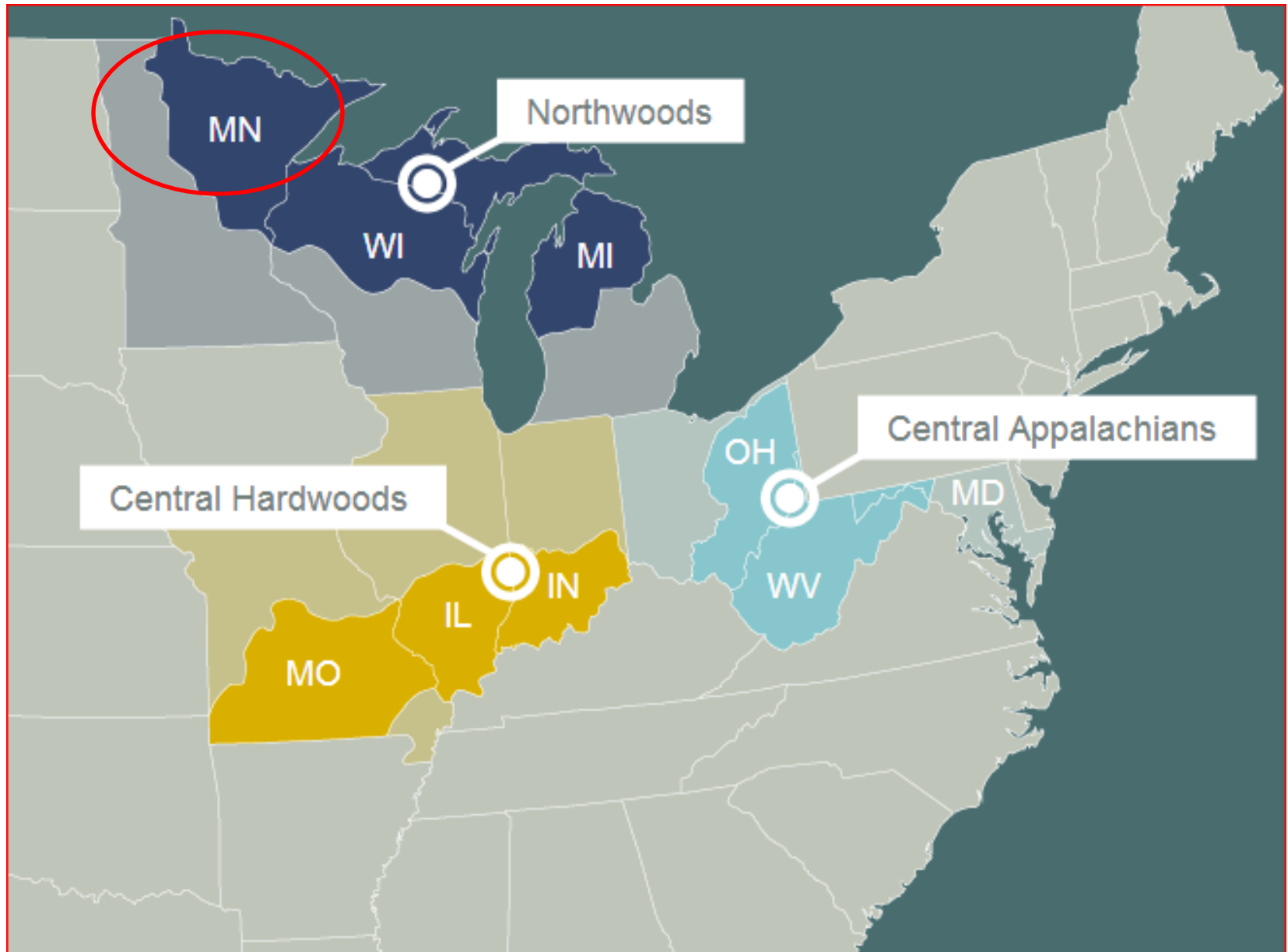


Interpreting Regional Assessment Tables

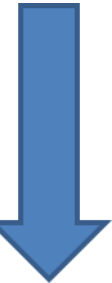
The following slides explain each column in the tables for evaluating species vulnerability for a specific geographic region.

Questions? See Publications button on this website for detailed explanations of the process. Still questions? Contact Louis Iverson (liverson@fs.fed.us)

In this example, we describe the output for northern Minnesota, shown here. This was done as part of the Climate Change Response Framework, which has conducted several assessments.



FIA number – The Forest Inventory Analysis code for the species. If you sort by this number it will be sorted botanically and you can match with FIA codes to get scientific names (Download the translation table FIA_codes.xls).



Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors				
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt
				PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI							
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0
391	American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1
935	American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1
12	Balsam fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7
741	Balsam poplar	1130	1091	538	445	424	349	272	424	0.49	0.41	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0
743	Bigtooth aspen	307	370	365	366	381	296	426	249	0.99	0.99	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1
402	Bitternut hickory	13	26	29	118	52	132	117	162	1.12	4.54	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6
543	Black ash	1492	1386	1339	1176	1268	943	1207	913	0.97	0.85	0.92	0.68	0.87	0.66	No Change	Sm. Dec.		INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7
762	Black cherry	129	166	252	435	328	659	515	561	1.52	2.62	1.98	3.97	3.10	3.38	Lg. Inc.	Lg. Inc.	DRO ESP	INS FTK COL	-1.56	-0.32	3.0
408	Black hickory	0	0	0	0	0	28	0	107	NA	NA	NA	New	NA	New	NA	New Habitat		ESP COL	1.04	-2.27	4.1
901	Black locust	0	0	2	22	3	270	8	461	New	New	New	New	New	New	New Habitat	New Habitat		COL INS	0	-0.59	3.8
837	Black oak	7	62	117	338	217	465	317	567	1.89	5.45	3.50	7.50	5.11	9.15	Lg. Inc.	Lg. Inc.	DRO ESP	INS DISE	0.51	0.42	4.9
95	Black spruce	1617	1567	916	396	691	99	529	85	0.59	0.25	0.44	0.06	0.34	0.05	Lg. Dec.	Lg. Dec.	COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3
602	Black walnut	1	7	8	88	26	393	68	523	1.14	12.57	3.71	56.14	9.71	74.71	Lg. Inc.	Lg. Inc.	SES	COL DRO	0.35	-0.83	4.0
922	Black willow	24	77	83	226	108	512	191	544	1.08	2.94	1.40	6.65	2.48	7.07	Lg. Inc.	Lg. Inc.		COL FTK DRO	-0.31	-2.13	2.8
693	Blackgum	0	0	0	0	0	19	0	53	NA	NA	NA	New	NA	New	NA	New Habitat	COL FTK		1.46	0.83	5.9
824	Blackjack oak	0	0	0	0	0	82	0	179	NA	NA	NA	New	NA	New	NA	New Habitat	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6
313	Boxelder	136	347	365	808	409	1124	461	1359	1.05	2.33	1.18	3.24	1.33	3.92	Sm. Inc.	Lg. Inc.	SES DISP DRO COL SES	FTK	2.39	2.06	7.4
823	Bur oak	961	1103	999	1523	1058	1636	1157	1801	0.91	1.38	0.96	1.48	1.05	1.63	No Change	Sm. Inc.	DRO FTK		2.77	-0.16	6.4
601	Butternut	29	13	20	27	22	0	24	1	1.54	2.08	1.69	0	1.85	0.08	No Change	Lg. Dec.		FTK COL DRO DISE	-1.41	-1.27	2.3
832	Chesnut oak	0	1	0	0	0	29	0	36	0	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	SES VRE ESP FTK	INS DISE	1.39	1.29	6.1
826	Chinkapin oak	0	0	0	6	1	53	2	119	NA	New	New	New	New	New	New Habitat	New Habitat	SES		1.18	-0.66	4.8
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9

