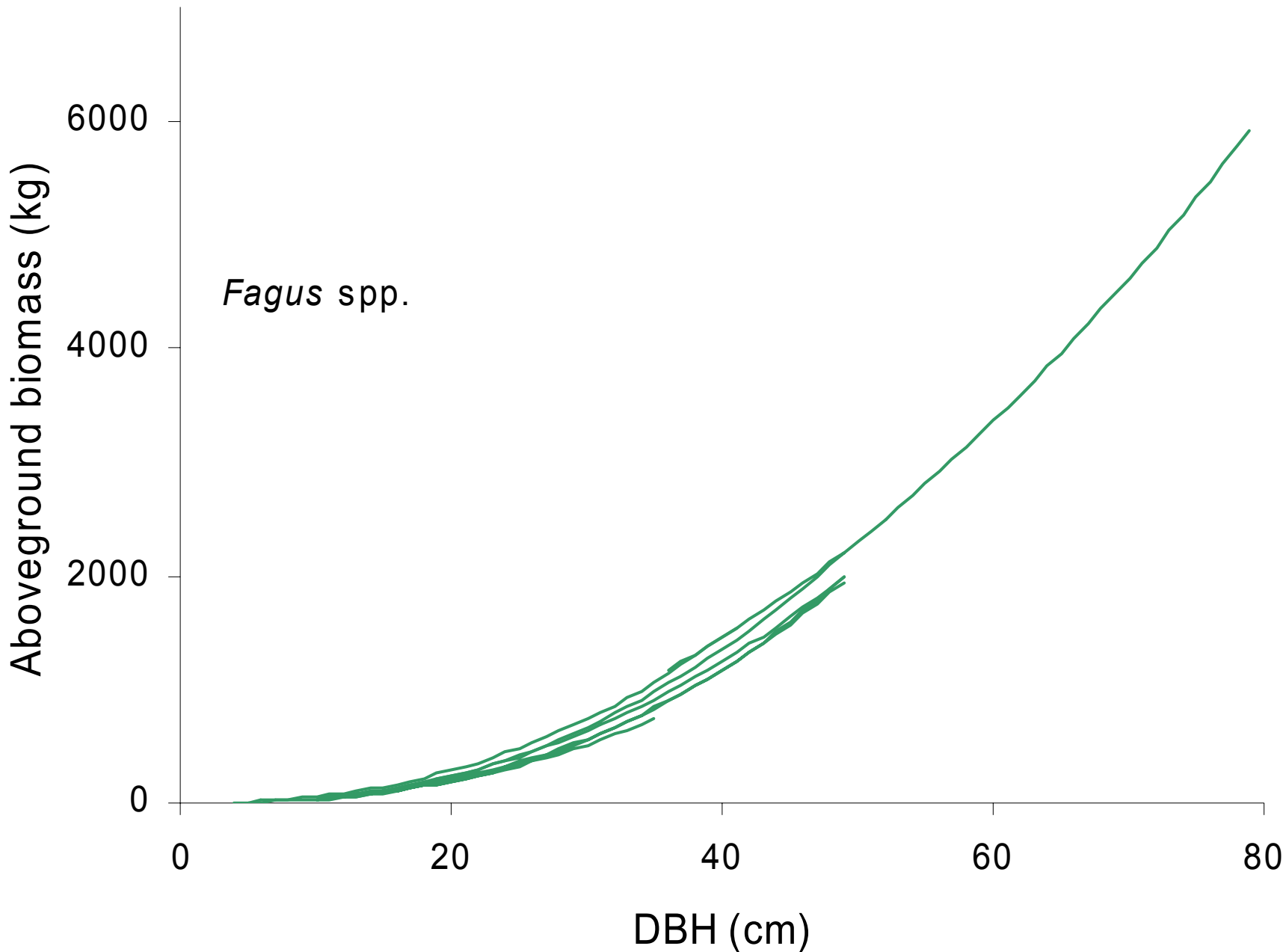
