



# Legislative framework for coppice silviculture in Italy

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Session 82 a/b - IUFRO 125<sup>th</sup> Anniversary Congress, Freiburg, Germany "Traditional coppice: ecology, silviculture & socio-economic aspects" Tuesday Sept. 19<sup>th</sup>, 2017







#### Coppices in Italy = **3,663,143 ha** (<**500,000 ha Sweet chestnut**) (INFC 2005)

Coppices in Italy = **19.2%** coppices in the EU28 Coppices in EU28 = **83.3%** coppices in continental Europe Coppices in continental Europe = **52.1% world** coppices (UN-ECE/FAO 2000)

# **Coppice woodlands in Italy**







## Age and species distribution of coppices



(source Fabbio 2016)

	1800-1930s	1940-50s	1960-70s	1970-90
Drivers	Industrial/urban charcoal demands	Fossil fuel availability Harvest profitability	Fossil fuel crisis Rural depopulation	Urban vs rural societies conflicting and contradictory ES demands
Management	Coppice + "multiple use" short felling cycles	Longer felling cycles Less accessory uses	Coppice neglect + conversion to high forest or compound coppice	Obstacles to coppice silviculture Increased standards/ha
Forest structure and ecology	Negative effects on stem size standing volume/ha soil fertility erosion control	Positive effects on stem size standing volume/ha soil fertility erosion control	Coppice neglect + conversion to high forest or compound coppice	Overstocking with standards negative effects on resprouting
Landscape structure and ecology	Negative effects on stream flow regulation	Positive effects on stream flow regulation	Dominance of senescent woodlands Woodlands expansion	Dominance of senescent woodlands Woodlands expansion

Mairota et al 2016

R.D. 3267/1923 "Reordering and reform of legislation on forests and mountainous terrain "

L. 431/85 "Urgent provisions for the protection of areas of particular environmental interest" so called Galasso law (abrogated and partly reconsidered in Dlg. 42/2004 "Code of cultural Heritage and Landscape ")

D.Lgs. 227/2001 "Orientation and modernization of the Forestry sector"

D.M. 16/06/2005 "Forest planning guidelines"

National forest guidelines indicate important goals for the regions to consider in order to develop sustainable, multifunctional forestry, which include environmental protection, conserving and enhancing biodiversity and the forest's protective function, while promoting productivity and improving socio-economic and educational aspects of forestry.

To achieve these goals forest and land use planning is required at the regional, provincial and municipal/mountain community levels.

**Responsibility for forest regulation is now mainly delegated to Italy's 20 regions (NUTS-2),** of which 5 are constitutionally given a broader amount of autonomy granted by special statutes





Revision of prescription on forestry at the Province (NUTS-3) level

- Minimum number of standards (coppices with standards)
- Maximum number of standards ( $\rightarrow$  compound coppice/overstocking)
- Spatial distribution of standards (uniform vs groups)
- Minimum felling cycle
- Maximum felling cycle ( $\rightarrow$  overgrown coppice)
- Prescriptions for biodiversity in coppices and/or in Natura 2000 sites





Rotation min Rotation max



Province level prescriptions 1950-63 Province level prescriptions updated 1980-99 **Regional legislation conservative Regional legislation increasing Regional legislation innovative** 

Quereus and other		Sweetenesthat		Decen	
spe	cies				
min	max	min	max	min	max
65	<b>120</b>	40			
70	140	40		100	
60	140	30		100	
100	200	50			
	0/ -				

Rooch

% canopy cover



- Piemonte Specialized and qualified operators at all levels (forestry technicians, workers, controllers)
- Umbria and Toscana Novel forest
   management plans (Terradura & Consoli
   2011, Fantoni et al. (2012)
- **Output** Umbria Regionally consistent administrative procedures ensuring a logical hierarchy in forest planning (sensu Baskent & Keles 2005)

Province level prescriptions 1950-63 Province level prescriptions updated 1980-99 Regional legislation conservative Regional legislation increasing Regional legislation innovative

Quercus and other species		Sweet Chestnut		Beech	
min	max	min	max	min	max
65	120	40			
70	140	40		100	
60	140	30		100	
100	200	<b>50</b>			
	0/ -				

% canopy cover

Negative attitude (on the part of controlling authorities and conservationists and even academics) towards coppice silvicutural system

Informs plans and recommendations for protected area management, including e.g. the recent national guidelines for the monitoring of Natura 2000 habitats and species (Angelini et al. 2016)

Legislation on nature conservation detached from forest legislative framework, sets constraints to coppice silviculture (e.g. conversion to high forest, cessation of silviculture, coupe size/contiguity, increase, heavy standard release, relase of aged/decaying trees)





https://www.prosilva.it/single-post/2017/08/25/Gestione-habitat-forestali-e-Natura-2000





Manuali per il monitoraggio di specie e habitat di interesse comunitario (Direttiva 92/43/CEE) in Italia: habitat



TOWARDS THE ASSESSMENT OF CONSERVATION STATUS OF FOREST HABITAT TYPES IN CONNECTION WITH SILVICULTURE

## **Concluding remarks**

IUFRO 125 "Science in dialogue"
Science meets Policy
Where: Rolf Böhme Saal (Konzerthaus Freiburg)
When: Tuesday, 19 Sep 2017, 11:45-13:30
✓ A limited number of regions endorse
procedures for a logical hierarchy in forest
planning

 Regional forest level legislation and prescriptions are not everywhere consistent with technical and scientific advances concerning coppice forest silviculture and ecology (Cf. Mairota et al 2016, Fabbio 2016, Manetti et al 2016)

 Need to trigger bottom up processes enabling to respond to the socio-economic and environmental challenges affecting coppice silvicultural system and forestry In Italy (bottom up collaborative planning sensu Termorshuizen & Opdam 2009)



# **Aknowledgements**



Corrado Letey (Valle d'Aosta) Fabio Maistrelli (Bolzano) Massimo Stroppa (Friuli Venezia Giulia) Francesco Pelleri (Toscana) Mauro Frattegiani (Umbria) Rossella Milano (Puglia)

## **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

# ... Thank you!

More information: EuroCoppice reports

- ✓ National Perspectives on Coppice from 35 EuroCoppice Member Countries
- National Forestry Regulations Affecting Coppice Management

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# www.eurocoppice.uni-freiburg.de

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