

Table S1. Number of samples collected at each site per measurement that were used in the analyses*

Measurement	Site	Sample size
Elevation	Gorham Cliffs	15
	South Cadillac	15
	St. Sauveur	15
	Wonderland	15
Slope	Gorham Cliffs	15
	South Cadillac	15
	St. Sauveur	15
	Wonderland	15
Aspect	Gorham Cliffs	15
	South Cadillac	15
	St. Sauveur	15
	Wonderland	15
Soil C	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8
Soil N	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	4
	Wonderland	6
Soil C/N	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	4
	Wonderland	6
Soil water retention (SWR)	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Soil Ca ²⁺	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8

Soil P	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8
Soil K	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8
Soil Mg ²⁺	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8
Soil Al ⁺	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8
Soil Zn	Gorham Cliffs	8
	South Cadillac	8
	St. Sauveur	7
	Wonderland	8
Foliar C	Gorham Cliffs	20
	South Cadillac	20
	St. Sauveur	20
	Wonderland	20
Foliar N	Gorham Cliffs	19
	South Cadillac	19
	St. Sauveur	19
	Wonderland	19
Foliar C/N	Gorham Cliffs	19
	South Cadillac	19
	St. Sauveur	19
	Wonderland	19
Foliar $\delta^{13}\text{C}$	Gorham Cliffs	15
	South Cadillac	10

	St. Sauveur	15
	Wonderland	15
Foliar $\delta^{15}\text{N}$	Gorham Cliffs	15
	South Cadillac	10
	St. Sauveur	15
	Wonderland	15
Foliar Ca^{2+}	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Foliar P	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Foliar K	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Foliar Mg^{2+}	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Foliar Al^+	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Foliar Zn	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Height	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10

Diameter at breast height (DBH)	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Canopy spread	Gorham Cliffs	10
	South Cadillac	10
	St. Sauveur	10
	Wonderland	10
Neighbor distance	Gorham Cliffs	15
	South Cadillac	15
	St. Sauveur	15
	Wonderland	15

Figure S1. Pictures of representative individuals present within each of the four studied pitch pine population on Mt. Desert Island.

St Sauveur Trail



South Cadillac Trail



Wonderland Trail



Gorham Cliffs



Figure S2. Circular plots indicating the aspect of individual trees at each site. Color of points indicates the fire history with red and blue indicating exposure and no exposure to the 1947 fire, respectively. For consistency with other plots, the shapes represent different sites. Circles, triangles, diamonds, and squares correspond to measurements at Gorham Cliffs, South Cadillac, St. Sauveur, and Wonderland, respectively (Table 1). Group letters were assigned using site-to-site Watson test comparisons, with different letters indicating significantly different aspects (Table 2).

