CURRICULUM VITAE

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| Personal Information |  |  |
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| Surname, Name |  | **Carlini Carlotta** |
| Address |  | **Via Romolo Gessi 15, I-47922 Rimini (RN)** |
| Mobile |  | **+39 331 1225646** |
| E-mail |  | **carlotta.carlini20@gmail.com** |
| Nationality |  | Italian |
| Date of birth |  | 20-04-1994 |

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| **Education and training** |  |  |
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| • Dates (from – to) |  | 2019- 2023 |
| • Organisation |  | Ph.D. Course in Cultural and Environmental Heritage, University of Bologna |
| • Principal subjects covered |  | In my PhD I identified and tested methods for the valorisation of biochar produced within the Green Flex-Jet project. I initially used biochar to recover phosphorous from wastewater and developed a composite material made of biochar and carbonate material (patent N. 102021000014195). Subsequently, I used biochar for the immobilisation of the leachable fraction of organic and inorganic contaminants in residually contaminated soils. These activities were carried out within the KOKOSAN II project at the University of Vienna, Austria, during my time abroad. I firstly identified the best biochar/contaminant combinations, did batch tests with artificial solutions, and then applied the selected biochar to real soils, both in batch and column tests. The resulting solutions were analysed in GC-MS and/or LC-MS for organic contaminants, and in ICP-MS for inorganic contaminants. |
| • Title of qualification awarded |  | Ph.D. in Cultural and Environmental Heritage |
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| • Dates (from – to) |  | 2017-2019 |
| • Organisation |  | M.Sc. Course in Environmental Assessment and Management EIT Climate KIC curriculum, University of Bologna |
| • Principal subjects covered |  | The Course in Environmental Assessment and Management offers mandatory classes on Chemical Analysis of Environmental Quality, Environmental Legislation, Land Management Principles, Multivariate Statistical Analysis, Physiology Applied to The Environment, Ecological Methods for the Analysis and the Management of the Environment, Environmental Hydrology, Environmental, Political and Economic Management Systems, Prevention and Control of Environmental Impact, plus an Interdisciplinary practical Laboratory. In addition, the EIT Climate KIC curriculum included a five-week study trip, ''The Journey'', and a six-month internship abroad (which I spent at the Fraunhofer UMSICHT Institute).  In my master's thesis, entitled 'Biochar as a filter material: feasibility studies and business development', I explored the possibility of using pristine biochar as a filter material for the purification of real wastewater, and analysed from an economic point of view the feasibility of using it at the Caviro company. |
| • Title of qualification awarded |  | M.Sc. in Environmental Assessment and Management |
| • Final score |  | 110 cum laude |
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| • Dates (from – to) |  | 2014-2017 |
| • Organisation |  | B.Sc. Course in Environmental Sciences, University of Bologna |
| • Principal subjects covered |  | The Course in Environmental Sciences offers a broad teaching plan, with the aim of creating an expert able to study the environment with a multidisciplinary approach. Beyond the basic scientific subjects, such as mathematics, chemistry and physics, I have attended characterizing courses, such as Renewable Energies and Energy Management, Environmental Chemistry, Eco-compatible Development and Anthropogenic Alterations, Structure and Dynamics of the Atmosphere and the Ocean.  I graduated in 2017 in Environmental Sciences with a thesis on *Quantification and potential valorisation of marine biomasses in Emilia-Romagna.* In this work I quantified the amount of beach debris collected in beach cleaning operations and the amount of organic fish waste produced in fish markets. I also analysed some sample of beach debris to separate the various components and chemically characterise woody samples in order to assess their salt content. From this thesis work, the paper *Exploitable fish waste and stranded beach debris in the Emilia-Romagna Region (Italy)* was published. |
| • Title of qualification awarded |  | B.Sc. in Environmental Sciences |
| • Final score |  | 110 cum laude |
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| **Work experience** |  |  |
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| **•** Dates (from – to) |  | 15/05/2024 – now |
| **•** Employer |  | Interdepartmental Research Centre for Environmental Sciences, University of Bologna |
| **•** Type of sector |  | Research and education |
| **•** Occupation and position held |  | Research fellow |
| **•** Main activities and responsibilities |  | Contratto di ricerca sul progetto LIFE NatuReef col gruppo I.G.R.G. (Integrated Geoscience Research Group). |
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| **•** Dates (from – to) |  | 1/02/2023 – 31/01/2024 |
| **•** Employer |  | Interdepartmental Research Centre for Environmental Sciences, University of Bologna |
| **•** Type of sector |  | Research and education |
| **•** Occupation and position held |  | Research fellow |
| **•** Main activities and responsibilities |  | My main activity this year has been the coordination and management of the NET-Fuels project. During this time, I was responsible for the organisation of the project meetings (every six months), the coordination of my organisation's work packages and those involving activities directly dependent on or related to ours. I was responsible for collecting data and writing deliverables, and for identifying and contacting people who could participate in the project's advisory board.  In addition to this, I participated in the creation of new research projects involving major companies in the agriculture and food sectors.  I was also involved in identifying calls for European projects to apply for.  Finally, I am currently supervising two master's students in their thesis work. |
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| **•** Dates (from – to) |  | 01/11/2021 – 10/03/2022 |
| **•** Employer |  | ESW Consulting WRUSS ZT GmbH, Vienna, Austria |
| **•** Type of sector |  | Environment and technology |
| **•** Occupation and position held |  | Internship trainee |
| **•** Main activities and responsibilities |  | Remediation of contaminated soil with biochar.  Batch and percolation tests with real soil sample contaminated by organic or inorganic pollutants. The aim was to assess the sorption ability of different carbonaceous material. |
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| **•** Dates (from – to) |  | 15/03/2019 – 20/09/2019 |
| **•** Employer |  | Fraunhofer UMSICHT Institute, Sulzbach-Rosenberg, Germany |
| **•** Type of sector |  | Sustainable energy and raw materials management |
| **•** Occupation and position held |  | Internship trainee |
| **•** Main activities and responsibilities |  | Research on a case study (Caviro EXTRA) for improved wastewater filtering, high added-value product manufacturing (biochar filter), and solid waste management. |
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| **•** Dates (from – to) |  | 26/04/2017 |
| **•** Employer |  | Associazione Italiana Scienze Ambientali, Via Nicolò V n. 19 – 00165 Roma (RM) |
| **•** Type of sector |  | Scientific dissemination |
| **•** Occupation and position held |  | Support to the activities of the "Riciclo Aperto Impianti 2017" initiative, sponsored by HERA S.p.A. |
| **•** Main activities and responsibilities |  | Environmental communication and dissemination on the recycling of cellulose-based packaging. |
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| **•** Dates (from – to) |  | 20/01/2016 – 26/02/2016 |
| **•** Employer |  | Simone Rossi, Via San Martino in XX, Rimini (RN) |
| **•** Type of sector |  | Waste management and biogas production |
| **•** Occupation and position held |  | Internship trainee |
| **•** Main activities and responsibilities |  | Data collection and processing, creation of historical records about faults detected in engines. |

