

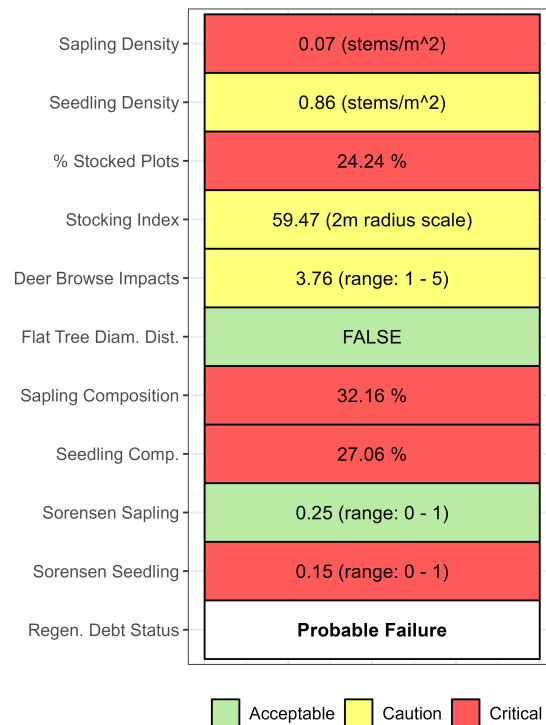


Figure 1. Regeneration Debt status for the most recent 4-year census (2022 – 2024) in Gettysburg National Military Park (GETT). Flat Tree Diam. Dist. stands for Flat Tree Diameter Distribution. If TRUE, the density of small trees is lower than expected due to chronic regeneration failure. Sapling/Seedling Composition is the % of total stems composed of native canopy-forming species. Sorensen is a measure of how closely the regen. layer matches canopy composition. For more details on metric calculations, thresholds and assessment of status, see Miller et al. 2023 (<https://esajournals.onlinelibrary.wiley.com/doi/full/10.1002/eap.2837>).

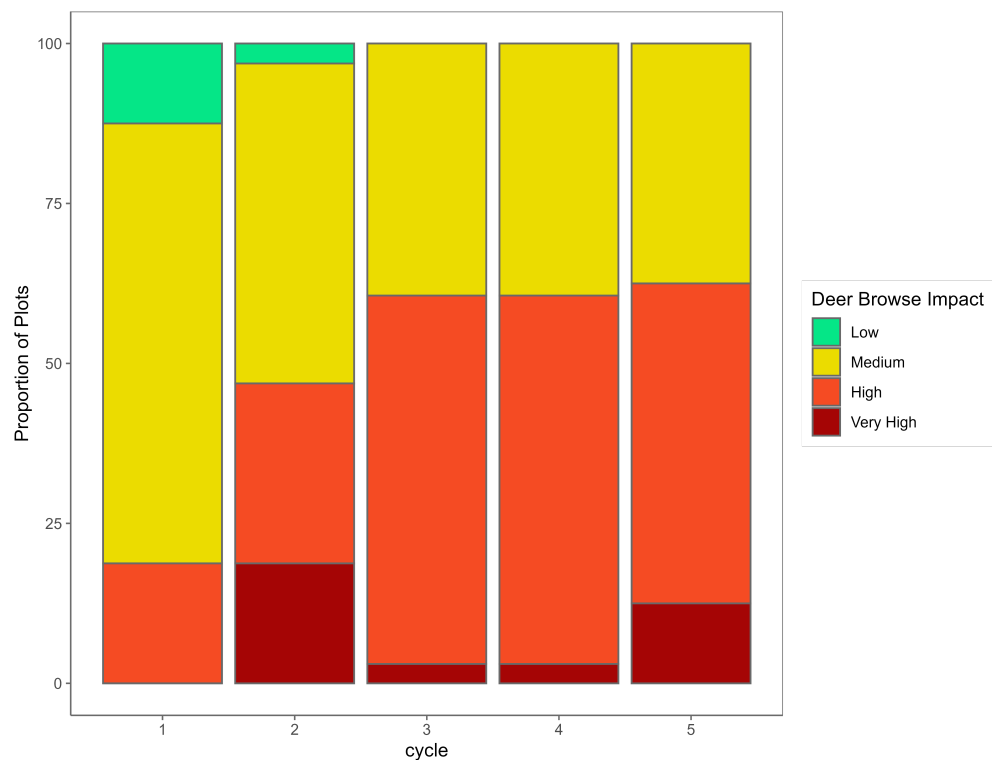
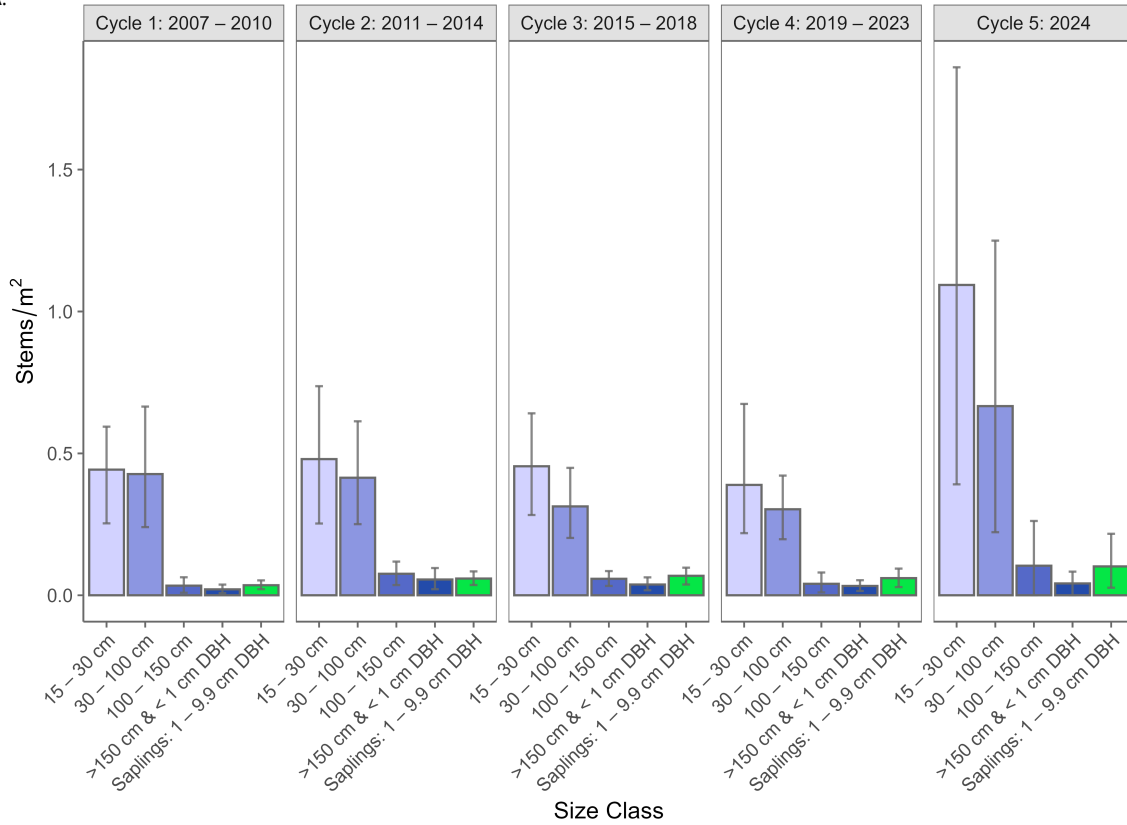


