

A knowledge baseline on Mediterranean forests supported by innovation



International
Workshop
**SPEAKERS
BOOKLET**

02 JUNE 2023

JOSE ALDANA MONTES

Deputy Vice-Chancellor for Transfer of Knowledge at University of Málaga



José F. Aldana Montes has a degree in Computer Science and a PhD in Computer Science from the University of Malaga with the qualification of outstanding (Cum Laude in the case of the thesis). He is a Full Professor at University of Málaga where he acts as Deputy Vice-Chancellor for Transfer of Knowledge.

He began his postgraduate training with a one-year research grant from the Andalusian Regional Government (1989-90) in the R&D laboratory of Fujitsu España S.A. where he participated in the design, simulation and testing of the CBP-1286 (with a controller for the Multibus II). He then joined the Department of Languages and Computer Science at the University of Malaga in 1990 as an associate lecturer, where he assumed responsibility for coordinating the subject of Databases in the Faculty of Computer Science; he joined the GISUM research group directed by José María Troya and was elected Member of the Centre's Board. His research work has since been carried out within the GISUM group where he is writing his doctoral thesis and participating in research (21) and technology transfer (7) projects. In 1999, he began to carry out research independently and started to create team within GISUM: KHAOS (<http://khaos.uma.es>), which has since been financed on an ongoing basis as the Principal Investigator of 49 research projects obtained in competitive calls: 13 regional, 11 national, 6 international (three of them within the 7FP) and 19 Innovation and Transfer of Knowledge collaborations. Its research activity focuses on the management, integration and analysis of data with a particular interest in the intersection of database technologies, Semantic Web, Linked Open Data and Big Data. He has participated in numerous conferences, and most of his work has been published in international journals and congresses, with more than 250 articles published. He has developed many applied research and technology transfer projects, especially in fields such as Systems Biology, Translational Computing, Cultural Heritage and Tourism and Electronic Commerce. In recent years he has focused his transfer activity, usually in collaboration, on Biomedical research (within IBIMA) and the AgriFood sector.

About the importance of Mediterranean forests

Given the vulnerability of Mediterranean basin forests, we are confronted with significant challenges that must be addressed: (1) Biodiversity and Ecosystems. Studying and classifying Mediterranean forests allows us to better identify and understand the specific biodiversity and ecosystems of this region. (2) Natural Resources. Mediterranean forests provide a wide range of ecosystem services, such as the provision of forest products, and water supply. By forest classification, research groups can contribute to the development of sustainable management strategies that make it possible to take advantage of these resources. (3) Climate Change. Mediterranean forests are particularly vulnerable to climate change. Forest classification helps to understand how they are responding to environmental changes and what are the impacts of climate change on their structure and functioning. This information is crucial for developing effective adaptation and mitigation measures. (4) Land Cover. Forest classification can be used by the authorities and those responsible for land use planning to make informed decisions. The identification of areas of high ecological value can guide the planning of urban, agricultural, or forestry development, favouring a more sustainable and respectful approach to the environment.

Social media

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CHRISTOS ARVANITIDIS

CEO LifeWatch ERIC



Christos Arvanitidis, Research Director in the Hellenic Centre for Marine Research, Institute of Marine Biology, Biotechnology and Aquaculture, former head of the Biodiversity laboratory, is involved in >70 research and education projects and coordinated 10. Research Funding ID: >40 M€. More than 100 peer-reviewed scientific articles, including 3 monographs. Associate Editor in Diversity, Frontiers in Marine Science, Biodiversity Data Journal; Handling Editor in Mediterranean Marine Science; Guest Editor in Marine Ecology Progress Series and Journal of Sea Research; Member of the editorial board of Transitional Waters Bulletin; Reviewer in more than 45 international peer-reviewed journals. Member of: Pool of experts and biodiversity drafting team of UN World Ocean Assessment; National expert on the GES Descriptor “Biodiversity” to EU (MSFD Implementation phase); ICES Task Group 6 working on the seafloor integrity (EU MSDF); Executive Board of MARS (European Network of Marine Research Institutes and Stations); Society for the Marine European Biodiversity Data (SMEBD); Editorial Board of the World Register of Marine Species (WoRMS); Scientific Advisory Council of the International Polychaete Association (IPA); Scientific Council of the Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale (IMBE). Coordinator of the LifeWatchGreece Research Infrastructure and national delegate to LifeWatch ERIC.

