

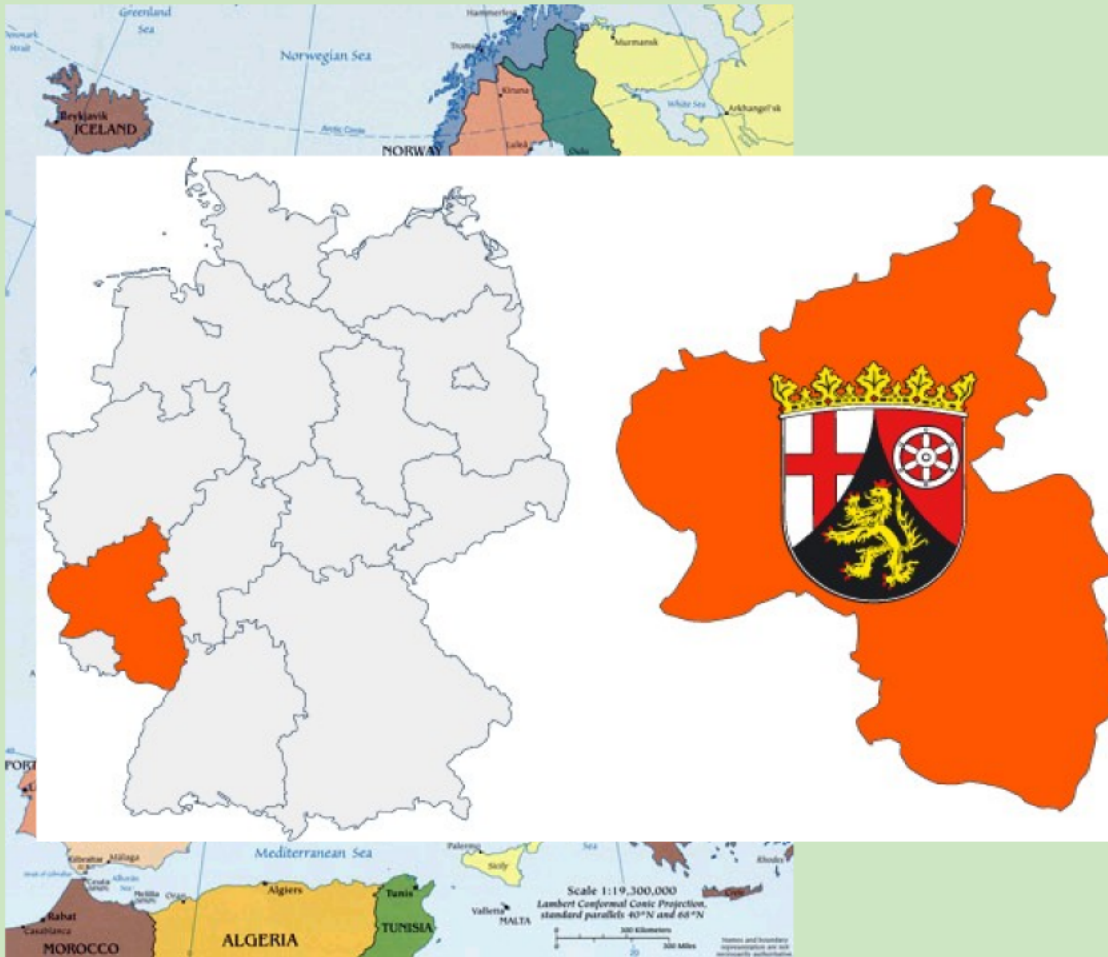


District Forest Management in Johanniskreuz

MSc European Forestry Applied Period



Rheinland-Pfalz: wine country



Rheinland-Pfalz is
comprised of **42%**
forests



Forstamt Johanniskreuz

- Total forest area >22,500 ha
- state forests (>15,500ha)
- communal
- private

- employs 9 district foresters
- 2000 ha of forest
- 2 communal
- 1 private

- > 200 year history of active forest management





Daily Life, Community & History

Approximately 2,500 people
in Elmstein

Friendly atmosphere and
close contact with locals

>2000 year human
settlements!





