

Woody Cover and Land Use Change

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Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Acadian Plains and Hills	Cultivated Crops	90,878	8,874	9.8	10,322	11.4	1,448	16.3	0.263	0.001
	Deciduous Forest	554,268	434,271	78.4	469,510	84.7	35,239	8.1	0.737	0.001
	Developed	234,085	55,303	23.6	59,536	25.4	4,233	7.7	0.369	0.002
	Emergent Herbaceous Wetlands	73,605	24,415	33.2	20,639	28.0	-3,776	-15.0	0.121	0.264
	Evergreen Forest	832,952	662,607	79.5	734,473	88.2	71,865	10.8	0.590	<0.001
	Grassland Herbaceous	91,527	66,197	72.3	40,475	44.2	-25,722	-39.0	-0.409	0.075
	Mixed Forest	1,451,608	1,159,064	79.8	1,265,395	87.2	106,331	9.2	0.612	<0.001
	Pasture Hay	165,102	19,366	11.7	19,749	12.0	383	2.0	0.270	<0.001
	Shrub Scrub	62,234	43,929	70.6	32,560	52.3	-11,369	-26.0	-1.000	0.001
	Woody Wetlands	715,948	523,601	73.1	555,532	77.6	31,931	6.1	0.517	0.001
	Cultivated Crops	66,054	859	1.3	2,486	3.8	1,627	189.0	0.045	0.002
	Deciduous Forest	745,712	492,171	66.0	573,718	76.9	81,546	16.6	0.474	0.002
	Developed	186,599	30,098	16.1	30,334	16.3	237	0.8	-0.106	0.097
	Emergent Herbaceous Wetlands	14,094	4,671	33.1	5,605	39.8	934	20.0	0.272	0.024
	Evergreen Forest	267,523	185,872	69.5	233,993	87.5	48,121	25.9	0.782	<0.001

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Arkansas Valley	Grassland Herbaceous	189,035	46,703	24.7	44,847	23.7	-1,856	-4.0	-0.003	0.833
	Mixed Forest	270,358	183,212	67.8	232,747	86.1	49,535	27.0	0.834	<0.001
	Pasture Hay	868,228	78,803	9.1	112,353	12.9	33,549	42.6	0.173	0.024
	Shrub Scrub	67,499	37,414	55.4	25,528	37.8	-11,886	-32.0	-1.000	<0.001
	Woody Wetlands	55,710	38,773	69.6	40,388	72.5	1,615	4.2	0.229	0.032
	Cultivated Crops	130,780	5,342	4.1	10,118	7.7	4,776	89.4	0.187	<0.001
	Deciduous Forest	154,566	92,186	59.6	115,317	74.6	23,132	25.1	1.100	<0.001
	Developed	506,521	52,322	10.3	48,183	9.5	-4,140	-8.0	-0.018	0.695
	Emergent Herbaceous Wetlands	61,923	8,171	13.2	8,547	13.8	376	4.6	-0.043	0.415
Atlantic Coastal Pine Barrens	Evergreen Forest	119,905	62,545	52.2	93,876	78.3	31,331	50.1	1.600	<0.001
	Grassland Herbaceous	20,864	4,697	22.5	4,786	22.9	89	1.9	0.283	0.05
	Mixed Forest	111,686	61,378	55.0	85,205	76.3	23,827	38.8	1.400	<0.001
	Pasture Hay	18,913	1,618	8.6	2,160	11.4	542	33.5	0.186	0.004
	Shrub Scrub	14,482	4,408	30.4	5,637	38.9	1,229	27.9	0.494	0.006
	Woody Wetlands	234,048	158,522	67.7	192,559	82.3	34,036	21.5	0.832	<0.001
	Cultivated Crops	14,542	712	4.9	967	6.7	255	35.8	0.087	0.124
	Deciduous Forest	2,366,538	2,007,604	84.8	2,147,311	90.7	139,707	7.0	0.367	<0.001

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Blue Ridge	Developed	380,536	125,002	32.8	156,013	41.0	31,011	24.8	0.509	<0.001
	Emergent Herbaceous Wetlands	1,049	239	22.8	276	26.3	36	15.2	0.196	0.057
	Evergreen Forest	235,088	185,730	79.0	204,773	87.1	19,043	10.3	0.700	<0.001
	Grassland Herbaceous	33,839	21,387	63.2	13,556	40.1	-7,830	-37.0	-0.298	0.057
	Mixed Forest	1,208,450	1,000,971	82.8	1,089,017	90.1	88,046	8.8	0.504	<0.001
	Pasture Hay	334,027	23,371	7.0	43,494	13.0	20,123	86.1	0.336	<0.001
	Shrub Scrub	39,722	25,204	63.5	19,314	48.6	-5,890	-23.0	-0.793	<0.001
	Woody Wetlands	4,642	2,970	64.0	3,469	74.7	499	16.8	0.701	<0.001
	Cultivated Crops	477	6	1.3	18	3.9	12	186.0	0.049	0.007
	Deciduous Forest	925,996	761,097	82.2	829,784	89.6	68,688	9.0	0.378	0.001
	Developed	61,698	20,942	33.9	24,364	39.5	3,422	16.3	0.153	0.174
	Emergent Herbaceous Wetlands	480	134	27.9	60	12.4	-74	-56.0	-0.695	<0.001
	Evergreen Forest	88,795	70,047	78.9	79,218	89.2	9,171	13.1	0.660	<0.001
	Grassland Herbaceous	22,149	14,812	66.9	10,352	46.7	-4,460	-30.0	-0.733	<0.001
	Mixed Forest	87,484	65,974	75.4	76,156	87.1	10,182	15.4	0.669	<0.001

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Boston Mountains Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Central Appalachians	Pasture Hay	192,862	19,829	10.3	26,273	13.6	6,444	32.5	0.167	0.024
	Shrub Scrub	21,174	15,111	71.4	9,319	44.0	-5,792	-38.0	-2.000	<0.001
	Woody Wetlands	1,770	952	53.8	802	45.3	-150	-16.0	-0.396	0.024
	Cultivated Crops	33,373	1,204	3.6	1,049	3.1	-155	-13.0	-0.067	0.007
	Deciduous Forest	4,452,109	3,586,370	80.6	3,998,165	89.8	411,795	11.5	0.550	<0.001
	Developed	376,020	99,785	26.5	131,928	35.1	32,143	32.2	0.470	<0.001
	Emergent Herbaceous Wetlands	10,373	2,040	19.7	3,359	32.4	1,319	64.6	0.751	<0.001
	Evergreen Forest	133,301	103,741	77.8	114,991	86.3	11,250	10.8	0.572	<0.001
	Grassland Herbaceous	148,575	64,743	43.6	44,618	30.0	-20,125	-31.0	-0.482	<0.001
	Mixed Forest	519,591	387,120	74.5	443,617	85.4	56,498	14.6	0.711	<0.001
	Pasture Hay	350,015	23,715	6.8	41,873	12.0	18,158	76.6	0.236	<0.001
	Shrub Scrub	99,529	70,836	71.2	52,391	52.6	-18,445	-26.0	-2.000	<0.001
	Woody Wetlands	14,590	7,590	52.0	10,175	69.7	2,586	34.1	1.100	<0.001
	Cultivated Crops	5,684,470	67,162	1.2	40,473	0.7	-26,689	-40.0	0.011	0.014
	Deciduous Forest	360,940	195,280	54.1	240,961	66.8	45,681	23.4	0.843	<0.001
	Developed	1,074,416	56,344	5.2	36,506	3.4	-19,837	-35.0	-0.068	0.02

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		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Central Corn Belt Plains	Emergent Herbaceous Wetlands	19,525	3,146	16.1	3,081	15.8	-65	-2.0	-0.011	0.786
	Evergreen Forest	4,498	2,458	54.7	3,441	76.5	983	40.0	1.600	<0.001
	Grassland Herbaceous	40,479	4,155	10.3	5,698	14.1	1,543	37.1	0.218	0.001
	Mixed Forest	56,974	21,784	38.2	28,889	50.7	7,104	32.6	0.876	<0.001
	Pasture Hay	241,721	15,453	6.4	22,444	9.3	6,992	45.2	0.181	0.001
	Shrub Scrub	5,232	1,291	24.7	1,262	24.1	-29	-2.0	0.067	0.415
	Woody Wetlands	94,206	51,977	55.2	55,331	58.7	3,354	6.5	0.223	0.027
	Cultivated Crops	1,694,150	41,147	2.4	52,884	3.1	11,736	28.5	0.007	0.695
	Deciduous Forest	1,344,669	942,012	70.1	1,082,934	80.5	140,922	15.0	0.730	<0.001
	Developed	296,495	19,686	6.6	21,071	7.1	1,386	7.0	-0.006	0.833
	Emergent Herbaceous Wetlands	64,453	9,044	14.0	10,989	17.0	1,945	21.5	0.146	0.05
	Evergreen Forest	28,291	17,385	61.5	23,498	83.1	6,113	35.2	1.200	<0.001
	Grassland Herbaceous	67,879	6,415	9.5	9,867	14.5	3,452	53.8	0.192	0.001
	Mixed Forest	136,785	71,716	52.4	93,631	68.5	21,915	30.6	0.944	<0.001
	Pasture Hay	881,255	57,241	6.5	94,115	10.7	36,874	64.4	0.157	0.002

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Driftless Area		Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
Ecoregion	NLCD Land Cover Type	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
East Central Texas Plains	Shrub Scrub	11,167	3,897	34.9	4,108	36.8	211	5.4	-0.093	0.194
	Woody Wetlands	114,185	60,826	53.3	61,138	53.5	313	0.5	0.163	0.319
	Cultivated Crops	144,661	6,516	4.5	9,400	6.5	2,884	44.3	-0.058	0.174
	Deciduous Forest	572,399	337,860	59.0	379,271	66.3	41,411	12.3	-0.007	0.976
	Developed	337,376	49,916	14.8	53,552	15.9	3,636	7.3	-0.158	0.017
	Emergent Herbaceous Wetlands	37,691	13,471	35.7	10,703	28.4	-2,767	-21.0	-0.676	<0.001
	Evergreen Forest	179,707	115,113	64.1	123,801	68.9	8,688	7.5	-0.394	0.037
	Grassland Herbaceous	137,169	30,369	22.1	28,822	21.0	-1,547	-5.0	-0.165	0.006
	Mixed Forest	471,944	283,666	60.1	345,689	73.2	62,023	21.9	0.125	0.291
	Pasture Hay	2,554,032	256,506	10.0	392,945	15.4	136,439	53.2	0.087	0.009
	Shrub Scrub	636,754	203,354	31.9	279,140	43.8	75,786	37.3	0.267	0.004
	Woody Wetlands	369,000	250,411	67.9	292,731	79.3	42,321	16.9	0.270	0.085
	Cultivated Crops	5,285,201	68,157	1.3	60,652	1.1	-7,505	-11.0	0.000	0.976
	Deciduous Forest	1,122,772	656,178	58.4	760,876	67.8	104,698	16.0	0.906	<0.001
	Developed	1,269,136	64,929	5.1	45,667	3.6	-19,262	-30.0	-0.065	0.024
	Emergent Herbaceous Wetlands	21,475	4,289	20.0	3,030	14.1	-1,260	-29.0	-0.215	0.043

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Eastern Corn Belt Plains	Evergreen Forest	10,642	5,714	53.7	7,704	72.4	1,991	34.8	1.200	<0.001
	Grassland Herbaceous	35,317	5,221	14.8	3,292	9.3	-1,929	-37.0	-0.175	0.027
	Mixed Forest	97,275	37,864	38.9	49,952	51.4	12,088	31.9	0.961	<0.001
	Pasture Hay	625,617	32,225	5.2	48,940	7.8	16,715	51.9	0.143	0.014
	Shrub Scrub	7,307	2,511	34.4	1,494	20.4	-1,018	-41.0	-0.706	0.001
	Woody Wetlands	122,349	70,363	57.5	73,945	60.4	3,582	5.1	0.397	0.02
	Cultivated Crops	669,541	26,921	4.0	33,926	5.1	7,005	26.0	0.034	0.291
	Deciduous Forest	854,842	602,014	70.4	705,598	82.5	103,584	17.2	0.732	<0.001
	Developed	571,201	43,821	7.7	47,749	8.4	3,928	9.0	0.042	0.124
	Emergent Herbaceous Wetlands	56,571	11,677	20.6	14,712	26.0	3,035	26.0	0.221	0.032
Eastern Great Lakes Lowlands	Evergreen Forest	189,911	150,695	79.4	169,638	89.3	18,943	12.6	0.568	<0.001
	Grassland Herbaceous	31,915	8,514	26.7	7,069	22.2	-1,445	-17.0	0.085	0.526
	Mixed Forest	177,973	121,795	68.4	145,462	81.7	23,667	19.4	0.752	<0.001
	Pasture Hay	723,913	67,089	9.3	117,580	16.2	50,491	75.3	0.438	<0.001
	Shrub Scrub	32,875	10,637	32.4	12,011	36.5	1,374	12.9	0.256	0.002
	Woody Wetlands	490,033	333,579	68.1	373,456	76.2	39,877	12.0	0.476	<0.001
	Cultivated Crops	536,241	10,135	1.9	16,258	3.0	6,123	60.4	0.011	0.651

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Erie Drift Plain	Deciduous Forest	1,012,865	659,051	65.1	813,306	80.3	154,255	23.4	0.765	<0.001
	Developed	549,566	43,452	7.9	55,820	10.2	12,369	28.5	0.105	0.009
	Emergent Herbaceous Wetlands	16,640	3,624	21.8	4,406	26.5	783	21.6	0.212	0.075
	Evergreen Forest	28,810	23,220	80.6	25,357	88.0	2,137	9.2	0.442	<0.001
	Grassland Herbaceous	15,903	3,909	24.6	3,253	20.5	-656	-17.0	0.016	0.88
	Mixed Forest	138,486	77,457	55.9	96,121	69.4	18,664	24.1	0.693	<0.001
	Pasture Hay	594,943	27,048	4.5	59,155	9.9	32,107	119.0	0.234	<0.001
	Shrub Scrub	8,666	3,678	42.4	2,625	30.3	-1,053	-29.0	-0.895	0.017
	Woody Wetlands	146,619	96,931	66.1	112,405	76.7	15,474	16.0	0.532	0.005
	Cultivated Crops	1,887,093	26,762	1.4	25,745	1.4	-1,017	-4.0	-0.004	0.487
	Deciduous Forest	254,440	123,673	48.6	176,328	69.3	52,654	42.6	0.953	<0.001
	Developed	577,356	20,601	3.6	20,736	3.6	135	0.7	-0.001	1
	Emergent Herbaceous Wetlands	37,423	5,907	15.8	5,731	15.3	-176	-3.0	-0.087	0.05
	Evergreen Forest	7,944	4,101	51.6	5,988	75.4	1,887	46.0	1.200	<0.001
	Grassland Herbaceous	15,273	1,908	12.5	2,644	17.3	736	38.6	0.294	<0.001

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Huron/Erie Lake Plains	Mixed Forest	23,372	9,298	39.8	14,272	61.1	4,974	53.5	1.100	<0.001
	Pasture Hay	66,995	4,383	6.5	6,704	10.0	2,322	53.0	0.163	<0.001
	Shrub Scrub	2,384	685	28.7	772	32.4	87	12.7	-0.033	0.74
	Woody Wetlands	251,144	151,975	60.5	171,492	68.3	19,517	12.8	0.387	0.003
	Cultivated Crops	1,205,593	28,120	2.3	21,492	1.8	-6,628	-24.0	-0.024	0.097
	Deciduous Forest	4,700,376	3,348,157	71.2	3,879,711	82.5	531,555	15.9	0.777	<0.001
	Developed	1,257,617	142,895	11.4	141,461	11.2	-1,434	-1.0	0.048	0.349
	Emergent Herbaceous Wetlands	20,978	7,198	34.3	5,079	24.2	-2,118	-29.0	-0.397	0.002
	Evergreen Forest	295,373	202,511	68.6	261,991	88.7	59,479	29.4	1.100	<0.001
Interior Plateau	Grassland Herbaceous	101,262	38,805	38.3	23,620	23.3	-15,185	-39.0	-0.183	0.415
	Mixed Forest	808,647	444,821	55.0	599,706	74.2	154,884	34.8	1.100	<0.001
	Pasture Hay	3,448,924	196,443	5.7	292,586	8.5	96,143	48.9	0.217	0.002
	Shrub Scrub	78,621	41,910	53.3	25,103	31.9	-16,807	-40.0	-1.000	<0.001
	Woody Wetlands	146,882	98,095	66.8	111,158	75.7	13,064	13.3	0.696	0.002
	Cultivated Crops	5,549,503	74,890	1.3	64,713	1.2	-10,177	-14.0	-0.001	0.976
	Deciduous Forest	2,760,481	1,716,912	62.2	2,058,269	74.6	341,357	19.9	0.719	<0.001
	Developed	1,052,421	83,910	8.0	65,568	6.2	-18,342	-22.0	-0.059	0.02

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Interior River Valleys and Hills	Emergent Herbaceous Wetlands	91,582	17,786	19.4	20,260	22.1	2,473	13.9	0.060	0.74
	Evergreen Forest	25,610	17,656	68.9	21,040	82.2	3,384	19.2	0.920	<0.001
	Grassland Herbaceous	61,403	10,922	17.8	8,789	14.3	-2,134	-20.0	-0.053	0.487
	Mixed Forest	314,828	136,936	43.5	181,992	57.8	45,055	32.9	0.908	<0.001
	Pasture Hay	1,419,293	85,924	6.1	132,187	9.3	46,262	53.8	0.148	0.004
	Shrub Scrub	27,256	12,224	44.8	5,258	19.3	-6,966	-57.0	-2.000	<0.001
	Woody Wetlands	397,535	241,289	60.7	247,716	62.3	6,427	2.7	0.218	0.216
	Cultivated Crops	1,691,144	48,578	2.9	100,281	5.9	51,703	106.0	0.137	0.003
	Deciduous Forest	104,326	62,220	59.6	83,814	80.3	21,594	34.7	0.943	<0.001
	Developed	836,960	93,218	11.1	99,787	11.9	6,569	7.0	0.023	0.319
	Emergent Herbaceous Wetlands	392,875	107,363	27.3	82,139	20.9	-25,224	-23.0	-0.028	0.786
	Evergreen Forest	1,337,009	912,415	68.2	1,156,881	86.5	244,466	26.8	0.987	<0.001
	Grassland Herbaceous	160,500	98,835	61.6	72,216	45.0	-26,619	-27.0	0.571	0.012
	Mixed Forest	183,113	110,340	60.3	149,571	81.7	39,231	35.6	1.300	<0.001
	Pasture Hay	49,924	5,928	11.9	10,425	20.9	4,497	75.9	0.397	<0.001