Figure 2. Deer browse impacts by cycle in Gettysburg National Military Park (GETT). Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. **Note that Cycle 5 is only partially complete.**



A.



B.

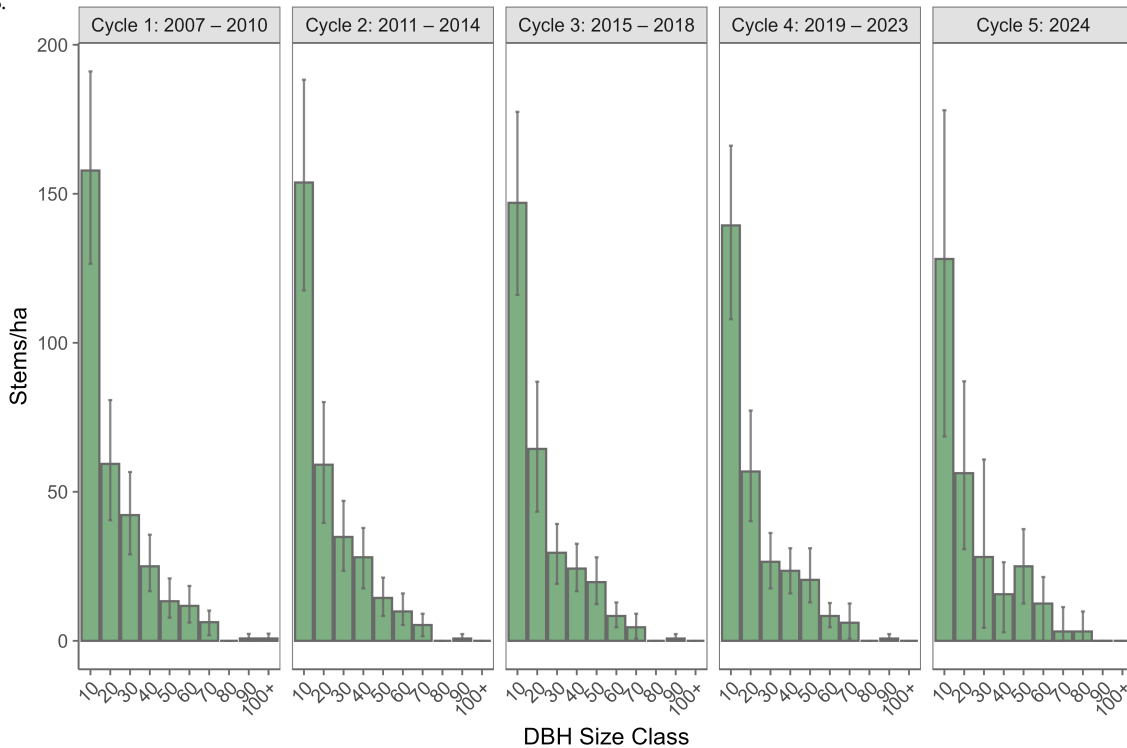


Figure 3. Stem density distributions by cycle in Gettysburg National Military Park (GETT). Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. **Note that Cycle 5 is only partially complete.** Figure A shows regeneration densities by size class. Figure B shows tree density by diameter at breast height (DBH) increments. Error bars are 95% bootstrapped confidence intervals to account for non-normal error. An asterisk denotes a linear DBH distribution that is indicative of long-term recruitment failure.

