

CURRICULUM VITAE

Name: **Nicolas**
Surname: **Greggio**
Date and place of birth: **01/04/1983 – Lugo, Italy**
Nationality: **Italian**
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CURRENT POSITION

Junior assistant professor (fixed-term). Department of Biological, Geological, and Environmental Sciences. Academic discipline: GEO/08 Geochemistry and Volcanology

HIGHER EDUCATION

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| 2010 – 2013 | PhD in Environmental Science-Protection and management of Environmental resources University of Bologna, Italy, Title of Dissertation: <i>Identification of water-management and agronomic techniques for coastal phreatic aquifer recharge to limit groundwater and soil salinization</i> . Final score: excellent with mention. |
| 2006 – 2009 | Master Degree in Environmental Science , University of Bologna, Italy. Title of Dissertation: Effects of the river salt wedge dynamic on the distribution of the macrobenthic populations of an estuary: the study case of Lamone River (Ravenna – Italy). Final score: 110 out of 110 with Honors |
| 2002 – 2005 | Bachelor Degree in Environmental Science , University of Bologna, Italy |
| 1997 - 2002 | High School Diploma: Expert of Agriculture, final score 100 out of 100 |

University Teaching Activity

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| 2019-2020 | Teacher for the Course Unit in "Land Management Principles (Module 2)" Degree programme: Second cycle degree programme (LM) in Environmental Assessment and Management. Teaching activity in Italian |
| 2018-2019 | Teacher for the Course Unit in "Land Management Principles (Module 2)" Degree programme: Second cycle degree programme (LM) in Environmental Assessment and Management. Teaching activity in Italian |
| 2017-2018 | Teacher for the Course Unit in "Land Management Principles (Module 2)" Degree programme: Second cycle degree programme (LM) in Environmental Assessment and Management. Teaching activity in Italian |
| 2016-2017 | Teacher for the Course Unit in "Land Management Principles |

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| | (Module 2)" Degree programme: Second cycle degree programme (LM) in Environmental Assessment and Management. Teaching activity in Italian |
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Work experiences and courses

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| Sept/21 to Jul/22 | Consultant for CIFLA (Innovation Center of Fondazione Flaminia). Supporting to the activity of the Ravenna Technopole (https://tecnopolo.ravenna.it/en/home/) |
| Jul/19 to now | Member of the Quality, Architecture and Landscape Commission (CQAP) for the "Unione dei Comuni della Bassa Romagna". Specific skills related to "agricultural and forestry, natural, geographical and environmental sciences". |
| Jan/19 – Sept/20 | Research Fellow at CIRSA (Interdepartmental Research Centre for Environmental Science) - University of Bologna. LOOP-Ports Project, funded by EIT Climate KIC. |
| Sep/17 - Dec/18 | Research Fellow at "CIRI Energia Ambiente" University of Bologna CleanPort Project POR FESR 2014-2020 Regione Emilia Romagna. |
| Aug/16 - Jul/17 | Research Fellow at "CIRI Energia Ambiente" University of Bologna GoBioM Project "Optimization aof the biomethane value chain". POR FESR 2014-2020 Regione Emilia Romagna. |
| Nov/15 Jun16 | Internship at Bologna University – IGRG Lab. on project “Restoration of Ravenna foredune: practical experiment” |
| Oct 2015 | Organizer of 36° RELEMR Workshop by UNESCO and USGS - Ravenna, Italy |
| Oct/13 – Oct/15 | Research Fellowship on the Project: Protection and Restoring of the Ravenna Dune System |
| Gen/13 – Jun/13 | Internship at Bologna University – IGRG Lab. on project “Ural River Delta Project” |
| May 2011 | Course on isotopic hydrogeology CNR Pisa Italy |
| June 2010 | Summer School “Upscaling and Modeling of Reactive Transport in (partially)-Saturated Porous Media Utrecht University |
| From 2007 | Farmer at my own farm. extension of 5 hectares of vineyards. |