Common Name – sorted alphabetically for 78 species; the colors represent the reliability of the model – green=good; orange=fair; red=poor. It represents the ‘trust’ you can put in the model results (“all models are wrong; some are useful”).

Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	Current IV		Modeled IV								Future : Current				Change Class		Modifying Factors				
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt
				PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI							
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0
391	American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1
935	American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1
12	Bals am fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7
741	Bals am poplar	1130	1091	538	445	424	349	272	424	0.49	0.41	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0
743	Bigtooth aspen	307	370	365	366	381	296	426	249	0.99	0.99	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1
402	Bitternut hickory	13	26	29	118	52	132	117	162	1.12	4.54	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6
543	Black ash	1492	1386	1339	1176	1268	943	1207	913	0.97	0.85	0.92	0.68	0.87	0.66	No Change	Sm. Dec.		INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7
762	Black cherry	129	166	252	435	328	659	515	561	1.52	2.62	1.98	3.97	3.10	3.38	Lg. Inc.	Lg. Inc.	DRO ESP	INS FTK COL	-1.56	-0.32	3.0
408	Black hickory	0	0	0	0	0	28	0	107	NA	NA	NA	New	NA	New	NA	New Habitat		ESP COL	1.04	-2.27	4.1
901	Black locust	0	0	2	22	3	270	8	461	New	New	New	New	New	New	New Habitat	New Habitat		COL INS	0	-0.59	3.8
837	Black oak	7	62	117	338	217	465	317	567	1.89	5.45	3.50	7.50	5.11	9.15	Lg. Inc.	Lg. Inc.	DRO ESP	INS DISE	0.51	0.42	4.9
95	Black spruce	1617	1567	916	396	691	99	529	85	0.59	0.25	0.44	0.06	0.34	0.05	Lg. Dec.	Lg. Dec.	COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3
602	Black walnut	1	7	8	88	26	393	68	523	1.14	12.57	3.71	56.14	9.71	74.71	Lg. Inc.	Lg. Inc.	SES	COL DRO	0.35	-0.83	4.0
922	Black willow	24	77	83	226	108	512	191	544	1.08	2.94	1.40	6.65	2.48	7.07	Lg. Inc.	Lg. Inc.		COL FTK DRO	-0.31	-2.13	2.8
693	Blackgum	0	0	0	0	0	19	0	53	NA	NA	NA	New	NA	New	NA	New Habitat	COL FTK		1.46	0.83	5.9
824	Blackjack oak	0	0	0	0	0	82	0	179	NA	NA	NA	New	NA	New	NA	New Habitat	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6
313	Boxelder	136	347	365	808	409	1124	461	1359	1.05	2.33	1.18	3.24	1.33	3.92	Sm. Inc.	Lg. Inc.	SES DISP DRO COL SES	FTK	2.39	2.06	7.4
823	Bur oak	961	1103	999	1523	1058	1636	1157	1801	0.91	1.38	0.96	1.48	1.05	1.63	No Change	Sm. Inc.	DRO FTK		2.77	-0.16	6.4
601	Butternut	29	13	20	27	22	0	24	1	1.54	2.08	1.69	0	1.85	0.08	No Change	Lg. Dec.		FTK COL DRO DISE	-1.41	-1.27	2.3
832	Chestnut oak	0	1	0	0	0	29	0	36	0	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	SES VRE ESP FTK	INS DISE	1.39	1.29	6.1
826	Chinkapin oak	0	0	0	6	1	53	2	119	NA	New	New	New	New	New	New Habitat	New Habitat	SES		1.18	-0.66	4.8
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9

**Current IV – FIA IV is the importance value as reported from FIA).
 Current Modeled is the attempt of our model to replicate FIA based on the 38 environmental variables . These are area-weighted numbers, meaning it is the **sum** of the average IV for each of 234 20x20 km pixels in the study area.**



Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors				
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt
				PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI							
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0
391	American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1
935	American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1
12	Balsam fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7
741	Balsam poplar	1130	1091	538	445	424	349	272	424	0.49	0.41	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0
743	Bigtooth aspen	307	370	365	366	381	296	426	249	0.99	0.99	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1
402	Bitternut hickory	13	26	29	118	52	132	117	162	1.12	4.54	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6
543	Black ash	1492	1386	1339	1176	1268	943	1207	913	0.97	0.85	0.92	0.68	0.87	0.66	No Change	Sm. Dec.		INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7
762	Black cherry	129	166	252	435	328	659	515	561	1.52	2.62	1.98	3.97	3.10	3.38	Lg. Inc.	Lg. Inc.	DRO ESP	INS FTK COL	-1.56	-0.32	3.0
408	Black hickory	0	0	0	0	0	28	0	107	NA	NA	NA	New	NA	New	NA	New Habitat		ESP COL	1.04	-2.27	4.1
901	Black locust	0	0	2	22	3	270	8	461	New	New	New	New	New	New	New Habitat	New Habitat		COL INS	0	-0.59	3.8
837	Black oak	7	62	117	338	217	465	317	567	1.89	5.45	3.50	7.50	5.11	9.15	Lg. Inc.	Lg. Inc.	DRO ESP	INS DISE	0.51	0.42	4.9
95	Black spruce	1617	1567	916	396	691	99	529	85	0.59	0.25	0.44	0.06	0.34	0.05	Lg. Dec.	Lg. Dec.	COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3
602	Black walnut	1	7	8	88	26	393	68	523	1.14	12.57	3.71	56.14	9.71	74.71	Lg. Inc.	Lg. Inc.	SES	COL DRO	0.35	-0.83	4.0
922	Black willow	24	77	83	226	108	512	191	544	1.08	2.94	1.40	6.65	2.48	7.07	Lg. Inc.	Lg. Inc.		COL FTK DRO	-0.31	-2.13	2.8
693	Blackgum	0	0	0	0	0	19	0	53	NA	NA	NA	New	NA	New	NA	New Habitat	COL FTK		1.46	0.83	5.9
824	Blackjack oak	0	0	0	0	0	82	0	179	NA	NA	NA	New	NA	New	NA	New Habitat	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6
313	Boxelder	136	347	365	808	409	1124	461	1359	1.05	2.33	1.18	3.24	1.33	3.92	Sm. Inc.	Lg. Inc.	SES DISP DRO COL SES	FTK	2.39	2.06	7.4
823	Bur oak	961	1103	999	1523	1058	1636	1157	1801	0.91	1.38	0.96	1.48	1.05	1.63	No Change	Sm. Inc.	DRO FTK		2.77	-0.16	6.4
601	Butternut	29	13	20	27	22	0	24	1	1.54	2.08	1.69	0	1.85	0.08	No Change	Lg. Dec.		FTK COL DRO DISE	-1.41	-1.27	2.3
832	Chesnut oak	0	1	0	0	0	29	0	36	0	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	SES VRE ESP FTK	INS DISE	1.39	1.29	6.1
826	Chinkapin oak	0	0	0	6	1	53	2	119	NA	New	New	New	New	New	New Habitat	New Habitat	SES		1.18	-0.66	4.8
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9

Modeled IV – Estimates of future area-weighted IV for three time periods: 2010-2039, 2040-2069, and 2070-2099 (compare to current IV, previous columns).

PCM B1 is a mild scenario

GFDL A1FI is a harsh scenario

The idea is to create ‘bookends’ on what may happen to tree species habitats.



Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors				
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt
				PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI							
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0
391	American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1
935	American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1
12	Balsam fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7
741	Balsam poplar	1130	1091	538	445	424	349	272	424	0.49	0.41	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0
743	Bigtooth aspen	307	370	365	366	381	296	426	249	0.99	0.99	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1
402	Bitternut hickory	13	26	29	118	52	132	117	162	1.12	4.54	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6
543	Black ash	1492	1386	1339	1176	1268	943	1207	913	0.97	0.85	0.92	0.68	0.87	0.66	No Change	Sm. Dec.		INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7
762	Black cherry	129	166	252	435	328	659	515	561	1.52	2.62	1.98	3.97	3.10	3.38	Lg. Inc.	Lg. Inc.	DRO ESP	INS FTK COL	-1.56	-0.32	3.0
408	Black hickory	0	0	0	0	0	28	0	107	NA	NA	NA	New	NA	New	NA	New Habitat		ESP COL	1.04	-2.27	4.1
901	Black locust	0	0	2	22	3	270	8	461	New	New	New	New	New	New	New Habitat	New Habitat		COL INS	0	-0.59	3.8
837	Black oak	7	62	117	338	217	465	317	567	1.89	5.45	3.50	7.50	5.11	9.15	Lg. Inc.	Lg. Inc.	DRO ESP	INS DISE	0.51	0.42	4.9
95	Black spruce	1617	1567	916	396	691	99	529	85	0.59	0.25	0.44	0.06	0.34	0.05	Lg. Dec.	Lg. Dec.	COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3
602	Black walnut	1	7	8	88	26	393	68	523	1.14	12.57	3.71	56.14	9.71	74.71	Lg. Inc.	Lg. Inc.	SES	COL DRO	0.35	-0.83	4.0
922	Black willow	24	77	83	226	108	512	191	544	1.08	2.94	1.40	6.65	2.48	7.07	Lg. Inc.	Lg. Inc.		COL FTK DRO	-0.31	-2.13	2.8
693	Blackgum	0	0	0	0	0	19	0	53	NA	NA	NA	New	NA	New	NA	New Habitat	COL FTK		1.46	0.83	5.9
824	Blackjack oak	0	0	0	0	0	82	0	179	NA	NA	NA	New	NA	New	NA	New Habitat	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6
313	Boxelder	136	347	365	808	409	1124	461	1359	1.05	2.33	1.18	3.24	1.33	3.92	Sm. Inc.	Lg. Inc.	SES DISP DRO COL SES	FTK	2.39	2.06	7.4
823	Bur oak	961	1103	999	1523	1058	1636	1157	1801	0.91	1.38	0.96	1.48	1.05	1.63	No Change	Sm. Inc.	DRO FTK		2.77	-0.16	6.4
601	Butternut	29	13	20	27	22	0	24	1	1.54	2.08	1.69	0	1.85	0.08	No Change	Lg. Dec.		FTK COL DRO DISE	-1.41	-1.27	2.3
832	Chesnut oak	0	1	0	0	0	29	0	36	0	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	SES VRE ESP FTK	INS DISE	1.39	1.29	6.1
826	Chinkapin oak	0	0	0	6	1	53	2	119	NA	New	New	New	New	New	New Habitat	New Habitat	SES		1.18	-0.66	4.8
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9

Future:Current– Ratio of future estimate of habitat to current estimate of habitat
 (not where the species will be!), for three time periods in future.
 A ratio of ~ 1 = no change; a ratio < 1 = decrease; a ratio >1 = increase in future..

Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors				
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt
				PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI							
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0
391	American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1
935	American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1
12	Balsam fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7
741	Balsam poplar	1130	1091	538	445	424	349	272	424	0.49	0.41	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0
743	Bigtooth aspen	307	370	365	366	381	296	426	249	0.99	0.99	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1
402	Bitternut hickory	13	26	29	118	52	132	117	162	1.12	4.54	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6
543	Black ash	1492	1386	1339	1176	1268	943	1207	913	0.97	0.85	0.92	0.68	0.87	0.66	No Change	Sm. Dec.		INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7
762	Black cherry	129	166	252	435	328	659	515	561	1.52	2.62	1.98	3.97	3.10	3.38	Lg. Inc.	Lg. Inc.	DRO ESP	INS FTK COL	-1.56	-0.32	3.0
408	Black hickory	0	0	0	0	0	28	0	107	NA	NA	NA	New	NA	New	NA	New Habitat		ESP COL	1.04	-2.27	4.1
901	Black locust	0	0	2	22	3	270	8	461	New	New	New	New	New	New	New Habitat	New Habitat		COL INS	0	-0.59	3.8
837	Black oak	7	62	117	338	217	465	317	567	1.89	5.45	3.50	7.50	5.11	9.15	Lg. Inc.	Lg. Inc.	DRO ESP	INS DISE	0.51	0.42	4.9
95	Black spruce	1617	1567	916	396	691	99	529	85	0.59	0.25	0.44	0.06	0.34	0.05	Lg. Dec.	Lg. Dec.	COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3
602	Black walnut	1	7	8	88	26	393	68	523	1.14	12.57	3.71	56.14	9.71	74.71	Lg. Inc.	Lg. Inc.	SES	COL DRO	0.35	-0.83	4.0
922	Black willow	24	77	83	226	108	512	191	544	1.08	2.94	1.40	6.65	2.48	7.07	Lg. Inc.	Lg. Inc.		COL FTK DRO	-0.31	-2.13	2.8
693	Blackgum	0	0	0	0	0	19	0	53	NA	NA	NA	New	NA	New	NA	New Habitat	COL FTK		1.46	0.83	5.9
824	Blackjack oak	0	0	0	0	0	82	0	179	NA	NA	NA	New	NA	New	NA	New Habitat	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6
313	Boxelder	136	347	365	808	409	1124	461	1359	1.05	2.33	1.18	3.24	1.33	3.92	Sm. Inc.	Lg. Inc.	SES DISP DRO COL SES	FTK	2.39	2.06	7.4
823	Bur oak	961	1103	999	1523	1058	1636	1157	1801	0.91	1.38	0.96	1.48	1.05	1.63	No Change	Sm. Inc.	DRO FTK		2.77	-0.16	6.4
601	Butternut	29	13	20	27	22	0	24	1	1.54	2.08	1.69	0	1.85	0.08	No Change	Lg. Dec.		FTK COL DRO DISE	-1.41	-1.27	2.3
832	Chesnut oak	0	1	0	0	0	29	0	36	0	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	SES VRE ESP FTK	INS DISE	1.39	1.29	6.1
826	Chinkapin oak	0	0	0	6	1	53	2	119	NA	New	New	New	New	New	New Habitat	New Habitat	SES		1.18	-0.66	4.8
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9

Change Class – our interpretation of potential habitat changes by 2100. This is based on a set of rules for the ratios. For non-rare species, the rules are below. For rare species, rules are more stringent..(and get complicated).



Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA Common Name	Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors				
	FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt
			PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI							
951 American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6
531 American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6
972 American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0
391 American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1
935 American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1
12 Balsam fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7
741 Balsam poplar	1130	1091	538	445	424	349	272	424	0.49	0.41	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0
743 Bigtooth aspen	307	370	365	366	381	296	426	249	0.99	0.99	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1
402 Bitternut hickory	13	26	29	118	52	132	117	162	1.12	4.54	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6

<u>Future:Current</u>	<u>Class</u>
<0.5	Large decrease
0.5 to 0.8	Decrease [Small decrease]
>0.8 to <1.2	No change
1.2 to 2.0	Increase [Small increase]
>2	Large increase
If Current modeled AWIV is 0 and future AWIV>0, then "New habitat"	
If Current modeled AWIV is >0 and future AWIV=0, then "Extirpated"	

543 Black ash	1.7
762 Black cherry	3.0
408 Black hickory	4.1
901 Black locust	3.8
837 Black oak	4.9
95 Black spruce	4.3
602 Black walnut	4.0
922 Black willow	2.8
693 Blackgum	5.9
824 Blackjack oak	5.6
313 Boxelder	7.4
823 Bur oak	6.4
601 Butternut	2.3
832 Chesnut oak	6.1
826 Chinkapin oak	4.8
763 Chokecherry	3.8
742 Eastern cottonwood	3.9

Modifying Factors –additional information about the potential of the species to thrive under climate change.

Positive (or Negative) Traits – traits that scored highly in favor (or not) of the species (see chart for translation of abbreviations, you can also download this ModFac Codes file).

Modifying Factors	
BRO	Browse
CPR	CO2:productivity
CWU	CO2:water use efficiency
COL	Competition-light
DISE	Disease
DISP	Dispersal
DRO	Drought
ESP	Edaphic specificity
	Environmental habitat specificity
EHS	Environmental habitat specificity
FRG	Fire regeneration
FTK	Fire topkill
FLO	Flood
HAR	Harvest
ICE	Ice
INS	Insect pests
INP	Invasive plants
POL	Pollution
SES	Seedling establishment
TGR	Temperature gradients
VRE	Vegetative reproduction
WIN	Wind

Minnesota (example)