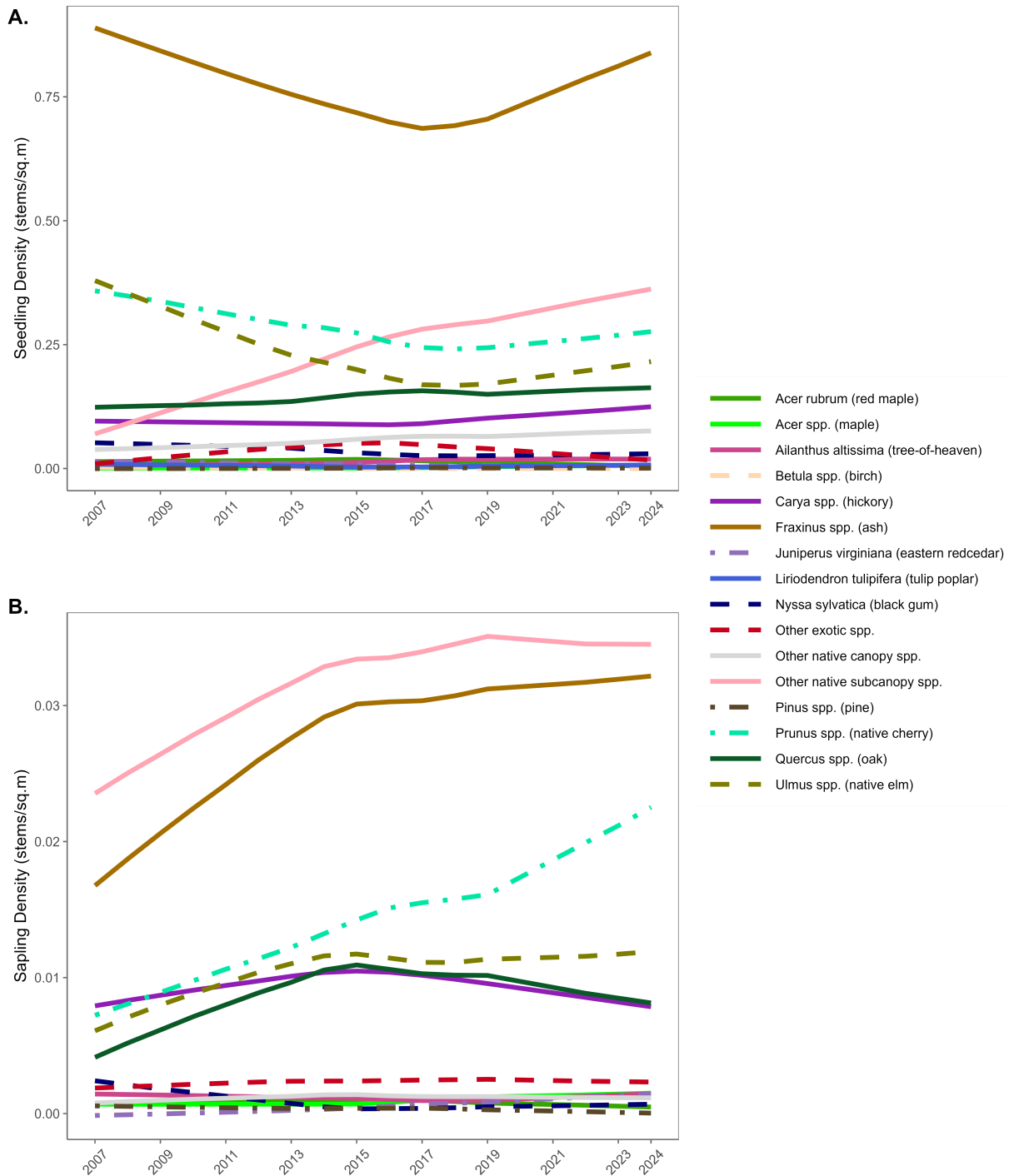


Figure 4. Loess smoothed changes in stem density for seedlings (A) and saplings (B) by species group and sample year in Gettysburg National Military Park. Specified loess span approximated a linear trend between consecutive sample events per panel.