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Middle Atlantic Coastal Plain		Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
Ecoregion	NLCD Land Cover Type	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Mississippi Alluvial Plain	Shrub Scrub	230,657	134,719	58.4	99,494	43.1	-35,225	-26.0	-0.328	0.45
	Woody Wetlands	2,590,079	1,925,860	74.4	2,142,246	82.7	216,386	11.2	0.516	<0.001
	Cultivated Crops	6,096,065	93,592	1.5	334,930	5.5	241,338	258.0	0.166	<0.001
	Deciduous Forest	55,192	35,028	63.5	43,038	78.0	8,010	22.9	0.686	<0.001
	Developed	589,381	34,597	5.9	30,104	5.1	-4,493	-13.0	-0.080	0.012
	Emergent Herbaceous Wetlands	920,035	160,997	17.5	135,880	14.8	-25,117	-16.0	-0.136	0.012
	Evergreen Forest	29,317	18,461	63.0	24,357	83.1	5,896	31.9	0.921	<0.001
	Grassland Herbaceous	18,266	4,389	24.0	4,089	22.4	-300	-7.0	0.225	0.065
	Mixed Forest	39,746	23,825	59.9	31,238	78.6	7,413	31.1	0.848	<0.001
	Pasture Hay	184,656	15,645	8.5	32,615	17.7	16,970	108.0	0.338	<0.001
	Shrub Scrub	7,915	3,304	41.7	2,865	36.2	-439	-13.0	-0.484	0.032
	Woody Wetlands	2,590,312	1,722,655	66.5	1,773,863	68.5	51,207	3.0	0.140	0.11
	Cultivated Crops	975,849	22,041	2.3	29,996	3.1	7,955	36.1	0.040	0.075
	Deciduous Forest	958,199	643,990	67.2	790,105	82.5	146,115	22.7	0.721	<0.001
	Developed	528,580	64,811	12.3	64,405	12.2	-406	-0.6	-0.064	0.349
	Emergent Herbaceous Wetlands	26,500	11,128	42.0	9,603	36.2	-1,525	-14.0	-0.369	0.009

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Mississippi Valley Loess Plains	Evergreen Forest	587,773	371,042	63.1	499,922	85.1	128,880	34.7	0.880	<0.001
	Grassland Herbaceous	65,555	39,056	59.6	23,573	36.0	-15,484	-40.0	0.025	0.928
	Mixed Forest	597,779	383,716	64.2	504,723	84.4	121,007	31.5	0.865	<0.001
	Pasture Hay	766,799	63,807	8.3	142,318	18.6	78,511	123.0	0.453	<0.001
	Shrub Scrub	110,706	64,795	58.5	41,935	37.9	-22,859	-35.0	-1.000	<0.001
	Woody Wetlands	491,377	333,449	67.9	379,743	77.3	46,294	13.9	0.546	<0.001
	Cultivated Crops	3,084,913	94,624	3.1	111,323	3.6	16,699	17.6	0.035	0.065
	Deciduous Forest	1,506,344	980,738	65.1	1,153,586	76.6	172,848	17.6	0.827	<0.001
	Developed	823,343	67,423	8.2	71,908	8.7	4,485	6.7	0.021	0.526
	Emergent Herbaceous Wetlands	638,254	78,972	12.4	103,113	16.2	24,140	30.6	0.173	0.027
North Central Hardwood Forests	Evergreen Forest	155,709	91,899	59.0	123,892	79.6	31,993	34.8	1.200	<0.001
	Grassland Herbaceous	126,898	24,343	19.2	29,277	23.1	4,934	20.3	0.356	0.027
	Mixed Forest	319,003	189,893	59.5	247,655	77.6	57,762	30.4	1.200	<0.001
	Pasture Hay	794,356	48,834	6.1	86,150	10.8	37,316	76.4	0.224	<0.001
	Shrub Scrub	36,673	16,269	44.4	15,162	41.3	-1,107	-7.0	-0.307	0.037
	Woody Wetlands	980,805	584,843	59.6	663,416	67.6	78,574	13.4	0.645	0.001
	Cultivated Crops	64,371	4,057	6.3	5,524	8.6	1,467	36.1	0.152	<0.001

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northeastern Coastal Zone	Deciduous Forest	1,012,944	806,397	79.6	815,173	80.5	8,776	1.1	0.319	0.057
	Developed	1,328,568	241,750	18.2	185,360	14.0	-56,389	-23.0	-0.110	0.156
	Emergent Herbaceous Wetlands	59,184	10,585	17.9	8,340	14.1	-2,245	-21.0	-0.132	0.139
	Evergreen Forest	256,951	210,043	81.7	215,979	84.1	5,937	2.8	0.400	0.002
	Grassland Herbaceous	44,381	18,020	40.6	8,917	20.1	-9,103	-51.0	-0.533	0.003
	Mixed Forest	576,060	437,455	75.9	443,477	77.0	6,021	1.4	0.429	0.002
	Pasture Hay	217,328	21,824	10.0	26,949	12.4	5,125	23.5	0.209	<0.001
	Shrub Scrub	27,006	16,014	59.3	8,866	32.8	-7,148	-45.0	-1.000	<0.001
	Woody Wetlands	457,033	344,399	75.4	341,375	74.7	-3,024	-0.9	0.320	0.02
	Cultivated Crops	320,023	13,300	4.2	17,649	5.5	4,349	32.7	0.029	0.45
	Deciduous Forest	1,810,786	1,387,469	76.6	1,549,757	85.6	162,288	11.7	0.586	<0.001
	Developed	345,660	57,915	16.8	72,987	21.1	15,072	26.0	0.320	<0.001
	Emergent Herbaceous Wetlands	25,866	5,183	20.0	6,223	24.1	1,040	20.1	0.255	0.004
	Evergreen Forest	198,717	162,653	81.9	177,946	89.5	15,292	9.4	0.448	<0.001
	Grassland Herbaceous	18,228	6,558	36.0	5,216	28.6	-1,342	-20.0	-0.057	0.526

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northern Allegheny Plateau	Mixed Forest	777,119	610,872	78.6	679,800	87.5	68,928	11.3	0.500	<0.001
	Pasture Hay	916,654	73,271	8.0	141,126	15.4	67,855	92.6	0.436	<0.001
	Shrub Scrub	25,384	9,799	38.6	10,438	41.1	639	6.5	0.162	0.032
	Woody Wetlands	140,031	90,237	64.4	102,267	73.0	12,030	13.3	0.550	<0.001
	Cultivated Crops	417,879	11,300	2.7	13,333	3.2	2,033	18.0	0.022	0.085
	Deciduous Forest	747,057	524,276	70.2	612,133	81.9	87,857	16.8	0.606	<0.001
	Developed	968,412	104,449	10.8	90,287	9.3	-14,162	-14.0	-0.076	0.097
	Emergent Herbaceous Wetlands	6,764	1,292	19.1	1,107	16.4	-185	-14.0	-0.169	0.065
	Evergreen Forest	24,292	14,356	59.1	19,760	81.3	5,404	37.6	1.200	<0.001
	Grassland Herbaceous	14,812	6,385	43.1	3,615	24.4	-2,770	-43.0	-0.474	0.001
Northern Piedmont	Mixed Forest	189,407	92,077	48.6	128,397	67.8	36,320	39.4	1.100	<0.001
	Pasture Hay	605,936	38,315	6.3	61,262	10.1	22,947	59.9	0.199	<0.001
	Shrub Scrub	21,956	7,427	33.8	6,886	31.4	-541	-7.0	-0.191	0.097
	Woody Wetlands	85,854	52,515	61.2	60,155	70.1	7,640	14.5	0.545	0.002
	Cultivated Crops	649	17	2.6	32	4.9	15	90.7	0.048	0.037
	Deciduous Forest	582,600	415,518	71.3	486,251	83.5	70,733	17.0	0.537	<0.001
	Developed	149,908	48,516	32.4	51,264	34.2	2,747	5.7	-0.108	0.487

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ouachita Mountains	Emergent Herbaceous Wetlands	1,963	659	33.6	425	21.6	-234	-36.0	-0.469	0.002
	Evergreen Forest	859,101	626,947	73.0	755,635	88.0	128,689	20.5	0.763	<0.001
	Grassland Herbaceous	125,405	75,612	60.3	48,940	39.0	-26,672	-35.0	0.048	0.88
	Mixed Forest	524,916	376,616	71.7	463,304	88.3	86,688	23.0	0.785	<0.001
	Pasture Hay	227,360	25,820	11.4	35,880	15.8	10,060	39.0	0.141	0.085
	Shrub Scrub	140,885	96,170	68.3	63,306	44.9	-32,864	-34.0	-2.000	0.006
	Woody Wetlands	13,716	10,037	73.2	9,823	71.6	-214	-2.0	-0.043	0.651
	Cultivated Crops	172,581	3,771	2.2	2,688	1.6	-1,082	-29.0	-0.052	<0.001
	Deciduous Forest	5,302,883	3,996,774	75.4	4,460,279	84.1	463,505	11.6	0.444	0.001
	Developed	704,721	146,878	20.8	146,950	20.9	72	0.0	-0.081	0.291
	Emergent Herbaceous Wetlands	11,840	2,789	23.6	2,350	19.8	-440	-16.0	-0.078	0.381
	Evergreen Forest	227,481	171,669	75.5	200,997	88.4	29,328	17.1	0.696	<0.001
	Grassland Herbaceous	111,475	64,869	58.2	37,375	33.5	-27,494	-42.0	-0.801	<0.001
	Mixed Forest	566,648	377,205	66.6	447,152	78.9	69,947	18.5	0.673	<0.001
	Pasture Hay	3,180,428	259,263	8.2	316,591	10.0	57,327	22.1	0.094	0.075

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ozark Highlands		Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
Ecoregion	NLCD Land Cover Type	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Piedmont	Shrub Scrub	114,828	75,039	65.3	35,383	30.8	-39,655	-53.0	-2.000	<0.001
	Woody Wetlands	41,396	22,365	54.0	21,531	52.0	-834	-4.0	-0.017	0.928
	Cultivated Crops	342,135	17,485	5.1	16,374	4.8	-1,111	-6.0	-0.033	0.239
	Deciduous Forest	4,012,573	2,906,789	72.4	3,462,343	86.3	555,554	19.1	0.794	<0.001
	Developed	2,508,878	433,907	17.3	493,726	19.7	59,819	13.8	0.125	0.02
	Emergent Herbaceous Wetlands	22,269	10,487	47.1	8,131	36.5	-2,356	-22.0	-0.431	<0.001
	Evergreen Forest	3,231,981	2,163,974	67.0	2,847,897	88.1	683,923	31.6	1.100	<0.001
	Grassland Herbaceous	685,254	437,658	63.9	278,169	40.6	-159,489	-36.0	0.141	0.566
	Mixed Forest	2,084,086	1,369,775	65.7	1,799,006	86.3	429,231	31.3	1.200	<0.001
	Pasture Hay	2,343,696	168,626	7.2	326,666	13.9	158,041	93.7	0.329	<0.001
	Shrub Scrub	565,117	398,220	70.5	278,274	49.2	-119,945	-30.0	-1.000	0.001
	Woody Wetlands	399,400	317,268	79.4	345,546	86.5	28,279	8.9	0.532	<0.001
	Cultivated Crops	682,458	19,225	2.8	21,865	3.2	2,639	13.7	0.011	0.566
	Deciduous Forest	4,982,797	3,765,777	75.6	4,387,881	88.1	622,104	16.5	0.655	<0.001
	Developed	1,529,264	230,748	15.1	256,272	16.8	25,524	11.1	0.111	0.014
	Emergent Herbaceous Wetlands	20,638	5,209	25.2	5,421	26.3	212	4.1	0.047	0.319

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ridge and Valley	Evergreen Forest	505,763	339,910	67.2	438,031	86.6	98,121	28.9	1.200	<0.001
	Grassland Herbaceous	185,555	95,515	51.5	61,842	33.3	-33,673	-35.0	-0.238	0.174
	Mixed Forest	1,134,927	772,938	68.1	960,295	84.6	187,357	24.2	0.949	<0.001
	Pasture Hay	2,183,050	147,867	6.8	229,572	10.5	81,705	55.3	0.197	0.001
	Shrub Scrub	120,040	78,679	65.5	60,491	50.4	-18,187	-23.0	-1.000	<0.001
	Woody Wetlands	104,923	63,473	60.5	77,316	73.7	13,843	21.8	0.639	<0.001
	Cultivated Crops	280,793	9,132	3.3	15,948	5.7	6,816	74.6	0.028	0.174
	Deciduous Forest	570,933	377,233	66.1	444,322	77.8	67,088	17.8	0.271	0.057
	Developed	1,126,119	263,677	23.4	246,072	21.9	-17,606	-7.0	-0.316	0.002
	Emergent Herbaceous Wetlands	155,236	79,624	51.3	55,510	35.8	-24,114	-30.0	-0.953	<0.001
South Central Plains	Evergreen Forest	5,429,689	3,941,104	72.6	4,529,979	83.4	588,875	14.9	0.413	<0.001
	Grassland Herbaceous	760,169	469,016	61.7	282,730	37.2	-186,286	-40.0	-0.700	<0.001
	Mixed Forest	1,072,311	710,872	66.3	876,555	81.7	165,683	23.3	0.430	0.001
	Pasture Hay	1,970,900	173,287	8.8	262,904	13.3	89,617	51.7	0.094	0.139
	Shrub Scrub	768,234	495,882	64.5	311,622	40.6	-184,260	-37.0	-2.000	<0.001
	Woody Wetlands	2,658,403	2,046,292	77.0	2,210,343	83.1	164,051	8.0	0.257	0.002
	Cultivated Crops	4,155,203	158,097	3.8	302,390	7.3	144,293	91.3	0.131	<0.001

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southeastern Plains	Deciduous Forest	2,191,474	1,506,863	68.8	1,856,762	84.7	349,900	23.2	0.715	<0.001
	Developed	2,657,365	344,756	13.0	436,313	16.4	91,557	26.6	0.115	0.027
	Emergent Herbaceous Wetlands	349,255	174,821	50.1	136,205	39.0	-38,616	-22.0	-0.231	0.291
	Evergreen Forest	8,455,742	5,400,330	63.9	7,004,794	82.8	1,604,464	29.7	0.930	<0.001
	Grassland Herbaceous	1,398,421	770,685	55.1	542,651	38.8	-228,034	-30.0	0.218	0.349
	Mixed Forest	3,123,287	2,125,821	68.1	2,702,230	86.5	576,409	27.1	0.820	<0.001
	Pasture Hay	2,679,978	215,332	8.0	454,682	17.0	239,350	111.0	0.401	<0.001
	Shrub Scrub	1,585,534	925,397	58.4	640,500	40.4	-284,897	-31.0	-1.000	0.002
	Woody Wetlands	5,748,974	4,124,686	71.7	4,786,099	83.3	661,413	16.0	0.628	<0.001
	Cultivated Crops	1,505,632	46,447	3.1	34,854	2.3	-11,594	-25.0	0.039	0.043
	Deciduous Forest	207,963	125,186	60.2	138,762	66.7	13,577	10.8	0.970	0.001
	Developed	542,750	36,700	6.8	22,111	4.1	-14,589	-40.0	-0.082	0.006
	Emergent Herbaceous Wetlands	191,291	21,462	11.2	22,867	12.0	1,406	6.5	0.151	0.007
	Evergreen Forest	11,789	6,526	55.4	9,077	77.0	2,551	39.1	1.700	<0.001
	Grassland Herbaceous	12,754	1,570	12.3	1,364	10.7	-205	-13.0	0.080	0.174

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southeastern Wisconsin Till Plains	Mixed Forest	34,566	18,820	54.4	22,730	65.8	3,910	20.8	1.300	<0.001
	Pasture Hay	260,098	18,937	7.3	23,755	9.1	4,818	25.4	0.178	0.005
	Shrub Scrub	3,825	788	20.6	782	20.4	-6	-0.8	0.199	0.057
	Woody Wetlands	216,053	120,354	55.7	111,826	51.8	-8,528	-7.0	0.265	0.216
	Cultivated Crops	590,969	64,885	11.0	51,774	8.8	-13,111	-20.0	-0.271	<0.001
	Deciduous Forest	23,914	11,586	48.4	11,901	49.8	316	2.7	0.020	0.928
	Developed	2,194,595	339,400	15.5	306,155	14.0	-33,245	-10.0	-0.146	0.001
	Emergent Herbaceous Wetlands	1,026,263	210,934	20.6	190,247	18.5	-20,687	-10.0	-0.065	0.065
	Evergreen Forest	2,796,833	1,810,827	64.7	2,122,960	75.9	312,133	17.2	0.518	<0.001
Southern Coastal Plain	Grassland Herbaceous	377,042	169,197	44.9	133,296	35.4	-35,901	-21.0	0.248	0.174
	Mixed Forest	79,694	44,373	55.7	52,838	66.3	8,465	19.1	0.434	<0.001
	Pasture Hay	1,528,679	127,197	8.3	169,351	11.1	42,153	33.1	0.047	0.415
	Shrub Scrub	558,116	281,384	50.4	202,413	36.3	-78,971	-28.0	-0.917	<0.001
	Woody Wetlands	4,312,472	2,890,334	67.0	3,128,871	72.6	238,537	8.3	0.315	0.001
	Cultivated Crops	2,380,468	83,790	3.5	86,089	3.6	2,300	2.7	0.034	0.043
	Deciduous Forest	734,731	490,398	66.7	569,429	77.5	79,032	16.1	0.718	0.001
	Developed	857,357	74,117	8.6	77,639	9.1	3,522	4.8	0.083	0.014

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southern Michigan/Northern Indiana Drift Plains	Emergent Herbaceous Wetlands	54,597	9,596	17.6	8,173	15.0	-1,423	-15.0	-0.100	0.097
	Evergreen Forest	39,997	24,924	62.3	31,201	78.0	6,277	25.2	1.200	<0.001
	Grassland Herbaceous	43,844	8,151	18.6	10,663	24.3	2,512	30.8	0.516	0.009
	Mixed Forest	78,005	43,285	55.5	54,517	69.9	11,232	25.9	1.000	<0.001
	Pasture Hay	268,627	19,981	7.4	34,959	13.0	14,978	75.0	0.285	<0.001
	Shrub Scrub	8,062	3,096	38.4	2,892	35.9	-204	-7.0	-0.040	0.786
	Woody Wetlands	720,210	440,868	61.2	460,306	63.9	19,438	4.4	0.213	0.11
	Cultivated Crops	42,294	1,724	4.1	1,448	3.4	-277	-16.0	0.003	0.928
	Deciduous Forest	1,744,955	1,441,100	82.6	1,565,928	89.7	124,828	8.7	0.542	<0.001
	Developed	284,503	57,948	20.4	67,325	23.7	9,377	16.2	0.226	0.003
	Emergent Herbaceous Wetlands	4,248	1,342	31.6	1,105	26.0	-238	-18.0	-0.030	0.74
	Evergreen Forest	377,254	247,402	65.6	325,997	86.4	78,595	31.8	1.300	<0.001
	Grassland Herbaceous	95,420	54,121	56.7	32,212	33.8	-21,909	-40.0	-0.250	0.065
	Mixed Forest	496,022	371,402	74.9	433,636	87.4	62,234	16.8	0.827	<0.001
	Pasture Hay	566,470	46,873	8.3	66,411	11.7	19,538	41.7	0.237	0.003

Table 1: Table S1. Table showing the contribution of each land use type to changes in woody cover across Level III ecoregions of the eastern United States.

