PART THREE

SUPPORTING MATERIAL

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Appendices

APPENDIX 1
Divisions of *Flora Conservanda* (Brumback and Gerke 2013)

Flora Conservanda is divided into five Divisions.

Division 1: Globally Rare Taxa occurring in New England.
Taxa included in this Division have a global conservation status rank (GRank) of G1 through G3 or T1 through T3 (see Appendix 2); they are critically imperiled, imperiled, or vulnerable (NatureServe 2012). Usually only a few occurrences of these taxa exist within our region, but for some species, the majority of occurrences of these highly ranked taxa occur in New England. GRanks for taxa in this Division appear under each relevant taxon in the list.

Division 2: Regionally Rare Taxa.
Within New England, these taxa have 20 or fewer current (observed within the last 20–25 years) occurrences. This Division includes taxa that are rare or uncommon throughout their entire range as well as taxa that reach the edge of their distributional range in our region. It is important to conserve these edge-of-range occurrences as part of New England's natural heritage as well as to avoid shrinkage of these species' ranges. All taxa in Division 2 have G Ranks of G4 or G5 (apparently secure to secure globally). A taxon with slightly more than 20 occurrences in New England might also be included in Division 2 if it is vulnerable to extirpation due to other important factors (population size and trends, area of occupancy, overall viability, geographic distribution, habitat rarity and integrity, and/or degree of protection). These taxa are denoted as 2(a).

Division 3: Locally Rare Taxa
These taxa may be declining in a significant part of their range in New England, or may have one or more occurrences of biological, ecological, or possible genetic significance. Division 3(a) includes those taxa that have declined in a substantial portion of their range in New England (e.g., southern New England). Each state in the declining portion of the range is listed following the Division designation in the List (e.g., MA, NH). Division 3(b) taxa are those that, based on their biology and geography within New England, have populations that are disjunct to such a degree that genetic isolation is suspected. Each state with one or more disjunct occurrence is noted following the Division designation in the List, and the county of each disjunct occurrence is listed in the notes under the taxon. For Division 3(b), only selected occurrences in a particular state are of conservation concern for the purposes of the Flora Conservanda list, not all occurrences of the taxon throughout New England. A taxon may be listed as Division 3 in one or more states (designated by an asterisk following the state data), but not considered to be regionally rare.

Division 4: Historic Taxa
This Division consists of taxa that once existed in New England but have not been observed in natural occurrences on the landscape in the last 20–25 years (depending upon each NHPs methodology). The purposes of this division are to generate interest in re-locating these taxa if they still exist and to illustrate the level at which species have been lost from the region.

Division Indeterminate (IND.): Presumed Rare but Confirmation Required
These taxa are under review for inclusion in one of the above divisions, but due to issues of taxonomy (at least for New England occurrences) or nomenclature, or because their status in the wild is not confidently understood, they cannot yet be designated to a particular division. The purpose of this division is to stimulate interest in taxonomic research and/or field surveys for these taxa to bolster our knowledge and understanding.

APPENDIX 2
Definitions of Conservation Status Ranks per NatureServe (2014)

The conservation rank of an element known or assumed to exist within a jurisdiction is designated by a whole number from 1 to 5, pre-ceded by a G (Global), N (National), or S (Subnational) as appropriate. The numbers have the following meaning:

1 = critically imperiled
2 = imperiled
3 = vulnerable to extirpation or extinction
4 = apparently secure
5 = demonstrably widespread, abundant, and secure.

G1, for example, indicates critical imperilment on a range-wide basis—that is, a great risk of extinction. S1 indicates critical imperilment within a particular state, province, or other subnational jurisdiction—i.e., a great risk of extirpation of the element from that subnation, regardless of its status elsewhere.

Species known in an area only from historical records are ranked as either H (possibly extirpated/possibly extinct; not having been observed for the past 20–25 years) or X (presumed extirpated/presumed extinct). Certain other codes, rank variants, and qualifiers are also allowed in order to add information about the element or indicate uncertainty.

Elements that are imperiled or vulnerable everywhere they occur will have a global rank of G1, G2, or G3 and equally high or higher national and subnational ranks (the lower the number, the "higher" the rank, and therefore the conservation priority). On the other hand, it is possible for an element to be rarer or more vulnerable in a given nation or subnation than it is range-wide. In that case, it might be ranked N1, N2, or N3, or S1, S2, or S3 even though its global rank is G4 or G5. The three levels of the ranking system give a more complete picture of the conservation status of a species or community than either a range-wide or local rank by itself. They also make it easier to set appropriate conservation priorities in different places and at different geographic levels. In an effort to balance global and local conservation concerns, global as well as national and subnational (provincial or state) ranks are used to select the elements that should receive priority for research and conservation in a jurisdiction.


bearberry willow *(Salix uva-ursi)*
Liza Green © Native Plant Trust

APPENDIX 2

Use of standard ranking criteria and definitions makes Natural Heritage ranks comparable across element groups; thus, G1 has the same basic meaning whether applied to a salamander, a moss, or a forest community. Standardization also makes ranks comparable across jurisdictions, which in turn allows scientists to use the national and subnational ranks assigned by local data centers to determine and refine or reaffirm global ranks.

Ranking is a qualitative process: it takes into account several factors, including total number, range, and condition of element occurrences, population size, range extent and area of occupancy, short- and long-term trends in the foregoing factors, threats, environmental specificity, and fragility. These factors function as guidelines rather than arithmetic rules, and the relative weight given to the factors may differ among taxa. In some states, the taxon may receive a rank of SR (where the element is reported but has not yet been reviewed locally) or SRF (where a false, erroneous report exists and persists in the literature). A rank of S? denotes an uncertain or inexact numeric rank for the taxon at the state level.

Within states, individual occurrences of a taxon are sometimes assigned element occurrence ranks.

Element occurrence (EO) ranks, which are an average of four separate evaluations of quality (size and productivity), condition, viability, and defensibility, are included in site descriptions to provide a general indication of site quality. Ranks range from: A (excellent) to D (poor); a rank of E is provided for element occurrences that are extant, but for which information is inadequate to provide a qualitative score. An EO rank of H is provided for sites for which no observations have made for more than 20 years. An X rank is utilized for sites that are known to be extirpated. Not all EOs have received such ranks in all states, and ranks are not necessarily consistent among states as yet.

APPENDIX 3
Important Plant Areas by State and Protection Status

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
MATRIX FOREST									
Boreal Upland Forest									
Acadian Low-Elevation Spruce-Fir-Hardwood Forest									
81632	ME	2	2,681	Soubunge Mountain	S	0%	100%	100%	
90329	ME	2	13,237	No Name	U	0%	0%	0%	
52265	ME	6	25,411	White Pond Acidic Fen	U	3%	54%	57%	
106862	ME	2	6,734	Horan Head	U	3%	23%	26%	
44810	ME	2	37,997	Gardner Brook	U	0%	41%	41%	
77427	ME	6	194	Name Excluded	U	16%	0%	16%	
38769	ME	5	286	Name Excluded	S	0%	77%	77%	
89343	ME	5	43,820	Dwinal Pond	U	2%	6%	9%	
35477	ME	4	11,889	No Name	U	2%	7%		
59487	ME	4	21,269	Burntland Bend	P	99%	0%	99%	1
138016	ME	3	3,530	Cadillac Mountain South And East	P	99%	0%	99%	1
73227	ME	3	13,666	Marble Pond Fen	U	4%	0%	4%	
49075	ME	3	71,551	Dead Horse Bog	U	1%	1%	1%	
40218	ME	2	41	Name Excluded	U	0%	0%	0%	
64291	ME	2	93	Name Excluded	P	100%	0%	100%	1
53841	ME	2	5,454	Sixmile Brook, St. John River	U	21%	51%	71%	
68704	ME	2	9,359	Eagle Lake	S	20%	70%	90%	
32792	ME	2	22,557	Deer Lake Fen	U	0%	8%	8%	
64224	ME	2	36,111	Bluffer Preserve	U	2%	65%	67%	
Acadian-Appalachian Montane Spruce-Fir-Hardwood Forest									
166592	NH	24	106,908	Mt Eisenhower/Jackson/ Crawford/Webster	S	62%	32%		1
177296	NH	12	142,457	Mt Lincoln/Lafayette	S	73%	26%	99%	1
Central Oak-Pine Forest									
North Atlantic Coastal Plain Hardwood Forest									
430026	CT	2	1,707	Pequot Swamp Pond	U	0%	21%		
423446	CT	3	682	No Name	U	38%	0%	38%	
439507	CT	3	1,287	Old Quarry Road	U	16%	13%	29%	
425573	CT	2	2,039	No Name	U	26%	14%	40%	
425882	CT	2	117	Name Excluded	U	15%	2%	16%	
427590	CT	2	570	Lieutenant River	U	23%	0%		
314974	MA	2	365	Name Excluded	S	0%	97%	97%	
337564	MA	2	116	Name Excluded	U	0%	28%	28%	
401894	MA	2	1,604	No Name	U	2%	6%	8%	
411365	RI	2	222	Name Excluded	U	47%	0%	47%	

