

CV of Giandiego Campetella

Research topics

Assembly rules, Community organization, Vegetation dynamics, Spatial statistics, Forest ecology, Coppice regeneration; Landscape ecology

Research Activities

- His research activities concentrate on problems of forest vegetation sampling in permanent plots, with particular focus on monitoring activities, as well as vegetation dynamics and structure. His main interests is related to plant community assembly rules evaluated by spatial statistics and coenological descriptors (information Theory based).
- His recent interests are concentrating on plant clonal traits use and plant functional types in community ecology, with particular focus on Apennines grasslands and forests.

Projects

- 1994 – 1995 C.N.R., Strategic project *Clima Ambiente e Territorio nel Mezzogiorno*. with PI Prof. Franco perdrotti;
- 1996 – Ministero per le Politiche agricole e Forestali, UE, CON.ECO.FOR. - Monitoring of forest Ecosystems in the Con.eco.for. Italian Network (ICP-IM): Ground Vegetation Assessment. with PI Dr. Bruno Petriccione, Prof. Roberto Canullo.
- 2004 – Altnet, EU - A Long-Term Biodiversity, Ecosystem and Awareness Research Network. with PI Dr. Therry Parr, Dr. Bruno Petriccione.
- 2005 - National Research Foundation of South Africa. Researcher Overseas Inter-institutional of the project “Principles of plant functional typology and role of plant functional traits in community assembly / ecological scales in plant community assembly: abiotic filters and assembly rules”. with PI Prof. L. Mucina.
- 2006 – Italian LTER network – International Long Term Ecological Research. Dr. Petriccione and Prof. Viaroli.
- 2006 – ICP Forest: BioSoil – Biodiversity: forest biodiversity assessment on the Level I European Network. with PI Dr. Petriccione, Prof. Canullo.
- 2006 - Leader + “Ecology management and improvement of mountain landscape. Leader +, Laboratory of environment and landscape - Research and development of ecological management guide-line: the beech coppice forests.” with PI Prof. Roberto Canullo.
- 2009 LIFE+ 07ENV *Fut-Mon - Further Development and Implementation of an EU-level Forest Monitoring System “Action C1-GV-15(IT): Quality and expertise*

- within ground vegetation assessments*” Ministero delle Politiche Agricole, Alimentari e Forestali, Corpo Forestale dello Stato – Ufficio CONECOFOR.
- 2009 LIFE+ 07ENV *FutMon Mon - Further Development and Implementation of an EU-level Forest Monitoring System “Action Group IM1: Selection of core plots for intensive monitoring”*. Ministero delle Politiche Agricole, Alimentari e Forestali, Corpo Forestale dello Stato – Ufficio CONECOFOR.
 - 2009-2012 *PROTECT – An integrated European Model to Protect the Mediterranean Forest from fire*. MED Programme, co-financed by European Regional Development. Coord. Prof.ssa Eleonora Paris.
 - 2012 – 2013 Contract for Research and Development on Collection of forest ecological data and joint research based on a newly created data base. Project coordinated by Prof. Roberto Canullo and financed from Johann Heinrich von Thünen Institute, Federal Research Institute for Rural Areas, Forestry and Fisheries - Institute of World Forestry Hamburg (D).
 - 2013 - SIGNAL Project, (European call BiodivERsA2012-77) “European gradients of resilience in the face of climate extremes” 2013-2015. Dr. Campetella is the responsible of the Italian team, partner of the project. Website: <http://www.bayceer.uni-bayreuth.de/signal/index.php?lang=en>

He's a member of a JOINT RESEARCH PROJECT *Functional diversity of Quercus pubescens Wild*. Cooperation with Universities of Bayreuth and Roma “La Sapienza” (2009).

Teaching activity

Camerino University courses:

- Plant Biology and Systematic
- Biodiversity Assessment
- Landscape Ecology
- Cell and Tissue Structures and Functions

Curriculum vitae

Education:

20.04.1999: Ph.D. in Geobotany and Plant Ecology, thesis: “Understory Spatial Structure and Scale in Permanent Monitoring Plots. Pavia University, Supervisors: Prof. Franco Pedrotti, Prof. Roberto Canullo and Prof. Sandor Bartha.

15.07.1993: M.Sc. in Forestry, thesis: Anthropic pressure and conservation of the Abbazia di Fiastra woodland. Florence University, Supervisors: Prof. Paolo Grossoni, prof. Alfredo Murri and Dr. Alessandro Bottacci.

Professional experience:

01.11.2019-present: Associate Professor at the School of Biosciences and Veterinary Medicine, Botany and Ecology section, University of Camerino, Italy.