Southwestern Appalachians		Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
Ecoregion	NLCD Land Cover Type	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Western Allegheny Plateau	Shrub Scrub	84,275	55,922	66.4	38,547	45.7	-17,376	-31.0	-1.000	<0.001
	Woody Wetlands	28,995	21,032	72.5	23,259	80.2	2,228	10.6	0.622	<0.001
	Cultivated Crops	249,353	6,688	2.7	10,809	4.3	4,121	61.6	0.004	0.88
	Deciduous Forest	4,943,417	3,742,207	75.7	4,333,098	87.7	590,891	15.8	0.735	<0.001
	Developed	868,527	136,567	15.7	178,364	20.5	41,797	30.6	0.232	<0.001
	Emergent Herbaceous Wetlands	7,608	1,652	21.7	1,882	24.7	230	13.9	0.153	0.085
	Evergreen Forest	60,915	42,088	69.1	53,296	87.5	11,208	26.6	1.100	<0.001
	Grassland Herbaceous	77,059	30,355	39.4	20,963	27.2	-9,392	-31.0	-0.100	0.264
	Mixed Forest	607,996	345,743	56.9	450,395	74.1	104,652	30.3	1.100	<0.001
	Pasture Hay	1,144,834	68,061	5.9	143,221	12.5	75,160	110.0	0.282	<0.001
	Shrub Scrub	63,804	39,082	61.3	24,745	38.8	-14,337	-37.0	-1.000	<0.001
	Woody Wetlands	21,110	12,019	56.9	14,226	67.4	2,206	18.4	0.721	<0.001

Table 2: Table S2. Table showing the contribution of infilling to changes in woody cover across the eastern United States.

NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Deciduous to Deciduous	34,509,030	25,682,239	74.4	29,182,432	84.6	3,500,193	13.6	0.606	<0.001
Deciduous to Evergreen	689,444	523,913	76.0	602,933	87.5	79,021	15.1	0.582	0.037
Deciduous to Mixed	246,339	177,129	71.9	201,097	81.6	23,968	13.5	0.474	0.057
Evergreen to Deciduous	152,611	119,736	78.5	127,761	83.7	8,025	6.7	-0.242	0.651
Evergreen to Evergreen	13,373,102	10,149,678	75.9	11,196,374	83.7	1,046,696	10.3	0.495	0.001
Evergreen to Mixed	256,701	195,170	76.0	216,848	84.5	21,678	11.1	0.103	0.526
Mixed to Deciduous	870,805	547,239	62.8	662,567	76.1	115,327	21.1	0.785	<0.001
Mixed to Evergreen	348,103	270,629	77.7	299,593	86.1	28,963	10.7	0.886	0.05
Mixed to Mixed	10,727,137	7,459,915	69.5	8,896,921	82.9	1,437,007	19.3	0.767	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Acadian Plains and Hills	Deciduous to Deciduous	387,276	308,355	79.6	334,043	86.3	25,688	8.3	0.713	0.001
	Deciduous to Evergreen	5,433	4,126	75.9	4,674	86.0	548	13.3	1.200	<0.001
	Deciduous to Mixed	15,801	12,765	80.8	13,507	85.5	741	5.8	0.915	0.003
	Evergreen to Deciduous	228	188	82.3	184	80.8	-4	-2.0	0.245	0.651
	Evergreen to Evergreen	584,873	480,680	82.2	522,619	89.4	41,938	8.7	0.502	<0.001
	Evergreen to Mixed	14,430	12,177	84.4	11,639	80.7	-538	-4.0	0.101	0.928
	Mixed to Deciduous	4,954	4,002	80.8	4,196	84.7	194	4.9	0.912	0.05
	Mixed to Evergreen	8,728	7,400	84.8	7,484	85.7	84	1.1	1.300	0.024
	Mixed to Mixed	1,000,073	824,916	82.5	885,389	88.5	60,474	7.3	0.544	<0.001
	Deciduous to Deciduous	256,821	174,016	67.8	198,613	77.3	24,598	14.1	0.403	0.017
	Deciduous to Evergreen	2,931	2,135	72.8	2,538	86.6	403	18.9	1.000	0.012
	Deciduous to Mixed	866	585	67.6	677	78.2	92	15.8	0.517	0.075

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Arkansas Valley	Evergreen to Deciduous	2,735	2,052	75.0	2,270	83.0	218	10.6	-0.016	0.74
	Evergreen to Evergreen	62,885	46,008	73.2	54,339	86.4	8,332	18.1	0.460	0.001
	Evergreen to Mixed	2,536	1,843	72.7	2,175	85.8	332	18.0	0.413	0.007
	Mixed to Deciduous	1,950	1,384	71.0	1,509	77.4	125	9.0	0.184	0.124
	Mixed to Evergreen	937	732	78.1	830	88.6	98	13.4	0.492	0.349
	Mixed to Mixed	54,951	39,002	71.0	46,892	85.3	7,891	20.2	0.608	<0.001
	Deciduous to Deciduous	122,850	74,235	60.4	93,107	75.8	18,872	25.4	1.000	<0.001
	Deciduous to Evergreen	1,138	539	47.4	790	69.5	251	46.7	1.400	<0.001
	Deciduous to Mixed	1,829	876	47.9	1,296	70.8	420	47.9	1.400	<0.001
	Evergreen to Deciduous	95	43	45.4	61	63.7	18	40.5	1.200	<0.001
	Evergreen to Evergreen	96,434	51,936	53.9	77,248	80.1	25,312	48.7	1.500	<0.001
	Evergreen to Mixed	578	292	50.6	407	70.5	115	39.2	0.992	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Atlantic Coastal Pine Barrens	Mixed to Deciduous	718	359	50.0	457	63.7	98	27.3	1.000	<0.001
	Mixed to Evergreen	338	153	45.5	214	63.4	60	39.4	1.300	<0.001
	Mixed to Mixed	95,771	54,118	56.5	74,825	78.1	20,707	38.3	1.500	<0.001
	Deciduous to Deciduous	1,605,249	1,358,938	84.7	1,456,281	90.7	97,344	7.2	0.362	<0.001
	Deciduous to Evergreen	7,714	6,181	80.1	6,734	87.3	553	8.9	0.503	0.05
	Deciduous to Mixed	9,107	6,887	75.6	7,562	83.0	675	9.8	0.528	0.002
	Evergreen to Deciduous	3,227	2,573	79.7	2,647	82.0	74	2.9	0.486	0.139
	Evergreen to Evergreen	129,951	103,840	79.9	113,636	87.4	9,796	9.4	0.653	<0.001
	Evergreen to Mixed	5,363	4,251	79.3	4,611	86.0	360	8.5	0.469	<0.001
	Mixed to Deciduous	16,404	12,531	76.4	14,267	87.0	1,737	13.9	0.554	<0.001
Blue Ridge	Mixed to Evergreen	1,397	1,047	74.9	1,208	86.4	161	15.4	1.200	<0.001
	Mixed to Mixed	725,542	599,016	82.6	657,734	90.7	58,718	9.8	0.526	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Boston Mountains	Deciduous to Deciduous	882,114	731,364	82.9	793,551	90.0	62,187	8.5	0.363	0.001
	Deciduous to Evergreen	4,051	3,194	78.8	3,661	90.4	467	14.6	1.400	0.002
	Deciduous to Mixed	1,002	695	69.4	822	82.0	127	18.2	0.609	0.174
	Evergreen to Deciduous	2,341	1,891	80.8	1,978	84.5	87	4.6	-0.032	0.833
	Evergreen to Evergreen	72,262	60,130	83.2	64,204	88.8	4,074	6.8	0.411	<0.001
	Evergreen to Mixed	2,335	1,894	81.1	2,012	86.2	119	6.3	0.388	0.043
	Mixed to Deciduous	2,094	1,557	74.3	1,580	75.5	24	1.5	0.113	0.381
	Mixed to Evergreen	1,019	856	84.0	936	91.8	79	9.3	1.100	0.032
	Mixed to Mixed	76,170	58,464	76.8	66,515	87.3	8,051	13.8	0.614	<0.001
	Deciduous to Deciduous	2,948,370	2,402,531	81.5	2,663,254	90.3	260,723	10.9	0.506	<0.001
	Deciduous to Evergreen	8,079	6,724	83.2	6,293	77.9	-431	-6.0	-1.000	0.012
	Deciduous to Mixed	8,180	6,109	74.7	5,894	72.1	-215	-4.0	0.020	0.976

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Central Appalachians	Evergreen to Deciduous	4,955	3,968	80.1	4,259	85.9	291	7.3	0.651	<0.001
	Evergreen to Evergreen	80,888	63,852	78.9	70,598	87.3	6,746	10.6	0.677	<0.001
	Evergreen to Mixed	5,467	4,385	80.2	4,792	87.7	407	9.3	0.660	<0.001
	Mixed to Deciduous	22,324	16,504	73.9	19,121	85.7	2,618	15.9	0.724	<0.001
	Mixed to Evergreen	326	234	71.7	256	78.6	23	9.7	0.376	0.05
	Mixed to Mixed	318,849	240,632	75.5	274,244	86.0	33,612	14.0	0.686	<0.001
	Deciduous to Deciduous	219,098	121,334	55.4	147,682	67.4	26,348	21.7	0.805	<0.001
	Deciduous to Evergreen	146	62	42.8	100	68.8	38	61.0	1.900	<0.001
	Deciduous to Mixed	137	43	31.7	46	33.4	2	5.5	0.170	0.139
	Evergreen to Deciduous	47	24	50.6	28	60.6	5	19.8	0.846	<0.001
	Evergreen to Evergreen	2,227	1,302	58.5	1,706	76.6	404	31.0	1.400	<0.001
	Evergreen to Mixed	88	40	44.7	55	61.9	15	38.4	1.200	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Central Corn Belt Plains	Mixed to Deciduous	47,959	24,620	51.3	33,076	69.0	8,455	34.3	0.967	<0.001
	Mixed to Evergreen	10	4	36.0	5	46.2	1	28.2	0.734	<0.001
	Mixed to Mixed	42,172	16,727	39.7	22,055	52.3	5,329	31.9	0.850	<0.001
	Deciduous to Deciduous	759,556	535,528	70.5	611,618	80.5	76,090	14.2	0.707	<0.001
	Deciduous to Evergreen	172	108	62.5	134	77.7	26	24.2	0.717	<0.001
	Deciduous to Mixed	234	114	48.8	138	58.9	24	20.7	0.760	<0.001
	Evergreen to Deciduous	245	172	70.0	184	75.1	12	7.2	0.624	0.002
	Evergreen to Evergreen	12,858	8,360	65.0	10,447	81.3	2,087	25.0	0.904	<0.001
	Evergreen to Mixed	738	484	65.5	572	77.6	89	18.3	0.970	<0.001
	Mixed to Deciduous	14,773	8,862	60.0	10,561	71.5	1,700	19.2	0.873	<0.001
Driftless Area	Mixed to Evergreen	39	20	51.8	25	64.9	5	25.3	0.753	<0.001
	Mixed to Mixed	68,757	36,412	53.0	45,972	66.9	9,561	26.3	0.938	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
East Central Texas Plains	Deciduous to Deciduous	370,696	221,950	59.9	243,991	65.8	22,041	9.9	-0.130	0.291
	Deciduous to Evergreen	11,489	6,739	58.7	7,619	66.3	880	13.1	-0.146	0.319
	Deciduous to Mixed	2,999	1,806	60.2	1,797	59.9	-10	-0.5	-0.560	0.037
	Evergreen to Deciduous	377	221	58.7	177	47.0	-44	-20.0	-1.000	0.001
	Evergreen to Evergreen	74,764	49,771	66.6	51,854	69.4	2,083	4.2	-0.554	0.005
	Evergreen to Mixed	1,231	758	61.6	792	64.3	33	4.4	-0.377	0.124
	Mixed to Deciduous	4,038	2,401	59.5	2,438	60.4	37	1.5	-0.350	0.043
	Mixed to Evergreen	1,021	668	65.5	575	56.4	-93	-14.0	-1.000	0.014
	Mixed to Mixed	252,045	155,453	61.7	183,758	72.9	28,305	18.2	0.030	0.88
	Deciduous to Deciduous	741,911	444,292	59.9	501,946	67.7	57,654	13.0	0.857	<0.001
	Deciduous to Evergreen	324	149	46.0	200	61.8	51	34.2	1.300	<0.001
	Deciduous to Mixed	422	140	33.2	129	30.6	-11	-8.0	0.083	0.566

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Eastern Corn Belt Plains	Evergreen to Deciduous	252	147	58.3	155	61.4	8	5.4	0.197	0.566
	Evergreen to Evergreen	6,214	3,419	55.0	4,436	71.4	1,017	29.7	1.200	<0.001
	Evergreen to Mixed	304	169	55.5	200	65.9	32	18.8	0.945	<0.001
	Mixed to Deciduous	20,194	12,586	62.3	14,786	73.2	2,200	17.5	1.000	<0.001
	Mixed to Evergreen	17	5	29.9	7	40.2	2	34.6	0.685	<0.001
	Mixed to Mixed	66,731	26,414	39.6	33,721	50.5	7,307	27.7	0.917	<0.001
	Deciduous to Deciduous	634,705	462,464	72.9	525,263	82.8	62,799	13.6	0.620	<0.001
	Deciduous to Evergreen	7,743	5,841	75.4	6,865	88.7	1,023	17.5	0.741	<0.001
	Deciduous to Mixed	1,337	887	66.4	999	74.7	111	12.5	1.000	<0.001
	Evergreen to Deciduous	667	511	76.5	546	81.7	35	6.8	0.407	0.174
	Evergreen to Evergreen	126,683	103,785	81.9	114,023	90.0	10,237	9.9	0.495	<0.001
	Evergreen to Mixed	2,238	1,738	77.7	1,959	87.5	220	12.7	0.575	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Eastern Great Lakes Lowlands	Mixed to Deciduous	1,205	627	52.0	764	63.4	137	21.9	0.729	<0.001
	Mixed to Evergreen	214	141	65.7	163	76.3	22	16.0	0.675	0.001
	Mixed to Mixed	122,728	85,055	69.3	99,456	81.0	14,401	16.9	0.670	<0.001
	Deciduous to Deciduous	723,528	469,891	64.9	585,864	81.0	115,973	24.7	0.796	<0.001
	Deciduous to Evergreen	570	428	75.1	454	79.7	26	6.1	-0.024	0.976
	Deciduous to Mixed	403	167	41.4	191	47.5	25	14.8	0.247	0.085
	Evergreen to Deciduous	158	109	69.2	120	75.5	10	9.2	0.463	<0.001
	Evergreen to Evergreen	16,907	13,534	80.0	14,996	88.7	1,462	10.8	0.495	<0.001
	Evergreen to Mixed	561	422	75.2	476	84.8	54	12.9	0.524	<0.001
Erie Drift Plain	Mixed to Deciduous	7,646	3,718	48.6	5,136	67.2	1,418	38.2	1.000	<0.001
	Mixed to Evergreen	29	16	52.8	18	62.8	3	19.0	0.365	0.027
	Mixed to Mixed	73,239	37,406	51.1	48,718	66.5	11,312	30.2	0.794	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Huron/Erie Lake Plains	Deciduous to Deciduous	201,088	99,709	49.6	140,660	69.9	40,951	41.1	0.955	<0.001
	Deciduous to Evergreen	294	127	43.2	212	72.0	85	66.7	1.400	<0.001
	Deciduous to Mixed	140	44	31.6	63	45.3	19	43.3	0.503	<0.001
	Evergreen to Deciduous	107	68	62.9	79	73.2	11	16.5	0.229	0.566
	Evergreen to Evergreen	6,231	3,367	54.0	4,813	77.2	1,446	42.9	1.200	<0.001
	Evergreen to Mixed	213	109	51.1	159	74.8	50	46.5	1.200	<0.001
	Mixed to Deciduous	347	122	35.2	169	48.8	47	38.7	0.637	<0.001
	Mixed to Evergreen	17	5	29.5	8	47.7	3	61.5	0.838	<0.001
	Mixed to Mixed	18,535	7,278	39.3	11,318	61.1	4,040	55.5	1.100	<0.001
	Deciduous to Deciduous	2,971,408	2,173,231	73.1	2,491,137	83.8	317,905	14.6	0.707	<0.001
	Deciduous to Evergreen	22,818	18,061	79.2	20,885	91.5	2,824	15.6	1.200	0.014
	Deciduous to Mixed	8,807	4,860	55.2	5,748	65.3	888	18.3	0.595	0.065