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
407472	RI	5	1,364	Hot House Pond, Strange Pond	U	31%	6%	37%	
411644	RI	2	1,589	No Name	U	0%	2%	2%	
North Atlantic Coastal Plain Maritime Forest									
391895	MA	3	500	Name Excluded	U	0%	0%		
423756	CT	3	543	Mumford Cove, Bluff Point Coastal Reserve	P	84%	0%	84%	1
North Atlantic Coastal Plain Pitch Pine Barrens									
320209	MA	2	344	Name Excluded	P	100%	0%		1
338857	MA	2	5	Name Excluded	U	0%	0%	0%	
370398	MA	2	74	Name Excluded	U	0%	43%	43%	
347201	MA	3	9	Name Excluded	U	0%	33%	33%	
337417	MA	2	3	Name Excluded	U	0%	0%	0%	
339917	MA	2	119	Name Excluded	S	0%	100%	100%	
345735	MA	2	72	Name Excluded	S	0%	84%	84%	
Northeastern Interior Dry-Mesic Oak Forest									
422809	CT	5	1,163	Eightmile River	U	7%	50%	58%	
392816	CT	3	1,564	Daphne Swamp	U	19%	3%	21%	
423955	CT	3	831	No Name	U	5%	8%	13%	
426168	CT	3	2,308	No Name	U	8%	2%	10%	
445892	CT	3	422	Name Excluded	U	61%	13%	74%	
396247	CT	2	192	Name Excluded	U	0%	0%	0%	
411029	CT	2	335	Name Excluded	U	0%	0%	0%	
419559	CT	2	72	Name Excluded	U	0%	0%	0%	
420874	CT	2	408	Name Excluded	U	14%	0%	14%	
428347	CT	2	459	Name Excluded	P	95%	0%	95%	1
317574	MA	2	14	Name Excluded	S	0%	100%	100%	
352810	MA	2	2,427	No Name	U	0%	19%	19%	
Northern Hardwood & Conifer Forest									
Appalachian (Hemlock)-Northern Hardwood Forest									
381217	CT	5	1,488	Toms Hill	U	5%	0%	5%	
385916	CT	4	10,866	Bear Swamp, Great Mountain Forest	U	6%	7%	14%	
383349	CT	5	8,548	Canaan Mountain	U	20%	33%	53%	
408686	CT	4	14,405	Bulls Bridge	U	18%	2%	21%	
430052	CT	3	124	Name Excluded	U	0%	0%	0%	
390426	CT	2	1,784	Beebe Hill Swamp	U	3%	23%	26%	
442665	CT	2	1,672	Lees Brook Valley	U	24%	23%	46%	
387603	CT	2	572	Wangum Lake Brook	U	0%	24%	24%	
416346	CT	2	460	Name Excluded	P	78%	7%	85%	1
299057	MA	2	4,656	No Name	U	0%	4%	4%	
315708	MA	7	4,292	No Name	U	3%	34%	37%	
379959	MA	4	496	Name Excluded	U	3%	0%	3%	
332418	MA	12	3,445	No Name	S	48%	27%	75%	1
331473	MA	11	4,068	No Name	U	41%	31%	71%	

APPENDIX 3

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
347186	MA	6	663	No Name	U	0%	64%	64%	
339393	MA	6	535	No Name	U	0%	64%	64%	
301208	MA	4	11,117	No Name	U	12%	8%	20%	
317672	MA	4	704	No Name	U	0%	64%	64%	
379783	MA	4	44	Name Excluded	U	58%	0%	58%	
330110	MA	3	12,966	No Name	U	18%	41%	59%	
348273	MA	3	1,438	No Name	U	0%	34%	34%	
350275	MA	3	974	No Name	U	0%	49%	49%	
317150	MA	3	240	Name Excluded	S	0%	100%	100%	
317566	MA	3	92	Name Excluded	U	0%	37%	37%	
352768	MA	2	5,844	No Name	U	12%	55%	67%	
313220	MA	2	3,353	No Name	U	0%	17%	17%	
353161	MA	2	2,105	No Name	U	0%	67%	67%	
376472	MA	2	632	No Name	U	31%	7%	38%	
303191	MA	2	614	No Name	S	0%	94%	94%	
369688	MA	2	493	Name Excluded	U	8%	0%	8%	
312622	MA	2	337	Name Excluded	U	0%	24%	24%	
304784	MA	2	322	Name Excluded	U	13%	47%	60%	
316503	MA	2	309	Name Excluded	U	0%	8%	8%	
375762	MA	2	302	Name Excluded	U	0%	0%	0%	
339530	MA	2	271	Name Excluded	S	24%	75%	99%	
308362	MA	2	185	Name Excluded	U	0%	21%	21%	
316633	MA	2	175	Name Excluded	S	0%	100%	100%	
320576	MA	2	158	Name Excluded	U	0%	21%	21%	
337093	MA	2	49	Name Excluded	U	28%	0%	28%	
299544	MA	2	8	Name Excluded	U	0%	0%	0%	
184692	ME	2	5,861	Pleasant Mountain	U	31%	18%	49%	
218520	ME	2	5,407	Abbott Mountain	U	4%	51%	56%	
209171	ME	3	3,705	Cedar Mountain	U	0%	45%	45%	
241174	NH	3	103	Name Excluded	U	0%	60%	60%	
223024	NH	2	16,052	No Name	U	0%	29%	29%	
266278	NH	2	3,529	No Name	U	0%	23%	23%	
175457	VT	2	1,115	Adlum's Ridge	U	23%	25%	48%	
214100	VT	2	212	Name Excluded	U	0%	0%	0%	
243370	VT	9	3,506	Massachusetts Ledge	U	13%	0%	13%	
245357	VT	8	6,792	Bald Mountain-West Haven	U	50%	6%	56%	
300520	VT	6	339	Name Excluded	U	28%	0%	28%	
168001	VT	5	1,315	Eagle Mountain	U	17%	0%	17%	
304216	VT	4	633	Waterleaf Cliffs	U	0%	0%	0%	
234854	VT	3	23,691	Hubbardton Battlefield Wma	U	9%	7%	16%	
296065	VT	3	5,928	Pownal Hills-Peckham Hill	U	0%	0%	0%	
239529	VT	3	852	Doughty Hill	U	0%	0%	0%	
202063	VT	2	9,069	Baldwin Creek	U	1%	0%	1%	
216316	VT	2	3,040	Rivers	U	3%	29%	31%	

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
242530	VT	2	2,408	Red Rock Bay Cobble	U	11%	0%	11%	
171199	VT	2	2,049	Bear Trap Road Site	U	0%	20%	20%	
246074	VT	2	1,989	Coggman Creek Marsh	U	0%	0%	0%	
205580	VT	2	1,001	Shellhouse Mountain	U	0%	12%	12%	
253247	VT	2	743	Connecticut River	U	0%	0%	0%	
230403	VT	2	647	Burnell Pond Marsh	U	0%	0%	0%	
241098	VT	2	299	Name Excluded	U	10%	0%	10%	
251930	VT	2	119	Name Excluded	P	97%	0%	97%	1
Laurentian-Acadian Northern Hardwood Forest									
371951	CT	4	14,813	Bear Mountain	U	41%	26%	66%	
319131	MA	2	2,814	No Name	U	40%	24%	64%	
309129	MA	5	6,734	No Name	U	31%	40%	71%	
314533	MA	3	7,197	No Name	U	0%	4%	4%	
319905	MA	2	10,129	No Name	U	42%	26%	68%	
309928	MA	2	7,762	No Name	U	48%	14%	62%	
315599	MA	2	2,956	No Name	U	33%	30%	63%	
336454	MA	2	2,038	No Name	U	37%	27%	64%	
316630	MA	2	1,182	No Name	S	3%	88%	90%	
317868	MA	2	517	No Name	S	0%	79%	79%	
39751	ME	12	101,523	St John River-Basford Rips-Blue Brook	U	2%	12%	14%	
149027	ME	4	107,173	Carlo Col, Mount Carlo	U	18%	21%	39%	
38277	ME	3	52	Name Excluded	U	0%	0%	0%	
32946	ME	2	35,653	Pinette Brook	U	0%	1%	1%	
88239	ME	2	26,662	Carry Bog	S	0%	99%	99%	
74690	ME	20	231,550	Mt Katahdin	P	86%	6%	92%	1
49094	ME	8	28,493	St John River-Blue Brook	U	2%	0%	2%	
106397	ME	7	208,662	Bigelow Brook	U	2%	10%	12%	
35309	ME	6	133,530	St Francis Rd	U	5%	10%	15%	
40193	ME	5	64	Name Excluded	U	0%	0%	0%	
162195	ME	4	106,857	East Royce Mountain	S	52%	38%	90%	1
160733	ME	3	61,632	Kneeland Pond Road	U	26%	42%	68%	
44904	ME	3	5,967	175 T14 Rno Name7 Wels	U	0%	0%	0%	
83560	ME	3	4,290	Ripogenus Gorge	S	0%	97%	97%	
36490	ME	3	123	Name Excluded	U	0%	0%	0%	
95716	ME	2	268	Name Excluded	U	64%	0%	64%	
42855	ME	2	2	Name Excluded	U	0%	0%	0%	
157380	NH	2	5,457	No Name	U	6%	33%	39%	
195019	NH	4	108,760	Bolles Preserve	S	58%	34%	92%	1
208723	NH	2	34,044	Bald Knob	U	24%	34%	58%	
187968	NH	2	23,812	Albany Haystack	S	45%	45%	90%	1
376250	MA	3	14,737	Alander Mountain	U	30%	37%	67%	
153805	VT	12	3,664	Mount Pisgah	U	0%	37%	37%	
221314	VT	3	14,850	Bryant Mountain Hollow	U	1%	72%	73%	
222323	VT	2	34,860	Monastery Mountain	S	36%	45%	81%	1