FIA	Common Name	FIA IV	Future : Current				Change Class		Modifying Factors						
			2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits		Negative Traits		DistFact	BioFact	Adapt
			PCM B1	GFDL A1FI	PCM B1	GFDL A1FI									
951	American basswood	635	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6		
531	American beech	0	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6		
972	American elm	505	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0		
391	American hornbeam	64	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1		
935	American mountain-ash	10	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COLESP	-0.23	-1.62	3.1		
12	Bals am fir	1752	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7		
741	Bals am poplar	1130	0.39	0.32	0.25	0.39	Lg. Dec.	Lg. Dec.	FRG VRE	COL DRO	0.13	-0.59	4.0		
743	Bigtooth aspen	307	1.03	0.80	1.15	0.67	No Change	Sm. Dec.	FRG DISP	COL DRO FTK	1.01	0.16	5.1		
402	Bitternut hickory	13	2.00	5.08	4.50	6.23	Lg. Inc.	Lg. Inc.	DRO	COL	2.17	-0.83	5.6		
543	Black ash	1492	0.92	0.68	0.87	0.66	No Change	Sm. Dec.		INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7		
762	Black cherry	129	1.98	3.97	3.10	3.38	Lg. Inc.	Lg. Inc.	DRO ESP	INS FTK COL	-1.56	-0.32	3.0		
408	Black hickory	0	NA	New	NA	New	NA	New Habitat		ESP COL	1.04	-2.27	4.1		
901	Black locust	0	New	New	New	New	New Habitat	New Habitat		COL INS	0	-0.59	3.8		
837	Black oak	7	3.50	7.50	5.11	9.15	Lg. Inc.	Lg. Inc.	DRO ESP	INS DISE	0.51	0.42	4.9		
95	Black spruce	1617	0.44	0.06	0.34	0.05	Lg. Dec.	Lg. Dec.	COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3		
602	Black walnut	1	3.71	56.14	9.71	74.71	Lg. Inc.	Lg. Inc.	SES	COL DRO	0.35	-0.83	4.0		
922	Black willow	24	1.40	6.65	2.48	7.07	Lg. Inc.	Lg. Inc.		COL FTK DRO	-0.31	-2.13	2.8		
693	Blackgum	0	NA	New	NA	New	NA	New Habitat	COL FTK		1.46	0.83	5.9		
824	Blackjack oak	0	NA	New	NA	New	NA	New Habitat	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6		
313	Boxelder	136	1.18	3.24	1.33	3.92	Sm. Inc.	Lg. Inc.	SES DISP DRO	FTK	2.39	2.06	7.4		
823	Bur oak	961	0.96	1.48	1.05	1.63	No Change	Sm. Inc.	COL SES		2.77	-0.16	6.4		
601	Butternut	29	1.69	0	1.85	0.08	No Change	Lg. Dec.	DRO FTK		-1.41	-1.27	2.3		
832	Chestnut oak	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	SES VRE ESP FTK	INS DISE	1.39	1.29	6.1		
826	Chinkapin oak	0	New	New	New	New	New Habitat	New Habitat	SES		1.18	-0.66	4.8		
763	Chokecherry	168	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8		
742	Eastern cottonwood	8	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9		

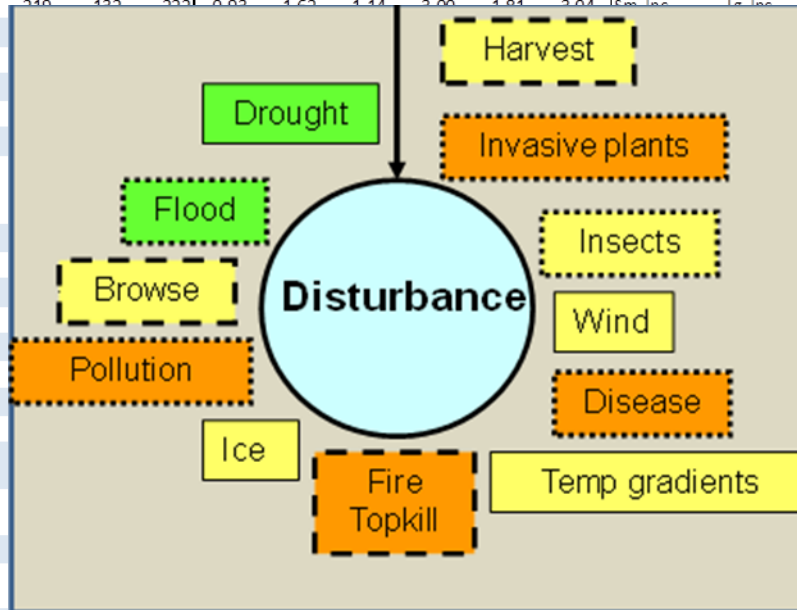


DistFact – average score of 12 disturbance factors and the capacity of the species to withstand them, scaled -3 to +3. See Matthews et al (2011) publication (Publications on the website) for full explanation of Modifying Factors.

Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors					
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt	
				PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI								
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6	
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6	
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0	
391	American hornbeam	64	73	68	118	83	240	133	223	0.03	1.63	1.14	2.00	1.81	2.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1	
935	American mountain-ash	10	1	4	1	2													FTK COLESP	-0.23	-1.62	3.1	
12	Bals am fir	1752	1767	1287	579	1049													COL	INS FTK DRO	-3	-0.35	2.7
741	Bals am poplar	1130	1091	538	445	424													RG VRE	COL DRO	0.13	-0.59	4.0
743	Bigtooth aspen	307	370	365	366	381													RG DISP	COL DRO FTK	1.01	0.16	5.1
402	Bitternut hickory	13	26	29	118	52													DRO	COL	2.17	-0.83	5.6
543	Black ash	1492	1386	1339	1176	1268														INS COL DISP			
762	Black cherry	129	166	252	435	328													DRO SES FTK	-1.31	-3		
408	Black hickory	0	0	0	0	0													ESP				
901	Black locust	0	0	2	22	3													ESP COL	1.04	-2.27	4.1	
837	Black oak	7	62	117	338	217													COL INS	0	-0.59	3.8	
95	Black spruce	1617	1567	916	396	691													DRO ESP	INS DISE	0.51	0.42	4.9
602	Black walnut	1	7	8	88	26													OL ESP DISP	FTK INS DRO	-2.14	1.24	4.3
922	Black willow	24	77	83	226	108													ES	COL DRO	0.35	-0.83	4.0
693	Blackgum	0	0	0	0	0														COL FTK DRO	-0.31	-2.13	2.8
824	Blackjack oak	0	0	0	0	0													OL FTK				
313	Boxelder	136	347	365	808	409													DRO SES FRG				
823	Bur oak	961	1103	999	1523	1058													RE	COL FTK	1.56	0.21	5.6
601	Butternut	29	13	20	27	22													ES DISP DRO	FTK	2.39	2.06	7.4
832	Chestnut oak	0	1	0	0	0	29	0	36	0	0	0	29.00	0	36.00	Lg. Dec.	Lg. Inc.	OL SES	FTK	2.77	-0.16	6.4	
826	Chinkapin oak	0	0	0	6	1	53	2	119	NA	New	New	New	New	New	New Habitat	New Habitat						
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change			COL	0.18	-0.86	3.8
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE	0.22	-0.75	3.9	

