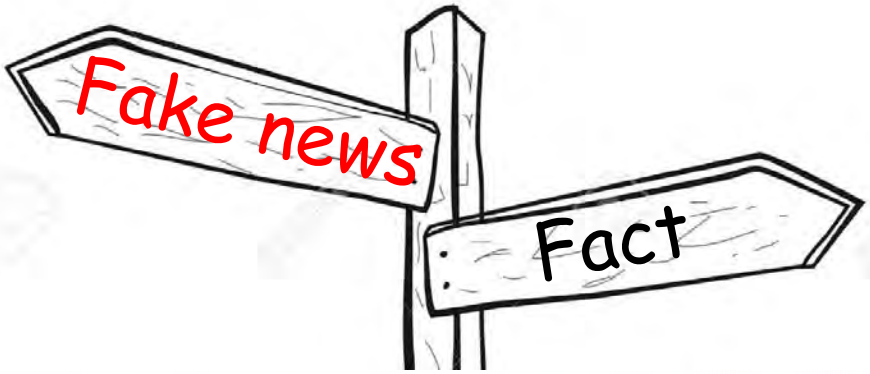
Vývoj horského pralesa

Žofínský a Boubínský prales

Pavel Šamonil
Odbor ekologie lesa VÚKOZ

Poznáš Boubín a Žofín?



V obou pralesích bylo nalezeno asi 850 druhů hub

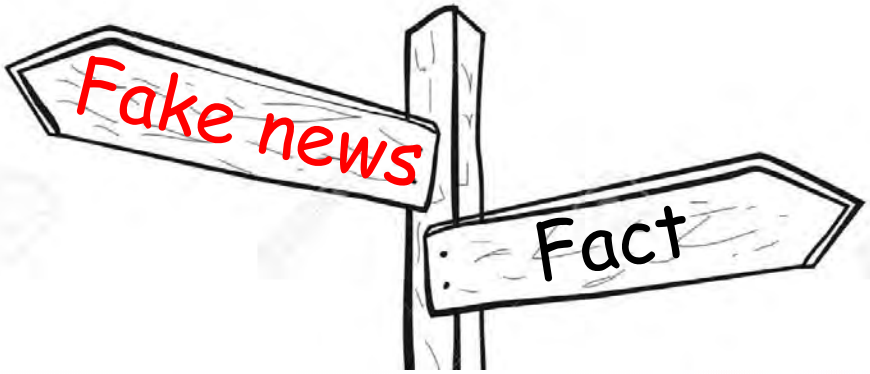
Stromy v Boubíně jsou i 1100 let staré

Oba pralesy jsou každých 100 let silně disturbovány

Vývraty na Žofíně pamatují i příchod Slovanů

Na Boubíně bylo zjištěno 37 různých půd

Na Boubíně se našla chýše lesního muže Holny



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Úsvit pralesů

Jiří František August Buquoy

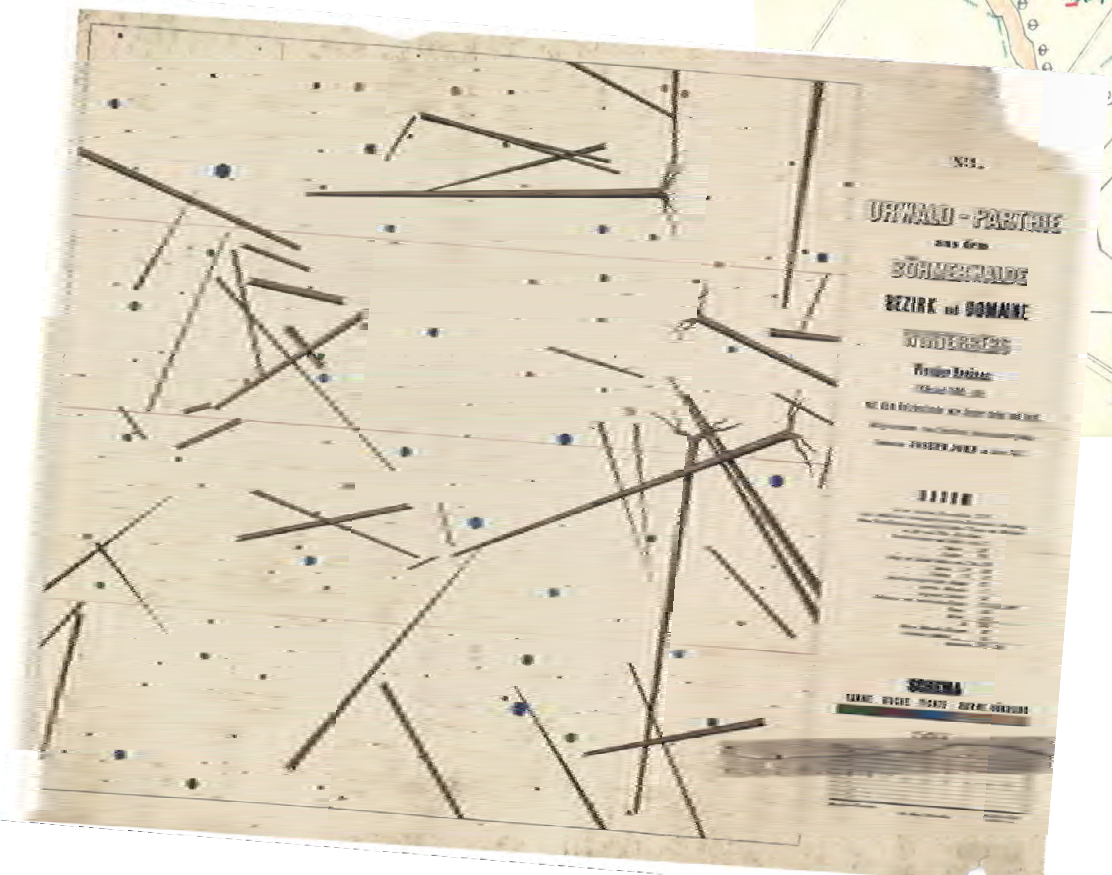
Karel II. Schwarzenberg

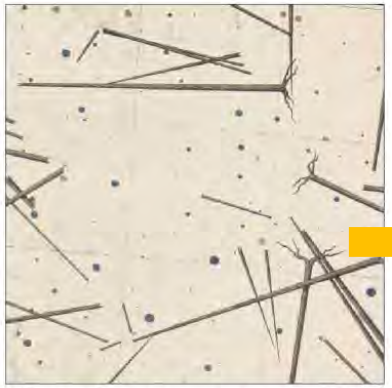
◀ Lesní muž Holna, kterého Cimrman našel při sběru hub v boubínském pralese. Holna odmítal vrátit se do civilizace a Cimrman mu jeho rozhodnutí nerozmlouval.