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
215104	VT	2	12,577	East Middlebury	U	5%	55%	60%	
170730	VT	14	62,857	Mount Mansfield	U	23%	33%	56%	
150311	VT	6	21,853	Bald Mountain-Westmore	U	0%	9%	9%	
267687	VT	4	38,738	Mount Equinox-Cook's Hollow	U	7%	9%	16%	
153262	VT	4	30,408	Belvidere Quarry	U	30%	6%	36%	
166123	VT	4	29,210	Smugglers' Notch, Elephants Head	U	8%	37%	45%	
154635	VT	4	6,072	Kings Pond Marsh	S	0%	84%	84%	
190680	VT	3	51,386	Beaver Meadow-Duxbury	U	18%	29%	47%	
159626	VT	3	8,302	No Name	U	8%	1%	9%	
152921	VT	3	1,661	No Name	U	6%	0%	6%	
209810	VT	2	43,732	Blue Banks South Introduction	S	57%	29%	87%	1
255356	VT	2	37,989	Mount Tabor Floodplain Swamps	S	50%	32%	83%	1
Laurentian-Acadian Pine-Hemlock-Hardwood Forest									
167837	ME	5	10,134	Abagadasset Point	U	0%	22%	22%	
179940	ME	2	6,035	Back River Marshes	U	12%	14%	26%	
174376	ME	4	2,280	West Chops Point	U	0%	0%	0%	
171660	ME	3	3,553	No Name	U	0%	9%	9%	
114663	ME	3	221	Name Excluded	U	0%	0%	0%	
164059	ME	2	306	Name Excluded	U	0%	2%	2%	
160450	ME	2	239	Name Excluded	U	0%	6%	6%	
175039	ME	2	212	Name Excluded	U	0%	73%	73%	
222095	NH	2	5,537	No Name	U	15%	5%	21%	
235577	VT	3	2,552	Quechee Gorge	U	0%	13%	13%	
152156	VT	2	963	Benedictine Cliffs	U	0%	0%	0%	
Northeastern Coastal & Interior Pine-Oak Forest									
319602	MA	2	468	Name Excluded	S	0%	79%	79%	
32875	ME	3	9	Name Excluded	U	0%	0%	0%	
229555	NH	2	2,612	No Name	U	6%	17%	23%	
207218	VT	3	2	Name Excluded	U	0%	0%	0%	
PATCH-FORMING HABITATS									
Grassland & Shrubland									
Agricultural Grassland									
376942	MA	2	94	Name Excluded	U	0%	0%	0%	
374696	MA	2	173	Name Excluded	U	0%	0%	0%	
379181	MA	2	7	Name Excluded	U	0%	0%	0%	
40304	ME	2	14	Name Excluded	U	0%	0%	0%	
36003	ME	2	68	Name Excluded	U	0%	0%	0%	
234649	VT	3	2,546	Catfish Bay	U	18%	6%	24%	
202478	VT	2	1,273	Mountain Road-Monkton	U	14%	2%	16%	

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
Atlantic Coastal Plain Beach & Dune									
394361	MA	2	1,183	No Name	U	15%	9%	24%	
382776	MA	3	77	Name Excluded	U	0%	0%	0%	
394810	MA	2	244	Name Excluded	U	28%	9%	37%	
North Atlantic Coastal Plain Heathland & Grassland									
395136	MA	2	892	No Name	S	0%	97%	97%	
393508	MA	3	166	Name Excluded	P	100%	0%	100%	1
398403	MA	2	1,599	No Name	U	8%	7%	15%	
WETLAND HABITATS									
Central Hardwood Swamp									
North-Central Interior Wet Flatwoods									
378199	MA	3	67	No Name	U	0%	0%	0%	
Freshwater Marsh & Shrub Swamp									
Laurentian-Acadian Freshwater Marsh									
425408	CT	2	126	Name Excluded	U	6%	3%	9%	
392122	MA	2	663	No Name	U	20%	3%	23%	
370503	MA	2	356	Name Excluded	U	25%	23%	47%	
320161	MA	2	403	Name Excluded	U	0%	18%	18%	
395521	MA	2	901	No Name	U	47%	24%	71%	
128579	ME	3	32	Name Excluded	U	71%	0%	71%	
Laurentian-Acadian Wet Meadow-Shrub Swamp									
321861	MA	2	254	Name Excluded	S	9%	82%	91%	
391424	CT	2	93	Name Excluded	U	0%	0%	0%	
Large River Floodplain									
North-Central Appalachian Large River Floodplain									
334496	MA	2	52	Name Excluded	U	0%	70%	70%	
270532	MA	2	113	Name Excluded	U	0%	16%	16%	
368302	MA	2	56	Name Excluded	S	0%	89%	89%	
Northern Peatland									
Boreal-Laurentian Bog									
119055	ME	2	12,990	Great Heath	U	37%	1%	38%	
Northern Swamp									
North-Central Appalachian Acidic Swamp									
382379	MA	17	4,675	No Name	U	53%	4%	57%	
391955	MA	5	404	Name Excluded	U	30%	8%	38%	
313428	MA	2	12	Name Excluded	S	0%	100%	100%	
404439	RI	2	2,064	Queen's River	U	5%	66%	71%	
409738	RI	2	632	Woodville	U	0%	34%	34%	
411379	RI	4	1,393	No Name	U	19%	49%	67%	
431453	CT	3	22	Name Excluded	U	0%	0%	0%	
North-Central Interior & Appalachian Rich Swamp									
374009	MA	3	139	Name Excluded	U	0%	32%	32%	
374680	MA	2	77	Name Excluded	S	0%	76%	76%	
375896	MA	2	1,184	No Name	U	34%	12%	46%	

IPA ID	MAJORITY STATE	# FLOCO SPECIES	ACRES	APPROXIMATE SITE NAME	PROTECT CODE	PROTECTED (GAP 1–2)	MULTIPLE USE (GAP 3)	SECURED (GAP 1–3)	NE TARGET 30 / 75
Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp									
40429	ME	2	1,420	Salmon Brook Lake	U	48%	9%	57%	
Tidal Marsh									
North Atlantic Coastal Plain Tidal Salt Marsh									
437555	CT	2	1,126	Hammonasset State Park	U	65%	1%	66%	
453068	CT	2	470	Name Excluded	U	0%	71%	71%	
277479	MA	2	290	Name Excluded	U	2%	3%	6%	
354799	MA	2	165	Name Excluded	U	0%	42%	42%	
317423	MA	4	876	No Name	U	2%	30%	32%	
340769	MA	2	721	No Name	U	2%	59%	61%	
349758	MA	2	768	No Name	U	0%	22%	22%	
348863	MA	4	6,515	No Name	U	1%	69%	70%	
381361	MA	4	4,657	No Name	U	6%	40%	46%	
275986	MA	3	5,660	No Name	U	42%	14%	56%	
270568	MA	2	4,777	No Name	U	66%	4%	70%	
335351	MA	2	554	No Name	U	14%	36%	50%	
346911	MA	2	2,164	No Name	U	0%	48%	48%	
412715	RI	3	290	Name Excluded	U	70%	0%	70%	
380956	RI	2	667	Nbnerr North Prudence Unit	S	16%	65%	81%	

APPENDIX 4
Flora Conservanda Taxa on Secured Lands

SCIENTIFIC NAME	DIVISION	G RANK	TOTAL EOs IN GAP STUDY	GAP 1	GAP 2	GAP 3	% SECURED	% UNSECURED
Adiantum viridimontanum	1	G2	7	14%			14%	86%
Agalinis acuta	1	G1	49	4%	16%	37%	57%	43%
Amelanchier nantucketensis	1	G3	99	3%	15%	22%	40%	60%
Astragalus alpinus var. brunetianus	1	G3	20			5%	5%	95%
Astragalus robbinsii var. jesupii	1	G1	5		40%	20%	60%	40%
Bidens eatonii	1	G2	40			10%	10%	90%
Carex oronensis	1	G2	61	2%	3%	7%	11%	89%
Carex polymorpha	1	G3	72		1%	11%	13%	88%
Carex schweinitzii	1	G3	39	3%	5%	26%	33%	67%
Coreopsis rosea	1	G3	113	4%	3%	26%	32%	68%
Cystopteris laurentiana	1	G3	2			100%	100%	
Eleocharis aestuum	1	G3	2		50%		50%	50%
Eleocharis diandra	1	G1	11			9%	9%	91%
Eriocaulon parkeri	1	G3	53		2%	11%	13%	87%
Geum peckii	1	G2	38	61%	21%	13%	95%	5%
Hieracium robinsonii	1	G2	2				0%	100%
Hypericum adpressum	1	G2	22	9%	41%	14%	64%	36%
Isoetes acadiensis	1	G3	11	18%		55%	73%	27%
Isoetes prototypus	1	G2	4		25%		25%	75%
Isotria medeoloides	1	G2	112	4%	1%	26%	30%	70%
Malaxis bayardii	1	G1	6	17%		33%	50%	50%
Mimulus ringens var. colpophilus	1	G45	22		5%	9%	14%	86%
Minuartia marcescens	1	G2	1	100%			100%	
Panax quinquefolius	1	G3	382	10%	9%	31%	50%	50%
Pedicularis furbishiae	1	G1	46		7%		7%	93%
Pityopsis falcata	1	G3	21			29%	29%	71%
Platanthera leucophaea	1	G2	1	100%			100%	
Polemonium vanbruntiae	1	G3	15	7%		40%	47%	53%
Polygonum glaucum	1	G3	41	10%	10%	10%	29%	71%
Potamogeton hillii	1	G3	80	5%		11%	16%	84%
Potamogeton ogdenii	1	G1	14	7%			7%	93%
Potentilla robbinsiana	1	G1	2	100%			100%	
Pycnanthemum torrei	1	G2	4	25%	50%		75%	25%
Sabatia kennedyana	1	G3	212	2%	1%	19%	22%	78%
Sagittaria teres	1	G3	103	3%	3%	17%	22%	78%
Scirpus ancistrochaetus	1	G3	39		3%	15%	18%	82%
Scirpus longii	1	G2	74	1%	32%	38%	72%	28%
Suaeda maritima ssp. richii	1	G45	20		20%	15%	35%	65%
Symphyotrichum anticostense	1	G2	3				0%	100%