Project List

-Networking events:

- community consultations
- political discussions
- staff meetings

-Bat Konzept and areas of special interest



-National Parks, Nature Reserves & Biosphere Reserves:

Wildlife management and conservation

Habitat inventory and biodiversity monitoring

-Silviculture and Economics:

Management of Quercus petraea



-Assessment of Close-to-nature forestry:

Natural regeneration survey



BAT KONZEPT



The BAT Konzept (Biotopbaume) started in 2011 from the desire to:

- increase the amount of deadwood for habitat preservation and species conservation
- increase safety of forest users (work & recreation)
- efficient management of economically viable sites (productive sites)

Biotopbaum Indicators

Stands with permanent protection are wet or rocky areas located on ridges, steep slopes or sites of low productive

- minimum area > 1ha
- hollow trees
- snags with DBH > 40 cm
- overmature trees
- rare native species
- special features



Oak Management

Natural Regeneration (local mast):

- 1) Complete removal of competing vegetation
- 2) Partial removal understorey



Artificial Regeneration:

- 1) Oak sowing
- 2) Clumped planting
- 3) Nest planting

Crop Tree Selection

Three categories for crop tree selection:

- 1) Vitality
(crown structure, dominance)
- 2) Quality
(minimum 8 meters of clear wood, no big branches, no forks)
- 3) Distance (12 meters)





Trade & Economics



It's Quality not quantity that counts!

- Veneer
- Barrel wood
- Sawlogs
 - a. furniture
 - b. flooring
 - c. coffins
- Construction wood
- Poles
- Industrial wood (chips)
- Firewood

V
A
L
U
E

The price depends on:

- Diameter, length and proportion of clear wood
- Grade A to D (color, straightness, mineral deposits and defects)

Close-to-Nature Silviculture

Objectives of Project:

- 1) Success without investment?
- 2) Compliance with regulations?
- 3) Achievement of local management targets?

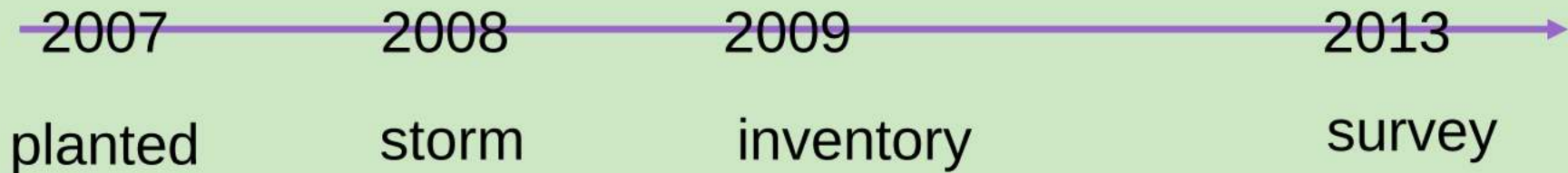


Stand Dynamic



Site Characteristics:

- middle sandstone geologic material
- small, remnant hills
- 750-850mm precipitation/year
- vegetation period 14 to 16 °C





Sample Site





Results: Stocking Rate

PRIME AREA

Regeneration Density	
Total trees in area	145
number of plots	15
area/plot (m ²)	4
Total area (m ²)	60

