COST Action FP1301 EuroCoppice: Activities

COST Action FP1301 EuroCoppice ("Innovative management and multifunctional utilisation of traditional coppice forests - an answer to future ecological, economic and social challenges in the European forestry sector"), was active for four years, from October 2013 to October 2017. It was chaired and managed by the Albert Ludwig University of Freiburg and brought together international scientists, experts and young scholars to exchange and build on knowledge concerning coppice forests, form an international network on the subject, create awareness for and support capacity building on coppice and influence policy.

The Action was divided into five Working Groups that discussed ideas and deepened knowledge on particular topics concerning coppice, with each producing numerable reports throughout the Action duration. Each Working Group was represented in the Steering Group, which was responsible for the strategic planning, harmonisation of content and outputs, as well as guiding the implementation of the Action. The governing body of the Action, the Management Committee, comprised of one or two representatives from each of the 32 COST Member Countries, as well as Observers from two Near Neighbour Countries (NNC) and one International Partner Country (IPC).

EuroCoppice utilised the various COST formats to reach the aims of the Action. Multiple international Action Conferences were organised, with many of the presentations and posters later made publicly available on the website. Action Meetings were a valuable tool for discussing the specific content and publication of reports, as well as upcoming events. Two activities, Short Term Scientific Missions (STSM) and Training Schools (TS), were especially aimed at engaging and supporting young researchers. All Action Members were also involved in numerous additional Dissemination Activities, mainly in the form of publications and presentations.

The following tables summarise the framework of and main activities conducted by COST Action FP1301 EuroCoppice.

Countries involved

AL	Albania	EL	Greece	RO	Romania
AT	Austria	ΗU	Hungary	RS	Serbia
BE	Belgium	IE	Ireland	SK	Slovakia
BA	Bosnia & Herzegovina	IL	Isreal	SI	Slovenia
BG	Bulgaria	IT	Italy	ZA	South Africa
HR	Croatia	LV	Latvia	ES	Spain
CZ	Czech Republic	LT	Lithuania	SE	Sweden
DK	Denmark	MK	fYR Macedonia	СН	Switzerland
EE	Estonia	NL	Netherlands	TR	Turkey
FI	Finland	NO	Norway	UA	Ukraine
FR	France	PL	Poland	UK	United Kingdom
DE	Germany	PT	Portugal		

Working Groups (WGs)

Nr	Name	Leader	Vice-Leader
WG1	Definitions, History and Typology	Dagnija Lazdina	Pieter D. Kofman
WG2	Ecology and silvicultural management	Valeriu-Norocel Nicolescu	Halil Barýþ Özel
WG3	Utilization and products	Natascia Magagnotti	Janine Schweier
WG4	Services, protection and nature conservation	Peter Buckley	Florian Borlea
WG5	Ownership and governance	Debbie Bartlett	na.

Steering Group

Role in the Action	Country	Organisation
Chair	Germany	Albert Ludwig University of Freiburg
Vice-Chair	Italy	CNR IVALSA
Manager	Germany	Albert Ludwig University of Freiburg
WG1 Leader	Latvia	Latvian State Forest Research Institute
WG2 Leader	Romania	Transilvania University of Brasov
WG3 Leader	Italy	CNR IVALSA
WG4 Leader	United Kingdom	Consultant
WG5 Leader	United Kingdom	University of Greenwich
TS Coordinator	Austria	BOKU
STSM Coordinator	Denmark	Danish Forestry Extension
	Role in the Action Chair Vice-Chair Manager WG1 Leader WG2 Leader WG3 Leader WG4 Leader WG5 Leader TS Coordinator	Role in the ActionCountryChairGermanyVice-ChairItalyManagerGermanyWG1 LeaderLatviaWG2 LeaderRomaniaWG3 LeaderItalyWG4 LeaderUnited KingdomWG5 LeaderUnited KingdomTS CoordinatorAustriaSTSM CoordinatorDenmark

Conferences

Title	Place	Date
Innovative management and multifunctional utilization of traditional coppice forests	Florence, Italy	Feb 26, 2014
People and coppice	Chatham, UK	Nov 5, 2014
Ecology and silvicultural management of coppice forests in Europe	Bucharest, Romania	Oct 19 - 21, 2015
Ecosystem services, protection and nature conservation	Antwerp, Belgium	June 15 - 17, 2016
Coppice forests in Europe: a traditional natural resource with great potential	Limoges, France	June 19 - 21, 2017

