

Future City 7

David Pearlmutter · Carlo Caltrapeira
Roeland Samson · Liz O'Brien
Silvija Krajter Ostoić · Giovanni Sanesi
Rocío Alonso del Amo Editors

The Urban Forest

Cultivating Green Infrastructure
for People and the Environment

 Springer

EXTRAS ONLINE

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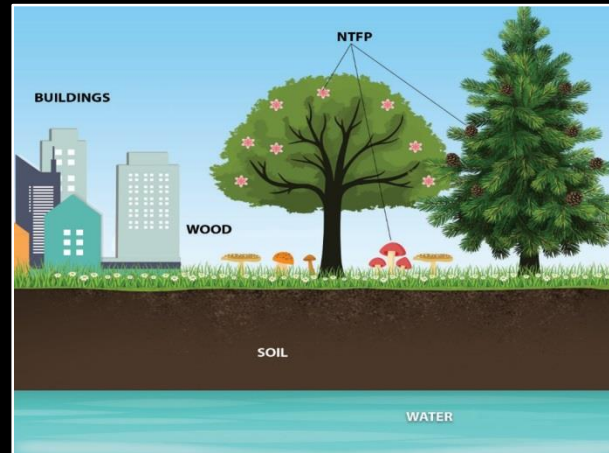
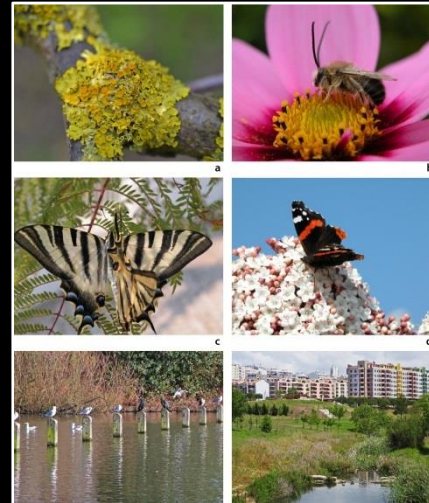


Contributing Editors: Maria-Beatrice Andreucci, Clive Davies, Natalie Marie Gulsrud, Nerys Jones, Elena Paoletti, Theano S.Terkenli, and Naomi Zürcher

This book resulted from a collaborative effort by the working group members of EU COST Action FP1204: 'Green Infrastructure approach: linking environmental with social aspects in studying and managing urban forests' (*GreenInUrbs*)

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by Urban Forests and Green Infrastructure**

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- 2 The Urban Heat Island: Thermal Comfort and the Role
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Jelle A. Hiemstra, Hadas Saaroni, and Jorge H. Amorim
- 3 Urban Trees and Their Relation to Air Pollution**
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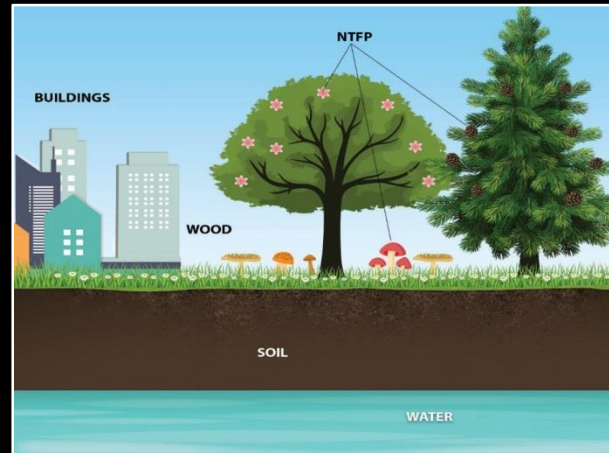
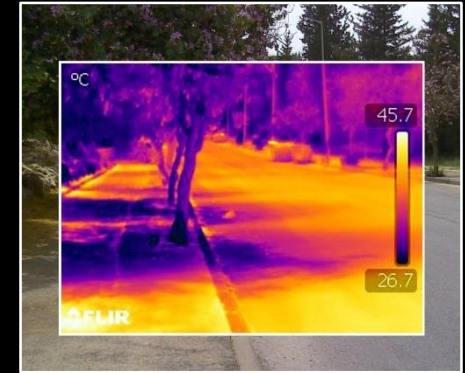
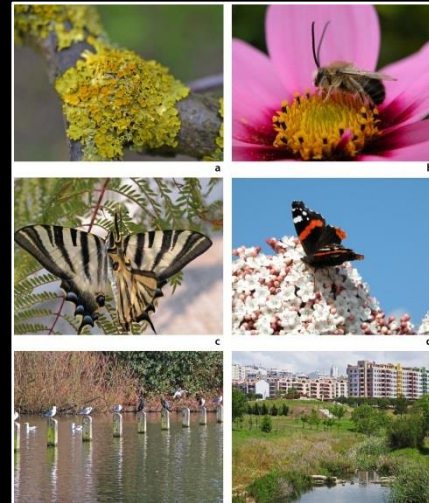