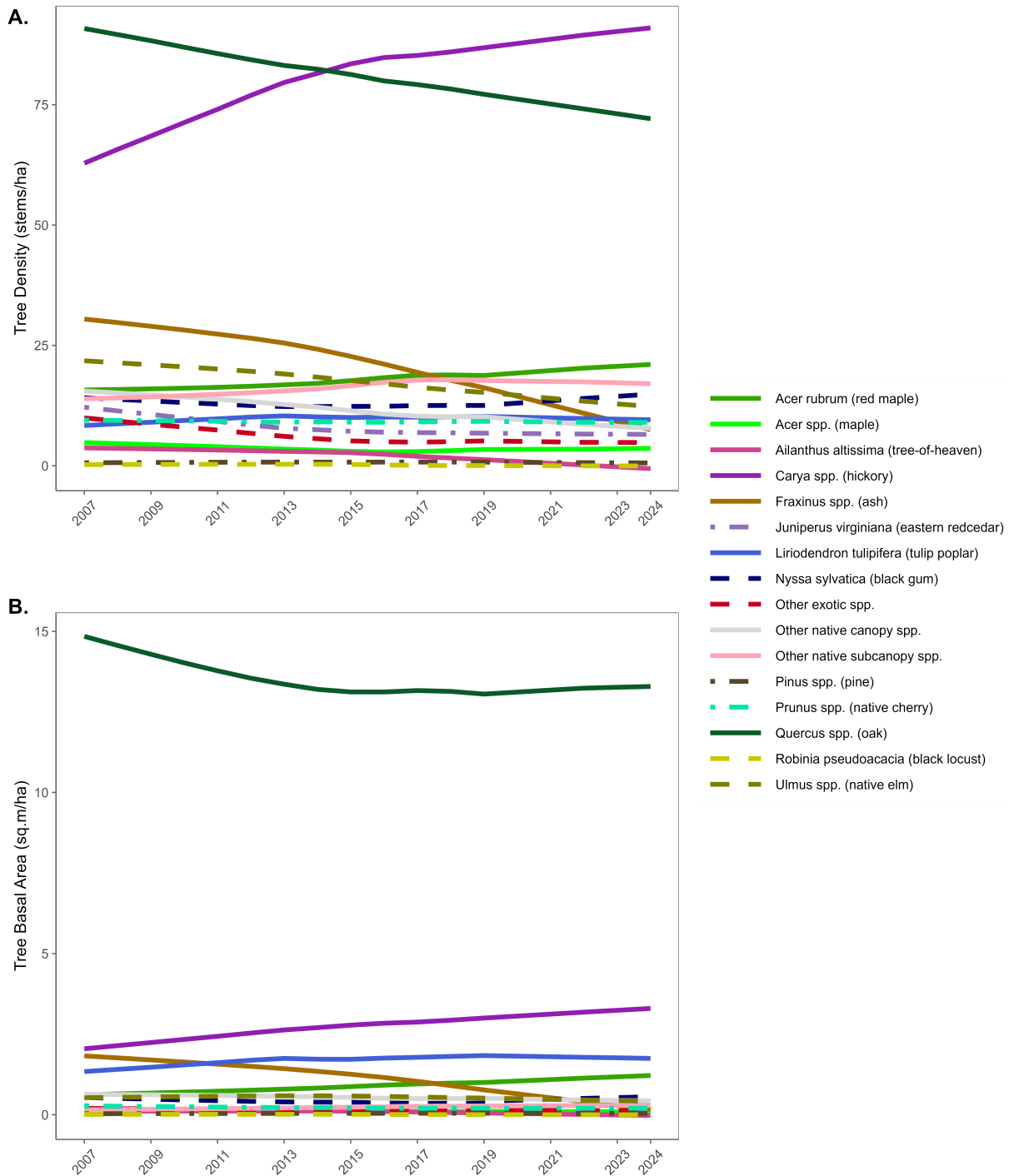


Figure 5. Loess smoothed changes in tree stem density (A) and basal area (B) by species group and sample year in Gettysburg National Military Park. Specified loess span approximated a linear trend between consecutive sample events per panel.

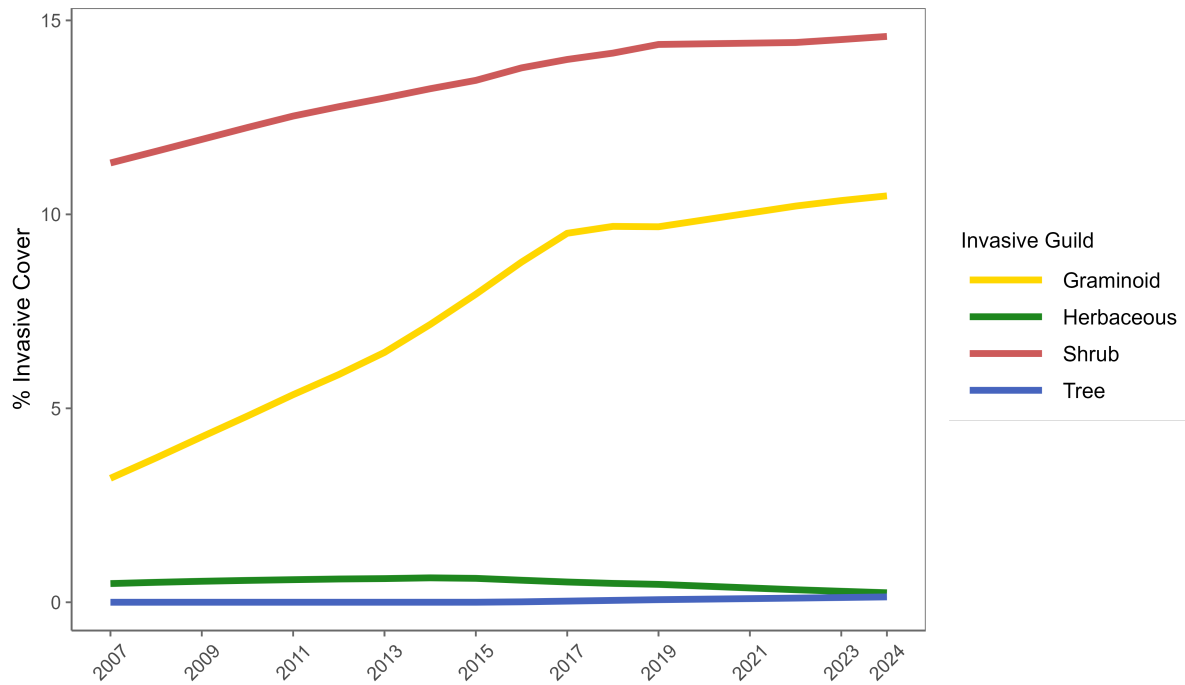


Figure 6. Loess smoothed changes in invasive plant percent cover by guild and sample year in Gettysburg National Military Park. Specified loess span approximated a linear trend between consecutive sample events per panel.