Arvanitidis' research focuses on marine biodiversity, biodiversity informatics, functional diversity, and coastal ecosystems. He works on the comparisons of marine biodiversity information patterns deriving from various biological organization levels and scales of observation, trying to develop new approaches to explore their interrelationships.

About the importance of Mediterranean forests

Four major issues need to be addressed: (1) climate and land-use changes will impact forest ecosystems and the functions they serve to such an extent that they could become endangered; (2) the condition of recurrent wildfires requires a long-term policy aimed at both the causes of fire and containment strategies; (3) Mediterranean forests can provide diverse goods and services but better economic, policy and governance instruments are required; (4) new models, systems and processes are required for silviculture (tree growing and cultivation) and the multifunctional management of Mediterranean forests.

Social media

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DANIA ABDUL MALAK

Director at European Topic Centre on Spatial Analysis and Synthesis (ETC-UMA)



Dania Abdul Malak is a senior environmental researcher and Director of the European Topic Centre at the University of Malaga (ETC-UMA). She has over 15 years' experience in environmental assessment and management. Her research focuses on setting transferable guidelines to apply ecosystem-based management to nature conservation and biodiversity protection at regional scales, including the Mediterranean and Europe.

Her work, documented in scientific papers and a number of international and regional technical reports and books, supports the evidence behind the implementation of different Global, European and Mediterranean Directives such as the EU MSFD, the EU MSP, the EU Habitat Directive, the EU Biodiversity Strategy to 2020, the Barcelona Convention for the Protection of the Coastal and Marine Environment in the Mediterranean, as well as the Ramsar and the Carpathian Conventions.

About the importance of Mediterranean forests

Mediterranean Forests have countless benefits including high cultural, aesthetic, socio-economic, and conservation values.

The relevance of forests to reduce climate linked risks is of utmost importance to the Mediterranean region, known to be warming 20% faster than the global average.

Considering the multiple pressures exerted on Mediterranean forests, the need to find adequate tools and approaches to assess and govern these shared resources is key to ensure their long-term sustainability in the region.

Social media

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CÉCILE RODDIER-QUEFELEC

Expert Ocean Governance, Mediterranean Regional Cooperation; Oceans and sustainable blue economy Group, European Environment Agency (EEA)



Cécile Roddier-Quefelec is an Ocean Governance and Mediterranean Cooperation Expert. She currently works at the European Environment Agency (EEA), within the Marine team, where she develops and facilitates further engagement and sustainability of partnerships and technical networks of relevance for the ecosystem and biodiversity working area.

She leads the regional cooperation with the Mediterranean region and ensures operationalisation of stakeholder's engagement in support to knowledge for ecosystem-based management. She coordinates EEA's activities with Regional Seas Conventions and EEA engagement on ocean governance, as well as engagement with the European Environment Information and Observation Network (Eionet).

Agronomist by education, she has specific knowledge and skills in water management, multiple environmental pressures assessment, statistics and indicators, environmental accounting, and extensive experience on the design, coordination and implementation and monitoring of large projects, capacity development, training, and involvement of sectorial stakeholders

About the importance of Mediterranean forests

Mediterranean forests are particularly important because they represent both a regional identity, a source of economic wealth, and a key element to sustainably manage watersheds in a region prone to erosion issues. Contrasted picture, with the North rim facing larger fires due to increased fire risk from biomass accumulation linked to land abandonment; while, in the South & East rim considerable degradation exists due to intensive fuelwood extraction and grazing. Climate change and the associated increased and prolonged drought and fire risk are further challenging forest dynamics. Protecting and restoring forest is key for the region.

GIOVANBATTISTA DE DATO

Senior Forestry Officer - Silva Mediterranea Secretariat, Forestry Division



Dr Giovanbattista de Dato holds a Master's Degree in Forestry and Environmental Sciences from the University of Bari (Italy) and a PhD in Forest Ecology from Tuscia University (Viterbo, Italy). His research was on climate change effects on Mediterranean shrubland and then expanding to other Mediterranean-type ecosystems.

