



Swedish University of  
Agricultural Sciences

## SILVICULTURE OF TEMPERATE FORESTS

Literature  
2020

### CURRICULUM

The curriculum is covered by the texts listed below in combination with IRL or online lectures, recorded lectures, recorded field tours, lecture notes and notes for field tours. Recorded sessions will be posted on SLU's course portal. The main texts are reference works, while the additional specific texts serve as overviews or examples of important principles or results. More literature may be added during the course. All literature and other written materials will be available as pdf.

### MAIN TEXTS

- All lecture notes
- All field tour notes

Harmer, R. & J. Howe 2003: *The silviculture and management of coppice woodlands*. Forestry Commission, VI + 88 pp. ISBN 0-85538-591-X  
Matthews, J.D. 1989: *Silvicultural systems*. Oxford University Press, XIII + 284 pp. ISBN 0-19-854670-X  
Savill, P.S. 2019: *The silviculture of trees used in British forestry*. CAB International, 3rd ed., X + 400 pp. ISBN 978-1-78639-392-0

### BASIC TEXTS

Hemery, G., P. Savill & G. Kerr *sine anno*: *Formative pruning*. Woodland Heritage. 2 pages  
Hemery, G., P. Savill & G. Kerr *sine anno*: *High pruning for profit*. Woodland Heritage. 2 pages  
Jahn, G. 1991: Temperate deciduous forests of Europe. *Ecosystems of the World* 7: 377-424, 492-502  
Jones, A., L. Montanarella & R. Jones 2005: *Soil atlas of Europe*. European Commission, Luxembourg. 128 pp. - Extracts: pp. 1-3, 25-33, 42-43, 121 and 124  
Skovsgaard, J.P. 2004: Forest measurements. *Encyclopedia of Forest Sciences* 2: 550-566  
Skovsgaard, J.P. & J.K. Vanclay 2008: Forest site productivity: A review of the evolution of dendrometric concepts for even-aged stands. *Forestry* 81: 13-31  
Skovsgaard, J.P. & J.K. Vanclay 2013: Forest site productivity: Spatial and temporal variability in natural site conditions. *Forestry* 86: 305-315  
Timbal, J., M. Bonneau, G. Landmann, J. Trouvilliez & L. Bouhot-Delduc 2005: European non-boreal conifer forests. *Ecosystems of the World* 6: 131-162

### RE- AND AFFORESTATION

Löf, M., D.C. Dey, R.M. Navarro & D.F. Jacobs 2012: Mechanical site preparation for forest restoration. *New Forests* 43: 825-848  
Wagner, S. & L. Lundqvist 2005: Regeneration techniques and the seedling environment from a European perspective. *Integrative Studies in Water Management & Land Development* 3: 153-171

### HARDWOODS

For all hardwood species / genera mentioned below: *EUFORGEN Technical guidelines for genetic conservation and use*. Available from [http://www.euforgen.org/publications/technical\\_guidelines.html](http://www.euforgen.org/publications/technical_guidelines.html)

#### Alder

Claessens, H., A. Oosterbaan, P. Savill & J. Rondeux 2010: A review of the characteristics of black alder (*Alnus glutinosa* (L.) Gaertn.) and their implications for silvicultural practices. *Forestry* 83: 163-175

## **Ash**

- Dobrowolska, D., S. Hein, A. Oosterbaan, S. Wagner, J. Clark & J.P. Skovsgaard 2011: A review of European ash (*Fraxinus excelsior* L.): implications for silviculture. *Forestry* 84: 133-148
- Fraxigen (ed.) 2005: *Ash species in Europe: Biological characteristics and practical guidelines for sustainable use*. Oxford Forestry Institute, Oxford University, Oxford. 128 pp. - Ch. 4 + 7 + 8
- Kerr, G. 1998: A review of black heart of ash (*Fraxinus excelsior* L.). *Forestry* 71: 49-56
- Skovsgaard, J.P., G.J. Wilhelm, I.M. Thomsen, B. Metzler, T. Kirisits, L. Havrdová, R. Enderle, D. Dobrowolska, M. Cleary & J. Clark 2017: Silvicultural strategies for *Fraxinus excelsior* in response to dieback caused by *Hymenoscyphus fraxineus*. *Forestry* 90: 455-472

