

Forest Landscapes and Global Change

New Frontiers
in Management,
Conservation
and Restoration

Abstracts

Edited by
João Carlos Azevedo
Manuel Feliciano
José Castro
Maria Alice Pinto



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Instituto Politécnico de Bragança, Portugal
September, 2010

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Oral sessions

Management and sustainability 1

Chaired by Patrick Charles Goebel

Sep 22 Auditório Pequeno

Time	Authors	Title
9:00	CRISTIAN ECHEVERRIA, ADRIAN NEWTON, JOSE MARIA REY-BENAYAS, JENNIFER SCHULZ & LAURA NAHUELHUAL	SUSTAINABLE LANDSCAPES IN CHILE?
9:15	ESMAEIL KOUHGARDI & MEHRDAD AKBARZADEH	ROLE OF PLANTED FORESTS AND TREES OUTSIDE FORESTS IN SUSTAINABLE FOREST MANAGEMENT IN IRAN
9:30	LENIR APARECIDA MAINARDES DA SILVA & EDINA SCHIMANSKI	THE CERTIFICATION OF FOREST MANAGEMENT AND ITS CONTRIBUTION TO THE RIGHTS OF WORKERS
9:45	MARINE ELBAKIDZE ¹ , PER ANGELSTAM, KJELL ANDERSSON, MATS NORDBERG, YURIJ PAUTOV	DOES FOREST CERTIFICATION CONTRIBUTE TO BOREAL BIODIVERSITY CONSERVATION IN SWEDEN AND NW RUSSIA?
10:00	R. GREGORY CORACE, III, P. CHARLES GOEBEL & DAVID M. HIX	IMPLEMENTING ECOLOGICAL FORESTRY CONCEPTS AT US FISH AND WILDLIFE NATIONAL WILDLIFE REFUGES IN THE NORTHERN LAKE STATES, USA

Management and sustainability 2

Chaired by Rebecca Kennedy

Sep 22 Auditório Pequeno

Time	Authors	Title
14:00	ERNESTO ESCALANTE, MARIA DO SAMEIRO PATRÍCIO, VALENTIN PANDO & FELIPE BRAVO	BIOMASS YIELD AND CARBON SEQUESTRATION: A POTENTIAL FROM SPAIN'S FORESTS (ON CENTRAL AND IBERIAN MOUNTAIN RANGE SYSTEMS)
14:15	JOSU G. ALDAY, CAROLINA MARTÍNEZ-RUIZ & FELIPE BRAVO	ARE PLANT FUNCTIONAL TRAITS DETERMINING SPECIES RESPONSE TO HARVEST TREATMENTS?
14:30	LAURA POGGIO, ALESSANDRO GIMONA, MARIE CASTELLAZZI & IAIN BROWN	SPATIAL MODELLING OF FOREST LANDSCAPE STRUCTURAL CONNECTIVITY
14:45	REBECCA S.H. KENNEDY	POTENTIAL FUTURE EFFECTS OF FIRE AND VEGETATION DYNAMICS, CLIMATE CHANGE, AND MANAGEMENT ON ECOSYSTEM SERVICES – WILDLIFE HABITAT AND CARBON SEQUESTRATION IN FORESTS OF THE PACIFIC NORTHWEST, USA
15:00	SHADANANAN NAIR	ANTHROPOGENIC AND CLIMATE CHANGE IMPACTS ON THE WESTERN GHATS MOUNTAIN FORESTS OF INDIA
15:15	Y. SERENGIŁ, E. PAOLETTI, A. AUGUSTAİTIS, A. BYTNEROWICZ, N.GRULKE, A.R. KOZOVİTZ, R. MATYSSEK, G. MÜLLER-STARCK, M. SCHAUB, H. SHANG, D.WEINSTEIN & G. WIESER	ADAPTATION OF FOREST ECOSYSTEMS TO AIR POLLUTION AND CLIMATE CHANGE: A GLOBAL UPDATE

