

**Table S3.** Total harvested volume, mean aboveground live tree carbon and habitat suitability index (HSI) results of the 70-year simulation run for SM, SID and WSP stands ( $n=5$  each) under three single-management scenarios. \* No harvest was scheduled in No-management.

Stands	Management scenario	Value $\pm$ SD		
		Harvested total volume (m <sup>3</sup> /ha)	Mean aboveground live carbon (Mg C/ha)	Mean HSI (sum of 3 sub-components)
Sugar maple-beech (SM)	No-management	0*	126.4 $\pm$ 30.3	2.358 $\pm$ 0.228
	Ecosystem	169.1 $\pm$ 85.3	84.0 $\pm$ 10.4	1.712 $\pm$ 0.240
	Intensive	454.4 $\pm$ 130.1	35.7 $\pm$ 5.6	0.706 $\pm$ 0.196
Shade-intolerant deciduous (SID)	No-management	0*	101.4 $\pm$ 17.9	1.658 $\pm$ 0.860
	Ecosystem	383.6 $\pm$ 81.1	47.3 $\pm$ 5.0	0.771 $\pm$ 0.173
	Intensive	488.5 $\pm$ 102.9	42.7 $\pm$ 7.0	0.603 $\pm$ 0.135
White spruce plantation (WSP)	No-management	0*	65.0 $\pm$ 0.4	0.573 $\pm$ 0.168
	Ecosystem	276.0 $\pm$ 27.3	35.5 $\pm$ 4.1	0.015 $\pm$ 0.006
	Intensive	310.3 $\pm$ 32.8	30.9 $\pm$ 3.8	0.015 $\pm$ 0.007