Karel II. Schwarzenberg

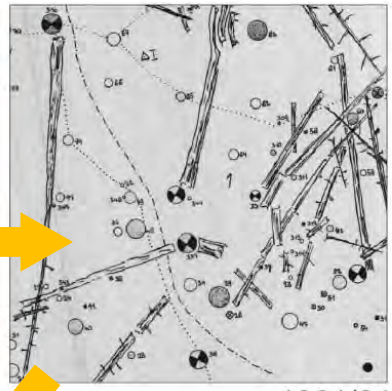
Žofín

Boubín

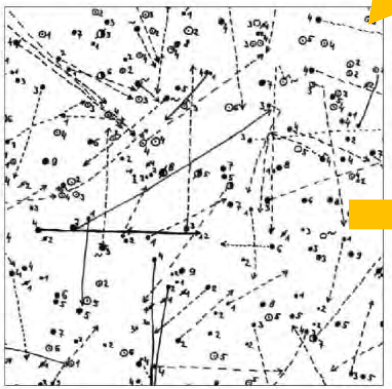




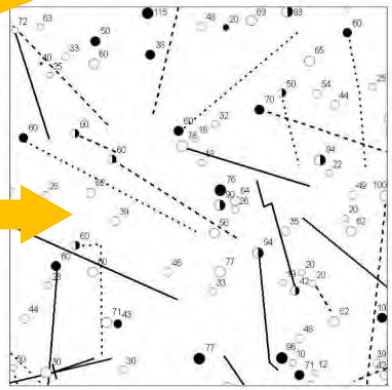
Year of measurement 1851



1961/64

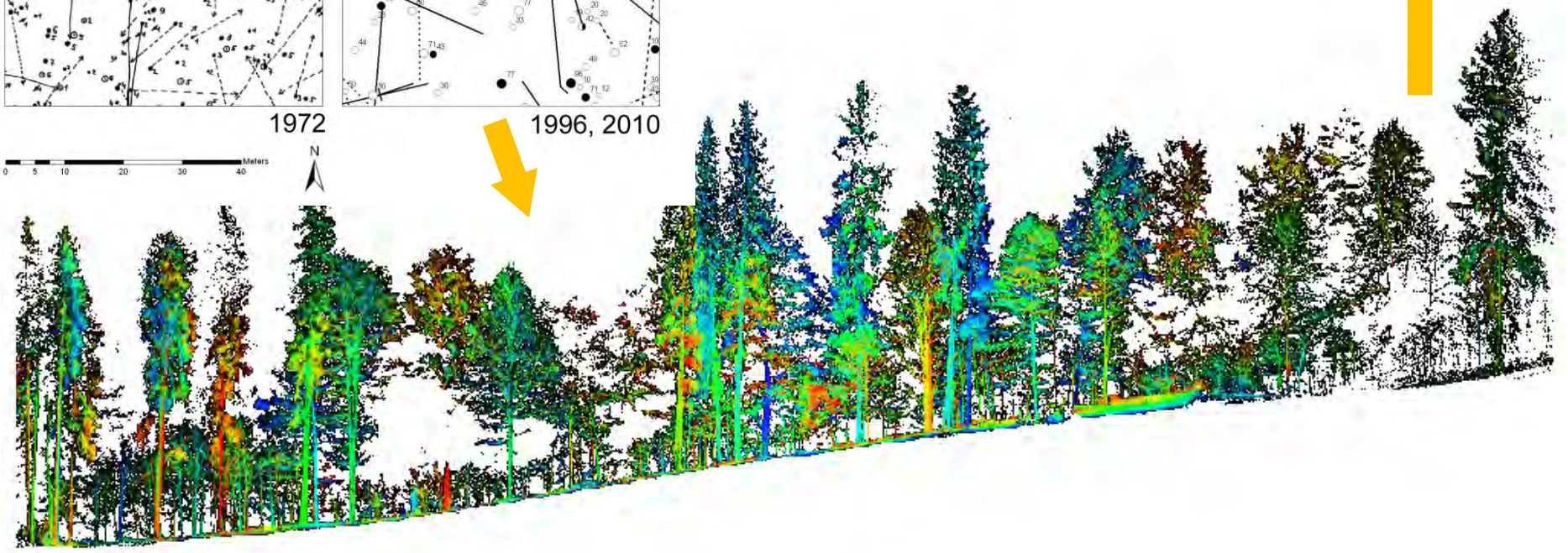


1972

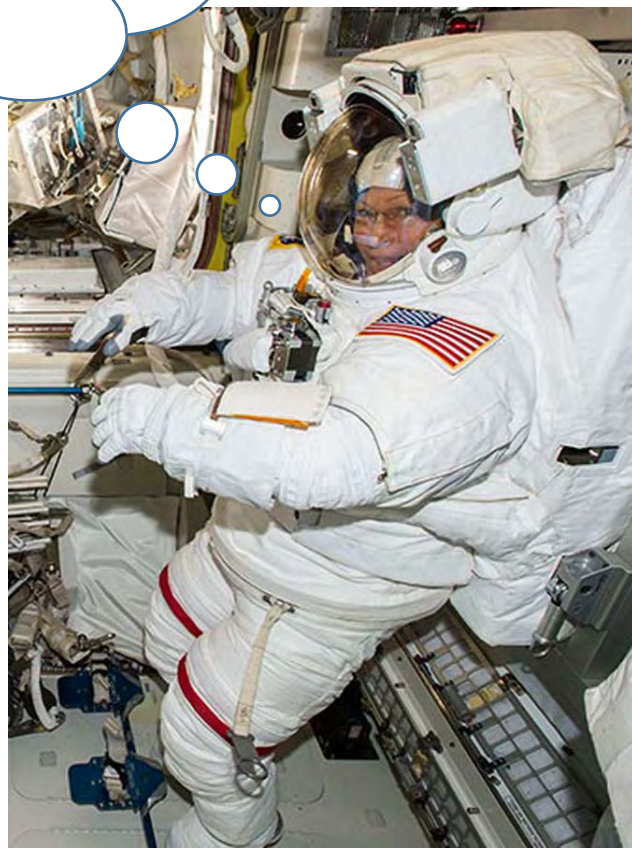


1996, 2010

Kontinuita výzkumu vs. inovace



„Čest památce Stephena Hawkinga, byl to borec“

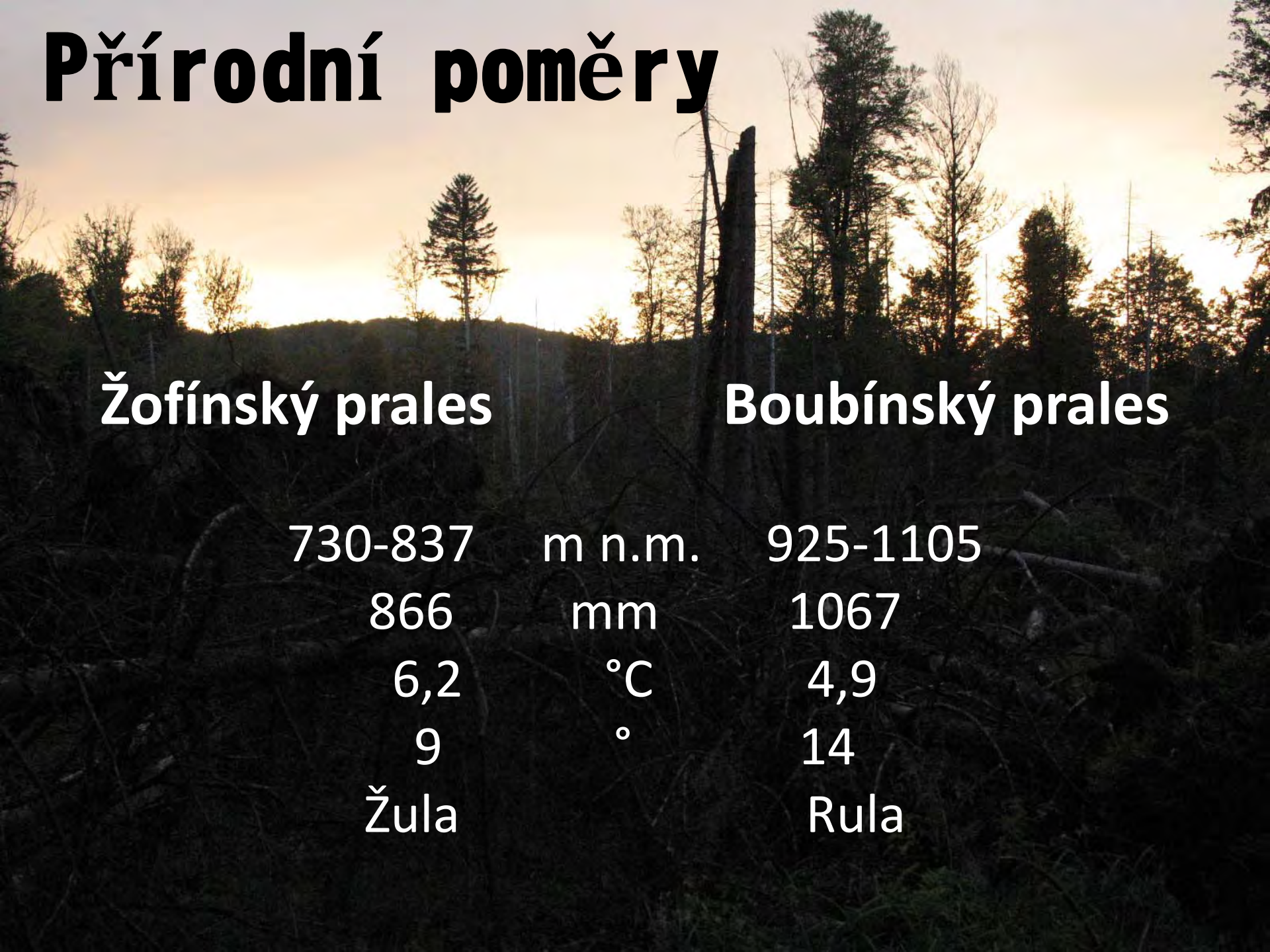


Prales
Ne-prales

Prales

Ne-prales

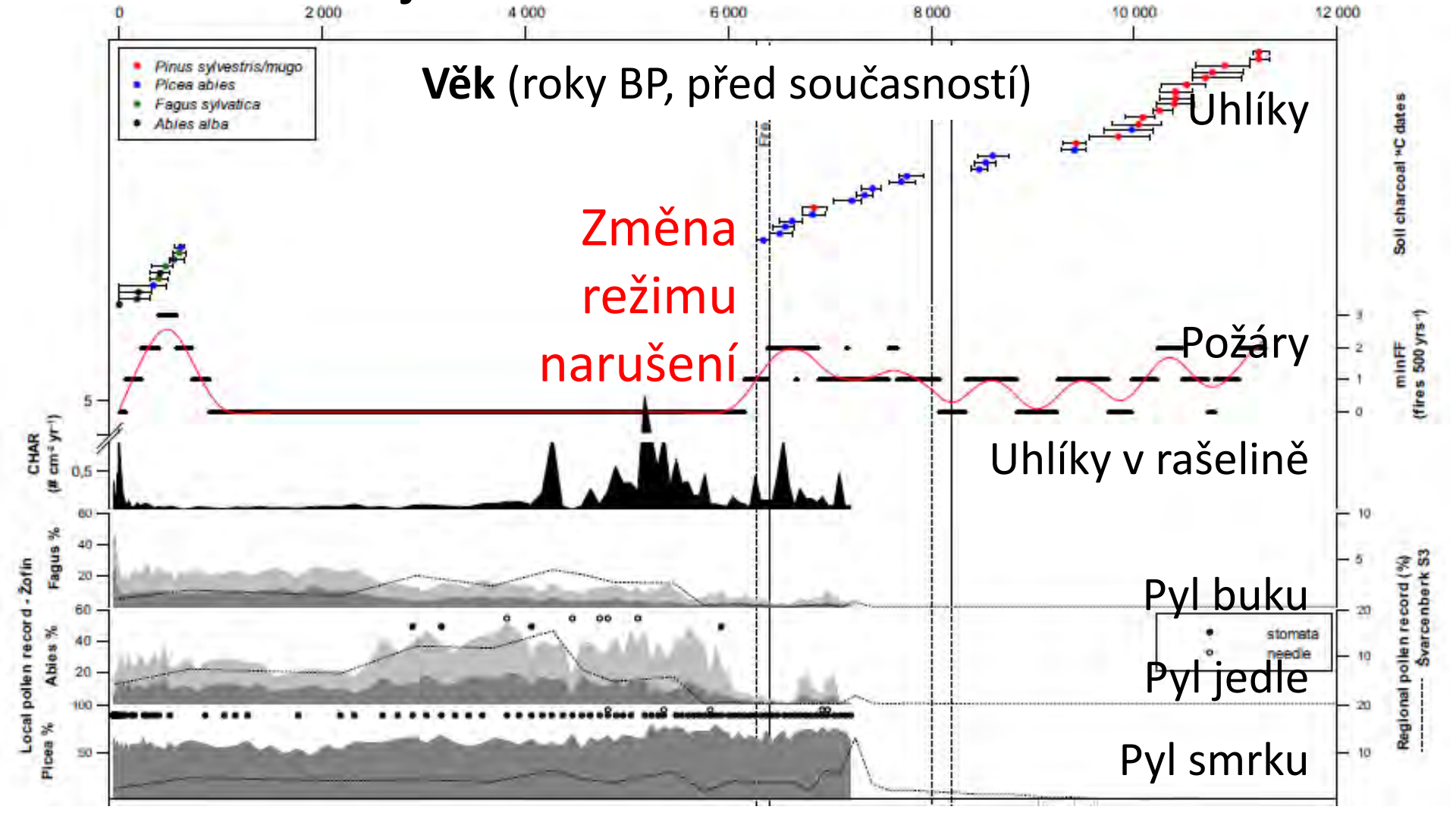
Přírodní poměry



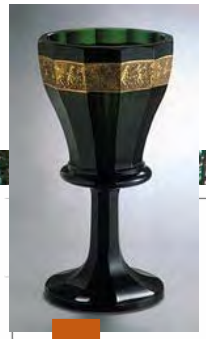
Žofínský prales		Boubínský prales
730-837	m n.m.	925-1105
866	mm	1067
6,2	°C	4,9
9	°	14
Žula		Rula

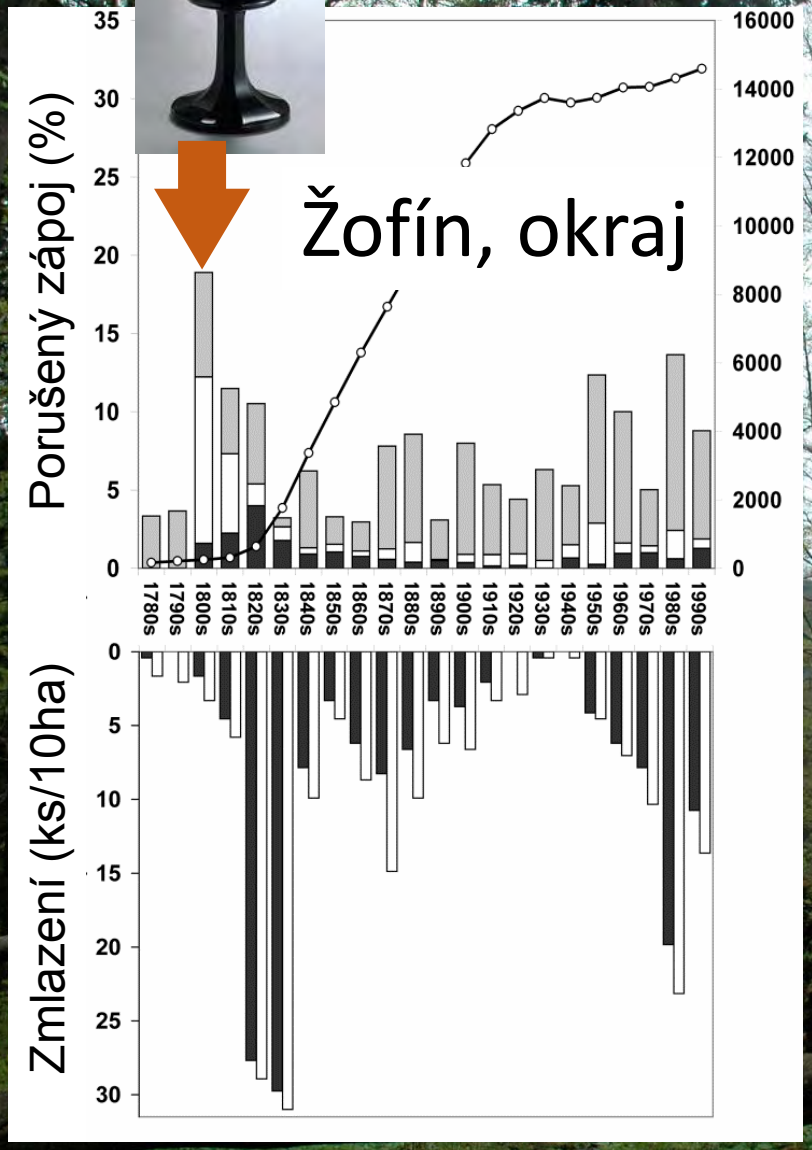
Nejstarší minulost

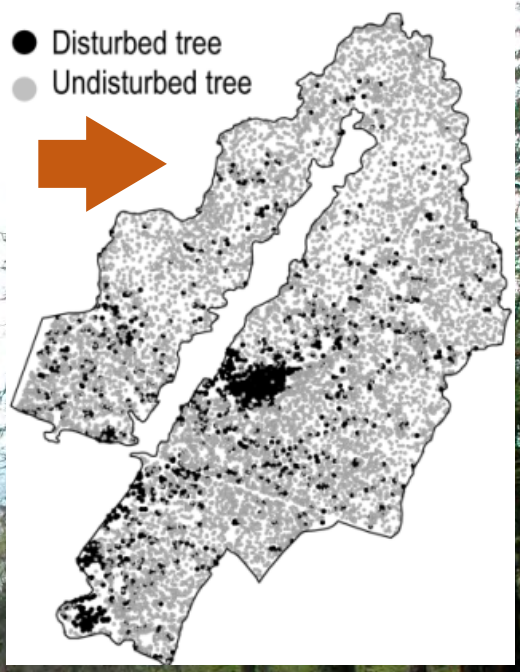
Buk **Buk-jedle-smrk** **Smrk** **Borovice**