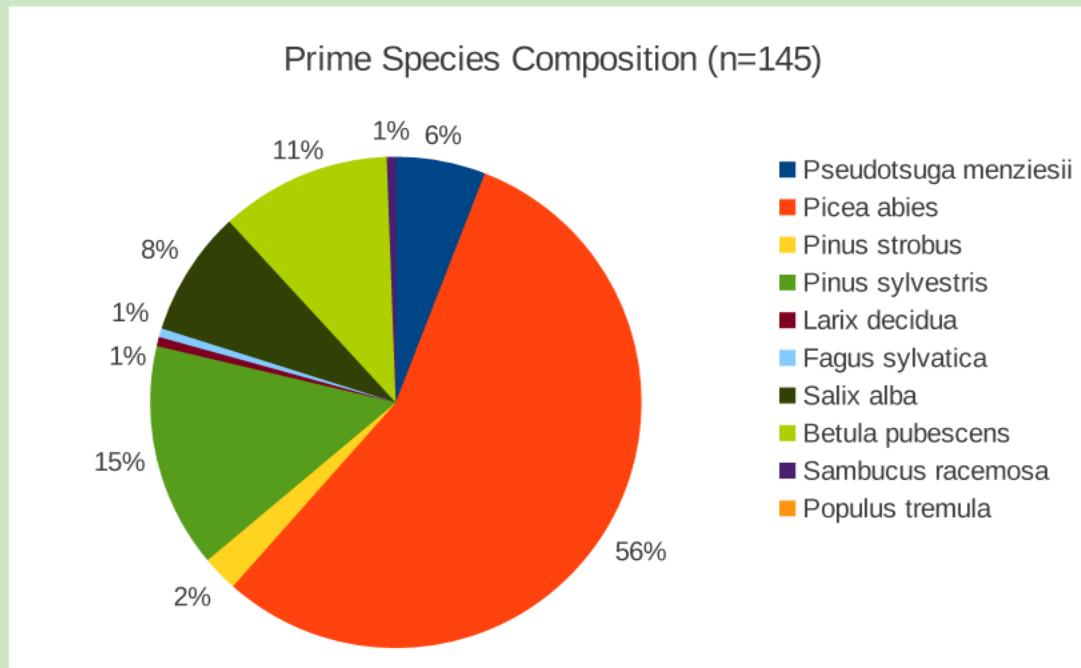
	Average	Median	Min	Max
Plot level density (stems/plot)	9.7	9	0	31
Total density (stems/ha)	24166.7	22500	0	77500

95% Confidence Interval

	Variance	Standard Deviation	Lower limit	Upper limit
Plot level density (stems/plot)	64.4	8.023774198	0	60178.3
Total density (stems/ha)	402380952.4	20059.4	0	25.7