Subsequently, he joined the CREA Research Centre for Forestry and Wood in Arezzo (Italy) as a researcher in the laboratory of Forest Genetic Resources. His main activities focus on the sustainable management of forests and forest plantations, with particular attention to forest genetic resources, biodiversity management and conservation, including monitoring and developing actions in-situ and ex-situ for conservation and adaptive management.

Currently, he is a loaned expert to FAO and coordinates activities supporting the FAO Committee on Mediterranean Forestry Questions - Silva Mediterranea.

About the importance of Mediterranean forests

Well managed, conserved and restored Mediterranean Forests, in all their facets, are essential to maintain and create a resilient environment for future generations in the region.

Social media

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JAVIER CHICO ZAMANILLO

Head of Forestry Service. Directorate-General for Biodiversity, Forests and Desertification. Ministry of Ecological Transition and Demographic Challenge



Javier Chico is Forestry Engineer at UPM (Madrid, Spain) and MSc in Geo-Information Science at Wageningen University (The Netherlands)

After a brief period as consultant in civil Engineering, entered public regional administration of Castilla- La Mancha at the Regional Forest Service in Guadalajara. There, I was involved in the wildland fire prevention planning and suppression strategies, and also with the management of public lands. Then, I qualified in the Superior body of experts for Cadaster and became Head of the Rural Cadaster in Seville for the Ministry of Finance and Public Administration, where the mapping and information system had to be managed in close cooperation with the local administration.

My field of activities changed as I joined the Deputy directorate for Forest Policy in the Ministry for Ecological Transition and Demographic Challenge. Apart from the tasks of elaborating and maintaining National inventory of forest and natural lands ownership, I have been in the team developing Spanish Forest Strategy Horizon 2050 (EFE) and National Forest Plan 2022- 2032 (PFE). Organizer of the Forest Committee as the regular forum with Autonomous Communities and participant at other exchange forums with State departments, especially FEAGA, Agricultural Ministry and Cadaster but also with different UE institutions. Currently, we are implementing a number of working groups with regional governments for the effective implementation of Forest Policy Program.

About the importance of Mediterranean forests

Mediterranean forests are a living heritage which has been for millennia a companion of the ancient gods and civilizations, but they are still playing crucial roles in our lives.

CARLA DANELUTTI

Ecosystem Resilience and Spatial Planning Manager, IUCN Centre for Mediterranean Cooperation



Carla is an environmental scientist and a forester devoting her career to conservation, focusing on protected area management, planning, and promotion while supporting the role of protected areas as drivers of conservation and benefits for communities. After several years of implementing EU-funded international projects on ecotourism design and monitoring (DestiMED and DestiMED PLUS) and of Protected Areas management effectiveness, she is now working as Manager of the Ecosystem Resilience and Spatial Planning department at the IUCN Centre for Mediterranean Cooperation.

Carla has been integral to the establishment and creation of the Mediterranean Ecotourism Network Association, a network of Mediterranean protected areas working collectively to develop, manage, and promote ecotourism at scale in the region. She is the current Secretary of the MEET Network and serves as a Treasurer of the Board.

Working at IUCN Centre for Mediterranean Cooperation, she is also part of the IUCN Green List Operations team for Italy and Spain and a member of the IUCN World Commission of Protected Areas (WCPA) and its TAPAS (Tourism & Protected Areas Specialist) Group.

During her career, Carla has contributed to protected area conservation, capacity enhancement, and local development in several countries of the Mediterranean, including Italy, France, Spain, Croatia, Albania, Montenegro, Lebanon, Jordan, Egypt, Tunisia, Algeria and Morocco. She has relevant experience in EU funds, project conception, drafting and management, having fundraised more than 1.5 million euro during her career at IUCN.

About the importance of Mediterranean forests

Forests play a multifaceted role in our ecosystems. Not only do they act as crucial carbon sinks, mitigating the impacts of climate change, but they also provide essential protection against soil erosion, maintain water quality, and support a diverse array of species. Preserving and restoring these landscapes is imperative for safeguarding our delicate Mediterranean ecosystems and securing a sustainable future.

