

Curriculum Vitae

Personal information

First name / Surname **Giovanbattista Domenico de Dato**
Address 3, via Masaccio, 52100 Arezzo (Italy)
Telephone(s) +39 0761 092462 Mobile +39 338 296 48 43
E-mail(s) giovanbattista.dedato@crea.gov.it
Nationality Italian
Date of birth 14/01/1976
Gender Male

Work experiences

Dates March 2015 → Present
Occupation or position held Researcher scientist
Main activities and responsibilities forest genetic resources conservation and management; phenotypic characterization of tree species; ecophysiological and adaptive features of tree species to climate change; selection and improvement of genetic resources; biodiversity
Name and address of employer Council for Agricultural Research and Economics (CREA) - Research Centre for Forestry and Wood
Type of business or sector Agriculture, forestry and fishing

Dates April 2014 → February 2015
Occupation or position held PostDoc researcher
Main activities and responsibilities Fluxes of greenhouse gases from agricultural ecosystems, urban environment and landfills have been monitoring by eddy covariance techniques. The main goal of the activities was to transfer technology and services to farmers who wants to innovate processes and products by precision-farming; to local public entities for monitoring the GHG emissions from urban systems and landfills in order to create new tools in developing "green cities". The work was in collaboration with Terrasystem s.r.l. (Viterbo), which has competences in developing and promoting new technologies in environmental research, management and monitoring.
Name and address of employer University of Tuscia
Type of business or sector Agriculture, forestry and fishing

Dates March 2012 → February 2014
Occupation or position held PostDoc researcher
Main activities and responsibilities For the INCREASE project (an European Research Infrastructure Framework of six large-scale climate change experiments) my main activities were the creation of a common dataset for the meta-analysis of the long-term treatment effects along the gradient constituting the INCREASE network and the application of models for predicting future responses to climate changes of these ecosystems
Name and address of employer University of Tuscia
snc, via S. Camillo De Lellis, 01100 Viterbo (Italy)
Type of business or sector Agriculture, forestry and fishing

Dates 01 Aug 2010 → January 2012
Occupation or position held Technical position
Main activities and responsibilities For the INCREASE project (an European Research Infrastructure Framework of six large-scale climate change experiments) my main activity was the creation of a common dataset for the meta-analysis of the long-term treatment effects along the gradient constituting the INCREASE network.

For the Italian-Israeli Cooperation on Environmental R&D, in a common garden of *Tamarix* provenances, placed in Orbetello (Italy), I surveyed plant performance in term of growth and set the climate station and dataloggers for climate and microclimate monitoring.

I installed a meteorological station and environmental sensors for microclimate monitoring of an industrial landfill where phytoremediation techniques were applied in 2011. Soil and plant analyses were run to detect heavy metals redistribution.

Name and address of employer	University of Tuscia snc, via S. Camillo De Lellis, 01100 Viterbo (Italy)
Type of business or sector	Agriculture, forestry and fishing
Dates	01 Aug 2005 - 31 Jul 2010
Occupation or position held	PostDoc researcher
Main activities and responsibilities	I designed and create a plantation with shrub species in a Mediterranean-climate area. I studied the ecological modification of the soil-plant system (plant growth, soil C and N, root productivity, soil biology). The main objective of the study was to assess the belowground carbon sequestration potential and functionality of abandoned soils after revegetation with shrubs under Mediterranean semi-arid climate conditions, to quantify the contribution of these ecosystems to the carbon removal from the atmosphere, under the Kyoto Protocol commitments.
Name and address of employer	University of Tuscia snc, via S. Camillo De Lellis, 01100 Viterbo (Italy)
Type of business or sector	Agriculture, forestry and fishing
Dates	Jan 2005 – Jul 2005
Occupation or position held	Surveyor
Main activities and responsibilities	Forest surveys and management plan redaction for public woods in Central Italy
Name and address of employer	Trifolium Società Cooperativa 20-22, via Peltechian, 00173 Roma (Italy)
Type of business or sector	Agriculture, forestry and fishing
Dates	01 Jan 2004 – 31 Dec 2004
Occupation or position held	PostDoc researcher
Main activities and responsibilities	Ecophysiological analyses for the VULCAN project. In field and laboratory analyses of ecophysiological processes at the plant and soil level (primary productivity, phenology, species competition, nutrient cycling, isotopic composition, soil respiration), statistical analysis of results and reports' compilation
Name and address of employer	University of Tuscia snc, via S. Camillo De Lellis, 01100 Viterbo (Italy)
Type of business or sector	Agriculture, forestry and fishing

Commitments in projects

H2020 B4EST Adaptive BREEDING for productive, sustainable and resilient FORESTS under climate change. Coord CREA. Deadline 2022

Regional Rural Development PSR Toscana 2014-2022 DoNaTo Douglasiete naturali toscane. Coord. Univ. Firenze. Deadline 2022

National Project PRIN 2015 La filiera corta nel settore biomasse-legno: approvvigionamento, tracciabilità, certificazione e sequestro di Carbonio. Innovazioni per la bioedilizia e l'efficienza energetica. Funded by MIUR – Ministero dell'Istruzione, dell'Università e della ricerca con D.M. 1826 del 20/9/2016. Coord Univ Tuscia. Deadline December 2019

International treaty on genetic resources RGV-FAO: Conservazione di RGV Forestali e selezione di latifoglie di pregio e sporadiche da impiegare in selvicoltura e arboricoltura da legno. Finanziamento MiPAAF. Deadline December 2019

TENDER SUGHERA Multifunzionalità delle foreste a quercia da sughero in Sardegna. Duration 2016-2017.