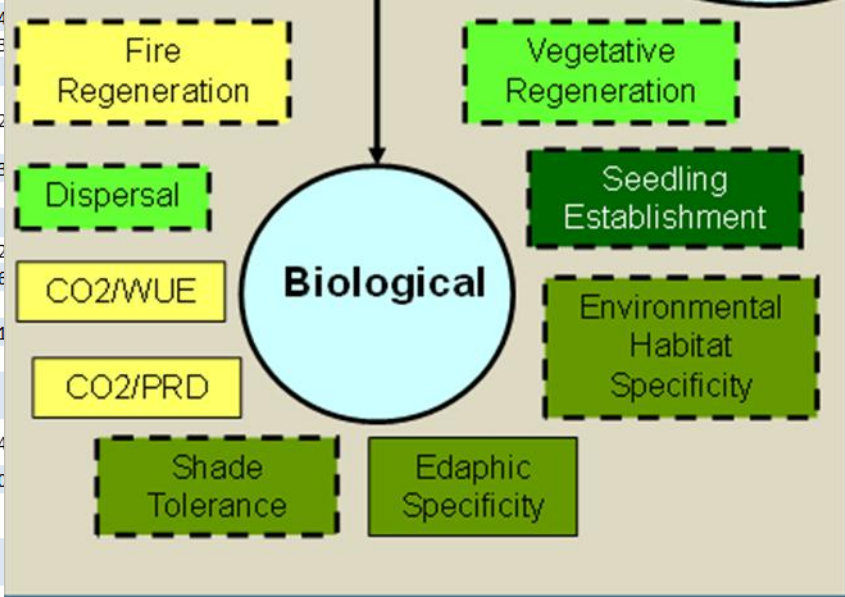


BioFact – average score of 9 biological factors and the capacity of the species to withstand them, scaled -3 to +3. See Matthews et al (2011) publication (Publications on the website) for full explanation of Modifying Factors.

Northern Minnesota (example)

DISTRIB Results (suitable habitat)

FIA	Common Name	DISTRIB Results (suitable habitat)														Modifying Factors							
		Current IV		Modeled IV						Future : Current						Change Class		Modifying Factors					
		FIA IV	Current Modeled	2010 - 2039		2040 - 2069		2070 - 2099		2010 - 2039		2040 - 2069		2070 - 2099		PCM B1	GFDL A1FI	Positive Traits	Negative Traits	DistFact	BioFact	Adapt	
951	American basswood	635	761	736	927	771	1031	840	1034	0.97	1.22	1.01	1.36	1.10	1.36	No Change	Sm. Inc.	COL	FTK	0.31	0.16	4.6	
531	American beech	0	62	36	85	54	261	76	254	0.58	1.37	0.87	4.21	1.23	4.10	Sm. Inc.	Lg. Inc.	COL	INS FTK	-1.14	0.03	3.6	
972	American elm	505	646	587	864	666	1487	793	1921	0.91	1.34	1.03	2.30	1.23	2.97	Sm. Inc.	Lg. Inc.	ESP	DISE INS	-0.8	0.3	4.0	
391	American hornbeam	64	73	68	118	83	219	132	222	0.93	1.62	1.14	3.00	1.81	3.04	Sm. Inc.	Lg. Inc.	COL SES	FTK DRO	0.56	0.62	5.1	
935	American mountain-ash	10	1	4	1	2	0	1	0	4.00	1.00	2.00	0	1.00	0	No Change	Lg. Dec.		FTK COL ESP	-0.23	-1.62	3.1	
12	Bals am fir	1752	1767	1287	579	1049	101	908	59	0.73	0.33	0.59	0.06	0.51	0.03	Sm. Dec.	Lg. Dec.	COL	INS FTK DRO	-3	-0.35	2.7	
741	Bals am poplar	1130	1091	538	445	4												FRG VRE	COL DRO	0.13	-0.59	4.0	
743	Bigtooth aspen	307	370	365	366	3												FRG DISP	COL DRO FTK	1.01	0.16	5.1	
402	Bitternut hickory	13	26	29	118													DRO	COL	2.17	-0.83	5.6	
543	Black ash	1492	1386	1339	1176	12													INS COL DISP DRO SES FTK ESP	-1.31	-3	1.7	
762	Black cherry	129	166	252	435	3												DRO ESP	INS FTK COL	-1.56	-0.32	3.0	
408	Black hickory	0	0	0	0													at	ESP COL	1.04	-2.27	4.1	
901	Black locust	0	0	2	22													at	COL INS	0	-0.59	3.8	
837	Black oak	7	62	117	338	2												DRO ESP	INS DISE	0.51	0.42	4.9	
95	Blackspruce	1617	1567	916	396	6												COL ESP DISP	FTK INS DRO	-2.14	1.24	4.3	
602	Black walnut	1	7	8	88													SES	COL DRO	0.35	-0.83	4.0	
922	Black willow	24	77	83	226	1												at	COL FTK DRO	-0.31	-2.13	2.8	
693	Blackgum	0	0	0	0													at	COL FTK	1.46	0.83	5.9	
824	Blackjack oak	0	0	0	0													at	DRO SES FRG VRE	COL FTK	1.56	0.21	5.6
313	Boxelder	136	347	365	808	4												SES DISP DRO COL SES	FTK	2.39	2.06	7.4	
823	Bur oak	961	1103	999	1523	10												DRO FTK		2.77	-0.16	6.4	
601	Butternut	29	13	20	27														FTK COL DRO DISE	-1.41	-1.27	2.3	
832	Chestnut oak	0	1	0	0													SES VRE ESP FTK	INS DISE	1.39	1.29	6.1	
826	Chinkapin oak	0	0	0	6													at	SES	1.18	-0.66	4.8	
763	Chokecherry	168	195	175	194	174	197	171	171	0.90	1.00	0.89	1.01	0.88	0.88	No Change	No Change		COL	0.18	-0.86	3.8	
742	Eastern cottonwood	8	81	47	205	76	1047	132	1315	0.58	2.53	0.94	12.93	1.63	16.24	Sm. Inc.	Lg. Inc.	SES	INS COL DISE FTK	0.22	-0.75	3.9	