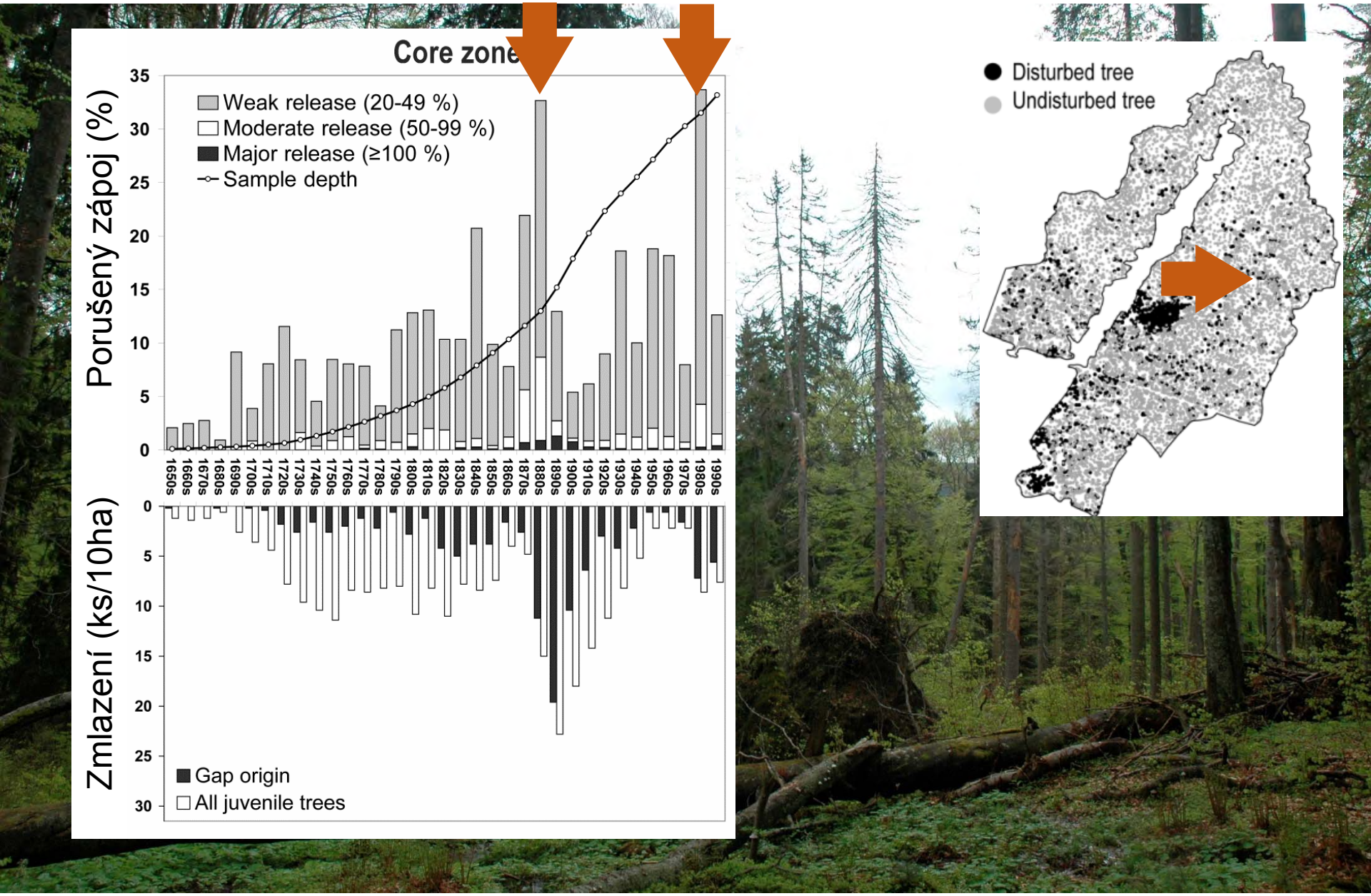
Nedávná minulost



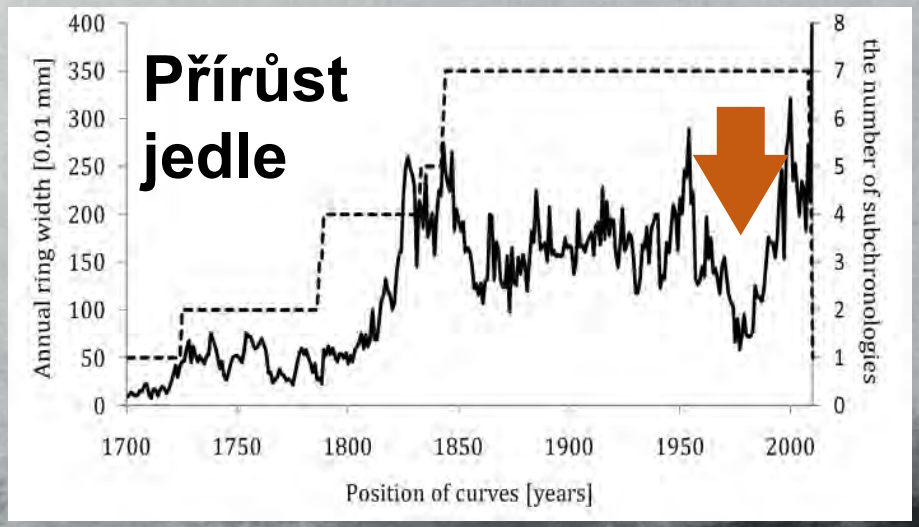




Žofín, jádrová zóna

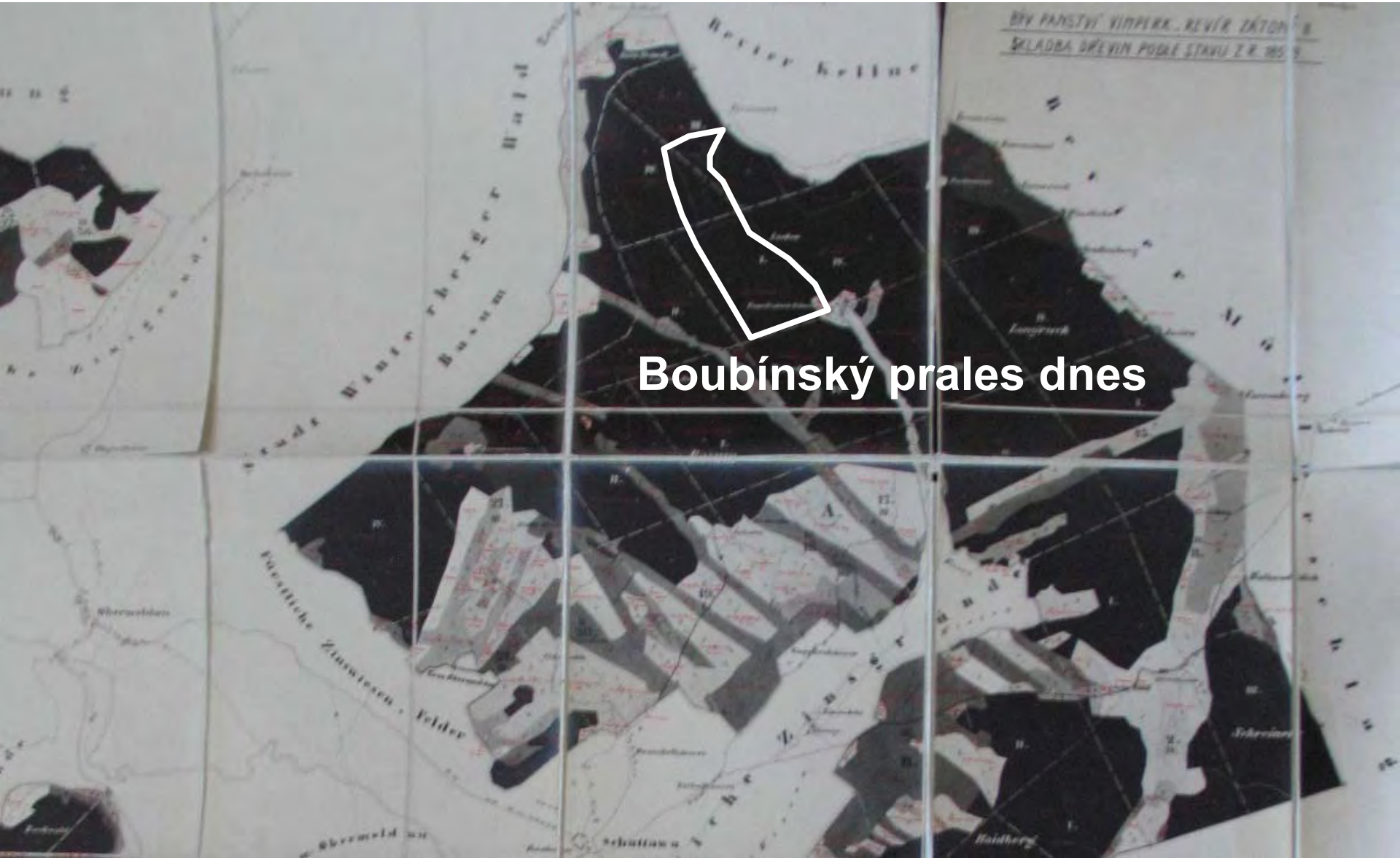


Josef Sudek, Zmizelé sochy, 1952–1970,
© Moravská Galerie v Brně

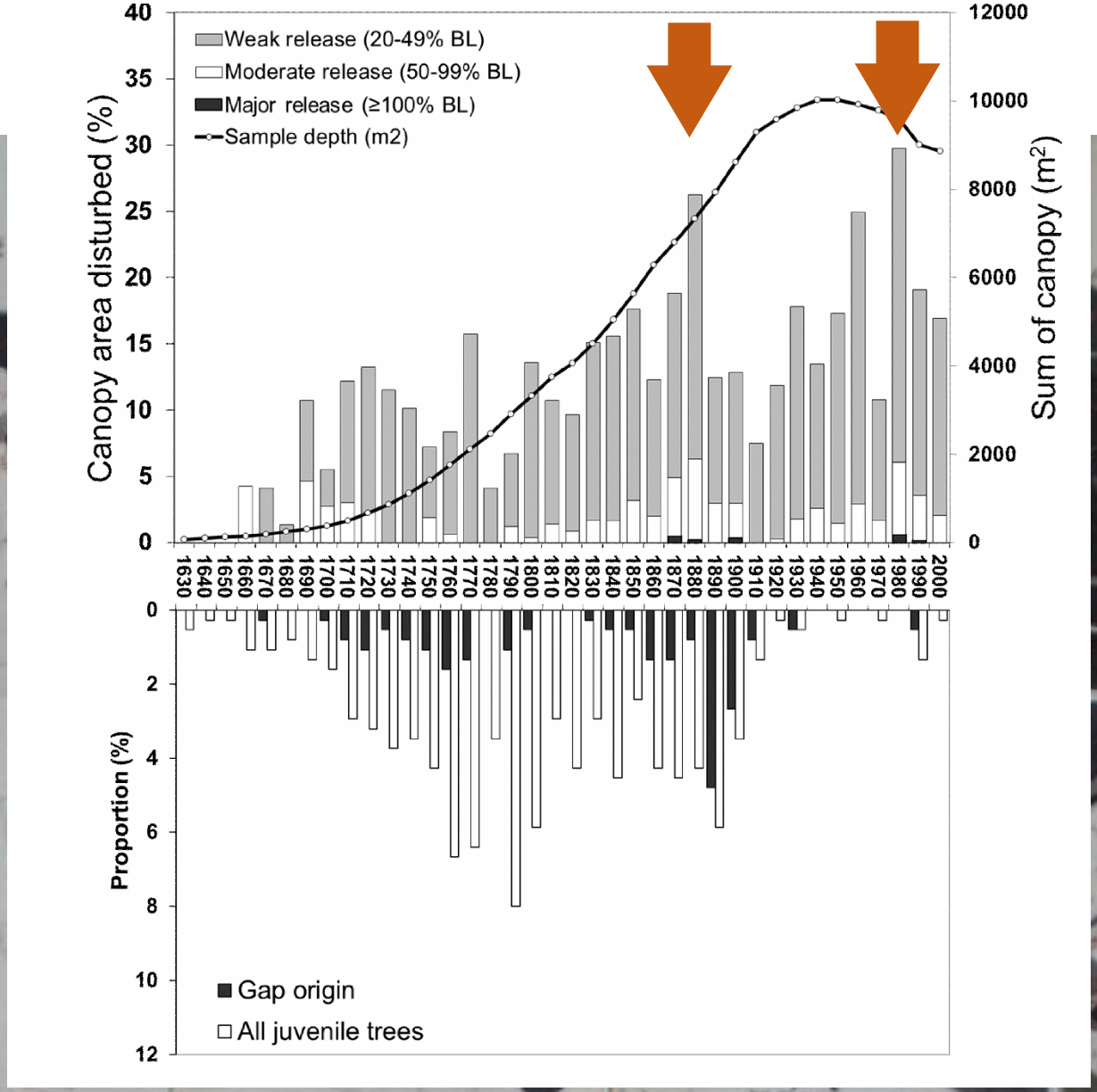


Josef Sudek, Zmizelé sochy, 1952–1970,
© Moravská Galerie v Brně

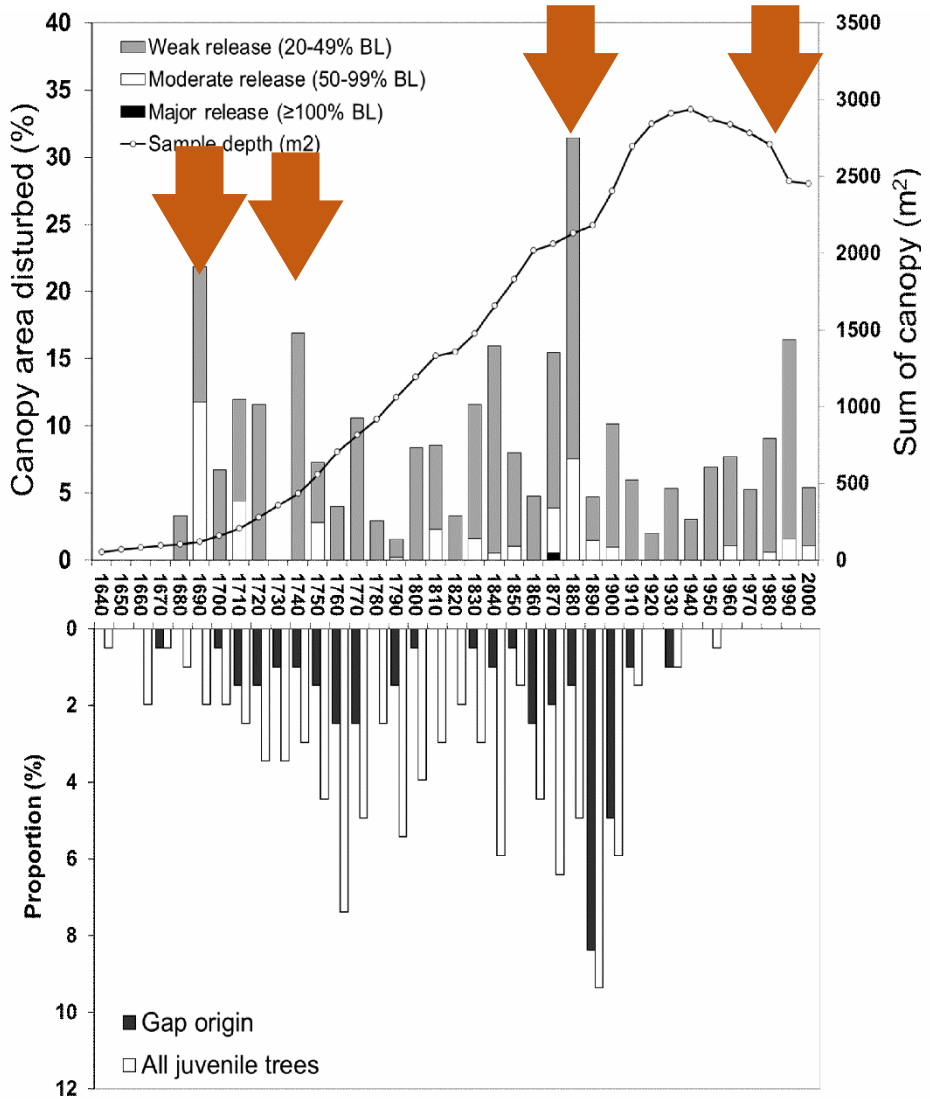
Boubínský prales v roce 1850, před vichřicí 1870