06.11.2018: Obtained the National FULL Professor Habilitation in Botany, valid till to 21.07.2027.

21.07.2017: Obtained the National Associate Professor Habilitation in Botany, valid till to 21.07.2023.

01.10.2004-01.11.2019: Researcher at the Department of Environmental Science, Botany and Ecology section, University of Camerino, Italy.

16.01.2001: Prof. Habil. at Secondary School (Natural sciences, Chemistry, Geography and Microbiology)

2001-2003: Research contract at the Department of Botany and Ecology of the Camerino University, Italy

1996-1997: Visiting Scientist with a PhD Scholarship at the Institute of Botany and Ecology of the Hungarian Academy of Sciences, Vacratot, Hungary.

1996-1999: Ph.D. student, Supervisor: Prof. Roberto Canullo and Prof. Franco Pedrotti.

Reviewer:

Dr. Campetella have been Reviewer for the following Scientific Journal:

Il Dr. Campetella effettua attività di revisione di articoli scientifici per le seguenti riviste:

-Forest Ecology and Management (Internazionale ISI)

-Community Ecology (Internazionale ISI)

-Journal of Vegetation Science (Internazionale, ISI)

-Agriculture, Ecosystems & Environment (Internazionale ISI)

-Biodiversity and Conservation (Internazionale ISI)

-Acta Oecologica (Internazionale ISI)

-iForest/Forest@ (Internazionale ISI)

-Annali Istituto Sperimentale per la Selvicoltura di Arezzo (Internazionale)

- Journal of Total Environment (Internazionale ISI)

- Plant Ecology (Internazionale ISI)

- *Scientific Reports (Internazionale ISI)*.

Some relevant papers:

CAMPETELLA, G., CHELLI, S., SIMONETTI, E., DAMIANI, C., BARTHA, S.C, WELLSTEIN, C., GIORGINI, D., PULETTI, N., MUCINA, L.G, CERVELLINI, M., CANULLO, R. 2020 - Plant functional traits are correlated with species persistence in the herb layer of old-growth beech forests. *Scientific Reports*, Volume 10, Issue 1, Article 19253.

OTTAVIANI, G., MOLINA-VENEGAS, R., CHARLES-DOMINIQUE, T., CHELLI, S., CAMPETELLA, G., CANULLO, R., KLIMEŠOVÁ, J., 2020 - The Neglected Belowground Dimension of Plant Dominance. *Trends in Ecology and Evolution*, Volume 35, Issue 9, Pages 763-766.

BARTHA, S., CANULLO, R., CHELLI, S., CAMPETELLA, G., 2020 – Unimodal relationships of understory alpha and beta diversity along chronosequence in coppiced and unmanaged beech forests. *Diversity*, 12(3), 1 March 2020, Article number 101.

STOTZ, G.C., CAHILL, J.F., BENNETT, J.A., CARLYLE, C.N., BORK, E.W., ASKARIZADEH, D., BARTHA, S., BEIERKUHNLIN, C., BOLDOG, B., BROWN, L., CABIDO, M.K, CAMPETELLA, G., CHELLI, S., COHEN, O., DÍAZ, S., ENRICO, L., ENSING, D., ERDENETSETSEG, B., FIDELIS, A., GARRIS, H.W., 2020 - Not a melting pot: Plant species aggregate in their non-native range. *Global Ecology and Biogeography*, Volume 29, Issue 3, Pages 482-490.

CHELLI, S., OTTAVIANI, G., SIMONETTI, E., WELLSTEIN, C., CANULLO, R., CARNICELLI, S., ANDRETTA, A., PULETTI, N., BARTHA, S., CERVELLINI, M., CAMPETELLA, G., 2019 - Climate is the main driver of clonal and bud bank traits in Italian forest understories. *Perspectives in Plant Ecology, Evolution and Systematics*, 40, Article number 125478.

CAMPETELLA, G., CHELLI, S., WELLSTEIN, C., FARRIS, E., CALVIA, G., SIMONETTI, E., BORSUKIEWICZ, L., VANDERPLANK, S., MARIGNANI, M., 2019 - Contrasting patterns in leaf traits of Mediterranean shrub communities along an elevation gradient: measurements matter. *Plant Ecology* Volume 220, Issue 7-8, 765-776.