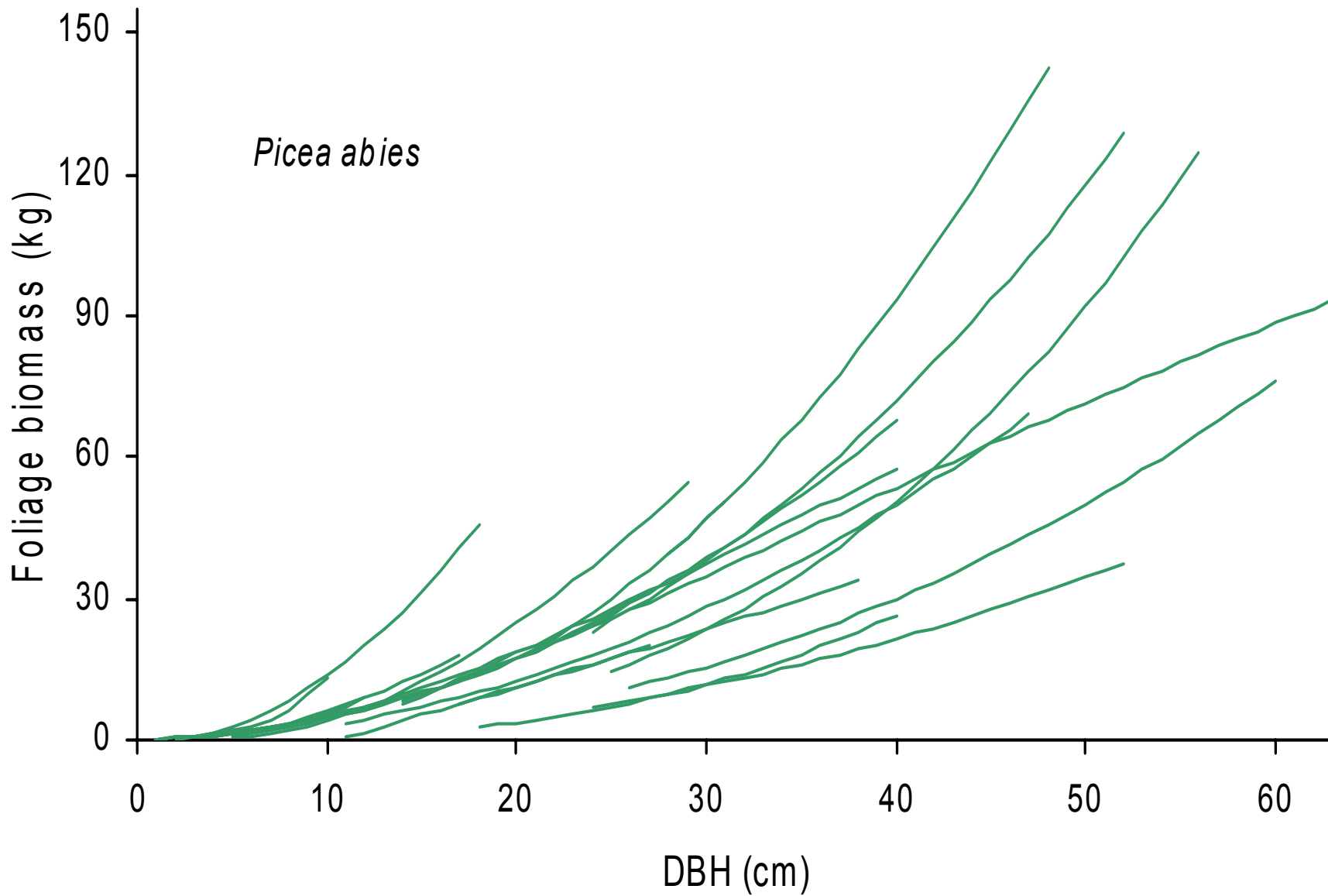