Talks and conference presentations

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| July 2022 | 1st Italian Geochemical Society Congress “From theoretical to applied geochemistry”. Genoa, 5 - 8 July 2022. Oral Presentation entitled: <i>Helicrysum italicum</i> (roth) G. Don, a promising species for the phytostabilization of polluted mine sites: a case study in the Montevecchio mine (Sardinia, Italy). |
| November 2021 | Conference “Prodotti emergenti per la salvaguardia della fertilità dei suoli: biochar e idrochar FONDAZIONE EDMUND MACH 26 Novembre 2021. Talk “Toward healthier soils increasing SOC and storing CO2: the Black To the Future project (funded by Eit-Food)”. INTERNATIONAL BEACON CONFERENCE “CARING FOR SOIL IS CARING FOR LIFE: SOIL HEALTH POLICIES AND INNOVATION“ ECOMONDO, 28 October, 2021. Talk ”Toward |
| October 2021 | |

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| | healthier soils increasing SOC and storing CO ₂ : the Black To the Future project (funded by Eit-Food)”. |
| May 2020 | EGU 2020 - Sharing Geoscience Union. Invited Speaker for Oral presentation ""Bare soil" detection addressing agricultural production optimization throughout the year: case study in Emilia Romagna using Sentinel-2 images". Session SSS10.1 – Digital soil mapping meets remote sensing for soil monitoring and assessment. |
| May 2020 | EGU 2020 - Sharing Geoscience Union. Invited Speaker for Oral presentation "Long Term Experiment Platform (LTEP) to establish the effectiveness of biochar applications: a case study in vineyards at Tebano, Ravenna, Italy". Session SSS5.5 – New and traditional soil amendments: impacts, benefits, and risks. |
| September 2011 | Torino, Italy - Geoitalia 2011, Talk: “Is irrigated agriculture a buffer against saltwater intrusion? Effect of natural recharge and irrigation on groundwater salinity in a coastal unconfined aquifer, Lido di Dante, Ravenna, Italy” |
| September 2013 | Pisa, Italy - Geoitalia 2013, Talk: “ASTER data applications for identification of salt water intrusion effects on forest vegetation” |
| June 2014 | Livorno, Italy Symposium “Monitoring of Mediterranean Areas” Talk: Groundwater characterization in low coastal adriatic dunes. |
| November 2017 | Ecomondo 2017 Workshop "Risorse dai rifiuti: soluzioni innovative e conseguenze ambientali verso l'implementazione di un'economia circolare". Talk: "Database of the residual biomasses in Emilia Romagna Region and relative production sites" |

Publications

- Pulcher, R., Balugani, E., Ventura, M., **Greggio, N.**, and Marazza, D. (2022) *Inclusion of biochar in a C dynamics model based on observations from an 8-year field experiment*, SOIL, 8, 199–211, <https://doi.org/10.5194/soil-8-199-2022>.
- Beltrami, R., **Greggio, N.**, Dinelli, E. et al. *Assessing the impact of artificial summer drainage on the benthic macroinvertebrates in a freshwater wetland in northeast Italy*. Hydrobiologia (2021). <https://doi.org/10.1007/s10750-021-04708-5>
- **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.**, Capolupo, M., Donnini, F., Birke, M., Fabbri, E., & Dinelli, E. (2021). *Integration of physical, geochemical and biological analyses as a strategy for coastal lagoon biomonitoring*. Marine Pollution Bulletin, 164, 112005.
- Okello, C., **Greggio, N.**, Giambastiani, B. M. S., Wambiji, N., Nzeve, J., & Antonellini, M. (2020). *Modelling Projected Changes in Soil Water Budget in Coastal Kenya under Different Long-Term Climate Change Scenarios*. Water, 12(9), 2455.
- **Greggio, N.**; Giambastiani, B.M.S.; Mollema, P.; Laghi, M.; Capo, D.; Gabbianelli, G.; Antonellini, M.; Dinelli, E. (2020) *Assessment of the Main Geochemical Processes Affecting Surface Water and Groundwater in a Low-Lying Coastal Area: Implications for Water Management*. Water 2020, 12, 1720.
- Sowe, M. A., Sathish, S., **Greggio, N.**, & Mohamed, M. M. (2020). *Optimized Pumping Strategy for Reducing the Spatial Extent of Saltwater Intrusion along the Coast of Wadi Ham, UAE*. Water, 12(5), 1503.