BJORKMAN A.D., MYERS-SMITH I.H., ELMENDORF S.C., NORMAND S., RÜGER N., BECK P.S.A., BLACH-OVERGAARD A., BLOK D., CORNELISSEN J.H.C., FORBES B.C., GEORGES D., GOETZ S.J., GUAY K.C., HENRY G.H.R., HILLERISLAMBERS J., HOLLISTER R.D., KARGER D.N., KATTGE J.I, MANNING P., PREVÉY J.S., RIXEN C., SCHAEPMAN-STRUB G., THOMAS

H.J.D., VELLEND M., WILMKING M., WIPF S., CARBOGNANI M., HERMANUTZ L., LÉVESQUE E., MOLAU U., PETRAGLIA A., SOUDZILOVSKAIA N.A., SPASOJEVIC M.J., TOMASELLI M., VOWLES T., ALATALO J.M., ALEXANDER H.D., ANADON-ROSELL A., ANGERS-BLONDIN S., BEEST M., BERNER L., BJÖRK R.G., BUCHWAL A., BURAS A., CHRISTIE K., COOPER E.J., DULLINGER S., ELBERLING B., ESKELINEN A.I, FREI E.R., GRAU O., GROGAN P., HALLINGER M., HARPER K.A., HEIJMANS M.M.P.D., HUDSON J., HÜLBER K., ITURRATE-GARCIA M., IVERSEN C.M., JAROSZYNSKA F., JOHNSTONE J.F., JØRGENSEN R.H., KAARLEJÄRVI E., KLADY R., KULEZA S., KULONEN A., LAMARQUE L.J., LANTZ T., LITTLE C.J.X, SPEED J.D.M., MICHELSE, A., MILBAU A., NABE-NIELSEN J., NIELSEN S.S.B, NINOT J.M.AJ,AK, OBERBAUER S.F., OLOFSSON J., ONIPCHENKO V.G., RUMPF S.B., SEMENCHUK P., SHETTI R., COLLIER,L.S., STREET L.E., SUDING K.N., TAPE K.D., TRANT A., TREIER U.A., TREMBLAY J.-P., TREMBLAY M., VENN S., WEIJERS S., ZAMIN T., BOULANGER-LAPOINTE N., GOULD W.A., HIK D.S., HOFGAARD A., JÓNSDÓTTIR I.S., JORGENSON J., KLEIN J., MAGNUSSON B., TWEEDIE C., WOOKEY P.A., BAHN M., BLONDER B., VAN BODEGOM P.M., BOND-LAMBERTY B, CAMPETELLA G., CERABOLINI B.E.L., CHAPIN F.S., CORNWELL W.K., CRAINE J., DAINESE M., DE VRIES F.T., DÍAZ S.CT, ENQUIST, B.J.CU,CV, GREEN, W.CW, MILLA, R.CX, NIINEMETS, Ü.CY, ONODA, Y.CZ, ORDOÑEZ, J.C., OZINGA W.A., PENUELAS J., POORTER H., POSCHLOD P., REICH P.B., SANDEL B., SCHAMP B., SHEREMETEV S., WEIHER E. 2018 - Plant functional trait change across a warming tundra biome. *Nature* 562(7725), 57-62.

BUTLER E.E., DATTA A., FLORES-MORENO H., CHEN M., WYTHERS K.R., FAZAYELI F.D, BANERJEE A., ATKIN O.K., KATTGE J., AMIAUD B., BLONDER B., BOENISCH G., BOND-LAMBERTY B., BROWN K.A.L, BYUN C., CAMPETELLA G., CERABOLINI B.E.L., CORNELISSEN J.H.C., CRAINE J.M., CRAVEN D., DE VRIES F.T., DÍAZ S., DOMINGUES T.F., FOREY E., GONZÁLEZ-MELO A., GROSS N., HAN W., HATTINGH W.N., HICKLER T., JANSSEN S., KRAMER K., KRAFT N.J.B., KUROKAWA H., LAUGHLIN D.C., MEIR P.F, MINDEN V., NIINEMETS Ü., ONODA Y., PEÑUELAS J., READ Q., SACK L., SCHAMP B., SOUDZILOVSKAIA N.A., SPASOJEVIC M.J., SOSINSKI E., THORNTON P.E., VALLADARES F., VAN BODEGOM P.M., WILLIAMS M., WIRTH C., REICH P.B., SCHLESINGER W.H. 2018 - Mapping local and global variability in plant trait distributions. *Proceedings of the National Academy of Sciences of the United States of America*, Volume 114, Issue 51, 19 December 2017, Pages E10937-E10946

KREYLING, J., DENGLER J., WALTER J., VELEV N., UGURLU E., SOPOTLIEVA D., RANSIJN J., PICON-COCHARD C., NIJS I., HERNANDEZ P., GÜLER B., VON GILLHAUSSEN P., DE BOECK H., BLOOR J.M.G., BERWAERS S., BEIERKUHNLEIN C., ARFIN KHAN M.A.S., APOSTOLOVA I., ALTAN Y., ZEITER M., WELLSTEIN C., STERNBERG M., STAMPFLI A., CAMPETELLA