Table 12.1 Catalog of common and potential urban tree species in Europe, and their ecosystem table is given in the this chapter's text

Species	General tree characteristics			Contribution to environmental ecosystem services			
	Hardiness	Soil pH	Drought tolerance	Microclimate regulation	Air pollution mitigation	Soil quality	Net CO ₂ -sequestration
<i>Acer buergerianum</i> (D)	6b-8	<7.0	Moderate	H			
<i>Acer campestre</i> (D)	5-8	<5.5->7.5	High	M	High	Moderate	Low
<i>Acer negundo</i> (D)	4-8	<7.5	Low	H	Moderate	Moderate	Moderate
<i>Acer platanoides</i> (D)	4-7	<5.5-<7.5	Moderate	H	Moderate	Moderate	Moderate
<i>Acer pseudoplatanus</i> (D)	4-7	<5.5-<7.5	Moderate	H	Moderate	Moderate	Moderate
<i>Acer rubrum</i> (D)	4-9	<5.5-<7.0	Low	H	High		Moderate
<i>Acer saccharinum</i> (D)	5b-8	<7.0	NT	H	Moderate	Moderate	Moderate
<i>Acer tataricum</i> ssp. <i>ginnala</i> (D)	4-8	<7.5	Moderate	M	Moderate	Moderate	Moderate
<i>Aesculus hippocastanum</i> (D)	4-7	<5.5-<7.5	NT	H	Moderate	Moderate	High
<i>Aesculus x carnea</i> (D)	6b-7	<5.5-<7.5	Low	H	Low		High
<i>Ailanthus altissima</i> (D)	6b-8	<5.5->8.0		H	Low	Moderate	High
<i>Albizia julibrissin</i> (D)	7b-9	<5.5->8.0	Low	L		Moderate	Moderate
<i>Alnus cordata</i>	6b-7	<5.5-<7.5		M			High

service-related traits. More detailed information on how to read, interpret and understand the

Precipitation interception	Delivery of goods	Food source	Disservices		Sensitivity	
			Allergenicity*/toxicity	BVOC emission*	Salinity tolerance	Snow tolerance
	Low		Moderate	Moderate	Moderate	
Low	Moderate (t)	Pollinators (n+p)	Moderate	Moderate	High	
Low	Moderate (t)	Pollinators (n+p)	High (male)	Moderate	Moderate	
Moderate	Moderate (t)	Pollinators (n+p)	High	Moderate	Moderate	High
Moderate	Moderate (t)	Pollinators (n+p)	High	Moderate	Moderate	
Low	Moderate (t)	Pollinators (n+p)	High (depend. cultivar)	Moderate	Low	Moderate
Moderate	Moderate (t)	Pollinators (n+p)	High (male)	Moderate	Moderate	
Moderate	Low	Pollinators (n+p)	Moderate	Moderate	High	
Moderate	Moderate (m)	Pollinators (n+p)	Moderate/Tox: b; fr.	Moderate	High	



