Broadleaves

- Forest dynamics, biodiversity and management for multiple-use

Course literature - Spring 2022 - SLU Alnarp

Forest history, forest dynamics and biodiversity (Jörg Brunet)

Bakker et al. 2016. Combining paleo-data and modern exclosure experiments to assess the impact of megafauna extinctions on woody vegetation. PNAS 113: 847–855.

Bond 2005. Large parts of the world are brown or black: a different view on the 'Green World' hypothesis. Journal of Vegetation Science 16: 261–266.

Brunet et al. 2010. Biodiversity in European beech forests – a review with recommendations for sustainable forest management. Ecological Bulletins 53: 77-94.

Kirby and Watkins (Eds.). 2015. Europe's changing woods and forests: from wildwood to managed landscapes. CAB International. 393 pp.

Chapter 3 The forest landscape before farming

Chapter 4 Evolution of modern landscapes

Larsen et al. 2005. Ecology of tree species and species selection. In: Naturnaer skovdrift (edited by Larsen, J.B.)

San-Miguel-Ayanz, J. et al. (editors). 2016. European Atlas of Forest Tree Species. European Commission. https://forest.jrc.ec.europa.eu/en/european-atlas/

Palm, J. et al. 2005. Hardwood – the facts. Wood Centre Nässjö.

Ungulate ecology (Annika Felton)

Bergqvist et al. 2018. Forage availability and moose winter browsing in forest landscapes. Forest Ecology and Management 419: 170-178.

Faison et al. 2016. Ungulate browsers promote herbaceous layer diversity in logged temperate forests. Ecology and Evolution 6: 4591-4602.

Kolstad et al. 2018. Pervasive moose browsing in boreal forests alters successional trajectories by severely suppressing keystone species. Ecosphere 9: e02458.

Felton et al. 2020. Varied diets, including broadleaved forage, are important for a large herbivore species inhabiting highly modified landscapes. Scientific Reports 10:1-13.

Forest health (Michelle Cleary)

Allen et al. 2010. A global overview of drought and heat-induced tree mortality reveals emerging climate change risks for forests. Forest Ecology and Management 259, 660-684.

Boyd et al. 2013. The consequence of tree pests and diseases for ecosystem services. Science. 342, 1235773

Prospero and Cleary. 2017. Effects of host variability on the spread of invasive forest diseases. Forests. 8, 80.

Roberts et al. 2020. The Effect of Forest Management Options on Forest Resilience to Pathogens. Frontiers in forests and global change. 3, 7.

Trumbore et al. 2015. Forest health and global change. Science. 349, 814-818.

Forest management and restoration (Magnus Löf)

Cernansky 2018. How to rebuild a forest. Nature. 560, 542-544.

Dey et al. 2008. Artificial regeneration of major oak (*Quercus*) species in the Eastern United States – a review of the literature. Forest Science 54, 77-106.

Gamfeldt 2013. Higher levels of multiple ecosystem services are found in forests with more tree species. Nature Communications 4, 1340.

Kelty 2006. The role of species mixtures in plantation forestry. Forest Ecology and Management 233, 195-204.

Kirby & Watkins (Eds.). 2015. Europe's changing woods and forests: from wildwood to managed landscapes. CAB International. 393 pp.

Chapter 5 Wood pastures in Europe

Chapter 6 Coppice silviculture: From the Mesolithic to the 21st century

Chapter 7 High forest management and the rise of the even-aged stands

Chapter 8 Close-to nature forestry

Löf et al. 2016. Management of oak forests: striking a balance between timber production, biodiversity and cultural services. International Journal of Biodiversity Science, Ecosystem Services and Management 12, 59-73.

Popkin G. 2021. Forest fight. Science 374, 1184-1189.

Saha et al. 2017. Lessons learned from oak cluster planting trials in central Europe. Canadian Journal of Forest Research 47, 139-148.

Stanturf et al. 2014. Contemporary forest restoration: a review emphasizing function. Forest Ecology and Management 331, 292-323.

Bialowieza forest (Mats Niklasson and Magnus Löf)

Churski et al. 2017. Brown world forests: increased ungulate browsing keeps temperate trees in recruitment bottlenecks in resource hotspots. New Phytology 214: 158-168.

Kuijper et al. 2013. Landscape of fear in Europe: wolves affect spatial patterns of ungulate browsing in Bialowieza Primeval Forest, Poland. Ecography 36: 1263-1275.

Nowacki GJ, Abrams MC. 2008. The Demise of Fire and "Mesophication" of Forests in the Eastern United States. BioScience 58, 123-138.

Mikusiński G. et al. 2018. Is the impact of loggings in the last primeval lowland forest in Europe underestimated? The conservation issues of Białowieża Forest." Biological Conservation 227: 266-274.

Spînu AP. et al. 2020. Mesophication in temperate Europe. A dendrochronological reconstruction of tree succession and fires in a mixed deciduous stand in Bialowieza forest. Ecology and Evolution 10, 1029-1041.

Fast-growing broadleaves (Henrik Böhlenius)

Böhlenius and Övergaard 2015. Growth response of hybrid poplars to different types and levels of vegetation control. Scandinavian Journal of Forest Research 30, 516-525.

Böhlenius and Övergaard 2015. Exploration of optimal agricultural practices and seedling types for establishing poplar plantations. Forests 6, 2785-2798.

Böhlenius and Övergaard 2016. Impact of seedling type on early growth of poplar plantations on forest and agricultural land. Scandinavian Journal of Forest Research 31, 733-741.

Böhlenius et al. 2016. Growth response of hybrid aspen (populus × wettsteinii) and populus trichocarpa to different ph levels and nutrient availabilities. Canadian Journal of Forest Research 46, 1367-1374.

Böhlenius et al. 2018. Differences in Al sensitivity affect establishment of Populus genotypes on acidic forest land. PLOS ONE 13, e0204461.

Jobling (Ed.) 1990. Poplars for Wood Production and Amenity: The forest committon, Forest Research station, Alice Holt Lodge, UK.

Stanturf et al. 2014. Chapter 5, p 200-257. In Poplars and Willows, Trees for Society and the Environment. Isebrands and Richardson (Eds.), CABI, Oxfordshire, UK.

Tullus et al. 2012. Short-rotation forestry with hybrid aspen (Populus tremula L.×P. tremuloides Michx.) in Northern Europe. Scandinavian Journal of Forest Research 27, 10-29.

McCarthy and Rytter 2015. Productivity and thinning effects in hybrid aspen root sucker stands. Forest Ecology and Management 354, 215-223.