README Printed: 10/24/07 11:35 AM

## IMPORTANT INFORMATION ABOUT THIS WORKBOOK Risk Map Workbook

Please Select Your Area (e.g. Northeastern Area):

Northeastern Area

There are four general worksheets followed by 15 empty model sheets. Fill out the empty sheets. If you need additional sheets, please start a new file to keep the number of model worksheets to 15 in each file.

If more than 1 file is needed, please update this secton with the correct numbers:

This is file

1

of

1

Worksheets:

README This worksheet
Curves Curve graphics

**Risk Rankings**Tool for assisting in developing scales **Citations**Listing and status of models for interior west

Base Sheet Empty base sheet

## Filling out the Model Worksheets

The area in blue on the top of the worksheet is for your use and is not printed. The format has changed slightly from the previous versions.

Risk Agent(s): Common name of the risk agent, e.g. Spruce budworm

Host(s): Host tree species, e.g. Balsam fir

Model Extent: Extent, e.g. Northeastern or list certain ecoregions. If the list of ecoregions is too

long for this field, enter them in the comments and put a note in the model extent,

such as "Certain IW ecoregions - see comments".

Max Percent Mortality: Maximum threshold expected (in percent)

Susceptibility/Vulnerability Enter the Rank for each (or one if only one used) and the Weights will calculate.

Criteria Enter the criteria following the same rules as the previous worksheets. \*Note for

rare exceptions (such as the inverse S-3 and S-4) where two sets of A,B,C,D risk values are needed for one criteria, delete the "Criteria X" from the cell. You will

have to renumber the remaining criteria.

Criteria Rank/Weight Enter the Rank value, the Weight will calculate automatically.

Constraints List any model constraints, if applicable

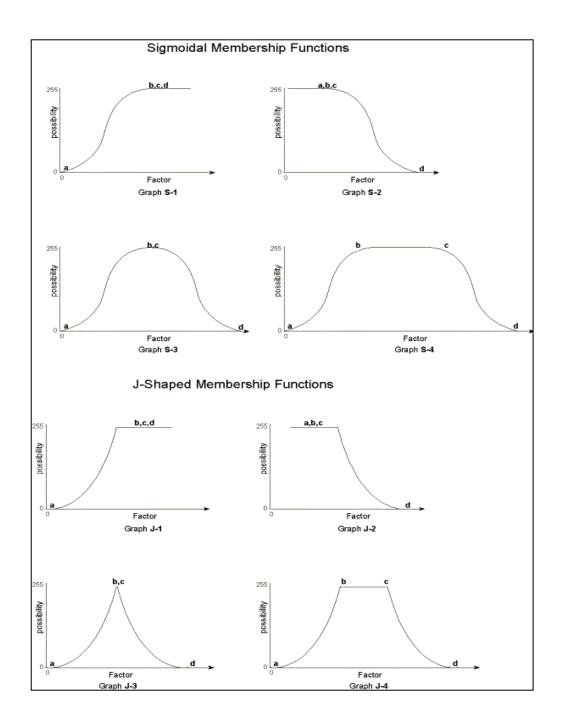
**Comments** Area for information not covered in other fields

Citations Enter the full citation details (publication, communication, model developer, etc) on

the **Citations** worksheet and assign a number. On the model spreadsheet, enter the citation number in this area. Two example citations are shown, replace with

your citations.

**Model Certainity** Select the model certainity/source from the dropdown list.



Risk/Mortality Scaling Tool
To obtain eleven class values (for risk values, mortality thresholds), enter the risk begins and risk peaks values. Equal interval classes will be calculated.

	Input Value	Classes	Scaled Value
Risk Begins (0):	20	20	0
		28	1
		36	2
		44	3
		52	4
		60	5
		68	6
		76	7
		84	8
		92	9
Risk Peaks (10):	100	100	10

## **Citation List - Northeastern Area**

No. Citation

1

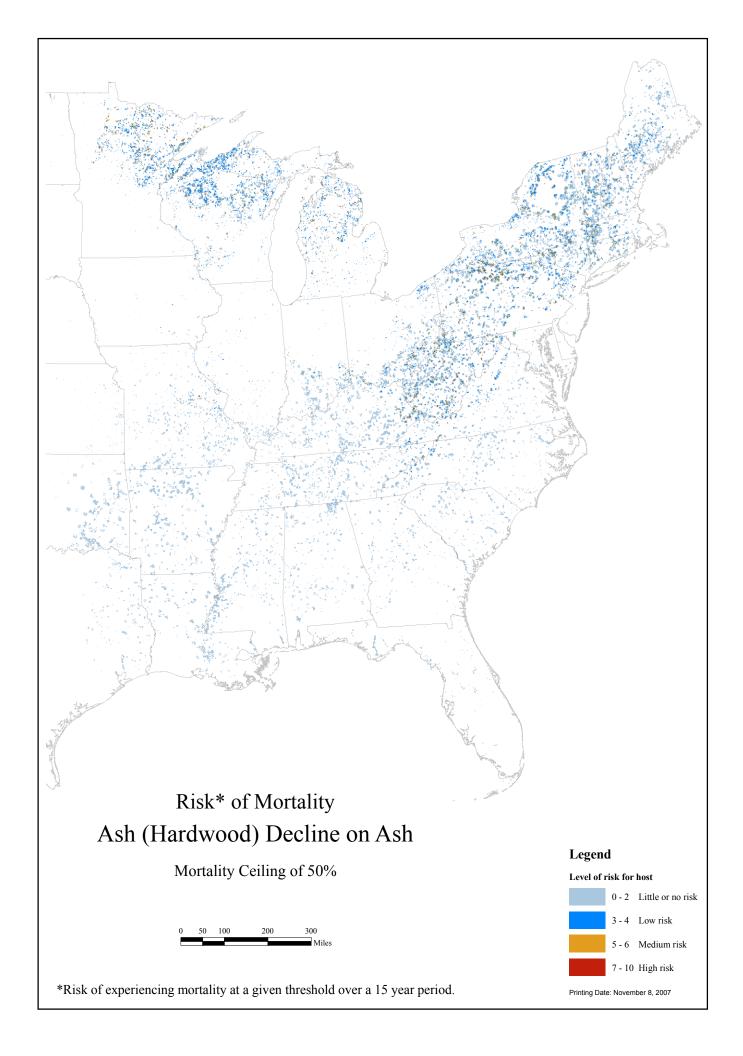
Risk A	(s):	Ash (Hardwood) De	cline		Host(s):		Ash Spec	cies	
Model	Extent:	Easterm U.S.		Max Pe	ercent Mortality:	50%	/ <sub>0</sub>		
Suscept	ibility			!				•	
Rank/V	_		Risk Begins	Risk Peaks	Risk	Risk Ends			
1	50%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1		% Host	10	90	90	90	J 1	1	50%
Criteria 2		Aspect	113	180	240	360	S 4	1	50%
Criteria 3									
Criteria 4									
Criteria 5									
Criteria 6									
Criteria 7									
C-141- 0									
Criteria 8									
Criteria 9	)								
Criteria 9	)								
Criteria 8 Criteria 9 Criteria 1 Vulneral Rank/V	0 bility Veight		Risk Begins	Risk Peaks	Risk	Risk Ends			
Criteria 9 Criteria 1 Vulneral Rank/V	0 bility Veight	Criterion	Risk Begins (a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 9 Criteria 1 Vulneral Rank/V 1 Criteria 1	bility Veight	Soil Dryness	(a) 0	<b>(b)</b> 45	Decreases (c)	(d) 85	S 5	Rank 1	25%
Criteria 9 Criteria 1  Vulneral Rank/V 1 Criteria 1 Criteria 2	bility Veight	Soil Dryness Annual Precipitation	(a) 0 9	<b>(b)</b> 45 13	Decreases (c) 45 13	(d) 85 46	S 5 J 2	Rank	25% 25%
Criteria 9 Criteria 1  Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Criteria 9 Criteria 1  Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4	bility Veight 50%	Soil Dryness Annual Precipitation	(a) 0 9	<b>(b)</b> 45 13	Decreases (c) 45 13	(d) 85 46	S 5 J 2	1	25% 25%
Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Criteria 9 Criteria 1  Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8 Criteria 9	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%
Vulneral Rank/V 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8 Criteria 9	bility Veight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	45 13 16	(d) 85 46 16	S 5 J 2 J 1	1	25% 25% 25%

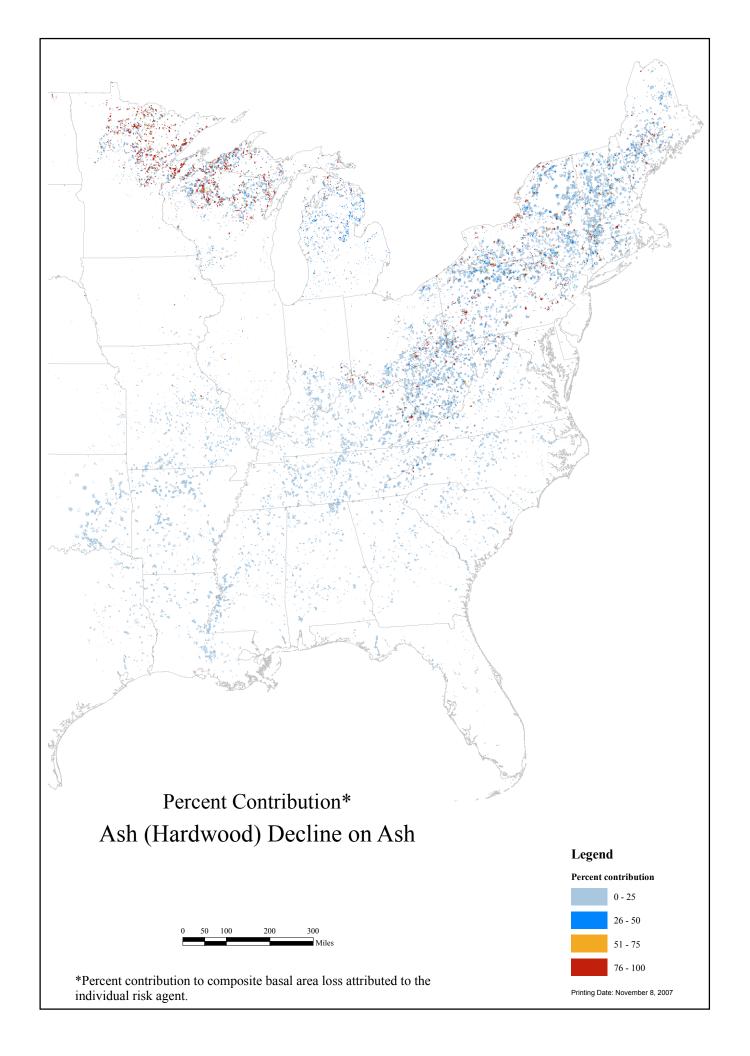
Citations

Model

Certainity

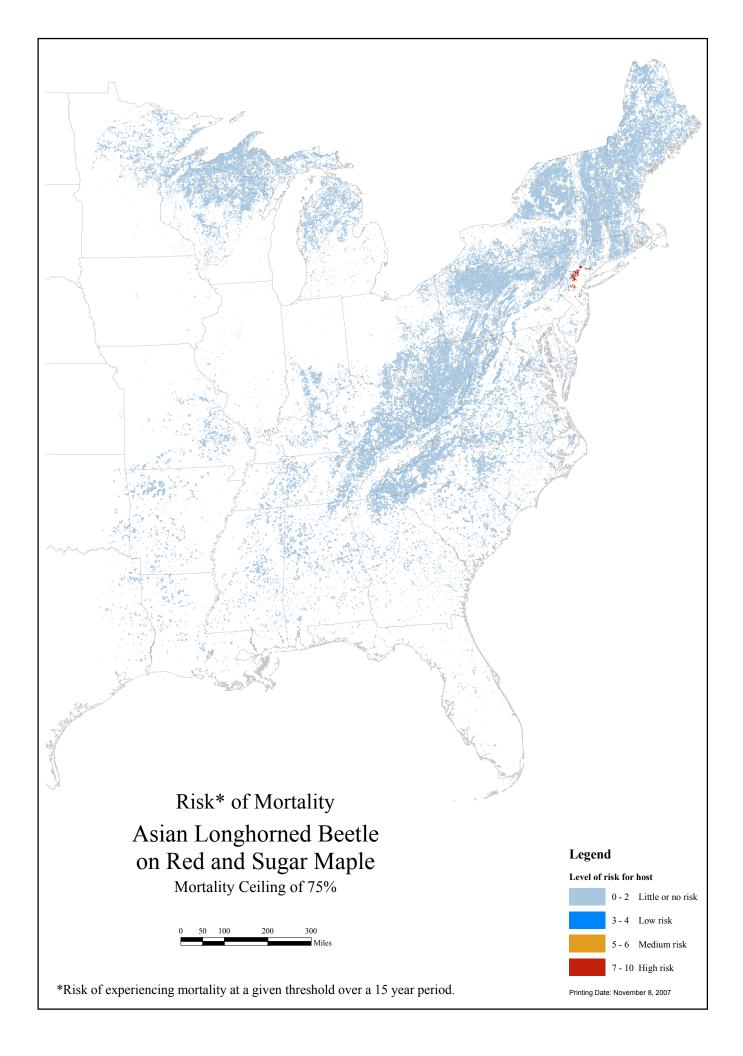
3 - Informed Professional Judgement

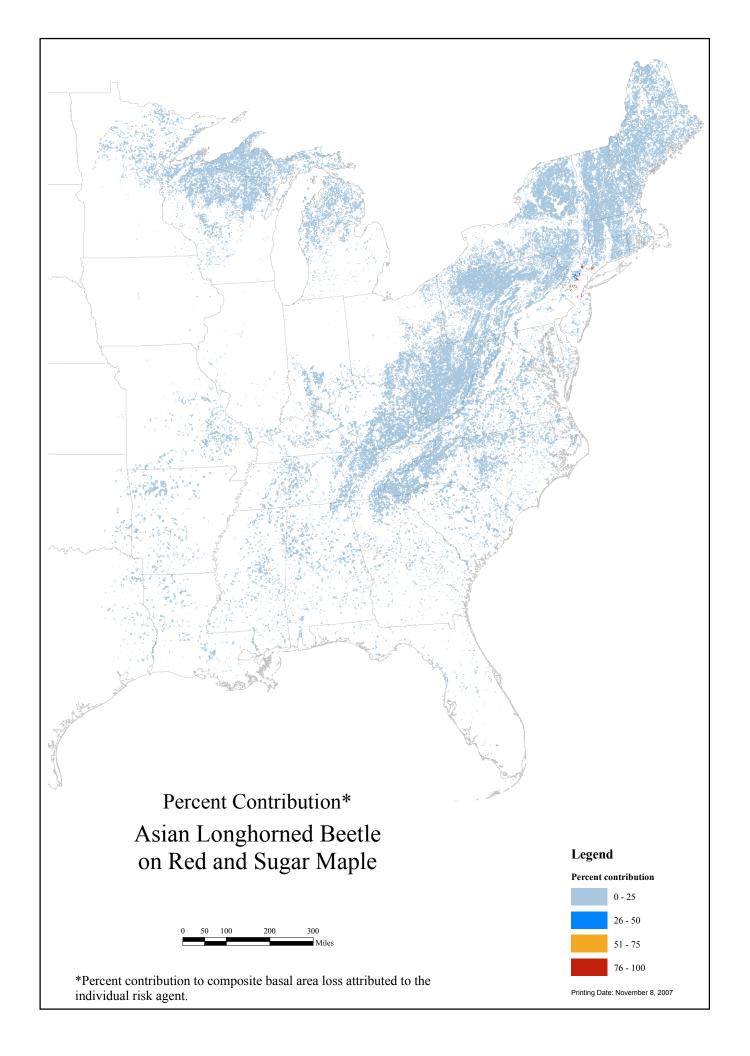




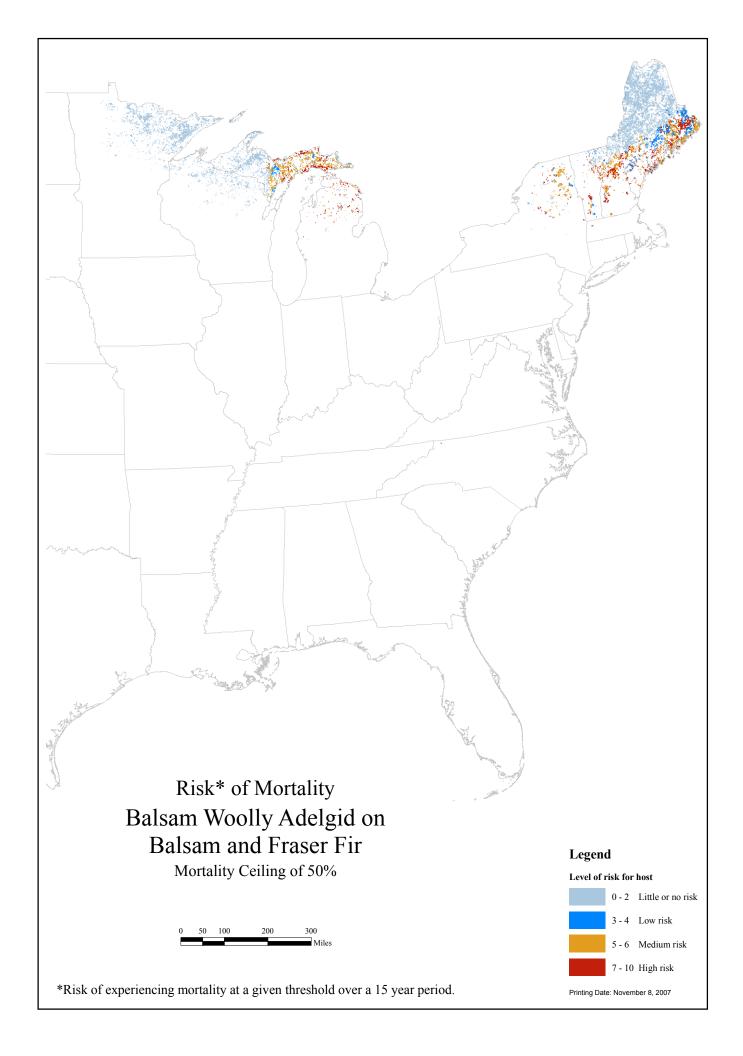
Risk Agent(s):	Asian Longhorned Beetle (AL	B)		Host(s):	Red and Sug	gar Maple		
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	75%	, 0	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA	0	1	1	1	J-1	1	50%
Criteria 2	Distance from Pest	0	0	5	15	S-2	1	50%
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
0 0%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1								
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints				Comments				
				J [				
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Citations				Model	3 - Inform	ed Professio	onal Judge	ment
				Certainity				