APPENDIX 4

SCIENTIFIC NAME	DIVISION	G RANK	TOTAL EOs IN GAP STUDY	GAP 1	GAP 2	GAP 3	% SECURED	% UNSECURED
Triglochin gaspensis	1	G3	6			33%	33%	67%
Trollius laxus	1	G45	6	17%	17%		33%	67%
Adiantum aleuticum	2	G45	3	33%		33%	67%	33%
Agalinis neoscotica	2	G2	6	17%	67%		83%	17%
Agastache nepetoides	2	G45	6		17%		17%	83%
Agastache scrophulariifolia	2	G4	10			40%	40%	60%
Ageratina aromatica	2	G45	18	6%	17%	44%	67%	33%
Agrimonia parviflora	2	G45	38		13%	13%	26%	74%
Amaranthus tuberculatus	2	G4	6			17%	17%	83%
Amerorchis rotundifolia	2	G45	15	13%		7%	20%	80%
Aplectrum hyemale	2	G45	14	21%	7%	29%	57%	43%
Aristida tuberculosa	2	G45	29		10%	14%	24%	76%
Asclepias purpurascens	2	G45	45	4%	11%	22%	38%	62%
Asclepias viridiflora	2	G45	2				0%	100%
Asplenium montanum	2	G45	27	4%	26%	26%	56%	44%
Astragalus robbinsii var. minor	2	G45	7	29%		43%	71%	29%
Betula glandulosa	2	G45	13	100%			100%	
Betula minor	2	G3	23	70%	22%	9%	100%	
Blephilia ciliata	2	G45	13	8%		62%	69%	31%
Botrychium lunaria	2	G45	6		17%	33%	50%	50%
Botrychium oneidense	2	G4	14	7%	14%	29%	50%	50%
Calamagrostis stricta ssp. stricta	2	GU	16	6%		6%	13%	88%
Cardamine douglassii	2	G45	22	9%	5%	9%	23%	77%
Cardamine longii	2	G3	28			18%	18%	82%
Carex adusta	2	G45	13		38%	8%	46%	54%
Carex alopecoidea	2	G45	48		17%	15%	31%	69%
Carex atherodes	2	G45	10				0%	100%
Carex atratiformis	2	G45	23	22%	9%	4%	35%	65%
Carex barrattii	2	G3	2		50%		50%	50%
Carex bicknellii	2	G45	15	7%		27%	33%	67%
Carex capillaris ssp. capillaris	2	GU	3	100%			100%	
Carex capillaris ssp. fuscidula	2	TNR	2	100%			100%	
Carex collinsii	2	G4	4			50%	50%	50%
Carex crawei	2	G45	9	22%	11%		33%	67%
Carex davisii	2	G4	52	2%	17%	15%	35%	65%
Carex debilis var. debilis	2	T5	2		50%		50%	50%
Carex gracilescens	2	G5	4			50%	50%	50%
Carex gynocrates	2	G45	15	13%	7%	20%	40%	60%
Carex livida	2	G45	11	36%	18%	27%	82%	18%
Carex mitchelliana	2	G3	31	3%		45%	48%	52%
Carex molesta	2	G4	3				0%	100%
Carex oligocarpa	2	G4	18	6%	6%	11%	22%	78%
Carex richardsonii	2	G45	2	100%			100%	
Carex rostrata	2	G5	15	33%		27%	60%	40%

APPENDIX 4

SCIENTIFIC NAME	DIVISION	G RANK	TOTAL EOs IN GAP STUDY	GAP 1	GAP 2	GAP 3	% SECURED	% UNSECURED
Carex saxatilis	2	GU	2	100%			100%	
Carex striata	2	(blank)	19		11%		11%	89%
Carex tenuiflora	2	G45	34	6%	12%	35%	53%	47%
Carex vacillans	2	GNR	7			29%	29%	71%
Castilleja coccinea	2	G45	27	4%		7%	11%	89%
Ceanothus herbaceus	2	G45	1				0%	100%
Chamaelirium luteum	2	G45	13	8%	8%	15%	31%	69%
Cheilanthes lanosa	2	G45	2		50%		50%	50%
Chenopodium foggii	2	G2	9		11%	56%	67%	33%
Chrysopsis mariana	2	G45	1		100%		100%	
Claytonia virginica	2	G45	36	3%	19%	36%	58%	42%
Corydalis aurea	2	G45	18	11%		11%	22%	78%
Corydalis flavula	2	G45	4			25%	25%	75%
Crataegus bicknellii	2	G1	8	13%	13%		25%	75%
Crataegus schizophylla	2	G1G2	6			17%	17%	83%
Cryptogramma stelleri	2	G45	31	6%	6%	39%	52%	48%
Cuscuta coryli	2	G45	8	13%	13%	38%	63%	38%
Cuscuta polygonorum	2	G45	1			100%	100%	
Cypripedium arietinum	2	G3	65	8%	9%	14%	31%	69%
Cypripedium parviflorum var. makasin	2	T4	9	22%		44%	67%	33%
Desmodium cuspidatum	2	G45	44	27%	2%	36%	66%	34%
Desmodium glabellum	2	G45	23		4%	57%	61%	39%
Desmodium sessilifolium	2	G45	6			17%	17%	83%
Dichanthelium scabriusculum	2	G4	4			75%	75%	25%
Diospyros virginiana	2	G45	1			100%	100%	
Diphasiastrum sitchense	2	G45	5	40%	40%	20%	100%	
Doellingeria infirma	2	G45	15			67%	67%	33%
Draba cana	2	G45	4	75%		25%	100%	
Draba glabella	2	G4	10			30%	30%	70%
Draba reptans	2	G45	12		25%	8%	33%	67%
Drosera anglica	2	G5	3	67%		33%	100%	
Drosera linearis	2	GU	1	100%			100%	
Elatine americana	2	G4	14			36%	36%	64%
Eleocharis equisetoides	2	G4	12		8%	25%	33%	67%
Eleocharis microcarpa var. filiculmis	2	(blank)	4			25%	25%	75%
Eleocharis nitida	2	GU	3			33%	33%	67%
Eleocharis quadrangulata	2	G45	2				0%	100%
Eleocharis rostellata	2	G45	20		15%	30%	45%	55%
Eleocharis tricostata	2	G4	4		50%		50%	50%
Elymus macgregorii	2	GNR	3				0%	100%
Epilobium anagallidifolium	2	G5	2	100%			100%	
Erigeron hyssopifolius	2	G45	25	4%	4%	24%	32%	68%
Euphrasia oakesii	2	G4	4	100%			100%	
Festuca prolifera	2	GU	1	100%			100%	