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Interior Plateau	Evergreen to Deciduous	4,107	3,155	76.8	3,366	82.0	212	6.7	0.037	0.88
	Evergreen to Evergreen	159,338	116,501	73.1	140,791	88.4	24,290	20.8	0.851	<0.001
	Evergreen to Mixed	8,461	6,144	72.6	7,337	86.7	1,193	19.4	0.752	<0.001
	Mixed to Deciduous	73,074	46,017	63.0	56,154	76.8	10,137	22.0	0.902	<0.001
	Mixed to Evergreen	1,714	1,085	63.3	1,404	82.0	320	29.5	1.200	0.003
	Mixed to Mixed	487,428	274,210	56.3	362,482	74.4	88,273	32.2	1.100	<0.001
	Deciduous to Deciduous	1,575,821	993,421	63.0	1,181,200	75.0	187,779	18.9	0.704	<0.001
	Deciduous to Evergreen	381	239	62.8	255	67.1	16	6.8	0.178	0.415
	Deciduous to Mixed	1,215	507	41.7	491	40.4	-16	-3.0	0.001	1
	Evergreen to Deciduous	645	451	70.0	406	62.9	-46	-10.0	-0.418	0.216
	Evergreen to Evergreen	11,953	8,342	69.8	9,631	80.6	1,289	15.4	0.854	<0.001
	Evergreen to Mixed	585	362	61.8	405	69.2	44	12.0	0.690	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Interior River Valleys and Hills	Mixed to Deciduous	174,518	95,962	55.0	119,785	68.6	23,823	24.8	0.805	<0.001
	Mixed to Evergreen	58	25	42.7	29	50.0	4	16.9	0.724	0.001
	Mixed to Mixed	164,210	70,139	42.7	90,566	55.2	20,427	29.1	0.822	<0.001
	Deciduous to Deciduous	55,237	33,032	59.8	44,660	80.9	11,628	35.2	0.958	<0.001
	Deciduous to Evergreen	18,489	14,095	76.2	16,433	88.9	2,338	16.6	0.011	0.976
	Deciduous to Mixed	1,474	1,004	68.2	1,233	83.7	229	22.8	1.400	<0.001
	Evergreen to Deciduous	2,878	2,376	82.5	2,455	85.3	79	3.3	-0.594	0.264
	Evergreen to Evergreen	769,964	576,409	74.9	663,792	86.2	87,382	15.2	0.821	<0.001
	Evergreen to Mixed	4,006	3,035	75.8	3,403	84.9	368	12.1	0.529	0.037
	Mixed to Deciduous	3,304	2,057	62.2	2,805	84.9	748	36.4	1.200	<0.001
Middle Atlantic Coastal Plain	Mixed to Evergreen	6,666	5,007	75.1	5,855	87.8	848	16.9	1.600	<0.001
	Mixed to Mixed	102,629	63,284	61.7	83,852	81.7	20,568	32.5	1.200	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Mississippi Alluvial Plain	Deciduous to Deciduous	22,045	14,734	66.8	17,130	77.7	2,396	16.3	0.506	<0.001
	Deciduous to Evergreen	169	96	57.1	125	74.0	28	29.5	0.808	<0.001
	Deciduous to Mixed	154	102	66.2	117	76.2	15	15.0	0.588	0.017
	Evergreen to Deciduous	28	19	67.3	20	71.6	1	6.3	0.648	0.02
	Evergreen to Evergreen	12,955	8,996	69.4	11,024	85.1	2,029	22.6	0.687	<0.001
	Evergreen to Mixed	204	135	66.0	164	80.6	30	22.1	0.711	<0.001
	Mixed to Deciduous	2,953	2,181	73.8	2,508	84.9	327	15.0	0.425	0.006
	Mixed to Evergreen	80	54	67.9	61	76.5	7	12.7	0.597	0.124
	Mixed to Mixed	23,512	15,341	65.2	18,845	80.2	3,504	22.8	0.611	<0.001
	Deciduous to Deciduous	497,997	350,678	70.4	412,846	82.9	62,168	17.7	0.623	<0.001
	Deciduous to Evergreen	13,362	9,996	74.8	11,377	85.1	1,381	13.8	0.515	0.097
	Deciduous to Mixed	9,599	7,005	73.0	7,879	82.1	874	12.5	0.164	0.526

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Mississippi Valley Loess Plains	Evergreen to Deciduous	1,422	1,087	76.5	1,190	83.7	103	9.5	-0.581	0.45
	Evergreen to Evergreen	188,819	144,594	76.6	159,200	84.3	14,607	10.1	0.328	0.004
	Evergreen to Mixed	4,522	3,438	76.0	3,724	82.4	286	8.3	-0.220	0.319
	Mixed to Deciduous	49,157	33,997	69.2	41,106	83.6	7,109	20.9	0.572	0.002
	Mixed to Evergreen	10,322	8,221	79.6	8,763	84.9	542	6.6	0.740	0.085
	Mixed to Mixed	279,389	182,103	65.2	234,853	84.1	52,750	29.0	0.817	<0.001
	Deciduous to Deciduous	1,010,834	685,998	67.9	791,725	78.3	105,726	15.4	0.771	<0.001
	Deciduous to Evergreen	2,127	1,112	52.3	1,632	76.7	521	46.8	1.400	<0.001
	Deciduous to Mixed	1,396	831	59.5	962	68.9	131	15.8	0.860	0.001
	Evergreen to Deciduous	1,069	710	66.4	742	69.4	32	4.5	0.700	0.239
	Evergreen to Evergreen	73,334	45,224	61.7	57,649	78.6	12,426	27.5	0.961	<0.001
	Evergreen to Mixed	2,286	1,356	59.3	1,756	76.8	400	29.5	1.100	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
North Central Hardwood Forests	Mixed to Deciduous	14,867	9,388	63.1	11,206	75.4	1,817	19.4	0.837	<0.001
	Mixed to Evergreen	260	124	47.8	175	67.3	50	40.7	1.100	<0.001
	Mixed to Mixed	176,466	106,894	60.6	133,702	75.8	26,809	25.1	0.969	<0.001
	Deciduous to Deciduous	756,006	607,349	80.3	610,548	80.8	3,199	0.5	0.320	0.057
	Deciduous to Evergreen	3,699	2,753	74.4	2,896	78.3	143	5.2	0.378	0.001
	Deciduous to Mixed	5,751	4,427	77.0	3,918	68.1	-509	-11.0	-0.111	0.45
	Evergreen to Deciduous	432	281	65.0	233	53.9	-48	-17.0	0.004	0.976
	Evergreen to Evergreen	176,978	145,742	82.4	148,402	83.9	2,660	1.8	0.379	0.003
	Evergreen to Mixed	3,010	2,380	79.1	1,968	65.4	-412	-17.0	-0.422	0.009
	Mixed to Deciduous	7,584	5,294	69.8	5,117	67.5	-177	-3.0	0.436	0.032
Northeastern Coastal Zone	Mixed to Evergreen	638	448	70.2	387	60.6	-61	-14.0	-0.227	0.194
	Mixed to Mixed	395,085	302,525	76.6	303,593	76.8	1,067	0.4	0.406	0.003

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northern Allegheny Plateau	Deciduous to Deciduous	931,332	723,549	77.7	796,361	85.5	72,812	10.1	0.469	<0.001
	Deciduous to Evergreen	1,933	1,405	72.7	1,581	81.8	176	12.5	0.552	<0.001
	Deciduous to Mixed	6,923	5,522	79.8	5,980	86.4	458	8.3	0.325	<0.001
	Evergreen to Deciduous	576	457	79.3	480	83.3	23	5.1	0.621	0.11
	Evergreen to Evergreen	87,820	72,475	82.5	78,568	89.5	6,092	8.4	0.389	<0.001
	Evergreen to Mixed	5,581	4,725	84.7	5,035	90.2	310	6.6	0.266	<0.001
	Mixed to Deciduous	1,857	1,141	61.5	1,287	69.3	145	12.7	0.409	0.002
	Mixed to Evergreen	246	166	67.7	184	75.0	18	10.9	0.360	0.001
	Mixed to Mixed	357,199	285,256	79.9	312,970	87.6	27,714	9.7	0.441	<0.001
	Deciduous to Deciduous	491,144	351,057	71.5	405,866	82.6	54,809	15.6	0.573	<0.001
	Deciduous to Evergreen	691	485	70.2	570	82.6	86	17.6	1.300	0.003
	Deciduous to Mixed	1,250	632	50.5	770	61.6	138	21.9	0.647	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northern Piedmont	Evergreen to Deciduous	562	380	67.8	438	78.0	57	15.1	0.244	0.526
	Evergreen to Evergreen	12,245	7,587	62.0	9,781	79.9	2,194	28.9	0.936	<0.001
	Evergreen to Mixed	1,353	865	63.9	1,113	82.3	248	28.7	0.831	<0.001
	Mixed to Deciduous	48,579	29,796	61.3	37,302	76.8	7,506	25.2	0.917	<0.001
	Mixed to Evergreen	279	182	65.2	227	81.4	45	24.9	1.300	0.002
	Mixed to Mixed	135,868	65,426	48.2	89,570	65.9	24,144	36.9	1.000	<0.001
	Deciduous to Deciduous	449,298	328,977	73.2	379,608	84.5	50,631	15.4	0.472	<0.001
	Deciduous to Evergreen	35,289	25,020	70.9	30,370	86.1	5,349	21.4	0.804	0.043
	Deciduous to Mixed	6,911	4,669	67.6	5,637	81.6	968	20.7	0.184	0.45
	Evergreen to Deciduous	8,990	6,937	77.2	7,204	80.1	267	3.8	-0.393	0.264
	Evergreen to Evergreen	576,748	457,598	79.3	507,075	87.9	49,477	10.8	0.425	0.002
	Evergreen to Mixed	19,113	14,557	76.2	16,137	84.4	1,580	10.9	-0.033	0.88

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ouachita Mountains	Mixed to Deciduous	9,330	6,545	70.1	7,280	78.0	735	11.2	0.274	0.05
	Mixed to Evergreen	20,060	13,703	68.3	17,218	85.8	3,514	25.6	0.416	0.526
	Mixed to Mixed	407,432	297,536	73.0	360,731	88.5	63,196	21.2	0.750	<0.001
	Deciduous to Deciduous	3,706,049	2,834,648	76.5	3,151,045	85.0	316,398	11.2	0.429	0.001
	Deciduous to Evergreen	4,107	2,897	70.5	3,369	82.0	473	16.3	0.825	<0.001
	Deciduous to Mixed	3,613	2,262	62.6	2,322	64.3	60	2.7	0.164	0.566
	Evergreen to Deciduous	3,926	2,932	74.7	3,056	77.8	124	4.2	0.084	0.349
	Evergreen to Evergreen	169,006	127,550	75.5	148,920	88.1	21,369	16.8	0.660	<0.001
	Evergreen to Mixed	12,216	8,557	70.0	10,466	85.7	1,909	22.3	0.783	<0.001
	Mixed to Deciduous	71,310	41,088	57.6	47,109	66.1	6,021	14.7	0.424	0.009
Ozark Highlands	Mixed to Evergreen	466	294	63.0	343	73.7	50	17.0	0.682	0.005
	Mixed to Mixed	421,204	288,372	68.5	337,677	80.2	49,305	17.1	0.631	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Piedmont	Deciduous to Deciduous	2,649,846	1,951,900	73.7	2,294,191	86.6	342,291	17.5	0.744	<0.001
	Deciduous to Evergreen	199,167	156,058	78.4	180,580	90.7	24,522	15.7	0.690	0.009
	Deciduous to Mixed	51,915	38,442	74.0	44,914	86.5	6,471	16.8	0.549	0.037
	Evergreen to Deciduous	44,004	34,776	79.0	37,566	85.4	2,791	8.0	0.219	0.526
	Evergreen to Evergreen	1,591,247	1,185,700	74.5	1,391,204	87.4	205,504	17.3	0.700	<0.001
	Evergreen to Mixed	40,936	30,909	75.5	35,396	86.5	4,488	14.5	0.290	0.194
	Mixed to Deciduous	48,206	33,505	69.5	41,306	85.7	7,800	23.3	0.867	<0.001
	Mixed to Evergreen	25,960	19,029	73.3	23,316	89.8	4,287	22.5	1.100	0.001
	Mixed to Mixed	1,218,715	828,320	68.0	1,052,595	86.4	224,275	27.1	1.100	<0.001
	Deciduous to Deciduous	3,022,788	2,298,943	76.1	2,686,219	88.9	387,277	16.8	0.659	<0.001
	Deciduous to Evergreen	21,666	16,634	76.8	19,031	87.8	2,396	14.4	0.783	0.001
	Deciduous to Mixed	15,630	11,185	71.6	13,011	83.2	1,826	16.3	0.764	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ridge and Valley	Evergreen to Deciduous	9,559	7,328	76.7	7,925	82.9	597	8.1	0.369	0.349
	Evergreen to Evergreen	235,021	170,629	72.6	203,494	86.6	32,866	19.3	0.932	<0.001
	Evergreen to Mixed	14,014	10,147	72.4	11,985	85.5	1,839	18.1	0.844	<0.001
	Mixed to Deciduous	53,079	33,041	62.2	42,958	80.9	9,917	30.0	1.000	<0.001
	Mixed to Evergreen	8,035	6,191	77.0	7,047	87.7	856	13.8	1.200	0.002
	Mixed to Mixed	692,110	478,211	69.1	589,391	85.2	111,180	23.2	0.925	<0.001
	Deciduous to Deciduous	485,004	331,160	68.3	376,251	77.6	45,092	13.6	0.673	0.002
	Deciduous to Evergreen	827	468	56.6	605	73.1	137	29.2	1.200	<0.001
	Deciduous to Mixed	297	142	47.7	155	52.3	14	9.8	0.480	0.012
	Evergreen to Deciduous	431	282	65.6	299	69.4	16	5.8	0.612	0.027
	Evergreen to Evergreen	24,790	15,983	64.5	19,292	77.8	3,308	20.7	1.100	<0.001
	Evergreen to Mixed	1,059	697	65.8	831	78.4	133	19.1	1.000	<0.001

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Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
S MI/N IN Drift Plains	Mixed to Deciduous	905	457	50.5	519	57.3	62	13.6	0.677	0.002
	Mixed to Evergreen	82	46	55.2	53	64.7	8	17.2	0.848	0.001
	Mixed to Mixed	49,645	28,419	57.2	34,710	69.9	6,291	22.1	0.965	<0.001
	Deciduous to Deciduous	123,402	75,911	61.5	83,636	67.8	7,725	10.2	1.000	<0.001
	Deciduous to Evergreen	294	144	49.0	229	77.9	85	59.0	2.100	<0.001
	Deciduous to Mixed	86	42	49.0	45	52.1	3	6.4	0.648	0.001
	Evergreen to Deciduous	55	30	54.9	36	65.2	6	18.8	1.300	<0.001
	Evergreen to Evergreen	6,830	4,171	61.1	5,244	76.8	1,073	25.7	1.500	<0.001
SE Wisconsin Till Plains	Evergreen to Mixed	146	80	54.6	104	71.4	24	30.7	1.700	<0.001
	Mixed to Deciduous	4,318	2,741	63.5	3,070	71.1	329	12.0	1.200	<0.001
	Mixed to Evergreen	18	8	42.4	12	66.6	4	57.1	1.600	<0.001
	Mixed to Mixed	20,248	10,821	53.4	13,030	64.4	2,210	20.4	1.300	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
South Central Plains	Deciduous to Deciduous	347,311	232,114	66.8	268,048	77.2	35,934	15.5	0.229	0.027
	Deciduous to Evergreen	71,022	55,015	77.5	60,139	84.7	5,125	9.3	-0.326	0.349
	Deciduous to Mixed	13,411	8,781	65.5	10,620	79.2	1,839	20.9	-0.129	0.786
	Evergreen to Deciduous	17,089	13,656	79.9	14,623	85.6	968	7.1	-0.679	0.174
	Evergreen to Evergreen	2,594,472	2,122,905	81.8	2,164,215	83.4	41,310	1.9	-0.007	0.928
	Evergreen to Mixed	30,703	22,378	72.9	24,922	81.2	2,544	11.4	-0.240	0.526
	Mixed to Deciduous	9,444	6,562	69.5	7,624	80.7	1,062	16.2	0.001	1
	Mixed to Evergreen	83,221	65,971	79.3	69,595	83.6	3,624	5.5	0.436	0.264
	Mixed to Mixed	597,254	407,581	68.2	495,189	82.9	87,608	21.5	0.433	0.001
	Deciduous to Deciduous	1,267,330	902,962	71.2	1,077,385	85.0	174,423	19.3	0.629	<0.001
	Deciduous to Evergreen	207,253	154,741	74.7	182,672	88.1	27,931	18.1	0.714	0.02
	Deciduous to Mixed	60,905	45,542	74.8	53,019	87.1	7,477	16.4	0.370	0.156

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southeastern Plains	Evergreen to Deciduous	29,574	23,405	79.1	25,382	85.8	1,977	8.4	-0.431	0.415
	Evergreen to Evergreen	3,733,505	2,737,932	73.3	3,071,680	82.3	333,748	12.2	0.574	0.002
	Evergreen to Mixed	60,869	48,011	78.9	52,509	86.3	4,498	9.4	-0.140	0.695
	Mixed to Deciduous	49,011	35,740	72.9	41,768	85.2	6,028	16.9	0.548	0.02
	Mixed to Evergreen	162,523	128,566	79.1	142,111	87.4	13,545	10.5	0.863	0.037
	Mixed to Mixed	1,530,709	1,070,309	69.9	1,327,685	86.7	257,376	24.0	0.807	<0.001
	Deciduous to Deciduous	8,242	4,831	58.6	4,425	53.7	-406	-8.0	-0.273	0.065
	Deciduous to Evergreen	8,889	6,540	73.6	5,975	67.2	-565	-9.0	-0.544	<0.001
	Deciduous to Mixed	124	67	54.5	72	57.9	4	6.3	0.196	0.156
	Evergreen to Deciduous	1,357	999	73.6	785	57.8	-214	-21.0	-2.000	<0.001
	Evergreen to Evergreen	1,492,520	1,073,134	71.9	1,143,165	76.6	70,030	6.5	0.253	0.075
	Evergreen to Mixed	947	623	65.8	608	64.2	-15	-2.0	-0.058	0.88

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southern Coastal Plain	Mixed to Deciduous	104	54	52.1	53	51.2	-1	-2.0	-0.260	0.156
	Mixed to Evergreen	4,887	3,393	69.4	3,575	73.1	182	5.4	0.116	0.833
	Mixed to Mixed	44,792	26,630	59.5	31,095	69.4	4,466	16.8	0.386	<0.001
	Deciduous to Deciduous	1,165,460	975,746	83.7	1,050,975	90.2	75,229	7.7	0.498	<0.001
	Deciduous to Evergreen	21,965	17,602	80.1	19,410	88.4	1,808	10.3	1.200	0.003
	Deciduous to Mixed	9,084	6,977	76.8	7,683	84.6	707	10.1	0.851	0.001
	Evergreen to Deciduous	8,292	6,789	81.9	6,995	84.4	206	3.0	0.134	0.608
	Evergreen to Evergreen	146,059	111,329	76.2	126,184	86.4	14,855	13.3	0.926	<0.001
Southwestern Appalachians	Evergreen to Mixed	8,067	6,357	78.8	6,951	86.2	594	9.4	0.733	0.001
	Mixed to Deciduous	17,887	14,997	83.8	15,680	87.7	683	4.6	0.474	0.007
	Mixed to Evergreen	8,274	6,718	81.2	7,353	88.9	635	9.4	1.500	0.003
	Mixed to Mixed	296,253	233,306	78.8	262,399	88.6	29,093	12.5	0.750	<0.001

Table 3: Table S3. Table showing the contribution of infilling to changes in woody cover across Level III ecoregions of the eastern United States.

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Western Allegheny Plateau	Deciduous to Deciduous	3,119,211	2,407,392	77.2	2,763,304	88.6	355,913	14.8	0.722	<0.001
	Deciduous to Evergreen	5,213	4,200	80.6	4,526	86.8	326	7.8	0.380	0.065
	Deciduous to Mixed	5,339	3,011	56.4	3,400	63.7	389	12.9	0.341	0.065
	Evergreen to Deciduous	2,182	1,720	78.8	1,874	85.9	154	9.0	0.203	0.833
	Evergreen to Evergreen	36,320	26,892	74.0	32,146	88.5	5,254	19.5	0.883	<0.001
	Evergreen to Mixed	2,542	1,855	73.0	2,186	86.0	330	17.8	0.625	<0.001
	Mixed to Deciduous	86,712	57,405	66.2	69,869	80.6	12,465	21.7	1.100	<0.001
	Mixed to Evergreen	222	120	53.9	154	69.2	34	28.4	1.100	<0.001
	Mixed to Mixed	411,426	244,343	59.4	311,387	75.7	67,044	27.4	1.000	<0.001

Table 4: Table S4. Table showing the contribution of infilling to changes in woody cover across the eastern United States.

NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Cultivated Crops to Deciduous Forest	95,654	19,103	20.0	45,691	47.8	26,588	139.0	1.700	<0.001
Cultivated Crops to Evergreen Forest	157,029	12,965	8.3	118,478	75.4	105,513	814.0	3.800	<0.001
Cultivated Crops to Mixed Forest	23,664	3,840	16.2	14,605	61.7	10,765	280.0	2.700	<0.001
Grassland Herbaceous to Deciduous Forest	353,721	143,843	40.7	270,899	76.6	127,056	88.3	2.100	<0.001
Grassland Herbaceous to Evergreen Forest	2,071,034	675,646	32.6	1,752,916	84.6	1,077,271	159.0	2.600	<0.001
Grassland Herbaceous to Mixed Forest	198,762	79,907	40.2	164,446	82.7	84,539	106.0	2.400	<0.001
Herbaceous Wetlands to Deciduous Forest	8,702	2,901	33.3	4,445	51.1	1,545	53.3	1.000	<0.001
Herbaceous Wetlands to Evergreen Forest	10,463	3,515	33.6	8,455	80.8	4,940	141.0	1.900	<0.001

Table 4: Table S4. Table showing the contribution of infilling to changes in woody cover across the eastern United States.

NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
	Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Herbaceous Wetlands to Mixed Forest	2,454	915	37.3	1,465	59.7	549	60.0	1.300	<0.001
Pasture Hay to Deciduous Forest	767,893	179,377	23.4	472,413	61.5	293,037	163.0	2.100	<0.001
Pasture Hay to Evergreen Forest	706,143	114,908	16.3	552,450	78.2	437,542	381.0	3.300	<0.001
Pasture Hay to Mixed Forest	361,790	75,925	21.0	243,760	67.4	167,835	221.0	2.500	<0.001
Shrub Scrub to Deciduous Forest	467,340	266,895	57.1	403,319	86.3	136,425	51.1	1.300	<0.001
Shrub Scrub to Evergreen Forest	1,974,557	777,876	39.4	1,667,843	84.5	889,967	114.0	1.100	<0.001
Shrub Scrub to Mixed Forest	487,457	232,599	47.7	422,203	86.6	189,604	81.5	1.400	<0.001
Woody Wetlands to Deciduous Forest	5,082	2,407	47.4	3,064	60.3	658	27.3	0.712	<0.001
Woody Wetlands to Evergreen Forest	11,196	6,051	54.0	8,203	73.3	2,152	35.6	0.848	<0.001
Woody Wetlands to Mixed Forest	3,438	1,777	51.7	2,417	70.3	640	36.0	0.894	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Cultivated Crops to Deciduous Forest	88	27	30.7	41	46.5	14	51.5	1.400	<0.001
	Cultivated Crops to Evergreen Forest	52	9	17.7	20	37.8	10	114.0	1.500	<0.001
	Cultivated Crops to Mixed Forest	450	126	28.0	215	47.8	89	70.3	1.700	<0.001
	Grassland Herbaceous to Deciduous Forest	4,916	1,918	39.0	4,131	84.0	2,214	115.0	2.600	<0.001
	Grassland Herbaceous to Evergreen Forest	21,616	7,540	34.9	19,363	89.6	11,823	157.0	3.600	<0.001
	Grassland Herbaceous to Mixed Forest	28,831	11,057	38.4	25,114	87.1	14,057	127.0	3.000	<0.001
	Herbaceous Wetlands to Deciduous Forest	30	13	43.5	16	54.9	3	26.0	1.100	<0.001
	Herbaceous Wetlands to Evergreen Forest	661	326	49.4	560	84.7	233	71.4	1.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Acadian Plains and Hills	Herbaceous Wetlands to Mixed Forest	389	181	46.4	289	74.2	108	60.0	1.600	<0.001
	Pasture Hay to Deciduous Forest	1,059	393	37.1	732	69.1	340	86.5	2.500	<0.001
	Pasture Hay to Evergreen Forest	1,633	493	30.2	1,341	82.1	848	172.0	3.600	<0.001
	Pasture Hay to Mixed Forest	6,635	1,981	29.9	4,283	64.6	2,302	116.0	2.800	<0.001
	Shrub Scrub to Deciduous Forest	4,406	2,954	67.0	3,894	88.4	941	31.9	1.200	<0.001
	Shrub Scrub to Evergreen Forest	15,398	9,605	62.4	14,073	91.4	4,468	46.5	1.100	<0.001
	Shrub Scrub to Mixed Forest	40,947	26,411	64.5	37,602	91.8	11,191	42.4	1.400	<0.001
	Woody Wetlands to Deciduous Forest	67	39	58.7	46	69.0	7	17.6	0.946	<0.001
	Woody Wetlands to Evergreen Forest	322	206	63.7	243	75.4	38	18.3	0.850	<0.001
	Woody Wetlands to Mixed Forest	390	236	60.3	284	72.8	49	20.7	0.979	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Cultivated Crops to Deciduous Forest	36	7	20.1	17	48.2	10	140.0	1.300	<0.001
	Cultivated Crops to Evergreen Forest	9	0	4.9	7	78.1	7	1,491.0	3.000	<0.001
	Cultivated Crops to Mixed Forest	5	1	16.6	3	62.9	2	278.0	2.300	<0.001
	Grassland Herbaceous to Deciduous Forest	18,738	7,154	38.2	11,451	61.1	4,297	60.1	1.200	<0.001
	Grassland Herbaceous to Evergreen Forest	13,693	5,605	40.9	12,139	88.7	6,534	117.0	2.600	<0.001
	Grassland Herbaceous to Mixed Forest	8,109	4,036	49.8	7,032	86.7	2,996	74.2	2.000	<0.001
	Herbaceous Wetlands to Deciduous Forest	47	16	33.0	23	49.2	8	49.0	0.814	0.001
	Herbaceous Wetlands to Evergreen Forest	3	1	37.2	2	69.7	1	87.4	1.800	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Arkansas Valley	Herbaceous Wetlands to Mixed Forest	6	2	36.9	4	74.3	2	101.0	2.000	<0.001
	Pasture Hay to Deciduous Forest	17,997	6,013	33.4	11,910	66.2	5,897	98.1	1.800	<0.001
	Pasture Hay to Evergreen Forest	7,727	1,579	20.4	6,454	83.5	4,875	309.0	3.400	<0.001
	Pasture Hay to Mixed Forest	5,209	1,642	31.5	3,838	73.7	2,196	134.0	2.200	<0.001
	Shrub Scrub to Deciduous Forest	7,104	3,496	49.2	5,317	74.8	1,821	52.1	1.200	<0.001
	Shrub Scrub to Evergreen Forest	5,433	2,767	50.9	4,895	90.1	2,128	76.9	1.200	<0.001
	Shrub Scrub to Mixed Forest	4,655	2,677	57.5	4,202	90.3	1,525	56.9	1.500	<0.001
	Woody Wetlands to Deciduous Forest	37	19	51.0	20	54.2	1	6.3	0.138	0.085
	Woody Wetlands to Evergreen Forest	3	2	44.9	2	56.9	0	26.8	0.650	<0.001
	Woody Wetlands to Mixed Forest	6	3	54.3	4	73.0	1	34.5	0.912	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Cultivated Crops to Deciduous Forest	824	106	12.8	420	51.0	314	297.0	2.200	<0.001
	Cultivated Crops to Evergreen Forest	201	32	16.0	110	54.6	78	242.0	2.300	<0.001
	Cultivated Crops to Mixed Forest	367	44	11.9	201	54.6	157	360.0	2.300	<0.001
	Grassland Herbaceous to Deciduous Forest	528	134	25.5	216	41.0	82	61.0	1.100	<0.001
	Grassland Herbaceous to Evergreen Forest	493	122	24.8	251	50.9	129	105.0	1.900	<0.001
	Grassland Herbaceous to Mixed Forest	203	48	23.8	86	42.6	38	78.7	1.200	<0.001
	Herbaceous Wetlands to Deciduous Forest	14	4	26.0	5	36.0	1	38.5	0.501	0.006
	Herbaceous Wetlands to Evergreen Forest	10	3	30.3	4	41.4	1	36.5	0.683	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Atlantic Coastal Pine Barrens	Herbaceous Wetlands to Mixed Forest	6	2	29.3	2	33.5	0	14.2	0.403	0.02
	Pasture Hay to Deciduous Forest	476	99	20.9	256	53.8	157	158.0	1.900	<0.001
	Pasture Hay to Evergreen Forest	432	139	32.2	222	51.5	83	59.7	1.400	<0.001
	Pasture Hay to Mixed Forest	167	24	14.4	66	39.4	42	174.0	1.500	<0.001
	Shrub Scrub to Deciduous Forest	929	415	44.7	664	71.5	248	59.8	1.600	<0.001
	Shrub Scrub to Evergreen Forest	4,864	1,970	40.5	3,690	75.9	1,720	87.3	2.500	<0.001
	Shrub Scrub to Mixed Forest	1,265	561	44.3	956	75.6	396	70.6	2.100	<0.001
	Woody Wetlands to Deciduous Forest	28	10	36.0	13	44.6	2	23.8	0.483	0.002
	Woody Wetlands to Evergreen Forest	13	5	36.7	8	57.4	3	56.5	1.200	<0.001
	Woody Wetlands to Mixed Forest	12	4	32.0	6	48.0	2	49.8	0.901	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Cultivated Crops to Deciduous Forest	68	12	17.2	24	35.6	12	107.0	1.200	<0.001
	Cultivated Crops to Evergreen Forest	1	0	9.1	0	35.0	0	282.0	1.300	<0.001
	Cultivated Crops to Mixed Forest	20	3	14.0	8	42.1	6	201.0	1.600	<0.001
	Grassland Herbaceous to Deciduous Forest	8,670	4,970	57.3	7,271	83.9	2,300	46.3	1.400	<0.001
	Grassland Herbaceous to Evergreen Forest	7,909	3,277	41.4	7,067	89.3	3,790	116.0	2.900	<0.001
	Grassland Herbaceous to Mixed Forest	3,535	1,733	49.0	2,890	81.7	1,157	66.8	2.000	<0.001
	Herbaceous Wetlands to Deciduous Forest	18	5	28.0	9	51.3	4	83.2	1.300	<0.001
	Herbaceous Wetlands to Evergreen Forest	2	0	28.6	1	53.5	0	86.9	1.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Blue Ridge	Herbaceous Wetlands to Mixed Forest	10	3	35.1	5	54.6	2	55.4	1.000	<0.001
	Pasture Hay to Deciduous Forest	14,049	4,165	29.6	9,132	65.0	4,967	119.0	2.100	<0.001
	Pasture Hay to Evergreen Forest	1,852	321	17.3	1,503	81.1	1,182	368.0	3.700	<0.001
	Pasture Hay to Mixed Forest	7,573	1,498	19.8	5,015	66.2	3,518	235.0	2.700	<0.001
	Shrub Scrub to Deciduous Forest	29,242	23,744	81.2	27,247	93.2	3,504	14.8	0.483	<0.001
	Shrub Scrub to Evergreen Forest	5,913	3,691	62.4	5,420	91.7	1,730	46.9	1.100	<0.001
	Shrub Scrub to Mixed Forest	11,444	7,635	66.7	10,543	92.1	2,908	38.1	1.000	<0.001
	Woody Wetlands to Deciduous Forest	17	6	35.5	8	44.8	2	26.2	0.626	0.001
	Woody Wetlands to Evergreen Forest	1	1	54.1	1	86.3	0	59.6	2.300	<0.001
	Woody Wetlands to Mixed Forest	4	2	45.8	2	60.8	1	32.6	1.100	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Cultivated Crops to Deciduous Forest	2	0	20.4	1	47.9	0	135.0	1.100	<0.001
	Cultivated Crops to Evergreen Forest	0	0	10.8	0	31.2	0	191.0	0.661	0.001
	Cultivated Crops to Mixed Forest	0	0	8.7	0	32.0	0	269.0	1.200	<0.001
	Grassland Herbaceous to Deciduous Forest	4,835	2,371	49.0	4,061	84.0	1,690	71.3	2.000	<0.001
	Grassland Herbaceous to Evergreen Forest	4,640	1,668	36.0	4,255	91.7	2,587	155.0	3.000	<0.001
	Grassland Herbaceous to Mixed Forest	1,302	588	45.1	1,152	88.5	564	96.1	2.500	<0.001
	Herbaceous Wetlands to Deciduous Forest	3	1	32.1	1	22.6	0	-30.0	-0.331	0.11
	Herbaceous Wetlands to Mixed Forest	0	0	27.7	0	16.0	0	-42.0	-0.500	0.023
	Pasture Hay to Deciduous Forest	10,270	3,357	32.7	6,486	63.2	3,129	93.2	1.600	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Boston Mountains	Pasture Hay to Evergreen Forest	1,001	247	24.7	818	81.7	571	231.0	3.200	<0.001
	Pasture Hay to Mixed Forest	1,738	495	28.5	1,190	68.5	695	140.0	2.200	<0.001
	Shrub Scrub to Deciduous Forest	2,502	1,551	62.0	2,294	91.7	743	47.9	1.300	<0.001
	Shrub Scrub to Evergreen Forest	2,447	1,108	45.3	2,273	92.9	1,165	105.0	1.900	<0.001
	Shrub Scrub to Mixed Forest	1,145	655	57.2	1,066	93.1	410	62.6	1.500	<0.001
	Woody Wetlands to Deciduous Forest	9	3	37.1	2	21.3	-1	-43.0	-0.776	<0.001
	Woody Wetlands to Mixed Forest	1	0	41.8	0	32.0	0	-23.0	-0.325	0.057
	Cultivated Crops to Deciduous Forest	110	18	16.7	38	34.5	20	107.0	0.994	<0.001
	Cultivated Crops to Evergreen Forest	2	0	23.9	1	43.8	0	83.3	1.900	<0.001
	Cultivated Crops to Mixed Forest	19	2	12.8	7	38.8	5	204.0	1.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	48,866	14,350	29.4	40,107	82.1	25,758	180.0	3.000	<0.001
	Grassland Herbaceous to Evergreen Forest	3,110	684	22.0	2,435	78.3	1,750	256.0	3.500	<0.001
	Grassland Herbaceous to Mixed Forest	6,628	1,604	24.2	5,297	79.9	3,693	230.0	3.300	<0.001
	Herbaceous Wetlands to Deciduous Forest	265	112	42.3	181	68.4	69	61.6	1.400	<0.001
	Herbaceous Wetlands to Evergreen Forest	33	20	60.1	28	84.8	8	41.1	1.100	<0.001
	Herbaceous Wetlands to Mixed Forest	135	66	49.0	100	74.3	34	51.6	1.200	<0.001
	Pasture Hay to Deciduous Forest	17,262	3,274	19.0	10,731	62.2	7,456	228.0	2.500	<0.001
	Pasture Hay to Evergreen Forest	597	77	13.0	413	69.2	336	434.0	3.300	<0.001
	Pasture Hay to Mixed Forest	4,506	651	14.4	2,721	60.4	2,070	318.0	2.700	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Central Appalachians	Shrub Scrub to Deciduous Forest	38,886	29,233	75.2	35,310	90.8	6,077	20.8	0.878	<0.001
	Shrub Scrub to Evergreen Forest	756	326	43.1	614	81.2	288	88.5	2.300	<0.001
	Shrub Scrub to Mixed Forest	7,414	4,154	56.0	6,367	85.9	2,213	53.3	1.800	<0.001
	Woody Wetlands to Deciduous Forest	29	11	37.9	17	57.8	6	52.4	1.200	<0.001
	Woody Wetlands to Evergreen Forest	3	2	45.1	2	62.0	1	37.4	0.987	<0.001
	Woody Wetlands to Mixed Forest	13	7	58.4	10	75.2	2	28.8	1.000	<0.001
	Cultivated Crops to Deciduous Forest	4,053	850	21.0	1,702	42.0	851	100.0	1.400	<0.001
	Cultivated Crops to Evergreen Forest	163	22	13.4	98	59.9	76	348.0	2.900	<0.001
	Cultivated Crops to Mixed Forest	659	103	15.6	265	40.2	162	158.0	1.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	889	175	19.7	356	40.0	180	103.0	1.100	<0.001
	Grassland Herbaceous to Evergreen Forest	35	5	13.9	8	23.2	3	66.7	0.550	<0.001
	Grassland Herbaceous to Mixed Forest	91	18	19.9	31	34.3	13	72.9	0.814	<0.001
	Herbaceous Wetlands to Deciduous Forest	47	12	26.0	18	38.3	6	47.1	0.785	<0.001
	Herbaceous Wetlands to Evergreen Forest	1	0	27.3	0	44.2	0	62.0	0.662	0.001
	Herbaceous Wetlands to Mixed Forest	5	1	23.5	2	32.2	0	37.2	0.480	0.007
	Pasture Hay to Deciduous Forest	1,797	339	18.9	936	52.1	597	176.0	1.900	<0.001
	Pasture Hay to Evergreen Forest	117	12	9.8	89	75.8	78	671.0	4.000	<0.001
	Pasture Hay to Mixed Forest	913	143	15.7	485	53.1	342	240.0	2.200	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Central Corn Belt Plains	Shrub Scrub to Deciduous Forest	393	120	30.6	267	68.0	147	122.0	2.200	<0.001
	Shrub Scrub to Evergreen Forest	16	4	24.3	11	71.2	7	193.0	2.700	<0.001
	Shrub Scrub to Mixed Forest	46	11	23.5	33	71.8	22	205.0	2.700	<0.001
	Woody Wetlands to Deciduous Forest	116	52	44.5	55	47.2	3	5.9	0.347	0.007
	Woody Wetlands to Evergreen Forest	1	1	36.1	1	43.7	0	21.1	0.455	0.01
	Woody Wetlands to Mixed Forest	10	4	37.6	4	37.2	0	-1.0	0.247	0.05
	Cultivated Crops to Deciduous Forest	7,862	1,828	23.2	4,165	53.0	2,337	128.0	1.600	<0.001
	Cultivated Crops to Evergreen Forest	263	29	10.9	204	77.2	175	607.0	3.700	<0.001
	Cultivated Crops to Mixed Forest	923	128	13.9	673	72.9	545	425.0	3.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	2,686	758	28.2	1,801	67.1	1,042	137.0	2.000	<0.001
	Grassland Herbaceous to Evergreen Forest	1,280	341	26.7	1,148	89.7	806	236.0	3.500	<0.001
	Grassland Herbaceous to Mixed Forest	826	271	32.8	715	86.6	444	164.0	2.900	<0.001
	Herbaceous Wetlands to Deciduous Forest	51	14	26.9	22	43.0	8	59.8	0.838	<0.001
	Herbaceous Wetlands to Evergreen Forest	5	1	21.7	4	83.9	3	287.0	3.100	<0.001
	Herbaceous Wetlands to Mixed Forest	10	3	27.4	4	42.8	2	55.9	0.680	<0.001
	Pasture Hay to Deciduous Forest	19,931	4,633	23.2	11,720	58.8	7,088	153.0	1.800	<0.001
	Pasture Hay to Evergreen Forest	859	120	14.0	713	82.9	593	494.0	3.900	<0.001
	Pasture Hay to Mixed Forest	3,842	646	16.8	2,719	70.8	2,073	321.0	2.900	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Driftless Area	Shrub Scrub to Deciduous Forest	1,378	761	55.2	1,190	86.3	429	56.4	1.600	<0.001
	Shrub Scrub to Evergreen Forest	170	57	33.3	155	91.5	99	175.0	3.000	<0.001
	Shrub Scrub to Mixed Forest	516	198	38.4	464	90.0	266	135.0	2.600	<0.001
	Woody Wetlands to Deciduous Forest	37	14	37.9	17	46.5	3	22.9	0.508	0.001
	Woody Wetlands to Evergreen Forest	2	1	34.0	2	64.6	1	90.0	1.800	<0.001
	Woody Wetlands to Mixed Forest	6	2	41.8	4	63.0	1	50.7	0.908	<0.001
	Cultivated Crops to Deciduous Forest	21	6	27.0	9	41.7	3	54.6	0.374	<0.001
	Cultivated Crops to Evergreen Forest	4	1	30.3	2	47.8	1	57.6	0.583	<0.001
	Cultivated Crops to Mixed Forest	23	6	28.7	10	42.5	3	48.3	0.322	0.037