Generalised allometric volume and biomass functions for some European tree species

Petteri Muukkonen





Relationship between diameter and height:

•Boreal:

- Spruce
- Pine
- Birch

NFI

Model of Näslundin (1937)

$$H=1,3+D^2/(a+b\cdot D)^2$$

•Temperate:

- Spruce
- Pine

Reported values across the Europe:

- Ovington (1957), Barcikowski & Loro (1995), Chroust (1985), Do-Hyung (2001), Barna & Kodrık (2002), Vyskot (1990), Cerny (1990), Fiedler (1987), Burger (1937), Horst (1968), Vins & Sika (1981), Burger (1953)

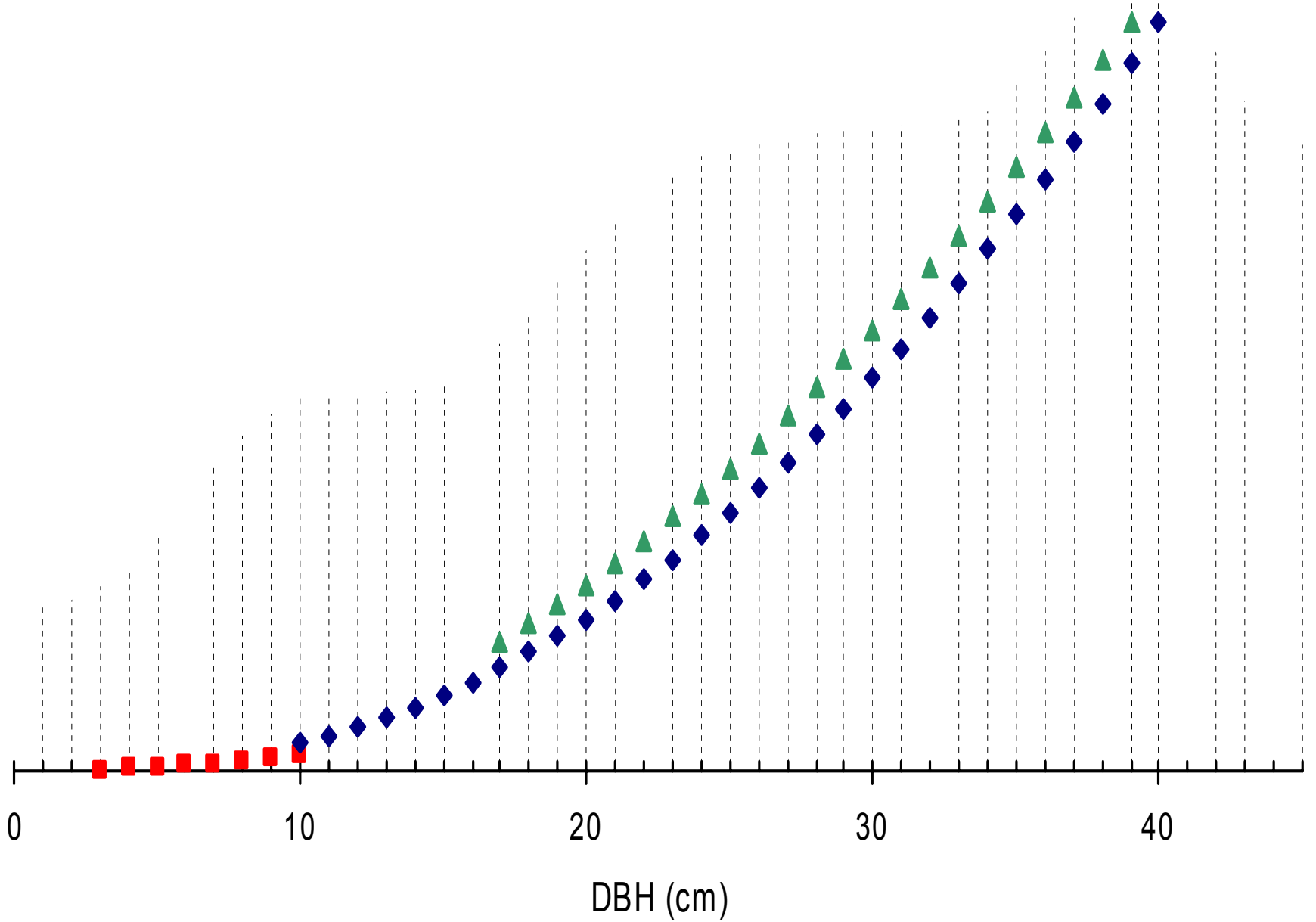
•**111 pines, 289 spruces**

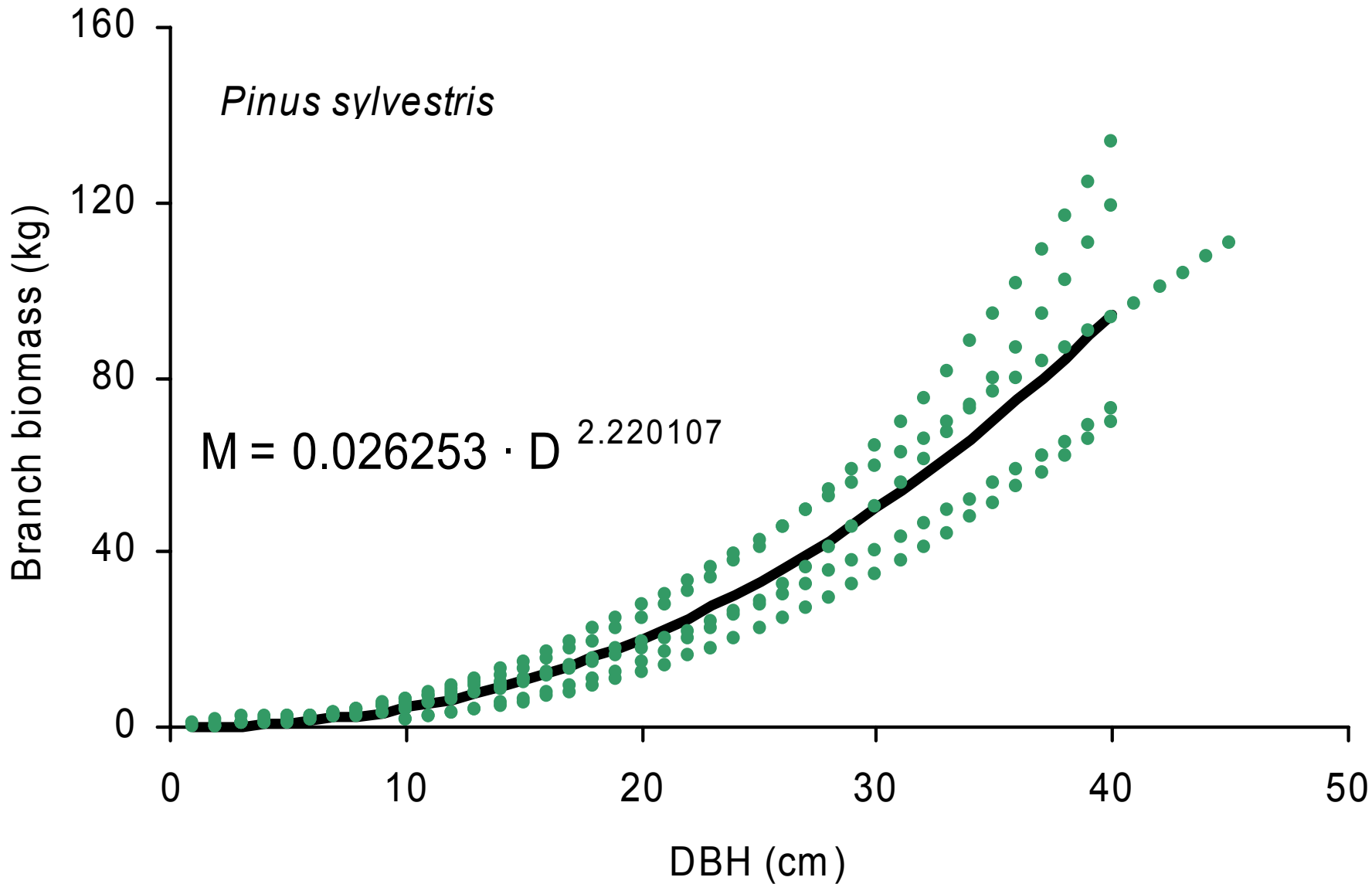
•Beech

• $H=\exp(3,6638-12,601/D)$ Zucchini et al. (2001)

•Oak

• $H=1,4+(31,34-1,4)\cdot(1-\exp(-0,0382\cdot D))$ Fulton (1999)





Kuusi		
Temperaalinen	a	b
Vol	0.000173	2.483652
AB	0.252819	2.176699
BR	0.000840	3.137501
FL	0.067376	1.775026
ST	0.315140	2.074501
Boreaalinen	a	b
Vol	0.000452	2.148513
AB	0.116056	2.359679
BR	0.058149	2.113270
FL	0.310729	1.422214
ST	0.317479	2.011015
Tammi		
Temperaalinen	a	b
Vol	0.000275	2.315040
AB	0.226992	2.282587
BR	-	-
FL	-	-
ST	-	-

Mänty		
Temperaalinen	a	b
Vol	0.000201	2.309583
AB	0.042771	2.602260
BR	0.004956	2.740618
FL	0.006528	2.362383
ST	0.077774	2.391767
Boreaalinen	a	b
Vol	0.000707	2.004223
AB	0.083369	2.414505
BR	0.026253	2.220107
FL	0.066670	1.565930
ST	0.065374	2.458400
Pyökki		
Temperaalinen	a	b
Vol	0.000392	2.278026
AB	0.248946	2.313769
BR	0.005967	2.997759
FL	0.003131	2.438488
ST	0.166810	2.328723