Table 1. Average plot-level seedling and sapling stem densities (stems per m²) and stocking index (at the 2m radius scale) by cycle. Only native, canopy-forming species are included. Note that *Fraxinus* spp. (ash species) are no longer considered canopy-forming species. Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. Plots are sampled in 4-year rotations, with a quarter of the plots sampled each year (i.e. a panel). The stocking index quantifies whether current regeneration densities are sufficient to restock a forest canopy. The index is a weighted sum of seedling and sapling densities where larger seedling size classes get higher weights. Cells highlighted in green are plots that meet the minimum management target of 0.25 seedlings/m² and 0.14 saplings/m² or have a stocking index >100. These are the same thresholds used in Figure 2 and are described in Miller et al. 2023. **Note that Cycle 5 is only partially complete.**

Plot	Panel	Seedlings per sq.m					Saplings per sq.m					Stocking Index				
		Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
28	1	4.92	6.83	1.83	1.17	3.50	0.08	0.11	0.20	0.02	0.05	204.58	380.38	246.05	18.85	97.52
29	1	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.00
30	1	0.08	0.58	0.50	0.00	0.00	0.01	0.04	0.04	0.02	0.01	1.01	11.56	10.43	0.00	0.00
31	1	2.17	2.08	2.83	2.50	1.92	0.04	0.04	0.02	0.04	0.07	36.69	40.97	132.07	276.59	291.29
32	1	1.17	2.08	1.67	1.25	1.42	0.01	0.01	0.00	0.02	0.06	33.55	104.80	120.39	141.50	110.21
33	1	3.67	3.25	3.00	1.58	2.42	0.02	0.13	0.17	0.13	0.13	138.36	373.47	189.25	162.73	71.63
34	1	2.00	2.42	1.67	1.58	1.25	0.01	0.01	0.24	0.33	0.46	117.24	294.30	289.15	334.52	213.00
35	1	0.50	0.17	1.42	3.92	4.75	0.06	0.06	0.06	0.06	0.04	14.70	10.56	21.99	105.81	108.95
87	2	0.17	0.25	0.17	0.50	-	0.08	0.06	0.07	0.05	-	56.05	26.39	25.38	17.84	-
89	2	1.33	0.67	0.33	0.08	-	0.02	0.06	0.05	0.02	-	127.80	131.19	46.37	28.40	-
90	2	0.00	0.00	0.08	0.08	-	0.01	0.02	0.04	0.00	-	7.41	14.83	8.42	1.01	-
91	2	1.25	1.33	1.00	0.83	-	0.15	0.24	0.24	0.00	-	98.77	233.73	177.94	15.71	-
92	2	0.67	0.75	1.08	0.42	-	0.06	0.05	0.04	0.04	-	10.43	13.57	19.85	25.13	-
93	2	0.50	0.25	0.42	0.25	-	0.13	0.12	0.11	0.08	-	51.52	39.96	34.68	5.28	-
96	2	2.08	2.75	1.83	1.42	-	0.02	0.08	0.13	0.22	-	159.22	456.91	365.18	232.48	-
97	2	0.42	0.17	0.08	0.83	-	0.02	0.00	0.05	0.07	-	14.70	54.41	31.67	104.05	-
167	3	0.67	0.42	0.25	0.00	-	0.04	0.02	0.02	0.01	-	11.56	8.42	5.28	0.00	-
168	3	0.00	0.00	0.08	0.00	-	0.00	0.00	0.00	0.00	-	0.00	0.00	1.01	0.00	-
169	3	0.08	0.08	0.00	0.00	-	0.01	0.01	0.01	0.01	-	1.01	1.01	0.00	0.00	-
170	3	0.17	0.42	0.42	0.42	-	0.00	0.01	0.02	0.04	-	2.14	15.83	14.70	25.26	-
171	3	1.17	0.17	0.08	0.00	-	0.00	0.00	0.00	0.00	-	19.85	2.14	1.01	0.00	-
173	3	0.67	1.17	0.83	0.50	-	0.02	0.08	0.05	0.06	-	78.67	106.19	60.82	22.12	-
174	3	0.42	0.42	0.50	0.00	-	0.00	0.00	0.00	0.00	-	6.28	8.42	29.28	0.00	-
175	3	2.83	2.17	2.08	0.92	-	0.00	0.00	0.00	0.00	-	51.27	37.70	32.42	15.71	-
252	4	0.00	0.00	0.08	0.17	-	0.00	0.00	0.00	0.00	-	0.00	0.00	1.01	2.14	-
253	4	0.58	0.67	0.50	1.00	-	0.18	0.17	0.05	0.14	-	214.51	174.42	37.82	81.30	-
254	4	0.33	0.08	0.25	0.33	-	0.00	0.01	0.01	0.01	-	4.15	8.42	10.56	5.28	-
255	4	0.92	1.00	1.50	1.42	-	0.01	0.05	0.08	0.11	-	38.70	68.36	176.31	121.77	-
256	4	0.17	0.08	0.33	0.25	-	0.00	0.00	0.00	0.00	-	2.14	1.01	5.28	4.15	-
257	4	0.25	0.25	0.17	0.00	-	0.08	0.11	0.08	0.07	-	27.52	33.80	31.67	14.83	-