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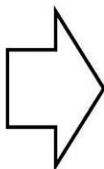
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<p>TYPE 1: Visually (and ecologically) <i>green</i> resources</p>	<p>TYPE 2: Infrastructure characterised as sustainable</p>
<p>Parks; Trees, woods and forests; Grassland, plants, hedges, verges; Water bodies and rivers</p>	<p>Cycle paths; Storm-water channels; Formal footpaths and access routes; Sea defences; Energy efficient buildings</p>



<p>TYPE 3: Visually and sustainable Green Infrastructure</p>
<p><i>Green walls; Green roofs; SUDS</i></p>



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Ana Almeida Research Centre for Architecture Urbanism & Design, Faculty of Architecture, University of Lisbon, Lisbon, Portugal

Rocío Alonso del Amo Ecotoxicology of Air Pollution, CIEMAT, Madrid, Spain

Jorge H. Amorim Atmospheric Environment Research Unit, Swedish Meteorological and Hydrological Institute, Norrköping, Sweden

Maria-Beatrice Andreucci Faculty of Architecture, Sapienza Università di Roma, Rome, Italy

Erdogan Atmiş Forest Faculty, Bartın University, Bartın, Turkey

Simon Bell Department of Landscape Architecture, Estonian University of Life Sciences, Tartu, Estonia

Andreas Bernasconi Pan Bern AG, Bern, Switzerland

Carlos Borrego Department of Environment and Planning & CESAM, University of Aveiro, Aveiro, Portugal

Cristina Branquinho Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Michael Brennan Eastern & Midlands Regional Assessment Centre, Nottingham, UK

Pedro Calaza-Martínez Spanish Association of Plant Ecologists, Pozuelo de Alarcón, Spain

Carlo Calfapietra Institute of Agro-Environmental and Bioscience, National Research Council (CNR), Monterotondo (Roma), Italy
Change Research Centre, Brno, Czech Republic

Paloma Cariñanos Department of Botany, University of Valencia, Valencia, Spain

Giuseppe Carrus Department of Education, Roma Tre University, Rome, Italy

Otilia Correia Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Ricardo Cruz de Carvalho Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Payam Dadvand ISGlobal, Centre for Research in Environmental Change (CREAL), Barcelona, Spain

Clive Davies MD2 Consulting Ltd, Durham, UK
Newcastle University, Newcastle upon Tyne, UK

Rik De Vreese Public Health Department, Vrije Universiteit Brussel (Brussels), Belgium

Sjerp de Vries Wageningen University & Research, Wageningen, The Netherlands

Teresa Dias Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Lucian Dinca Forest Research Institute, Voluntari, Romania

Maija Faehnle Environmental Policy Centre, Land Use Unit, Finnish Environmental Institute, Helsinki, Finland

Silvano Fares Council for Agricultural Research and Economics, Research Centre for the Soil-Plant System, Rome, Italy

Patrícia Garcia-Pereira Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Sandra Gentin Department of Geosciences and Natural Resource Management, University of Copenhagen, Copenhagen, Denmark

Maria Glushkova Forest Research Institute, Bulgarian Academy of Sciences (FRI-BAS), Sofia, Bulgaria

Paula Gonçalves Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Filipa Grilo Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Rüdiger Grote Institute of Meteorology and Climate Research (IMK-IFU), Karlsruhe Institute of Technology, Karlsruhe, Germany

Natalie Marie Gulsrud Geosciences & Natural Resource Management, Landscape Architecture & Planning, University of Copenhagen, Copenhagen, Denmark

Ralph Hansmann Transdisciplinarity Lab, Department of Environmental Systems Science, ETH Zurich, Zürich, Switzerland

Jelle A. Hiemstra Applied Plant Research, Wageningen UR, Wageningen, The Netherlands

Anže Japelj Slovenian Forestry Institute, Ljubljana, Slovenia

Leena Järvi Division of Atmospheric Sciences, Department of Physics, University of Helsinki, Helsinki, Finland

Nerys Jones Strategic Greenspace Consultant, Wolverhampton, UK

Maren Kern School of Agricultural, Forest and Food Sciences HAFL, Bern, Switzerland



Teis N. Mikkelsen DTU Environmental Engineering, Technical University of Denmark, Kongens Lyngby, Denmark