Definition of Guidelines for genetics-based silvicultural management of *Quercus robur* L. forests in Lombardia. Consulting service for Lombardia Region in the framework of the LIFE Project IP Gestire 2020. Duration 2017.

INCREASE An Integrated Network on Climate Change REsearch Activities on Shrubland Ecosystems. FP7 Grant agreement ID: 227628. Duration 2009-2013

Bilateral collaborative international programme Italy-Israel "Harnessing the biodiversity of Mediterranean plants for mitigating the effects of climate change and desertification" funded by the Italian Ministry of Environment and Territory and Sea. Duration 2006-2010

VULCAN Vulnerability Assessment of Shrubland Ecosystems in Europe. FP7 No. EVK2-CT-2000-00094. Duration 2001-2004

Education and training

Dates	14-24 March 2016
Title of qualification awarded	COST FP1202 Short Term Scientific Mission
Principal subjects / occupational skills covered	Population genetics of <i>Betula pendula</i> Roth marginal populations in their Southern european limits
Name and type of organisation providing education and training	Laboratory of Forest Genetics & Tree Breeding, Faculty of Agriculture, Forestry and Natural Environment, Aristotle University of Thessaloniki, EL
Dates	24-26 November 2015
Title of qualification awarded	Genomic Course attendant
Principal subjects / occupational skills covered	Thermocyclers and their applications
Name and type of organisation providing education and training	CREA-GPG, Fiorenzuola d'Arda, RE, Italy
Dates	31 Aug– 4 Sep 2015
Title of qualification awarded	COST MaP Training School
Principal subjects / occupational skills covered	Forest genetic resources of marginal populations of forest trees at high elevation edge
Name and type of organisation providing education and training	Cost Action MaP FP1202: Strengthening conservation: a key issue for adaptation of marginal/ peripheral populations of forest trees to climate change in Europe (MaP-FGR)
Dates	23-25 June 2015
Title of qualification awarded	Genomic Course attendant
Principal subjects / occupational skills covered	Classic sequencing and next generation sequencing
Name and type of organisation providing education and training	CREA-GPG, Fiorenzuola d'Arda, RE, Italy
Dates	01 Jan 2001 - 31 Dec 2003
Title of qualification awarded	PhD in Forest Ecology
Principal subjects / occupational skills covered	In a Mediterranean area, covered by a shrubland vegetation community (gariga), impacts of increased soil and air temperature and extension of the dry period (by an appropriate manipulation system) were analyzed on different functional processes at ecosystem scale (primary productivity, phenology, species competition, nutrient cycling, isotopic composition, soil respiration, N mineralization, litter decomposition). Title of the final thesis (in italian): Climate change effects on a Mediterranean shrubland vegetation: results from the environmental manipulation in the experimental area of Porto Conte (SS).
Name and type of organisation providing education and training	University of Tuscia (Public University) snc, via S. Camillo De Lellis, 01100 Viterbo (Italy)
Dates	Oct 2000 – Jul 2001
Title of qualification awarded	Specialization Course in Bioengineering
Principal subjects / occupational skills covered	Bioengineering, phytoremediation
Name and type of organisation providing education and training	University of Bari (Public University) 165/a, via Amendola, 70126 Bari (Italy)

Dates Oct 1995 – Jul 2000

Title of qualification awarded Master's Degree in Forestry Science

Principal subjects / occupational skills covered Main subjects: Ecology, Botany, Forest management, Plant physiology, Phytoremediation, Bioengineering.
Title of the final thesis: A study on the river vegetation strips: the Celone river (Subappennino dauno).
I analyzed river vegetation in terms of specific composition and structure along the Celone river. Based on biological indexes, the work proposed some actions for its re-qualification.

Name and type of organisation providing education and training University of Bari (Public University)
165/a, via Amendola, 70126 Bari (Italy)

Personal skills and competences

Other language(s)
Self-assessment
European level (*)

	Understanding		Speaking		Writing	
	Listening	Reading	Spoken interaction	Spoken production		
English	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user

(*) [Common European Framework of Reference \(CEF\) level](#)

Certificates:

FCE University of Cambridge ESOL Examinations, Mar 2011
PET University of Cambridge ESOL Examinations, Jun 2002

Linguistic experiences:

Regular private lessons with a native English speaker. Oct 2009 to present.
Intermediate Level English Course at the British Institute of Rome in Viterbo IT. October 2001 – May 2002.
General English course at the Torbay Language Center of Paignton, Devon, England. August 1999.
Daily use of English with native and not English speaker for professionals purposes. Jan 2001 to present

