Northeast Ice Storm 1998: Injury, Damage, and Recovery

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Take-Home Messages

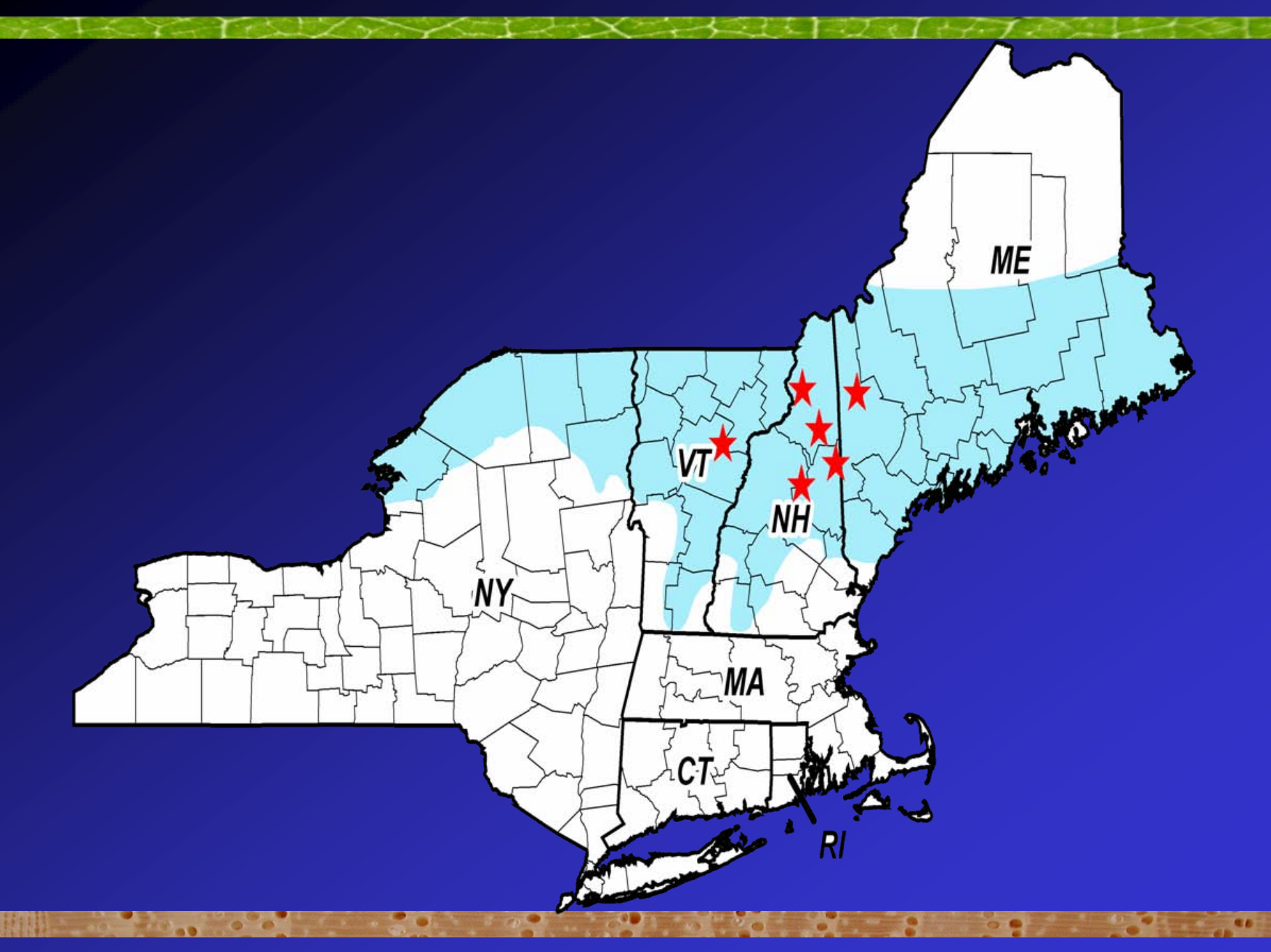
Ice storm injury is “patchy”

Effects are species-specific

Injury does not equal damage

Tree condition prior to the storm greatly contributes to mortality and decay

1886 Market Square, Portsmouth, NH


ME
VT
NH
NY
MA
CT
RI

“Tag and Track” study

Species: Red and Sugar Maple
Yellow and Paper Birch
White Ash

Crown loss classes:

- A: Less than one-half
- B: One-half to three-quarters
- C: More than three-quarters

“Tag and Track” study

Measure: Survival
Radial growth response
Discoloration and decay
Wound closure

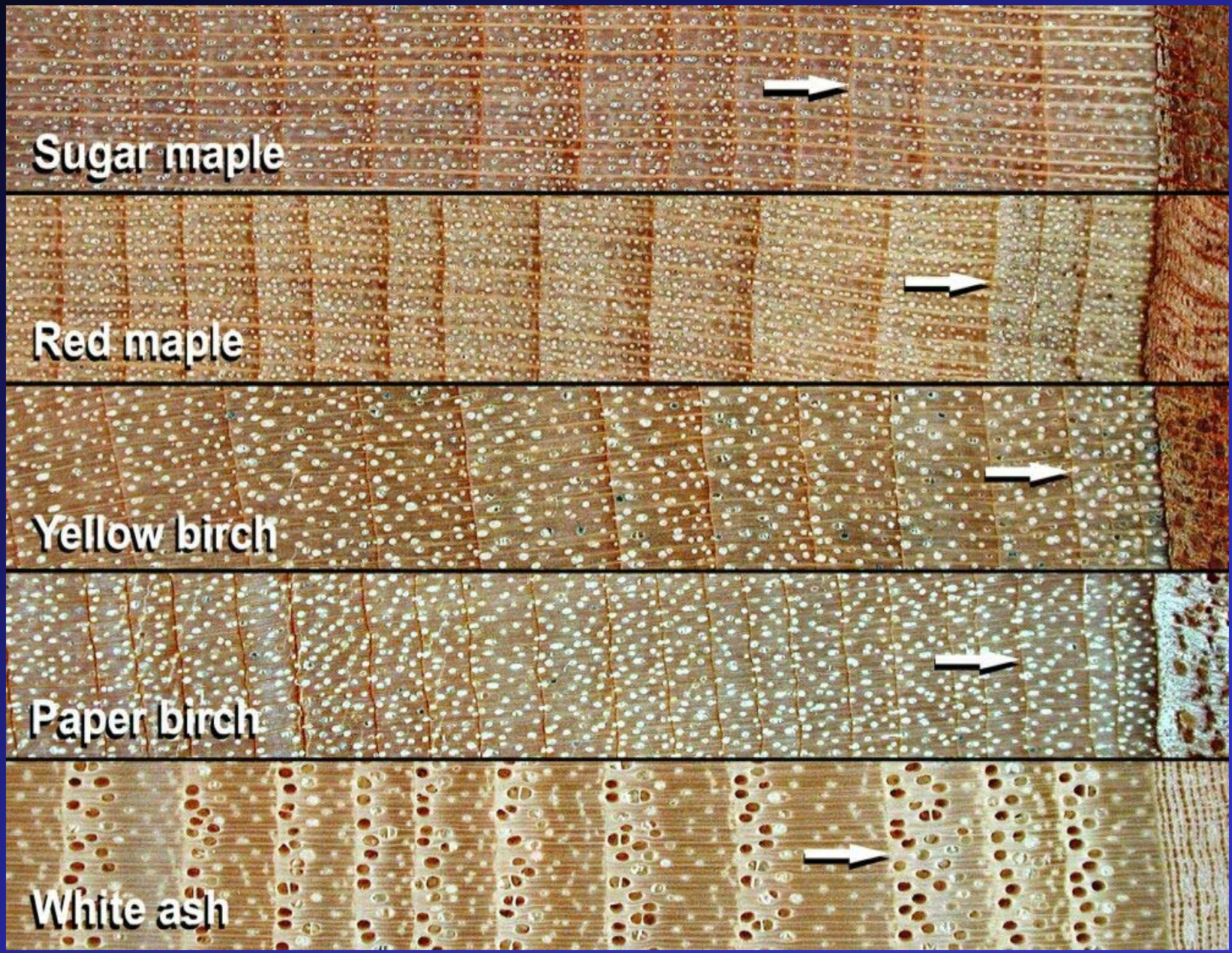
Test for wound closure

October 1998
Single 3/8” x 2” bore hole

October 2001
Assess holes for closure and dieback.