Social media

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VIRGINIA GARCIA MILLAN

Remote Sensing Expert at ETC-UMA



Virginia's field of interest is the protection and conservation of the environment, for which she finds remote sensing technologies useful for a quick and comprehensive overview of the health and dynamics of ecosystems. She has worked as a researcher in Canada, Germany and Sweden, basing her research on evaluating the suitability of different sensors for environmental monitoring, among which testing a hyperspectral and multi-angular satellite for mapping succession of tropical dry forests in America and evaluating the accuracy of cameras on drones for the characterization of boreal forests in Canada.

She has also explored different methods for the best quantification of damages on crops, using digital elevation models generated with drones and has experience in hyperspectral sensors on board of planes, multispectral satellite imagery and terrestrial LiDAR.

Currently, she is interested in the use of satellite Big Data and Artificial Intelligence for mapping large regions in a frequent time. An example of it is the recent map of Mediterranean Forest types, at species level.

About the importance of Mediterranean forests

Mediterranean forests have evolved together with the Mediterranean civilization and their fate is co-dependent. Mediterranean forests provide multitude of Ecosystem Services to humans, so we need to preserve them for our own good. Humans have rocketed environmental changes and impacts, especially in highly populated areas like the Mediterranean. Therefore, we need to do an effort to find sustainable ways to co-habit with our environment and restore its quality.

Social media

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EMANUELE MANCOSU

Data manager and GIS Specialist at ETC-UMA



Emanuele has strong interests and curiosity about environment subjects and informatics technology. The academic career was orientated in natural science finished in 2004 with highest honours with particular attention on geographic information system, where was realized as final work a digital map about different levels of vegetation of a WWF Natural Park, close to Cagliari. A long experience of life in South America and a shorter one in Lapland allows increasing social skills and knowledge of foreign languages as Spanish and English, practice with computer science and computer technician, strong contacts with people and with the nature. In 2007 improve his studies with a master degree in SIG in the Autonomous University of Barcelona (UAB).

This studies allow to increase and to broaden the knowledge about GIS, in specifics, how to create and edit a Map in digital format, how to design, create and maintain a database, how to do spatial analysis, bases of programming with Visual Basic, JavaScript languages, create and manage a Web Server. Moreover a final work with three months practices in UAB to develop a prototype of a Geoportal to store, manage and publish the metadata of the centre with the software GeoNetwork opensource.

From February 2009 he is working in the ETC (before in UAB and currently in UMA) covering tasks as jointly responsible for the system administrations' tasks, responsible for the management of the Reference Data maintaining a inventory and checking the quality of the information on topological and geometrical aspects. Support for GIS tasks and land use scenarios in different ETC/SIA projects. He is also responsible of hardware maintenance in the centre.

About the importance of Mediterranean forests

Forests are one of the most fascinating elements of the natural landscape and an important pillar of our ecosystem. Mediterranean forests are not different. Though life reminds us of the relation of quality of life and healthy forest ecosystems, we hope that our work is helping to achieve a better understanding of the forest condition to promote quick and right measures to take to make our lives even better.

ALICE PEZZAROSSA

Researcher, Institute for Environmental Protection and Research (ISPRA)



Alice Pezzarossa obtained a master's degree in Ecobiology from University of Rome "La Sapienza" and a PhD in Ecology and Management of Natural Resource from Tuscia University of Viterbo.

Her past research focused on the detection and conservation of hotspots of intraspecific genetic diversity in the Italian peninsula. Using both spatial and genetic data, and considering terrestrial vertebrates endemic of the Italian peninsula, she studied the processes that cause the origin of these hotspots, focusing also on the effects of future climate change.

Currently, she is a researcher at National Center for Environmental Crisis Emergencies and Damage of the Institute for Environmental Protection and Research (ISPRA). I am working on the detection of disturbances on natural ecosystems in Italy, and specifically on mapping of forest ecosystems and disturbances caused by wildfires. My studies are based on vegetation archive data and satellite and remote sensing data, using machine learning classification models.

