

Dr. Paola Mairota

1987 Forestry Degree with Honour University of Bari (Italy)

1996 Certificate of Proficiency in English (C2), University of Cambridge (UK).

1987 Professional qualification in Forestry.

1992 Enlistment in the Ordine dei Dottori Agronomi e Forestali of the Province of Bari.

1993-95 Research assistant at the Geography Department, King's College London, University of London, UK - Mediterranean Desertification and Land Use II (MEDALUS II) EU research project contract number EVCV-CT92-0166. Coordinator Prof. J.B. Thornes.

2005 Researcher University of Bari (Italy) (AGR/05 - Silviculture and forest management)

2007 PhD in Forest Ecology University of Tuscia, Viterbo (Italy)

2009 Confirmed in the position as a researcher (DR n. 3688 March 31st 2009)

2017 National Scientific Qualification as Associate Professor sector 07/B2

She obtained several fellowships aimed at research activities at foreign institutions and attended many specialising workshops, both national and international, has carried out significant teaching and consultancy activities related to nature conservation, forest resources and nature parks and reserves and worked at research institutions also in coordinating roles.

As from 1992, she carries out research (at both Italian and international research institutions, also in coordination capacities) following a path constantly referred to the study of both theoretical, methodological and applied aspects relevant to the management and conservation of forest ecosystems within a landscape ecological perspective and mainly with reference to Mediterranean environments. Within this framework, she is member of the IUFRO Unit 8.01.02 (Landscape ecology) and IALE, and has activated several international research relationships, participating in team research work with a personal contribution to the study of time-space relationships and multi-scale processes of Mediterranean ecosystems and landscapes.

Her research interests are in issues relevant to management/conservation of forests, by means of enquiries on themes concerning the framing of public forest management within the administrative, juridical, and historic context. She is also interested in the ecological functioning of forests and within the landscape, by means of studies in Landscape Ecology. These are relevant to the analysis of the existing relationships between this science and those specifically focusing on integrated forest management, the analysis of structure, functioning and change of southern European landscapes, space/time domains of EU Community rural development and agricultural policies the role of such policies in land degradation desertification processes.

More recently, her research activities are based on the ecosystem approach and focused on Mediterranean forest ecosystems within the framework of the hierarchical organisation of systems of ecosystems. She pays particular attention to the issues of landscape ecological connectivity and continuity, ecosystem functioning, within a sustainable development perspective, based on an adaptive and landscape-level integrated management strategy. Among these, the conceptual models of ecological network and landscape ecological continuity; silvigenetic processes occurring in *Pinus halepensis* Miller) in the Puglia region (Italy); the structural characterization of such plantations aimed both at forest wildfire prevention and biodiversity maintenance; assessment of the ecological role of Mediterranean riparian corridors and of their potentials for environmental protection within landscape planning; landscape analysis aimed at landscape planning at the regional scale; landscape ecological functioning modelling; the role of secondary forest ecosystems and plantations in carbon sequestration. She is also been active in the field of forest landscape modelling and in the exploration of the potentials of remote sensing technologies for habitat and landscape modelling.

She has presented the results of her research activities in a number of both national and international conferences and symposia and she is author or co-author of more than 50 scientific publications.

Scientific responsible for UNIBA in the international research consortium for FP7 call and Work Programme "Cooperation" (Call identifier FP7-SPACE-2010-1), Theme "SPACE", Activity: "9.1 Space-based applications at the service of European Society", Area "9.1.1: Pre-operational validation of GMES services and products" SPA.2010.1.1-04 "Stimulating the development of GMES services in specific areas" Priority area "(B) BIODIVERSITY. This was

funded on December 1st 2010 on the FP7/SPA.2010.1.1-04: “Stimulating the development of GMES services in specific area”, under grant agreement 263435 BIO_SOS. Research activities: quantitative assessment of habitat/landscape fragmentation and connectivity of the SCI Murgia Alta IT9120007 and its consequences on biodiversity; harnessing of very high remote sensing data and statistical models (including causal inference models) to investigate the consequences of habitat fragmentation on habitat quality and its relationship with species distribution and to understand the influence of surrounding landscape structure on local habitat quality, across multiple spatial scales; modelling of forest landscape change in connection to climate change by means of a landscape dynamic simulator (LANDIS-II University of Wisconsin Madison, USA); the assessment of the probability of distribution of wild boar (*Sus scrofa*) by means of Ecological Niche Models, aimed at the development of a monitoring and controlling strategy of such and invasive species.

Associate Partner in the al Project FOREST MANAGEMENT SCENARIOS FOR ADAPTATION AND MITIGATION (FORMASAM) – European Forest Institute - EFI Network Fund (2018 - 2020) Coordinator Dr C.P.O. Reyer (Potsdam Institute for Climate Impact Research Germany) - Task Group 3 (TG3): Forest management at the landscape scale (Lead R. Seidl, BOKU).

Member of the EU COST ACTION PROFOUND FP1304: “Towards robust projections of European forests under climate change” - Task groups 7 (Landscape simulation models comparison), 10 (Climate change and forest disturbances), 16 (Uncertainty review), 20 (Masting in forest models).