Management and sustainability 3

Chaired by Thomas Panagopoulos

Sep 23 Auditório Pequeno

Time	Authors	Title
9:00	EDINA SCHIMANSKI, LENIR APARECIDA M. DA SILVA & SANDRA SCHEFFER	THE IMPORTANCE OF ENVIRONMENTAL EDUCATION TO RESTORE AND PRESERVE NATURAL AND CULTURAL HERITAGE: THE CASE OF PIRAI DA SERRA – SOUTH OF BRAZIL
9:15	KELELENG OSSOHOUNAM & DJONDO PATRICK	HUMAN IMPACTS ON LANDS RESOURCES IN WEST-AFRICA AND BEYOND
9:30	MARC ELGIN M. DELGADO & FRANK CANTERS	MAPPING TREES PREFERRED BY FARMERS: PARTICIPATORY ASSESSMENT AND LAND SUITABILITY EVALUATION FOR IMPROVED AGROFORESTATION OF DEGRADED FORESTLANDS IN CLAVERIA, SOUTHERN PHILIPPINES
9:45	PER ANGELSTAM & MARINE ELBAKIDZE	MULTI-LEVEL GOVERNANCE AND SPATIAL PLANNING FOR SUSTAINABLE FOREST LANDSCAPES IN NORTHWEST RUSSIA: KOVDOZERSKY MODEL FOREST
10:00	TOMÁŠ VRŠKA, KAMIL KRÁL & DUŠAN ADAM	WHERE AND WHY THE CZECH OLD-GROWTH FORESTS SURVIVED IN THE CULTURAL LANDSCAPE
10:15	THEODORE HOWARD	IMPLICATIONS OF BIOMASS ENERGY HARVESTING FOR FORESTED LANDSCAPES IN THE NORTHEASTERN UNITED STATES

Biodiversity conservation and planning 1

Chaired by Margarida Santos-Reis

Sep 22 Auditório Alcínio Miguel

Time	Authors	Title
9:00	AMEHA TADESSE, ZEWDU ESHETU ,TESFAYE BEKELE & DEMEL TEKETAY	IMPACT OF <i>Prosopis juliflora</i> (Sw. DC.) INVASION ON PLANT BIODIVERSITY AND SOIL PROPERTIES IN MIDDLE AWASH NORTHEASTERN, ETHIOPIA
9:15	AMY E. EYCOTT, GAVIN B. STEWART, LISETTE M. BUYUNG-ALI, DIANA E. BOWLER, KEVIN WATTS & A.S. PULLIN	THE IMPACT OF THE MATRIX ON SPECIES MOVEMENT: SYSTEMATIC REVIEW AND META-ANALYSIS
9:30	CHRISTOPHER M MCLEAN & ROSS A BRADSTOCK	THE EFFECT OF FIRE REGIMES AND LOGGING ON TREE HOLLOW DYNAMICS AND ARBOREAL MARSUPIALS IN AUSTRALIAN EUCALYPT FORESTS
9:45	JOEL HARTTER, SADIE J. RYAN, JANE SOUTHWORTH, ABRAHAM C. GOLDMAN, MICHAEL W. BINFORD & COLIN A. CHAPMAN	FORTRESSES AND FRAGMENTS: IMPACTS OF FRAGMENTATION IN A FOREST PARK LANDSCAPE
10:00	JOSÉ M.GARCÍA DEL BARRIO, DAVID SÁNCHEZ DE RON, MARTA ORTEGA & RAMÓN ELENA-ROSSELLÓ	UNDERSTANDING VASCULAR PLANT SPECIES DIVERSITY AT LANDSCAPE LEVEL. SPATIAL RELATIONSHIPS BETWEEN ALPHA AND BETA DIVERSITY IN FORESTED LANDSCAPES.
10:15	LUÍŠ M. ROSALINO, DULCE FERREIRA, INÉS LEITÃO & MARGARIDA SANTOS-REIS	WOOD MICE CONSERVATION IN A CHANGING MEDITERRANEAN AGRO-FOREST LANDSCAPE: THE IMPORTANCE OF REFUGES