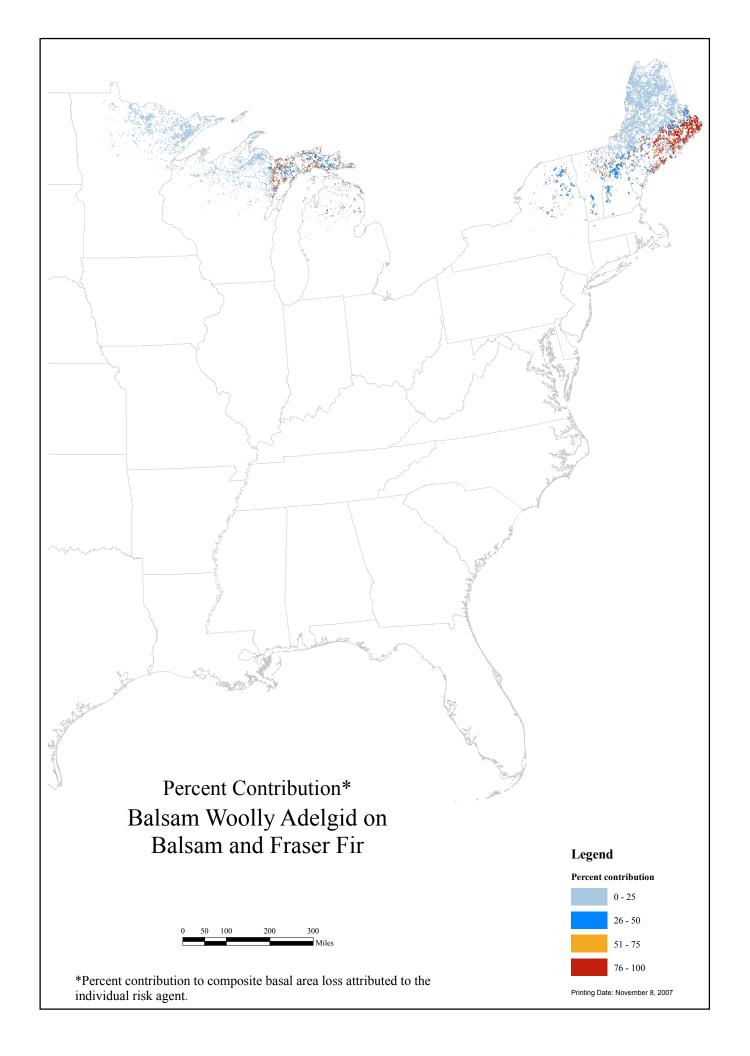
**Risk Model Worksheet - Northeastern Area** 



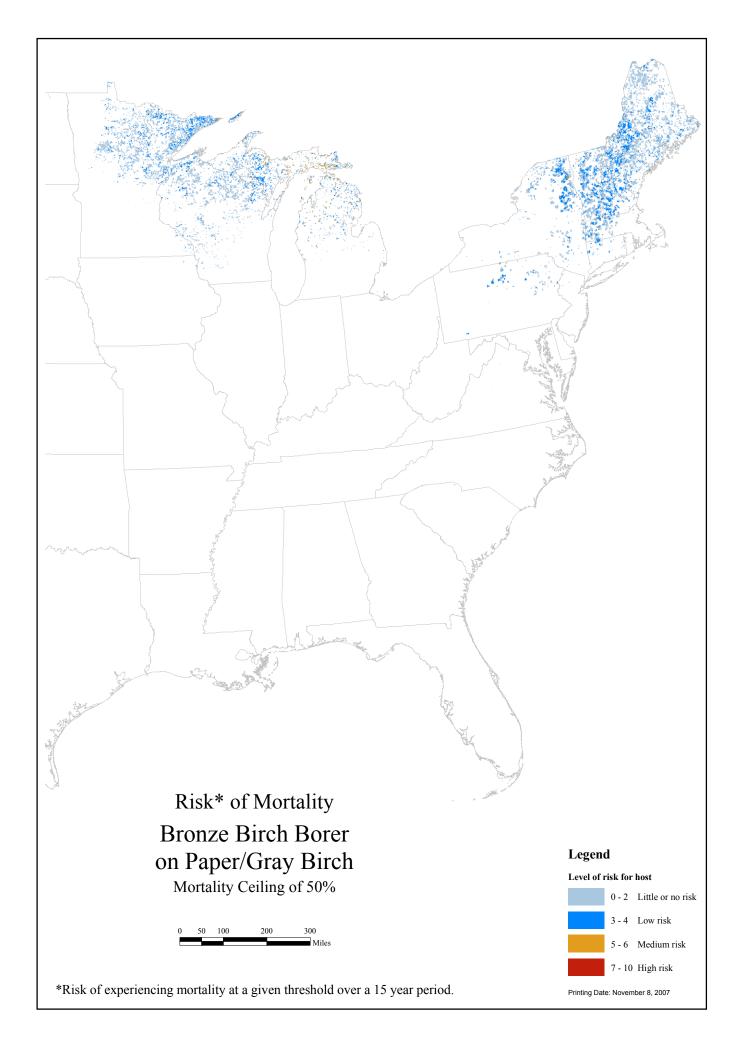


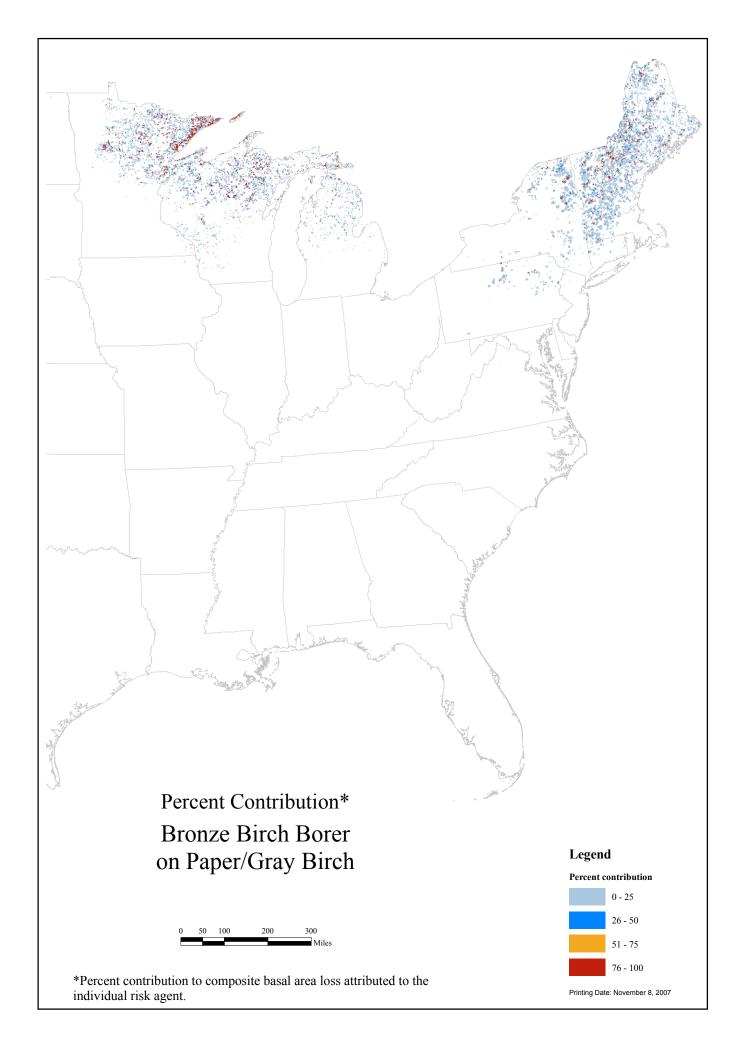
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Balsam Woolly Adelgid (BWA)			Host(s):	Balsam and	Fraser Fir		
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	50%	6	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Soil Dryness Index	0	45	45	85	S 5	1/3	40%
Criteria 2	Avg Min. Jan. Temp. (F)	2	8	8	8	S 1	1/2	60%
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability		Diek Begine	Risk Peaks	Risk	Risk Ends			
Rank/Weight 0%	Cuitorian	Risk Begins				Curre	Donk	Majaht
Criteria 1	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
				l			1	
Constraints	Contain risk within BWA ecological zone and wh	nere balsam an	d fraser fir are	Comments				
	present							
				J l				
Citations				Model				
Changing				Certainity	3 - Inform	ed Profession	onal Judge	ment
				- Containing				



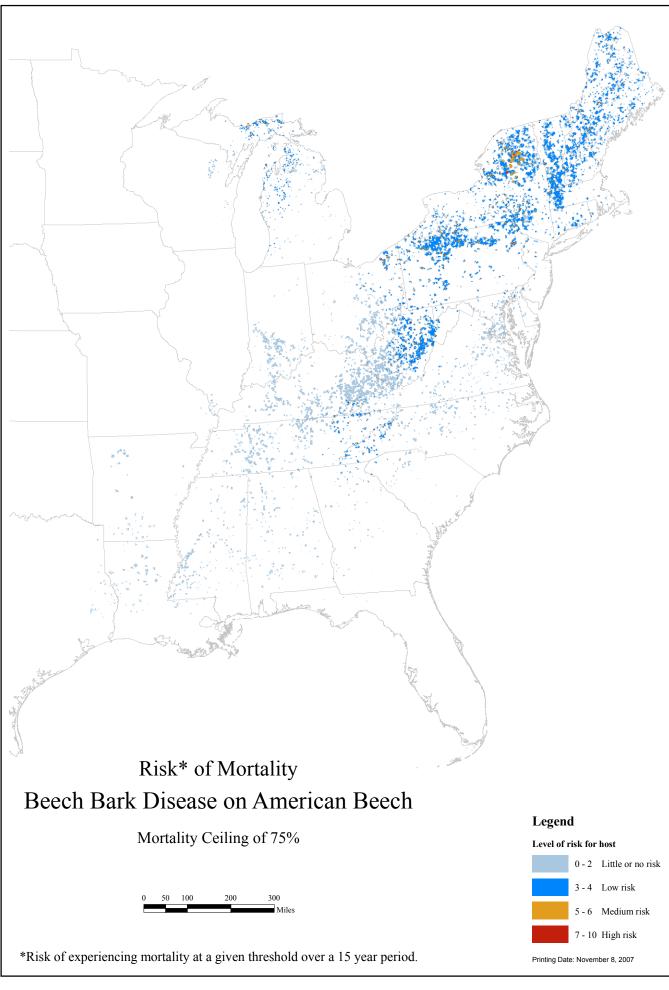


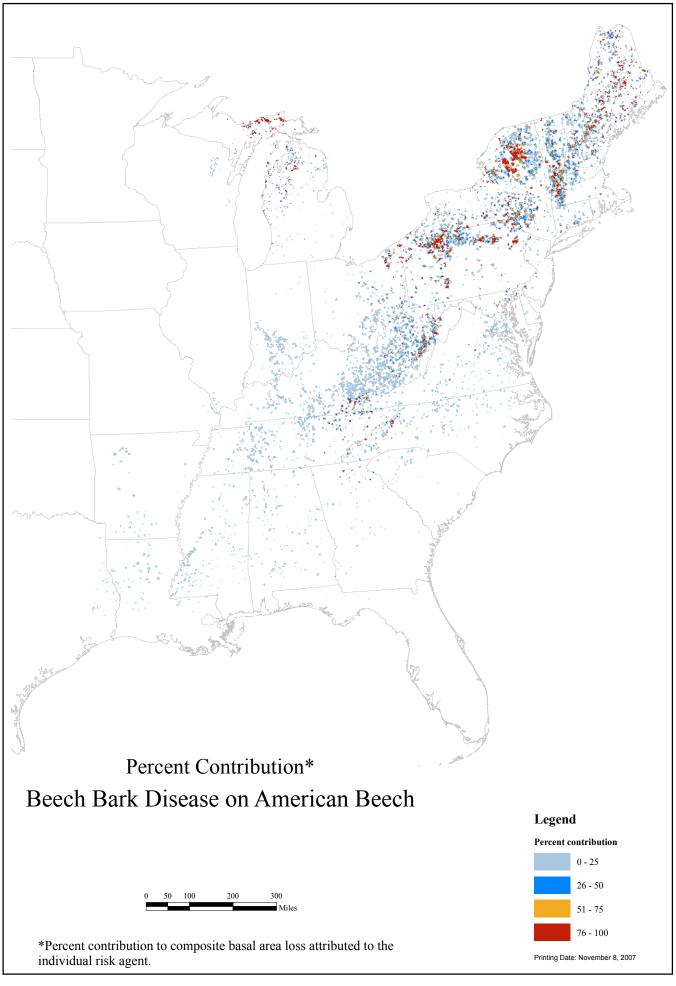
Risk Model W	/orksheet - Northeastern Area							
Risk Agent(s	Bronze Birch Borer			Host(s):	Paper / Gra	ay Birch		
Model Extent	: Northeastern Area		Max Pe	ercent Mortality:	50%	, 0	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/4 20%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA	0	60	100	110	S 5	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 80%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Soil Dryness	0	45	45	85	S 5	70	70%
Criteria 2	Host DBH	3	7	7	7	J 1	15	15%
Criteria 3	Elevation	800	1200	1200	1200	J 1	15	15%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints				Comments				
	1			. I				
Citations				Model Certainity	3 - Inform	ed Professi	onal Judge	ment





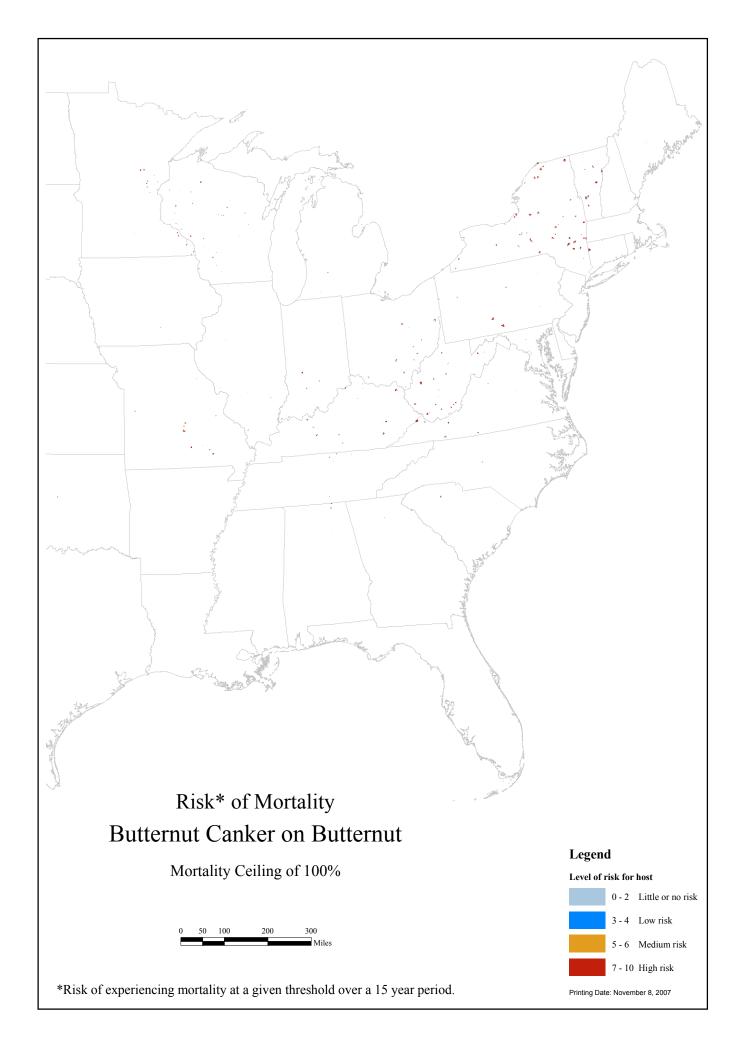
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Beech Bark Disease			Host(s):	American	Beech		
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	75%	, 0	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host Stocking	15	70	70	70	J 1	1/3	33%
Criteria 2	Host DBH	4	16	16	16	J 1	1/3	33%
Criteria 3	Distance from Pest	0	0	10	75	J 2	1/3	33%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
0%	Criterion					Curvo	Rank	Wajaht
Criteria 1	Chlehon	(a)	(b)	Decreases (c)	(d)	Curve	Kalik	Weight
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
						_		I.
Constraints				Comments				
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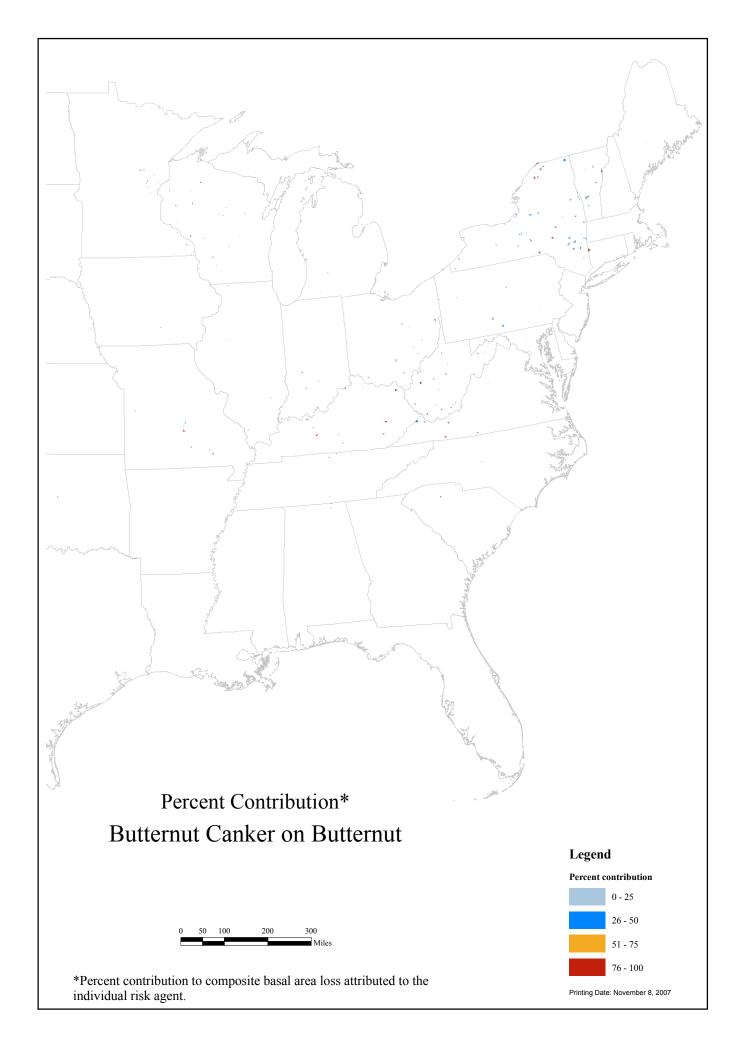