Training Schools (TSs)

Title	Place	Date
Silviculture of Coppice Beech Forests	Bosnia and Herzegovina	July 2014
Coppice Harvesting and Use of Products as a Source of Renewable Energy	Italy	May 2015
Coppice Economy - From Planning to Harvest	Czech Republic	April 2016
Coppice Management, Biodiversity and Services	Germany	July 2016
Establishment and tending of SRC	Latvia	March 2017

Short Term Scientific Missions (STSMs)

Guest Name	Host Institute	Guest Country	Host Country	Start Date	Title
Janine Schweier	CNR IVALSA	DE	IT	10/01/14	Harvesting of hardwoods with new machines
Antonio Scarfone	SLU	IT	SE	11/04/14	Monitoring systems in stored wood chip piles and energetic characterization of willow SRC
Debbie Bartlett	CNR IVALSA	UK	IT	02/06/14	Socio-economic structure in the chestnut coppice industry
David Rossney	CNR IVALSA	UK	IT	02/06/14	Knowledge Transfer in the Chestnut Coppice Industry - A Comparison of the Situation in Southeast England with Regions in Italy
Giorgos Mallinis	University of Sassari	GR	IT	02/07/14	Assessing differences in fire hazard over Mediterranean coppice and high forests
Murat Ertekin	University of Freiburg	TR	DE	21/07/14	Climatic change and silvicultural effects on the coppice forests of the Southern Black Forest
Cornelia Hernea	SLU	RO	SE	04/09/14	Management and implications of Short Rotation Coppice
Walter Mattioli	University of Sarajevo	IT	BA	14/09/14	Forest inventory concerning Bosnian old beech coppice in evolution to old-growth forest
Vladimir Corbic	University of Florence	CZ	IT	28/09/14	Surface fuel loads and biomass potential in coppice forests
Clara Valente	Politecnido di Torino	NO	IT	29/09/14	Sustainability assessment of chestnut and invaded coppice forests in Piedmont region
Giavanna Ottoviani	CNR IVALSA	NO	IT	26/10/14	Human factors in small scale forestry, the ergonomic advantage of using a new equipment for winching
Carolina Lombardini	University of Freiburg	IT	DE	11/11/14	Coppice Glossary and harvesting cost estimate for SRC
Srdjan Pejovic	University of Freiburg	RS	DE	15/01/15	The morphology, growth pattern and stem quality of multi-stemmed beech (<i>Fagus sylvatica</i>) trees in coppice forests
Milan Gazdic	University of Freiburg	RS	DE	15/01/15	Resilience of oak (<i>Querqus petraea</i>) coppice forests to drought
Kristaps Makovskis	MENDELU	LV	CZ	08/04/15	Technical operation of the glossary, terminology and overview of legal frame of coppice forests
Marko Stojanovic	GOZDIS	CZ	SI	25/05/15	Dendroecological study of sessile oak (<i>Quercus petraea</i> (M.) Liebl.) growth
Andrea Laschi	USC	IT	ES	01/07/15	Environmental impacts and energy balances in coppices: LCA on processes and products
Natascia Magagnotti	NMMU	IT	SA	01/07/15	Mechanised harvesting in coppiced <i>Eucalyptus</i> plantations
Martin Sramek	BAS	CZ	BG	05/07/15	The effect of coppice management on the tree growth
Vittorio Pasquino	NTNU	IT	EL	05/10/15	Hydraulic flow resistance and elastic behaviour of coppice in river beds
Matthew Everatt	UniFl	UK	IT	18/10/15	Evaluation of the potential of control options used in Italy for the management of the oriental chestnut gall wasp (<i>Dryocosmus kuriphilus</i>) in the UK
Stefan Vanbeveren	CNR IVALSA	BE	IT	08/11/15	The mechanised harvesting of short-rotation coppices
Zbigniew Karaszewski	AUT	PL	EL	09/11/15	Recognition of coppice wood quality
Abel Rodrigues	CNR IVALSA	ES	IT	25/01/16	Evaluation of Management techniques for Short Rotation Coppice (SRC) aimed at biomass production