- Antonellini, M., Giambastiani, B. M. S., **Greggio, N.**, Bonzi, L., Calabrese, L., Luciani, P., ... & Severi, P. (2020). *Hydrologic control on natural land subsidence in the shallow coastal aquifer of the Ravenna coast, Italy*. Proceedings of the International Association of Hydrological Sciences, 382, 263-268. <https://doi.org/10.5194/piahs-382-263-2020>
- Porcelli, R., Dotto, F., Pezzolesi, L., Marazza, D., **Greggio, N.**, & Righi, S. (2020). *Comparative life cycle assessment of microalgae cultivation for non-energy purposes using different carbon dioxide sources*. Science of The Total Environment, 137714.
- Toller, S., Giambastiani, B., **Greggio, N.**, Antonellini, M., Vasumini, I., & Dinelli, E. (2020). *Assessment of Seasonal Changes in Water Chemistry of the Ridracoli Water Reservoir (Italy): Implications for Water Management*. Water, 12(2), 581.
- De Giglio, M., **Greggio, N.**, Goffo, F., Merloni, N., Dubbini, M., & Barbarella, M. (2019). *Comparison of Pixel-and Object-Based Classification Methods of Unmanned Aerial Vehicle Data Applied to Coastal Dune Vegetation Communities: Casal Borsetti Case Study*. Remote Sensing, 11(12), 1416.
- **Greggio, N.**, Balugani, E., Carlini, C., Contin, A., Labartino, N., Porcelli, R., ... & 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.
- Antonellini, M., Giambastiani, B. M. S., **Greggio, N.**, Bonzi, L., Calabrese, L., Luciani, P., ... & Severi, P. (2019). *Processes governing natural land subsidence in the shallow coastal aquifer of the Ravenna coast, Italy*. Catena, 172, 76-86.
- Sytnik, O., Del Río, L., **Greggio, N.**, & Bonetti, J. (2018). *Historical shoreline trend analysis and drivers of coastal change along the Ravenna coast, NE Adriatic*. Environmental Earth Sciences, 77(23), 779.
- **GREGGIO, N.**, GIAMBASTIANI, B. M. S., & ANTONELLINI, M. (2018). *Infiltration/irrigation trench for sustainable coastal drainage management: Emilia-Romagna (Italy)*. Environmental Engineering & Management Journal (EEMJ), 17(10).
- **Greggio, N.**, Giambastiani, B., Balugani, E., Amaini, C., & Antonellini, M. (2018). *High-Resolution Electrical Resistivity Tomography (ERT) to Characterize the Spatial Extension of Freshwater Lenses in a Salinized Coastal Aquifer*. Water, 10(8), 1067.
- **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.
- GIAMBASTIANI BMS, **GREGGIO N.**, NOBILI G, DINELLI E, ANTONELLINI M. 2018. *Forest fire effects on groundwater in a coastal aquifer (Ravenna, Italy)*. Hydrological Processes. 1–13. <https://doi.org/10.1002/hyp.13165>
- DE GIGLIO, M., GOFFO, F., **GREGGIO, N.**, MERLONI, N., DUBBINI, M., & BARBARELLA, M. (2017). *Satellite and unmanned aerial vehicle data for the classification of sand dune vegetation*. International Archives of the Photogrammetry, Remote Sensing & Spatial Information Sciences, 42. <https://doi.org/10.5194/isprs-archives-XLII-3-W2-43-2017>
- **GREGGIO, N.**, GIAMBASTIANI, B.M.S., CAMPO, B., DINELLI, E., AMOROSI, A.. 2017 *Sediment composition, provenance and Holocene paleoenvironmental evolution of the southern Po river coastal plain (Italy)*. Geological Journal. DOI:10.1002/gj.2934
- COZZOLINO, D., **GREGGIO, N.**, ANTONELLINI, M., GIAMBASTIANI, B.M.S.. 2017 *Natural and anthropogenic factors affecting freshwater lenses in coastal dunes of the Adriatic coast*. Journal of Hydrology. Available online 19 April 2017 <https://doi.org/10.1016/j.jhydrol.2017.04.039>.
- GIAMBASTIANI, B., COLOMBANI, N., **GREGGIO, N.**, ANTONELLINI, M., & MASTROCICCO, M. 2017. *Coastal aquifer response to extreme storm events in Emilia Romagna, Italy*. Hydrological Processes, 31(8), 1613-1621.
- GIAMBASTIANI, B. M., **GREGGIO, N.**, SISTILLI, F., FABBRI, S., SCARELLI, F., CANDIAGO, S., ... & GABBIANELLI, G. 2016. *RIGED-RA project-Restoration and management of Coastal Dunes in the Northern Adriatic Coast, Ravenna Area-Italy*. In IOP Conference Series: Earth and Environmental Science (Vol. 44, No. 5, p. 052038). IOP Publishing. DOI<http://dx.doi.org/10.1088/1755-1315/44/5/052038>.