Risk Agent(s):	Butternut Canker		]	Host(s):		Butterni	ut	
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	1009	%	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA	1	1	1	1	J 1	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
0%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1								
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints				Comments				
				]				
				<u> </u>				
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**Risk Model Worksheet - Northeastern Area** 





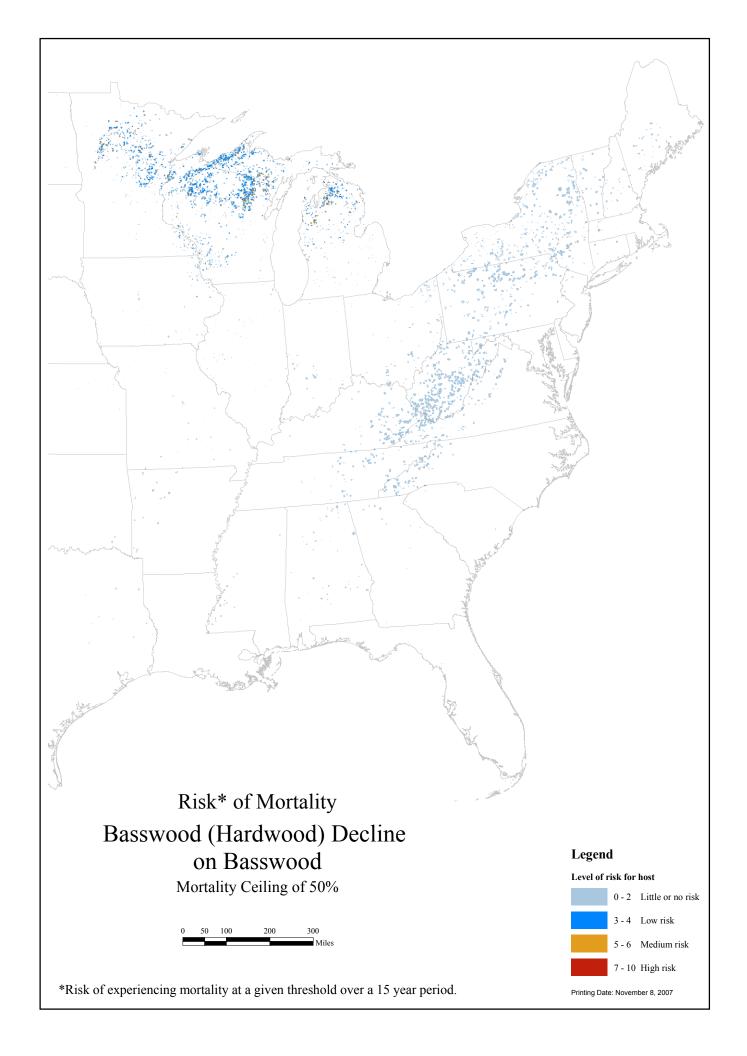
Risk Ag	gent(s):	Basswood (Hardwood)	Decline		Host(s):		Basswo	od	
Model E	xtent:	Easterm U.S.		Max Pe	ercent Mortality:	50%	6	]	
Susceptib	bility							_	
Rank/We			Risk Begins	Risk Peaks	Risk	Risk Ends			
	50%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host		10	90	90	90	J 1	1	50%
Criteria 2	Aspect		113	180	240	360	S 4	1	50%
Criteria 3									
Criteria 4									
Criteria 5									
Criteria 6									
Criteria 7									
Criteria 8									
Criteria 9									
Criteria 10									
	•		<u> </u>		ļ.		<u> </u>	<u>J</u>	<u> </u>
Vulnerabi Rank/We			Risk Begins	Risk Peaks	Risk	Risk Ends			
Rank/We	eight 50%	Criterion	Risk Begins (a)	Risk Peaks (b)	Risk Decreases (c)	Risk Ends (d)	Curve	Rank	Weight
Rank/We  1 Criteria 1	50% Soil Dry	yness					Curve S 5	Rank 1	Weight 25%
Rank/We	50% Soil Dry Annual	yness Precipitation	(a)	(b)	Decreases (c)	(d)		Rank 1	
Rank/We  1 Criteria 1	50% Soil Dry Annual Host Di	yness Precipitation BH	(a) 0	<b>(b)</b> 45	Decreases (c)	(d) 85	S 5	1	25% 25% 25%
Rank/We  1 Criteria 1 Criteria 2	50% Soil Dry Annual	yness Precipitation BH	(a) 0 9	<b>(b)</b> 45 13	Decreases (c) 45 13	(d) 85 46	S 5 J 2	1	25% 25%
Rank/We  1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5	50% Soil Dry Annual Host Di	yness Precipitation BH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Rank/We  1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6	50% Soil Dry Annual Host Di	yness Precipitation BH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Rank/We  1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7	50% Soil Dry Annual Host Di	yness Precipitation BH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Rank/We  1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8	50% Soil Dry Annual Host Di	yness Precipitation BH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Rank/We  1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7	Soil Dry Annual Host Di Pest Ra	yness Precipitation BH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%

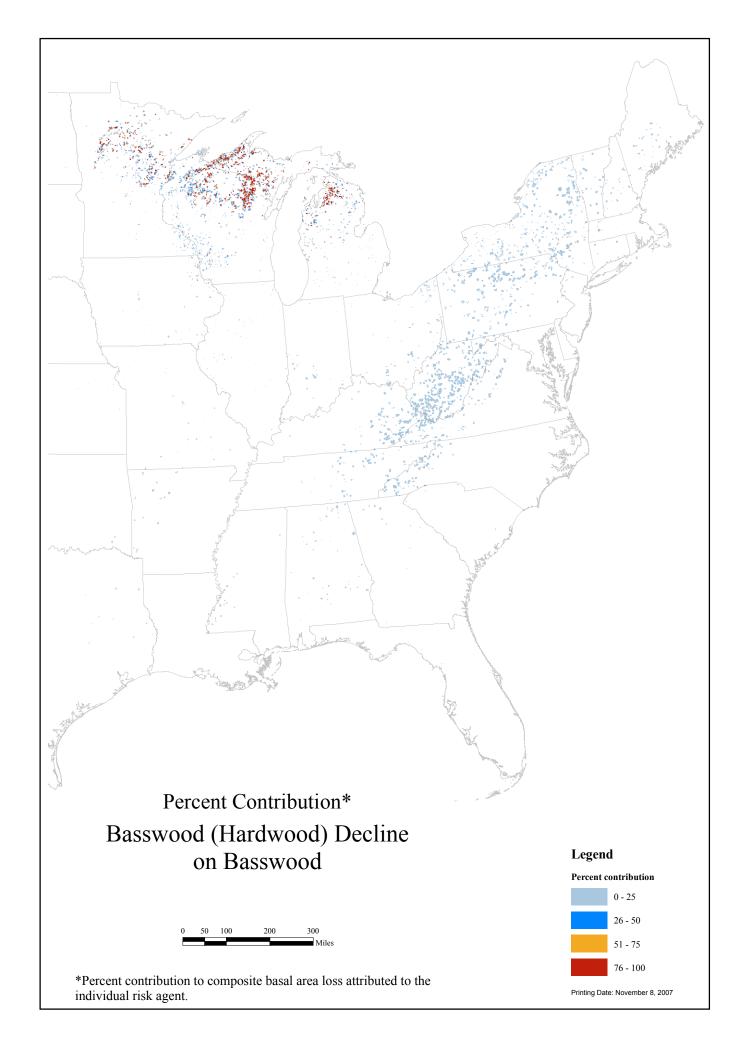
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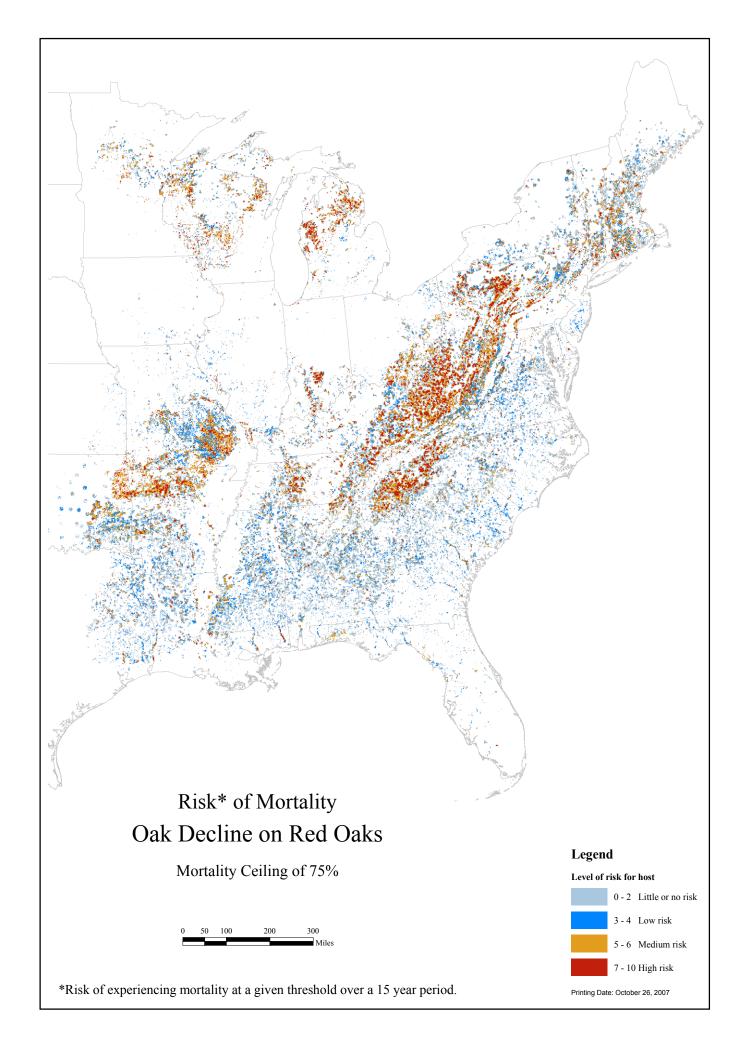


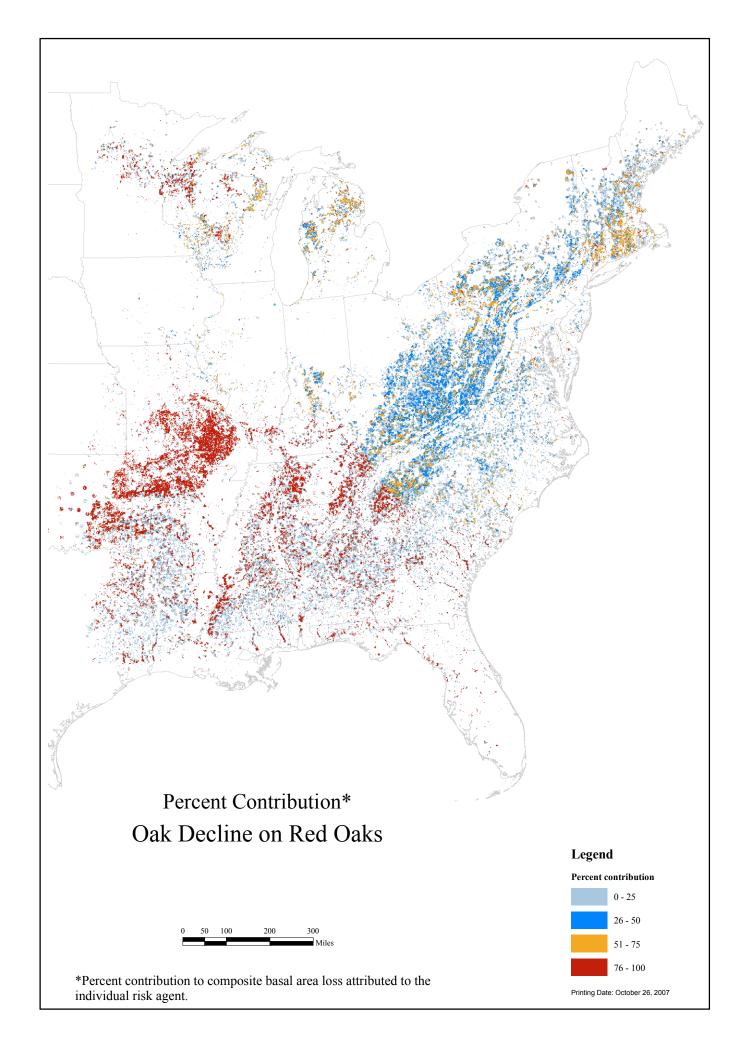
Risk M	odel Wo	orksheet - Northeastern Area							
Risk	Agent(s):	Oak Decline		•	Host(s):	Red Oak S	Species		
Mode	I Extent:	Eastern U.S.		Max Pe	ercent Mortality:	75%	, 0		
Suscep	tibility								
Rank/	Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/4	20%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria		Aspect	113	180	240	360	S 4	60	60%
Criteria:		% Host	0	90	90	90	Linear	40	40%
Criteria:									
Criteria									
Criteria									
Criteria									
Criteria									
Criteria									
Criteria Criteria									
Vulnera Rank/	<mark>ability</mark> Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1	80%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria		Host DBH	6	12	12	12	J 1	30	30%
Criteria:	2	Soil Dryness	0	45	45	85	S 5	30	30%
Criteria:	3	Annual Precipitation	9	24	24	38	S 2	30	30%
Criteria -	4	Pest Range						10	10%
Criteria									
Criteria									
Criteria									
Criteria									
Criteria Criteria									
Criteria	10								
Cons	traints	T			Comments				
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Model Certainity

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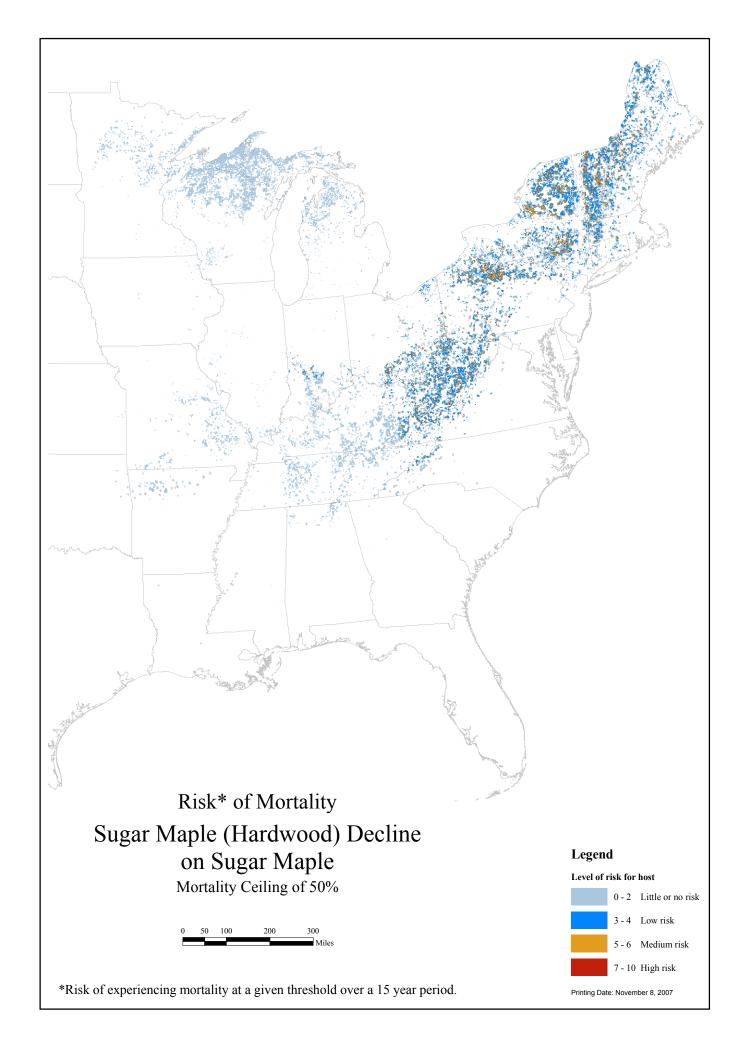
Risk Ag	gent(s):	Sugar Maple (Hardwood	) Decline		Host(s):		Sugar Ma	aple	
Model E	Extent:	Easterm U.S.		Max Pe	ercent Mortality:	50%	, 0	1	
Susceptil	bility				·			_	
Rank/W	•		Risk Begins	Risk Peaks	Risk	Risk Ends			
1	50%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1		% Host	10	90	90	90	J 1	1	50%
Criteria 2		Aspect	113	180	240	360	S 4	1	50%
Criteria 3									
Criteria 4									
Criteria 5									
Criteria 6									
Criteria 7									
• · · · · · · · ·									
Criteria 8									
Criteria 8									
Criteria 8 Criteria 9 Criteria 10	0								
Criteria 8 Criteria 9 Criteria 10	oility		Risk Begins	Risk Peaks	Risk	Risk Ends			
Criteria 8 Criteria 9 Criteria 10 Vulnerab	oility	Criterion	Risk Begins (a)	Risk Peaks (b)	Risk Decreases (c)	Risk Ends (d)	Curve	Rank	Weight
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W	oility /eight	Criterion Soil Dryness	_				Curve S 5	Rank 1	Weight 25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W	oility /eight		(a)	(b)	Decreases (c)	(d)		Rank 1	
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1	oility /eight	Soil Dryness	(a) 0	<b>(b)</b> 45	Decreases (c)	<b>(d)</b> 85	S 5	1	25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1 Criteria 2	oility /eight	Soil Dryness Annual Precipitation	(a) 0 9	<b>(b)</b> 45 13	Decreases (c) 45 13	(d) 85 46	S 5 J 2	1	25% 25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3	oility /eight	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4	oility /eight	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Criteria 8 Criteria 9 Criteria 10  Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5	oility /eight	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8	oility /eight	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8	oility /eight	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Criteria 8 Criteria 9 Criteria 10 Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8 Criteria 9	pility /eight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%
Criteria 8 Criteria 9 Criteria 10  Vulnerab Rank/W 1 Criteria 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6 Criteria 7	obility /eight 50%	Soil Dryness Annual Precipitation Host DBH	(a) 0 9 4	(b) 45 13 16	Decreases (c) 45 13 16	(d) 85 46 16	S 5 J 2 J 1	1 1 1	25% 25% 25%