About the importance of Mediterranean forests

Mediterranean forests play a key role in providing ecosystem services both to environment and human society. These kinds of forests are rich in biodiversity and are the ecological niche for a high number of endemic and endangered species. They are essential for the maintenance of water resources and favourable climatic conditions for all countries bordering the Mediterranean basin.

Mediterranean forests are currently threatened by global change, so it must be a key objective for ecological research to find practical and solid solutions for its conservation and management.

ISSAM TOUHAMI

National Research Institute of Rural Engineering, Water and Forestry (INRGREF) Laboratory of Management and Valorisation of Forest Resources



Issam Touhami is a researcher in Forest Ecology at the National Research Institute of Rural Engineering, Water and Forests (INRGREF), and member of the Laboratory of Management and Valorization of Forest Resources. He received her first Master of Science in Integrated Planning for Rural Development and Environmental management from the International Centre for Advanced Mediterranean Agronomic Studies (CIHEAM- Zaragoza, Spain), and a second Master in Conservation and Restoration of Ecosystems from the faculty of Science, University of Alicante (Spain) and her Ph.D. in Environmental Sciences from the University of Alicante. He has extensive research experience in the field of forest ecology, forest adaptation to climate change, and forest resources conservation.

He worked as a leader-member in different European and international research projects (ECOPLANTMED, MENFRI, WILDOOD, ResAlliance, etc.).

About the importance of Mediterranean forests

Mediterranean forest ecosystems provide multiple goods and services of great value to societies.

Social media

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MALKI FOUAD

Forest Engineer, National Agency for Water and Forests of Morocco



Malki Fouad is holder of the Diploma of Water and Forest Engineer of the National Forestry School of Engineers in Morocco. He specialises in planning and concerted management of forest resources and working in the National Agency for Water and Forests of Morocco since 2008.

Currently, he is in charge of monitoring natural resources and coordinating climate change files, particularly in terms of preparing greenhouse gas inventories and planning and implementing the agency's commitments in the fight against the impacts of climate change.

About the importance of Mediterranean forests

The forest ecosystems around the Mediterranean, through their remarkable floristic richness and diversity, integrate a set of ecological systems that provide many ecosystem products and services (wood, cork, rangeland, hunting, recreation and well-being, water quality, preservation of biodiversity, etc.). They are a key lever for local and regional development. Also, these ecosystems fight against the effects of climate change by storing atmospheric carbon in their various reservoirs. This capacity to modify the impacts of climate change is receiving renewed attention from experts and decision-makers around the world.

On the other hand, the forests on both shores of the Mediterranean are continually undergoing changes in composition and content, resulting to the interactions between human activities (harvesting and clearing forest, agro-sylvo-pastoral practices, management methods, etc.), the natural dynamics of ecosystems (resilience, adaptation, degradation, etc.) and the influence of natural disturbance (floods, torrential rains, winds, fires, etc.). Managing the multifunctionality of these natural spaces in conciliatory way between the conservation and development of their resources and the satisfaction of needs requires the adoption of a territorial governance system based on a reliable, efficient, and especially continuous monitoring process. Capitalizing on current knowledge and resorting to the use of innovative diagnostic and monitoring tools will be promising prospects.

GEORGES MITRI

Professor of Environmental Sciences, Director of Land and Natural Resources, Institute of the Environment, University of Balamand, Lebanon



George Mitri is a highly experienced researcher in the forestry sector. He has led and managed numerous research and development projects throughout his career. His research activities have focused on a range of areas, including forest and wildfire risk management, Earth Observation and Geo-Information Analysis, drought and land degradation assessment, and the impact of climate change on terrestrial ecosystems.

Dr. Mitri has successfully secured funding from both national and international organizations to support his research in these fields. With an impressive publication record, Dr. Mitri has authored over 100 publications in peer-reviewed journals, conference proceedings, and book chapters. Dr. Mitri is also an active member of several national and international committees and professional societies.

Through his involvement in these organizations, he has contributed significantly to the development of policy and best practices in his field. He is currently, a technical advisor to the Minister of Environment in Lebanon. Overall, Dr. Mitri is an accomplished researcher and a scientist who has made valuable contributions to the forestry sector.