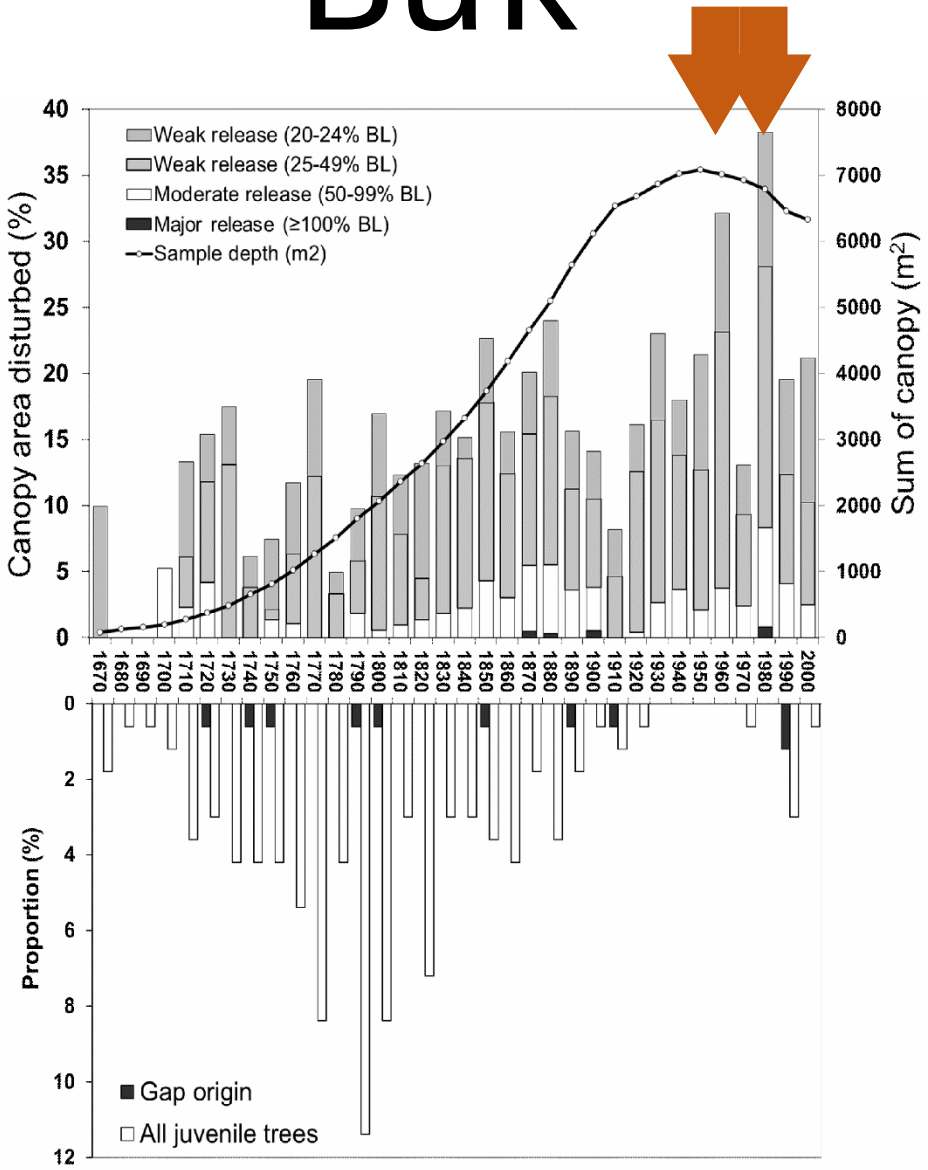
Disturbanční minulost Boubína



Smrk



Buk



Stáří stromů až 523 let

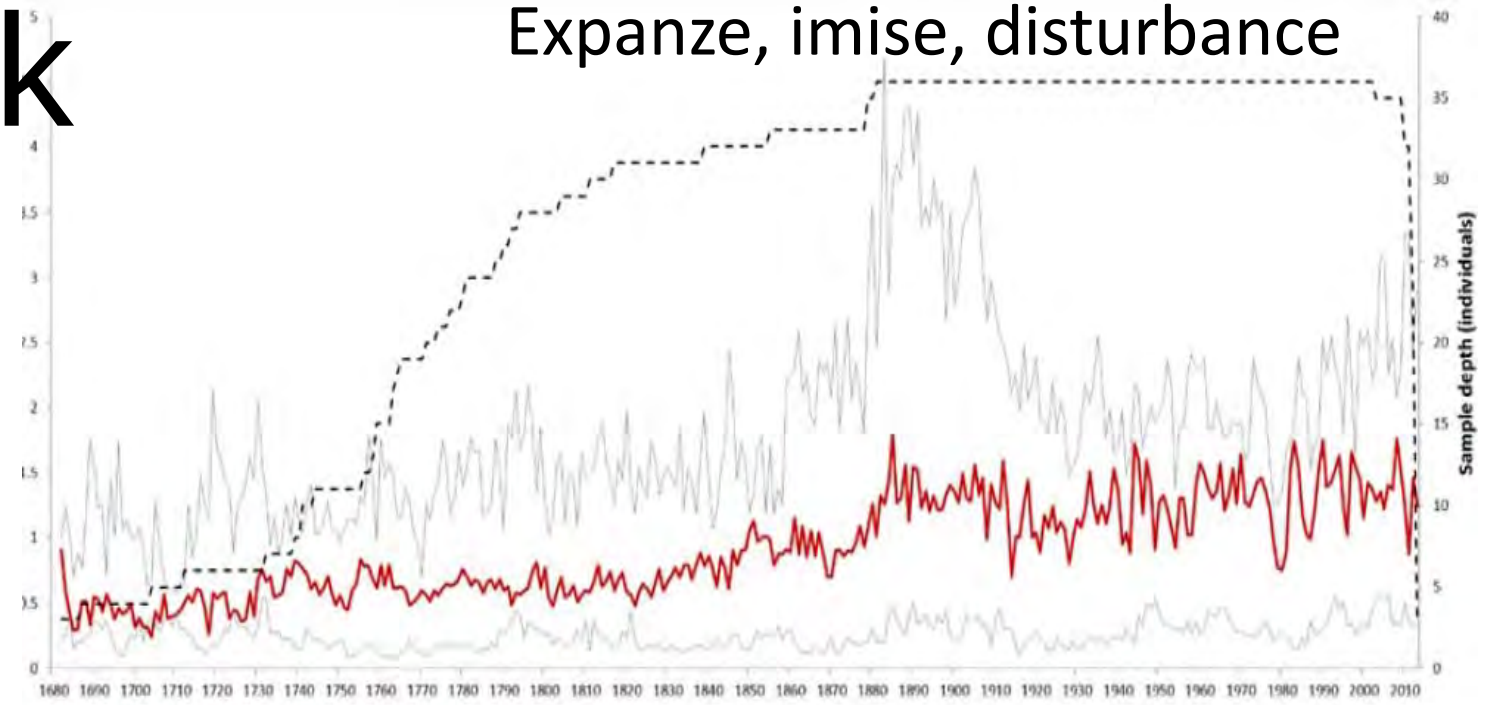
Kde je figurantka?

2018
2019
2020
2021
20XX

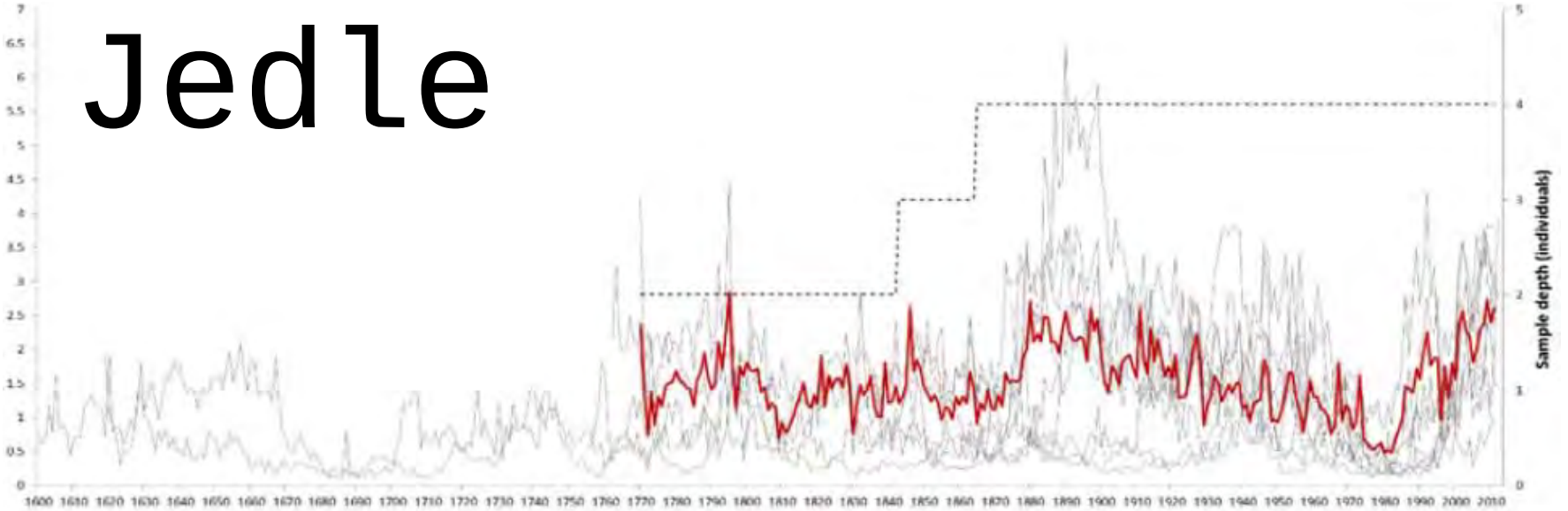
?

Buk

Expanze, imise, disturbance



Jedle



Roční přírůst (mm)