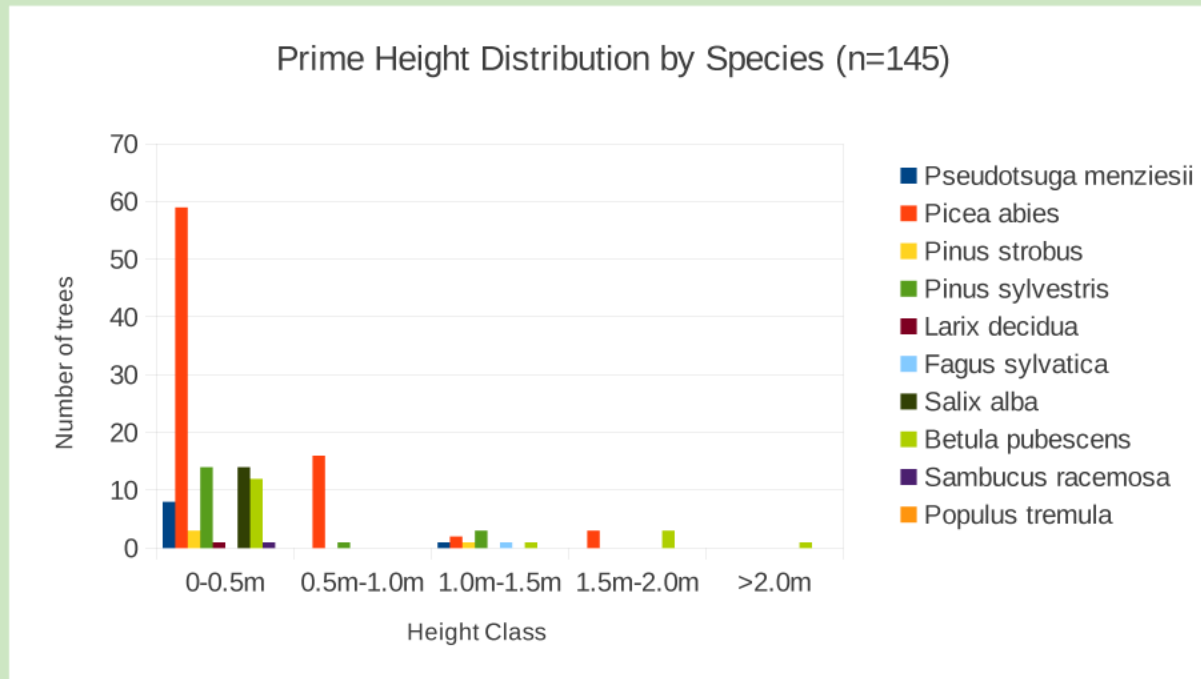
Current Species Composition



Fagus sylvatica 1%



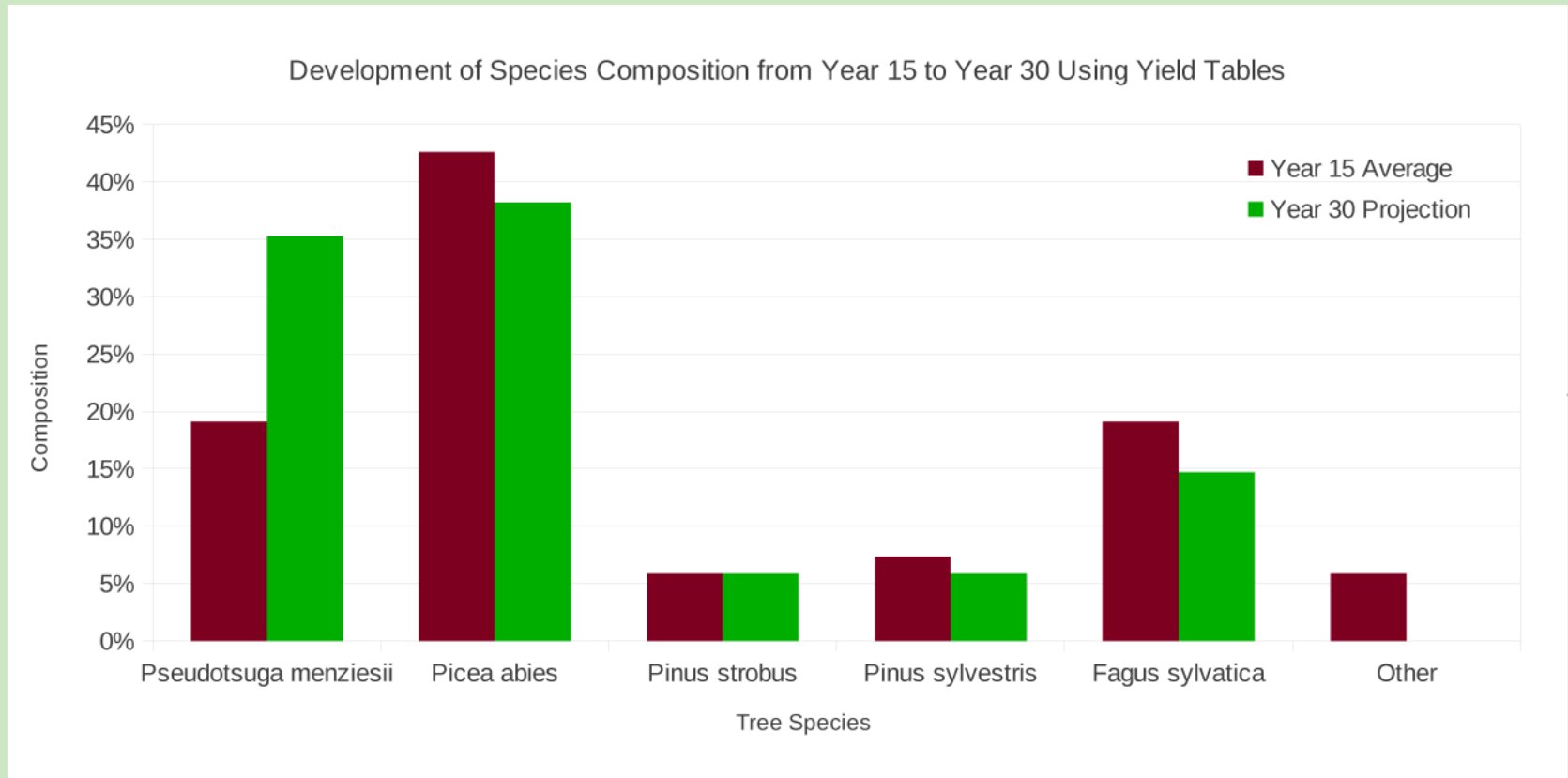
Current Height Class Distribution



70% in Height Class 1 (0-0.5m)



Stand Development Projection



Projection based on yield tables and sample data



Discussion

1) Success without investment?

Yes! Species composition must be monitored in future to achieve desired component of 20% beech

2) Compliance with regulations?

Yes! Density targets are met and land has characteristics of healthy and productive forests

3) Achievement of local management targets?

Yes! Mixed wood forest dominated by coniferous species



SWOT Analysis

STRENGTHS:

- multifunctionality of forests as mechanism for sustainability
- >200 years of active forest management within context of modern management results in highly experienced staff

WEAKNESSES:

- aging workforce
- changes in organizational structure in 2004
- top down control for central administration



SWOT Analysis

OPPORTUNITIES:

- development of forest related education through the generous donation by Frau Schmidt
- continued production of high valued oak and fast-growing Douglas-fir

THREATS:

- issues of integrating new silviculture systems and international markets: FSC
- wildlife conflicts between objectives of private hunters and state management
- pathogens from protected areas flooding into managed forests



Conclusions