## **Beech**

- Coppini, M. & L. Hermanin 2007: Restoration of selective beech coppices: A case-study in the Apennines (Italy). *Forest Ecology and Management* 249: 18-27
- Hansen, J.K., B.B. Jørgensen & P. Stoltze 2003: Variation of quality and predicted economic returns between European beech (*Fagus sylvatica* L.) provenances. *Silvae Genetica* 52: 185-197
- Madsen, P. & K. Hahn 2008: Natural regeneration in a beech-dominated (*Fagus sylvatica*) forest managed by close-to-nature principles - a gap cutting based experiment. *Canadian Journal of Forest Research* 38: 1716-1729
- Olesen, C.R. & P. Madsen 2008: The impact of roe deer (*Capreolus capreolus*), seedbed, light and seed fall on natural beech (*Fagus sylvatica*) regeneration. *Forest Ecology and Management* 255: 3962-3972
- Reventlow, D.O.J, T. Nord-Larsen & J.P. Skovsgaard 2019: Pre-commercial thinning in naturally regenerated stands of European beech (*Fagus sylvatica* L.): effects of thinning pattern, stand density and pruning on tree growth and stem quality. *Forestry* 92: 120-132

## **Birch**

- Hynynen, J., P. Niemistö, A. Viherä-Aarnio, A. Brunner, S. Hein & P. Velling 2010: Silviculture of birch (*Betula pendula* Roth and *Betula pubescens* Ehrh.) in northern Europe. *Forestry* 83: 103-119

## **Cherry**

- Pryor, S.N. 1988: The silviculture and yield of wild cherry. *Forestry Commission Bulletin* 75: 1-23

## **Lime**

- Larsen, F.K. & P. Kristoffersen 2002: *Tilia*'s physical dimensions over time. *Journal of Arboriculture* 28: 209-214
- Radoglou, K., D. Dobrowolska, G. Spyroglou & V.-N. Nicolescu 2009: A review on the ecology and silviculture of limes (*Tilia cordata* Mill., *Tilia platyphyllos* Scop. and *Tilia tomentosa* Moench.) in Europe. *Die Bodenkultur* 60: 9-19.

## **Oak**

- Jensen, J.S. 2000: Provenance variation in phenotypic traits in *Quercus robur* and *Quercus petraea* in Danish provenance trials. *Scandinavian Journal of Forest Research* 15: 297-308
- Jensen, J.S. & J.K. Hansen 2008: Geographic variation in phenology of *Quercus petraea* Matt. (Liebl.) and *Quercus robur* L. oak grown in greenhouse. *Scandinavian Journal of Forest Research* 23: 179-188
- Löf, M., J. Castro, M. Engman, A.B. Leverkus, P. Madsen, J.A. Reque, A. Villalobos, E.S. Gardiner 2019: Direct seeding to restore oak (*Quercus* spp.) forests and woodlands. *Forest Ecology and Management* 448: 474-489
- Petit, R.J. et al. 2002: Identification of post-glacial colonisation routes of European white oaks based on chloroplast DNA and fossil pollen evidence. *Forest Ecology and Management* 156: 49-74
- Rune, F. & J.P. Skovsgaard 2007: Afforestation with oak: Effects of pre-commercial thinning on the development of ground flora. *TemaNord* 508: 203-209

## **Poplar**

- Jobling, J. 1990: Poplars for wood production and amenity. *Forestry Commission Bulletin* 92: 1-3, 6-7, 23-24, 38-84
- Stanturf, J.A. & C. van Oosten 2014: Operational poplar and willow culture. *Poplars and willows* (edited by J. Isebrands & J. Richardson; CAB International), pp. 200-236

## **Sorbus**

Anonymous *sine anno*: Rowan (*Sorbus aucuparia* L.). *National Development, Dept. of the Marine and Natural Resource, Forest Service, Sheet 11*: 1-2

Kausch-Blecken von Schmeling, W. 2004: *Sorbus domestica* L. - Tips on planting whitty pear trees. *Corminaria 22* (Special issue): 5-6

Nicolescu, V.N., E. Hochbichler, J. Coello, S. Ravagni & V. Giulietti 2008: Ecology and silviculture of wild service tree (*Sorbus torminalis* (L.) Crantz): a literature review. *Die Bodenkultur* 60(3): 35-44

Skovsgaard, J.P. & H.C. Graversgaard 2014: Planting wild service trees: some practical advice. *Quarterly Journal of Forestry* 108: 188-191

## **Sycamore and Norway maple**

Hein, S., C. Collet, C. Ammer, N. Le Goff, J.P. Skovsgaard & P. Savill 2009: A review of growth and stand dynamics of *Acer pseudoplatanus* L. in Europe: implications for silviculture. *Forestry* 82: 361-385

## **Walnut**

Clark, J. & M. Brocklehurst 2012: *Walnut: practice note on stumping*. National Forest Company - Earth Trust. 2 pp.