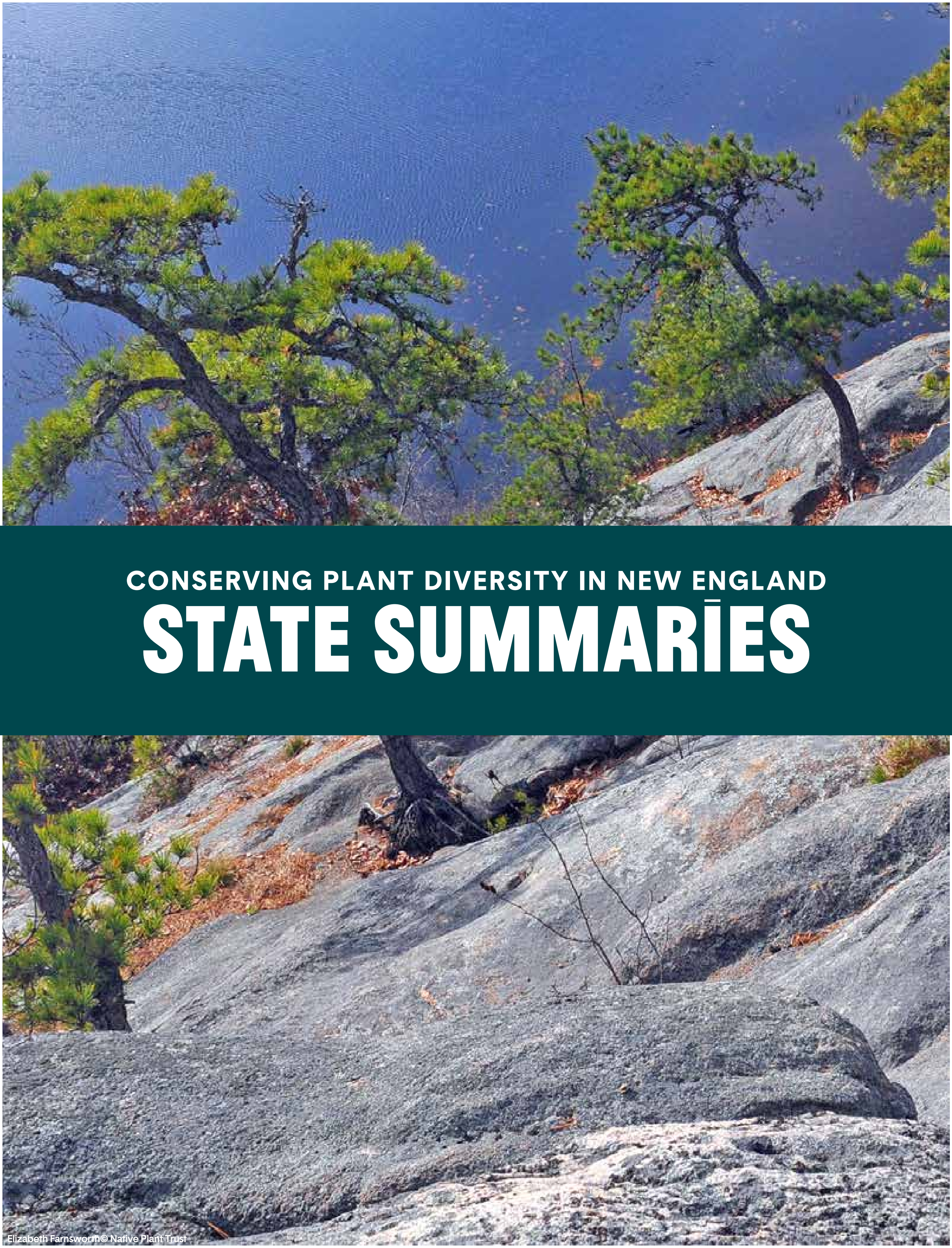
APPENDIX 4

SCIENTIFIC NAME	DIVISION	G RANK	TOTAL EOs IN GAP STUDY	GAP 1	GAP 2	GAP 3	% SECURED	% UNSECURED
Floerkea proserpinacoides	2	G45	6		33%	17%	50%	50%
Gentiana andrewsii var. andrewsii	2	T5	3				0%	100%
Gentianella amarella ssp. acuta	2	T5	1			100%	100%	
Goodyera oblongifolia	2	G5	16			19%	19%	81%
Hieracium umbellatum	2	G45	1			100%	100%	
Huperzia selago	2	G45	16	25%	13%	38%	75%	25%
Hybanthus concolor	2	G45	1			100%	100%	
Hydrastis canadensis	2	G4	12	8%	8%		17%	83%
Hydrocotyle verticillata	2	G45	24		13%	8%	21%	79%
Hydrophyllum canadense	2	G45	14			29%	29%	71%
Juncus biflorus	2	G45	13		31%	15%	46%	54%
Juncus debilis	2	G45	13		15%	15%	31%	69%
Juncus stygius ssp. americanus	2	G45	6	17%		33%	50%	50%
Juncus subtilis	2	G4	8			25%	25%	75%
Juncus torreyi	2	G45	11			9%	9%	91%
Juncus vaseyi	2	G5	7	14%	14%	29%	57%	43%
Lathyrus ochroleucus	2	G4	10			20%	20%	80%
Leptochloa fusca ssp. fascicularis	2	G45	21	5%	5%	5%	14%	86%
Lespedeza repens	2	G45	3		33%		33%	67%
Linum sulcatum var. sulcatum	2	G45	1				0%	100%
Liparis liliifolia	2	G45	78	12%		46%	58%	42%
Liquidambar styraciflua	2	G45	9	11%	11%	33%	56%	44%
Lomatogonium rotatum	2	G5	12	42%			42%	58%
Lonicera hirsuta	2	G4	28	7%		18%	25%	75%
Ludwigia polycarpa	2	G4	20	20%	10%	15%	45%	55%
Ludwigia sphaerocarpa	2	G45	10		30%	30%	60%	40%
Luzula confusa	2	GU	5	80%	20%		100%	
Luzula spicata	2	G45	21	67%	24%	10%	100%	
Lycopodiella alopecuroides	2	G45	12		33%		33%	67%
Lycopus rubellus	2	G45	9		33%	22%	56%	44%
Minuartia rubella	2	G5	2	50%	50%		100%	
Moehringia macrophylla	2	G45	27	11%		4%	15%	85%
Montia fontana	2	G5	19	11%	11%		21%	79%
Morus rubra	2	G45	21	24%	5%	19%	48%	52%
Muhlenbergia capillaris	2	G45	7		14%	43%	57%	43%
Myriophyllum pinnatum	2	G45	17			18%	18%	82%
Nabalus serpentarius	2	G45	7	29%	43%	29%	100%	
Nuphar advena	2	G45	2	50%			50%	50%
Nymphaea leibergii	2	G5	20		5%	10%	15%	85%
Oligoneuron album	2	G45	20	5%		5%	10%	90%
Oligoneuron rigidum var. rigidum	2	G45	1				0%	100%
Oxalis violacea	2	G45	40	15%	13%	13%	40%	60%
Oxyria digyna	2	GU	6	67%	33%		100%	
Oxytropis campestris var. johannensis	2	T4	2				0%	100%

SCIENTIFIC NAME	DIVISION	G RANK	TOTAL EOs IN GAP STUDY	GAP 1	GAP 2	GAP 3	% SECURED	% UNSECURED
Panicum flexile	2	G45	2	50%			50%	50%
Paronychia fastigiata var. fastigiata	2	G5T5	5			20%	20%	80%
Paspalum laeve	2	G4	8	13%	25%		38%	63%
Paspalum setaceum var. psammophilum	2	G45	15		13%		13%	87%
Pedicularis lanceolata	2	G45	26			38%	38%	62%
Persicaria setacea	2	G45	6		17%	17%	33%	67%
Phleum alpinum	2	GU	18	28%	28%		56%	44%
Phyllodoce caerulea	2	GU	12	100%			100%	
Piptatherum canadense	2	G45	7		29%	29%	57%	43%
Plantago virginica	2	G45	8		13%	25%	38%	63%
Platanthera ciliaris	2	G45	21		5%	10%	14%	86%
Platanthera cristata	2	G45	3			67%	67%	33%
Poa pratensis ssp. alpigena	2	GU	5	60%	40%		100%	
Podophyllum peltatum	2	G45	9		33%	11%	44%	56%
Polymnia canadensis	2	G45	4		25%		25%	75%
Populus heterophylla	2	G45	14		14%	29%	43%	57%
Primula laurentiana	2	G5	11		9%		9%	91%
Pterospora andromedea	2	G45	5				0%	100%
Ranunculus ambigens	2	G4	13		23%		23%	77%
Ranunculus gmelinii	2	GU	4				0%	100%
Ranunculus micranthus	2	G45	11			64%	64%	36%
Rhynchospora capillacea	2	G4	14	29%		14%	43%	57%
Rhynchospora inundata	2	G3	14	7%	7%	7%	21%	79%
Rhynchospora nitens	2	G4	16	25%		31%	56%	44%
Rhynchospora torreyana	2	G4	14	21%	7%	21%	50%	50%
Ribes rotundifolium	2	G45	6	17%		33%	50%	50%
Rosa acicularis ssp. sayi	2	G45	5			100%	100%	
Rotala ramosior	2	G45	49		2%	55%	57%	43%
Rubus cuneifolius	2	G45	11		9%		9%	91%
Sabatia campanulata	2	G45	9	11%	22%	22%	56%	44%
Sabatia stellaris	2	G45	11		9%	36%	45%	55%
Sagittaria subulata	2	G4	17	6%	6%		12%	88%
Salix arctophila	2	G5	1	100%			100%	
Salix argyrocarpa	2	GU	5	80%	20%		100%	
Salix herbacea	2	G45	6	100%			100%	
Salix myricoides	2	G4	18				0%	100%
Salix uva-ursi	2	G45	21	86%	10%		95%	5%
Saururus cernuus	2	G45	7		14%		14%	86%
Saxifraga aizoides	2	G45	2			100%	100%	
Saxifraga cernua	2	GU	1		100%		100%	
Schoenoplectus heterochaetus	2	G45	4			50%	50%	50%
Scleria pauciflora var. caroliniana	2	G45	3			33%	33%	67%
Scleria triglomerata	2	G45	25	4%	32%	8%	44%	56%
Sclerolepis uniflora	2	G4	15	20%		13%	33%	67%