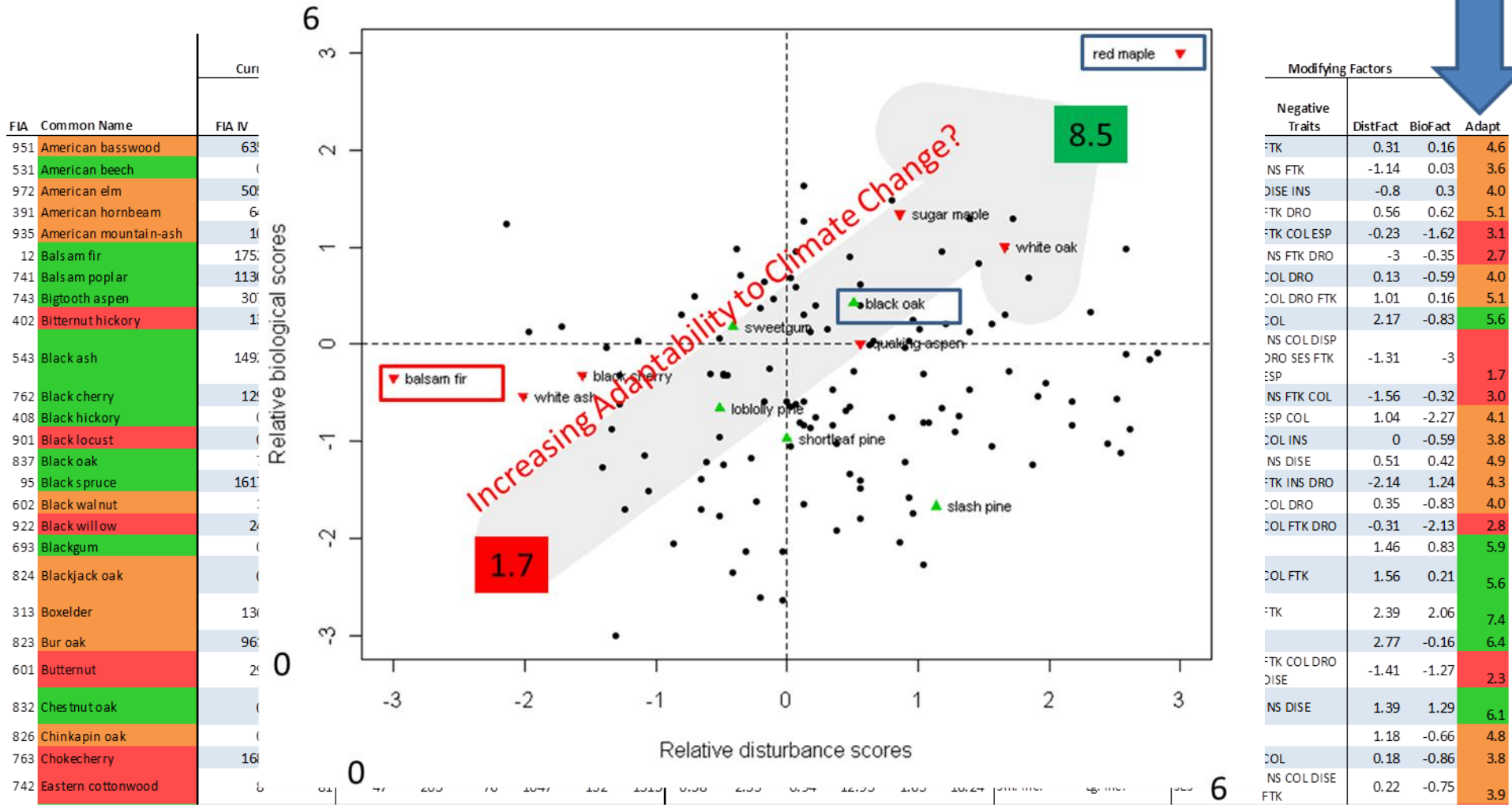


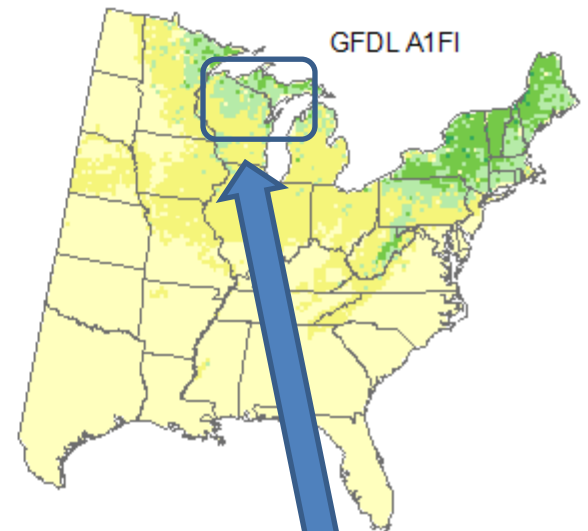
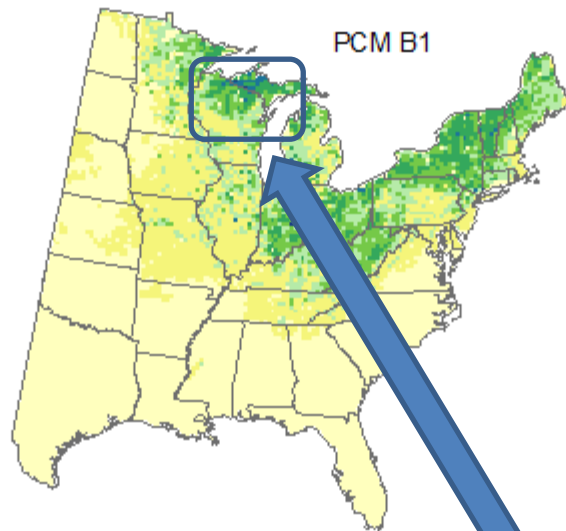
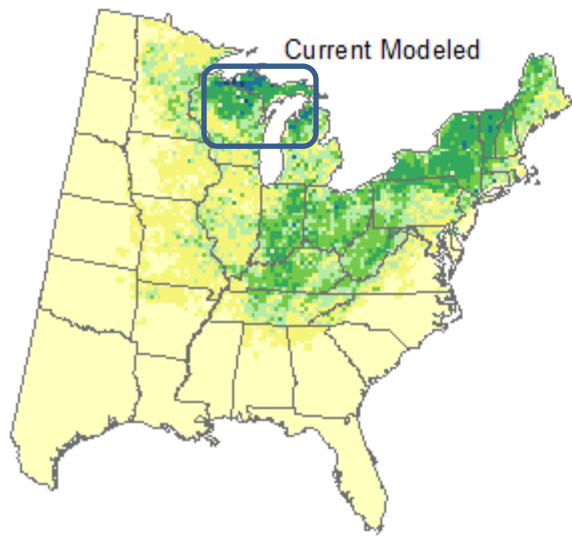
Adapt – index of biological and disturbance factors, range 1.7-8.5.