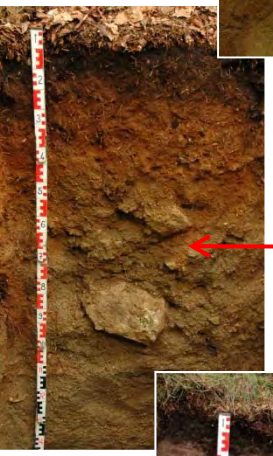
Rok

Půdy

Kambizem dystrická

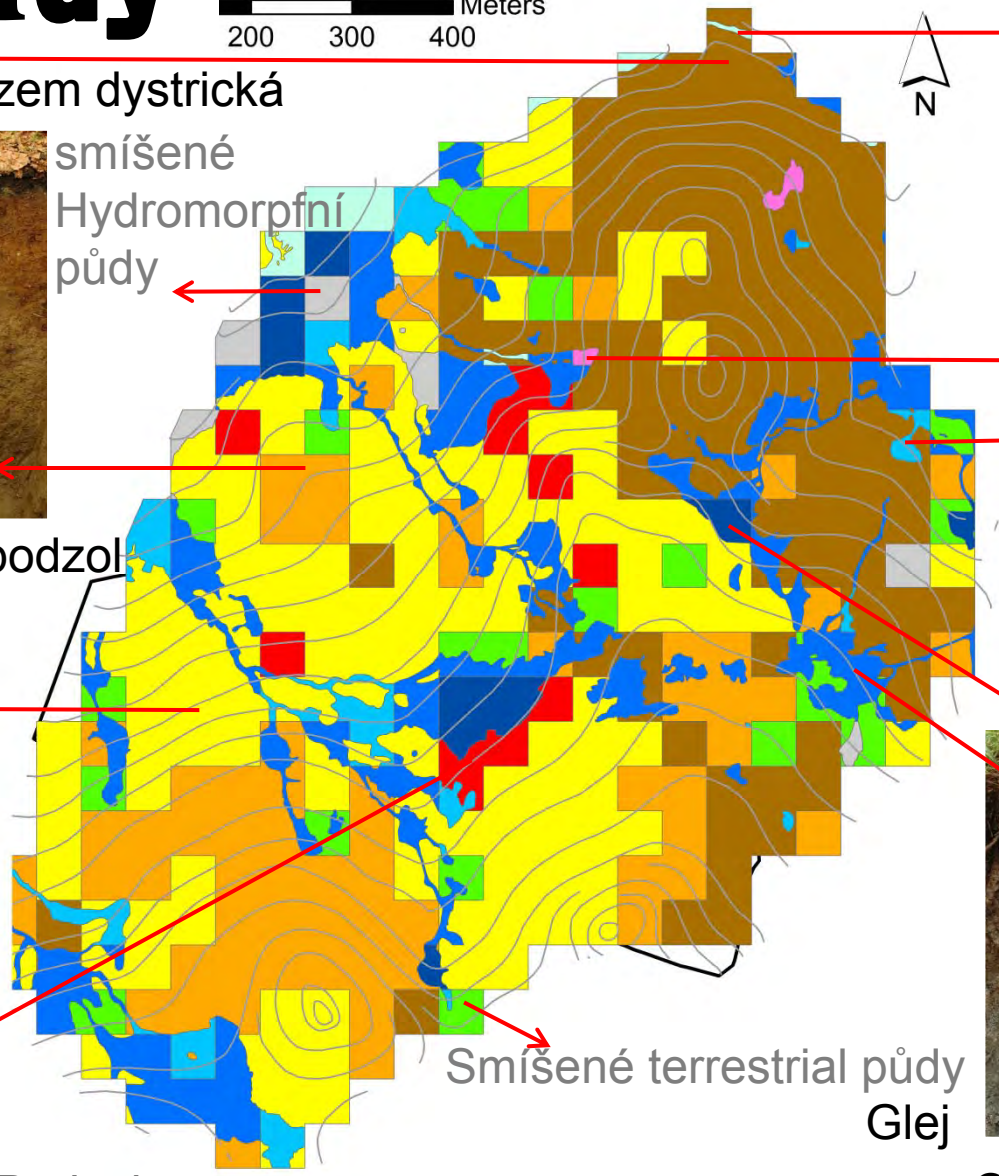
Kambizem typická

smíšené Hydromorpfní půdy



Kryptopodzol

Podzol



Smíšené terrestrial půdy

Glej

Fluvizem

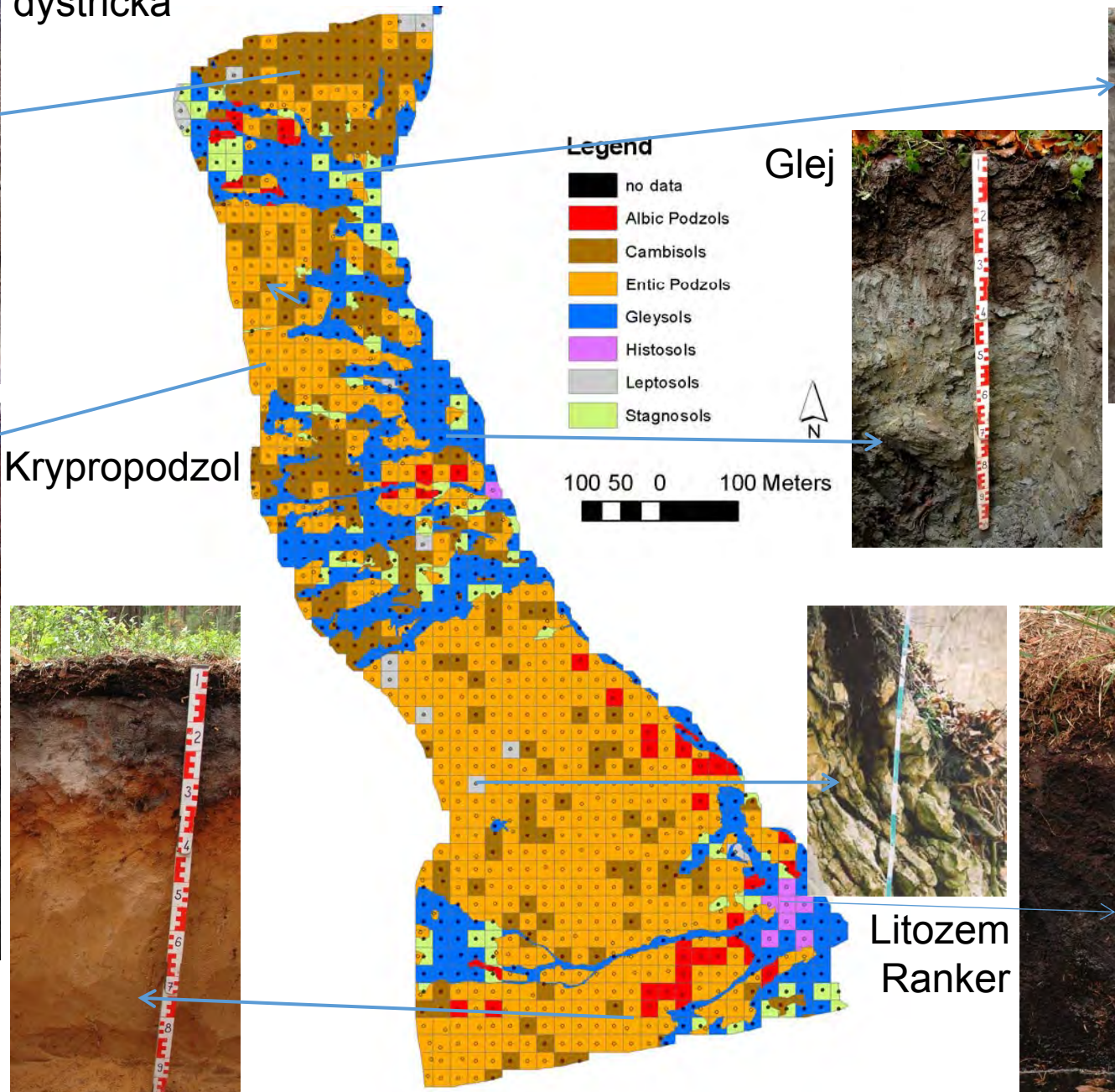
Pseudoglej

Stagnoglej

Organozem

Kambizem dystrická

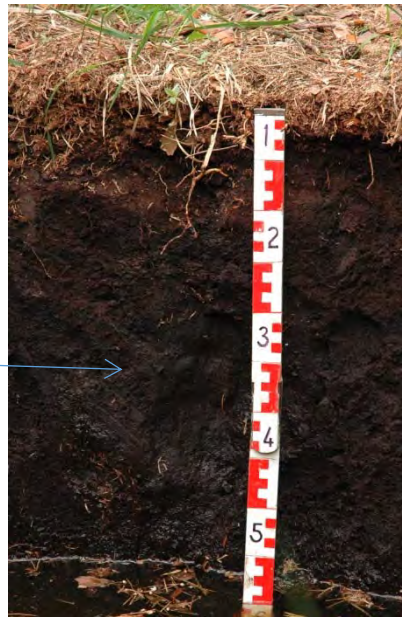
Pseudoglej, Stagnoglej



Glej

Kryropodzol

Organozem



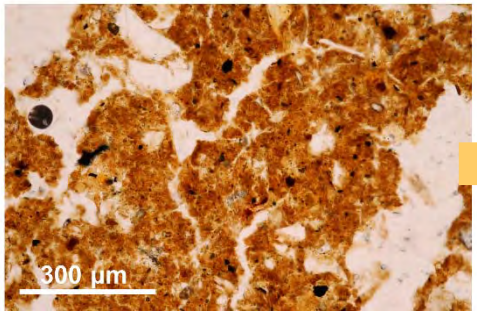
Litozem Ranker

Podzol

Bisequal soils

„dvousekvenční půdy“?