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	2,070	634	30.7	1,142	55.2	508	80.0	1.400	<0.001
	Grassland Herbaceous to Evergreen Forest	2,015	616	30.6	1,436	71.3	821	133.0	1.700	<0.001
	Grassland Herbaceous to Mixed Forest	965	340	35.3	607	62.9	266	78.3	1.300	<0.001
	Herbaceous Wetlands to Deciduous Forest	115	40	34.4	68	59.0	28	71.5	1.200	<0.001
	Herbaceous Wetlands to Evergreen Forest	18	8	41.9	12	67.0	5	60.0	0.757	0.001
	Herbaceous Wetlands to Mixed Forest	58	21	35.5	37	63.1	16	77.9	1.100	<0.001
	Pasture Hay to Deciduous Forest	9,188	3,018	32.9	5,323	57.9	2,305	76.4	1.100	<0.001
	Pasture Hay to Evergreen Forest	6,678	1,811	27.1	4,594	68.8	2,782	154.0	1.900	<0.001
	Pasture Hay to Mixed Forest	19,837	7,286	36.7	12,322	62.1	5,036	69.1	0.826	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
East Central Texas Plains	Shrub Scrub to Deciduous Forest	25,589	12,036	47.0	16,011	62.6	3,975	33.0	0.561	<0.001
	Shrub Scrub to Evergreen Forest	7,165	3,037	42.4	5,300	74.0	2,263	74.5	1.100	<0.001
	Shrub Scrub to Mixed Forest	19,467	10,342	53.1	13,264	68.1	2,922	28.3	0.456	0.02
	Woody Wetlands to Deciduous Forest	159	86	53.7	104	65.4	19	21.7	0.238	0.027
	Woody Wetlands to Evergreen Forest	27	14	52.9	16	60.4	2	14.3	0.108	0.291
	Woody Wetlands to Mixed Forest	144	78	54.4	94	65.3	16	20.1	0.031	0.833
	Cultivated Crops to Deciduous Forest	15,178	2,977	19.6	5,873	38.7	2,896	97.3	1.300	<0.001
	Cultivated Crops to Evergreen Forest	154	24	16.0	82	53.2	57	234.0	2.300	<0.001
	Cultivated Crops to Mixed Forest	736	111	15.1	217	29.5	106	94.7	0.894	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	749	157	21.0	291	38.8	134	85.0	1.200	<0.001
	Grassland Herbaceous to Evergreen Forest	27	4	15.0	6	23.6	2	57.0	0.701	<0.001
	Grassland Herbaceous to Mixed Forest	103	18	17.9	30	29.6	12	65.9	0.754	<0.001
	Herbaceous Wetlands to Deciduous Forest	69	17	24.4	18	25.3	1	3.9	0.233	0.017
	Herbaceous Wetlands to Evergreen Forest	1	0	24.5	0	25.1	0	2.7	0.140	0.239
	Herbaceous Wetlands to Mixed Forest	2	0	16.2	1	26.5	0	64.2	0.517	<0.001
	Pasture Hay to Deciduous Forest	19,324	3,121	16.2	9,594	49.6	6,473	207.0	2.100	<0.001
	Pasture Hay to Evergreen Forest	443	65	14.8	272	61.5	207	316.0	2.900	<0.001
	Pasture Hay to Mixed Forest	3,225	425	13.2	1,320	40.9	895	210.0	1.600	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Eastern Corn Belt Plains	Shrub Scrub to Deciduous Forest	403	155	38.4	282	70.1	128	82.4	1.900	<0.001
	Shrub Scrub to Evergreen Forest	10	2	17.7	7	68.4	5	286.0	2.600	<0.001
	Shrub Scrub to Mixed Forest	49	12	24.3	34	68.6	22	182.0	2.700	<0.001
	Woody Wetlands to Deciduous Forest	86	34	39.3	38	44.3	4	12.7	0.290	0.037
	Woody Wetlands to Evergreen Forest	1	0	48.5	0	57.0	0	17.5	0.593	0.01
	Woody Wetlands to Mixed Forest	3	1	19.2	1	31.8	0	65.2	0.719	<0.001
	Cultivated Crops to Deciduous Forest	2,446	602	24.6	1,334	54.5	732	122.0	1.700	<0.001
	Cultivated Crops to Evergreen Forest	82	19	22.7	44	54.1	26	138.0	1.800	<0.001
	Cultivated Crops to Mixed Forest	525	108	20.6	291	55.4	183	169.0	2.000	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	1,125	313	27.9	690	61.4	377	120.0	2.300	<0.001
	Grassland Herbaceous to Evergreen Forest	373	106	28.5	258	69.2	152	143.0	2.800	<0.001
	Grassland Herbaceous to Mixed Forest	361	104	28.9	267	73.8	162	155.0	2.700	<0.001
	Herbaceous Wetlands to Deciduous Forest	873	283	32.4	480	54.9	196	69.4	1.400	<0.001
	Herbaceous Wetlands to Evergreen Forest	38	16	40.3	25	66.0	10	63.8	1.500	<0.001
	Herbaceous Wetlands to Mixed Forest	265	95	35.7	153	57.9	59	62.2	1.400	<0.001
	Pasture Hay to Deciduous Forest	16,289	4,698	28.8	11,753	72.2	7,054	150.0	2.600	<0.001
	Pasture Hay to Evergreen Forest	1,670	425	25.4	1,268	75.9	844	199.0	3.000	<0.001
	Pasture Hay to Mixed Forest	4,845	1,233	25.4	3,418	70.6	2,185	177.0	2.700	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Eastern Great Lakes Lowlands	Shrub Scrub to Deciduous Forest	4,378	2,126	48.6	3,555	81.2	1,428	67.2	1.800	<0.001
	Shrub Scrub to Evergreen Forest	876	338	38.5	726	82.9	389	115.0	2.500	<0.001
	Shrub Scrub to Mixed Forest	1,716	880	51.2	1,470	85.6	590	67.1	1.800	<0.001
	Woody Wetlands to Deciduous Forest	337	168	49.9	225	66.7	57	33.7	1.000	<0.001
	Woody Wetlands to Evergreen Forest	58	34	58.5	42	72.3	8	23.6	0.922	<0.001
	Woody Wetlands to Mixed Forest	67	34	51.3	45	67.8	11	32.2	1.000	<0.001
	Cultivated Crops to Deciduous Forest	2,807	388	13.8	1,399	49.8	1,011	260.0	1.900	<0.001
	Cultivated Crops to Evergreen Forest	10	2	15.5	6	65.9	5	326.0	2.300	<0.001
	Cultivated Crops to Mixed Forest	128	16	12.7	53	41.3	37	226.0	1.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	893	185	20.7	511	57.3	326	176.0	2.200	<0.001
	Grassland Herbaceous to Evergreen Forest	40	6	14.6	16	40.8	10	179.0	1.300	<0.001
	Grassland Herbaceous to Mixed Forest	133	21	15.5	49	37.2	29	139.0	1.200	<0.001
	Herbaceous Wetlands to Deciduous Forest	104	34	33.0	55	53.1	21	61.0	1.100	<0.001
	Herbaceous Wetlands to Evergreen Forest	4	2	57.9	2	64.6	0	11.7	0.515	0.001
	Herbaceous Wetlands to Mixed Forest	24	8	31.6	11	44.7	3	41.4	0.732	<0.001
	Pasture Hay to Deciduous Forest	14,523	2,342	16.1	8,528	58.7	6,186	264.0	2.400	<0.001
	Pasture Hay to Evergreen Forest	262	35	13.4	167	63.5	131	374.0	2.700	<0.001
	Pasture Hay to Mixed Forest	2,645	379	14.3	1,286	48.6	908	240.0	1.800	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Erie Drift Plain	Shrub Scrub to Deciduous Forest	3,865	1,924	49.8	3,536	91.5	1,612	83.8	1.300	<0.001
	Shrub Scrub to Evergreen Forest	35	16	45.6	29	83.4	13	83.0	1.500	<0.001
	Shrub Scrub to Mixed Forest	119	58	48.9	96	80.7	38	65.0	1.100	<0.001
	Woody Wetlands to Deciduous Forest	125	55	44.1	80	63.7	25	44.5	0.974	<0.001
	Woody Wetlands to Evergreen Forest	7	5	74.9	6	86.4	1	15.4	0.671	<0.001
	Woody Wetlands to Mixed Forest	15	7	47.7	9	60.8	2	27.5	0.723	<0.001
	Cultivated Crops to Deciduous Forest	3,515	494	14.0	1,323	37.6	829	168.0	1.300	<0.001
	Cultivated Crops to Evergreen Forest	171	21	12.1	96	56.2	75	364.0	2.400	<0.001
	Cultivated Crops to Mixed Forest	410	48	11.7	175	42.6	127	264.0	1.700	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	426	108	25.5	276	64.8	168	155.0	2.300	<0.001
	Grassland Herbaceous to Evergreen Forest	22	3	12.6	12	55.3	10	338.0	2.400	<0.001
	Grassland Herbaceous to Mixed Forest	43	6	13.3	19	44.1	13	231.0	1.700	<0.001
	Herbaceous Wetlands to Deciduous Forest	59	12	20.6	27	44.8	14	117.0	1.100	<0.001
	Herbaceous Wetlands to Evergreen Forest	2	0	19.3	1	48.9	1	153.0	1.600	<0.001
	Herbaceous Wetlands to Mixed Forest	6	1	21.9	2	34.4	1	56.9	0.987	0.001
	Pasture Hay to Deciduous Forest	897	127	14.1	413	46.0	286	226.0	1.700	<0.001
	Pasture Hay to Evergreen Forest	49	6	11.7	33	67.1	27	473.0	2.900	<0.001
	Pasture Hay to Mixed Forest	197	23	11.5	92	46.5	69	307.0	1.700	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Huron/Erie Lake Plains	Shrub Scrub to Deciduous Forest	453	128	28.2	363	80.2	236	184.0	2.900	<0.001
	Shrub Scrub to Evergreen Forest	19	4	21.9	9	46.9	5	115.0	1.300	<0.001
	Shrub Scrub to Mixed Forest	20	5	23.8	14	69.4	9	191.0	2.500	<0.001
	Woody Wetlands to Deciduous Forest	203	86	42.2	115	56.9	30	34.8	0.726	<0.001
	Woody Wetlands to Evergreen Forest	4	1	29.7	2	45.4	1	52.9	0.794	<0.001
	Woody Wetlands to Mixed Forest	16	5	32.1	8	47.6	2	48.1	0.940	<0.001
	Cultivated Crops to Deciduous Forest	3,076	561	18.3	1,255	40.8	693	123.0	1.400	<0.001
	Cultivated Crops to Evergreen Forest	80	9	11.7	53	66.2	44	465.0	3.100	<0.001
	Cultivated Crops to Mixed Forest	243	44	18.3	103	42.5	59	132.0	1.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	16,770	6,643	39.6	13,003	77.5	6,360	95.7	2.200	<0.001
	Grassland Herbaceous to Evergreen Forest	11,708	4,286	36.6	10,807	92.3	6,521	152.0	3.200	<0.001
	Grassland Herbaceous to Mixed Forest	2,867	846	29.5	2,013	70.2	1,167	138.0	2.400	<0.001
	Herbaceous Wetlands to Deciduous Forest	125	46	37.1	56	44.7	9	20.3	0.814	0.003
	Herbaceous Wetlands to Evergreen Forest	15	7	47.8	7	47.8	0	0.1	0.336	0.124
	Herbaceous Wetlands to Mixed Forest	22	7	32.9	10	46.8	3	42.1	1.100	0.001
	Pasture Hay to Deciduous Forest	105,570	20,077	19.0	59,778	56.6	39,702	198.0	2.300	<0.001
	Pasture Hay to Evergreen Forest	12,272	1,873	15.3	9,906	80.7	8,033	429.0	3.700	<0.001
	Pasture Hay to Mixed Forest	33,518	5,337	15.9	20,411	60.9	15,074	282.0	2.600	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Interior Plateau	Shrub Scrub to Deciduous Forest	15,890	8,034	50.6	14,266	89.8	6,232	77.6	1.800	<0.001
	Shrub Scrub to Evergreen Forest	6,640	2,486	37.4	6,180	93.1	3,693	149.0	1.900	<0.001
	Shrub Scrub to Mixed Forest	4,722	2,116	44.8	4,252	90.1	2,136	101.0	1.900	<0.001
	Woody Wetlands to Deciduous Forest	127	58	45.7	72	56.6	14	24.0	0.781	0.004
	Woody Wetlands to Evergreen Forest	13	5	40.2	9	68.0	4	69.2	1.500	<0.001
	Woody Wetlands to Mixed Forest	19	7	37.1	11	59.4	4	60.2	1.400	<0.001
	Cultivated Crops to Deciduous Forest	13,076	2,174	16.6	5,101	39.0	2,927	135.0	1.300	<0.001
	Cultivated Crops to Evergreen Forest	46	5	11.2	21	47.1	16	319.0	2.000	<0.001
	Cultivated Crops to Mixed Forest	802	116	14.5	269	33.6	153	132.0	1.100	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	5,388	1,287	23.9	2,992	55.5	1,706	133.0	1.800	<0.001
	Grassland Herbaceous to Evergreen Forest	358	78	21.8	264	73.7	186	238.0	3.000	<0.001
	Grassland Herbaceous to Mixed Forest	904	154	17.1	488	54.0	334	216.0	2.100	<0.001
	Herbaceous Wetlands to Deciduous Forest	173	45	26.1	69	39.7	24	52.0	0.822	<0.001
	Herbaceous Wetlands to Evergreen Forest	2	1	40.3	1	43.7	0	8.4	0.162	0.123
	Herbaceous Wetlands to Mixed Forest	19	5	28.3	5	27.7	0	-2.0	0.101	0.45
	Pasture Hay to Deciduous Forest	43,585	7,262	16.7	23,817	54.6	16,555	228.0	2.100	<0.001
	Pasture Hay to Evergreen Forest	467	50	10.7	321	68.8	271	542.0	3.200	<0.001
	Pasture Hay to Mixed Forest	8,636	1,095	12.7	5,081	58.8	3,986	364.0	2.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Interior River Valleys and Hills	Shrub Scrub to Deciduous Forest	1,550	689	44.5	1,287	83.0	598	86.7	2.000	<0.001
	Shrub Scrub to Evergreen Forest	114	30	26.7	99	86.8	68	225.0	2.300	<0.001
	Shrub Scrub to Mixed Forest	266	72	27.1	200	75.3	128	178.0	2.600	<0.001
	Woody Wetlands to Deciduous Forest	137	57	41.7	63	46.2	6	10.8	0.409	0.007
	Woody Wetlands to Evergreen Forest	1	0	32.0	0	22.2	0	-31.0	-0.483	0.006
	Woody Wetlands to Mixed Forest	11	4	33.1	4	39.2	1	18.6	0.508	0.002
	Cultivated Crops to Deciduous Forest	1,353	192	14.2	1,002	74.1	810	422.0	3.500	<0.001
	Cultivated Crops to Evergreen Forest	24,079	3,077	12.8	19,460	80.8	16,383	532.0	4.100	<0.001
	Cultivated Crops to Mixed Forest	2,771	353	12.7	2,019	72.8	1,666	472.0	3.600	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	1,744	645	37.0	1,209	69.3	564	87.5	1.800	<0.001
