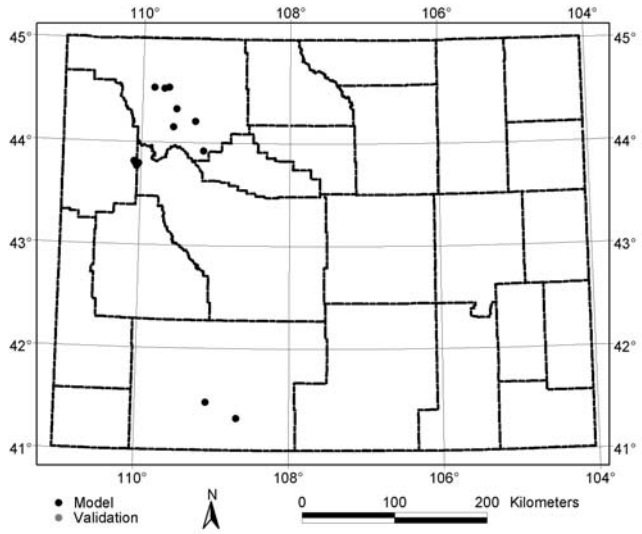
Descurainia torulosa Rollins

Known Distribution in Wyoming



Numbers of Points for Modeling

	Model	Validation	Total
Known Present	13	0	13
Known Absent	960	76	1036
Total	973	76	1049

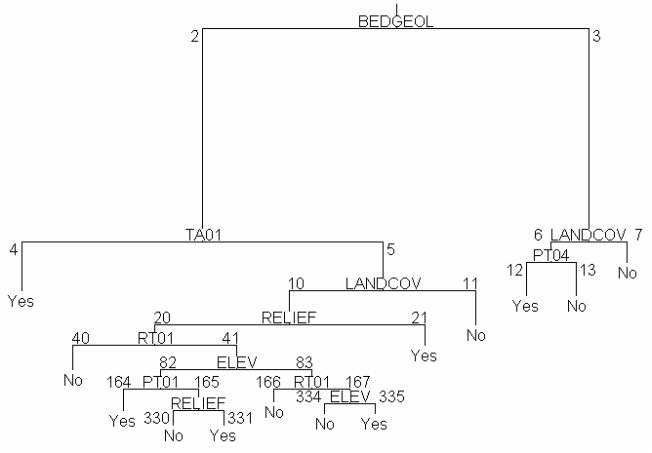
Data Source (Points)

Rocky Mountain Herbarium (1)
Wyoming Heritage Program (12)

Modeling Notes

Independent variables: ELEV, RELIEF, PT01, PT04, PT07, PT10, NWD, RT01, RT07, TA01, TA04, TA07, TA10, TX07, NFD, GDD, BEDGEOL, LANDCOV, SOIL, SURFGEOL
Minimum number of observations before split: 1
Minimum node size: 2
Minimum node deviance: 0.01
Minimum percent for pruning: 0.0
Biomes used for validation: ALP, FOOT, RMF

