

Supporting Information

Table A1. Tree species assigned as dominant in each plot based on the highest basal area among live trees.

<i>Species Code</i>	<i>Common name</i>	<i>Species</i>
11	pacific silver fir	<i>Abies amabilis</i>
17	grand fir	<i>Abies grandis</i>
19	subalpine fir	<i>Abies lasiocarpa</i>
42	Alaska yellow cedar	<i>Chamaecyparis nootkatensis</i>
94	white spruce	<i>Picea glauca</i>
95	black spruce	<i>Picea mariana</i>
98	Sitka spruce	<i>Picea sitchensis</i>
101	white bark pine	<i>Pinus albicaulis</i>
108	lodgepole pine	<i>Pinus contorta</i>
119	western white pine	<i>Pinus monticola</i>
202	Douglas-fir	<i>Pseudotsuga menziesii</i>
242	western redcedar	<i>Thuja plicata</i>
263	western hemlock	<i>Tsuga heterophylla</i>
264	mountain hemlock	<i>Tsuga mertensiana</i>
312	bigleaf maple	<i>Acer macrophyllum</i>
351	red alder	<i>Alnus rubra</i>
375	paper birch	<i>Betula papyrifera</i>
746	quaking aspen	<i>Populus tremuloides</i>
747	black cottonwood	<i>Populus trichocarpa</i>

Table A2. Environmental predictor variables that were used in GNN mapping (Lamping and others 2025).

Predictor	Band name	Description
Landsat 8 Composite	blue	Landsat 8 blue band
	green	Landsat 8 green band
	red	Landsat 8 red band
	NIR	Landsat 8 near infrared band
	SWIR1	Landsat 8 shortwave infrared 2 band
	SWIR2	Landsat 8 shortwave infrared 1 band
Landsat 8 indices	R54	Landsat 8 near infrared band / Landsat 8 red band
	R65	Landsat 8 shortwave infrared 1 / Landsat 8 near infrared
	R67	Landsat 8 shortwave infrared 1 / Landsat 8 shortwave infrared 2
	NDVI	Landsat 8 normalized difference vegetation index
Landsat 8 Tasseled Cap	brightness	Axis 1 from tasseled cap transformation of Landsat 8 surface reflectance.
	greenness	Axis 2 from tasseled cap transformation of Landsat 8 surface reflectance.
	wetness	Axis 3 from tasseled cap transformation of Landsat 8 surface reflectance.
Landcover	landcov	National Land Cover Database (NLCD) Landcover classifications
Topography	elevation	Elevation (m)
	slope	Slope (degrees)
Location	latitude	northing based on EPSG:3338 (m)
	longitude	easting based on EPSG:3338 (m)
Climate	bio1	mean annual air temperature
	bio4	temperature seasonality (°C/100)
	bio5	mean daily air temperature of the warmest month (°C)
	bio12	annual precipitation amount (kg·m ⁻²)
	bio14	precipitation amount of the driest month (kg·m ⁻²)
Disturbance	bio15	precipitation seasonality (kg·m ⁻²)
	TSD	Time since disturbance obtained from Landtrendr

Table A3. Confusion matrix for dominant forest type classification based on species codes (SPCD). SPCD codes correspond to dominant species as follows: 11 = *Abies amabilis*, 19 = *Abies lasiocarpa*, 42 = *Chamaecyparis nootkatensis*, 94 = *Picea glauca*, 95 = *Picea mariana*, 98 = *Picea sitchensis*, 108 = *Pinus contorta*, 119 = *Pinus monticola*, 202 = *Pseudotsuga menziesii*, 242 = *Thuja plicata*, 263 = *Tsuga heterophylla*, 264 = *Tsuga mertensiana*, 312 = *Acer macrophyllum*, 351 = *Alnus rubra*, 375 = *Betula papyrifera*, 746 = *Populus tremuloides*, and 747 = *Populus trichocarpa*.

	11	19	42	94	95	98	108	119	202	242	263	264	312	351	375	746	747
11	17	0	2	0	0	0	0	1	1	0	5	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	4	0	109	0	0	3	2	0	0	7	36	5	0	0	0	0	0
94	0	0	0	60	1	1	0	0	0	0	0	3	0	0	5	3	2
95	0	0	0	16	48	1	0	0	0	0	0	1	0	0	6	4	2
98	4	0	17	6	0	362	3	0	0	8	70	14	0	2	3	0	14
108	0	0	23	0	0	11	58	0	0	4	12	7	0	1	0	0	0
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
202	4	0	1	0	0	0	1	0	82	13	14	0	0	0	0	0	0
242	0	0	29	0	0	18	12	0	6	172	83	2	0	8	0	0	0
263	4	0	63	1	0	80	2	0	10	18	472	61	2	20	1	0	7
264	0	1	11	8	1	22	2	0	0	1	10	312	0	0	4	0	4
312	0	0	0	0	0	0	0	0	2	0	0	0	2	1	1	0	0
351	0	0	0	0	0	0	0	0	1	0	1	0	2	32	0	0	0
375	0	0	0	16	2	2	0	0	0	0	0	1	0	0	61	9	11
746	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	1
747	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	25

Accuracy 0.67085334
 AccuracyLower 0.6527895
 AccuracyUpper 0.68854701
 AccuracyPValue 0

Table A4. Confusion matrix for MOG classification.

	Old growth	Mature	Other
Old growth	105	7	55
Mature	72	123	112
Other	133	191	1909

Accuracy 0.7894348

AccuracyLower 0.77358237

AccuracyUpper 0.80465883

AccuracyPValue 0.00273283