	Grassland Herbaceous to Evergreen Forest	70,160	28,167	40.1	61,422	87.5	33,254	118.0	2.900	<0.001
	Grassland Herbaceous to Mixed Forest	1,906	779	40.8	1,531	80.3	752	96.6	2.600	<0.001
	Herbaceous Wetlands to Deciduous Forest	12	3	27.8	5	44.0	2	57.9	0.762	<0.001
	Herbaceous Wetlands to Evergreen Forest	162	61	37.6	108	66.5	47	76.9	1.800	<0.001
	Herbaceous Wetlands to Mixed Forest	18	6	33.3	8	47.8	3	43.7	0.824	<0.001
	Pasture Hay to Deciduous Forest	237	48	20.2	155	65.6	107	224.0	2.700	<0.001
	Pasture Hay to Evergreen Forest	6,033	1,373	22.8	4,927	81.7	3,554	259.0	3.500	<0.001
	Pasture Hay to Mixed Forest	376	50	13.2	289	76.8	239	483.0	3.900	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Middle Atlantic Coastal Plain	Shrub Scrub to Deciduous Forest	3,356	1,346	40.1	2,654	79.1	1,307	97.1	1.400	<0.001
	Shrub Scrub to Evergreen Forest	125,453	47,467	37.8	110,353	88.0	62,886	132.0	1.700	<0.001
	Shrub Scrub to Mixed Forest	5,664	2,359	41.6	4,777	84.3	2,418	103.0	2.100	<0.001
	Woody Wetlands to Deciduous Forest	85	40	46.5	55	64.3	15	38.2	0.707	<0.001
	Woody Wetlands to Evergreen Forest	1,260	655	52.0	918	72.9	263	40.2	1.000	<0.001
	Woody Wetlands to Mixed Forest	155	69	44.2	105	67.4	36	52.4	1.300	<0.001
	Cultivated Crops to Deciduous Forest	1,304	237	18.2	1,054	80.8	817	345.0	3.700	<0.001
	Cultivated Crops to Evergreen Forest	2,375	247	10.4	2,055	86.6	1,808	732.0	4.100	<0.001
	Cultivated Crops to Mixed Forest	1,627	378	23.2	1,340	82.4	962	255.0	3.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	62	20	31.7	33	53.5	14	68.8	1.300	<0.001
	Grassland Herbaceous to Evergreen Forest	179	55	31.0	133	74.6	78	141.0	2.500	<0.001
	Grassland Herbaceous to Mixed Forest	40	13	33.0	23	56.3	9	70.5	1.300	<0.001
	Herbaceous Wetlands to Deciduous Forest	126	24	19.4	109	86.6	85	347.0	3.600	<0.001
	Herbaceous Wetlands to Evergreen Forest	107	19	17.4	77	71.7	58	312.0	3.200	<0.001
	Herbaceous Wetlands to Mixed Forest	22	7	32.7	12	51.9	4	58.5	1.100	<0.001
	Pasture Hay to Deciduous Forest	1,773	339	19.1	1,273	71.8	935	276.0	3.200	<0.001
	Pasture Hay to Evergreen Forest	536	66	12.3	411	76.7	344	521.0	3.800	<0.001
	Pasture Hay to Mixed Forest	1,011	190	18.8	700	69.2	509	268.0	3.000	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Mississippi Alluvial Plain	Shrub Scrub to Deciduous Forest	373	143	38.3	290	77.9	148	103.0	2.000	<0.001
	Shrub Scrub to Evergreen Forest	859	303	35.2	735	85.5	433	143.0	2.200	<0.001
	Shrub Scrub to Mixed Forest	312	121	38.7	233	74.8	112	93.0	1.900	<0.001
	Woody Wetlands to Deciduous Forest	29	11	38.5	15	53.9	4	39.9	0.828	<0.001
	Woody Wetlands to Evergreen Forest	16	8	46.9	11	66.4	3	41.7	0.977	<0.001
	Woody Wetlands to Mixed Forest	22	9	39.7	13	60.2	4	51.7	0.923	<0.001
	Cultivated Crops to Deciduous Forest	2,324	443	19.1	1,304	56.1	861	194.0	2.200	<0.001
	Cultivated Crops to Evergreen Forest	794	31	3.9	691	87.0	660	2,150.0	4.700	<0.001
	Cultivated Crops to Mixed Forest	767	107	14.0	545	71.1	438	407.0	3.200	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	1,965	573	29.1	1,331	67.7	758	132.0	2.100	<0.001
	Grassland Herbaceous to Evergreen Forest	22,413	7,373	32.9	18,983	84.7	11,609	157.0	2.600	<0.001
	Grassland Herbaceous to Mixed Forest	1,382	489	35.4	1,046	75.7	557	114.0	2.400	<0.001
	Herbaceous Wetlands to Deciduous Forest	56	18	32.0	32	56.7	14	77.3	1.300	<0.001
	Herbaceous Wetlands to Evergreen Forest	81	28	34.5	65	80.4	37	133.0	2.200	<0.001
	Herbaceous Wetlands to Mixed Forest	28	9	31.5	17	59.7	8	89.6	1.400	<0.001
	Pasture Hay to Deciduous Forest	40,723	9,472	23.3	29,133	71.5	19,661	208.0	2.500	<0.001
	Pasture Hay to Evergreen Forest	58,568	8,252	14.1	49,030	83.7	40,778	494.0	3.400	<0.001
	Pasture Hay to Mixed Forest	25,940	4,958	19.1	19,701	76.0	14,744	297.0	3.000	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Mississippi Valley Loess Plains	Shrub Scrub to Deciduous Forest	17,704	6,469	36.5	14,670	82.9	8,200	127.0	1.800	<0.001
	Shrub Scrub to Evergreen Forest	82,006	26,235	32.0	70,446	85.9	44,211	169.0	1.000	<0.001
	Shrub Scrub to Mixed Forest	23,487	8,453	36.0	20,029	85.3	11,576	137.0	1.600	<0.001
	Woody Wetlands to Deciduous Forest	128	50	39.2	80	62.7	30	60.0	1.100	<0.001
	Woody Wetlands to Evergreen Forest	157	77	48.8	113	71.7	36	47.0	0.982	<0.001
	Woody Wetlands to Mixed Forest	95	44	46.4	65	68.6	21	47.8	0.974	<0.001
	Cultivated Crops to Deciduous Forest	11,884	2,183	18.4	5,904	49.7	3,721	170.0	1.900	<0.001
	Cultivated Crops to Evergreen Forest	2,535	295	11.6	1,919	75.7	1,624	551.0	3.900	<0.001
	Cultivated Crops to Mixed Forest	4,451	603	13.5	3,008	67.6	2,406	399.0	3.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	6,852	2,266	33.1	4,577	66.8	2,311	102.0	2.100	<0.001
	Grassland Herbaceous to Evergreen Forest	5,929	1,415	23.9	4,726	79.7	3,311	234.0	3.500	<0.001
	Grassland Herbaceous to Mixed Forest	4,182	1,165	27.8	3,374	80.7	2,210	190.0	3.000	<0.001
	Herbaceous Wetlands to Deciduous Forest	4,510	1,496	33.2	2,169	48.1	673	45.0	0.858	<0.001
	Herbaceous Wetlands to Evergreen Forest	265	77	29.0	163	61.5	86	112.0	1.800	<0.001
	Herbaceous Wetlands to Mixed Forest	516	154	29.9	251	48.5	96	62.2	1.100	<0.001
	Pasture Hay to Deciduous Forest	10,298	2,093	20.3	5,636	54.7	3,543	169.0	2.000	<0.001
	Pasture Hay to Evergreen Forest	3,533	390	11.0	2,732	77.3	2,342	601.0	3.900	<0.001
	Pasture Hay to Mixed Forest	2,955	477	16.1	1,911	64.7	1,434	300.0	2.900	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
North Central Hardwood Forests	Shrub Scrub to Deciduous Forest	13,359	7,335	54.9	11,700	87.6	4,365	59.5	1.700	<0.001
	Shrub Scrub to Evergreen Forest	3,414	1,032	30.2	2,928	85.8	1,896	184.0	2.900	<0.001
	Shrub Scrub to Mixed Forest	7,861	3,213	40.9	7,019	89.3	3,806	118.0	2.400	<0.001
	Woody Wetlands to Deciduous Forest	547	211	38.6	291	53.1	79	37.6	0.983	<0.001
	Woody Wetlands to Evergreen Forest	48	18	38.3	30	63.5	12	66.1	1.500	<0.001
	Woody Wetlands to Mixed Forest	123	51	41.4	78	63.3	27	52.9	1.400	<0.001
	Cultivated Crops to Deciduous Forest	331	70	21.2	118	35.7	48	68.4	1.300	<0.001
	Cultivated Crops to Evergreen Forest	78	17	21.7	32	40.8	15	88.0	1.300	<0.001
	Cultivated Crops to Mixed Forest	171	40	23.7	77	45.1	37	90.2	1.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	1,744	486	27.9	851	48.8	365	75.0	1.500	<0.001
	Grassland Herbaceous to Evergreen Forest	716	193	27.0	404	56.3	210	109.0	1.700	<0.001
	Grassland Herbaceous to Mixed Forest	1,675	478	28.6	966	57.7	488	102.0	1.800	<0.001
	Herbaceous Wetlands to Deciduous Forest	65	20	30.4	23	34.5	3	13.5	0.366	0.017
	Herbaceous Wetlands to Evergreen Forest	30	13	42.6	13	44.8	1	5.2	0.399	0.005
	Herbaceous Wetlands to Mixed Forest	53	18	34.3	21	40.1	3	16.9	0.638	0.005
	Pasture Hay to Deciduous Forest	4,708	1,124	23.9	2,330	49.5	1,206	107.0	1.900	<0.001
	Pasture Hay to Evergreen Forest	503	104	20.7	272	54.1	168	161.0	2.200	<0.001
	Pasture Hay to Mixed Forest	3,062	635	20.7	1,474	48.1	838	132.0	2.000	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northeastern Coastal Zone	Shrub Scrub to Deciduous Forest	1,536	867	56.5	1,161	75.6	293	33.8	1.200	<0.001
	Shrub Scrub to Evergreen Forest	312	154	49.4	229	73.6	76	49.1	1.500	<0.001
	Shrub Scrub to Mixed Forest	1,323	660	49.9	911	68.8	251	38.0	1.300	<0.001
	Woody Wetlands to Deciduous Forest	180	84	46.8	88	49.0	4	4.6	0.475	0.012
	Woody Wetlands to Evergreen Forest	48	26	52.7	27	55.0	1	4.5	0.511	0.001
	Woody Wetlands to Mixed Forest	113	54	47.9	57	50.5	3	5.2	0.443	0.001
	Cultivated Crops to Deciduous Forest	1,471	434	29.5	748	50.9	314	72.2	1.200	<0.001
	Cultivated Crops to Evergreen Forest	59	15	25.4	32	53.4	17	110.0	1.600	<0.001
	Cultivated Crops to Mixed Forest	407	106	25.9	201	49.5	96	90.9	1.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	1,809	567	31.4	1,437	79.4	869	153.0	2.800	<0.001
	Grassland Herbaceous to Evergreen Forest	200	58	29.2	159	79.6	101	173.0	3.300	<0.001
	Grassland Herbaceous to Mixed Forest	590	193	32.7	476	80.6	283	147.0	2.900	<0.001
	Herbaceous Wetlands to Deciduous Forest	251	82	32.7	135	53.7	53	64.2	1.300	<0.001
	Herbaceous Wetlands to Evergreen Forest	16	8	51.8	12	72.0	3	39.0	1.200	<0.001
	Herbaceous Wetlands to Mixed Forest	89	32	35.9	51	57.7	19	61.0	1.300	<0.001
	Pasture Hay to Deciduous Forest	32,936	8,431	25.6	22,318	67.8	13,887	165.0	2.600	<0.001
	Pasture Hay to Evergreen Forest	1,350	281	20.8	1,017	75.3	736	261.0	3.300	<0.001
	Pasture Hay to Mixed Forest	12,388	2,949	23.8	8,027	64.8	5,078	172.0	2.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northern Allegheny Plateau	Shrub Scrub to Deciduous Forest	6,437	4,129	64.1	5,623	87.4	1,495	36.2	1.300	<0.001
	Shrub Scrub to Evergreen Forest	177	82	46.1	140	79.2	59	71.8	1.800	<0.001
	Shrub Scrub to Mixed Forest	1,024	522	51.0	835	81.5	313	60.0	1.600	<0.001
	Woody Wetlands to Deciduous Forest	141	59	42.0	84	59.2	24	41.2	1.100	<0.001
	Woody Wetlands to Evergreen Forest	16	9	57.1	12	71.1	2	24.5	0.807	<0.001
	Woody Wetlands to Mixed Forest	56	28	49.5	36	64.1	8	29.4	0.874	<0.001
	Cultivated Crops to Deciduous Forest	1,114	262	23.5	608	54.6	347	132.0	1.900	<0.001
	Cultivated Crops to Evergreen Forest	50	10	20.0	36	72.0	26	261.0	2.900	<0.001
	Cultivated Crops to Mixed Forest	425	80	18.8	197	46.2	117	146.0	1.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	609	238	39.1	371	60.9	133	55.9	1.600	<0.001
	Grassland Herbaceous to Evergreen Forest	804	369	45.9	726	90.3	357	96.7	3.000	<0.001
	Grassland Herbaceous to Mixed Forest	300	123	40.9	224	74.7	101	82.6	2.500	<0.001
	Herbaceous Wetlands to Deciduous Forest	23	7	28.8	9	37.5	2	30.4	0.465	0.005
	Herbaceous Wetlands to Evergreen Forest	4	2	38.0	2	52.5	1	38.0	0.776	0.001
	Herbaceous Wetlands to Mixed Forest	8	2	29.6	4	51.3	2	73.4	1.400	<0.001
	Pasture Hay to Deciduous Forest	7,356	1,631	22.2	4,435	60.3	2,804	172.0	2.200	<0.001
	Pasture Hay to Evergreen Forest	1,087	172	15.8	748	68.8	576	335.0	3.100	<0.001
	Pasture Hay to Mixed Forest	6,200	1,074	17.3	3,695	59.6	2,621	244.0	2.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Northern Piedmont	Shrub Scrub to Deciduous Forest	3,238	1,904	58.8	2,816	87.0	912	47.9	1.300	<0.001
	Shrub Scrub to Evergreen Forest	1,203	367	30.5	1,076	89.4	709	193.0	2.700	<0.001
	Shrub Scrub to Mixed Forest	1,989	684	34.4	1,559	78.4	874	128.0	2.300	<0.001
	Woody Wetlands to Deciduous Forest	77	32	40.8	37	47.7	5	17.1	0.384	0.017
	Woody Wetlands to Evergreen Forest	4	1	35.6	2	50.3	1	41.3	0.864	<0.001
	Woody Wetlands to Mixed Forest	26	8	31.4	12	47.6	4	51.7	0.884	<0.001
	Cultivated Crops to Deciduous Forest	2	0	22.0	0	31.7	0	44.1	0.559	0.017
	Cultivated Crops to Evergreen Forest	2	1	38.6	1	60.2	0	55.9	2.600	<0.001
	Cultivated Crops to Mixed Forest	0	0	45.5	0	89.0	0	95.6	1.100	0.014