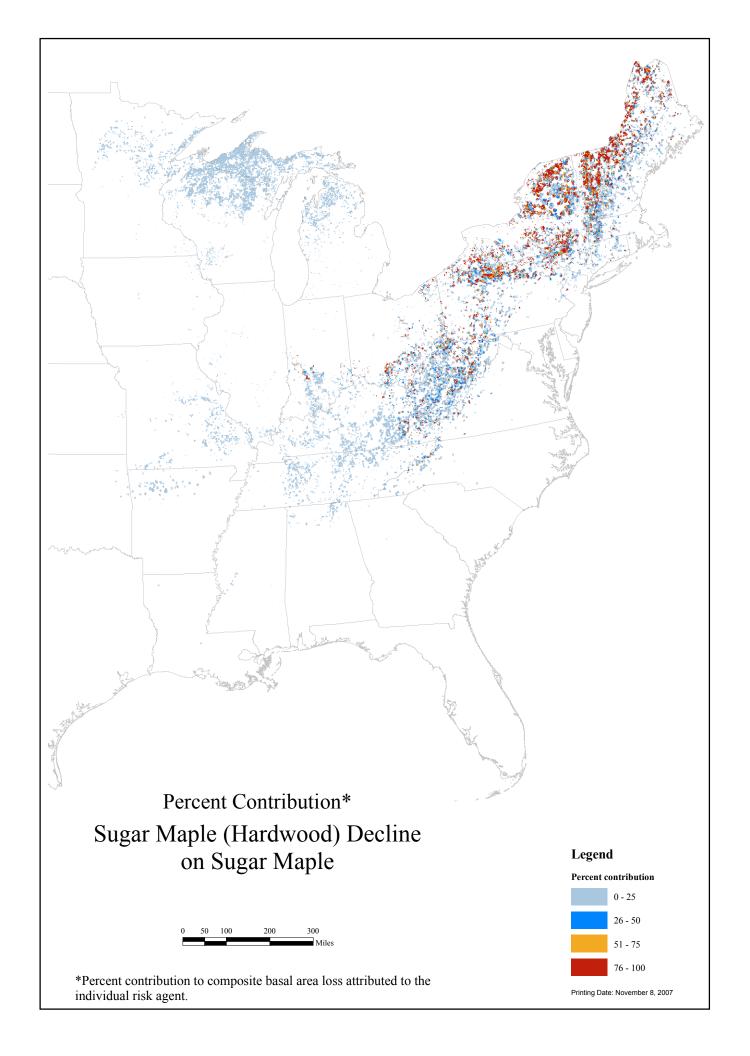
Citations

Model

Certainity

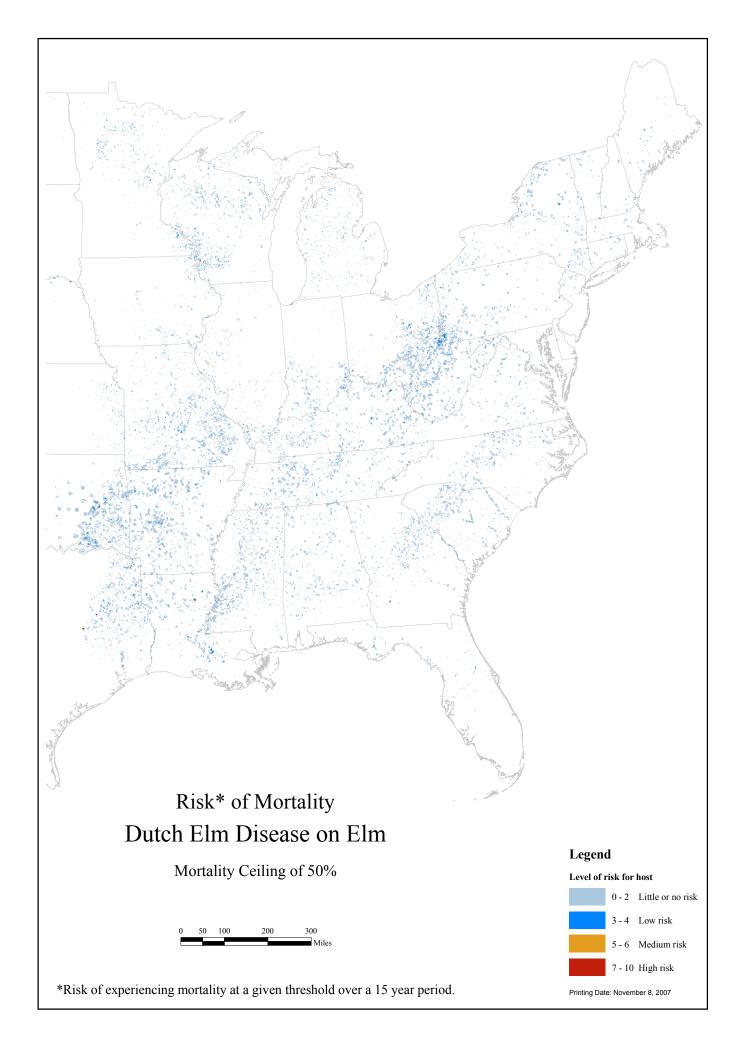
3 - Informed Professional Judgement

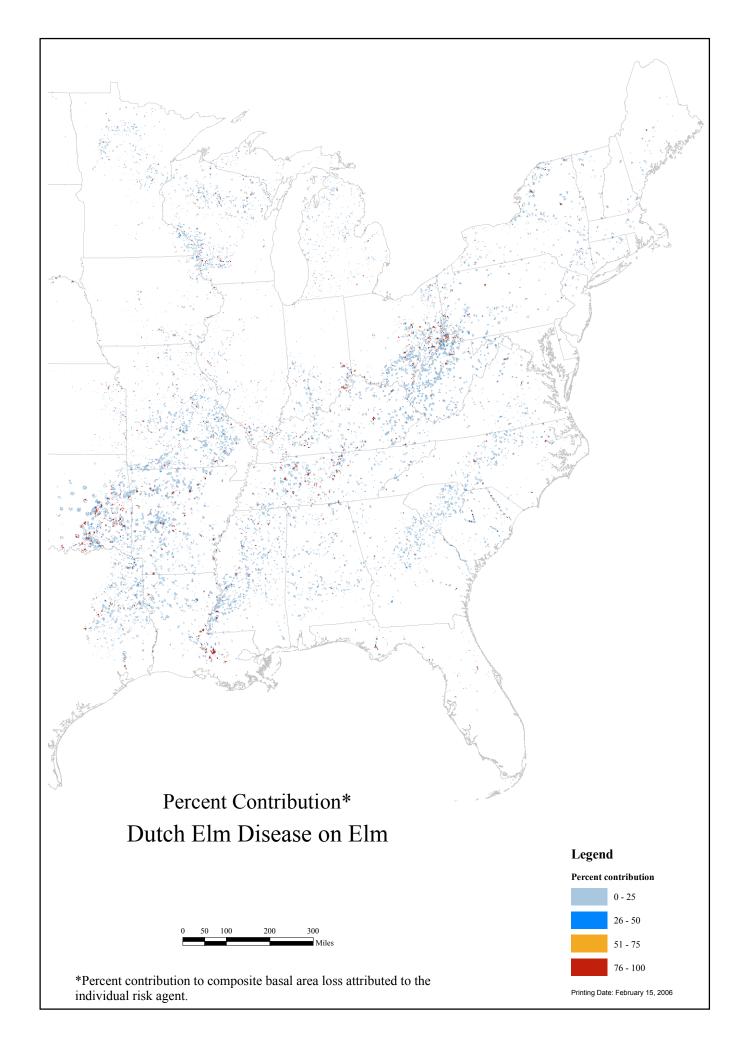




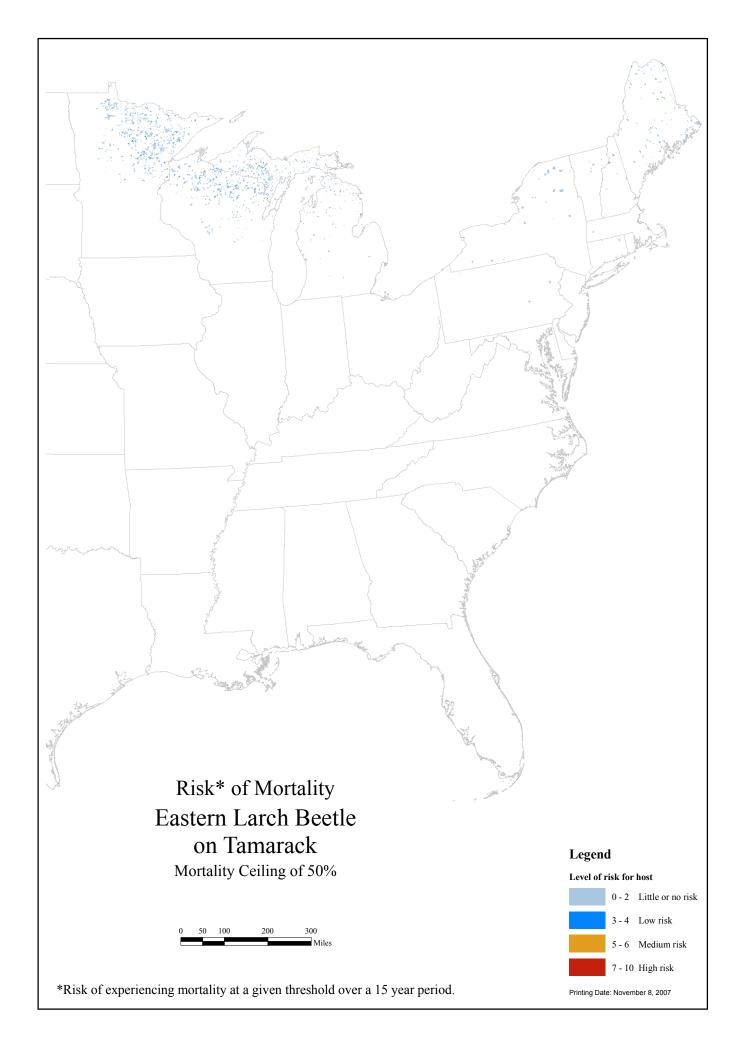
Risk Agent(s):	Dutch Elm Disease		]	Host(s):		Elm Spec	cies	
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	50%	, 0	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA	0	90	90	90	J 1	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vednovobilite								
Vulnerability		Dial Danis	Dial- Daal-a	Dial.	Dial. Fada			
Rank/Weight 0%	Cuitavian	Risk Begins	Risk Peaks	Risk	Risk Ends	C	Dank	Walada4
	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1 Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
			<u>I</u>				<u>I</u>	L
Constraints				Comments				
				ı L				
Citations				Model	0 1 1			
				Certainity	3 - Inform	ned Profession	onal Judge	ment
· ·								

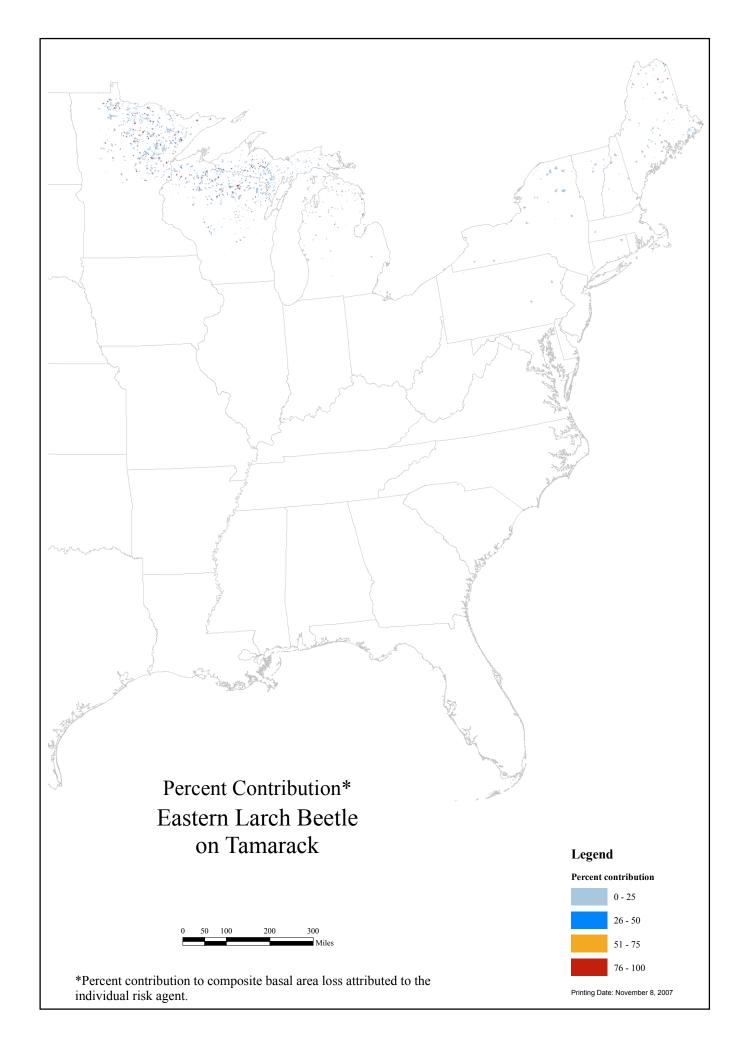
**Risk Model Worksheet - Northeastern Area** 





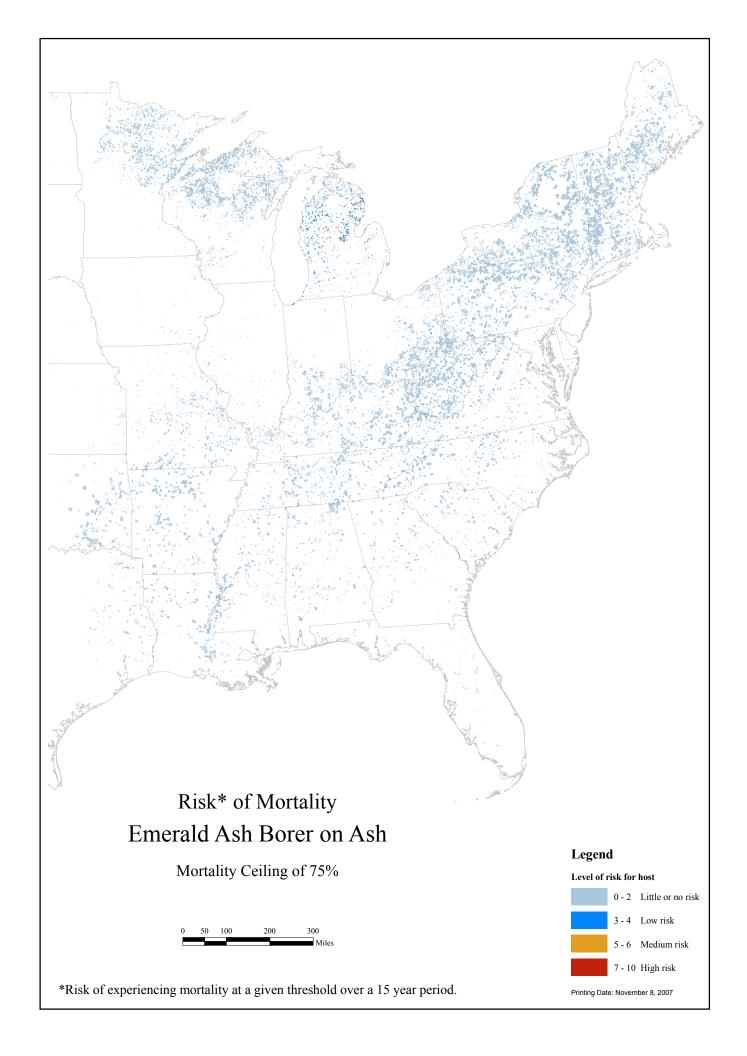
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Eastern Larch Beetle			Host(s):		Tamara	ck	
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	50%	, D		
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 50%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host	50	95	95	95	J 1	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability			5: 1 5 1		5			
Rank/Weight	0.11	Risk Begins	Risk Peaks	Risk	Risk Ends		l	387
1 50%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1 Criteria 2	Soil Dryness Host DBH	0	40	40	80	S 2	44	44%
Criteria 3	Host Basal Area	100	9 145	9 145	9 145	S 1 S 1	44 12	44% 12%
Criteria 4	HUSt Dasai Alea	100	145	145	140	31	12	12%
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
							ı	
Constraints				Comments				
L				J L				
Citations				Model	O Inform	ed Profession		