Table 1 (cont.). Average plot-level seedling and sapling stem densities (stems per m²) and stocking index (at the 2m radius scale) by cycle. Only native, canopy-forming species are included. Note that *Fraxinus* spp. (ash species) are no longer considered canopy-forming species. Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. Plots are sampled in 4-year rotations, with a quarter of the plots sampled each year (i.e. a panel). The stocking index quantifies whether current regeneration densities are sufficient to restock a forest canopy. The index is a weighted sum of seedling and sapling densities where larger seedling size classes get higher weights. Cells highlighted in green are plots that meet the minimum management target of 0.25 seedlings/m² and 0.14 saplings/m² or have a stocking index >100. These are the same thresholds used in Figure 2 and are described in Miller et al. 2023. **Note that Cycle 5 is only partially complete.**

Plot	Panel	Seedlings per sq.m					Saplings per sq.m					Stocking Index				
		Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
258	4	0.42	0.17	0.08	0.42	-	0.00	0.04	0.02	0.04	-	8.42	25.38	15.83	21.11	-
259	4	0.00	0.42	0.42	0.67	-	0.05	0.06	0.05	0.02	-	0.00	6.28	9.42	15.71	-
356	2	-	2.75	2.92	2.75	-	-	0.38	0.44	0.38	-	-	423.36	488.71	310.89	-



Table 2. Average % cover and number of invasive species detected in each plot by cycle. Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. Plots are sampled in 4-year rotations, with a quarter of the plots sampled each year (i.e. a panel). **Note that Cycle 5 is only partially complete.** Plots with at least 10% average cover or 4 or more invasive species present are in yellow. Protocol evolution over time has impacted invasive species % cover and counts. The estimated change in invasive species % cover and count in Gettysburg National Military Park (GETT) that can be attributed to protocol change is 0.57% and 1.67 species per plot for the most recent census. More details can be found in the MIDN Summary of Major Protocol Changes. (<https://irma.nps.gov/DataStore/Reference/Profile/2189101>)

PlotCode	PanelCode	Average % Cover					Number of Species per Plot				
		Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
28	1	8.03	6.52	19.18	32.45	11.89	3	4	6	11	11
29	1	3.69	1.99	30.17	76.39	69.85	3	5	6	11	7
30	1	67.89	34.15	54.94	54.01	41.29	5	6	8	8	8
31	1	7.21	6.75	22.68	11.53	4.17	1	2	7	8	8
32	1	0.29	21.58	28.00	38.15	8.03	1	5	8	10	10
33	1	5.67	11.47	9.13	4.49	2.12	2	5	6	10	11
34	1	19.48	3.68	6.30	3.18	1.38	4	5	6	9	8
35	1	17.21	23.36	29.52	36.89	20.91	3	5	6	9	12
87	2	4.76	15.25	4.38	17.60	-	5	7	8	8	-
89	2	18.72	15.43	13.75	20.26	-	5	7	11	14	-
90	2	27.57	31.19	36.16	77.89	-	6	8	10	9	-
91	2	2.17	2.57	6.97	21.90	-	4	6	10	9	-
92	2	2.05	13.68	20.23	18.09	-	2	6	8	9	-
93	2	8.75	11.79	31.42	47.96	-	4	4	8	9	-
96	2	14.62	3.03	3.27	4.38	-	6	8	7	10	-
97	2	53.07	41.46	68.58	70.36	-	5	6	7	12	-
167	3	4.55	3.24	3.73	1.51	-	11	11	10	8	-
168	3	61.27	70.37	75.51	70.28	-	6	7	7	9	-
169	3	3.19	7.71	5.10	14.02	-	5	6	7	9	-
170	3	25.20	24.57	26.16	45.57	-	7	5	7	9	-
171	3	26.45	24.12	25.24	24.89	-	7	6	8	9	-
173	3	35.27	30.73	15.78	8.39	-	10	10	12	12	-
174	3	36.17	72.79	67.49	49.85	-	8	9	7	9	-
175	3	3.89	0.40	1.09	3.36	-	5	5	5	9	-
252	4	8.48	35.08	18.65	50.95	-	4	6	5	8	-
253	4	1.02	12.22	0.42	10.89	-	3	7	6	8	-
254	4	2.10	3.52	6.91	2.69	-	3	7	7	10	-
255	4	23.81	42.46	17.42	6.79	-	4	5	7	10	-
256	4	15.46	46.50	44.23	64.49	-	5	6	5	10	-
257	4	0.98	16.29	9.33	3.78	-	4	8	9	9	-