Ana Isabel Miranda Department of Environment and Planning & CESAM, University of Aveiro, Aveiro, Portugal

Marco Moretti Biodiversity and Conservation Biology, Swiss Federal Research Institute WSL, Zürich, Switzerland

Tine F. Ningal School of Geography, University College Dublin, Dublin, Ireland

Liz O'Brien Social and Economic Research Group, Centre for Human and Ecological Sciences, Forest Research, Farnham, UK

Anton Stahl Olafsson Department of Geosciences and Natural Resource Management, University of Copenhagen, Copenhagen, Denmark

Riikka Paloniemi Environmental Policy Centre, Green Infrastructure Unit, Finnish Environmental Institute, Helsinki, Finland

Thomas Panagopoulos University of Algarve, Faro, Portugal

Elena Paoletti Institute for Sustainable Plant Protection, Italian National Research Council (CNR), Turin, Italy

David Pearlmutter Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Beersheba, Israel

Pedro Pinho Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências & CERENA, IST, Universidade de Lisboa, Lisbon, Portugal

Arkadiusz Przybysz Faculty of Horticulture Biotechnology and Landscape Architecture, Warsaw University of Life Sciences (SGGW), Warsaw, Poland

Rui Rebelo Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Kenton Rogers Treconomics Ltd, Innovation Centre, Exeter, UK

Luís Miguel Rosalim CESAM & Departamento de Biologia, Universidade de Aveiro, Aveiro, Portugal

Yael Shmida School of Geography and the Human Environment, Tel Aviv University, Tel Aviv, Israel

Stefan Stuyf Department of Bioscience Engineering, Faculty of Sciences, Ghent University, Ghent, Belgium

Alfonso Tena Department of Geography, University of Navarra, Pamplona, Spain

Stefano Testolin Department of Agricultural and Environmental Science, University of Bari, Bari, Italy

Ana Almeida Centre for Architecture Urbanism & Design, Faculty of Architecture, University of Lisbon, Lisbon, Portugal

Markku Tuomi Natural Resources Institute Finland, Helsinki, Finland

David Underhill School of Architecture and Design, Leeds Beckett University, Leeds, UK

Yana Vassileva Forest Research Institute, Bulgarian Academy of Sciences (FRI-BAS), Sofia, Bulgaria

Andrius Velička Department of Forest Science and Ecology, Aleksandras Stulginskis University, Kaunas, Lithuania

Ilze Vilkaviete Department of Agriculture, Latvia University of Agriculture, Jelgava, Latvia

Wim Verbeke Department of Biology, Vrije Universiteit Brussel (VUB), Brussels, Belgium

Yiannis Vekrellis Department of Geography, University of the Aegean, Mitilini, Greece

David Whitehead Department of Engineering and the Environment, Northumbria University, Newcastle, UK

Stefan Zariwsky Department of Landscape Architecture and Urban Planning, Faculty of Architecture, University of Belgrade, Belgrade, Serbia

Stefan Zariwsky Department of Philosophy, University of Belgrade, Belgrade, Serbia

Carlos Borrego Department of Environment and Planning & CESAM, University of Aveiro, Aveiro, Portugal

Joana Vieira Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências (cE3c, FCUL), Universidade de Lisboa, Lisbon, Portugal

Urša Vilhar Department of Forest Ecology, Slovenian Forestry Institute, Ljubljana, Slovenia

Petar Vranic University of Nis, Nis, Serbia

Ian Whitehead Faculty of Architecture, Institute of Landscape Architecture, RWTH Aachen University, Aachen, Germany

Miglena Zhiyanski Forest Research Institute, Bulgarian Academy of Sciences (FRI-BAS), Sofia, Bulgaria

Ivana Zivojinovic The European Forest Institute Central-East and South-East European Regional Office (EFICEEC-EFISEE), University of Natural Resources and Life Sciences (BOKU), Vienna, Austria

Naomi Zürcher Urban Forester/Consulting Arborist/Certified Master Composter, Arbor Aegis Luzern, Luzern, Switzerland