Srdjan Keren	UAK	BA	PL	01/03/16	Case study from Bosnia and Herzegovina: Ecology and productivity of European beech coppice stands
Julija Konstantinaviciene	LSFRI	LT	LV	07/03/16	Harvesting and management of different clones of short rotation coppice in Latvia
Silva Senhofa	IGN	LV	DK	17/04/16	Growth of fast-growing coppice species in two environmental conditions at juvenile age
Ivailo Markoff	FH Erfurt	BG	DE	18/04/16	Short rotation coppices and traditional coppices in Germany
Abhishek Mani Tripathi	UNI Antwerp	CZ	BE	31/05/16	Assessment of leaf area index and gas exchange in short rotation coppice poplar cultures
Petros Tsioras	ITD	EL	PL	22/08/16	Mechanized harvesting of aged traditional coppice stands
Arta Bardule	MASARYK	LV	CZ	16/10/16	Impact of fertilization on trace element content in Hybrid aspen coppice tree rings
Lauma Busa	MASARYK	LV	CZ	16/10/16	Phytoremediation potential of different Poplar clone coppice plantation
Gianni Picchi	CTFC	IT	ES	16/11/16	An analysis of forest companies in the Catalonian Region: level of specialization and share of coppice forest in annual turnover
Eulalia Gomez-Martin	BCCC	UK	ES	08/01/17	Assessing the feasibility of Agent Based Modelling to investigate the impact of governance interven- tions on the development of the coppice industry
Jordi Garcia Gonzalo	ISA	ES	PT	22/01/17	Optimizing coppice management under climate change
Pere Navarro i Maroto	CNR IVALSA	ES	IT	22/01/17	An analysis of cable yarding in Toscana Region: effective production and work conditions
Ivan Sopushynskyy	POZNAN	UA	PL	26/02/17	Productivity and costs of harvester and chainsaw operations in alder coppice stand in Poland and Ukraine
Angela Blazquez	UEF	ES	FI	15/03/17	Modelling methodologies focussed on different machine learning using Rstudio for stand classification and productivity
Abhishek Mani Tripathi	SILAVA	CZ	LV	18/03/17	Measurement of tree height using lidar and gas fluxes by chamber methods
Giovanni Aminti	UPM	IT	ES	19/03/17	Study performance of a new coppice harvesting system
Ivaylo Tsvetkov	PLECO	BU	BE	02/04/17	Improving skills for ecophysiological and meteorological research applicable to poplar SRC
Abel Rodrigues	AU	PT	DK	03/04/17	A technical evaluation, through methodologies in field and laboratory, of poplar and willow SRCs biomass concerning its lifecycle, from production to thermal conversion

Peer-reviewed publications: co-authored by Action Members from two or more countries and acknowledging EuroCoppice

- Jylhä P. & Bergström D. (2016): *Productivity of harvesting dense birch stands for bioenergy*, Biomass and Bioenergy, Volume 88, p 142-151. http://dx.doi.org/10.1016/j.bi
- Magagnotti, N., Ottaviani Aalmo, G., Brown, M. & Spinelli, R. (2015): *A new device for reducing winching cost and worker effort in steep terrain operations*, Scandinavian Journal of Forest Research, 31:6, 602-610. http://dx.doi.org/10.1080/0282
- Mairota, P., Buckley, P., Suchomel, C., Heinsoo, K., Verheyen, K., Hédl, R., Terzuolo, P.G., Sindaco, R., & Carpanelli, A. (2016): *Integrating conservation objectives into forest management: coppice management and forest habitats in Natura 2000 sites*. iForest, Vol. 9, pp. 560-568. 10.3832/ ifor1867-009