APPENDIX 4

SCIENTIFIC NAME	DIVISION	G RANK	TOTAL EOs IN GAP STUDY	GAP 1	GAP 2	GAP 3	% SECURED	% UNSECURED
Scutellaria integrifolia	2	G45	8		63%		63%	38%
Selaginella selaginoides	2	GU	3		33%	33%	67%	33%
Senna hebecarpa	2	G45	24	4%	17%		21%	79%
Sibbaldia procumbens	2	GU	1	100%			100%	
Silene stellata	2	G45	21		5%	24%	29%	71%
Sphenopholis obtusata	2	G45	3	33%	33%	33%	100%	
Sphenopholis pensylvanica	2	G4	17		6%	29%	35%	65%
Sporobolus clandestinus	2	G45	2				0%	100%
Sporobolus heterolepis	2	G45	8		25%	25%	50%	50%
Sporobolus neglectus	2	G45	16	13%	6%	13%	31%	69%
Strophostyles umbellata	2	G45	1				0%	100%
Suaeda calceoliformis	2	G45	28		18%	14%	32%	68%
Symphyotrichum prenanthoides	2	G45	88	7%		28%	35%	65%
Taenidia integerrima	2	G45	18	6%			6%	94%
Tanacetum bipinnatum ssp. huronense	2	T4	12			8%	8%	92%
Tipularia discolor	2	G4	10			60%	60%	40%
Trichophorum clintonii	2	G4	14	14%		7%	21%	79%
Trichostema brachiatum	2	G45	8			13%	13%	88%
Triosteum angustifolium	2	G45	2				0%	100%
Triosteum perfoliatum	2	G45	19	5%	5%	37%	47%	53%
Utricularia subulata	2	G45	27	4%	22%	19%	44%	56%
Vahlodea atropurpurea	2	G45	1	100%			100%	
Valeriana uliginosa	2	G4	21	19%	5%	10%	33%	67%
Verbena simplex	2	G45	15	7%	7%		13%	87%
Veronica catenata	2	G45	4	25%			25%	75%
Viburnum prunifolium	2	G45	12	8%	25%	8%	42%	58%
Viola brittoniana	2	G45	29		3%	45%	48%	52%
Viola novae-angliae	2	G4	19	11%	11%		21%	79%
Woodsia alpina	2	G4	14	21%	36%	21%	79%	21%
Zizia aptera	2	G45	4				0%	100%



CONSERVING PLANT DIVERSITY IN NEW ENGLAND

STATE SUMMARIES

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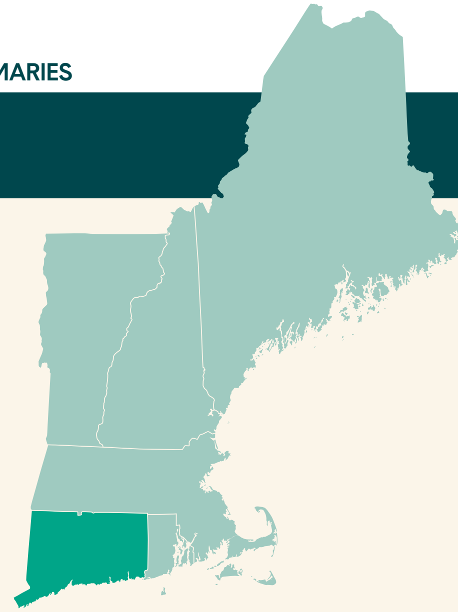
CONNECTICUT



Connecticut has 24 mapped habitats covering 2 million acres. On average, each habitat is 4% protected for nature (0-15%) and 23% secured against conversion to a different land use (5-55%), but open to multiple uses, including logging, mineral extraction, and recreation. The conserved lands are 47% resilient. Three habitats cover less than 100 acres and are excluded here.

The metrics below refer to Global Strategy for Plant Conservation (GSPC) targets calling for protecting 15% of each habitat for nature and New England targets (NET) to achieve 30% of each habitat secured against conversion on climate-resilient land, with 5-15% protected for nature. The Important Plant Area numbers are total in the state, followed by how many meet the GSPC thresholds of 75% protected for nature or secured on resilient land.

- **Important Plant Areas** (IPAs): **32**, 3 Protected, 0 Secured
- **Acres to meet GSPC for all habitats**: 245,979
- **Acres to meet NET for all habitats**: 224,691
- **Habitats meeting targets**: 1 GSPC, 1 NET
  - Acidic Cliff & Talus (GSPC)
  - North-Central Interior & Appalachian Acidic Peatland (NET)
- **Habitats partially meeting NET**: 4
  - Laurentian-Acadian Northern Hardwood Forest
  - Circumneutral Cliff & Talus
  - Acidic Cliff & Talus
  - North Atlantic Coastal Plain Tidal Salt Marsh
- **Opportunity**
  - North Atlantic Coastal Plain Tidal Salt Marsh: Migration Space

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CONNECTICUT
CONTINUED

Unprotected Habitats Threatened by Conversion
Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
North-Central Interior Wet Flatwoods	11%	1%	16%	1 K	1 K	1 K
Atlantic Coastal Plain Beach & Dune	6%	1%	27%	327	80	44
Northeastern Coastal and Interior Pine-Oak Forest	9%	1%	23%	5 K	3 K	6 K
North Atlantic Coastal Plain Heathland & Grassland	18%	1%	28%	186	29	158
Northeastern Interior Dry-Mesic Oak Forest	8%	2%	18%	126 K	121 K	197 K
North Atlantic Coastal Plain Hardwood Forest	18%	3%	14%	24 K	32 K	49 K
North-Central Appalachian Acidic Swamp	7%	3%	22%	14 K	9 K	29 K
Appalachian (Hemlock)-Northern Hardwood Forest	5%	3%	20%	68 K	56 K	160 K
North Atlantic Coastal Plain Maritime Forest	16%	7%	26%	461	220	628

P = Protected, **S** = Secured, **R** = Resilient
Unprotected = less than 10% protected & resilient
TOC = threat of conversion by 2050
%PR = % protected & resilient
%S = % secured
GSPC = Global Strategy for Plant Conservation target
NET = New England Target
R ac = resilient acres available


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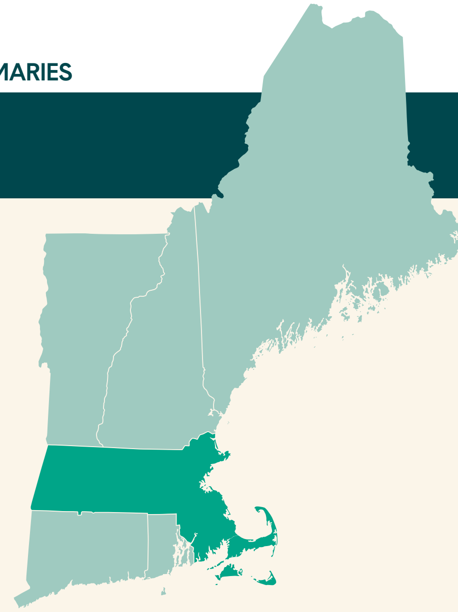
MASSACHUSETTS



Massachusetts has 35 mapped habitats covering 3.7 million acres. On average, each habitat is 9% protected for nature (0-59%) and 38% secured against conversion to a different land use (3-100%), but open to multiple uses, including logging, mineral extraction, and recreation. The conserved lands are 52% resilient. Two habitats cover less than 100 acres and are excluded here.

The metrics below refer to Global Strategy for Plant Conservation (GSPC) targets calling for protecting 15% of each habitat for nature and New England targets (NET) to achieve 30% of each habitat secured against conversion on climate-resilient land, with 5-15% protected for nature. The Important Plant Area numbers are total in the state, followed by how many meet the GSPC thresholds of 75% protected for nature or secured on resilient land.

- **Important Plant Areas** (IPAs): **88**, 2 Protected, 17 Secured
- **Acres to meet GSPC for all habitats**: 382,153
- **Acres to meet NET for all habitats**: 75,577
- **Habitats meeting targets**: 7 GSPC, 4 NET
  - Acadian-Appalachian Montane Spruce-Fir-Hardwood Forest (GSPC, NET)
  - Laurentian-Acadian Red Oak-Northern Hardwood Forest (GSPC, NET)
  - Acidic Cliff & Talus (GSPC)
  - Calcareous Cliff & Talus (GSPC)
  - Atlantic Coastal Plain Beach & Dune (GSPC)
  - Acidic Rocky Outcrop (GSPC)
  - Laurentian-Acadian Alkaline Fen (GSPC, NET)
  - Laurentian-Acadian Northern Hardwood Forest (NET)
- **Habitats meeting NET for Protection & Securement but not Resilience**
  - North Atlantic Coastal Plain Maritime Forest
  - North Atlantic Coastal Plain Pitch Pine Barrens
  - Atlantic Coastal Plain Beach & Dune
  - North Atlantic Coastal Plain Heathland & Grassland
  - Atlantic Coastal Plain Northern Bog
  - North Atlantic Coastal Plain Basin Peat Swamp
  - Laurentian-Acadian Alkaline Conifer-Hardwood Swamp
  - North Atlantic Coastal Plain Tidal Salt Marsh

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MASSACHUSETTS
CONTINUED

Unprotected Habitats Threatened by Conversion
Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
Northeastern Coastal & Interior Pine-Oak Forest	**9%**	1%	24%	57 K	25 K	34 K
North-Central Interior Wet Flatwoods	**11%**	1%	20%	1 K	<1 K	1.3 K
North Atlantic Coastal Plain Hardwood Forest	**18%**	1%	26%	36 K	12 K	47 K
North-Central Appalachian Acidic Swamp	**7%**	2%	29%	35 K	2 K	58 K
Appalachian (Hemlock)-Northern Hardwood Forest	**5%**	2%	30%	145 K	2 K	367 K
Northeastern Interior Dry-Mesic Oak Forest	**8%**	3%	17%	30 K	31 K	44 K
North-Central Interior & Appalachian Rich Swamp	**5%**	3%	27%	12 K	3 K	25 K
North-Central Interior & Appalachian Acidic Peatland	**5%**	3%	39%	447	268	987
North Atlantic Coastal Plain Pitch Pine Barrens	**15%**	5%	46%	11 K	11 K	7K
North Atlantic Coastal Plain Heathland & Grassland	**18%**	6%	36%	2 K	2 K	3 K
North Atlantic Coastal Plain Maritime Forest	**16%**	9%	30%	2 K	–	6 K