Tools of landscape assessment and management 2

Chaired by Beatriz Fidalgo

Sep 24 Auditório Pequeno

Time	Authors	Title
11:20	ALDA MATOS, PAULA CABO, ANTÓNIO FERNANDES & ISABEL RIBEIRO	ECONOMICAL VALUATION OF ENVIRONMENTAL GOODS AND SERVICES
11:35	BEATRIZ FIDALGO, RAUL SALAS, JOSÉ GASPAS, LUÍS PINTO, HUGO OLIVEIRA, ANDREIA COSTA & JORGE FREIRE	SPATIAL CHARACTERIZATION OF LANDSCAPE FUNCTIONS AND SERVICES TO SUPPORT LOCAL LANDSCAPE PLANNING
11:50	VÍCTOR AVILA-AKERBERG, LUCIA ALMEIDA-LEÑERO & JORGE MEAVE DEL CASTILLO	FOREST QUALITY IN THE VICINITY OF MEXICO CITY: ASSESSMENT TOWARDS SUSTAINABLE FOREST MANAGEMENT
12:05	MARIA LUIZA PORTO, HORST HEINRICH WENDEL, JAIRO JOSÉ ZOCHE, GILBERTO GONCALVES RODRIGUES, MARISA AZZOLINI & ROGÉRIO BOTH	NATURALNESS AND DIVERSITY OF BIOTOPS: THEIR IMPACT ON LANDSCAPE QUALITY - A MATHEMATICAL MODEL
12:20	TERESA BATISTA, PAULA MENDES & LUISA CARVALHO	THE THIRD DIMENSION IN LANDSCAPE METRICS ANALYSIS APPLIED TO CENTRAL ALENTEJO PORTUGAL
12:35	LARS KOSCHKE, CHRISTINE FÜRST, CARSTEN LORZ, SUSANNE FRANK & FRANZ MAKESCHIN	USING A MULTI-CRITERIA APPROACH TO FIT THE EVALUATION BASIS OF THE MODIFIED 2-D CELLULAR AUTOMATON: PIMP YOUR LANDSCAPE

Tools of landscape assessment and management 3

Chaired by José Castro

Sep 24 Auditório Pequeno

Time	Authors	Title
14:00	EZEQUIEL ARÁOZ	CLIMATE AND LAND USE INTENSITY SHAPE FOREST-MEADOW ECOTONES IN SUBTROPICAL MONTANE SYSTEMS
14:15	MARC DECONCHAT, AUDREY ALIGNIER, PHILIPPE ESPY & SYLVIE LADET	IDENTIFICATION AND CHARACTERIZATION OF FOREST EDGE SEGMENTS FOR MAPPING EDGE DIVERSITY IN RURAL LANDSCAPES
14:30	MICHAL REHOR & VRATISLAV ONDRACEK	APPLICATION OF MODERN, NON TRADITIONAL RESTORATION METHODS ON BROWN COAL LOCALITIES OF CZECH REPUBLIC
14:45	DAMASA MAGCALE-MACANDOG NIÑO B. VIDAL, ARNOLD SALVACION & BLESILDA GONZALES	UNDERSTANDING THE PATTERNS OF PROCESSES OF LAND COVER CHANGE IN CALACA, BATANGAS, PHILIPPINES USING PARTICIPATORY RURAL APPROACHES AND GIS MAPPING
15:00	ANTONELLO MIGLIOZZI, FRANCESCO CONA, ANTONIO DI GENNARO, ANTONIO MINGO, A. SARACINO & STEFANO MAZZOLENI	LAND-USE MANAGEMENT AND CHANGES IN CAMPANIA REGION (SOUTHERN ITALY): EXAMPLES FROM TEN REGIONAL STATE FORESTS

Urban Forestry 1

Chaired by Giovanni Sanesi

Sep 24 Auditório Alcino Miguel

Time	Authors	Title
14:00	CLIVE DAVIES	MULTI-FUNCTIONALITY IN URBAN FORESTS IN EUROPE
14:15	GIOVANNI SANESI, GIUSEPPE COLANGELO, GIUSEPPE CARRUS, FRANCESCO FERRINI, FABIO SALBITANO, PAOLO SEMENZATO & RAFFAELE LAFORTEZZA	URBAN FOREST AREAS, BIODIVERSITY AND WELL-BEING: A CASE STUDY IN ITALY
14:30	IRJA LÖFSTRÖM, MIKKO KURTTILA, LEENA HAMBERG & LAURA NIEMINEN	PUBLIC PARTICIPATION, BIODIVERSITY AND RECREATIONAL VALUES IN URBAN FOREST PLANNING IN FINLAND
14:45	ARTUR GONÇALVES, ANTÓNIO CASTRO RIBEIRO, LUÍS NUNES & MANUEL FELICIANO	GREEN SPACE INFLUENCE ON THERMAL COMFORT – STRUCTURED STUDIES IN THE CITY OF BRAGANÇA (PORTUGAL)