Clark, J. & G.E. Hemery 2010: Walnut hybrids in the UK: fast growing quality hardwoods. *Quarterly Journal of Forestry* 104: 43-46

Clark, J.R., G.E. Hemery & P.S. Savill 2008: Early growth and form of common walnut (*Juglans regia* L.) in mixture with tree and shrub nurse species in southern England. *Forestry* 81: 631-644

Mohni, C., F. Pelleri & G.E. Hemery 2009: The modern silviculture of *Juglans regia* L: a literature review. *Die Bodenkultur* 60(3): 21-34

## **CONIFERS**

For all conifer species / genera mentioned below: *EUFORGEN Technical guidelines for genetic conservation and use*. Available from [http://www.euforgen.org/publications/technical\\_guidelines.html](http://www.euforgen.org/publications/technical_guidelines.html)

### **Douglas fir**

Wallertz, K. & C. Malmqvist 2013: The effect of mechanical site preparation methods on the establishment of Norway spruce (*Picea abies* (L.) Karst.) and Douglas fir (*Pseudotsuga menziesii* (Mirb.) Franco) in southern Sweden. *Forestry* 86: 71-78

### **Larch**

Anonymous 2013: *Larix decidua* Mill. *The CABI Encyclopedia of Forest Trees* (edited by A. Praciak *et al.*): 263-265

Anonymous 2013: *Larix kaempferi* (Lamb.) Carrière. *The CABI Encyclopedia of Forest Trees* (edited by A. Praciak *et al.*): 266-268

### **Norway spruce**

Johansson, K., U. Nilsson & G. Örlander 2012: A comparison of long-term effects of scarification methods on the establishment of Norway spruce. *Forestry* 86: 91-98

Neckelmann, J. 1995: Alternative regeneration methods in Norway spruce on poor, sandy soil. In: Heding, N. (ed.): *Forest Operations in Multiple-Use Forestry - A NSR Project*. Danish Forest and Landscape Research Institute, pp. 83-101

Skovsgaard, J.P. 2006: The European stem number experiment in Norway spruce (*Picea abies* (L.) Karst.), 3<sup>rd</sup> report: Denmark (DK 7). *Berichte Freiburger Forstliche Forschung* 66: 13-35

### **Scots pine**

Anonymous 2013: *Pinus sylvestris* L. *The CABI Encyclopedia of Forest Trees* (edited by A. Praciak *et al.*): 370-372

### **Silver fir**

Anonymous 2013: *Abies alba* Mill. *The CABI Encyclopedia of Forest Trees* (edited by A. Praciak *et al.*): 1-2

Boncina, A. 2011: History, current status and future prospects of uneven-aged forest management in the Dinaric region: an overview. *Forestry* 84: 467-478

Hansen, J.K. & J.B. Larsen 2004: European silver fir (*Abies alba* Mill.) provenances from Calabria, southern Italy: 15-year results from Danish provenance field trials. *European Journal of Forest Research* 123: 127–138

### **Sitka spruce**

Skovsgaard, J.P. 2009: Analysing effects of thinning on stand volume growth in relation to site conditions: A case study for even-aged Sitka spruce (*Picea sitchensis* (Bong.) Carr.). *Forestry* 82: 87-104

### **ADVANCED TEXTS**

Bell, S. 2009: Valuable broadleaved trees in the landscape. *European Forest Institute Research Report* 22: 172-199

Edwards, D., M. Jay, F.S. Jensen, B. Lucas, M. Marzano, C. Montagné, An. Peace & G. Weiss 2012: Public preferences for structural attributes of forests: towards a pan-European perspective. *Forest Policy and Economics* 19: 12-19

Hemery, G.E. 2008: Forest management and silvicultural responses to projected climate change impacts on European broadleaved trees and forests. *International Forestry Review* 10: 591-607

Larsen, J.B. & A.B. Nielsen 2007: Nature-based forest management. *Forest Ecology and Management* 238: 107-117

Matula, R., M. Svátek, J. Kůrová, L. Úradníček, J. Kadavý & M. Kneifl 2012: The sprouting ability of the main tree species in Central European coppices: implications for coppice restoration. *European Journal of Forest Research* 131: 1501-1511

Pommerening, A. & S.T. Murphy 2004: A review of the history, definitions and methods of continuous cover forestry with special attention to afforestation and restocking. *Forestry* 77: 27-44

Pyatt, G. 1995: An ecological site classification for forestry in Great Britain. *Forestry Commission Research Information Note* 260: 1-6

Schütz, J.-P., T. Pukkala, P.J. Donoso, & K. von Gadow 2012: Historical emergence and current application of CCF. *Managing Forest Ecosystems* 23: 1-28

Skovsgaard, J.P. 2000: The UMF-index: An indicator to compare silvicultural practices at the forest or forest estate level. *Forestry* 73: 81-85

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