- Marchi E., Picchio R., Mederski P.S., Vusić D., Perugini M. & Venanzi R. (2016): *Impact of silvicultural treatment and forest operation on soil and regeneration in Mediterranean Turkey oak (Quercus cerris L.) coppice with standards*. Ecological Engineering, Volume 95, Pages 475-484. https://doi.org/10.1016/j.ecol
- McEwan A., Magagnotti N. & Spinelli R. (2016): *The effects of number of stems per stool on cutting productivity in coppiced Eucalyptus plantations*. Silva Fennica vol. 50 no. 2 article id 1448. http://dx.doi.org/10.14214/sf.
- Rodrigues, A., Vanbeveren, S., Costa, M. & Ceulemans, R. (2017): *Relationship between soil chemical composition and potential fuel quality of biomass from poplar short rotation coppices in Portugal and Belgium*. Biomass and Bioenergy, Vol 105, pp 66-72. https://doi.org/10.1016/j.biom
- Schweier J, Spinelli R, Magagnotti N. & Becker G. (2015): Mechanized coppice harvesting with new small-scale feller-bunchers: Results from harvesting trials with newly manufactured felling heads in Italy. Biomass and Bioenergy (72): 85-94. https://doi.org/10.1016/j.biom
- Spinelli, R., Cacot, E., Mihelic, M., Nestorovski, L., Mederski, P. & Tolosana, E. (2016): Techniques and productivity of coppice harvesting operations in Europe: a metaanalysis of available data. Annals of Forest Science. 73(4): 1125–1139. doi:10.1007/s13595-016-0578-x
- Spinelli, R., Magagnotti, N. & Schweier, J. (2017): *Trends and perspectives in coppice harvesting*. Croatian Journal of Forest Engineering. 38. 219-230.
- Tolosana, E., Spinelli, R., Aminti, G., Laina, R. & López-Vicens, I. (2018): *Productivity, Efficiency and Environmental Effects of Whole-Tree Harvesting in Spanish Coppice Stands Using a Drive-to-Tree Disc Saw Feller-Buncher*. Croatian Journal of Forest Engineering. 39. 163-172.
- Vanbeveren, S. P. P., Magagnotti, N., & Spinelli, R. (2017): *Increasing the value recovery from shortrotation coppice harvesting*. BioRes. 12(1), 696-703. 10.15376/biores.12.1.696-703
- Vanbeveren, S. P. P., Schweier, J., Berhongaray, G. & Ceulemans, R. (2015): Operational short rotation woody crop plantations: Manual or mechanised harvesting?. Biomass and Bioenergy, 72, 8-18. https://doi.org/10.1016/j.biom
- Vanbeveren, S., Spinelli, R., Eisenbies, M., Schweier, J., Mola-Yudego, B., Magagnotti, N., Acuna, M., Dimitriou, I. & Ceulemans, R. (2017): *Mechanised harvesting of short-rotation coppices*. Renewable and Sustainable Energy Reviews, Vol 76, pages 90-104. https://doi.org/10.1016/j. rser





Funded by the Horizon 2020 Framework Programme of the European Union

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COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.

Published by:

Albert Ludwig University Freiburg Chair of Forest Utilization Werthmannstr. 6 D-79085 Freiburg Germany

This article is part of the volume

"Coppice Forests in Europe"

Printed by: Albert Ludwig University Freiburg Printing Press

Contact: www.eurocoppice.uni-freiburg.de eurocoppice@fob.uni-freiburg.de 0049 (0)761 203 3789

Coppice Forests in Europe

© 2018 Professur für Forstbenutzung, Albert-Ludwigs-Universität Freiburg, Freiburg i. Br., Germany Editors: Alicia Unrau, Gero Becker, Raffaele Spinelli, Dagnija Lazdina, Natascia Magagnotti, Valeriu-Norocel Nicolescu, Peter Buckley, Debbie Bartlett and Pieter D. Kofman

ISBN 978-3-9817340-2-7

Recommended citations:

For the full volume: Unrau, A., Becker, G., Spinelli, R., Lazdina, D., Magagnotti, N., Nicolescu, V.N., Buckley, P., Bartlett, D., Kofman, P.D. (Eds.) (2018). *Coppice Forests in Europe*. Freiburg i. Br., Germany: Albert Ludwig University of Freiburg.

For individual chapters/articles: List of author(s) with surname(s) and initial(s). (2018). Chapter/article title. In A. Unrau, G. Becker, R. Spinelli, D. Lazdina, N. Magagnotti, V.N. Nicolescu, P. Buckley, D. Bartlett, P.D. Kofman (Eds.), *Coppice Forests in Europe* (pp. xx-xx). Freiburg i. Br., Germany: Albert Ludwig University of Freiburg.

The articles in this volume were developed within the context of COST Action FP1301 EuroCoppice (2013-2017). Numerous contributions were published as single, independent booklets during the course of the Action; they were subsequently reviewed and updated for this volume. A digital version of this volume, further results and more are available on the website: www.eurocoppice.uni-freiburg.de

Design, layout & formatting: Alicia Unrau

Coppice image acknowledgements: Simple coppice (grey) based on a drawing by João Carvalho (pp. 46); Leaf vector originals designed by www.freepik.com (modified)

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