- SEMEOSHENKOVA, V., NEWTON, A., CONTIN, A., **GREGGIO, N.**, 2016. *Development and application of an Integrated Beach Quality Index (BQI)*. Ocean Coast. Manage.. <http://dx.doi.org/10.1016/j.ocecoaman.2016.08.013>.
- ANTONELLINI, M., ALLEN, D. M., MOLLEMA, P. N., CAPO, D., & **GREGGIO, N.** 2015. *Groundwater freshening following coastal progradation and land reclamation of the Po Plain, Italy*. Hydrogeology Journal, 23(5), 1009-1026. DOI 10.1007/s10040-015-1263-0
- OKELLO C, TOMASELLO B, GREGGIO N, WAMBIJI N, ANTONELLINI M. 2015 *Impact of Population Growth and Climate Change on the Freshwater Resources of Lamu Island, Kenya*. Water. 7(3):1264-1290 DOI:10.3390/w7031264.
- BARBARELLA, M., DE GIGLIO, M., & **GREGGIO, N.** 2015. *Effects of saltwater intrusion on pinewood vegetation using satellite ASTER data: the case study of Ravenna (Italy)*. Environmental Monitoring and Assessment, 187(4), 166. DOI: 10.1007/s10661-015-4375-z
- OKELLO, C., ANTONELLINI, M., **GREGGIO, N.**, & WAMBIJI, N. 2015. *Freshwater resource characterization and vulnerability to climate change of the Shela aquifer in Lamu, Kenya*. Environmental Earth Sciences, 73(7), 3801-3817. DOI 10.1007/s12665-014-3665-z
- MOLLEMA, P. N., ANTONELLINI, M., DINELLI, E., **GREGGIO, N.**, & STUYFZAND, P. J. (2015). *The influence of flow-through saline gravel pit lakes on the hydrologic budget and hydrochemistry of a Mediterranean drainage basin*. Limnology and oceanography, 60(6), 2009-2025.
- **GREGGIO N.**, PIFFERI M., ANTONELLINI M. 2014 *Groundwater characterization in low coastal adriatic dunes*. Proceeding of Fifth International Symposium MONITORING OF MEDITERRANEAN COASTAL AREAS: PROBLEMS AND MEASUREMENT TECHNIQUES. LIVORNO (ITALY) ISBN: 978-88-95597-19-5.
- VANDENBOHEDE, A., MOLLEMA, P. N., **GREGGIO, N.**, & ANTONELLINI, M. 2014. *Seasonal dynamic of a shallow freshwater lens due to irrigation in the coastal plain of Ravenna, Italy*. Hydrogeology Journal, 22(4), 893-909. DOI 10.1007/s10040-014-1099-z on-line ISSN 1435-0157
- ANTONELLINI M., DINELLI E., GABBIANELLI G., **GREGGIO N.**, MOLLEMA P., PIFFERI M.. 2013 *Assetto idrogeologico dell'area circostante la foce del T. Bevano*. FOCE BEVANO – Stato dell'area naturale protetta e prospettive per una sua gestione integrata e sostenibile. Capitolo 3.1. Servizio Difesa del Suolo della Costa e Bonifica.
- MOLLEMA P.N., ANTONELLINI M., DINELLI E., GABBIANELLI G., **GREGGIO N.**, STUYFZAND P.J., 2013 *Hydrochemical and physical processes influencing salinization and freshening in Mediterranean low-lying coastal environments*, Applied Geochemistry, Volume 34, July 2013, Pages 207-221, ISSN 0883-2927, <http://dx.doi.org/10.1016/j.apgeochem.2013.03.017>.