Social skills and competences I usually work in multidisciplinary and small group (3-4 people), discussing issues about methodology and scientific aspects. I have also experience in working in network, in group of 15-20 persons

Organisational skills and competences I can organize field and laboratory campaigns, for data collection and analysis, and dissemination of results

Technical skills and competences Datalogger Management softwares Campbell and Decagon
Specific devices: LI-COR 6400 and LI-COR 8100; EGM-4 PP-Systems; ADC LCA 4; Walz CMS 400; Walz PAM2000
Trime-TDR Imko, HH2 Soil Moisture Meter DeltaT Devices
Thermocyclers

Computer skills and competences OSs: MacOS X, MS Windows Xp/Vista/7/10;
Softwares: MS Office; MS Access;
SYSTAT, STATISTICA, Kaleidagraph Prism, R;
GeneMapper, GenAIEx
Autodesk Autocad, QCAD; ArchView; Adobe Photoshop, GIMP

Driving licence(s) B

Publications

- de Dato G.**, Teani A., Mattioni C., Marchi M, Monteverdi M.C., Ducci F. (2018) Delineation of seed collection zones based on environmental and genetic characteristics for *Quercus suber* L. in Sardinia. *iForest*, 11: 651-659. 10.3832/ifer2572-011
- Liberati D, **de Dato G**, Guidolotti G, De Angelis P (2018) Linking photosynthetic performances with the changes in cover degree of three Mediterranean shrubs under climate manipulation. *Oikos*, 25. 10.1111/oik.05263
- Gavrishkova O, Liberati D, **de Dato G**, Abou Jaoudé R, Brugnoli E, de Angelis P, Guidolotti G, Pausch J, Spohn M, Tian J, Kuzyakov Y (2018) Effects of rain shortage on carbon allocation, pools and fluxes in a Mediterranean shrub ecosystem – a 13 C labelling field study. *Science of the Total Environment*, 627: 1242-1252. 10.1016/j.scitotenv.2018.01.311
- Andresen LC, Domínguez MT, Reinsch S, Smith AR, Schmidt IK, Ambus P, Beier C, Boeckx P, Bol R, **de Dato G**, Emmett BA, Estiarte M, Garnett MH, Kröel-Dulay G, Mason SL, Nielsen CS, Peñuelas J, Tietema A (2018) Isotopic methods for non-destructive assessment of carbon dynamics in shrublands under long-term climate change manipulation. *Methods in Ecology and Evolution*, <http://doi.wiley.com/10.1111/2041-210X.12963>
- Gavrishkova O, Liberati D, Gunina A, Guidolotti G, **de Dato G**, Calfapietra C, De Angelis P, Brugnoli E, Kuzyakov Y (2017) Does long-term warming affect C and N allocation in a Mediterranean shrubland ecosystem? Evidence from a 13C and 15N labeling field study. *Environmental and Experimental Botany*, 141: 170-180. doi: 10.1016/j.envexpbot.2017.07.013
- de Dato G**, Lagomarsino A, Lellei-Kovacs E, Liberati D, Abou Jaoudé R, Marabottini R, Stazi SR, Guidolotti G, Kovacs-Lang E, Kroel-Dulay G, De Angelis P (2017) The Response of Soil CO₂ Efflux to Water Limitation Is Not Merely a Climatic Issue: The Role of Substrate Availability. *Forests*, 8: 241. doi: 10.3390/f8070241
- Guidolotti G, **de Dato G**, Liberati D, De Angelis P (2017) Canopy Chamber: a useful tool to monitor the CO₂ exchange dynamics of shrubland. *iForest* 10, 597-604, doi 10.3832/ifer2209-010
- Reinsch S, Koller E, Sowerby A, **de Dato G**, Estiarte M, Guidolotti G, Kovács-Láng E, Kröel-Dulay G, Lellei-Kovács E, Larsen KS, Liberati D, Peñuelas J, Ransijn J, Robinson DA, Schmidt IK, Smith AR, Tietema A, Dukes JS, Beier C, and Emmett BA (2017) Shrubland primary production and soil respiration diverge along European climate gradient. *Scientific Report* 7: 43952
- Lellei-Kovács E., Botta-Dukát Z., **de Dato G.**, Estiarte M., Guidolotti G., Kopittke G.R., Kovács-Láng E., Kröel-Dulay G., Steenberg Larsen K., Peñuelas J., Smith A.R., Sowerby A., Tietema A., Kappel Schmidt I. (2016) Temperature dependence of soil respiration modulated by thresholds in soil water availability across European shrubland ecosystems. *Ecosystems*. 19, pp. 1460-1477. doi: 10.1007/s10021-016-0016-9
- Carey JC, Tang J, Templer PH, Kroeger KD, Crowther TW, Burton AJ, Dukes JS, Emmett B, Frey SD, Heskell MA, Jiang L, Machmuller MB, Mohan J, Panetta AM, Reich PB, Reinsch S, Wang X, Allison SD, Bamminger C, Bridgman S, Collins SL, **de Dato G**, Eddy WC, Enquist BJ, Estiarte M, Harte J, Henderson A, Johnson BR, Larsen KS, Luo Y, Marhan S, Melillo JM, Peñuelas J, Pfeifer-Meister L, Poll C, Rastetter E, Reinmann AB, Reynolds LL, Schmidt IK, Shaver GR, Strong AL, Suseela V, Tietema A (2016). Temperature response of soil respiration largely unaltered with experimental warming. *Proceedings of the National Academy of Science* 113: 13797–802. doi: 10.1073/pnas.1605365113
- Andresen LC, Müller C, **de Dato G**, Dukes JS, Emmett BA, Estiarte M, Jentsch A, Kröel-Dulay G, Lüscher A, Niu S, Peñuelas J, Reich PB, Reinsch S, Ogaya R, Schmidt IK, Schneider MK, Sternberg M, Tietema A, Zhu K, Bilton MC (2016). Shifting Impacts of Climate Change: Long-Term Patterns of Plant Response to Elevated CO₂, Drought, and Warming Across Ecosystems. *Advances in Ecological Research* 55: 437–73. doi: <http://dx.doi.org/10.1016/bs.aecr.2016.07.001>
- Kröel-Dulay G, Ransijn J, Schmidt IK, Beier C, De Angelis P, **de Dato G**, Dukes JS, Emmett B, Estiarte M, Garadnai J, Kongstad J, Kovács-Láng E, Larsen KS, Liberati D, Ogaya R, Riis-Nielsen T, Smith AR, Sowerby A, Tietema A, Peñuelas J (2015) Increased sensitivity to climate change in disturbed ecosystems. *Nature Communications* 6 doi:10.1038/ncomms7682
- Kuzminsky E, De Angelis P, Abou Jaoudé R, Abbruzzese G, Terzoli S, Angelaccio C, **de Dato G**, Monteverdi M, Valentini R (2014) Biodiversity of Italian *Tamarix* spp. populations: their potential as environmental and productive resources. *Rend Fis Acc Lincei* 25:439–452 doi:10.1007/s12210-014-0309-x
- Vicca S, Bahn M, Estiarte M, Van Loon EE, Vargas R, Alberti G, Ambus P, Arain MA, Beier C, Bentley LP, Borken W, Buchmann N, Collins SL, **de Dato G**, Dukes JS, Escolar C, Fay P, Guidolotti G, Hanson PJ, Kahmen A, Kroel-Dulay G, Ladreiter-Knauss T, Larsen KS, Lellei-Kovacs E, Lebrija-Trejos E, Maestre FT, Marhan S, Marshall M, Meir P, Miao Y, Muhr J, Niklaus PA, Ogaya R, Peñuelas J, Poll C, Rustad LE, Savage K, Schindlbacher A, Schmidt IK, Smith AR, Sotta ED, Suseela V, Tietema A, Van Gestel N, Van Straaten O, Wan S, Weber U, Janssens IA (2014) Can current moisture responses predict soil CO₂ efflux under