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	18,929	8,360	44.2	14,300	75.5	5,940	71.1	1.700	<0.001
	Grassland Herbaceous to Evergreen Forest	80,004	27,629	34.5	69,634	87.0	42,005	152.0	2.700	<0.001
	Grassland Herbaceous to Mixed Forest	15,163	6,832	45.1	13,131	86.6	6,300	92.2	2.200	<0.001
	Herbaceous Wetlands to Deciduous Forest	12	4	33.7	3	26.4	-1	-22.0	-0.373	0.024
	Herbaceous Wetlands to Evergreen Forest	2	1	30.2	1	38.0	0	25.6	0.353	0.024
	Herbaceous Wetlands to Mixed Forest	3	1	36.7	0	14.8	-1	-60.0	-0.843	0.001
	Pasture Hay to Deciduous Forest	8,868	3,214	36.2	5,873	66.2	2,659	82.7	1.500	<0.001
	Pasture Hay to Evergreen Forest	5,416	1,695	31.3	4,603	85.0	2,907	171.0	3.200	<0.001
	Pasture Hay to Mixed Forest	2,615	867	33.1	1,974	75.5	1,107	128.0	2.200	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ouachita Mountains	Shrub Scrub to Deciduous Forest	14,696	7,894	53.7	11,960	81.4	4,066	51.5	1.200	<0.001
	Shrub Scrub to Evergreen Forest	27,437	12,391	45.2	24,520	89.4	12,130	97.9	1.000	<0.001
	Shrub Scrub to Mixed Forest	12,327	6,590	53.5	10,960	88.9	4,370	66.3	1.400	<0.001
	Woody Wetlands to Deciduous Forest	26	12	46.7	10	39.6	-2	-15.0	-0.326	0.014
	Woody Wetlands to Evergreen Forest	5	2	44.8	2	50.1	0	11.9	0.271	0.043
	Woody Wetlands to Mixed Forest	7	2	37.8	2	28.0	-1	-26.0	-0.405	0.037
	Cultivated Crops to Deciduous Forest	372	87	23.4	135	36.4	48	55.9	0.668	<0.001
	Cultivated Crops to Evergreen Forest	2	0	15.0	1	58.2	1	288.0	2.300	<0.001
	Cultivated Crops to Mixed Forest	33	6	18.9	14	42.3	8	124.0	1.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	20,275	9,684	47.8	15,930	78.6	6,246	64.5	1.700	<0.001
	Grassland Herbaceous to Evergreen Forest	821	298	36.2	690	84.1	393	132.0	2.700	<0.001
	Grassland Herbaceous to Mixed Forest	1,812	719	39.7	1,356	74.8	637	88.5	2.100	<0.001
	Herbaceous Wetlands to Deciduous Forest	46	14	30.4	16	34.3	2	12.8	0.343	0.024
	Herbaceous Wetlands to Evergreen Forest	0	0	41.7	0	56.6	0	35.6	1.300	<0.001
	Herbaceous Wetlands to Mixed Forest	4	1	24.9	1	25.0	0	0.5	0.229	0.124
	Pasture Hay to Deciduous Forest	108,360	33,310	30.7	63,559	58.7	30,249	90.8	1.500	<0.001
	Pasture Hay to Evergreen Forest	3,076	631	20.5	2,253	73.2	1,622	257.0	3.000	<0.001
	Pasture Hay to Mixed Forest	14,388	3,527	24.5	9,477	65.9	5,951	169.0	2.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ozark Highlands	Shrub Scrub to Deciduous Forest	19,043	12,851	67.5	17,217	90.4	4,366	34.0	1.000	<0.001
	Shrub Scrub to Evergreen Forest	406	224	55.2	366	90.2	142	63.5	1.800	<0.001
	Shrub Scrub to Mixed Forest	1,869	1,184	63.3	1,688	90.3	504	42.6	1.300	<0.001
	Woody Wetlands to Deciduous Forest	61	22	35.3	16	25.5	-6	-28.0	-0.525	0.002
	Woody Wetlands to Evergreen Forest	0	0	46.8	0	41.8	0	-11.0	-0.627	0.018
	Woody Wetlands to Mixed Forest	5	2	30.6	1	26.7	0	-13.0	-0.066	0.608
	Cultivated Crops to Deciduous Forest	929	190	20.4	459	49.4	269	142.0	1.600	<0.001
	Cultivated Crops to Evergreen Forest	1,375	112	8.2	1,088	79.1	976	870.0	4.300	<0.001
	Cultivated Crops to Mixed Forest	589	96	16.3	336	57.0	240	250.0	2.200	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	66,889	32,334	48.3	56,228	84.1	23,894	73.9	2.000	<0.001
	Grassland Herbaceous to Evergreen Forest	370,399	129,524	35.0	335,096	90.5	205,573	159.0	2.800	<0.001
	Grassland Herbaceous to Mixed Forest	47,186	20,620	43.7	41,261	87.4	20,641	100.0	2.400	<0.001
	Herbaceous Wetlands to Deciduous Forest	203	85	41.9	115	56.5	30	35.0	0.971	<0.001
	Herbaceous Wetlands to Evergreen Forest	154	47	30.4	81	52.4	34	72.7	1.200	<0.001
	Herbaceous Wetlands to Mixed Forest	129	65	50.6	92	71.8	27	42.0	1.600	<0.001
	Pasture Hay to Deciduous Forest	63,970	14,349	22.4	42,496	66.4	28,147	196.0	2.500	<0.001
	Pasture Hay to Evergreen Forest	87,378	11,700	13.4	72,512	83.0	60,812	520.0	4.000	<0.001
	Pasture Hay to Mixed Forest	51,182	9,400	18.4	37,174	72.6	27,774	295.0	3.100	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Piedmont	Shrub Scrub to Deciduous Forest	54,189	30,251	55.8	49,481	91.3	19,230	63.6	1.300	<0.001
	Shrub Scrub to Evergreen Forest	161,039	66,142	41.1	148,475	92.2	82,333	124.0	1.100	<0.001
	Shrub Scrub to Mixed Forest	80,250	40,940	51.0	74,399	92.7	33,458	81.7	1.500	<0.001
	Woody Wetlands to Deciduous Forest	418	248	59.3	309	73.8	61	24.5	0.918	<0.001
	Woody Wetlands to Evergreen Forest	215	132	61.6	180	84.1	48	36.5	1.300	<0.001
	Woody Wetlands to Mixed Forest	187	106	56.4	147	78.4	41	38.9	1.200	<0.001
	Cultivated Crops to Deciduous Forest	1,756	356	20.3	796	45.3	440	124.0	1.500	<0.001
	Cultivated Crops to Evergreen Forest	114	13	11.0	84	73.6	72	568.0	3.800	<0.001
	Cultivated Crops to Mixed Forest	546	107	19.5	247	45.3	140	132.0	1.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	20,462	9,463	46.2	16,226	79.3	6,763	71.5	2.000	<0.001
	Grassland Herbaceous to Evergreen Forest	38,917	15,171	39.0	34,458	88.5	19,288	127.0	3.000	<0.001
	Grassland Herbaceous to Mixed Forest	6,147	2,532	41.2	5,087	82.8	2,554	101.0	2.600	<0.001
	Herbaceous Wetlands to Deciduous Forest	277	102	36.8	156	56.4	54	53.1	1.100	<0.001
	Herbaceous Wetlands to Evergreen Forest	29	13	45.7	19	64.4	5	40.7	1.200	<0.001
	Herbaceous Wetlands to Mixed Forest	147	54	36.8	80	54.6	26	48.5	1.000	<0.001
	Pasture Hay to Deciduous Forest	45,953	11,003	23.9	27,934	60.8	16,931	154.0	2.100	<0.001
	Pasture Hay to Evergreen Forest	15,710	2,855	18.2	12,517	79.7	9,662	338.0	3.600	<0.001
	Pasture Hay to Mixed Forest	22,687	4,573	20.2	14,855	65.5	10,281	225.0	2.600	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Ridge and Valley	Shrub Scrub to Deciduous Forest	47,379	33,640	71.0	42,696	90.1	9,056	26.9	0.892	<0.001
	Shrub Scrub to Evergreen Forest	27,336	11,256	41.2	24,567	89.9	13,311	118.0	1.200	<0.001
	Shrub Scrub to Mixed Forest	14,907	7,680	51.5	13,160	88.3	5,481	71.4	1.600	<0.001
	Woody Wetlands to Deciduous Forest	189	82	43.6	109	57.7	27	32.4	0.757	<0.001
	Woody Wetlands to Evergreen Forest	26	14	53.8	18	70.8	4	31.7	0.806	<0.001
	Woody Wetlands to Mixed Forest	58	25	43.9	35	61.3	10	39.7	0.941	<0.001
	Cultivated Crops to Deciduous Forest	12,812	3,337	26.0	7,377	57.6	4,040	121.0	2.000	<0.001
	Cultivated Crops to Evergreen Forest	821	140	17.1	522	63.6	382	273.0	2.800	<0.001
	Cultivated Crops to Mixed Forest	1,068	195	18.3	601	56.2	405	208.0	2.300	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	1,580	468	29.6	1,032	65.3	564	121.0	2.200	<0.001
	Grassland Herbaceous to Evergreen Forest	305	80	26.1	203	66.7	124	156.0	2.700	<0.001
	Grassland Herbaceous to Mixed Forest	198	51	25.8	132	66.9	81	159.0	2.500	<0.001
	Herbaceous Wetlands to Deciduous Forest	116	32	28.1	55	47.6	22	69.4	1.300	<0.001
	Herbaceous Wetlands to Evergreen Forest	8	2	27.4	4	49.6	2	80.7	1.500	<0.001
	Herbaceous Wetlands to Mixed Forest	13	3	25.0	4	32.1	1	28.4	0.855	0.001
	Pasture Hay to Deciduous Forest	4,133	865	20.9	2,365	57.2	1,501	174.0	2.200	<0.001
	Pasture Hay to Evergreen Forest	357	57	15.9	262	73.6	206	363.0	3.300	<0.001
	Pasture Hay to Mixed Forest	820	124	15.2	433	52.8	309	248.0	2.100	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
S MI/N IN Drift Plains	Shrub Scrub to Deciduous Forest	847	381	45.0	682	80.5	301	78.9	2.100	<0.001
	Shrub Scrub to Evergreen Forest	128	48	37.7	102	80.0	54	112.0	2.400	<0.001
	Shrub Scrub to Mixed Forest	72	30	40.9	56	77.5	26	89.4	2.200	<0.001
	Woody Wetlands to Deciduous Forest	366	176	48.2	205	56.0	29	16.3	0.693	0.002
	Woody Wetlands to Evergreen Forest	13	6	47.6	8	59.8	2	25.8	0.985	0.001
	Woody Wetlands to Mixed Forest	31	12	37.4	15	49.3	4	31.6	0.920	<0.001
	Cultivated Crops to Deciduous Forest	2,089	506	24.2	872	41.8	366	72.3	1.500	<0.001
	Cultivated Crops to Evergreen Forest	389	66	17.0	280	71.9	214	322.0	3.500	<0.001
	Cultivated Crops to Mixed Forest	457	93	20.4	298	65.2	205	219.0	2.900	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	230	48	21.1	71	30.9	23	46.6	0.773	<0.001
	Grassland Herbaceous to Evergreen Forest	40	6	14.7	27	68.4	22	366.0	3.300	<0.001
	Grassland Herbaceous to Mixed Forest	31	6	20.1	16	50.0	9	149.0	1.900	<0.001
	Herbaceous Wetlands to Deciduous Forest	135	43	31.8	57	42.3	14	32.9	1.000	<0.001
	Herbaceous Wetlands to Evergreen Forest	19	4	23.5	14	77.2	10	228.0	3.300	<0.001
	Herbaceous Wetlands to Mixed Forest	16	6	34.4	7	45.9	2	33.5	1.300	<0.001
	Pasture Hay to Deciduous Forest	1,509	362	24.0	762	50.5	400	111.0	1.900	<0.001
	Pasture Hay to Evergreen Forest	832	124	14.9	661	79.4	537	433.0	4.000	<0.001
	Pasture Hay to Mixed Forest	653	137	20.9	443	67.8	306	224.0	3.100	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
SE Wisconsin Till Plains	Shrub Scrub to Deciduous Forest	211	67	31.5	132	62.3	65	97.7	2.000	<0.001
	Shrub Scrub to Evergreen Forest	92	27	29.5	78	84.8	51	188.0	3.400	<0.001
	Shrub Scrub to Mixed Forest	53	16	30.4	38	71.8	22	136.0	2.600	<0.001
	Woody Wetlands to Deciduous Forest	113	48	42.6	52	45.6	3	6.9	0.716	0.002
	Woody Wetlands to Evergreen Forest	7	3	41.1	4	54.0	1	31.6	1.600	<0.001
	Woody Wetlands to Mixed Forest	14	6	38.5	7	47.6	1	23.7	1.000	<0.001
	Cultivated Crops to Deciduous Forest	212	49	23.1	159	75.1	110	225.0	3.000	<0.001
	Cultivated Crops to Evergreen Forest	1,638	231	14.1	1,254	76.5	1,023	443.0	3.500	<0.001
	Cultivated Crops to Mixed Forest	206	68	32.9	158	76.6	90	133.0	2.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	11,705	3,582	30.6	6,829	58.3	3,247	90.7	1.300	<0.001
	Grassland Herbaceous to Evergreen Forest	505,328	146,564	29.0	420,493	83.2	273,929	187.0	1.900	<0.001
	Grassland Herbaceous to Mixed Forest	16,609	5,816	35.0	12,094	72.8	6,278	108.0	1.600	<0.001
	Herbaceous Wetlands to Deciduous Forest	493	184	37.4	309	62.7	125	67.6	1.100	<0.001
	Herbaceous Wetlands to Evergreen Forest	4,705	1,501	31.9	4,200	89.3	2,699	180.0	1.900	<0.001
	Herbaceous Wetlands to Mixed Forest	110	41	36.8	72	65.7	32	78.4	1.100	<0.001
	Pasture Hay to Deciduous Forest	15,405	4,384	28.5	10,588	68.7	6,203	141.0	2.000	<0.001
	Pasture Hay to Evergreen Forest	118,565	23,306	19.7	88,590	74.7	65,284	280.0	2.700	<0.001
	Pasture Hay to Mixed Forest	29,049	8,095	27.9	19,258	66.3	11,162	138.0	1.600	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
South Central Plains	Shrub Scrub to Deciduous Forest	15,551	6,855	44.1	12,149	78.1	5,294	77.2	1.400	<0.001
	Shrub Scrub to Evergreen Forest	443,498	195,560	44.1	372,852	84.1	177,292	90.7	0.845	<0.001
	Shrub Scrub to Mixed Forest	29,651	13,172	44.4	23,702	79.9	10,531	79.9	1.400	<0.001
	Woody Wetlands to Deciduous Forest	354	203	57.3	253	71.5	50	24.7	0.339	0.012
	Woody Wetlands to Evergreen Forest	2,395	1,411	58.9	1,887	78.8	476	33.8	0.859	<0.001
	Woody Wetlands to Mixed Forest	511	285	55.7	367	71.9	83	29.0	0.429	0.004
	Cultivated Crops to Deciduous Forest	3,121	486	15.6	1,824	58.4	1,338	275.0	2.300	<0.001
	Cultivated Crops to Evergreen Forest	114,914	7,837	6.8	85,856	74.7	78,019	996.0	3.800	<0.001
	Cultivated Crops to Mixed Forest	4,441	681	15.3	2,906	65.4	2,225	327.0	2.800	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	39,714	16,687	42.0	30,539	76.9	13,852	83.0	1.900	<0.001
	Grassland Herbaceous to Evergreen Forest	640,221	209,819	32.8	534,952	83.6	325,132	155.0	2.900	<0.001
	Grassland Herbaceous to Mixed Forest	32,119	13,320	41.5	26,674	83.0	13,354	100.0	2.300	<0.001
	Herbaceous Wetlands to Deciduous Forest	231	81	35.0	139	60.4	59	72.5	1.300	<0.001
	Herbaceous Wetlands to Evergreen Forest	2,579	816	31.7	2,114	82.0	1,298	159.0	2.100	<0.001
	Herbaceous Wetlands to Mixed Forest	274	97	35.5	184	67.3	87	89.6	1.600	<0.001
	Pasture Hay to Deciduous Forest	44,445	9,089	20.4	30,812	69.3	21,723	239.0	2.600	<0.001
	Pasture Hay to Evergreen Forest	295,138	44,300	15.0	237,083	80.3	192,783	435.0	3.500	<0.001
	Pasture Hay to Mixed Forest	55,678	10,740	19.3	42,137	75.7	31,397	292.0	3.000	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southeastern Plains	Shrub Scrub to Deciduous Forest	78,998	33,396	42.3	67,712	85.7	34,316	103.0	1.700	<0.001
	Shrub Scrub to Evergreen Forest	802,602	291,997	36.4	680,624	84.8	388,626	133.0	1.300	<0.001
	Shrub Scrub to Mixed Forest	181,274	77,027	42.5	159,272	87.9	82,245	107.0	1.500	<0.001
	Woody Wetlands to Deciduous Forest	729	371	51.0	522	71.6	151	40.6	0.909	<0.001
	Woody Wetlands to Evergreen Forest	4,233	2,172	51.3	3,164	74.8	992	45.7	1.100	<0.001
	Woody Wetlands to Mixed Forest	1,231	648	52.6	940	76.3	292	45.0	1.000	<0.001
	Cultivated Crops to Deciduous Forest	42	8	19.4	15	35.6	7	83.9	0.493	0.007
	Cultivated Crops to Evergreen Forest	6,542	696	10.6	4,410	67.4	3,714	533.0	3.200	<0.001
	Cultivated Crops to Mixed Forest	126	32	25.0	67	52.9	35	111.0	1.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	3,668	982	26.8	1,443	39.3	461	47.0	0.618	0.024
	Grassland Herbaceous to Evergreen Forest	212,751	64,282	30.2	163,264	76.7	98,982	154.0	2.500	<0.001
	Grassland Herbaceous to Mixed Forest	1,298	448	34.5	664	51.1	216	48.2	0.957	<0.001
	Herbaceous Wetlands to Deciduous Forest	34	9	26.0	12	34.2	3	31.7	0.560	<0.001
	Herbaceous Wetlands to Evergreen Forest	1,479	525	35.5	915	61.8	389	74.1	1.400	<0.001
	Herbaceous Wetlands to Mixed Forest	23	7	32.0	10	43.8	3	36.7	0.374	0.003
	Pasture Hay to Deciduous Forest	1,610	289	17.9	602	37.4	313	109.0	1.700	0.002
	Pasture Hay to Evergreen Forest	58,027	9,822	16.9	35,341	60.9	25,519	260.0	2.500	<0.001
	Pasture Hay to Mixed Forest	1,218	281	23.0	633	52.0	353	126.0	1.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southern Coastal Plain	Shrub Scrub to Deciduous Forest	4,223	1,560	36.9	1,931	45.7	371	23.8	0.243	0.381
	Shrub Scrub to Evergreen Forest	218,231	87,857	40.3	159,674	73.2	71,817	81.7	0.874	<0.001
	Shrub Scrub to Mixed Forest	13,376	5,622	42.0	6,935	51.8	1,313	23.3	0.301	0.007
	Woody Wetlands to Deciduous Forest	45	23	51.1	24	52.7	1	3.3	0.138	0.786
	Woody Wetlands to Evergreen Forest	2,281	1,234	54.1	1,483	65.0	249	20.2	0.258	0.024
	Woody Wetlands to Mixed Forest	62	25	40.8	35	56.7	10	38.9	0.646	<0.001
	Cultivated Crops to Deciduous Forest	100	31	31.0	50	49.6	19	60.0	1.300	<0.001
	Cultivated Crops to Evergreen Forest	20	3	14.3	11	54.1	8	277.0	2.400	<0.001
	Cultivated Crops to Mixed Forest	47	12	24.8	23	48.7	11	96.4	1.500	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	21,459	11,417	53.2	17,714	82.5	6,297	55.2	2.000	<0.001
	Grassland Herbaceous to Evergreen Forest	50,740	19,338	38.1	44,754	88.2	25,416	131.0	3.200	<0.001
	Grassland Herbaceous to Mixed Forest	10,442	4,930	47.2	8,711	83.4	3,781	76.7	2.400	<0.001
	Herbaceous Wetlands to Deciduous Forest	54	23	42.1	24	44.4	1	5.4	0.622	0.012
	Herbaceous Wetlands to Evergreen Forest	24	10	40.7	16	67.5	7	65.7	1.500	<0.001
	Herbaceous Wetlands to Mixed Forest	22	10	45.1	12	56.3	2	24.8	1.100	<0.001
	Pasture Hay to Deciduous Forest	23,204	6,340	27.3	14,553	62.7	8,213	130.0	2.200	<0.001
	Pasture Hay to Evergreen Forest	12,182	2,337	19.2	9,947	81.7	7,611	326.0	3.800	<0.001
	Pasture Hay to Mixed Forest	13,314	2,847	21.4	8,767	65.8	5,920	208.0	2.700	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Southwestern Appalachians	Shrub Scrub to Deciduous Forest	23,685	12,723	53.7	21,093	89.1	8,370	65.8	1.500	<0.001
	Shrub Scrub to Evergreen Forest	29,775	11,090	37.2	26,562	89.2	15,471	140.0	1.500	<0.001
	Shrub Scrub to Mixed Forest	16,493	7,854	47.6	14,588	88.5	6,734	85.7	1.700	<0.001
	Woody Wetlands to Deciduous Forest	55	27	49.3	30	55.1	3	11.8	0.649	0.002
	Woody Wetlands to Evergreen Forest	16	8	49.2	11	69.5	3	41.4	1.100	<0.001
	Woody Wetlands to Mixed Forest	21	9	41.7	13	62.1	4	48.8	1.200	<0.001
	Cultivated Crops to Deciduous Forest	1,279	182	14.2	564	44.1	382	210.0	1.500	<0.001
	Cultivated Crops to Evergreen Forest	4	1	12.2	2	55.2	2	351.0	2.500	<0.001
	Cultivated Crops to Mixed Forest	220	27	12.1	78	35.3	51	193.0	1.100	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
	Grassland Herbaceous to Deciduous Forest	16,476	4,865	29.5	12,477	75.7	7,612	156.0	2.600	<0.001
	Grassland Herbaceous to Evergreen Forest	3,786	962	25.4	3,324	87.8	2,362	246.0	3.900	<0.001
	Grassland Herbaceous to Mixed Forest	2,780	548	19.7	1,890	68.0	1,342	245.0	2.800	<0.001
	Herbaceous Wetlands to Deciduous Forest	67	20	29.5	32	48.0	12	62.4	1.100	<0.001
	Herbaceous Wetlands to Evergreen Forest	2	1	43.4	2	66.6	1	53.7	1.500	0.001
	Herbaceous Wetlands to Mixed Forest	19	5	28.0	9	46.7	4	66.7	0.962	<0.001
	Pasture Hay to Deciduous Forest	60,189	10,117	16.8	36,478	60.6	26,361	261.0	2.500	<0.001
	Pasture Hay to Evergreen Forest	1,793	190	10.6	1,431	79.8	1,241	651.0	3.900	<0.001
	Pasture Hay to Mixed Forest	14,767	2,145	14.5	8,565	58.0	6,420	299.0	2.400	<0.001

Table 5: Table S5. Table showing the contribution of land use conversion to changes in woody cover across Level III ecoregions of the eastern United States

Ecoregion	NLCD Land Cover Type	Woody Cover 2001			Woody Cover 2021		Woody Cover Change			
		Area (ha) 2021	Area (ha)	Mean (%)	Area (ha)	Mean (%)	Delta Area (ha)	Rel. Delta Area (%)	Sen's slope (%/yr)	P-value
Western Allegheny Plateau	Shrub Scrub to Deciduous Forest	25,548	17,718	69.4	23,870	93.4	6,152	34.7	1.000	<0.001
	Shrub Scrub to Evergreen Forest	733	202	27.5	633	86.4	432	214.0	1.800	<0.001
	Shrub Scrub to Mixed Forest	1,733	687	39.6	1,479	85.3	793	115.0	2.000	<0.001
	Woody Wetlands to Deciduous Forest	23	8	37.0	10	44.9	2	21.2	0.627	<0.001
	Woody Wetlands to Evergreen Forest	0	0	58.8	0	78.8	0	34.0	0.722	0.174
	Woody Wetlands to Mixed Forest	4	1	29.8	1	38.0	0	27.8	0.392	<0.001