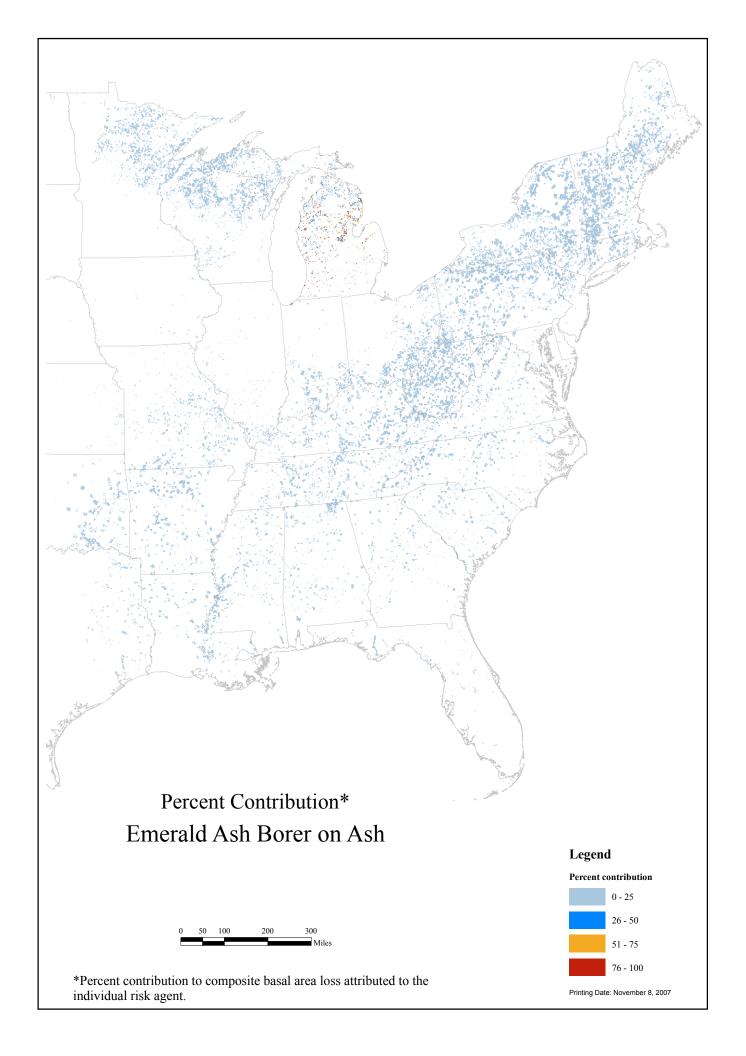




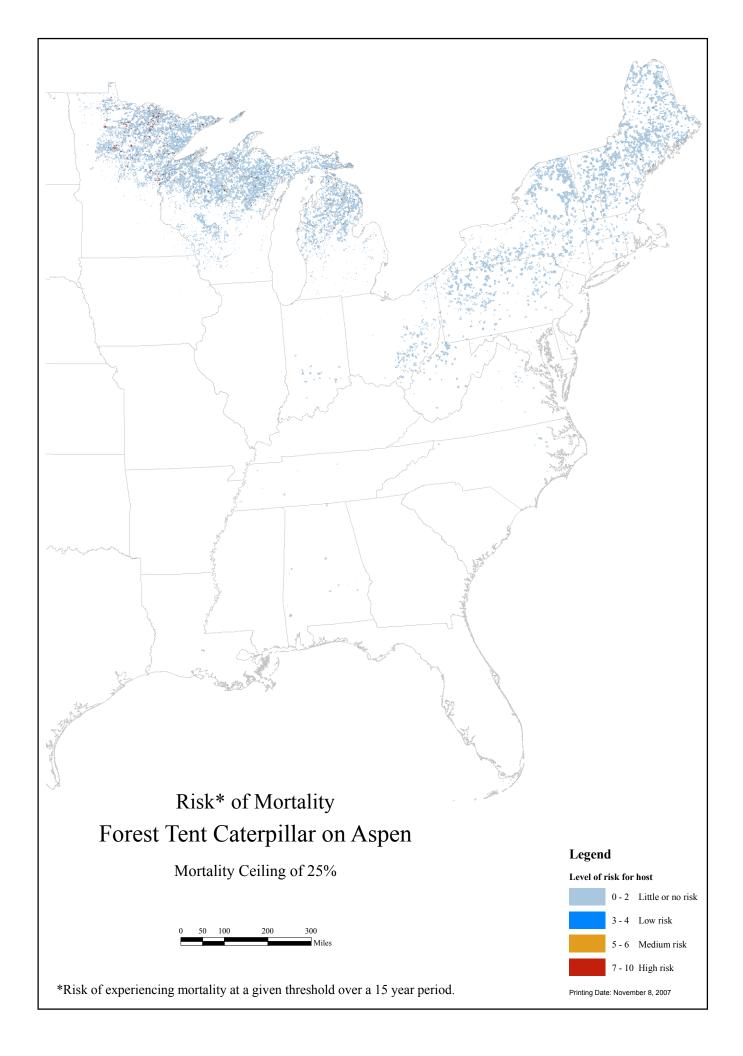
Rank/Weight   So%   Criterion   Risk Begins   Risk Peaks   Risk   Risk Ends   Criteria 1   Population Density   500   2000   2000   2000   2000   31   1   40%   20%   20%   20%   30%	Risk A	Agent(s):	Emerald Ash Bor	er		Host(s):		Ash Spe	cies	
Titeria   Tite	Model	Extent:	Eastern U.S.		Max Pe	ercent Mortality:	75%	6		
Rank/Weight   So%   Criterion   Risk Begins   Risk Peaks   Risk   Risk Ends   (d)   Curve   Rank   Weight   Criteria 1   Population Density   500   2000   2000   2000   2000   J 1   1   40%   Criteria 2   Distance to Infestation   0   0   0   100   S 2   1   40%   Criteria 3   % Host   1   90   90   90   S 1   1/2   20%   Criteria 4	Suscep	tibility			•	•			_	
Titeria   Tite	•	_		Risk Begins	Risk Peaks	Risk	Risk Ends			
Criteria 1         Population Density         500         2000         2000         2000         J 1         1         40%           Criteria 2         Distance to Infestation         0         0         0         100         S 2         1         40%           Criteria 3         % Host         1         90         90         90         S 1         1/2         20%           Criteria 4			Criterion					Curve	Rank	Weigh
Criteria 3         % Host         1         90         90         90         S 1         1/2         20%           Criteria 4         Criteria 5	Criteria '	1	Population Density					J 1	1	40%
Criteria 4         Criteria 5         Criteria 6         Criteria 6         Criteria 7         Criteria 8         Criteria 9         Criteria 9         Criteria 10         Criteria 10         Criteria 10         Risk Begins (a) (b) Decreases (c) (d) Curve Rank Weight Criteria 1         Ash QMD         1         10         10         10         10         10         10         33%         Criteria 2         Soil Dryness         0         45         45         85         5         1         33%         Criteria 4         Criteria 4         10         27         27         35         S 2         1         33%	Criteria 2	2	Distance to Infestation	0	0	0	100	S 2	1	40%
Criteria 5         Criteria 6         Criteria 7         Criteria 7         Criteria 8         Criteria 9         Criteria 9         Criteria 10         Criteria 9         Criteria 9         Criteria 10         Criteria 10         Risk Begins (a) (b) Decreases (c) (d) Curve Rank Weight (d) Criteria 1         Criteria 1         Ash QMD         1         10         10         10         1         133% (criteria 2) Soil Dryness         0         45         45         85         5         1         33% (criteria 4) Soil Dryness         0         27         27         35         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         85         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         85         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         85         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         85         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         85         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         85         S 2         1         33% (criteria 4) Soil Drynes         0         45         45         45 <td< td=""><td>Criteria 3</td><td>3</td><td>% Host</td><td>1</td><td>90</td><td>90</td><td>90</td><td>S 1</td><td>1/2</td><td>20%</td></td<>	Criteria 3	3	% Host	1	90	90	90	S 1	1/2	20%
Criteria 6         Criteria 7         Criteria 8         Criteria 8         Criteria 9         Criteria 10         Criteria 10         Criteria 10         Risk Begins Risk Peaks (a) (b) Decreases (c) (d) Curve Rank Weight (a) (b) Decreases (c) (d) (d) Curve Rank Weight (a) (d) Curve Rank Weight (a) (d) (d) Curve Rank Weight (a) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d	Criteria 4	1								
Criteria 7         Criteria 8         Criteria 9         Criteria 10         Criteria 10         Criteria 10         Criteria 10         Criteria 10         Criteria 10         Risk Begins Risk Peaks Risk Risk Ends (b) Decreases (c) (d) Curve Rank Weight Decreases (c) (d) Curve Rank Weight Criteria 1 Ash QMD         1 10 10 10 10 10 J1 1 33% Criteria 2 Soil Dryness         2 Soil Dryness Soil Dryness         0 45 45 85 S5 1 33% Criteria 3 Annual Precipitation         3 3% Criteria 4         Criteria 2 27 27 35 S2 1 33% Criteria 4	Criteria !	5								
Criteria 8         Criteria 9         Criteria 10         Risk Begins         Risk Peaks         Risk Ends	Criteria (	ŝ								
Criteria 9         Criteria 10         Risk Begins         Risk Peaks         Risk Ends	Criteria 7	7								
Vulnerability           Rank/Weight         Risk Begins         Risk Peaks         Risk Peaks         Risk Ends           1         50%         Criterion         (a)         (b)         Decreases (c)         (d)         Curve         Rank         Weight           Criteria 1         Ash QMD         1         10         10         10         J1         1         33%           Criteria 2         Soil Dryness         0         45         45         85         S 5         1         33%           Criteria 3         Annual Precipitation         10         27         27         35         S 2         1         33%           Criteria 4         Image: Criteria 4	Criteria 8	3								
Vulnerability           Rank/Weight         Fisk Begins         Risk Peaks (b)         Risk Ends Decreases (c)         Curve Rank         Weight Weight Weight Criteria 1         Ash QMD         1         10         10         10         1         1         33%           Criteria 2         Soil Dryness         0         45         45         85         S 5         1         33%           Criteria 3         Annual Precipitation         10         27         27         35         S 2         1         33%           Criteria 4         Image: Criteria 4         Image: Criteria 4         Image: Criteria 5         Image: Criteria 4         Image: Criteria 4         Image: Criteria 4         Image: Criteria 4         Image: Criteria 5         Image: Criteria 4         Image: Criteri	Criteria 9	9								
Rank/Weight         Risk Begins         Risk Peaks         Risk Decreases (c)         Risk Ends (d)         Curve         Rank         Weight Weig	Criteria '	10								
Criteria 1         Ash QMD         1         10         10         10         J 1         1         33%           Criteria 2         Soil Dryness         0         45         45         85         S 5         1         33%           Criteria 3         Annual Precipitation         10         27         27         35         S 2         1         33%           Criteria 4         0         45         45         85         S 2         1         33%	VIIIDARA	hility								
Criteria 2         Soil Dryness         0         45         45         85         S 5         1         33%           Criteria 3         Annual Precipitation         10         27         27         35         S 2         1         33%           Criteria 4         0         45         45         85         S 5         1         33%		•		Risk Begins	Risk Peaks	Risk	Risk Ends			
Criteria 3         Annual Precipitation         10         27         27         35         S 2         1         33%           Criteria 4         Image: Criteria 4 </td <td>Rank/\</td> <td>Weight</td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td>Curve</td> <td>Rank</td> <td>Weigh</td>	Rank/\	Weight				_		Curve	Rank	Weigh
Criteria 4	Rank/\	Weight 50%		(a)	(b)	Decreases (c)	(d)		Rank 1	Weigh
	Rank/\ 1 Criteria	Weight 50%	Ash QMD Soil Dryness	(a)	<b>(b)</b>	Decreases (c)	(d) 10	J 1	1	
	Rank/\ 1 Criteria 2	Weight 50%	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33%
Criteria 5	Rank/V 1 Criteria 2 Criteria 3 Criteria 4	Weight 50% 1 2 3	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
	Rank/ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4	Weight 50%  1 2 3 4	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
	Rank/ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6	Weight 50%	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/ 1 Criteria Criteria	Weight 50%  1 2 3 4 5 5 6 7	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7 Criteria 8	Rank/\ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 7	Weight 50%  1 2 3 4 5 6 7	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/ 1 Criteria Criteria Cr	Weight 50%  1 2 3 4 5 6 7 3	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 6         Criteria 7           Criteria 8         Criteria 9           Criteria 10         Criteria 9	Rank/1 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8 Criteria 8 Criteria 8	Weight 50%  1 2 3 4 5 6 7 3	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/ 1 Criteria : Criteria : Criteria : Criteria : Criteria : Criteria : Criteria : Criteria : Criteria :	Weight 50%  1 2 3 4 5 6 6 7 8 9 10	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	Decreases (c) 10 45 27	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 5	vuillera									
Outrain C	Rank/ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4	Weight 50%  1 2 3 4	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 6	Rank/ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4	Weight 50%  1 2 3 4	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
	Rank/ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6	Weight 50%	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
	Rank/ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 5 Criteria 6	Weight 50%	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/ 1 Criteria Criteria	Weight 50%  1 2 3 4 5 5 6 7	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7 Criteria 8	Rank/\ 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 7	Weight 50%  1 2 3 4 5 6 7	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/1 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8 Criteria 8 Criteria 8	Weight 50%  1 2 3 4 5 6 7 3	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/1 1 Criteria 2 Criteria 3 Criteria 4 Criteria 4 Criteria 5 Criteria 6 Criteria 7 Criteria 8 Criteria 8 Criteria 8	Weight 50%  1 2 3 4 5 6 7 3	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	10 45	(d) 10 85	J 1 S 5	1	33% 33%
Criteria 7	Rank/ 1 Criteria : Criteria : Criteria : Criteria : Criteria : Criteria : Criteria : Criteria : Criteria :	Weight 50%  1 2 3 4 5 6 6 7 8 9 10	Ash QMD Soil Dryness	(a) 1 0	<b>(b)</b> 10 45	Decreases (c) 10 45 27	(d) 10 85	J 1 S 5	1	30 30

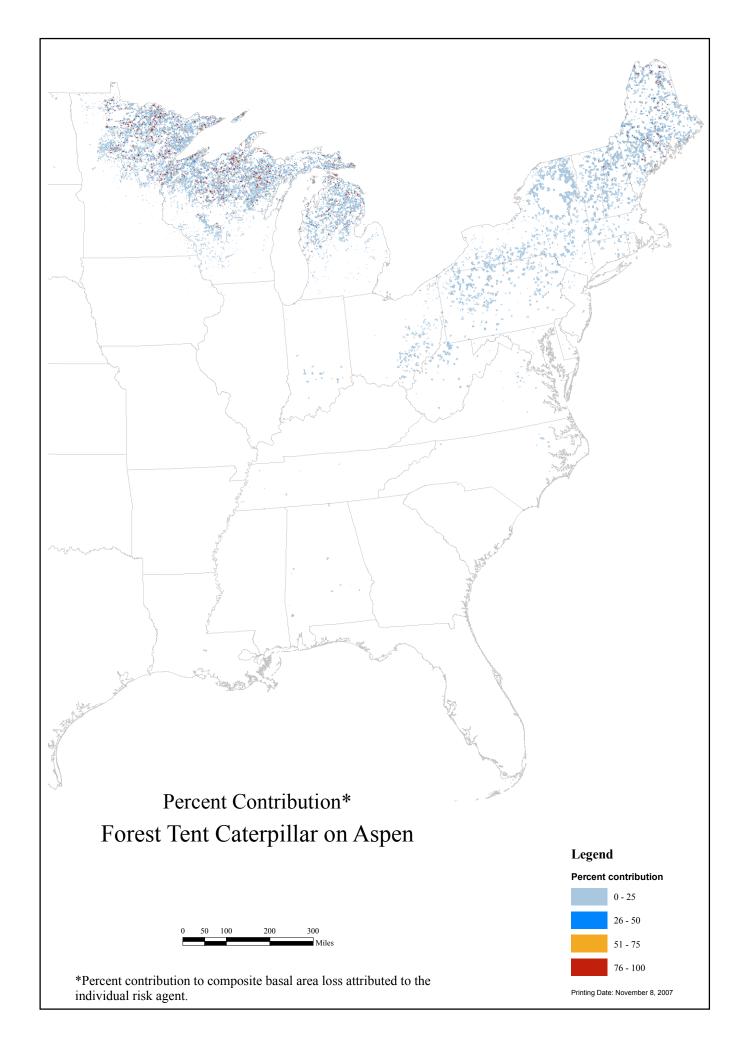
Citations	Model 3 - Informed Professional Judgement	
	Certainity	





Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Forest Tent Caterpillar			Host(s):		Aspen Spe	ecies	
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	25%	, D	]	
Susceptibility			•	_			-	
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 75%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host Stocking	50	70	70	70	J 1	100	100%
Criteria 2	-							
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/3 25%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host DBH	5	13	13	13	J 1	25	25%
Criteria 2	Soil Dryness	0	45	45	85	S 5	75	75%
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
				_				
Constraints	Pest Range			Comments				
Citations				Model Certainity	3 - Inform	ed Profession	onal Judge	ment