altered precipitation regimes? A synthesis of manipulation experiments. *Biogeosciences Discussions* 11:853–899 doi:10.5194/bgd-11-853-2014

de Dato G., Micali M., Liberati D., Abou Jaoudé R., De Angelis P. (2013). Earlier summer drought affects leaf functioning of the Mediterranean species *Cistus monspeliensis* L. *Environmental and Experimental Botany*. DOI: 10.1016/j.envexpbot.2013.03.007

Bruhn D., Larsen K.S., **de Dato G.D.**, Duce P., Zara P., Beier C., Schmidt I.K., Mikkelsen T.N. (2013) Large scale warming of ecosystems: potentials and limitations of infrared reflective curtains. *Agricultural and Forest Meteorology*, 173, 53-62. DOI: 10.1016/j.agrformet.2013.01.004

Reyer C., Leuzinger S., Rammig A, Wolf A., Bartholomeus R. P., Bonfante A., de Lorenzi F., Dury M., Gloning P., Abou Jaoudé R., Klein T., Kuster T. M., Martins M., Niedrist G., Riccardi M., Wohlfahrt G., de Angelis P., **de Dato G.**, François L., Menzel A., Pereira M. (2013) A plant's perspective of extremes: Terrestrial plant responses to changing climatic variability. *Global Change Biology*, 19, 75-89. DOI: 10.1111/gcb.12023.