Tree survival in 2002 (%)

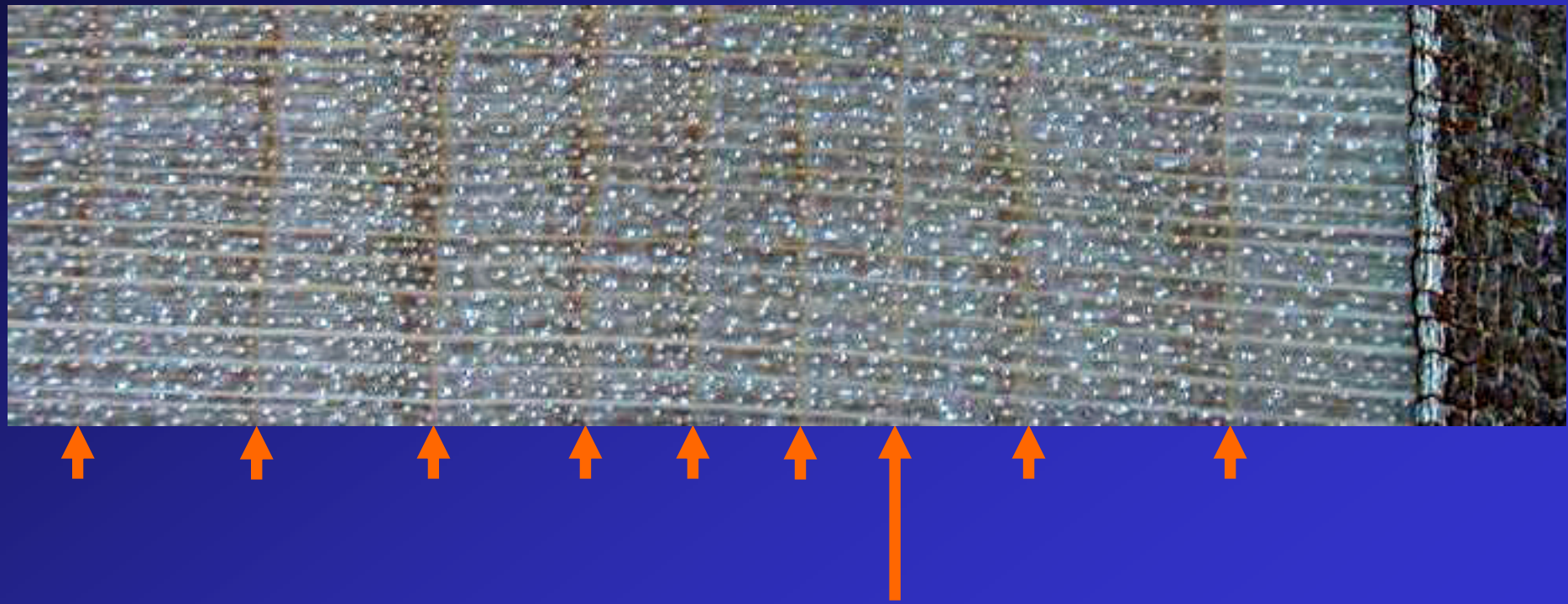
	Injury Class		
	A	B	C
Sugar maple	100	100	100
Red maple	100	100	100
Yellow birch	100	95	94
Paper birch	---	74	38
White ash	100	100	100