Michigan, USA



Sekvence horizontů

O

A

Ep

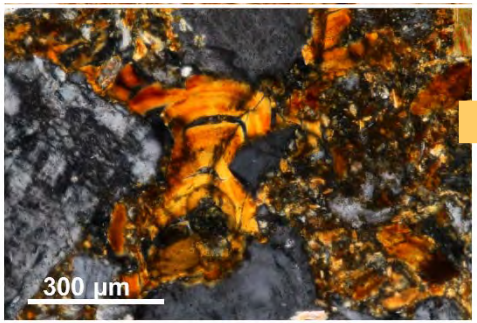
Bhs

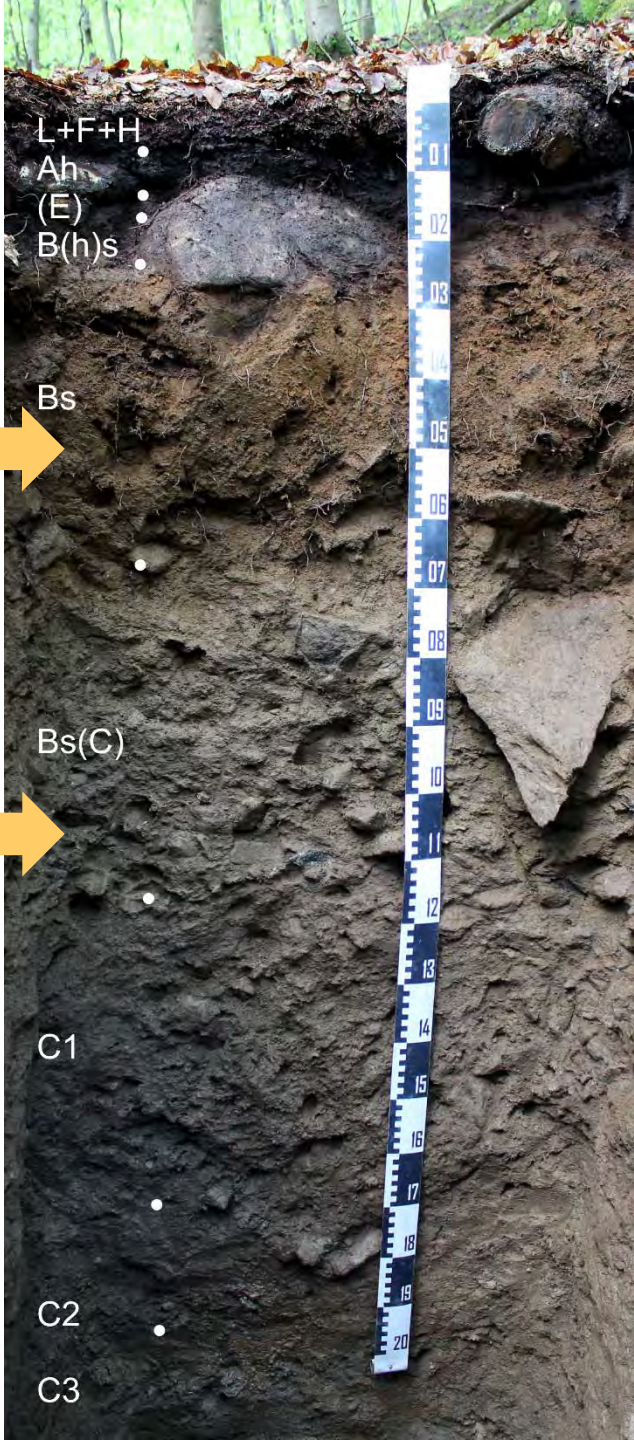
Bs

C=E

Bt

C





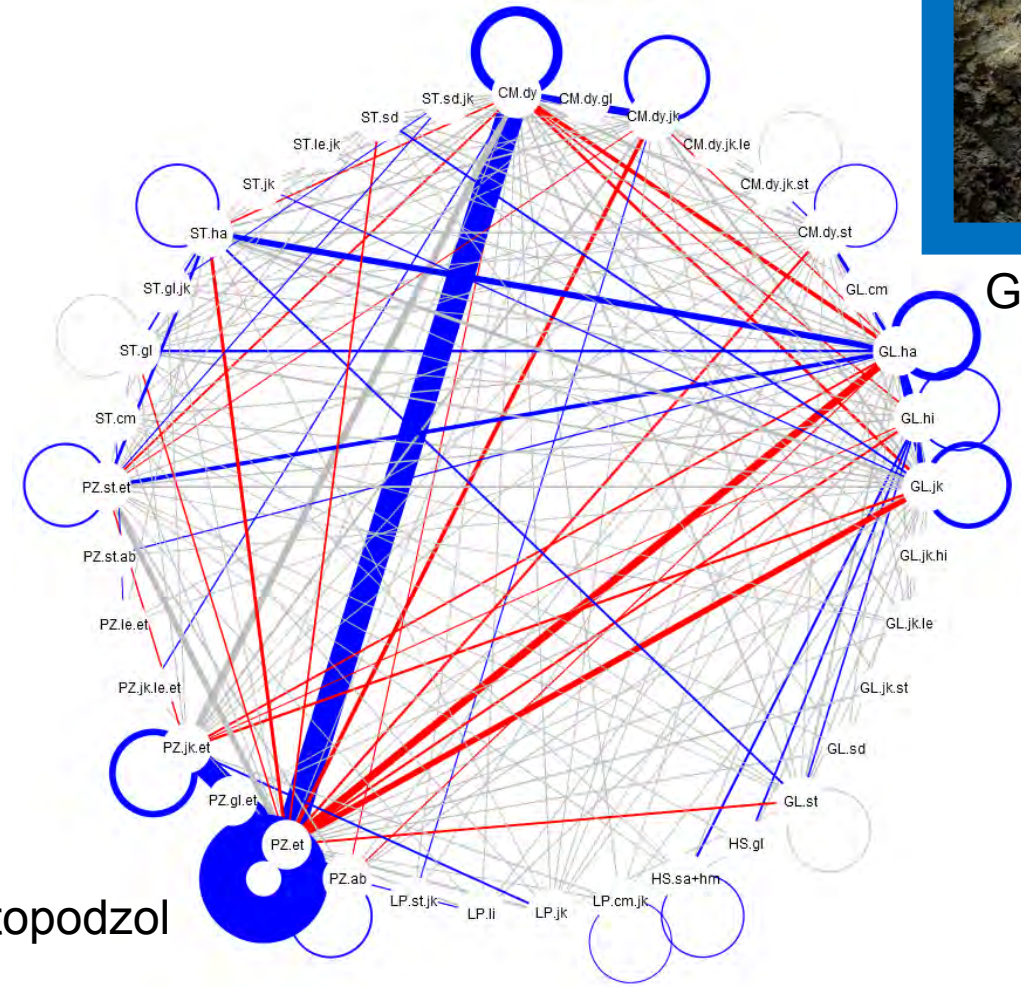
Boubínský prales

Spojení mezi čtverci sítě

37 půdních jednotek

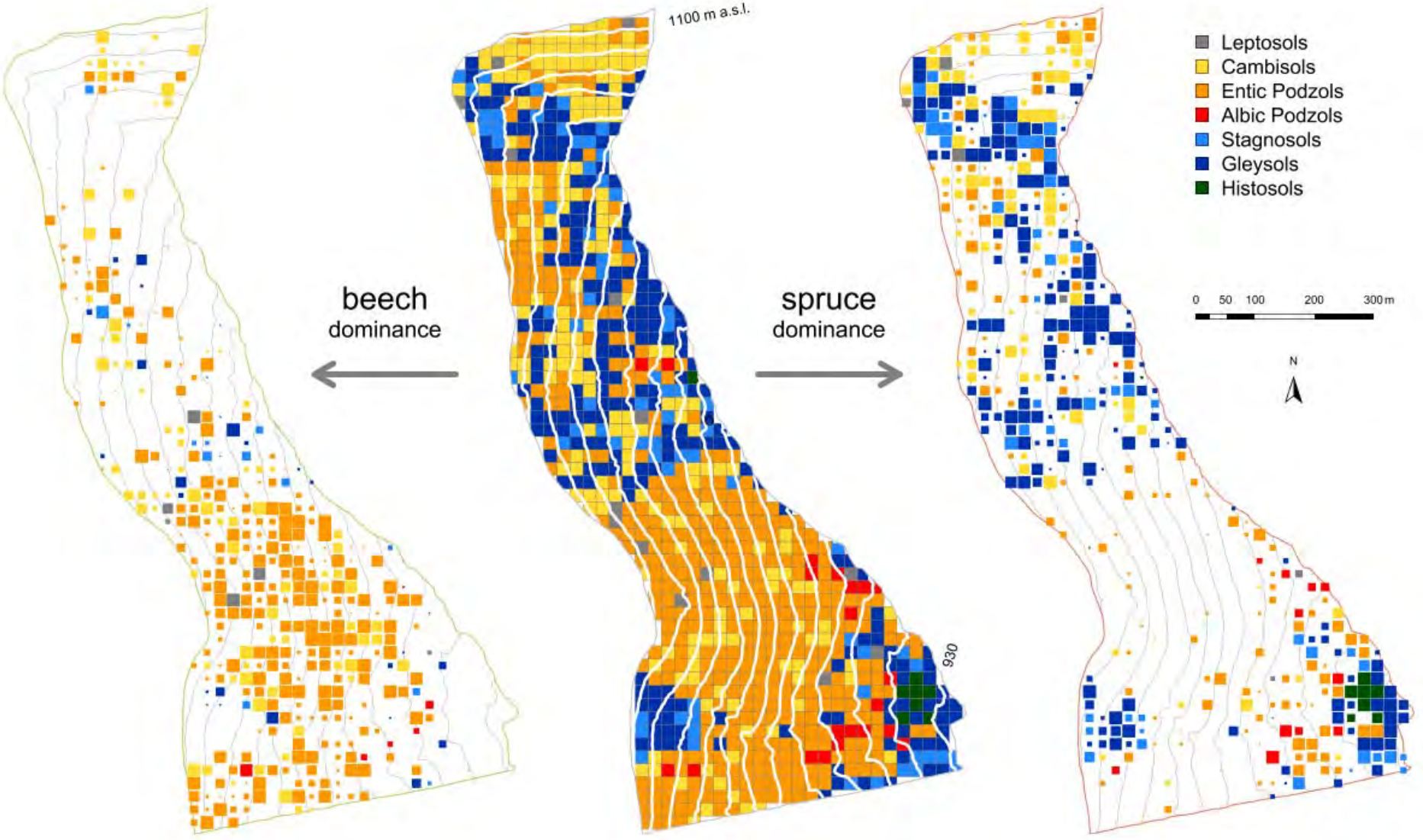
Glej

Kryptopodzol

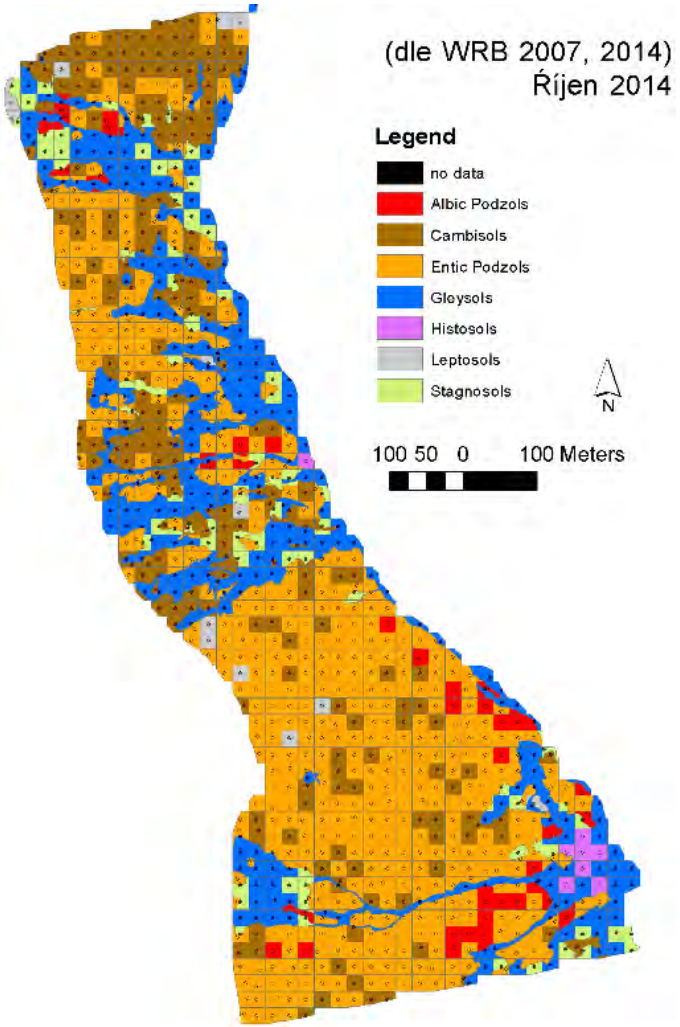


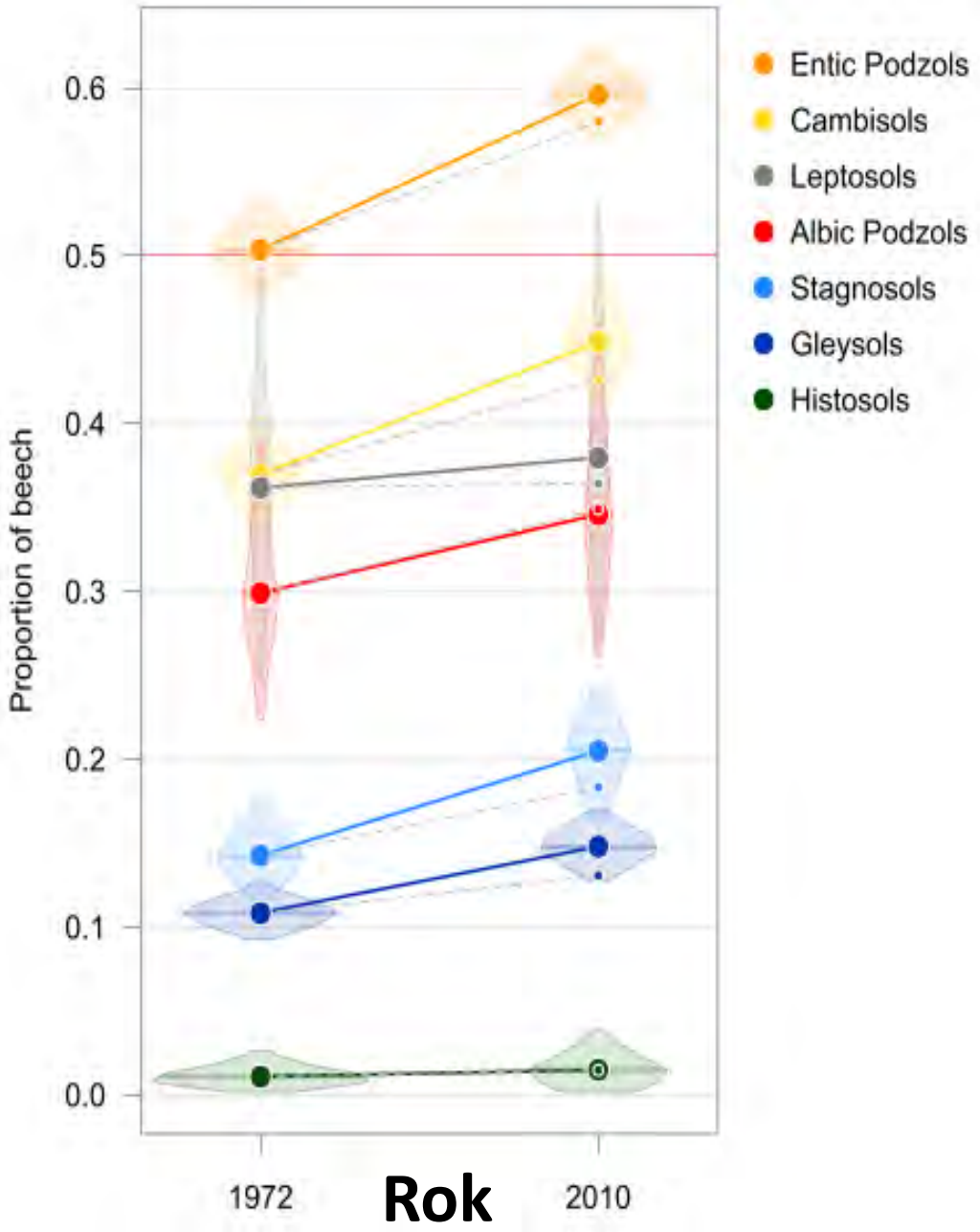
Buk

Smrk


1100 m a.s.l.
930
beech
dominance
spruce
dominance
Leptosols
Cambisols
Entic Podzols
Albic Podzols
Stagnosols
Gleysols
Histosols
0 50 100 200 300 m
N