Abou Jaoudé R., **de Dato G.**, De Angelis P. (2012) Photosynthetic and wood anatomical responses of *Tamarix africana* Poiret to water level reduction after short-term fresh- and saline-water flooding. *Ecological Research*. DOI: 10.1007/s11284-012-0963-3

Abou Jaoudé R., **de Dato G.**, Palmegiani M., De Angelis P. (2012) Impact of fresh- and saline-water flooding on leaf photosynthesis and gas exchanges in two Italian provenances of *Tamarix africana* Poiret. *Plant Biology*. DOI: 10.1111/j.1438-8677.2012.00597.x

de Dato G., De Angelis P., Sirca C., Beier C. (2010) Impact of drought and increasing temperatures on soil CO₂ emissions in a Mediterranean shrubland (gariga). *Plant and Soil*. DOI: 10.1007/s11104-009-0041-y

de Dato G.D., Loperfido L., De Angelis P., Valentini R. (2009) Establishment of a planted field with Mediterranean shrubs in Sardinia and its evaluation for climate mitigation and to combat desertification in semi-arid regions. *iForest – Biogeosciences and Forestry*. DOI: 10.3832/ifor0498-002

Prieto P., Peñuelas J., Niinemets Ü, Ogaya R., Schmidt I.K., Beier C., Tietema A., Sowerby A., Emmett B.A., Kovacs Láng E., Kröel-Dulay G., Lhotsky B., Cesaraccio C., Pellizzaro G., **de Dato G.**, Sirca C., Estiarte M. (2009). Changes in the onset of shrubland species spring growth in response to an experimental warming along a north-south gradient in Europe. *Global Ecology and Biogeography*. DOI: 10.1111/j.1466-8238.2009.00460.x

Beier C., Emmett B., Tietema A., Schmidt I.K., Penuelas J., Kovacs Lang E., Duce P., De Angelis P., Gorissen A., Estiarte M., **de Dato G.D.**, Sowerby A., Kršel-Dulay G., Lellei-Kovacs E., Dyer J., Jones G.E., Kull O., Petersen H., Gjelstrup P., Spano D. (2009). Carbon and nitrogen balances for 6 shrublands across Europe. *Global Biogeochemical Cycles*, DOI:10.1029/2008GB003381

de Dato G., Pellizzaro G., Cesaraccio C., Sirca C., De Angelis P., Duce P., Spano D., Scarascia G. (2008) Effects of warmer and drier climate conditions in plant composition and biomass production in a Mediterranean shrubland community. *iForest* 1: 39-48 [online: Feb 28, 2008] URL: <http://www.sisef.it/iforest>

Estiarte M., Penuelas J., Sardans J., Emmett B.A., Sowerby A., Beier C., Schmidt I.K., Tietema A., Van Meeteren M.J.M., Kovacs Lang E., Mathe P., De Angelis P. and **de Dato G.** (2008) Root-surface phosphatase activity in shrublands across a European gradient: Effects of warming. *Journal of Environmental Biology*, 29, 25-29

Peñuelas J., Prieto P., Beier C., Cesaraccio C, De Angelis P., **de Dato G.**, Bridget A.E., Estiarte M., Garadnai J., Gorissen A., Kovács Láng E., Kröel-Dulay G., Llorens L., Pellizzaro G., Riis-Nielsen T., Schmidt I.K., Sirca C., Sowerby A., Spano D, Tietema A. (2007) Response of plant species richness and primary productivity in shrublands along a north-south gradient in Europe to seven years of experimental warming and drought. Reductions in primary productivity in the heat and drought year of 2003. *Global Change Biology*, 13: 2563-2581.

Gavrichkova O., Tian J., Spohn M., Guidolotti G., **de Dato G.**, Liberati D., Pausch J., De Angelis P., Brugnoli E., Kuzyakov Y. Effect of prolonged drought on c allocation to pools and fluxes in a mediterranean shrub ecosystem – a 13C labeling field study. *Tree physiology*. under review

Guidolotti G, de Dato, G, Liberati D, De Angelis P Canopy Chamber: a useful tool to monitor the CO₂ exchange dynamics of ecosystems; a trial in a Mediterranean garrigue. *Journal of Arid Environment*. under review

In preparation Genetic analysis by nuSSR markers of silver birch (*Betula pendula* Roth) populations in their southern European distribution range

Assessing responses to drought of cork oak seedlings deriving from populations selected along a latitudinal gradient in Sardinia

de Dato G., Monteverdi MC., Lauteri M., Proietti R., Teani A., Ducci F. Oral presentation. Assessing responses to drought of cork oak seedlings deriving from populations selected along a latitudinal gradient in Sardinia. IV National Congress of Silviculture. Turin, 5-9 November 2018.

de Dato G., Teani A., Romagnoli M., Scarascia Mugnozza G. Poster Development of log traceability techniques by genetic and chemical characterization of beech (*Fagus sylvatica* L.) wood in Italy. IV National Congress of Silviculture. Turin, 5-9 November 2018.

de Dato G., Monteverdi MC, Lauteri M., Proietti R., Teani A., Ducci F. Poster Assessing responses to drought of cork oak seedlings deriving from populations selected along a latitudinal gradient in Sardinia. Roots to riches – Genetics and products of stone pine and Mediterranean oak. EFI Meeting. Alghero, 26 September 2018

G. de Dato, A. Teani, C. Mattioni, M.C. Monteverdi, E.V. Avramidou, I. Ganopoulos, S. Stojnic, F. Aravanopoulos, F. Ducci Poster. Genetic structure of *Betula pendula* marginal populations in their southern European limits. Biodiversità 2018, XII National Congress. Teramo, 13-15 June 2018