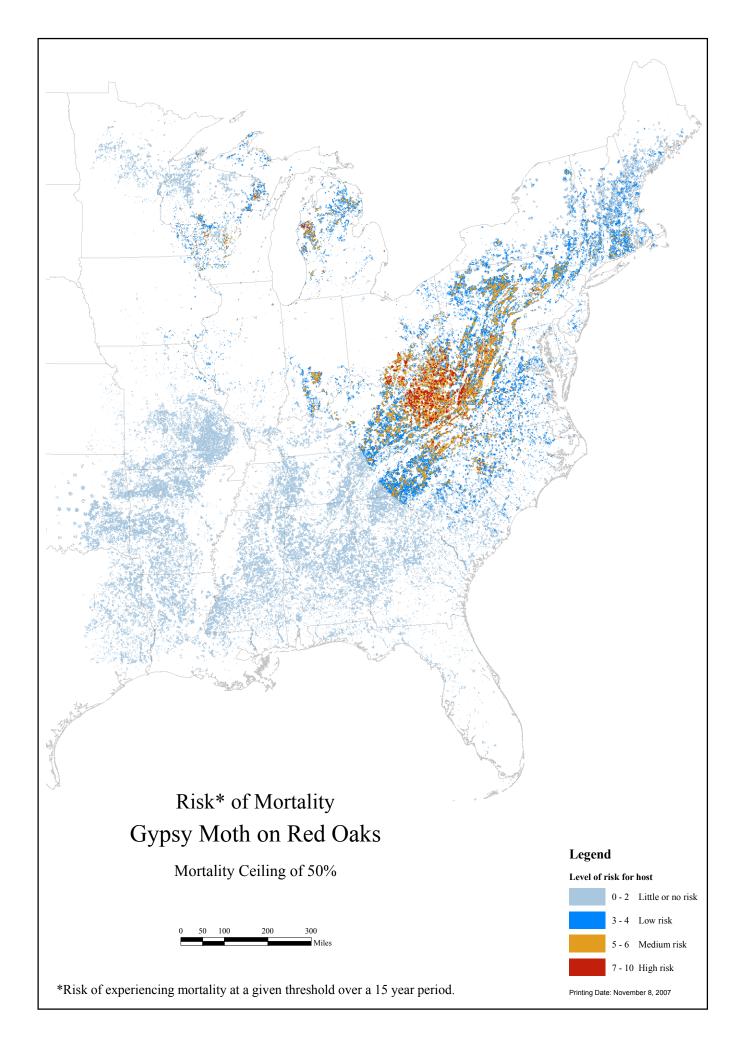
Risk Model Worksheet - Northeastern Area								
Risk Agent(s):	Gypsy Moth	Host(s):	Red Oak Species	_				
Model Extent:	Eastern U.S.	Max Percent Mortality:	50%					
Susceptibility								

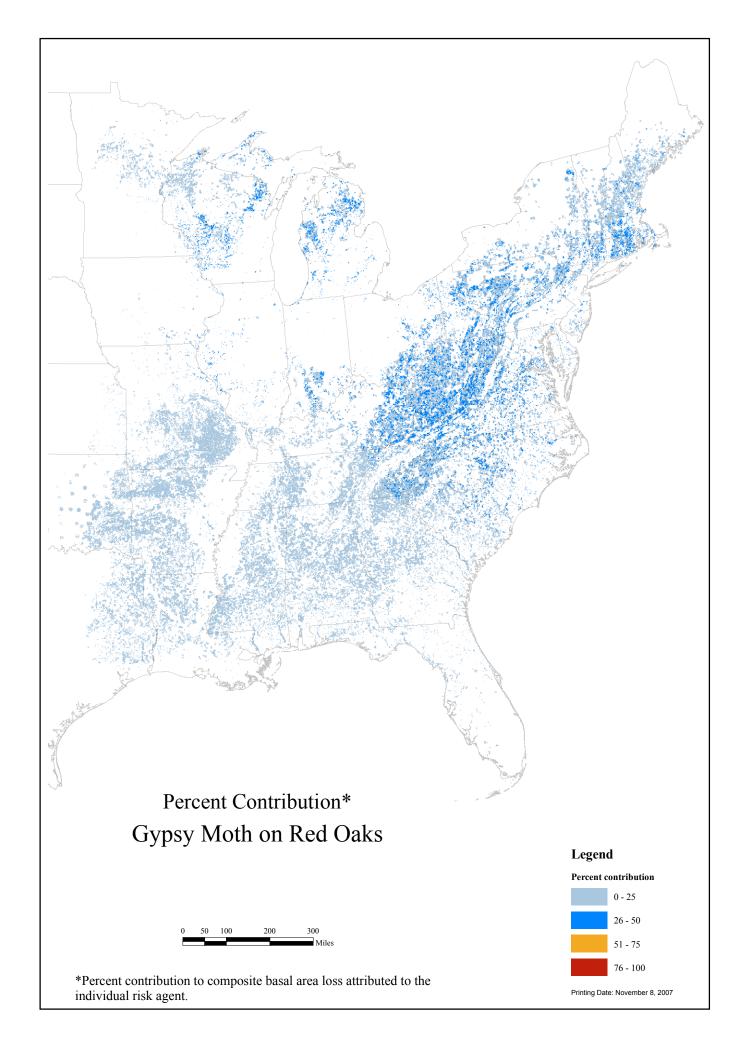
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/2 33%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Proximity to Infestation	0	30	60	200	S 4	20	20%
Criteria 2	Avg Min Jan Temp (F)	5	12	12	12	S 1	20	20%
Criteria 3	% slope	0	1	1	1	S 1	10	10%
Criteria 4	Host basal area	10	50	50	50	S 1	50	50%
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								

## Vulnerability

Rank/W	leight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1	67%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1		Site quality	0	11	11	17	S 5	1	20%
Criteria 2		Host basal area	10	50	50	50	S 1	1	20%
Criteria 3		Annual precipitation	9	9	26	38	S 2	1	20%
Criteria 4		Soil Dryness	0	45	45	85	S 5	1	20%
Criteria 5		Proximity to Infestation	0	30	30	200	S 2	1	20%
Criteria 6									
Criteria 7									
Criteria 8									
Criteria 9									
Criteria 10	0								

Constraints	Comments	
Citations	Model Certainity	3 - Informed Professional Judgement





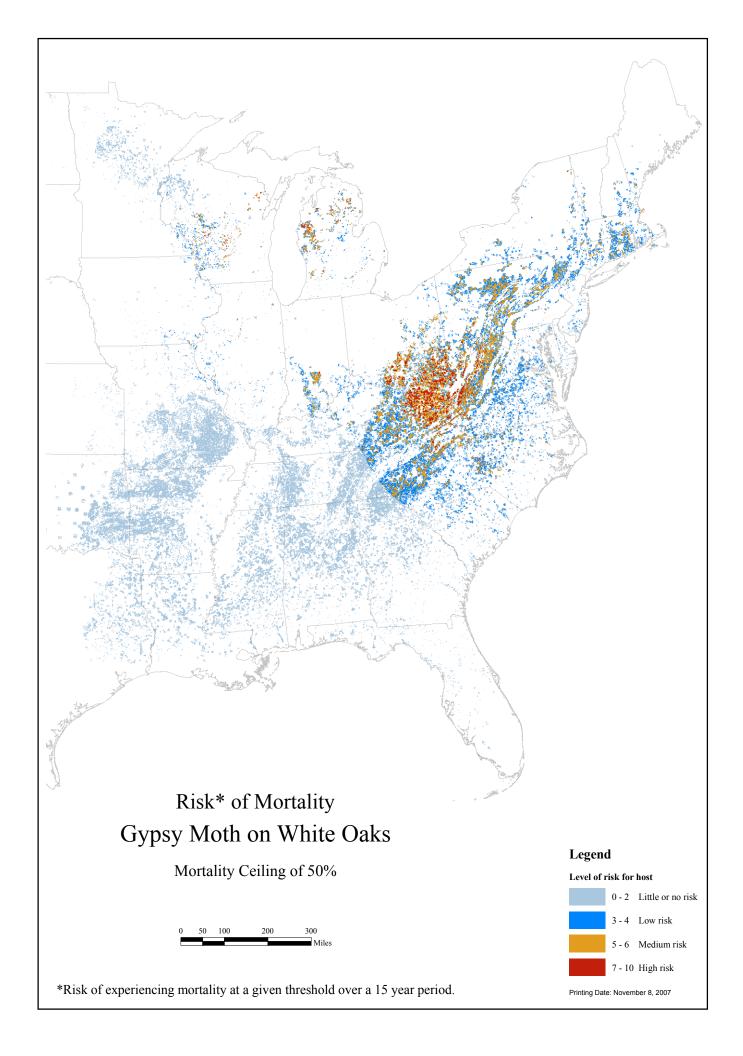
Risk Model Worksheet - Northeastern Area								
Risk Agent(s):	Gypsy Moth	Host(s):	White Oak Species					
Model Extent:	Eastern U.S.	Max Percent Mortality:	50%					
Suscentibility								

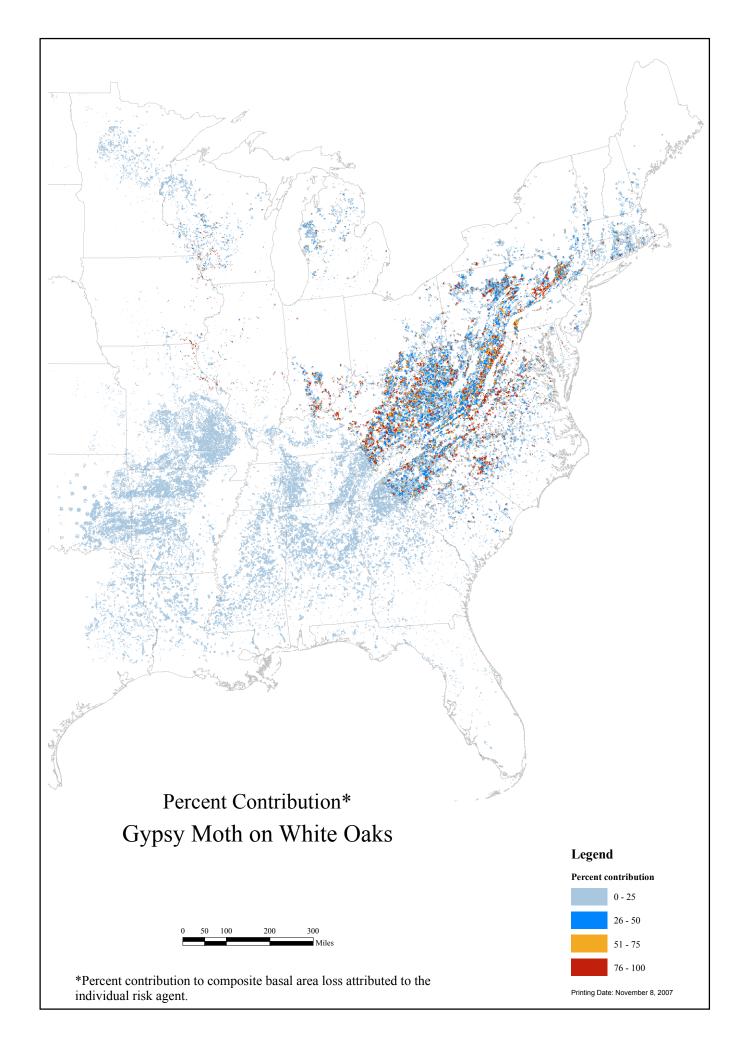
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/2 33%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Proximity to Infestation	0	30	60	200	S 4	20	20%
Criteria 2	Avg Min Jan Temp (F)	5	12	12	12	S 1	20	20%
Criteria 3	% slope	0	1	1	1	S 1	10	10%
Criteria 4	Host basal area	10	50	50	50	S 1	50	50%
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								

## Vulnerability

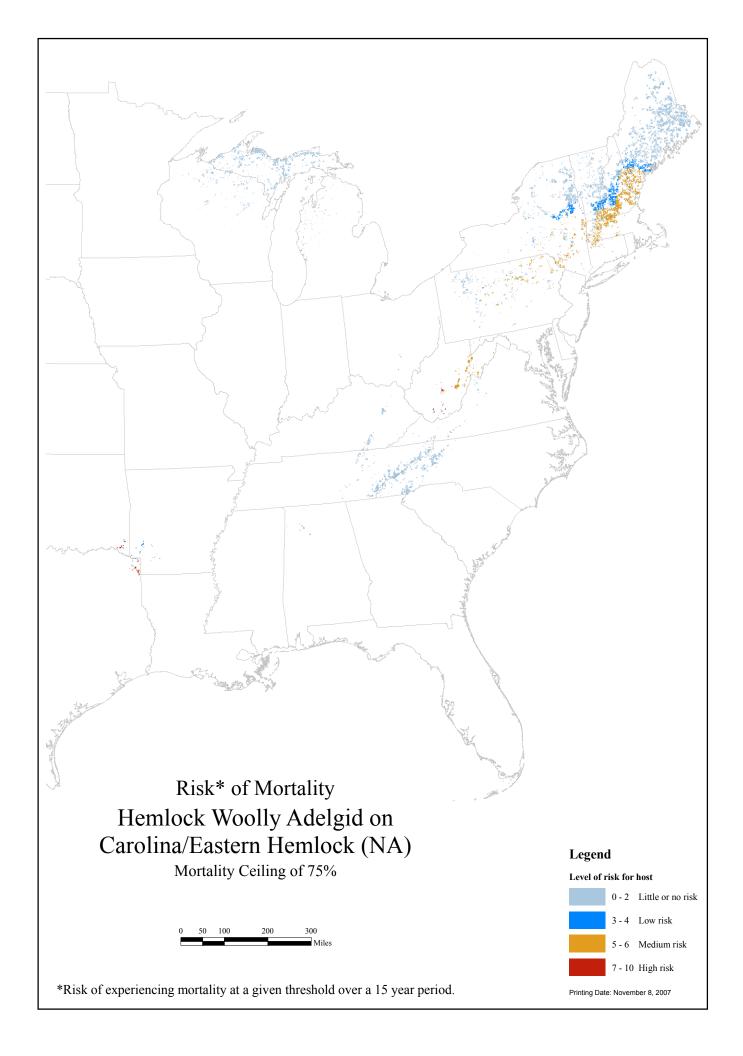
Rank/W	/eight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1	67%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1		Site quality	0	11	11	17	S 5	1	20%
Criteria 2		Host basal area	10	50	50	50	S 1	1	20%
Criteria 3		Annual precipitation	9	9	26	38	S 2	1	20%
Criteria 4		Soil Dryness	0	45	45	85	S 5	1	20%
Criteria 5		Proximity to Infestation	0	30	30	200	S 2	1	20%
Criteria 6									
Criteria 7									
Criteria 8									
Criteria 9									
Criteria 10	0								

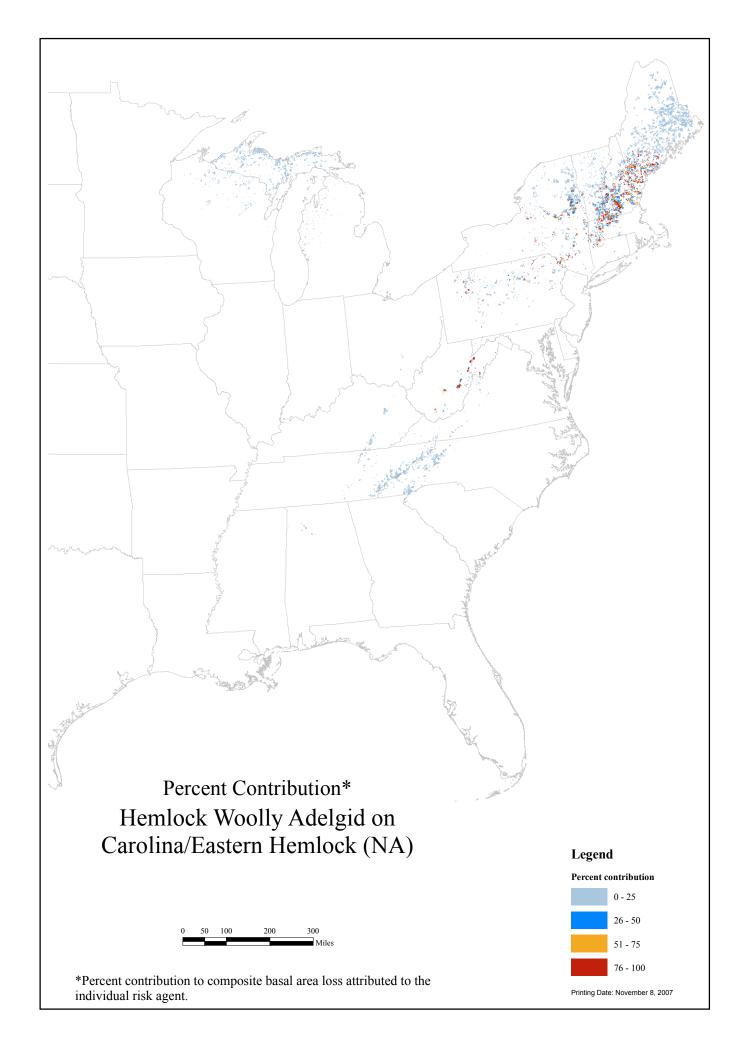
Constraints	Comments	
	_	
Citations	Model Certainity	3 - Informed Professional Judgement





