

Supplementary material for Nelson, P. R., B. McCune & D. K. Swanson. 2015. Lichen traits and species as indicators of vegetation and environment. The Bryologist 118(3): XX-XX.

Supplementary Table S1. List of lichen species traits and environmental variables.

Name	Description	Units	Min	Max
Elevation	Elevation	Feet	580	6013
Snow-free	Average snow-free date within 30m pixel	Julian date	94	166
Tree	Ocular estimate of percent cover of tree	% cover	0	55
Tall	Ocular estimate of percent cover of tall shrub	% cover	0	100
Mid	Ocular estimate of percent cover of mid shrub	% cover	0	100
Low	Ocular estimate of percent cover of low shrub	% cover	0	95
Dwarf	Ocular estimate of percent cover of dwarf shrub	% cover	0	90
Graminoid	Ocular estimate of percent cover of graminoid	% cover	0	80
Forbs	Ocular estimate of percent cover of forb	% cover	0	99
Bryophyte	Ocular estimate of percent cover of bryophyte	% cover	0	75
Lichens	Ocular estimate of percent cover of lichen	% cover	0.25	40
Soil	Ocular estimate of percent cover of bare soil	% cover	0	35
Duff	Ocular estimate of percent cover of duff	% cover	0	10
Rock	Ocular estimate of percent cover of rock	% cover	0	99
Water	Ocular estimate of percent cover of water	% cover	0	3
Green algal	Count of species with green algae only	# species	4	53
Cyanolichen	Count of species with cyanobacteria only	# species	0	16
Tripartite	Count of species with green algae and cyanobacteria	# species	0	11
Saxicole	Count of species growing on rocks	# species	0	19
Terricole	Count of species growing on the ground	# species	2	54
Epiphyte	Count of species growing on the epiphyte	# species	0	20
Lignicole	Count of species growing on the wood	# species	0	5

Foliose	Count of foliose species	# species	6	44
Fruticose	Count of fruticose species	# species	1	32
Cladoniiform	Count of simple cladoniiform species	# species	0	19
Squamulose	Count of squamulose fruticose species	# species	0	4
Erect branched	Count of erect branched fruticose species	# species	0	14
Appressed	Count of appressed foliose species	# species	3	28
Filament	Count of filamentous fruticose species	# species	0	6
3-D foliose	Count of 3D foliose species	# species	0	15
Soredia	Count of sorediate species	# species	0	21
Isida	Count of isidiate species	# species	0	7
Lobules	Count of lobulate species	# species	0	2