Fulvio Ducci, Roberta Proietti, **Giovanbattista de Dato**, Maria Cristina Monteverdi, Piero Belletti & Enrico Calvo: Restoring oak populations: a case study of applied assisted migration applied on *Quercus robur* [Po Valley, Italy]. Oral presentation. Joint International IUFRO Congress PACO 2017 - Sustainable restoration of Mediterranean forests. Analysis and perspective within the context of bio-based economy development under global changes. Palermo 19-21 April 2017

F. Ducci, Proietti R., **de Dato G.**, Monteverdi M. C., Belletti P., Calvo E., Ducci F. Assisted migration: a study case on *Quercus robur* L. in a long anthropic history context (Po valley, Italy). Oral presentation. IFES - International Forestry and Environment Symposium on "Climate Change and Tree Migration" Trabzon, (Turchia), 7 – 10 Novembre 2017

de Dato G., Teani A., Mattioni C., Monteverdi M.C., Ducci F. Genetic structure of *Quercus suber* populations in Sardinia for their exploitation as seed stands. Oral presentation. International congress on cork oak trees and woodlands - Conservation, Management, Products and Challenges for the Future. 3° National Congress of Cork. Sassari, May 25 – 26 2017

Maltoni S., Casula A., Patteri G., Cinus G., Cubeddu G., Monteverdi M.C., **de Dato G.**, Ducci F. The certification of cork oak reproductive material in sardinia following the 1999/105/CE Directive. Oral presentation. International congress on cork oak trees and woodlands - Conservation, Management, Products and Challenges for the Future. 3° National Congress of Cork. Sassari, May 25 – 26 2017

Monteverdi M.C., **de Dato G.**, Mulas M., Arcadu M., Germani A., Proietti R., Addis M., Casula A., Maltoni S., Ducci F. Identification of cork characters for phenotypic selection. Oral presentation. International congress on cork oak trees and woodlands - Conservation, Management, Products and Challenges for the Future. 3° National Congress of Cork. Sassari, May 25 – 26 2017

Proietti R., **de Dato G.**, Dettori S., Marchi M., Monteverdi M.C., Zucca M., Ducci F. One year monitoring of bud break phenology in a FAIR 202 (Grighine, Sardinia) international field test. Oral presentation. International congress on cork oak trees and woodlands - Conservation, Management, Products and Challenges for the Future. 3° National Congress of Cork. Sassari, May 25 – 26 2017

Monteverdi M.C., Lauteri M., **de Dato G.**, Germani A., Proietti R., Mulas M., Arcadu M., Maltoni S., Casula A., Ducci F. Climate change influences on annual cork growth and quality. Oral presentation. International congress on cork oak trees and woodlands - Conservation, Management, Products and Challenges for the Future. 3° National Congress of Cork. Sassari, May 25 – 26 2017

Monteverdi MC, Pelleri F, Sansone D, Germani A, Proietti R, **de Dato G**, Ducci F Structural characterization and diversity of *Betula pendula* Roth marginal (MaP) populations along an altitudinal gradient in Central Italy. Poster. Cost Action MaP FP1202: Strengthening conservation: a key issue for adaptation of marginal/ peripheral populations of forest trees to climate change in Europe (MaP-FGR) final conference, 26-29 September 2016, Arezzo (AR) IT

de Dato G. Teani A, Mattioni C, Monteverdi MC, Avramidou E, Ganopoulos I, Malliarou E, Villani F, Aravanopoulos F, Ducci F Population genetics of *Betula pendula* Roth marginal populations in their Southern European limits. Oral presentation. Cost Action MaP FP1202: Strengthening conservation: a key issue for adaptation of marginal/ peripheral populations of forest trees to climate change in Europe (MaP-FGR) final conference, 26-29 September 2016, Arezzo (AR) IT

de Dato G, Teani A, Mattioni C, Monteverdi MC, Avramidou E, Ganopoulos I, Malliarou E, Villani F, Aravanopoulos F, Ducci F Population genetics of *Betula pendula* Roth marginal populations in their Southern European limits. Poster. IUFRO conference " Genomics and forest tree genetics", 30 May - 3 June 2016, Arcachon, Bordeaux, F

Reinsch S, Koller E, Sowerby A, **de Dato G**, Estiarte M., Guidolotti G, Kovács-Láng E., Kröel-Dulay G, Lellei-Kovács E, Larsen KS, Liberati D, Penuelas J, Ransijn J, Robinson DA, Schmidt IK, Smith AR, Tietema A, Dukes JS, Emmett BA Soil respiration is more sensitive to drought and warming than aboveground net primary productivity across 7 European shrublands. Poster. EGU General Assembly 2016, Vienna

de Dato G, Liberati D., Guidolotti G., De Angelis, Beier C., Kappel-Schmidt I. Mediterranean shrubland responses to climate changes: the results of a long-term climate manipulation experiment. Poster. Science Symposium on Climate. 19-20 November 2015, FAO, Rome