About the importance of Mediterranean forests

Mediterranean forests are not only ecosystems of immense ecological importance but also a unique and irreplaceable cultural heritage, closely intertwined with the history, identity and inherited traditions of the people who inhabit these landscapes.

Social media

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LUDVIG FORSLUND

Expert – Copernicus Land Monitoring, European Environment Agency (EEA)



With a newly acquired master's degree in physical geography and remote sensing, Ludvig joined the Copernicus Land Monitoring Service (CLMS) team at the European Environment Agency (EEA) in Copenhagen in 2017. He started as an in-house consultant providing technical services on data processing, data management, publication, and geospatial analysis. With time he attained additional responsibilities and extended his support to the CLMS product owners on service development and project management.

By April 2022, Ludvig fully joined the CLMS team as a core staff member of the EEA. He then transitioned into product owner of the Vegetation Phenology & Productivity (HR-VPP) dataset and eventually also added the vegetated land cover product family (Forest, Grassland, and Crop Type) to his responsibilities. Due to his focus on remote sensing of vegetation, he is also working in close collaboration with EEA, JRC, and Commission colleagues on designing future European forest monitoring indicators.

About the importance of Mediterranean forests

Continuous monitoring of Mediterranean forests is vital for effective management and protection. Reliable information must be provided to support sound policy decisions and alleviate the current anthropogenic pressure.

Social media

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FRANCESCA GIANNETTI

Researcher, University of Florence



Francesca Giannetti is a researcher at the University of Florence department of Agriculture, Food, and Forestry. I work at the Laboratory of Forest Geomatics, and my research activities deal with the use of Remote Sensing data in operational Mediterranean forest inventory, sustainable forest management and precision forestry. In the last five years, I worked a lot in developing decisional support systems that can help forest managers, stakeholders and public administration in managing forest ecosystems. In this sense, using different approach I work to integrate at Italian level the National Forest Inventory data with Remote Sensing data for the prediction at national level of different forest variables such as biomass, growing stock, increment and forest types.

Moreover, I work in detection of forest disturbances using time series remote sensing data. At forest stands scale I work with drone in order to obtain precise information of sustainable forest management indicators that can help forest managers in adopting multi-objective forest management plans.

About the importance of Mediterranean forests

The Mediterranean region has more than 25 million hectares of Mediterranean forests and about 50 million hectares of other Mediterranean wooded lands. It is esteemed that the plant diversity of Mediterranean forests is much greater than that of the rest of European forests. Mediterranean forests are also important because they represent a key element in which it is possible to see the interaction between plants/animals and humans, since they have been managed for nearly 10 000 years. They represent a key and crucial ecosystem to preserve biodiversity but also an important and crucial environment for rural development, poverty alleviation, and food security. However, nowadays, Climate Change has a very huge impact on Mediterranean Forests due to the increasing drought and desertification. It is mandatory to give a central role to Mediterranean Forests in the coming policies. Improving the way to monitor the state of Mediterranean forest is also important to preserve economic, social and environmental services that can support local communities. In this sense it is important to improve policies, practices and sustainable forest management to provide social and economic benefits as well as to increase the resilience of ecosystems and societies.

Social media

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RUBEN VALBUENA

Professor of Remote Sensing of Forests Swedish, University of Agricultural Sciences



Ruben Valbuena's research focus is devoted to use forest information for providing a value to environmental assets. He uses remote sensing data, in particular LIDAR, for its great potential for analysing structural and morphological traits of ecosystems.

During the last decade he has pioneered adaptations to forest science and remote sensing of methods based on Lorenz curves and Gini coefficient. He has published 20 first author peer-reviewed publications, above 70 collaborations overall, and his H-index is 31 (see full list of publications in [GoogleScholar](#)).