P = Protected, **S** = Secured, **R** = Resilient
Unprotected = less than 10% protected & resilient
TOC = threat of conversion by 2050
%PR = % protected & resilient
%S = % secured
GSPC = Global Strategy for Plant Conservation target
NET = New England Target
R ac = resilient acres available


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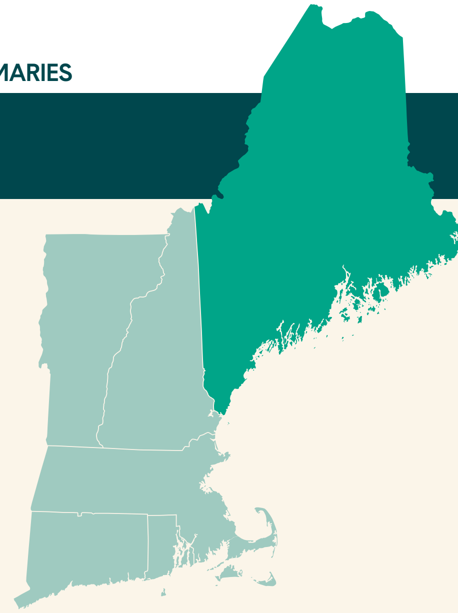
MAINE



Maine has 37 mapped habitats covering 18.8 million acres. On average, each habitat is 9% protected for nature (1-69%) and 27% secured against conversion (1-99%) to a different land use, but open to multiple uses, including logging, mineral extraction, and recreation. The conserved lands are and 78% resilient. Two habitats cover less than 100 acres and are excluded here.

The metrics below refer to Global Strategy for Plant Conservation (GSPC) targets calling for protecting 15% of each habitat for nature and New England targets (NET) to achieve 30% of each habitat secured against conversion on climate-resilient land, with 5-15% protected for nature. The Important Plant Area numbers are total in the state, followed by how many meet the GSPC thresholds of 75% protected for nature or secured on resilient land.

- **Important Plant Areas** (IPAs): **52**, 4 Protected, 6 Secured
- **Acres to meet GSPC for all habitats**: 1,948,619
- **Acres to meet NET for all habitats**: 1,169,825
- **Habitats meeting GSPC target**: 8
- **Habitats meeting NE target**: 6
  - Acadian-Appalachian Montane Spruce-Fir-Hardwood Forest (GSPC, NET)
  - Acidic Cliff & Talus (GSPC, NET)
  - Calcareous Cliff & Talus (GSPC, NET)
  - Circumneutral Cliff & Talus (GSPC, NET)
  - Acadian-Appalachian Alpine Tundra (GSPC, NET)
  - Acidic Rocky Outcrop (GSPC, NET)
  - Acadian Maritime Bog (GSPC)
  - Boreal-Laurentian Bog (GSPC)
- **Habitats meeting NET for Protection & Securement but not Resilience**
  - Northeastern Interior Pine Barrens
  - Boreal-Laurentian Bog
  - Acadian Coastal Salt & Estuary Marsh
  - North Atlantic Coastal Plain Tidal Salt Marsh

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MAINE

CONTINUED

Unprotected Habitats Threatened by Conversion

Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
Northeastern Coastal & Interior Pine-Oak Forest	**9%**	1%	9%	53 K	81 K	146 K
North-Central Interior & Appalachian Rich Swamp	**5%**	2%	11%	6 K	10 K	27 K
North-Central Interior & Appalachian Acidic Peatland	**5%**	3%	25%	534	225	2 K
North Atlantic Coastal Plain Maritime Forest	**16%**	4%	15%	4 K	5 K	12 K

Unprotected Habitats with Low Threat, High Responsibility

Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
Laurentian-Acadian Pine-Hemlock-Hardwood Forest	**2%**	1%	12%	366 K	492 K	1,013 K
Laurentian-Acadian Alkaline Conifer-Hardwood Swamp	**1%**	2%	16%	66 K	73 K	232 K
Laurentian-Acadian Red Oak-Northern Hardwood Forest	**1%**	3%	12%	72 K	109 K	354 K
Acadian Sub-boreal Spruce Flat	**0%**	4%	28%	143 K	22 K	597 K
Laurentian-Acadian Northern Hardwood Forest	**1%**	4%	25%	499 K	255 K	2,598 K
NA-Acadian Conifer-Hardwood Acidic Swamp	**0%**	4%	23%	68 K	43 K	327 K
Laurentian-Acadian Wet Meadow-Shrub Swamp	**2%**	4%	20%	31 K	30 K	150 K
Acadian Low Elevation Spruce-Fir-Hardwood Forest	**1%**	5%	26%	492 K	180 K	2,086 K
Laurentian-Acadian Large River Floodplain	**1%**	6%	24%	24 K	15 K	133 K
Laurentian-Acadian Freshwater Marsh	**4%**	6%	20%	19 K	22 K	109 K
Boreal-Laurentian-Acadian Acidic Basin Fen	**0%**	8%	28%	23 K	5 K	170 K

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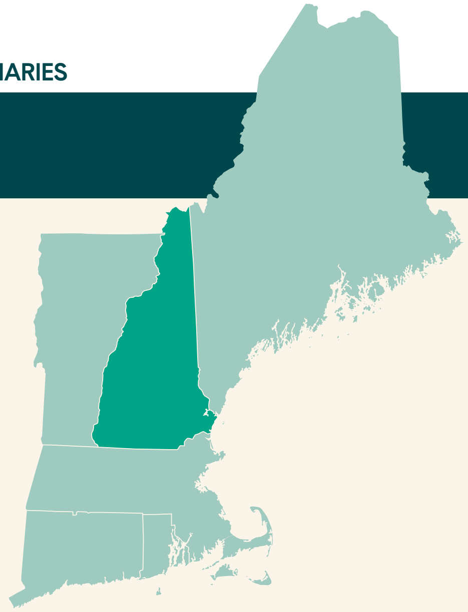
%S = % secured
GSPC = Global Strategy for Plant Conservation target
NET = New England Target
R ac = resilient acres available

NEW HAMPSHIRE



New Hampshire has 36 mapped habitats covering 5.2 million acres. On average, each habitat is 17% protected for nature (1-99%) and 38% secured against conversion to a different land use (10-99%), but open to multiple uses, including logging, mineral extraction, and recreation. The conserved lands are 84% resilient. Three habitats cover less than 100 acres and are excluded here.

The metrics below refer to Global Strategy for Plant Conservation (GSPC) targets calling for protecting 15% of each habitat for nature and New England targets (NET) to achieve 30% of each habitat secured against conversion on climate-resilient land, with 5-15% protected for nature. The Important Plant Area numbers are total in the state, followed by how many meet the GSPC thresholds of 75% protected for nature or secured on resilient land.

- **Important Plant Areas** (IPAs): **11**, 0 Protected, 4 Secured
- **Acres to meet GSPC for all habitats**: 409,357
- **Acres to meet NET for all habitats**: 342,172
- **Habitats meeting targets**: 10 GSPC, 8 NET
    - Laurentian-Acadian Northern Hardwood Forest (GSPC, NET)
    - Laurentian-Acadian Red Oak-Northern Hardwood Forest (GSPC, NET)
    - Calcareous Cliff & Talus (GSPC, NET)
    - Laurentian-Acadian Alkaline Conifer-Hardwood Swamp (GSPC)
    - Boreal-Laurentian-Acadian Acidic Basin Fen (GSPC)
    - Calcareous Rocky Outcrop (GSPC, NET)
    - Acidic Cliff & Talus (GSPC, NET)
    - Acidic Rocky Outcrop (GSPC, NET)
    - **Acadian-Appalachian Montane Spruce-Fir-Hardwood Forest** (GSPC, NET)
    - **Acadian-Appalachian Alpine Tundra** (GSPC, NET)
- **Habitats meeting NET for Protection & Securement but not Resilience**
    - North Atlantic Coastal Plain Basin Peat Swamp
    - Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp
    - Acadian Sub-boreal Spruce Flat
    - Acadian Low Elevation Spruce-Fir-Hardwood Forest
    - Laurentian-Acadian Alkaline Conifer-Hardwood Swamp
    - Boreal-Laurentian-Acadian Acidic Basin Fen

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NEW HAMPSHIRE
CONTINUED

Unprotected Habitats Threatened by Conversion
Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
Northeastern Coastal & Interior Pine-Oak Forest	9%	1%	16%	93 K	89 K	173 K
North-Central Appalachian Acidic Swamp	7%	2%	23%	12 K	6 K	29 K
Appalachian (Hemlock)-Northern Hardwood Forest	5%	2%	16%	158 K	167 K	608 K
N-Central Interior & Appalachian Acidic Peatland	5%	2%	39%	338	–	1 K

P = Protected, **S** = Secured, **R** = Resilient
Unprotected = less than 10% protected & resilient
TOC = threat of conversion by 2050
%PR = % protected & resilient
%S = % secured
GSPC = Global Strategy for Plant Conservation target
NET = New England Target
R ac = resilient acres available


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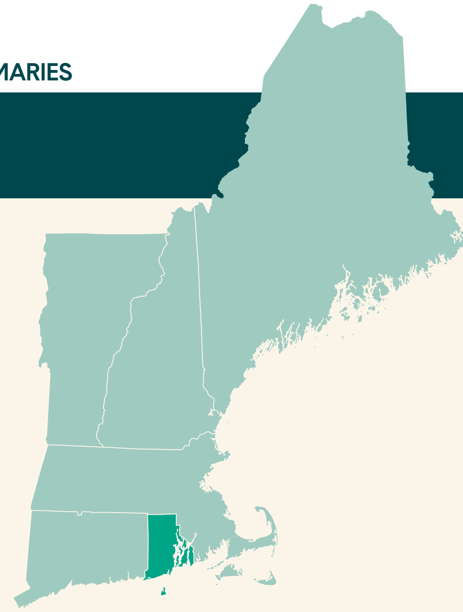
RHODE ISLAND



Rhode Island has 21 mapped habitats covering 462,000 acres. On average, each habitat is 6% protected for nature (0-18%) and 28% secured against conversion to a different land use (0-73%), but open to multiple uses, including logging, mineral extraction, and recreation. The conserved lands are 37% resilient. Three habitats cover less than 100 acres and are excluded here.