District Forest Management is a multifaceted profession that requires an authoritative approach that represents Society!





THANK YOU!

FORSTAMT JOHANNISKREUZ

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References

FSC Deutschland.2012. Deutscher FSC Standard. Deutsche uebersetzte Fassung. FSC Arbeitsgruppe Deutschland e.V. 2(3):1- 51.

Landesforsten-Rheinland Pfalz(RLP).2013. Richtlinie zu den waldbaulichen Massnahmen in der Establierungsphase, 5: 1-8. AZ: 105-64 012/2013-1.

Landesforsten-Rheinland Pfalz(RLP).2011. BAT-KONZEPT Konzept zum Umgang mit Biotopbaeumen, Altbaeumen und Totholz bei Landesforsten Rheinland-Pfalz, pp.1-26. AZ: 105-64011/2008-1

Landesforsten-Rheinland Pfalz(RLP).2011. Betriebsplan Staatwald Forstamt Johanniskreuz: Funktionseinheit Ho eheinoed, Waldort 65-3b.

Landesforsten-Rheinland Pfalz(RLP).2011. Betriebsplan Staatwald Forstamt Johanniskreuz: Funktionseinheit Wolfsgrube, Waldort 16-3b.

Landesforsten-Rheinland Pfalz(RLP).2003. Richtlinie zum waldbaulichen Handeln in der Qualifizierungsphase, 7:1-8. AZ: 10524-5001/5335.

Landesforstverwaltung-Rheinland Pfalz(RLP).2003.Z-Baum-orientierte Pflegeeingriffe in der Dimensionierungsphase, 4: 1-4. AZ: 10524-5001.

Landeswaldgesetz, Rheinland Pfalz. Vom 30. November 2000 (GVBl.S.504), §4 & §5: pp. 1-11.

Ministerium fuer Umwelt, Landwirtschaft, Ernährung, Weinbau und Forsten-Rheinland Pfalz (MLWF-RLP).1980. Hilfstafeln fuer die Forsteinrichtung. (yield tables)