CAREER HISTORY: Swedish University of Agricultural Sciences, Department of Forest Resource Management (2022-present) Professor of Remote Sensing of Forests. Leading the research and fund raising of the Forest Remote Sensing Division (>20 staff members). Main Coordinator of project FORWARDS and Monitoring Task leader of Project SUPERB / Food and Agriculture Organization of the United Nations (FAO) (2022) Forest Inventory Expert (consultancy). Support the project "Global Transformation of Forests for People and Climate: a focus on West Africa", by designing forest carbon inventories with GEDI and drones in West Africa / Bangor University, School of Natural Sciences, UK (2018-2021) Lecturer in Forest Science (currently Honorary Professor). Responsible for teaching module in Forest Inventory, Assessment & Monitoring. Projects EFINET (European Forest information network) and AMAZECO (Processing airborne and satellite LIDAR product covering the Amazon)/University of Cambridge, Department of Plant Sciences, UK (2016-2018) Marie S. Curie Research Fellow. Working under the supervision of Prof. D.A. Coomes on my Marie S. Curie project LORENZLIDAR on trans-national classifications of forest structure from LIDAR / UN Environment – World Conservation Monitoring Centre, UK (2017-2018) Researcher (secondment). Participated in European Space Agency project GlobDiversity in assessing the feasibility of LIDAR to retrieve Essential Biodiversity Variables / University of Eastern Finland, School of Forest Sciences, (2014-2016) Post-Doctoral Researcher (currently Adjunct Professor in Remote Sensing & Biodiversity Indicators). Remote sensing-assisted carbon estimations in Burkina Faso and Sierra Leone. Building rural development project BIODEV in collaboration with World Agroforestry Centre (ICRAF). Applications of LiDAR to bird ecology and habitat suitability with SYKE / European Forest Institute (EFI) (2010-2014) Researcher. Obtaining Pan-European Indicators of Forest Structural Diversity by means of Airborne Laser Scanning / Technological University of Madrid (UPM), Forestry College, Spain (2006-2010) PhD student. LIDAR, infrared camera, hyperspectral and GPS integration in forest inventories / UK Forestry Commission. Forest Research Agency (2008-2009) Guest Researcher. Using Lidar for monitoring forest change and planning forest operations and Mapping priority habitats (Habitat Action Plan) in Wales with satellite imagery.

About the importance of Mediterranean forests

While bearing a very high degree of biodiversity, Mediterranean forests are at the moment one of the world's ecosystems most threatened by climate change. We have an urgency to reliably measure the biodiversity assets of Mediterranean forests, so that we can monitor these threats, with the intention to have a deep knowledge on their causes and mitigate them.

Social media

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MAGDA BOU DAGHER KHARRAT

Principal Scientist Mediterranean Facility (EFIMED) European Forest Institute (EFI) - Barcelona Office



Prof. Magda Bou Dagher Kharrat is a plant geneticist who has been involved in the field of biodiversity conservation and ecosystem restoration for more than a decade. She has been managing at Saint Joseph University of Beirut a team of investigators focusing on endemic species conservation and establishing protected areas that harbour endangered species. She co-founded the NGO Jouzour Loubnan, which focuses on rehabilitating degraded Mediterranean forest ecosystems.

With a PhD degree from La Sorbonne University-Paris and an accreditation to supervise research (HDR) from Paris Sacaly University, Magda is a professor at Saint Joseph University of Beirut, she was the chair of the Department of Life and Earth Science, and directed the Laboratory of Biodiversity and Functional Genomics at the Faculty of Science (USJ) and has a wide network of international collaborators.

She was awarded the UNESCO-L'Oréal for "Women in Science" in 2008, received the Knight's title in the Order of the Academic Palms from the French Republic in 2021 and was elected as a corresponding Member of the Academy of Agriculture France in 2023.

Magda joined lately the Mediterranean Facility of the European Forest Institute in Barcelona as Principal scientist. She is working on defining conservation policies and forest ecosystem restoration strategies to optimizing their survival in the context of climate change.

About the importance of Mediterranean forests

The Mediterranean landscape mosaic showcases the remarkable interplay between humans and nature over millennia, resulting in a distinctive fusion of cultural and natural elements. Central to this mosaic are the Mediterranean forests, which hold great significance. Yet, it is imperative to manage these forests effectively in order to preserve their adaptive capacity, which is pivotal in addressing the pressing challenge of climate change.