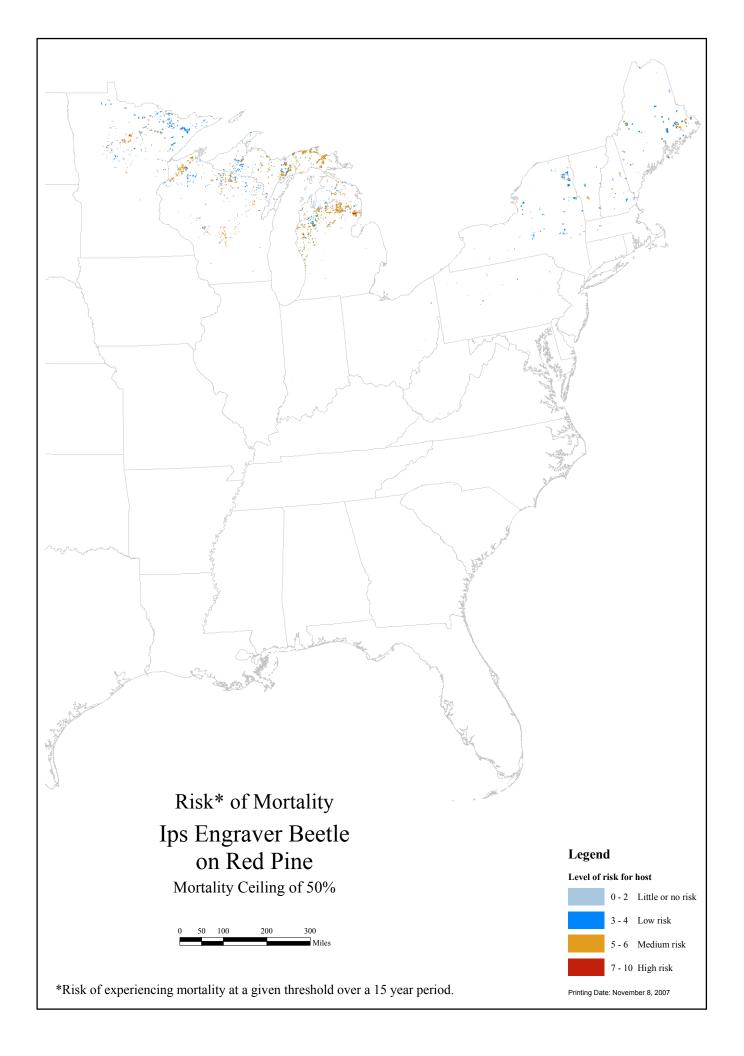
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Hemlock Woolly Adelgid			Host(s):	Card	olina / Easte	rn Hemlock	(
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	75%	6		
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host	5	40	40	40	S 1	5	5%
Criteria 2 Criteria 3 Criteria 4 Criteria 5	Avg Min Jan Temp (F)	3	12	12	12	S 1	50	50%
Criteria 3	Distance to Infestation	0	10	10	65	S 2	45	45%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
0%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	C.III.	(4)	(2)	200.00000 (0)	(4)	- Cui to	rtuint	g.ii
Criteria 1 Criteria 2 Criteria 3								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 6 Criteria 7 Criteria 8								
Criteria 8								
Criteria 9								
Criteria 10								
		•					•	
Constraints	Elevation Restriction of 1600 ft in states North	of Maryland		Comments				
				_ I				
Citations				Model	0 lmf	ad Drafa!	المسا	
	1			Certainity	3 - Inform	ned Professi	onai Judge	ment

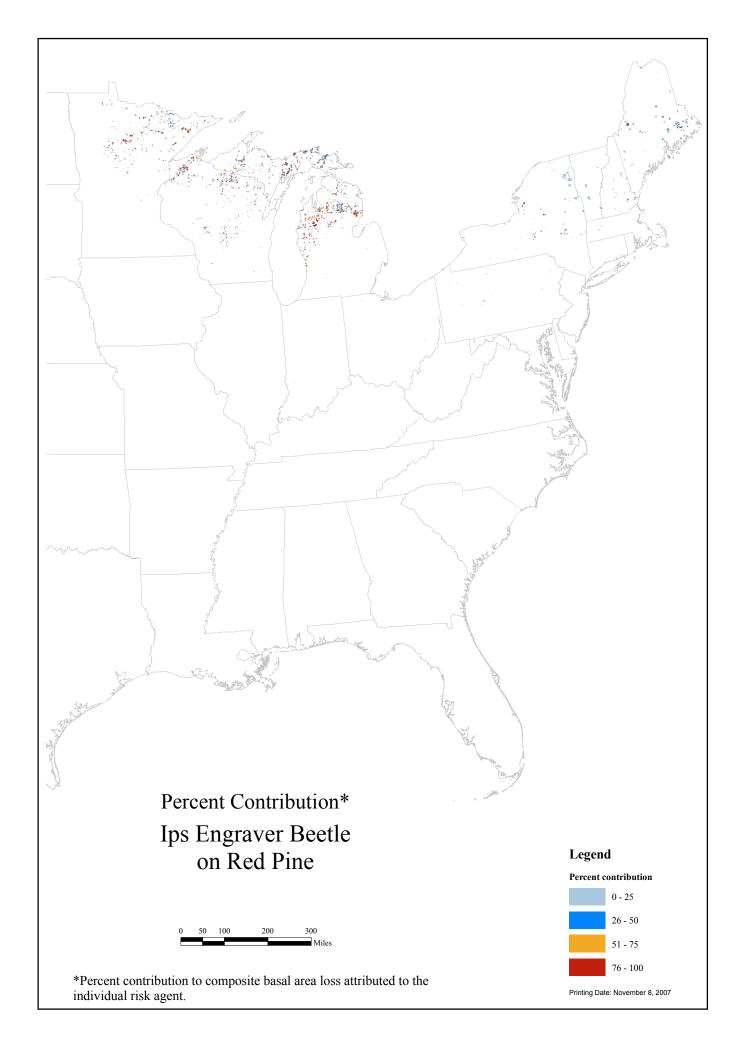




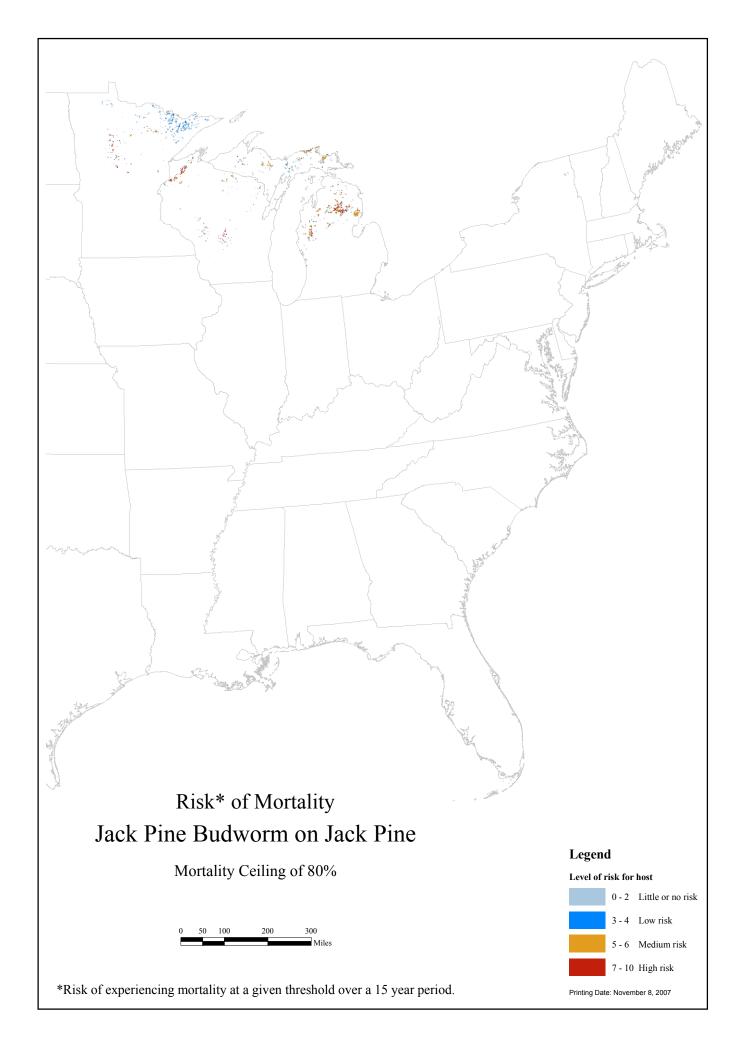
Risk Agent(s):	lps Engraver Beetle				Host(s):	Red Pine			
Model Extent:		North Central States		Max Pe	ercent Mortality:	50%	, 0	]	
Susceptibility									
Rank/Weight			Risk Begins	Risk Peaks	Risk	Risk Ends			
0 0%	Cr	riterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1					Ì				
Criteria 2									
Criteria 3									
Criteria 4									
Criteria 5									
Criteria 6									
Criteria 7									
Criteria 8									
Criteria 9									
Criteria 10									
Vulnerability									
Rank/Weight			Risk Begins	Risk Peaks	Risk	Risk Ends			
1 100%		riterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host Basal Area		60	140	140	140	J-1	1	25%
Criteria 2	Host DBH		3	20	20	20	S-1	1	25%
Criteria 3	Soil Dryness		0	45	45	85	S-1	1	25%
Criteria 4	Annual Precipitation		9	24	24	38	S-2	1	25%
Criteria 5									
Criteria 6									
Criteria 7									
Criteria 8									
Criteria 9									
Criteria 10									
• • • •									
Constraints					Comments				
					J [				
0'' ''	1				1 14 11				
Citations					Model	3 - Inform	ed Professi	onal Judge	ment
					Certainity				

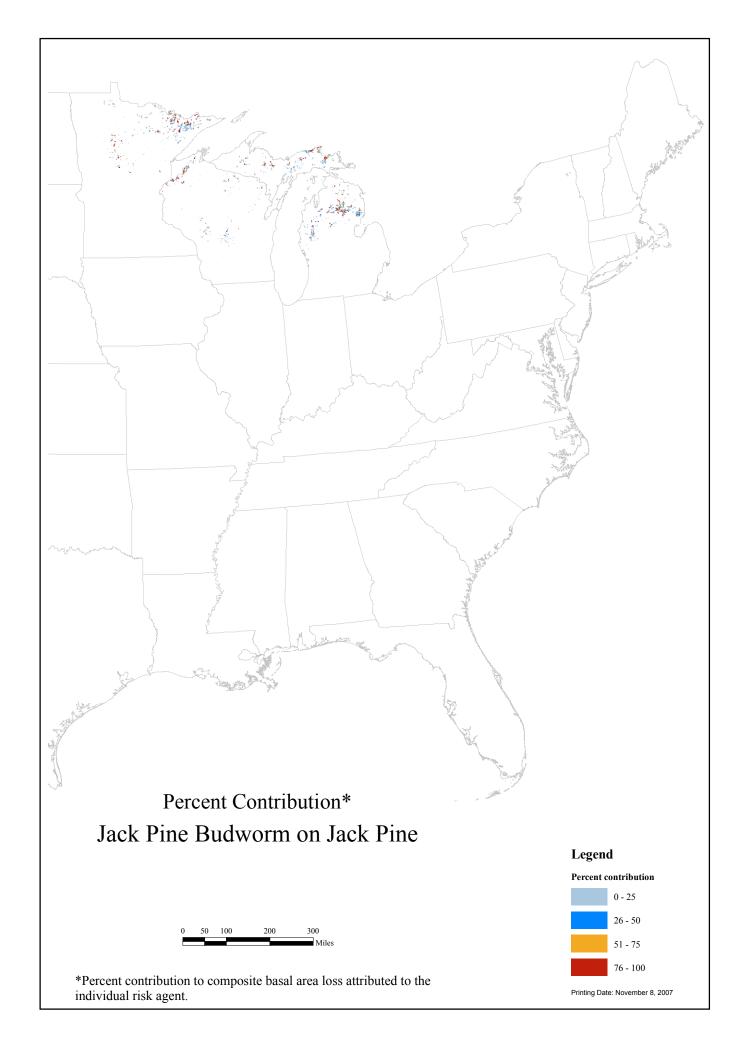
**Risk Model Worksheet - Northeastern Area** 



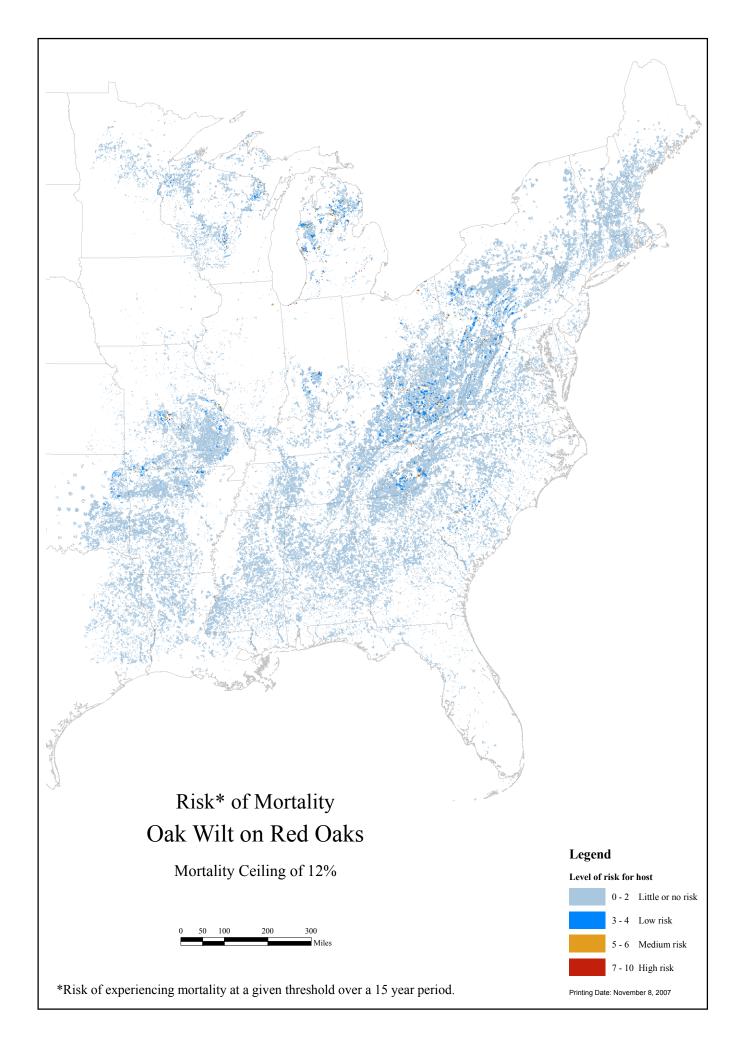


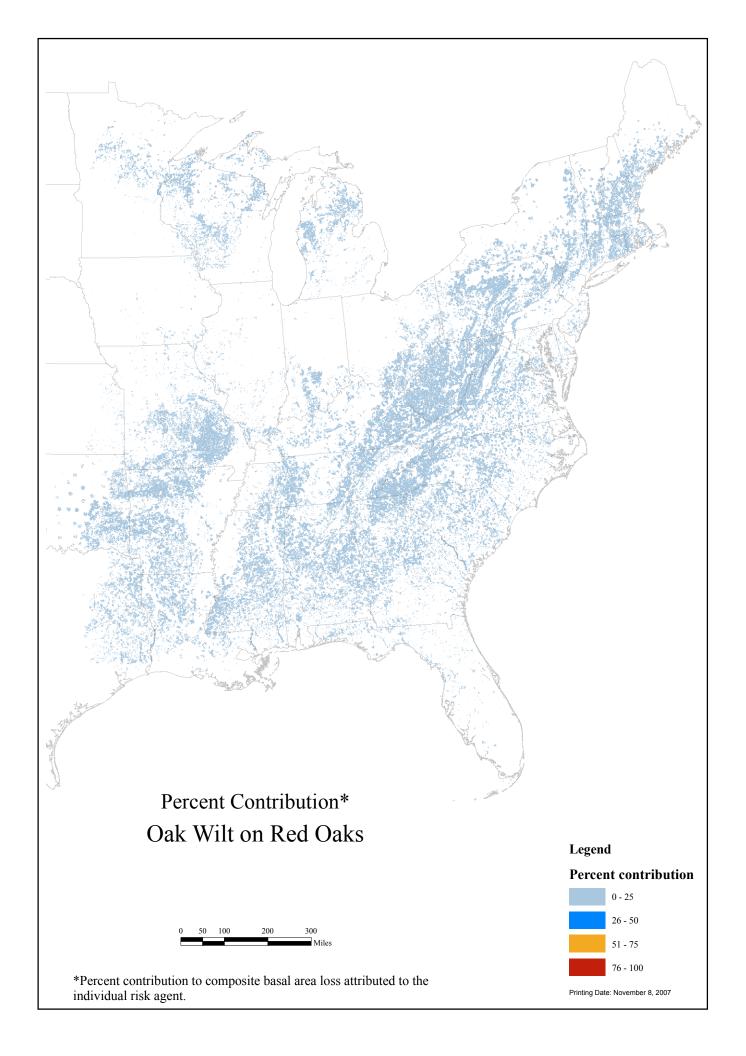
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Jack Pine Budworm			Host(s):		Jack Pi	ne	
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	80%	, 0		
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/2 33%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Soil Dryness	0	15	15	29	S 2	1	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability								_
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends	-		
1 67%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Canopy Cover %	0	30	30	57	J 2	1	63%
Criteria 2	Host DBH	5	9	9	9	J 1	1/4	16%
Criteria 3	Host basal area	1	70	80	115	S 5	1/3	21%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10				]				
Constraints				Comments				
				j <u>L</u>				
C:1-1:								
Citations				Model Certainity	3 - Inform	ed Professi	onal Judge	ment