Table 2 (cont.). Average % cover and number of invasive species detected in each plot by cycle. Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. Plots are sampled in 4-year rotations, with a quarter of the plots sampled each year (i.e. a panel). **Note that Cycle 5 is only partially complete.** Plots with at least 10% average cover or 4 or more invasive species present are in yellow. Protocol evolution over time has impacted invasive species % cover and counts. The estimated change in invasive species % cover and count in Gettysburg National Military Park (GETT) that can be attributed to protocol change is 0.57% and 1.67 species per plot for the most recent census. More details can be found in the MIDN Summary of Major Protocol Changes. (<https://irma.nps.gov/DataStore/Reference/Profile/2189101>)

PlotCode	PanelCode	Average % Cover					Number of Species per Plot				
		Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
258	4	1.02	8.79	1.09	42.54	-	4	5	6	12	-
259	4	0.77	5.35	7.12	3.58	-	4	3	3	6	-
356	2	-	0.00	0.16	1.63	-	-	3	3	6	-



Table 3. Number of plots out of 33 where exotic species were detected. Cycle 1: 2007 – 2010; Cycle 2: 2011 – 2014; Cycle 3: 2015 – 2018; Cycle 4: 2019 – 2023; Cycle 5: 2024. Priority invasive species capable of dominating Eastern US forest habitats are highlighted in yellow. **Note that Cycle 5 is only partially complete.** Protocol evolution has impacted the number of invasive species monitored through time. Species were not consistently monitored before the year specified in the Year Added column. More details can be found in the MIDN Summary of Major Protocol Changes. (<https://irma.nps.gov/DataStore/Reference/Profile/2189101>)

Latin Name	Common Name	Invasive	Year Added	Cycle 1	Cycle 2	Cycle 3	Cycle 4	Cycle 5
<i>Acer platanoides</i>	Norway maple	Yes	2019	3	2	3	8	1
<i>Ailanthus altissima</i>	tree-of-heaven	Yes	2019	3	2	4	10	2
<i>Albizia julibrissin</i>	mimosa	Yes	2019	0	0	0	4	0
<i>Alliaria petiolata</i>	garlic mustard	Yes	2007	15	15	20	25	7
<i>Berberis thunbergii</i>	Japanese barberry	Yes	2007	17	24	26	28	8
<i>Berberis vulgaris</i>	common barberry	Yes	2019	0	1	0	0	0
<i>Catalpa bignonioides</i>	southern catalpa	No	2019	1	0	0	1	1
<i>Catalpa speciosa</i>	northern catalpa	No	2019	1	1	1	1	0
<i>Celastrus orbiculatus</i>	Asiatic bittersweet	Yes	2007	1	2	5	17	5
<i>Cirsium arvense</i>	Canada thistle	Yes	2007	1	0	1	0	0
<i>Dioscorea oppositifolia</i>	Chinese yam	Yes	2013	0	0	1	0	0
<i>Duchesnea indica</i>	mock strawberry	No	2007	7	8	6	10	0
<i>Elaeagnus</i>	exotic olive	Yes	2019	3	5	9	19	5
<i>Euonymus</i>	burningbush	Yes	2019	0	1	1	14	4
<i>Euonymus fortunei</i>	climbing euonymus	Yes	2007	0	1	0	1	0
<i>Glechoma hederacea</i>	ground ivy	Yes	2007	0	0	1	1	0
<i>Hedera helix</i>	English ivy	Yes	2007	0	0	0	1	0
<i>Ligustrum</i>	privet	Yes	2009	3	17	15	18	4
<i>Lonicera - Exotic</i>	honeysuckle - exotic	Yes	2007	6	10	17	15	5
<i>Lonicera japonica</i>	Japanese honeysuckle	Yes	2007	29	31	31	32	8
<i>Malus</i>	apple	No	2019	0	2	3	3	2
<i>Microstegium vimineum</i>	Japanese stiltgrass	Yes	2007	25	26	32	31	8
<i>Morus alba</i>	white mulberry	No	2019	1	1	1	5	3
<i>Oplismenus hirtellus</i> ssp. <i>undulatifolius</i>	wavyleaf basketgrass	Yes	2009	0	0	0	2	0
<i>Persicaria longiseta</i>	Asiatic lady's thumb	Yes	2009	7	12	21	18	4
<i>Persicaria perfoliata</i>	mile-a-minute weed	Yes	2007	0	1	2	7	1
<i>Prunus avium</i>	sweet cherry	No	2019	2	1	4	0	2
<i>Prunus cerasus</i>	sour cherry	No	2019	1	0	0	0	0
<i>Pyrus</i>	pear	No	2019	0	1	1	5	1
<i>Ranunculus ficaria</i>	fig buttercup	Yes	2007	1	0	0	0	0
<i>Rosa multiflora</i>	multiflora rose	Yes	2007	26	32	31	33	7
<i>Rubus phoenicolasius</i>	wine raspberry	Yes	2007	9	16	14	19	6



Table 4. Invasive plant and pest/pathogen early detections in Gettysburg National Military Park observed in the most recent census of each plot. Coordinates are in UTM NAD83 Zone 18N.