Social media

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ANNEMARIE BASTRUP-BIRK

Project Manager Forest Information and Assessments European Environment Agency



Dr PhD Annemarie Bastrup-Birk has 30+ years of professional experience in forests and forestry issues. Her career embraces experimental research on forest ecology, modelling impacts of climate change and pollution on forests, monitoring forest health and condition, and designing and co-leading the Danish forest inventory before joining 2011 the European Environment Agency, Copenhagen, Denmark. The focus is on building the knowledge base for improved forest policymaking.

She manages the Forest Information System for Europe for the European Commission.

About the importance of Mediterranean forests

Forests are major ecosystems of the Mediterranean Basin, the second-largest biodiversity hotspot in the world. In Europe, 80% of all endemic plants are Mediterranean species. More than 100 tree species can be found on a surface representing 2% of forests worldwide.

Their condition and resilience contribute to rural development, food security, and the agriculture, water, tourism, and energy sectors.

The forests of the Mediterranean region are essential to protect watersheds and regulate the local climate by increasing air humidity, reducing drought intensity, and in this way, mitigating desertification.

Rapid and abrupt land-use changes, mainly due to development pressures and urban sprawl, habitat fragmentation due to transport infrastructures, resource overexploitation and pollution, impact Mediterranean forests and drive their degradation.

On top, climate change impacts threaten the adaptation capacity of forests caused by heat waves, drought and overall temperature rises.

ICIAR ALBERDI ASENSIO

Principal researcher, INIA-CSIC



Iciar Alberdi is researcher in the Silviculture and Forest dynamics and management Department of the Institute of Forest Science at INIA-CSIC. PhD forest Engineer experienced in forest monitoring, providing scientific support since 2002 to the Spanish National Forest Inventory (NFI). She is Member of the steering group of the European National Forest Inventory Network, member of the expert panel on Biodiversity and ground vegetation in ICP Forest and LTER and member of the UNECE/FAO ToS on Sustainable Forest management. Her main research interests are in the field of sustainable forest management, trying to provide robust information on forest systems, especially on forest biodiversity and their dynamics in the global change context. She is author of more than 40 scientific papers and actively involved in several EU projects as SUPERB (Systemic solutions for upscaling of urgent ecosystem restoration for forest related biodiversity and ecosystem services) and Pathfinder (Towards an Integrated Consistent European LULUCF Monitoring and Policy Pathway Assessment Framework).

About the importance of Mediterranean forests

The multifunctional Mediterranean forests, classified as biodiversity hotspots, are unique sustaining rural livelihoods and providing benefits for society, from wood and non-wood forest products as cork and resin, to key public goods and externalities such as watershed or soil protection. However, some of these forests are vulnerable and fragile, so, the development of conservation strategies and multifunctional sustainable management is particularly important.

Social media

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RAFAEL ÁNGEL HARO RAMOS

Conservation Director of Sierra de las Nieves and Montes de Málaga Natural Parks, Andalusian Regional Ministry of Sustainability, Environment and Blue Economy, Spain



Ángel Haro Ramos holds a University Degree in in Biological Sciences by the University of Malaga.

After a long period teaching, he became a career civil servant of the Junta de Andalucía (regional government) in Spain, where he initially worked for the regional Ministry of Health and later for the Ministry of the Environment. He has participated in numerous conferences and seminars related to Natural Parks, birds and Public Health issues and is the author or co-author of various articles on environmental and public health topics.

He has been Head of the Environmental Health Section at the Provincial Health Delegation of Malaga, Qualified Technician in Laguna de Fuentepiedra wetland, Analytical Technical Advisor in the Provincial Public Health Laboratory of Malaga and Technical Advisor of Flora and Fauna to the Provincial Delegation of Malaga of the Andalusian Ministry of the Environment.

Rafael has held the position of. Conservation Director of Sierra de las Nieves and Montes de Málaga Natural Parks, as well as the Gaitanes Gorge Nature Site for the last 17 years, also performing management functions in Sierra de las Nieves National Park

About the importance of Mediterranean forests

Mediterranean forests are one of the most important natural systems in the Spanish territory. Their high biodiversity, together with the ability of the species that inhabit them to adapt to changing weather conditions and especially to periods of drought, give them great potential for adaptability to climate change, making it an environment with many potentialities in the future.

Social media

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