a multi-trait approach to modeling. *Urban Forestry & Urban Greening* 41:127–138

Podda A., Hoshika Y., Pisuttu C., Pellegrini E., Carrari E., Lorenzini G., Nali C., Cotrozzi L., Zhan L., Baraldi R., Neri L., Paoletti E. 2019. Can nutrient fertilization mitigate the effects of ozone exposure on an ozone-sensitive poplar clone? *Science of the Total Environment* 657: 340–350

Federico Brilli, Susanna Pollastri, Aida Raio, Rita Baraldi, Luisa Neri, Paola Bartolini, Alessandra Podda, Francesco Loreto, Bianca Elena Maserti, Raffaella Balestrini. 2019 Root colonization by *Pseudomonas chlororaphis* primes tomato (*Lycopersicon esculentum*) plants for enhanced tolerance to water stress. *Journal of Plant Physiology* 232: 82–93;

Baraldi R., Neri L., Costa F., Facini O., Rapparini F., Carriero G. 2019. Ecophysiological and micromorphological characterization of green roof vegetation for urban mitigation. *Urban Forestry & Urban Greening* 37: 24–32

Bari G., Scala A., Garzone V., Salvia R., Yalcin C., Vernile P., Aresta AM., Facini O., Baraldi R., Bufo SA., Vogel H., de Lillo E., Rapparini F., Falabella P. 2019. Chemical Ecology of *Capnodis tenebrionis* (L.) (Coleoptera: Buprestidae): Behavioral and Biochemical Strategies for Intraspecific and Host Interactions. *Front. Physiol.* 10:604. doi: 10.3389/fphys.2019.00604

Carriero G., Neri L., Famulari D., Di Lonardo S., Piscitelli D., Manco A., Esposito A., Chirico A., Facini O., Finardi S., Tinarelli G., Prandi R., Zaldei A., Vagnoli C., Toscano P., Magliulo V., Ciccioli P., Baraldi R. 2018. Composition and emission of VOC from biogas produced by illegally managed waste landfills in Giugliano (Campania, Italy) and potential impact on the local population. *Science of the Total Environment* 640–641; 377–386.

Finardi S., Agrillo G., Baraldi R., Calori G., Carlucci P., Ciccioli P., D'allura A., Gasbarra D., Gioli B., Magliulo V., Radice P., Toscano P., Zaldei A. 2018. Atmospheric Dynamics and Ozone Cycle during Sea Breeze in a Mediterranean Complex Urbanized Coastal Site. *Journal of Applied Meteorology and Climatology*, 57 (5): 1083-1099.

Matese A., Baraldi R., Berton A., Cesaraccio C., Di Gennaro SF., Duce P., Facini O., Mameli MG., Piga A., Zaldei A. 2018. Estimation of Water Stress in Grapevines Using Proximal and Remote
Rivista: Remote Sensing 10,114; doi:10.3390/rs10010114

Murcia G., Fontana A., Pontin M., Baraldi R., Bertazza G., Piccoli PN. 2017. ABA and GA3 regulate the synthesis of primary and secondary metabolites related to alleviation from biotic and abiotic stresses in grapevine. *Phytochemistry*, 135:54-32; 10.1016/j.phytochem.2016.12.007

Bettini PP., Santangelo E., Baraldi R., Rapparini F., Mosconi P., Crinò P., Mauro ML.2016. *Agrobacterium rhizogenes* rolA gene promotes tolerance to *Fusarium oxysporum* f. sp. *lycopersici* in transgenic tomato plants (*Solanum lycopersicum* L.). *Journal of Plant Biochemistry and Biotechnology* 25:225-233; 10.1007/s13562-015-0328-4

Murcia G., Pontina, M., Reinoso H., Baraldi R., Bertazza G., Gómez-Talquenca S., Bottini R., and Piccoli PN. 2016. ABA and GA3 increase carbon allocation in different organs of grapevine plants by inducing accumulation of non-structural carbohydrates in leaves, enhancement of phloem area and expression of sugar transporters. *Physiologia Plantarum*, 156:323-337; DOI: 10.1111/ppl.12390

Peñuelas, J., Guenther, A., Rapparini, F., Llusia, J., Filella, I., Seco, R., Estiarte, M., Mejia-Chang, M., Ogaya, R., Ibañez, J., Sardans, J., Castaño, L.M., Turnipseed, A., Duhl, T., Harley, P., Patton, N., Vila, J., Estavillo, J.M., Villanueva, S., Facini, O., Baraldi, R., Geron, C., Mak, J., Greenberg, J. 2013. Intensive measurements of gas, water, and energy exchange between vegetation and troposphere during the MONTES Campaign in a vegetation gradient from short semi-desertic shrublands to tall wet temperate forests in the NW Mediterranean basin. *Atmospheric Environment*, 75: 348-364.

C. Chieco, A. Rotondi, L. Morrone, F. Rapparini and R. Baraldi. 2013. An ethanol-based fixation method for leaf anatomical and micro-morphological characterization of leaves of various tree species. *Biotechnic & Histochemistry*;88 (2):109-119; DOI: 10.3109/10520295.2012.746472

Sæbø A, Hanslin H.M., Baraldi R., Rapparini F., Gawronska H., and Gawronski S.W. 2013. Characterization of urban trees and shrubs for particulate deposition, carbon sequestration and BVOC emissions. *ISHS 2nd Symposium on Woody Ornamentals of the Temperate Zone. Acta Horticulturae*, 990:509-516.

Ripullone F., Rivelli AR, Baraldi R., Guarini R., Guerrini MR., Magnani F., Peñuelas J., Borghetti M. 2011. Effectiveness of the photochemical reflectance index to track photosynthetic activity over a range of forest tree species and plant water stress. *Functional Plant Biology*, 38 (3): 177-186.

Federica Rossi, Rita Baraldi, Marianna Nardino, Francesca Rapparini, Teodoro Georgiadis. 2011. Downscaling of ecophysiological information from natural communities to urban trees. *Italian Journal of Agrometeorology*, 16 (2):29-32.

23/08/2021