Role půdy v expanzi buku

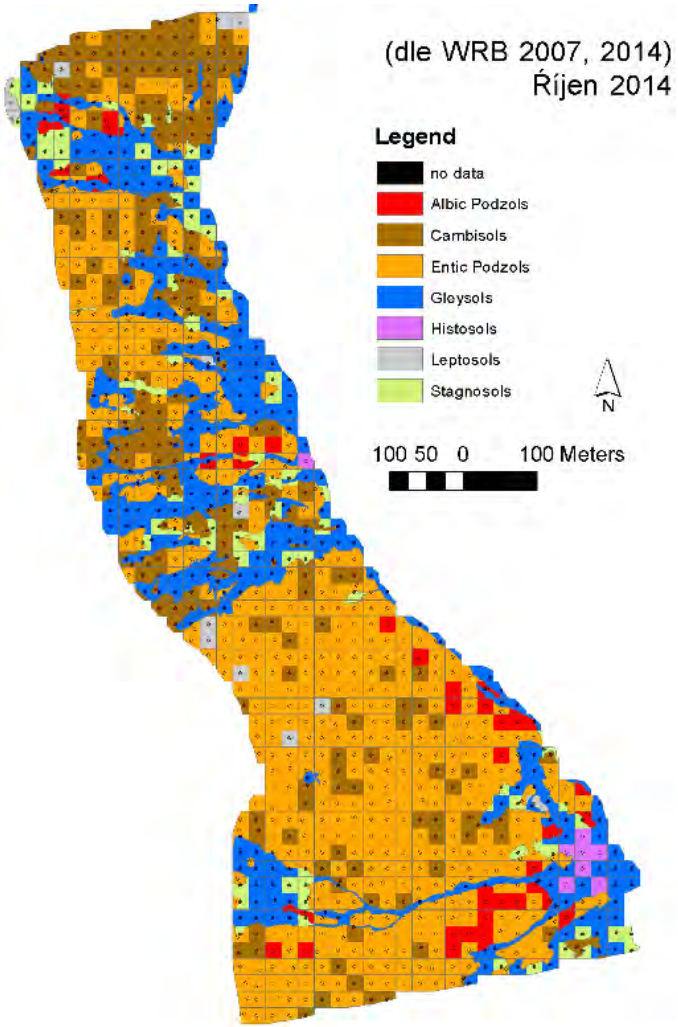


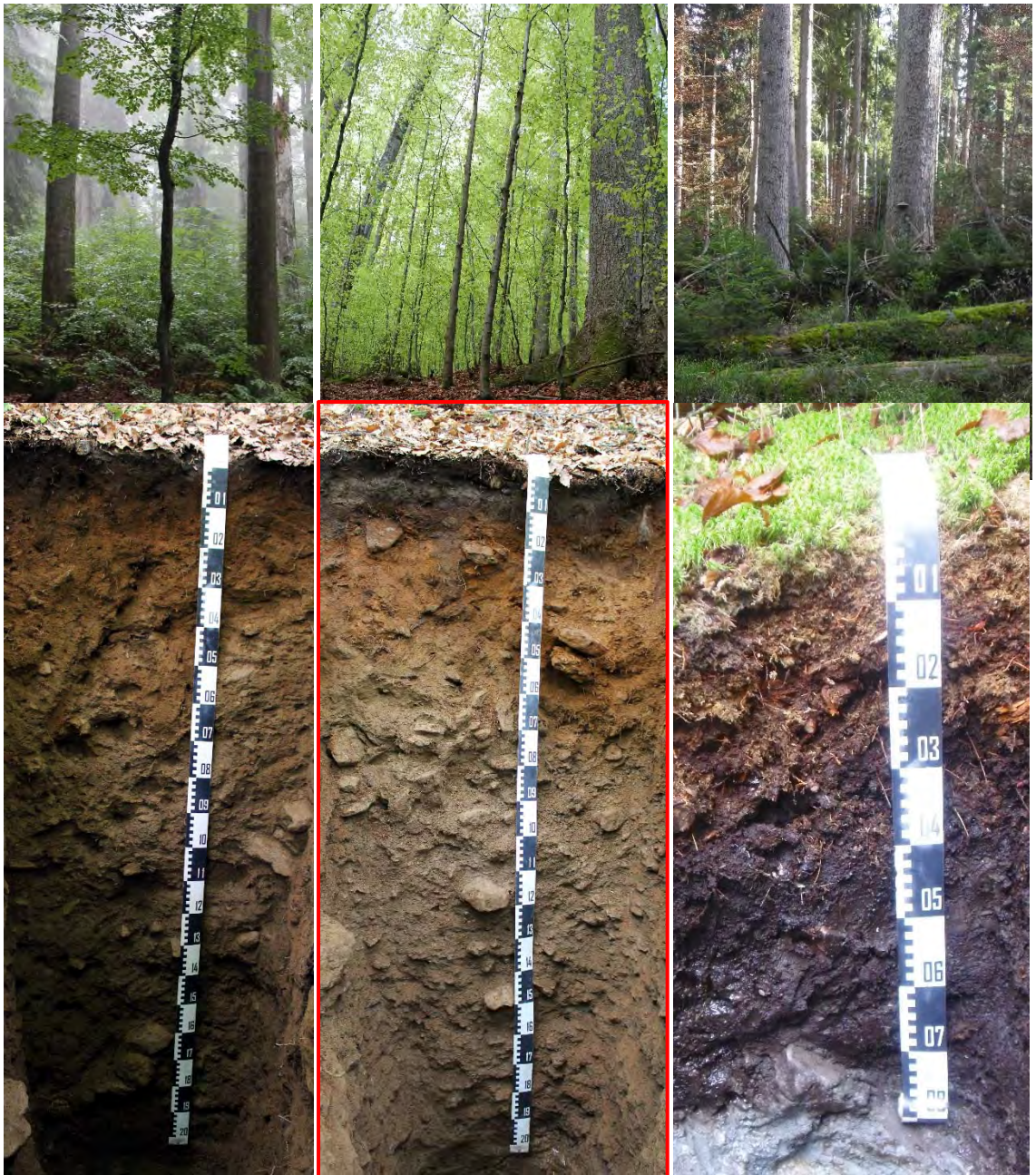


Daněk et al. (in prep)

Role půdy v expanzi buku

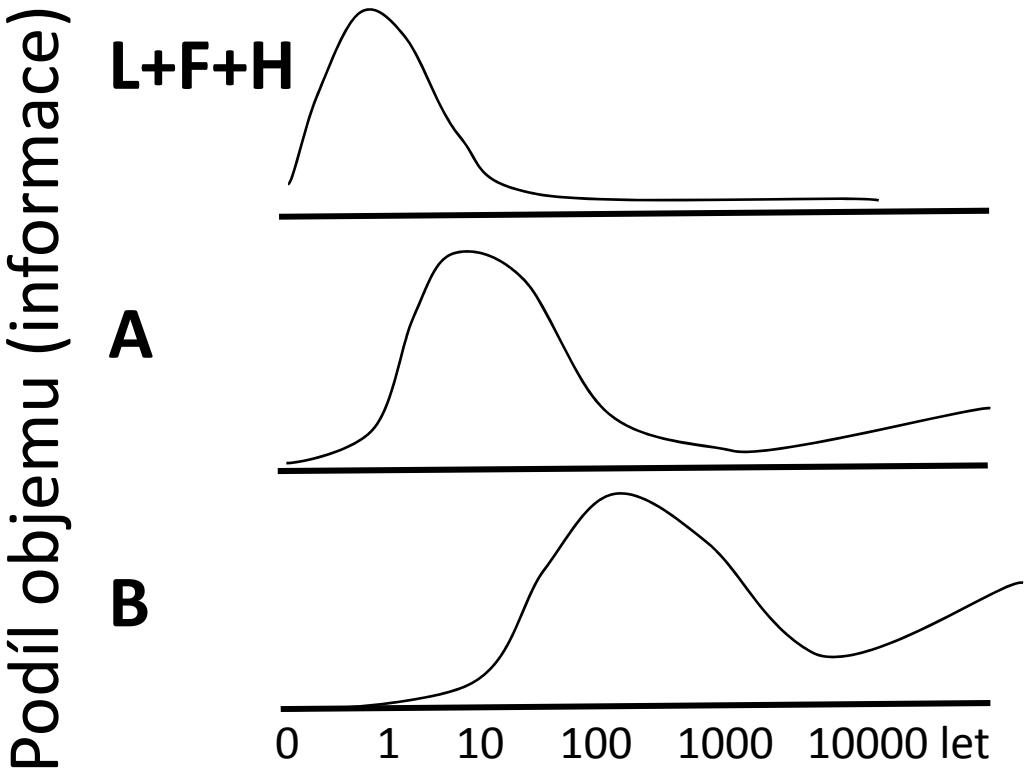
Podzoly coby dnešní „frontová linie“





Daněk et al. (in prep)

Půda: paměť a moment



Kdo Vám to pánové udělal?

Aktivní role stromů

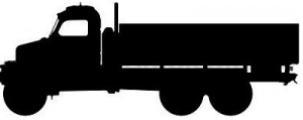
Buk X smrk
? S t r a t e g i e ?

Chemické vlivy stromů

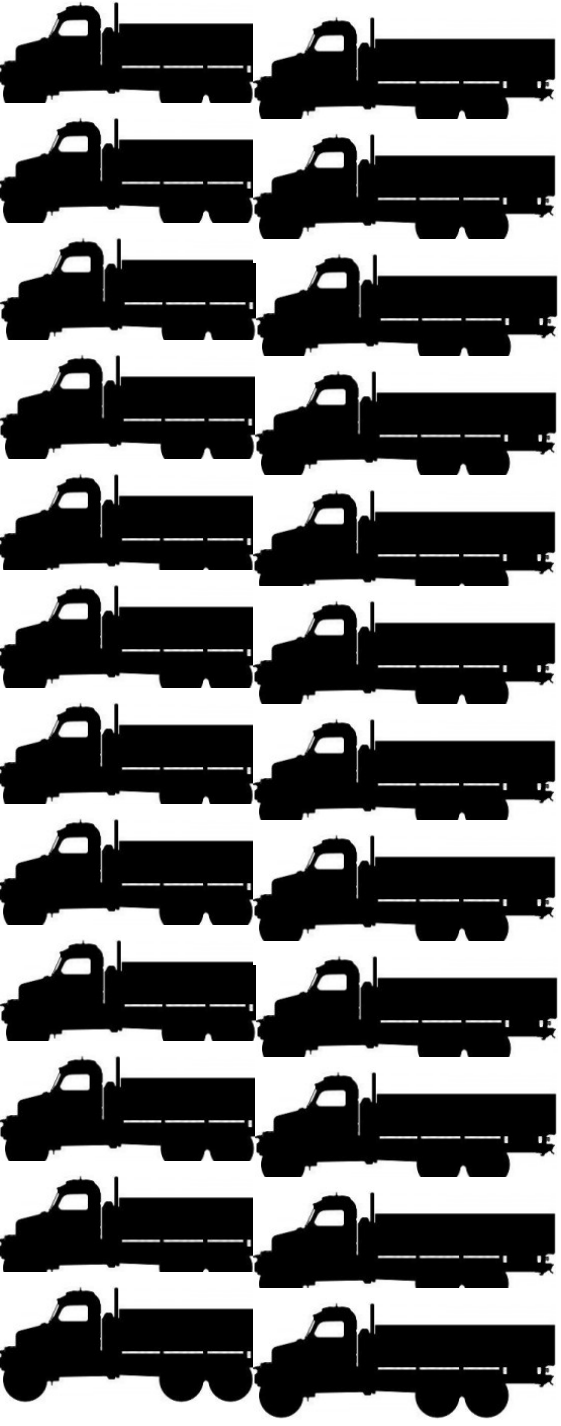
Mechanické vlivy stromů

Kolik je to nákladďáků Praga v3s?