- ANTONELLINI M., PANDOLFINI M., **GREGGIO N.**, MOLLEMA P. N. 2012 *Geothermal characterization of the coastal aquifer near Ravenna (Italy)*. Caratterizzazione geotermica dell'acquifero costiero di Ravenna. Acque Sotterranee - Italian Journal of Groundwater. Pagg 41-53 DOI 10.7343/AS-012-12-00XX
- M. PANDOLFINI, M. ANTONELLINI, N. GREGGIO, P. MOLLEMA (2012) *Valutazione del potenziale geotermico dell'acquifero costiero di Ravenna* ENGINEERING, HYDRO, ENVIRONMENTAL GEOLOGY. vol.14 B pp.2 ISSN:2038-0801 Articolo (Contributo in rivista) [114756]
- M. ANTONELLINI, D. CAPO, G. GABBIANELLI, **N. GREGGIO**, M. LAGHI, P. MOLLEMA (2012) *Mapping salinization in the coastal aquifer of Ravenna (Italy)* pp.2 Ed. Centro Stampa Regione Emilia-Romagna. Capitolo / saggio in libro (Contributo in volume) [117622]
- M. PANDOLFINI, **N. GREGGIO**, P. MOLLEMA, M. ANTONELLINI (2012) *Evaluation of the geothermal potential of the coastal aquifer near Ravenna (Italy)*. pp.2 Ed. Centro Stampa Regione Emilia-Romagna. Capitolo / saggio in libro (Contributo in volume) [117616]
- **GREGGIO N.**, MOLLEMA P., ANTONELLINI M. AND GABBIANELLI G., 2012. *Irrigation Management in Coastal Zones to Prevent Soil and Groundwater Salinization*, Resource Management for Sustainable Agriculture, ISBN: 978-953-51-0808-5, InTech, DOI: 10.5772/50534. Available from: <http://www.intechopen.com/books/resource-management-for-sustainable-agriculture/>
- MARCO ANTONELLINI, **NICOLAS GREGGIO**, MARIO LAGHI E PAULINE MOLLEMA 2011 Report finale - Potenziale ricarica dell'acquifero freatico costiero per il contenimento dell'ingressione salina, anche in relazione all'attuale regime pluviometrico ed ai livelli mareografici, all'interno del territorio

costiero di competenza dell'Autorità dei Bacini Regionali Romagnoli. CIRSA - UNIVERSITÀ DI BOLOGNA

- GIOVANNI GABBIANELLI, MARCO ANTONELLINI, ENRICO DINELLI, PAULINE MOLLEMA, **NICOLAS GREGGIO**, DONATO CAPO, MARIO LAGHI. 2012 Rapporto Finale *Coastal Salt Intrusion in Ravenna coastal aquifer (CSI)* nell'ambito della convenzione stipulata tra Università di Bologna, Eni, Comune di Ravenna.
- STEFANO MAZZOTTI, FEDERICO MONTANARI, **NICOLAS GREGGIO**, MASSIMILIANO BAROCCI. 2007 - La popolazione della testuggine palustre (*Emys orbicularis*) del Bosco della Mesola. Quad. Staz. Ecol. civ. Mus. St. nat. Ferrara, 17: pp. 117-123. ISSN 0394-5782

Thesis

Supervisor for 3 Master degree thesis, Co-supervisor in more than 20 Master and Bachelor degree thesis.

Ravenna, 04/08/2022

Signature.

A handwritten signature in black ink, reading "Nicolas Greggio". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.