Sugar maple
Red maple
Yellow birch
Paper birch
White ash

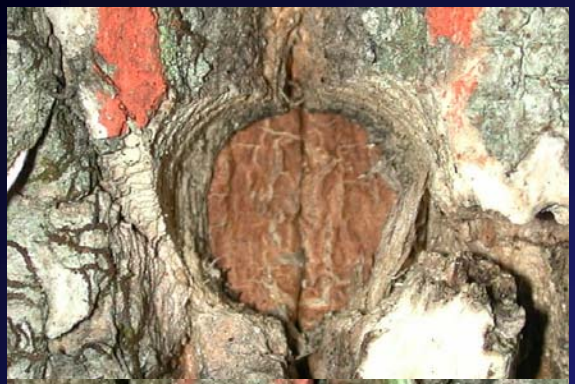
Radial Growth Index

Collected in autumn, 2000

1995-1997 **1998-2000**



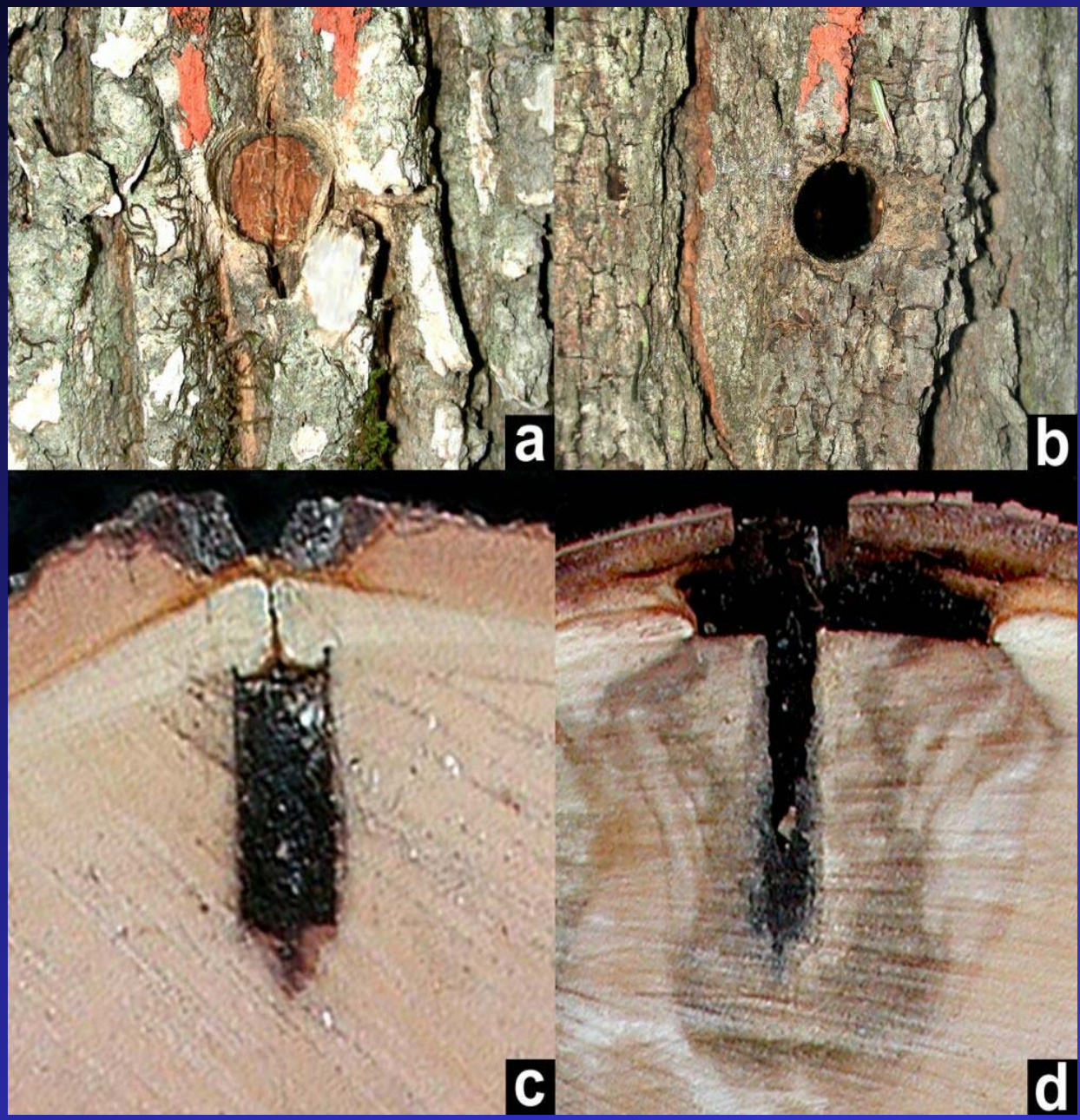
Radial growth index
1.2
1.0
0.8
0.6
0.4
0.2
0.0
○ Injury class A □ Injury class B △ Injury class C
SM
YB
WA
RM



Bore hole closed

Bore hole open

Bore hole with mushrooms!


a
b
c
d

Cambial dieback in 2002 (%)

	Injury Class		
	A	B	C
Sugar maple	29	50	62
Red maple	33	69	75
Yellow birch	32	45	76
Paper birch	---	100	100
White ash	0	0	0

Drill wound closure in 2002 (%)

	Injury Class		
	A	B	C
Sugar maple	43	32	17
Red maple	42	19	8
Yellow birch	45	37	7
Paper birch	---	0	0
White ash	94	100	92

SM

WA

YB

YB, SM

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