Liberati D, Guidolotti G, **de Dato G**, De Angelis P. Warming-induced stimulation of carbon uptake in a mediterranean garrigue: a possible involvement of nitrogen cycle. Poster. 2nd annual meeting Cost Climmani. 28-30 September 2015, Poznan, Poland

Guidolotti G, Liberati D, **de Dato G**, De Angelis P. Warming-induced stimulation of carbon uptake in a mediterranean garrigue: a possible involvement of nitrogen cycle. Oral presentation. Congress EEF/SiTe Ecology at the interface. 21-24 September 2015, Roma, IT

de Dato G, Lagomarsino A., Stazi, S.R., Marabottini R., Kröel-Dulay G., De Angelis P. Soil CO₂ efflux regulation to drought in two different European shrublands: the role of substrate availability. Oral presentation. X Congress of the Italian Forestry and Ecological Society SISEF. 15-18 September, Florence, IT

Guidolotti G., Larsen K.S., **de Dato G**, van Baarsel S., Lellei-Kovács E., Kopittke G., Tietema A., Emmet E., De Angelis P., Schmidt I.K. Effects of drought and warming treatments on CO₂ fluxes in shrubland ecosystems across an environmental gradient: a synthesis of the INCREASE project. Oral presentation. EGU General Assembly 2013, Vienna

Liberati D., Guidolotti G., **de Dato G**, De Angelis P. Is the photosynthesis response to drought stress related to long term plant success in a rainfall exclusion experiment? Poster. EGU General Assembly 2013, Vienna

Abou Jaoudé R., Pricop A., Laffont-Schwob I., Prudent P., Rabier J., Masotti V., **de Dato G**, De Angelis P. Interaction between salinity and heavy-metals on *Tamarix gallica* L., a potential candidate for phytoremediation of Mediterranean coastal polluted soils. Poster. EGU General Assembly 2012, Vienna

Gavrichkova O., Tian J., Spohn M., Guidolotti G., **de Dato G**, Liberati D., Pausch J., Brugnoli E., De Angelis P., Kuzyakov Y.. Effects of drought on C allocation and turnover in a Mediterranean shrub community - A 13C field labeling study. Oral presentation. EGU General Assembly 2012, Vienna

Liberati D., Guidolotti G., **G. de Dato G**, De Angelis P. Adaptation mechanism to drought in the Mediterranean shrub *Cistus monspeliensis*. Oral presentation. EGU General Assembly 2012, Vienna

Guidolotti G., Liberati D., **de Dato G**, De Angelis P. Impact of drought stress on photosynthetic and respiratory C fluxes in a Mediterranean shrubland. Poster. EGU General Assembly 2012, Vienna

de Dato G, Lagomarsino A., Abou Jaoudé R., De Angelis P. Soil carbon sequestration and mineralization potential in an old-field revegetated with shrubs in semi-arid climate conditions. Poster. EGU General Assembly 2012, Vienna

Liberati D., Guidolotti G., **de Dato G**, De Angelis P. A Mediterranean shrub species in a drier climate. Poster. 10th International NCCR Summer School. 4 – 9 September 2011, Grindelwald, CH

Abou Jaoudé R., **de Dato G**, De Angelis P. Salinity As A Potential Determinant Of *Tamarix* Species Distribution In Italy. Oral presentation. Cost Fa0901 Wg1 Meeting "Ecology Of Halophytes And Saline Habitats" Nicolaus Copernicus University, Torun, Poland, 11-12 May 2011

Abou Jaoudé R., **de Dato G**, Palmegiani M., Radocchia C., De Angelis P. *Tamarix* spp.: populations, plants and leaf responses under extreme environmental constraints. Poster. EGU General Assembly, Vienna, April 2011

Guidolotti G., Liberati D., **de Dato G**, De Angelis P. Impact of climate manipulation on carbon fluxes of a Mediterranean shrubland in Sardinia. Poster. EGU General Assembly, Vienna, April 2011

De Angelis P., **de Dato G**, Guidolotti G., Liberati D. Impact of climate manipulation on a Mediterranean shrubland ecosystem. Poster. EGU General Assembly, Vienna, April 2011

Abou Jaoudé R., **de Dato G**, De Angelis P. Ecological characterization of *Tamarix* spp. populations of southern Italy under different environmental constraints. Congress

Conservation and sustainable use of wild plant diversity. Institute of Theology and Ecology Orthodox Academy of Crete, Chania (Greece) 3 – 8 May 2010

de Dato G., De Angelis P. An afforestation activity by mediterranean shrubs in Sardinia by autochthonous species. Poster. 7th European Conference on Ecological Restoration SER 2010 "Ecological Restoration and Sustainable Development - Establishing Links Across Frontiers". Avignon F, 23-27 August 2010

de Dato G., De Angelis P., et al. Changes of ecosystem functions in a Mediterranean shrubland exposed for eight years to prolonged summer droughts. Poster. EGU General Assembly, Vienna, 2-5 May 2010

de Dato G., De Angelis P. Soil carbon changes after plantation of autochthonous species in a semi-arid Mediterranean old-field in Sardinia. Poster. EGU General Assembly, Vienna, 2-5 May 2010