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| **Scientific Activity** |  |  |
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| **Paper** |  | Rombolà, A. G., Greggio, N., Fabbri, D., Facchin, A., Torri, C., Pulcher, R., **Carlini, C**., ... & Buscaroli, A. (2023). Changes of labile, stable and water-soluble fractions of biochar after two years in a vineyard soil. Environmental Science: Advances, 2(11), 1587-1599. |
|  |  | **Carlini, C.**, Chaudhuri, S., Mann, O., Tomsik, D., Hüffer, T., Greggio, N., ... & Sigmund, G. (2023). Benchmarking biochar with activated carbon for immobilizing leachable PAH and heterocyclic PAH in contaminated soils. *Environmental Pollution*, *325*, 121417. |
|  |  | Greggio, N., Serafini, A., Balugani, E., **Carlini, C.**, Contin, A., & Marazza, D. (2021). Quantification and mapping of fish waste in retail trade and restaurant sector: Experience in Emilia-Romagna, Italy. Waste Management, 135, 256-266. |
|  |  | Greggio, N., Balugani, E., **Carlini, C.**, Contin, A., Labartino, N., Porcelli, R., Quaranta, M., Righi, S., Vogli, L., Marazza, D. (2019). Theoretical and unused potential for residual biomasses in the emilia Romagna Region (Italy) through a revised and portable framework for their categorization. *Renewable and Sustainable Energy Reviews*, *112*, 590-606. |
|  |  | Greggio, N., **Carlini, C.**, Contin, A., Soldano, M., & Marazza, D. (2018). Exploitable fish waste and stranded beach debris in the Emilia-Romagna Region (Italy). Waste Management, 78, 566-575. |
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| **Oral presentation** |  | “Immobilization of leachable metal(loid)s in soil with dolomite-enriched biochar and comparison with commercial activated carbon.” **Carlini C.**, Chauduri S., Greggio N., Marazza D., Mann O., Schinner R., Hüffer T., Hofmann T., Sigmund G.  Congresso congiunto SIMP, SGI, SOGEI, AIV 2023 20 September 2023 |
|  |  | “Practical guideline for applying carbon-based materials for restoration of degraded soil” **Carlini C.**, Chaudhuri S., Greggio N., Marazza D., Mann O., Hüffer T., Hofmann T., Sigmund G. EGU 2022 23-27 May 2022 |
|  |  | “Towards a Practical Guideline for Applying Carbon-Based Materials for Soil Remediation” **Carlini** **C**., Chaudhuri S., Greggio N., Marazza D., Mann O., Hüffer T., Hofmann T., Sigmund G. SETAC EU 2022 15-19 May 2022 |
|  |  | “PO4 recovery using mixtures of biochar and carbonate materials” **Carlini C**., Primante A., Greggio N. , Balugani E. , Contin A. , Marazza D. EGU 2021 19-30 april 2021 |
| **Poster** |  |  |
|  |  | “Prospective uses of biochar: a project proposal to exploit pruning residues in biochar or biochar-compost mixtures.” **Carlini C.**, Greggio N., Contin A., Marazza D. ECOMODO 2018 Green and Circular Economy 6-9 novembre 2018 |
|  |  | “First estimation of exploitable "marine" residues from beach cleaning operations and fish markets at Emilia Romagna region.” Greggio N., **Carlini C.**, Marazza D., Labartino N., Soldano M., Contin A. ECOMODO 2017 Green and Circular Economy 7-10 novembre 2017 |

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| **Other competences** |  |  |
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| Languages |  | Italian (Mother tongue) |
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| Driving license |  | B |
| Computer skills and competences |  | Excel, Power point, Word, QGIS, Photoshop, InDesign, GaBi Educational, RIAMbasic, Simantics (Sysdyn) |
| Other information |  | I have been the referent of the Italian Association of Environmental Sciences, Ravenna Section. I have been a yoga teacher since 2020. In 2023 I obtained my diving licence (Padi AWD). |