

Supplementary material

Table S1. Satellite data used for the phenological monitoring of Acadia National Park

Source	Variable	Temporal resolution	Spatial grid resolution	Available dates
MODIS	NBAR	Daily	500m	Mar. 2000-present (V006)
VIIRS	NBAR	Daily	500m	Jan. 2012-present (Offline)
Landsat	Surface Reflectance	16 day repeat cycle	30m	Jul. 1999-present for Landsat7 Apr. 2013-present for Landsat 8

Table S2. Number of pixels over the hiking trails

Hiking trails	No. of 500 m sinusoidal grids	No. of 30 m UTM grids
Cadillac Ridge	27	352
Pemetic Ridge	13	154
Sargent Ridge + Giant Slide	24	322
Total	64	828

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Table S3. Common species monitored on the hiking trails.

Scientific Name	Common Name	Acronym
<i>Gaylussacia bacata</i>	Huckleberry	GaBa
<i>Kalmia angustifolia</i>	Sheep's laurel	KaAn
<i>Maianthemum canadense</i>	Canada mayflower	MaCa
<i>Rhododendron canadense</i>	Rhodora	RhCa
<i>Sibbaldiopsis tridentate</i>	Three-toothed cinquefoil	SiTr
<i>Vaccinium angustifolium</i>	Low bush blueberry	VaAn
<i>Vaccinium vitis-idaea</i>	Mountain cranberry	VaVi

Table S4. Landsat pixels and common species in each elevation zone.

Ridge	Aspect	Zone(foot)	Pixels.n	Percentage (%)	Common species
Cadillac	North	0-600	11	47.83	VaAn
		600-900	30	51.72	VaAn
		900-1200	30	100.00	VaAn
		1200-	32	100.00	VaAn
	South	1200-	44	89.80	KaAn, SiTr, VaAn
		900-1200	60	100.00	GaBa, KaAn, SiTr, VaAn
		600-900	28	77.78	GaBa, KaAn, SiTr, VaAn
		0-600	4	6.25	VaAn
Pemetic	North	0-600	6	25.00	
		600-900			
		900-1200	2	6.25	KaAn, VaAn
		1200-	6	85.71	RhCa, SiTr, VaAn
	South	1200-	10	100.00	RhCa, VaVi
		900-1200	22	62.86	KaAn, VaAn
		600-900	3	14.29	
		0-600			
Sargent	North	0-600	8	10.26	KaAn, MaCa, VaAn
		600-900			KaAn, MaCa, VaAn
		900-1200	9	42.86	KaAn, MaCa, VaAn
		1200-	16	94.12	MaCa, RhCa, VaAn, VaVi
	South	1200-	35	100.00	KaAn, MaCa, RhCa, SiTr, VaAn
		900-1200	5	9.62	VaAn, KaAn
		600-900	9	13.43	GaBa, KaAn, MaCa, RhCa, VaAn
		0-600	4	14.81	MaCa, VaAn

5 Pixels.n indicates the number of Landsat pixels in each zone that are used for the community greenup date calculation, where developed area and evergreen forest pixels are not included. Percentage indicates the percentage of Landsat pixels used for community comparison as compared to all the Landsat pixels in each elevational zone. Blanks indicate no common species or no Landsat pixel used for the community comparison.