Plot	Year	X	Y	Latin Name	Common Name	Type
GETT-097	2022	307117	4411757	<i>Oplismenus hirtellus ssp. undulatifolius</i>	wavyleaf basketgrass	graminoid
GETT-256	2023	307348	4405807	<i>Oplismenus hirtellus ssp. undulatifolius</i>	wavyleaf basketgrass	graminoid
GETT-031	2024	306841	4407290	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-032	2024	307589	4406049	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-089	2022	310343	4410057	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-091	2022	308602	4407302	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-096	2022	307607	4407317	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-169	2022	308610	4407043	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-171	2022	309851	4408809	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-175	2022	308602	4406809	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-253	2023	308096	4406818	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-258	2023	310104	4409815	<i>Ailanthus altissima</i>	tree-of-heaven	tree
GETT-255	2023	308845	4408550	<i>Albizia julibrissin</i>	mimosa	tree
GETT-257	2023	306605	4412050	<i>Albizia julibrissin</i>	mimosa	tree
GETT-029	2024	309583	4408560	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-031	2024	306841	4407290	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-033	2024	310357	4409298	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-087	2022	309127	4408804	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-089	2022	310343	4410057	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-090	2022	309110	4409536	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-092	2022	306601	4409054	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-093	2022	307603	4413545	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-097	2022	307117	4411757	<i>Agrilus planipennis</i>	emerald ash borer	pest
GETT-174	2022	308091	4406047	<i>Agrilus planipennis</i>	emerald ash borer	pest



Table 5. List of tree species included in Maps 3 and 4 and how each was displayed.

Latin Name	Group: Map 3. Regeneration	Group: Map 4. Tree Canopy
<i>Acer negundo</i>	Acer spp. (maple)	Acer spp. (maple)
<i>Acer platanoides</i>	Other exotic spp.	Other exotic spp.
<i>Acer rubrum</i>	Acer rubrum (red maple)	Acer rubrum (red maple)
<i>Acer saccharinum</i>	-	Acer spp. (maple)
<i>Ailanthus altissima</i>	Ailanthus altissima (tree-of-heaven)	-
<i>Amelanchier</i>	Other native subcanopy spp.	-
<i>Carpinus caroliniana</i>	Other native subcanopy spp.	Other native subcanopy spp.
<i>Carya</i>	Carya spp. (hickory)	-
<i>Carya cordiformis</i>	Carya spp. (hickory)	-
<i>Carya glabra</i>	Carya spp. (hickory)	Carya spp. (hickory)
<i>Carya ovata</i>	Carya spp. (hickory)	Carya spp. (hickory)
<i>Carya tomentosa</i>	Carya spp. (hickory)	Carya spp. (hickory)
<i>Catalpa speciosa</i>	-	Other exotic spp.
<i>Celtis occidentalis</i>	Other native canopy spp.	Other native canopy spp.
<i>Cercis canadensis</i>	Other native subcanopy spp.	Other native subcanopy spp.
<i>Cornus florida</i>	Other native subcanopy spp.	Other native subcanopy spp.
<i>Crataegus</i>	Other exotic spp.	-
<i>Diospyros virginiana</i>	Other native canopy spp.	Other native canopy spp.
<i>Fraxinus</i>	Fraxinus spp. (ash)	-
<i>Fraxinus americana</i>	Fraxinus spp. (ash)	Fraxinus spp. (ash)
<i>Fraxinus pennsylvanica</i>	Fraxinus spp. (ash)	Fraxinus spp. (ash)
<i>Juglans nigra</i>	Other native canopy spp.	Other native canopy spp.
<i>Juniperus virginiana</i>	Juniperus virginiana (eastern redcedar)	Juniperus virginiana (eastern redcedar)
<i>Liriodendron tulipifera</i>	Liriodendron tulipifera (tulip poplar)	Liriodendron tulipifera (tulip poplar)
<i>Malus</i>	Other exotic spp.	-
<i>Morus alba</i>	-	Other exotic spp.
<i>Nyssa sylvatica</i>	Nyssa sylvatica (black gum)	Nyssa sylvatica (black gum)
<i>Ostrya virginiana</i>	Other native subcanopy spp.	-
<i>Pinus strobus</i>	-	Pinus spp. (pine)
<i>Prunus</i>	Prunus spp. (native cherry)	-
<i>Prunus avium</i>	Other exotic spp.	-
<i>Prunus serotina</i>	Prunus spp. (native cherry)	Prunus spp. (native cherry)
<i>Prunus virginiana</i>	Prunus spp. (native cherry)	-
<i>Pyrus</i>	Other exotic spp.	Other exotic spp.
<i>Quercus (Red group)</i>	Quercus spp. (oak)	-
<i>Quercus alba</i>	Quercus spp. (oak)	Quercus spp. (oak)
<i>Quercus bicolor</i>	Quercus spp. (oak)	Quercus spp. (oak)
<i>Quercus coccinea</i>	-	Quercus spp. (oak)
<i>Quercus montana</i>	Quercus spp. (oak)	Quercus spp. (oak)
<i>Quercus palustris</i>	-	Quercus spp. (oak)
<i>Quercus rubra</i>	Quercus spp. (oak)	Quercus spp. (oak)
<i>Quercus velutina</i>	Quercus spp. (oak)	Quercus spp. (oak)
<i>Robinia pseudoacacia</i>	Other native canopy spp.	-
<i>Sassafras albidum</i>	Other native subcanopy spp.	Other native subcanopy spp.
<i>Ulmus</i>	Ulmus spp. (native elm)	Ulmus spp. (native elm)
<i>Ulmus americana</i>	Ulmus spp. (native elm)	Ulmus spp. (native elm)
<i>Ulmus rubra</i>	Ulmus spp. (native elm)	Ulmus spp. (native elm)
<i>Viburnum prunifolium</i>	Other native subcanopy spp.	Other native subcanopy spp.