Classification Tree Used in Model Building



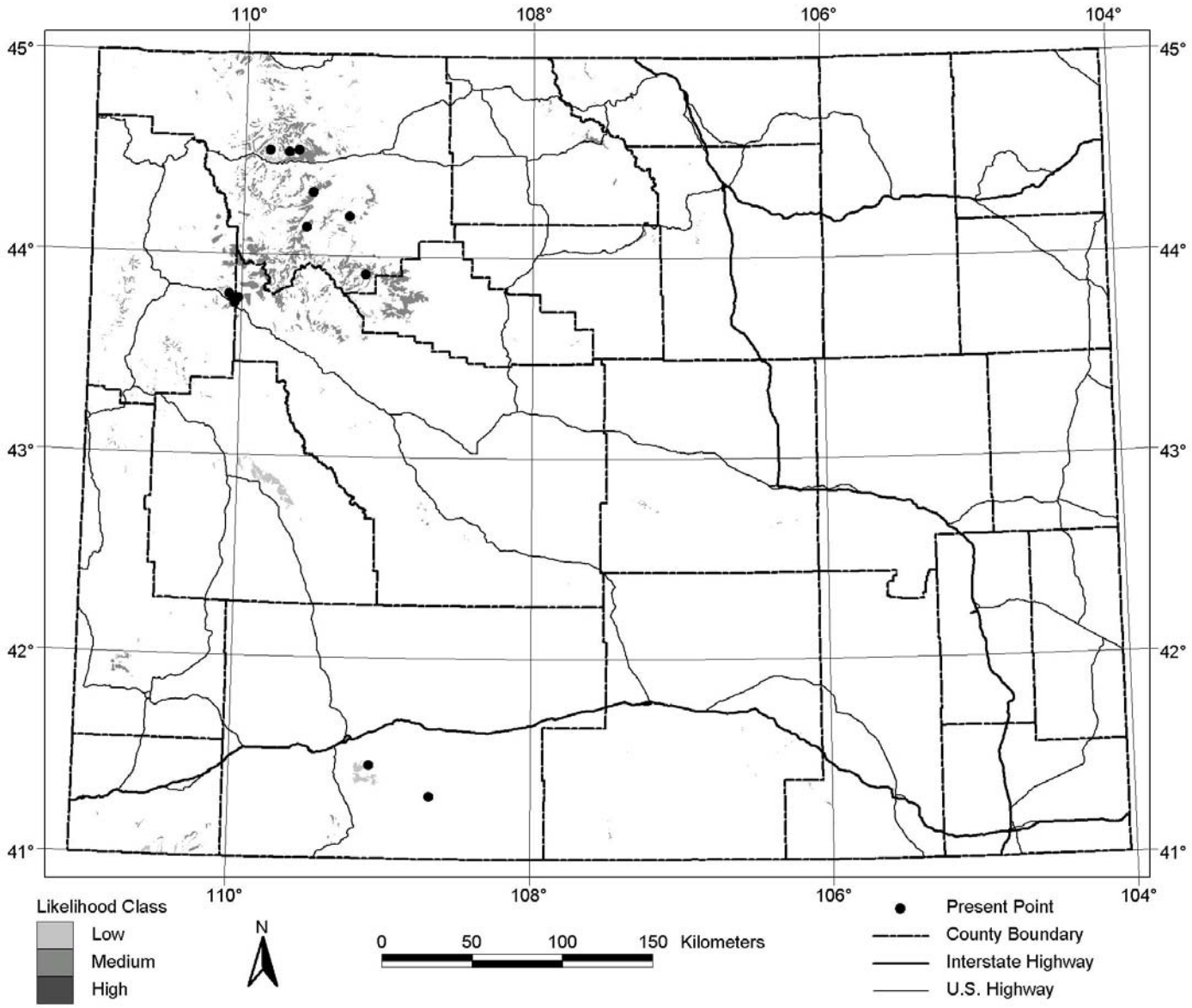
Classification Tree Output

Node_Num) Node_Def Node_Size (Num_No,Num_Yes) (Pct_No,Pct_Yes) Node_Type
1) root 973 (960,13) (100,100) Yes
2) BEDGEOL:Eex,Qls 60 (48,12) (5,92.3) Yes
4) TA01<-12.64 4 (0,4) (0,30.8) **Yes ***
5) TA01>-12.64 56 (48,8) (5,61.5) Yes
10) LANDCOV:AlpRk,DougF,Junpr,LodgP,MtSge,SbAlp 32 (24,8) (2.5,61.5) Yes
20) RELIEF<572 30 (24,6) (2.5,46.2) Yes
40) RT01<6.085 12 (12,0) (1.3,0) No *
41) RT01>6.085 18 (12,6) (1.3,46.2) Yes
82) ELEV<2554 8 (3,5) (0.3,38.5) Yes
164) PT01<5.195 4 (0,4) (0,30.8) **Yes ***
165) PT01>5.195 4 (3,1) (0.3,7.7) Yes
330) RELIEF<386.5 3 (3,0) (0.3,0) No *
331) RELIEF>386.5 1 (0,1) (0,7.7) **Yes ***
83) ELEV>2554 10 (9,1) (0.9,7.7) Yes
166) RT01<7.185 8 (8,0) (0.8,0) No *
167) RT01>7.185 2 (1,1) (0.1,7.7) Yes
334) ELEV<2791 1 (1,0) (0.1,0) No *
335) ELEV>2791 1 (0,1) (0,7.7) **Yes ***
21) RELIEF>572 2 (0,2) (0,15.4) **Yes ***
11) LANDCOV:AlpTn,Aspen,DstSh,FrRip,HmDis,MGras,Pdosa, ShRip,SpFir,WhtBk,WySge 24 (24,0) (2.5,0) No *
3) BEDGEOL:Ein,Eoe,Eol,H2O,Kmix,Ksh,Kss,MiPl,Olg,PCf,PCm, PTJ,Pal,Pze,Qal,Qlc,Qs,Qt,Qvf,TQc,Tlvf 913 (912,1) (95,7.7) No
6) LANDCOV:MtSge 48 (47,1) (4.9,7.7) Yes
12) PT04<2.71 1 (0,1) (0,7.7) **Yes ***
13) PT04>2.71 47 (47,0) (4.9,0) No *
7) LANDCOV:AcDun,AlpRk,AlpTn,Aspen,BkSge,BrOak,BsnRk, DougF,DstSh,FrRip,GrWet,GrsWd,HmDis,Junpr,Limbr, LodgP,MGras,MesSh,Pdosa,Playa,SGras,SbAlp,ShRip,SpFir, StBsh,VgDun,WhtBk,WySge,XerSh 865 (865,0) (90.1,0) No *

Path Composition and Likelihood

Yes Path	Node List	% of Present Points	Likelihood Class
a	4, 2	30.8	Medium
b	164, 82, 41, 20, 10, 5, 2	30.8	Medium
c	331, 165, 82, 41, 20, 10, 5, 2	7.7	Low
d	335, 167, 83, 41, 20, 10, 5, 2	7.7	Low
e	21, 10, 5, 2	15.4	Medium
f	12, 6, 3	7.7	Low

Predicted Distribution in Wyoming



Classification Rates

Model-Building Points

	Model Present	Model Absent		
Known Present	12 / 13 92.3%	1 / 13 7.7%	Total Correct	971 / 973 99.8%
Known Absent	1 / 960 0.1%	959 / 960 99.9%	Total Incorrect	2 / 973 0.2%

Validation Points

	Model Present	Model Absent		
Known Present	0 / 0	0 / 0	Total Correct	74 / 76 97.4%
Known Absent	2 / 76 2.6%	74 / 76 97.4%	Total Incorrect	2 / 76 2.6%

Area of Predicted Distribution: 2,668 km^2 (1.1% of WY)