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WELLSTEIN C., POSCHLOD P., GOHLKE A., CHELLI S., CAMPETELLA G., ROSBAKH S., CANULLO R., KREYLING J., JENTSCH A., BEIERKUHNLEIN C. 2017 - Effects of extreme drought on specific leaf area of grassland species: A meta-analysis of experimental studies in temperate and sub-Mediterranean systems. *Global Change Biology*, Volume 23, Issue 6, June 2017, Pages 2473-2481.

CAMPETELLA G., CANULLO R., GIMONA A., GARADNAI J., CHIARUCCI A., GIORGINI D., ANGELINI E., CERVellini M., CHELLI S., BARTHA S. 2016 - Scale-dependent effects of coppicing on the species pool of late successional beech forests in the central Apennines, Italy. *Applied Vegetation Science*, Volume 19, Issue 3, 1 July 2016, Pages 474-485.

FRASER L.H., PITHER J., JENTSCH A., STERNBERG M., ZOBEL M., ASKARIZADEH D., BARTHA S., BEIERKUHNLEIN C., BENNETT J.A., BITTEL A., BOLDRIV B., BOLDRINI I., BORK E., BROWN L., CABIDO M., CAHILL J., CARLYE C.N., CAMPETELLA G., CHELLI S. et .al., 2015. Worldwide evidence of a unimodal relationship between productivity and plant species richness. *Science* 349(6245), 302 – 205.

CHELLI S., MAPONI P., CAMPETELLA G., MONTEVERDE P., FOGLIA M., PANAGOPOULOS T., LOLIS A. PARIS E., 2014. Adaptation of the Canadian fire weather index to Mediterranean forests". *Natural Hazards*, DOI 10.1007/s11069-014-1397-8.

WELLSTEIN C., CAMPETELLA G., SPADA F., CHELLI S., MUCINA L., CANULLO R., BARTHA S., 2014. Context-dependent assembly rules and the role of dominating grasses in semi-natural abandoned sub-Mediterranean grasslands. *Agriculture Ecosystems Environment*, electronic vers. <http://dx.doi.org/10.1016/j.agee.2013.12.016>

CANULLO R., CAMPETELLA G., CHELLI S., CERVellini M., 2013 - Relationships between Urban Green Spaces and surrounding Nature Areas. In Sargolini M. (ed.) "Urban Landscapes", pp. 97-98, Springer-Verlag, Italia 2013, ISBN: 978-88-470-2879-1.

PAL R. W., PINKEB G., BOTTA-DUKÁT Z., CAMPETELLA G., BARTHA S., KALOCSAIE R., LENGYELF A., 2012 - Can management intensity be more important than environmental factors? a case study along an extreme

elevation gradient from Central Italian cereal fields. *Plant Biosystem*, 147, 343-353.

WELLSTEIN C., CHELLI S., CAMPETELLA G., BARTHA S., GALIÈ M., SPADA F. & CANULLO R., 2012 - Intraspecific phenotypic variability of plant functional traits in contrasting mountain grasslands habitats. *Biodiversity and Conservation*, 22(10), 2353-2374.

BARTHA S., CAMPETELLA G., KERTESZ M., HAHN I., KROEL-DULAY GY., REDEI T., KUN A., VIRAGH K., FEKETE G., KOVACS-LANG E., 2011 Beta diversity and community differentiation in dry perennial sand grasslands. *Annali di Botanica*, 1: 9-18.

CAMPETELLA G., BOTTA-DUKÁT Z., WELLSTEIN C., CANULLO R., GATTO S., CHELLI S., MUCINA L., BARTHA S., 2011 Patterns of plant trait–environment relationships along a forest succession chronosequence. *Agriculture, Ecosystems and Environment*, 145: 38-48.

CANULLO, R., CAMPETELLA, G., MUCINA, L., CHELLI, S., WELLSTEIN, C., BARTHA, S., 2011. Patterns of clonal growth modes along a chronosequence of post-coppice forest regeneration in beech forests of Central Italy. *Folia Geobotanica* 46, 271–288.

ALLEGRI M.C., CANULLO R., CAMPETELLA G., 2009 – ICP-Forest (International Co-operative Programme on Assessment and Monitoring of Air Pollution Effects on Forests): Quality Assurance procedure in plant diversity monitoring. *Journal of Environmental Monitoring*, 11(2): 237-448.