The metrics below refer to Global Strategy for Plant Conservation (GSPC) targets calling for protecting 15% of each habitat for nature and New England targets (NET) to achieve 30% of each habitat secured against conversion on climate-resilient land, with 5-15% protected for nature. The Important Plant Area numbers are total in the state, followed by how many meet the GSPC thresholds of 75% protected for nature or secured on resilient land.

- **Important Plant Areas** (IPAs): **8**, 0 Protected, 1 Secured
- **Acres to meet GSPC for all habitats**: 50,509
- **Acres to meet NET for all habitats**: 25,329
- **Habitats meeting targets**: 2 GSPC, 0 NET
  - North Atlantic Coastal Plain Tidal Salt Marsh (GSPC)
  - North Atlantic Coastal Plain Pitch Pine Barrens (GSPC)
- **Habitats meeting NET for Protection & Securement but not Resilience**
  - North Atlantic Coastal Plain Tidal Salt Marsh

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RHODE ISLAND

CONTINUED

Unprotected Habitats Threatened by Conversion

Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
NA Coastal Plain Heathland & Grassland	18%	1%	24%	0.4 K	0.2 K	0.2 K
Northeastern Interior Dry-Mesic Oak Forest	8%	1%	21%	24.5 K	15.6 K	18.1 K
Atlantic Coastal Plain Beach & Dune	6%	3%	17%	0.4 K	0.4 K	0.4 K
North Atlantic Coastal Plain Maritime Forest	16%	3%	26%	1.0 K	0.3 K	0.9 K
North Atlantic Coastal Plain Hardwood Forest	18%	4%	18%	7.1 K	7.8 K	14.4 K
North-Central Appalachian Acidic Swamp	7%	6%	30%	6.1 K	0.1 K	18.4 K

Unprotected Habitats with Low Threat, High Responsibility

Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
Northeastern Interior Pine Barrens	3%	0%	69%	334	273	80
Laurentian-Acadian Freshwater Marsh	4%	4%	30%	492	20	823
Laurentian-Acadian Wet Meadow-Shrub Swamp	2%	5%	37%	519	378	1.1 K
North Atlantic Coastal Plain Basin Peat Swamp	2%	6%	34%	149	131	464

P = Protected, **S** = Secured, **R** = Resilient
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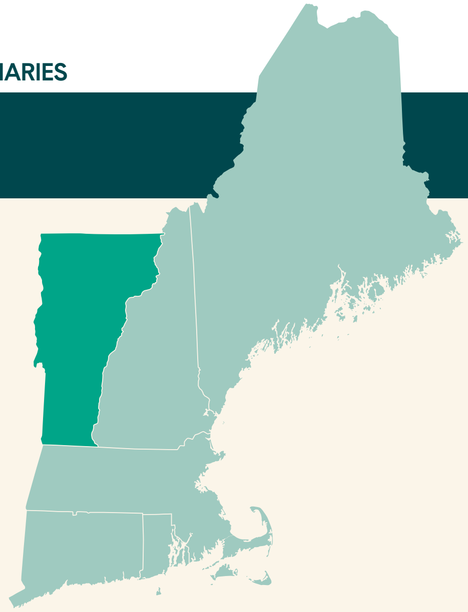
%PR = % protected & resilient
%S = % secured
GSPC = Global Strategy for Plant Conservation target
NET = New England Target
R ac = resilient acres available

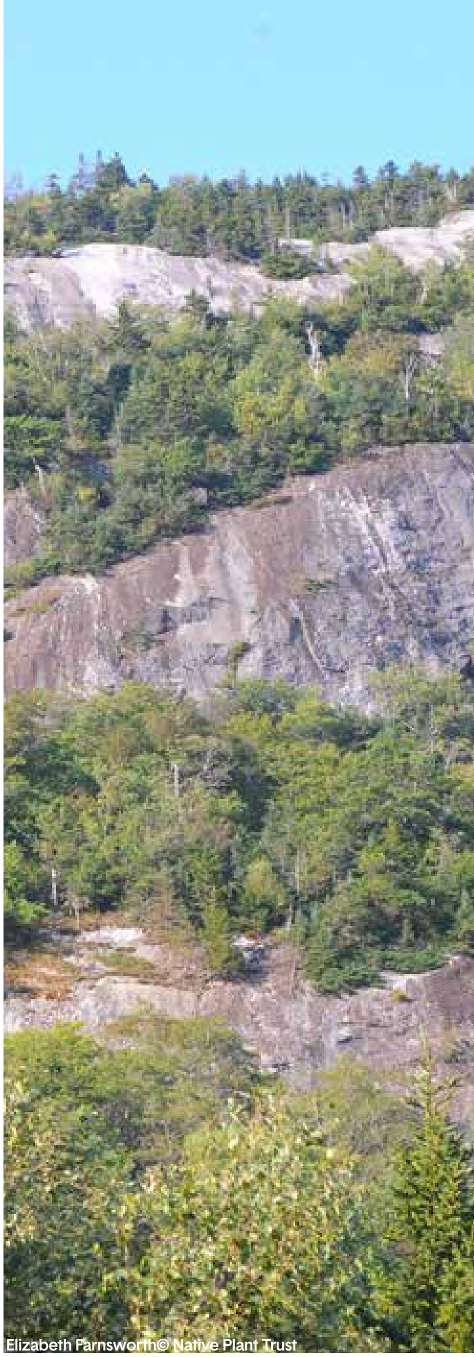
VERMONT



Vermont has 30 mapped habitats covering 5.5 million acres. On average, each habitat is 5% protected for nature (0-100%) and 28% secured against conversion to a different use (1-100%), but open to multiple uses, including logging, mineral extraction, and recreation. The conserved lands are 90% resilient. One habitat covers less than 100 acres and is excluded here.

The metrics below refer to Global Strategy for Plant Conservation (GSPC) targets calling for protecting 15% of each habitat for nature and New England targets (NET) to achieve 30% of each habitat secured against conversion on climate-resilient land, with 5-15% protected for nature. The Important Plant Area numbers are total in the state, followed by how many meet the GSPC thresholds of 75% protected for nature or secured on resilient land.

- **Important Plant Areas** (IPAs): **39**, 1 Protected, 4 Secured
- **Acres to meet GSPC for all habitats**: 466,707
- **Acres to meet NET for all habitats**: 484,365
- **Habitats meeting targets**: 7 GSPC, 5 NET
  - Acadian-Appalachian Montane Spruce-Fir-Hardwood Forest (GSPC, NET)
  - Acidic Cliff & Talus (GSPC, NET)
  - Acadian-Appalachian Alpine Tundra (GSPC, NET)
  - Acidic Rocky Outcrop (GSPC, NET)
  - Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp (GSPC, NET)
  - Boreal-Laurentian-Acadian Acidic Basin Fen (GSPC)
  - North-Central Interior & Appalachian Acidic Peatland (GSPC)
- **Habitats meeting NET for Protection & Securement but not Resilience**
  - Boreal-Laurentian-Acadian Acidic Basin Fen
  - North-Central Interior & Appalachian Acidic Peatland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VERMONT
CONTINUED

Unprotected Habitats Threatened by Conversion

Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
North-Central Appalachian Acidic Swamp	7%	1%	7%	1.4 K	2.4 K	4.9 K
North-Central Interior & Appalachian Rich Swamp	5%	1%	9%	1.2 K	1.9 K	3.8 K
Appalachian (Hemlock)-Northern Hardwood Forest	5%	2%	8%	81.8 K	137.4K	358.9K
North-Central Interior Wet Flatwoods	11%	2%	6%	0.2 K	0.4 K	0.7 K
Circumneutral Cliff & Talus	7%	4%	15%	0.7 K	1.0 K	5.1 K

Unprotected Habitats with Low Threat, High Responsibility

Bold indicates a high responsibility to conserve, as > 33% of the regional habitat is in this state.

HABITAT	TOC	%PR	%S	GSPC	NET	R ac
Laurentian-Acadian Alkaline Fen	0%	0%	1%	14	27	25
L-A Red Oak-Northern Hardwood Forest	1%	2%	15%	46.6K	52.1K	235.3K
Glacial Marine & Lake Mesic Clayplain Forest	4%	2%	7%	4.1K	7.5K	11.9K
Glacial Marine & Lake Wet Clayplain Forest	3%	2%	12%	1.8K	2.5K	3.7K
Calcareous Rocky Outcrop	0%	7%	23%	1.4K	1.1K	11.4K
Calcareous Cliff & Talus	1%	8%	31%	1.1K	–	10.3K

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R ac = resilient acres available