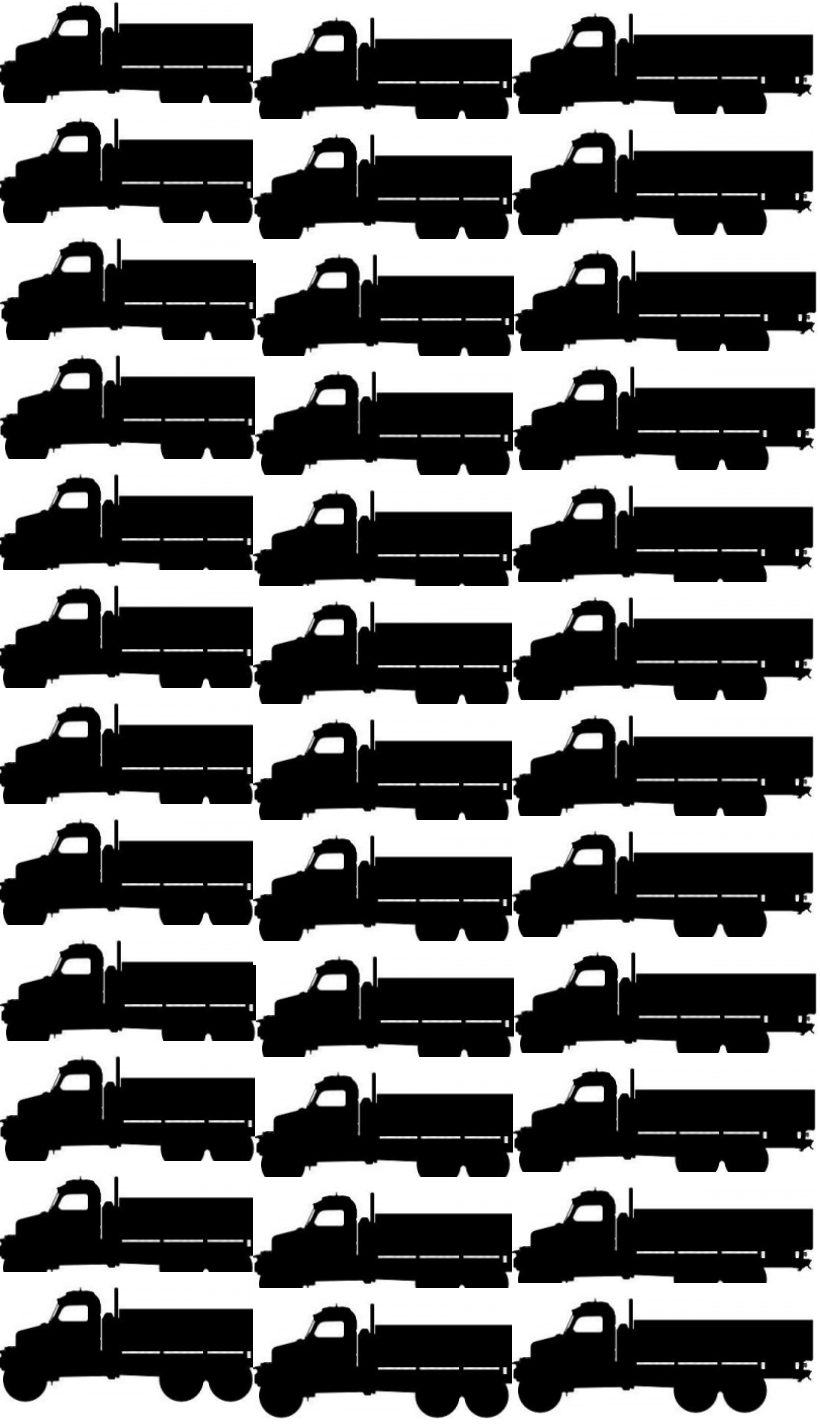
322 m^3 / ha



80x Praga v3s



a
b
c
d
e
f
g
h
i
j



a
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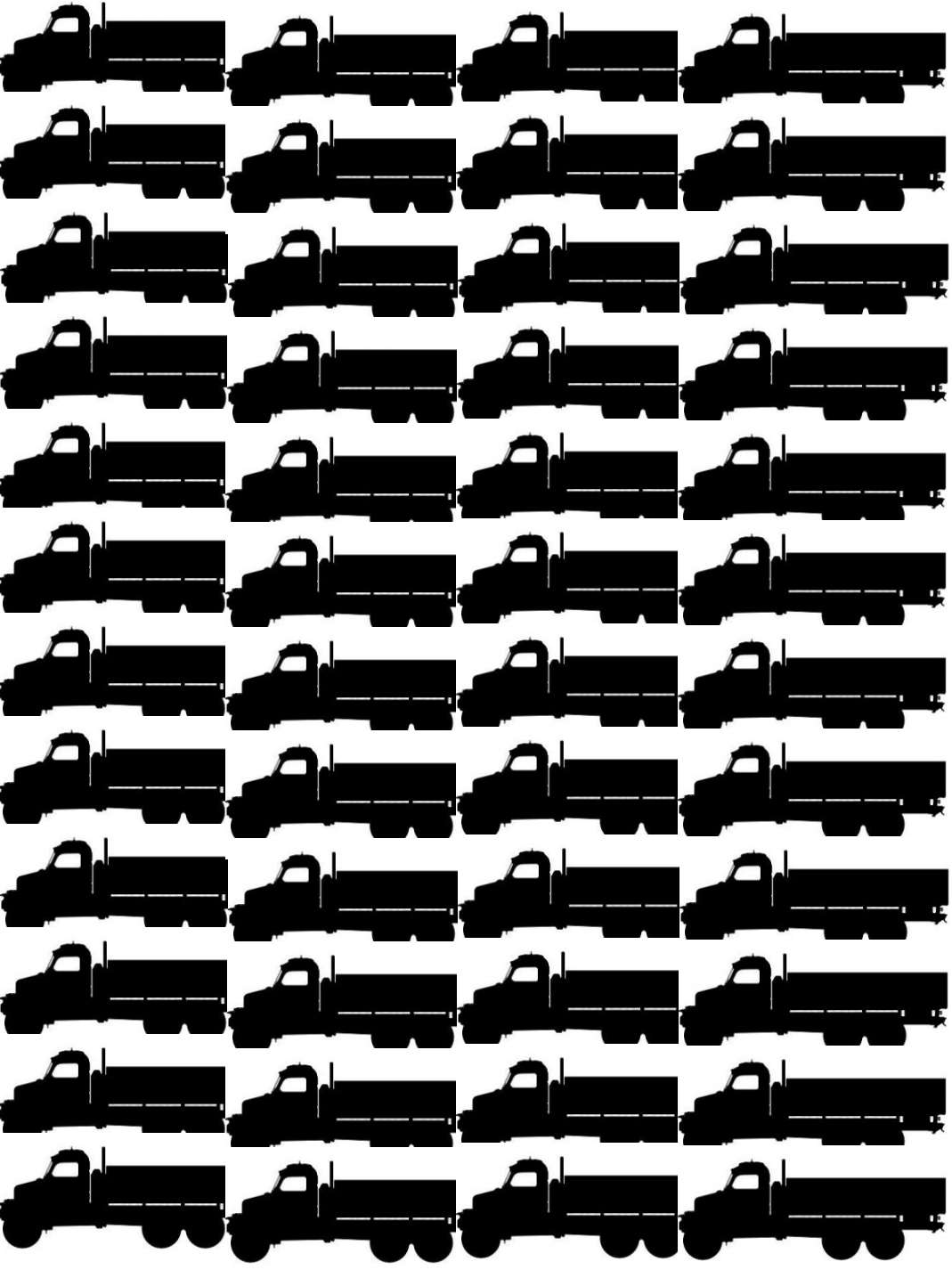

a
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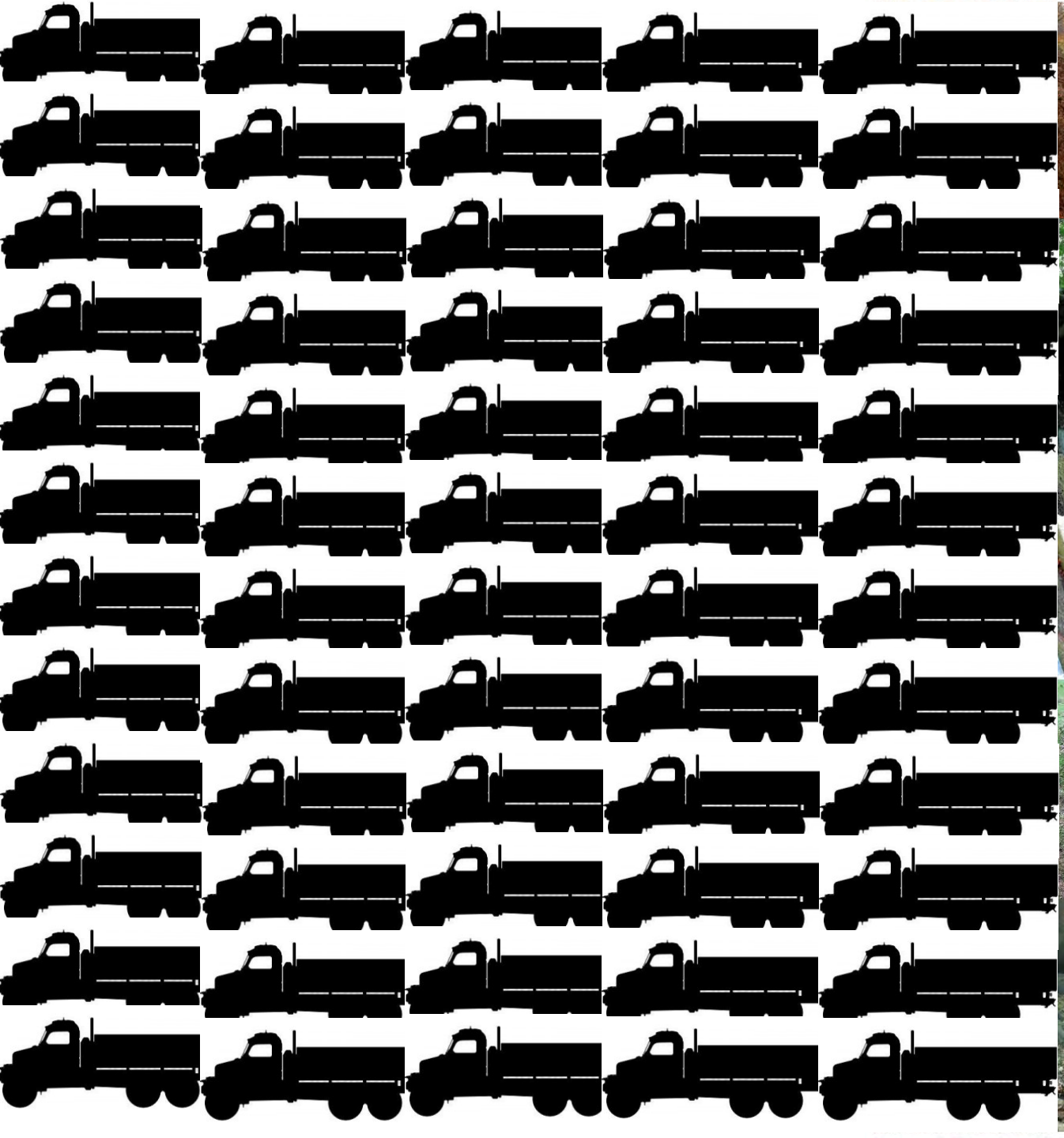

a
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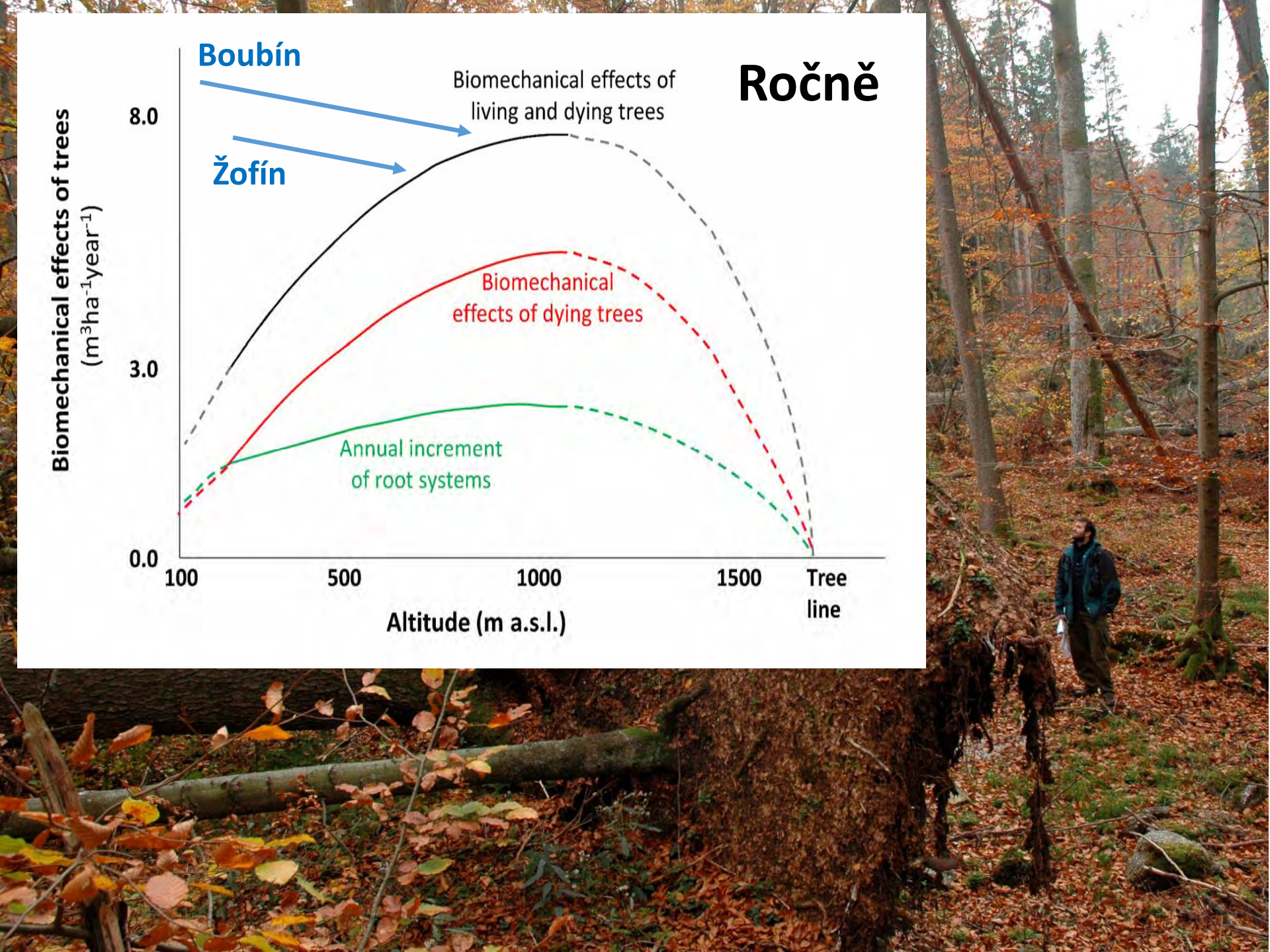
j

48% měněno hospodařením

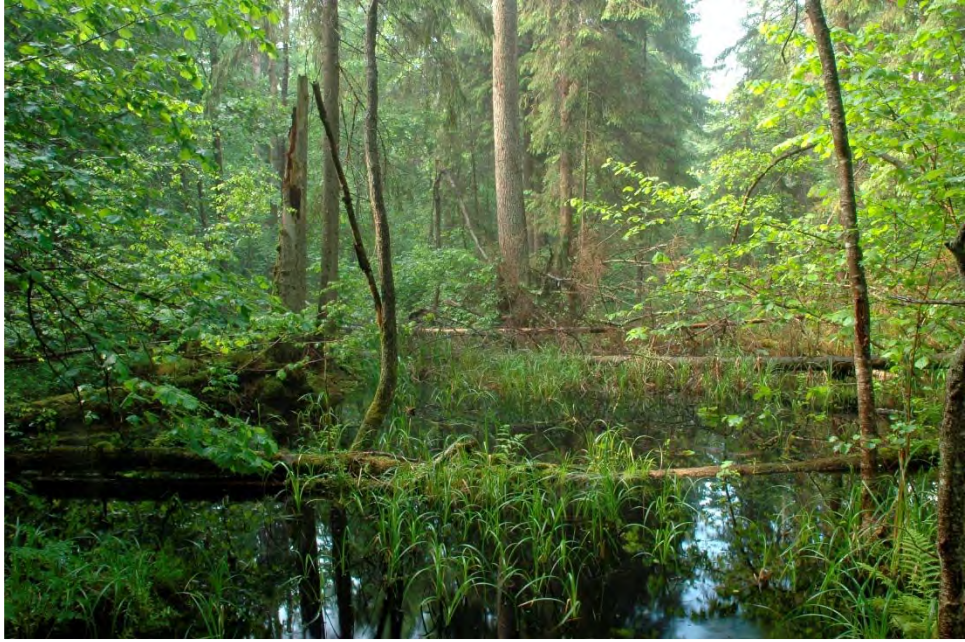

Boubín
Žofín
Ročně
Biomechanical effects of living and dying trees
Biomechanical effects of dying trees
Annual increment of root systems
Biomechanical effects of trees (m³ha⁻¹year⁻¹)
8.0
3.0
0.0
100
500
1000
1500
Tree line
Altitude (m a.s.l.)

Čas

Čas

www.horydoly.cz

Vývoj nížinného pralesa



Dub a smrk ustupují