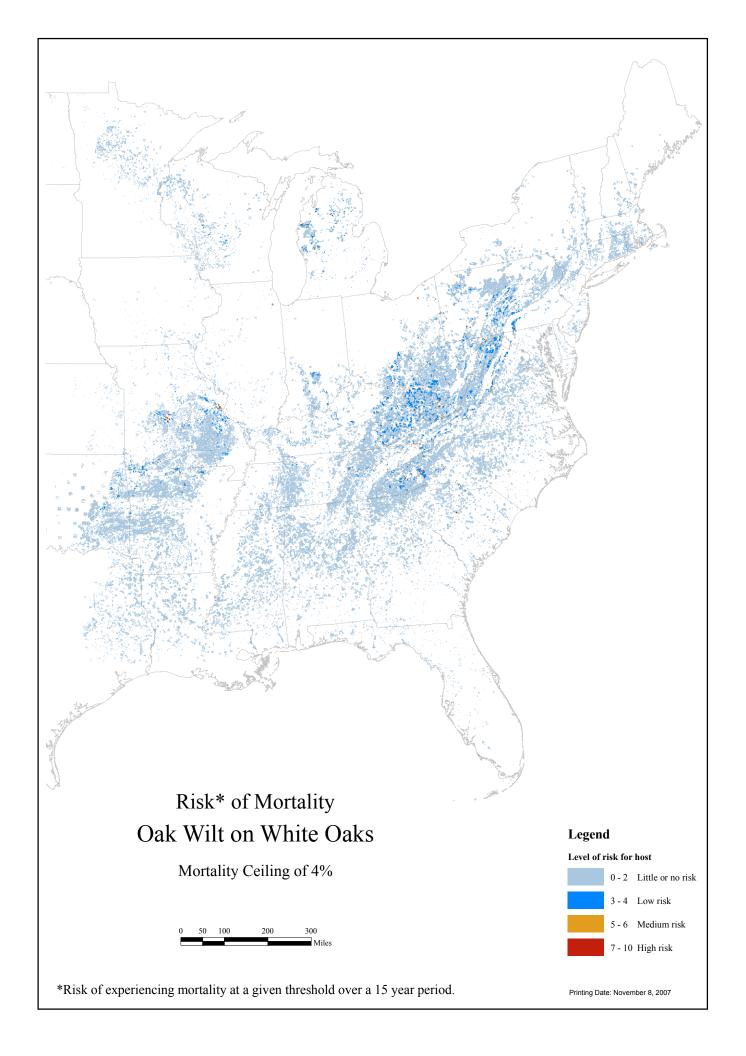


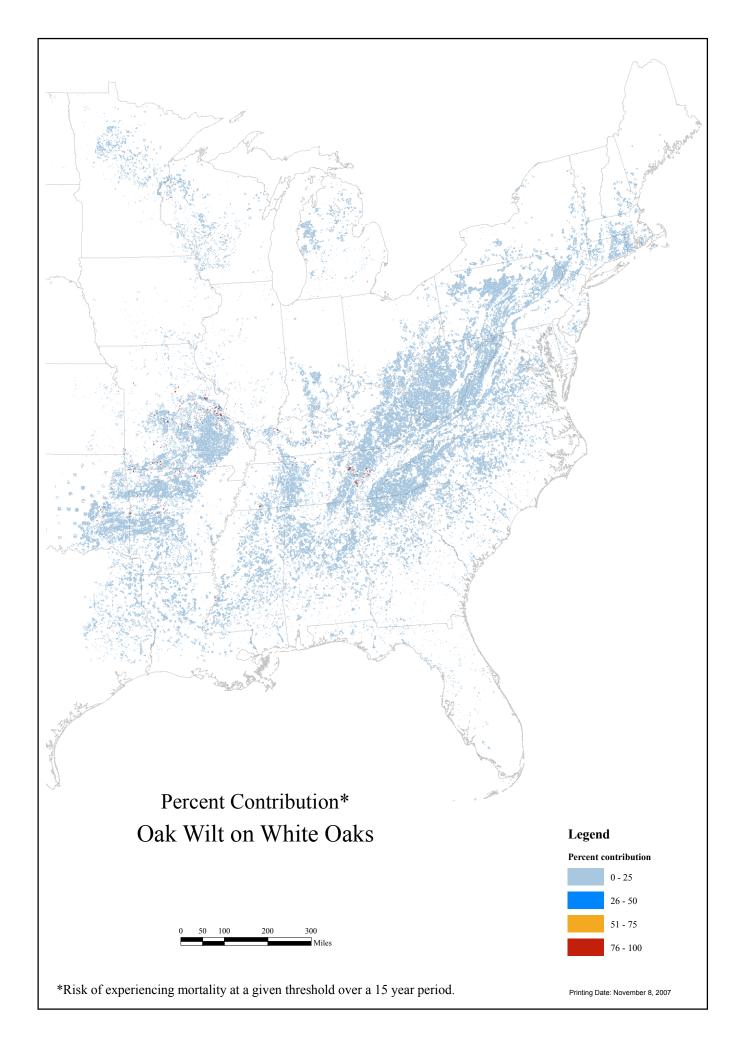
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Oak Wilt	Host(s):			Red Oa	ks		
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	12%	, D	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA	10	30	30	30	S-1	1/2	25%
Criteria 2 Criteria 3 Criteria 4 Criteria 5	Soil Texture	Fine	Very Coarse	Very Coarse	Very Coarse	S-1	1/2	25%
Criteria 3	Housing Density (Units per sq. Mile)	40	130	130	130		1	50%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 8 Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
Rank Weight	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Official	(a)	(6)	Decreases (c)	(u)	Ourve	Kank	Weight
Criteria 1 Criteria 2 Criteria 3								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 6 Criteria 7 Criteria 8								
Criteria 8								
Criteria 9								
Criteria 10								
	L							
Constraints	Must be within 6km of an oak wilt center.			Comments				
Citations				Model Certainity	3 - Inform	ed Professi	onal Judge	ment





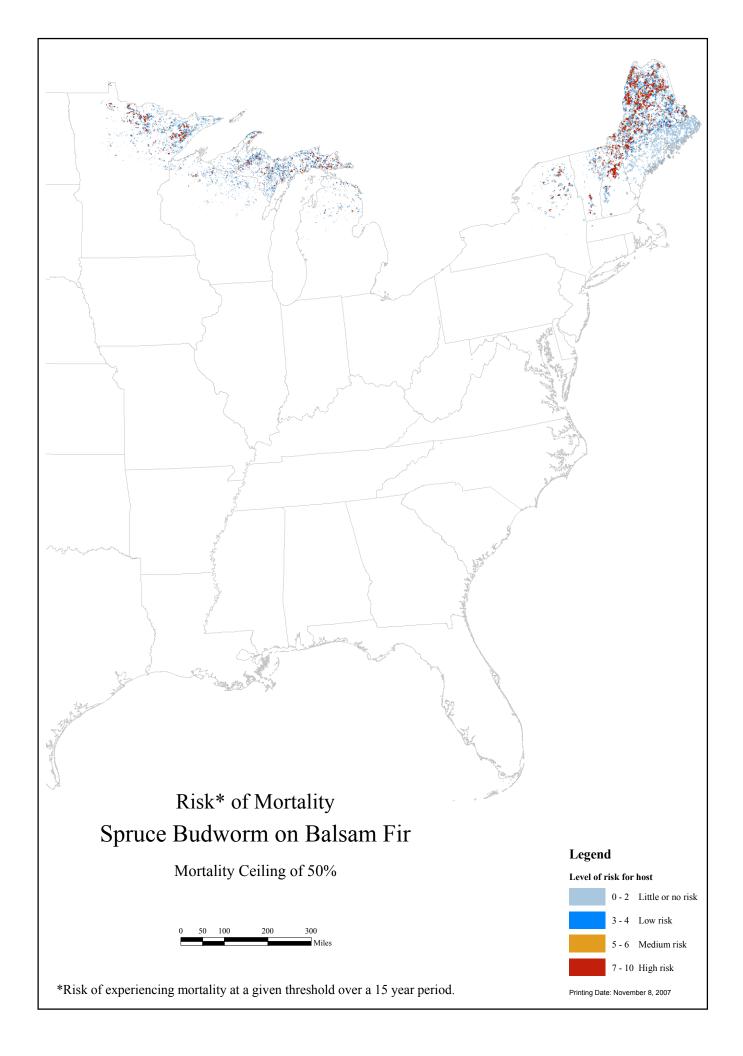
Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	Oak Wilt	]	Host(s):	: White Oaks				
Model Extent:	Eastern U.S.		Max Pe	ercent Mortality:	4%		1	
Susceptibility			-				_	
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1 Criteria 2 Criteria 3 Criteria 4	Host BA	10	30	30	30	S-1	1/2	25%
Criteria 2	Soil Texture	Fine	Very Coarse	Very Coarse	Very Coarse	S-1	1/2	25%
Criteria 3	Housing Density (Units per sq. Mile)	40	130	130	130		1	50%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 7 Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
Kalik/Weight	Criterion	_				Curve	Rank	Weight
Critoria 1	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Nalik	weignt
Criteria 1 Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 5 Criteria 6 Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints	Must be within 6km of an oak wilt center.			Comments				
•								
Citations				Model	3 - Inform	ed Professi	onal Judge	ment
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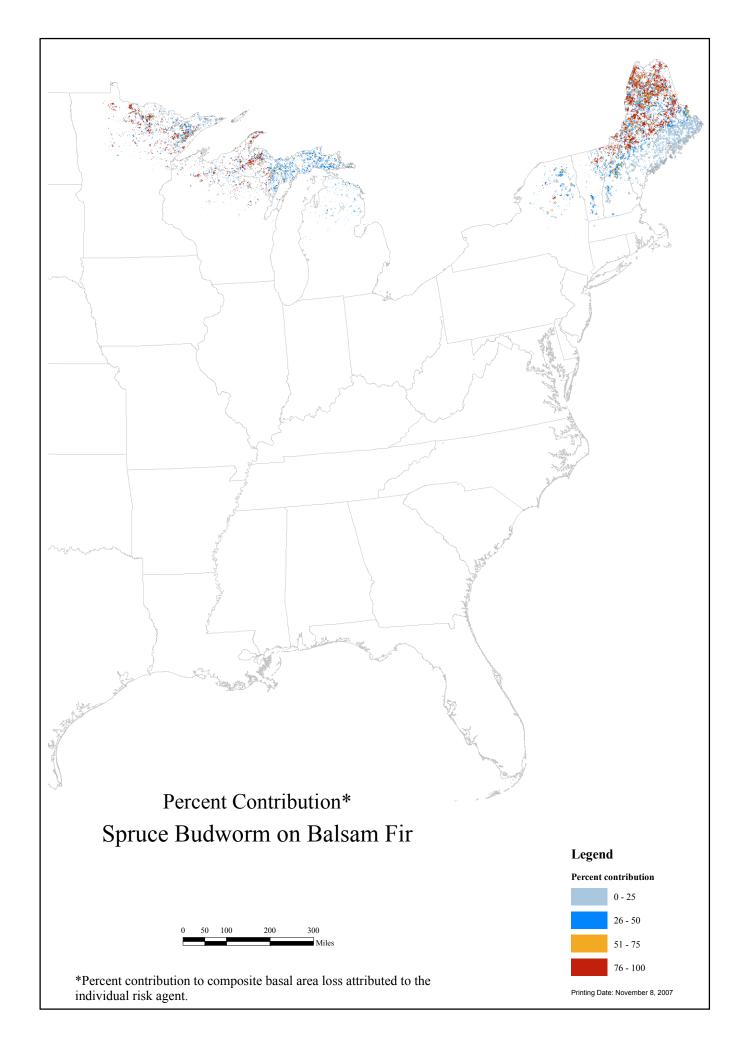




Risk Agent(s):	Spruce Budworm			Host(s):		Balsam Fir		
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	50%	, 0	]	
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/2 33%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host	5	90	90	90	J 1	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 67%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA x DBH Index	0	90	90	90	Linear	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints	Pest Range			Comments				
				J L				
0'' ''				1 100				
Citations				Model	3 - Inform	ed Profession	onal Judge	ment
				Certainity				

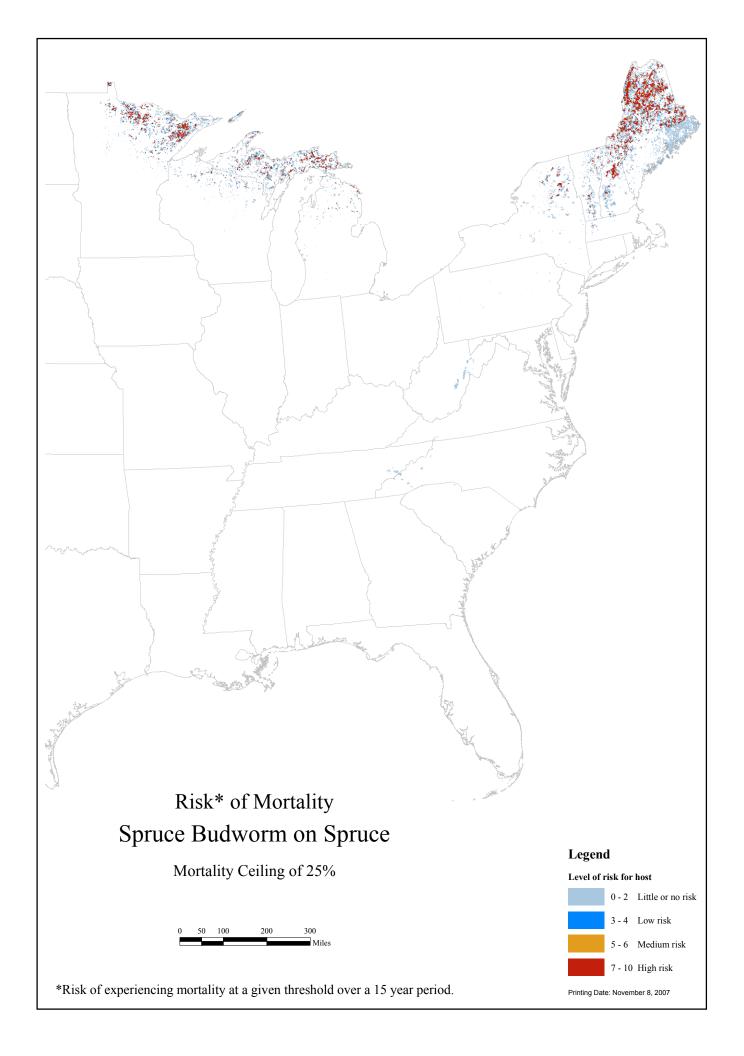
**Risk Model Worksheet - Northeastern Area** 

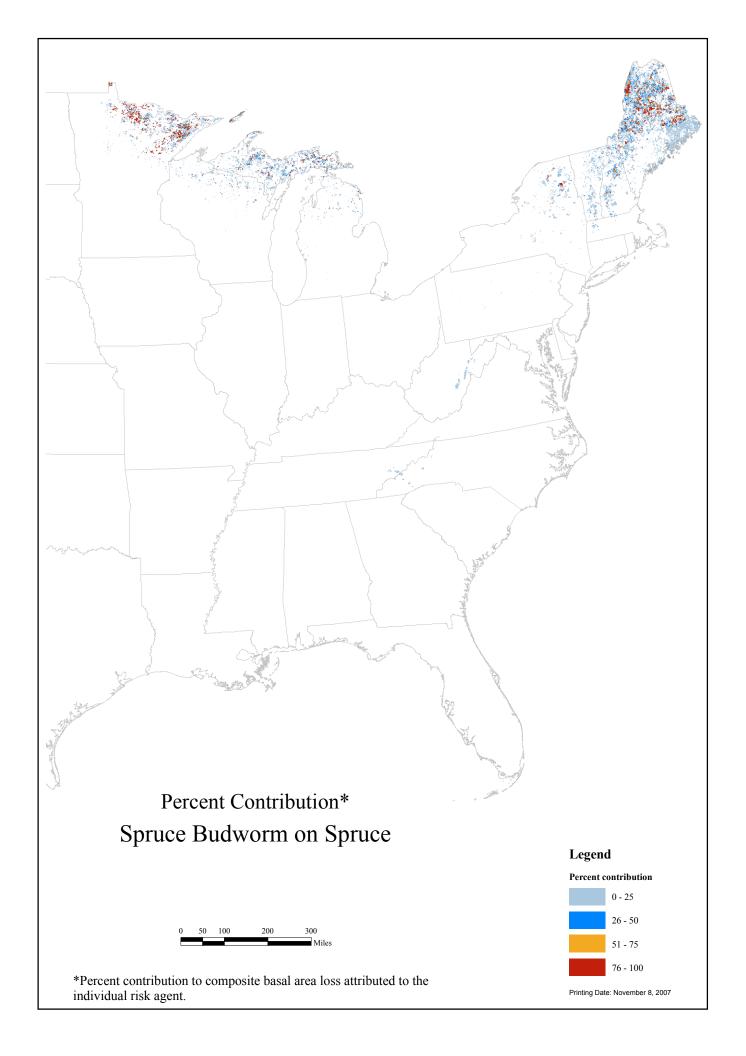




Risk Agent(s):	Spruce Budworm			Host(s):		Spruce Species		
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	25%	, 0		
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/2 33%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	% Host	5	90	90	90	J 1	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 67%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Host BA x DBH Index	0	90	90	90	Linear	100	100%
Criteria 2								
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints	Pest Range			Comments				
				] [				
				-				
Citations				Model	3 - Inform	ed Profession	onal Judge	ment
				Certainity				

**Risk Model Worksheet - Northeastern Area** 





Risk Model Wo	orksheet - Northeastern Area							
Risk Agent(s):	White Pine Blister Ru	ıst		Host(s):	Eastern White Pine			
Model Extent:	Northeastern Area		Max Pe	ercent Mortality:	25%	, 0		
Susceptibility								
Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1/2 33%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Slope	0	32	32	32	J 1	1/5	9%
Criteria 2	Pest Range	0	1	1	1	J 1	1	45%
Criteria 3	% Host	0	90	90	90	J 1	1	45%
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Vulnerability Rank/Weight		Risk Begins	Risk Peaks	Risk	Risk Ends			
1 67%	Criterion	(a)	(b)	Decreases (c)	(d)	Curve	Rank	Weight
Criteria 1	Risk Zone (1,2,3,4)	1	4	4	4	Linear	1	50%
Criteria 2	QMD	12	2	2	2	S-2	1	50%
Criteria 3								
Criteria 4								
Criteria 5								
Criteria 6								
Criteria 7								
Criteria 8								
Criteria 9								
Criteria 10								
Constraints				Comments				
				j l				

Citations

Model Certainity

3 - Informed Professional Judgement