Patterns and processes 1

Chaired by Jean Paul Metzger

Sep 23 Auditório Pequeno

Time	Authors	Title
11:00	CRISTIAN ECHEVERRIA, LUCIANA CRISTOBAL, THOMAS KITZBERGER, GUILLERMO MACHUCA, ROBERT MANSON, RAUL RIVERA & RAUL VACA	DYNAMICS IN THE SPATIAL PATTERNS OF DRYLAND FOREST IN LATIN AMERICAN LANDSCAPES
11:15	ELIANE S. MEIER & NIKLAUS E. ZIMMERMANN	ESTIMATING SHIFTS IN SPECIES DISTRIBUTIONS: INFLUENCE OF MACRO-CLIMATE AND LOCAL PROCESSES
11:30	FERNANDO PEÑA, CARLOS BERTRAN, JAIME TAPIA, ENRIQUE HAUENSTEIN, DANIEL ROZAS & MIGUEL ESCALONA	DYNAMIC SPACE-TIME AND FUTURE TRENDS OF CHANGE IN LANDSCAPE UNITS OF COASTAL WATERSHEDS IN LA ARAUCANÍA REGION OF CHILE.
11:45	FETRA MIHAJAMANANA RABENILALANA, LALANIRINA GABRIELLE RAJOELISON, JEAN PIERRE SORG, JEAN LAURENT PFUND & HARIFIDY RAKOTO RATSIMBA	MULTI-TEMPORAL ANALYSIS OF FOREST LANDSCAPE FRAGMENTATION IN THE NORTH EAST OF MADAGASCAR
12:00	W. KEITH MOSER	LANDSCAPE CHANGE INTO THE FUTURE: PROJECTIONS OF FOREST STRUCTURE AND COMPOSITION IN THE NORTHERN UNITED STATES OVER THE NEXT 60 YEARS
12:15	JOANA VICENTE, HENRIQUE PEREIRA, JOÃO GONÇALVES, ÂNGELA LOMBA, CHRISTOPHE RANDIN, ANTOINE GUISAN & JOÃO HONRADO	IS DISSIMILARITY IN ALIEN PLANT SPECIES COMPOSITION BETTER EXPLAINED BY ENVIRONMENTAL, DISPERSAL OR GEOGRAPHICAL DISTANCE? OR DOES DISTANCE REALLY MATTER?

Oral Session Tools of landscape assessment and management 3

LAND-USE MANAGEMENT AND CHANGES IN CAMPANIA REGION (SOUTHERN ITALY): EXAMPLES FROM TEN REGIONAL STATE FORESTS

ANTONELLO MIGLIOZZI, FRANCESCO CONA, ANTONIO DI GENNARO, ANTONIO MINGO, A. SARACINO & STEFANO MAZZOLENI

University of Napoli "Federico II", Italy

In the last 50 years the Italian territory has undergone a remarkable transformation as a consequence of anthropogenic activity. In the Campania Region, the main causes of change are urban expansion, abandonment of mountainous and marginal agricultural areas and expansion of industrial settlements. We document land use variation during the last 50 years and the changes occurred in ten Regional Forests which contain mainly natural land use patches. Their geographic distribution makes these areas representative of the major physiographic and ecological features present in the Campania Region. Two different approaches were followed: At a landscape level, carriers responsible for the transformation of Campania's landscape agroforestry were identified, covering the last fifty years. A land-systems map was used as background to focus on ten different forests, highlighting their status and management perspectives. The main problems of land and forest management are discussed focusing the actions promoted by two new important legislative instruments: the "Piano Territoriale Regionale (PTR)" and the "Piano Forestale Generale (PFG)", related to socio-economic revitalization of rural areas and to the sustainable management of agro-forestry systems. Sustainably managed State Forests could be used as pilot areas for monitoring natural forest processes, testing different management options and results.

Oral Session Urban Forestry 1

GREEN SPACE INFLUENCE ON THERMAL COMFORT – STRUCTURED STUDIES IN THE CITY OF BRAGANCA (PORTUGAL)

ARTUR GONÇALVES, ANTÓNIO CASTRO RIBEIRO, LUÍS NUNES & MANUEL FELICIANO

CIMO, Centro de Investigação de Montanha, Instituto Politécnico de Bragança, Portugal

Green Spaces are regarded as elements that can provide thermal comfort in cities. A research on green spaces contribution to thermal comfort was carried out, with the purpose of identifying essential principles that can help urban designers to enhance the social use of open spaces. These studies were developed in summer and early fall conditions, by means of structured experiments. These experiments took place in three occasions between June 2008 and September 2009, in a total of 432 thermal sensations questionnaires. The methodology consisted in placing different individuals, organized in uniform age groups and equal numbered in gender, under different thermal environments (shadow versus sun exposure, wind versus wind shield, grass versus artificial pavement) and asking them to express their thermal sensations (using a seven levels scale), while collecting meteorological data. A multinomial logistic regression was used to study the influence of both meteorological variables and personal attributes in thermal sensations. Significant results were found relating differences in thermal comfort with the radiation, air temperature and wind speed. Gender was also found to have a significant influence in human thermal sensations. Results show that differences in green spaces layout can significantly change the thermal environment, thus influencing thermal perceptions.