Low values < 3.3 (red) – species likely to do worse than DISTRIB projects;

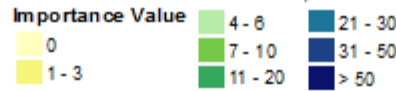
Medium values (orange) 3.3-5.2 – species may do roughly as modeled;

High values (green) > 5.2 – species likely to do better than DISTRIB projects





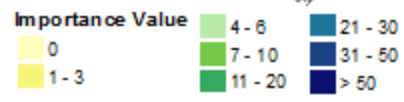
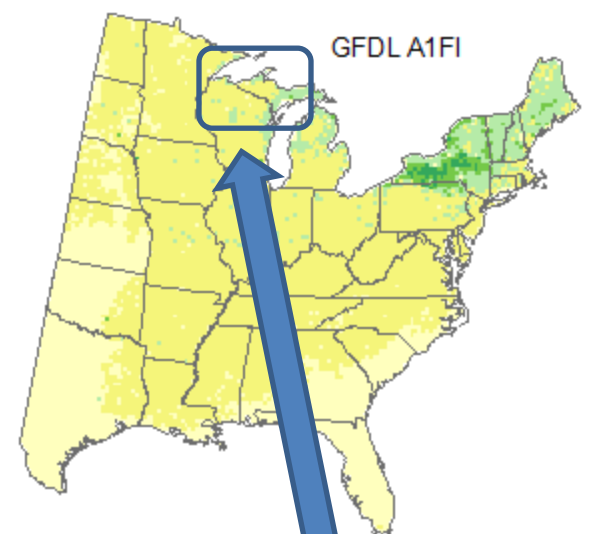
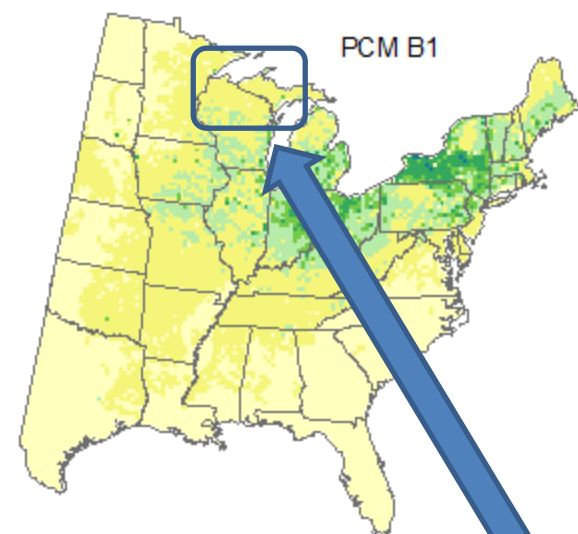
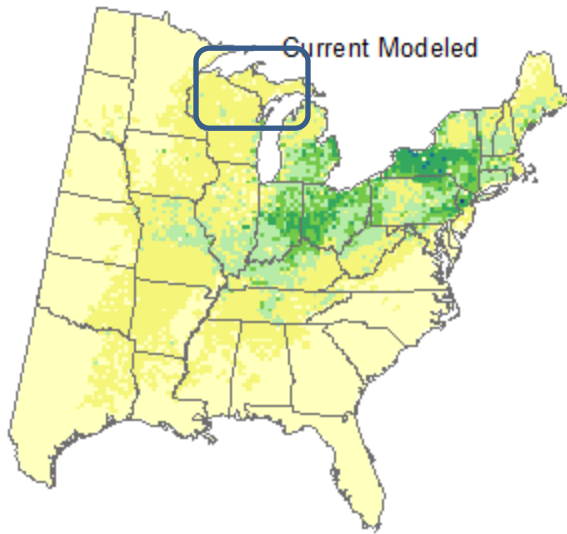
Sugar Maple



Common Name	Model Reliability	DISTRIB results (suitable habitat): 2070-2099							
		Current IV		Modelled IV		Future : Current		Change Class	
		FIA IV	Current Modelled	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI
Sugar maple	High	3574	3375	2851	1172	0.85	0.35	No change	Large Decrease

Sugar maple shows little change under PCM B1 with a large decrease of habitat under GFDL A1fi, but with high adaptability to climate change (for Wisconsin-western UP in this case).

Modifying Factors			
Positive Traits	Negative Traits	DistFact	BioFact
COL ESP		0.9	1.3
			Adapt
			5.8



White Ash

Common Name	Model Reliability	DISTRIB results (suitable habitat): 2070-2099							
		Current IV		Modelled IV		Future : Current		Change Class	
		FIA IV	Current Modelled	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI	PCM B1	GFDL A1FI
White ash	High	382	427	677	791	1.59	1.85	Increase	Increase

White ash shows increases in habitat under both scenarios, but a very low adaptability rating because of especially emerald ash borer. This low adaptability trumps the habitat model (for Wisconsin-western UP in this case).

Modifying Factors				
Positive Traits	Negative Traits	DistFact	BioFact	Adapt
INS FTK COL		-2.0	-0.5	2.7

Good luck in using the assessment tables!

Use this set of slides as a guide as you download and work with the summary tables for each region.

Everything is explained in great detail in the associated publications (see Publications button on this website).