Member of the EU COST ACTION EUROCOPPICE FP 1301: “Innovative management and multifunctional utilization of traditional coppice forests: an answer to future ecological, economic and social challenges in the European forestry sector” - Working Group 4 - Services, protection, nature conservation.

Member of the Thematic Working Group “Ecosystem Function” Group on Earth Observation/Biodiversity Observation Network (<http://geobon.org>) aimed at identifying essential biodiversity variables (EBVs) in connection with their links to ecosystem functioning.

As from the academic year 2005-2006 - Lecturer at the University of Bari in both BSc (Forest Ecology, Ecology of forest ecosystems and landscapes) and MSc (General Ecology and Ecology of Forest Systems)- As from the AY 2017-2018 teaches Landscape Ecology (MSc). She supervised a number students for their degree Bachelor and MS thesis. As from the academic year, 2005-2006 has also supervised three PhD Students at the Agricultural Faculty and the Faculty of Science of the same University.

Faculty member of the Doctoral School of the University of Bari:

As from 2020 - XXXVI cycle Biodiversity, Agriculture Environment

2013-2017 - XXVI to XXVIII cycles Evolutionary and Environmental Sciences. She was tutor of one doctoral thesis Labadessa R. “Structural and functional community patterns for biodiversity monitoring in semi-natural dry grassland ecosystems”.

2005-2013 - XXI-XXV cycles INGEGNERIA DEL TERRITORIO E DELL'AMBIENTE AGROFORESTALE. She was tutor of two doctoral thesis Notarnicola G. Modelli di combustibile nei rimboschimenti di Pino d'Aleppo (*Pinus halepensis* Miller) in Puglia e caratterizzazione delle forest canopy properties finalizzata all'applicazione di modelli di previsione della propagazione degli incendi di chioma; Leronni V. Simulating Mediterranean forest landscape dynamics in the context of climate change).

Registered in the Register of Expert Peer-Reviewers for Italian Scientific Evaluation (REPRISE) of the Italian Ministry of Education, University and Research

Evaluator in reviewing processes

- H2020-BB-2016-2017 Call PHASE 2 - Research Executive Agency (REA) under the power delegated by the European Commission.

- STEREO Programme - Belgian Science Policy Office - Belgium

- AgreeSkills and AgreeSkills+ call in 2017-2nd round – INRA – France

- SAS AWARD 2017 - PHASE 2 - University of Camerino – Italy

- PhD Evaluation – University of Rennes - France

Member of the advisory board of the online journal iForest (Italian Society for Silviculture and Forest Ecology).

Guest editor for the "International Journal of Applied Earth Observation and Geoinformation" (issue 37, 2015).

Guest editor for "Remote Sensing MDPI" Special Issue on "Remote Sensing of Ecosystem Functions: Advances for Ecosystems Conservation Status Assessment" - Guest Editors: Paola Mairota, Javier Cabello, Domingo Alcaraz-Segura, Ana Sofia Vaz

Scientific committees

- 10th IALE (International Association for Landscape Ecology) World Congress "Nature and Society facing the Anthropocene – Milano 5-9 July 2019 Università Milano Bicocca

- Symposium 51 "Modeling the structure and functioning of forest landscapes under changing climate and disturbance regimes" 10th IALE WC 2019

- Symposium 64 "Deciphering environmental gradients in landscapes for a better understanding of biodiversity dynamics" 10th IALE WC 2019

- Symposium on Earth Observation for biodiversity surveillance: technology for policy implementation within the framework of the IALE 2013 European Congress Changing European Landscapes, Manchester, UK, 9-12 September 2013

- X Congresso Nazionale SIEP IALE "Ecologia e Governance del Paesaggio: Esperienze e Prospettive" – Bari, IT, 22-23 May 2008

- International Workshop "Prospettive per il potenziamento della connettività nei paesaggi Mediterranei" - Valenzano (BA), IT, 4 June, 1999.

-International Workshop "EU Policy Strategies for Land use in Mediterranean Countries", Department of Geography King's College London, London, UK January 21st 1994

Chairperson in congresses

- 10th IALE (International Association for Landscape Ecology) World Congress "Nature and Society facing the Anthropocene – Milano 5-9 luglio 2019 Università Milano Bicocca - Plenary Session 5 July 2019

- IX National Biodiversity Congress, Centro Interuniversitario del Germoplasma Mediterraneo, UniBa Università degli Studi di Bari "Aldo Moro" e CIHEAM- IAMB Istituto Agronomico Mediterraneo di Bari, Sessione III Poster - Valenzano (BA), IT, 5-7 September 2012

- VII International Congress of Ecology (INTECOL) - Simposium 3.4 Land Abandonment: Patterns and Processes in Mediterranean Uplands - Florence July 19-25 1998

- International Union of Forestry Research Organisation (IUFRO) Working Party S1-01-05 Landscape Ecology Conference "The Role of Landscape Ecology In Forestry" -Afternoon Working Session September 15- Radovljica, Planina e Kocevje, Slovenia, September 13-17 1992