

# Gabriele Guidolotti

**Date of birth:** 28/03/1981 | **Nationality:** Italian | **Gender:** Male | (+39) 0763374232 |

[gabriele.guidolotti@cnr.it](mailto:gabriele.guidolotti@cnr.it) | Skype: gabriele\_guidolotti |

Viale Marconi 2, 05010, Porano, Italy | Viale S. Lucia 81, 01010, Piansano, Italy

About me: Gabriele Guidolotti is researcher at Institute on Terrestrial Ecosystems (IRET), National Research Council (CNR) (Dec 2016-to date). Received (110 cum laude) his BSc degree in Forestry in 2005 with a thesis about world biomes primary production, and his MSs degree in Forestry in 2008 with a thesis about environmental controls on CO<sub>2</sub> losses in a Mediterranean beech forest. He obtained his PhD degree in 2012, with a thesis on the effects of climatic manipulation on functionality of a Mediterranean shrubland ecosystem. The main scientific area of interests is plant ecology and ecophysiology, with particular emphasis on the study of the impact of abiotic stressors on carbon pools and fluxes, greenhouse gases (GHG), volatile organic compounds (BVOCs) and other pollutants in the soil-plant-atmosphere continuum. He carried out his studies in several type of ecosystems ranging from forests, shrubland and grassland. His research activities are carried out "in-situ" in long-term infrastructures and "ex-situ" in common gardens and laboratories, mainly by means of gas-exchange measurements at different scales (leaf, soil, plant and ecosystem), but including also the use of models and database creation and analysis. He actively participated to several European Research Projects, mainly focused on the impact of environmental stresses and climatic changes on different plant and ecosystem processes (CARBO EUROPE IP, EUROFACE, GHG EUROPE, INCREASE, ). Within the European infrastructure INCREASE, he was responsible of the task of the collection and analysis of CO<sub>2</sub> fluxes for the site MEDIT-IT as well as of the development of a new flux measurement system. He also was involved in other international research projects as VOCBAS, CNR-AVCR, CNR-CSIC. In that context, his scientific contribution was on the study of plant BVOCs emission and the effect of abiotic stressors. He is actually responsible of the task 4.3 of the H2020 project ProGleg. In the context of Italian national project as I-AMICA and NEUFOR, his activities were mainly focused to the application of the micro-meteorological eddy-covariance technique in an urban forest station in Naples. For the station, he is the contact person for the international research networks as FLUXNET e ICOS. He actively participates to several Italian research project OT4CLIMA, CLIMA, SWARMNET, PALMO, PON\_ICOS MED, among others. Until now, he published up to 30 papers in international peer-reviewed journals and up to 40 contribution in conference proceedings, posters, report, technical reports, and oral communications in several national and international congresses, seminars and symposiums.

## ● WORK EXPERIENCE

30/07/2020 – CURRENT – Porano, Italy

**RESEARCHER** – RESEARCH INSTITUTE ON TERRESTRIAL ECOSYSTEMS OF NATIONAL RESEARCH COUNCIL

30/12/2016 – 29/07/2020 – Monterotondo, Italy

**RESEARCHER** – RESEARCH INSTITUTE ON TERRESTRIAL ECOSYSTEMS OF NATIONAL RESEARCH COUNCIL

06/01/2016 – 30/12/2016 – Porano, Italy

**RESEARCHER (TEMPORARY)** – INSTITUTE OF AGRO-ENVIRONMENTAL AND FOREST BIOLOGY OF NATIONAL RESEARCH COUNCIL

01/06/2013 – 31/12/2015 – Porano, Italy

**POST-DOC** – INSTITUTE OF AGRO-ENVIRONMENTAL AND FOREST BIOLOGY OF NATIONAL RESEARCH COUNCIL

01/06/2012 – 30/05/2013 – Viterbo, Italy

**POST-DOC** – UNIVERSITY OF TUSCIA

15/07/2008 – 14/02/2009 – Monterotondo, Italy

## ● EDUCATION AND TRAINING

---

02/01/2009 – 13/04/2012 – Viterbo, Italy

**PHD IN FOREST ECOLOGY** – University of Tuscia

---

Final grade: highly positive

Thesis title: *"Impact of increased temperature and drought on carbon fluxes in a Mediterranean shrubland"*

EQF level 8

01/09/2005 – 23/06/2008 – Viterbo, Italy

**MASTER'S DEGREE IN FORESTRY** – University of Tuscia

---

Final grade: 110/110 cum laude

Thesis title: *"Effect of environmental variables and stand structure on ecosystem respiration components in a Mediterranean beech forest"*

Supervisors: Prof. Paolo De Angelis, Prof. Giorgio Matteucci

EQF level 7

04/11/2000 – 20/06/2005 – Viterbo, Italy

**BACHELOR'S DEGREE IN FORESTRY** – University of Tuscia

---

Final grade: 110/110 cum laude

Thesis title: *"Analysis of forest primary production and its components across a range of different biomes"*

Supervisors: Prof. Riccardo Valentini, Prof. Ivan Janssens

EQF level 6

## ● LANGUAGE SKILLS

---

**Mother tongue(s):** ITALIAN

**Other language(s):**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	B2	C2	B2	B2	B2
<b>SPANISH</b>	B2	B2	B1	B2	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ● ORGANISATIONAL SKILLS

---

**Organisational skills**

---

Good organizational skills gained through the participation to several European projects

## ● COMMUNICATION AND INTERPERSONAL SKILLS

---

**Communication and interpersonal skills**

---

Good communication skills gained through the participation to the Erasmus project and to numerous national and international workshops and congresses

## ● **JOB-RELATED SKILLS**

---

### Job-related skills

---

Competences in Gas Exchange Measurements (CO<sub>2</sub>, H<sub>2</sub>O, O<sub>3</sub>, NO<sub>x</sub>, CH<sub>4</sub>, BVOCs) in soils, plants and ecosystems  
Competences in planning experimental design  
Competences in data analysis

## ● **OTHER SKILLS**

---

### Other skills

---

Kayak

## ● **PEER-REVIEWED PUBLICATIONS**

---

### Last Papers

---

- Pallozzi, E., Guidolotti, G., Mattioni, M., & Calfapietra, C. (2020). Particulate matter concentrations and fluxes within an urban park in Naples. *Environmental Pollution*, 266, 115134.
- DAndrea, E., Guidolotti, G., Scartazza, A., De Angelis, P., & Matteucci, G. (2020). Small-scale forest structure influences spatial variability of belowground carbon fluxes in a mature mediterranean beech forest. *Forests*, 11(3), 255
- Collalti, A., Tjoelker, M. G., Hoch, G., Mäkelä, A., Guidolotti, G., Heskell, M., ... & Prentice, I. C. (2020). Plant respiration: controlled by photosynthesis or biomass?. *Global change biology*, 26(3), 1739-1753.
- Gavrichkova, O., Scartazza, A., Guidolotti, G., Kuzyakov, Y., Leonardi, L., Mattioni, M., ... & Calfapietra, C. (2019). When the Mediterranean becomes harsh: Heat pulses strongly affect C allocation in plant-soil-atmosphere continuum in *Eucalyptus camaldulensis*. *Environmental and Experimental Botany*, 162, 181-191.
- Guidolotti, G., Pallozzi, E., Gavrichkova, O., Scartazza, A., Mattioni, M., Loreto, F., & Calfapietra, C. (2019). Emission of constitutive isoprene, induced monoterpenes, and other volatiles under high temperatures in *Eucalyptus camaldulensis*: A <sup>13</sup>C labelling study. *Plant, cell & environment*, 42(6), 1929-1938.