Abou Jaoudé R., De Angelis P., **de Dato G.**, Palmegiani M., Valentini R. *Tamarix* spp. tolerance to continuous flooding with salt water: a comparison of two italian provenances. Poster. Putting Halophytes to work – From genes to ecosystems. Naples, 12-13 March 2010

de Dato G., De Angelis P. Morphological and functional adaptations in *Cistus monspeliensis* L. leaves facing a natural and a prolonged summer aridity. Oral presentation. Climmani workshop. Basilea CH, 21-23 October 2009

de Dato G., De Angelis P., Pellizzaro G., Cesaraccio C., Sirca C., Duce P., Spano D., Scarascia Mugnozza G. Observations of the effects of a dry and warmer climate on the main functional processes of Mediterranean shrubland in Sardinia (Italy). Oral presentation. International Mediterranean Ecosystems Conference Medecos XI 2007. 2-5 September 2007, Perth, West Australia, Australia

de Dato G., De Angelis P., Valentini R. Establishment and evaluation of a planted area with Mediterranean shrubs in Sardinia for climate mitigation and to combat desertification. Poster. International Mediterranean Ecosystems Conference Medecos XI 2007. 2-5 September 2007, Perth, West Australia, Australia

de Dato G.D., De Angelis P., Sirca C., Scarascia Mugnozza G. Natural occurring drought is the main driver of the functional responses of soil respiration to climate in a Mediterranean shrubland. Oral presentation. International congress Soil processes under extreme meteorological conditions. 25-28 February 2007, Bayreuth, DE

de Dato G., De Angelis P., Spano D., Duce P., Sirca C., Pellizzaro G., Cesaraccio C., Scarascia Mugnozza G. The impact of night-time warming and increasing drought period in a Mediterranean shrubland. Poster. The vulnerability of Mediterranean Terrestrial Ecosystems to Climate Change. Aula Marconi, Consiglio Nazionale delle Ricerche, Rome, 26-28 April 2006

Pellizzaro G., Cesaraccio G., Sirca C., **de Dato G.** Mediterranean shrublands growth responses to warming and drought conditions. Poster. 26th Conference on the Agriculture and Forest Meteorology, Vancouver 23-27 August 2004

De Angelis P., **de Dato G.**, Scoppola A., Spano D., Sirca C., Asunis C., Sechi S., Pierpaolo Duce, Pellizzaro G., Cesaraccio C., D'Angelo M. & Scarascia-Mugnozza G. Vulnerability assessment of shrubland ecosystems in Europe under climatic changes. Poster. I IGBP National Conference Nazionale, Paestum (Salerno), Italia, 14-16 November 2002

Duce P., Cesaraccio C., Pellizzaro G., Spano D., Asunis C., Sirca C., Sechi S., Caria C., Arca A., Scarascia Mugnozza G., De Angelis P., **de Dato G.** Shrubland ecosystems in Europe under climatic changes: preliminary results from a Mediterranean ecosystem. Poster. XVI International Congress on Biometeorology. Kansas City, MO, USA, 28 October – 1 November 2002

Other competences

Passed selection

Call for expressions of interest for contract agents researchers – function group IV Profile 4: Agricultural, Environmental and Earth Sciences EPSO/CAST/S/5/2013. Selection procedure requested by the European Commission (EC) and in particular the Joint Research Centre (JRC), to set up a database of successful candidates from which to recruit research contract staff

Supervision of students

2017

Agnese Denaro, Master student. Long-term soil C change after afforestation with Mediterranean shrub species under a semi-arid climate. University of Tuscia, Viterbo

2009-2011

Dario Liberati, PhD student. Morphological and phenologic adaptations of a shrubland under drier and warmer climatic conditions. University of Tuscia, Viterbo

2009-2011

Gabriele Guidolotti, PhD student. Community level gas exchange of a Mediterranean shrubland under drier and warmer climatic conditions. University of Tuscia, Viterbo

- 2008-2010 Renée Abou Jaoudé, PhD student. Harnessing the biodiversity of Italian *Tamarix* species: populations, plants and leaf responses to extreme environmental constraints. University of Tuscia, Viterbo
- 2010 Elisabetta Danna, Master student. Analysis of plant performance in a plantation with shrub species in Sardinia after 3 years. University of Tuscia, Viterbo
- 2009 Marco Micali, Master Student. Morphological and phenologic adaptations of *Cistus monspeliensis* leaves to a prolonged drought. University of Tuscia, Viterbo
- 2007 Guidolotti Gabriele, Master Student. Ecosystem respiration components in a Mediterranean beech forest. University of Tuscia, Viterbo
- 2007 Luca Loperfido, Master student. Setting a plantation with shrubs in an area with arid climate to combat desertification and climate change. University of Tuscia, Viterbo

Reviewer for the following journals

- Science of Total Environment
- Environmental and Experimental Botany
- Global Change Biology
- International Journal of Biometeorology
- Journal of Arid Environment
- Biological Journal of the Linnean Society
- Photosynthetica
- Forests