



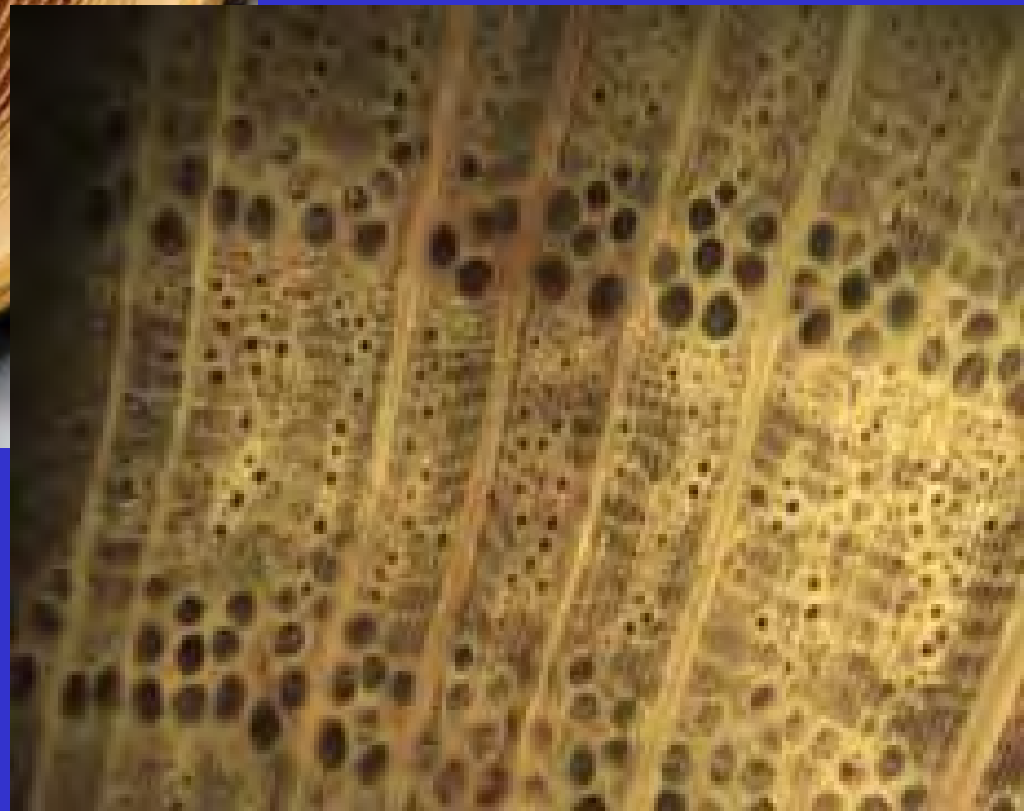
*Principal Diseases and  
Insects Affecting Oaks  
in Maine*

**William D. Ostrofsky**  
Forest Pathologist  
Maine Forest Service

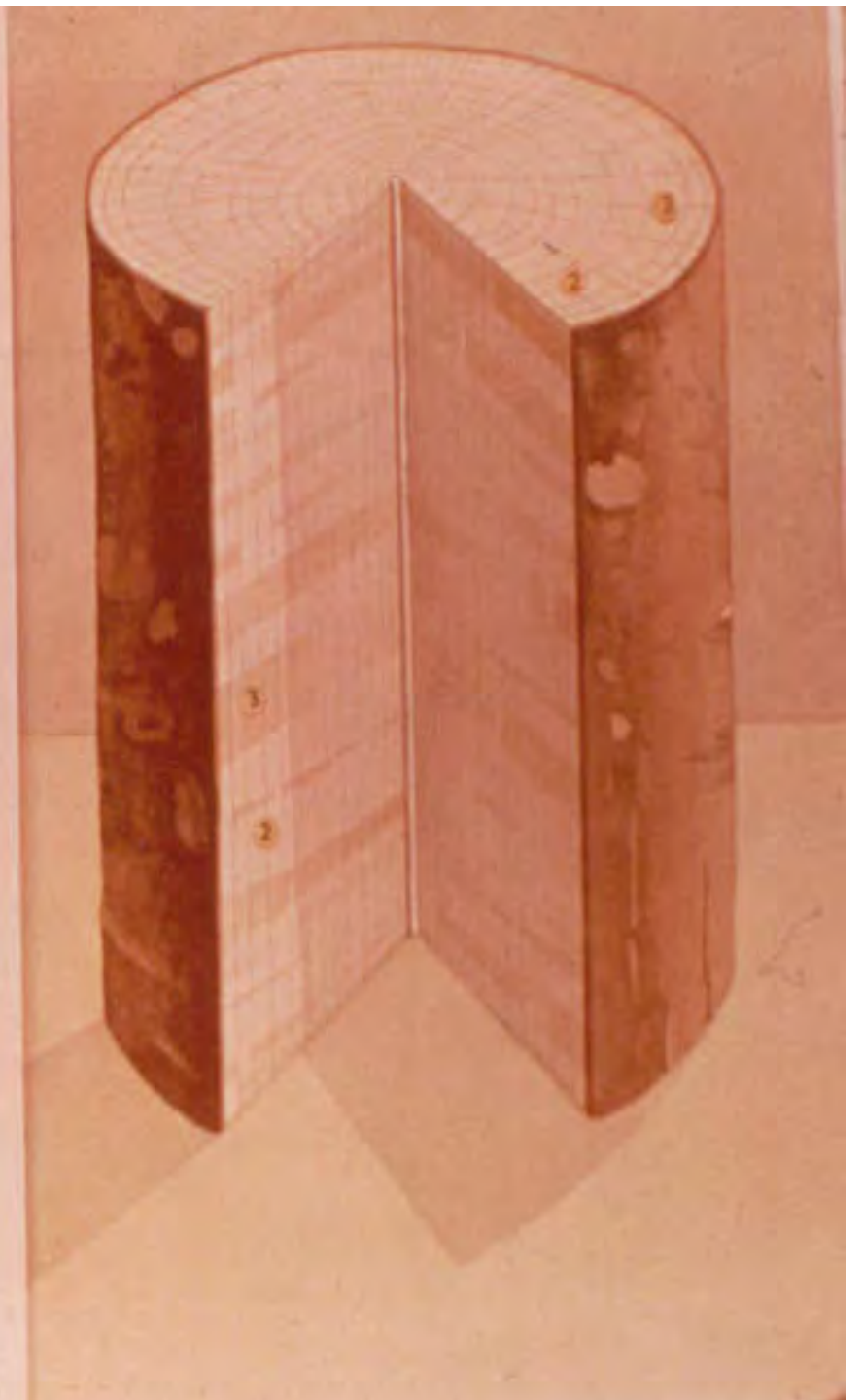
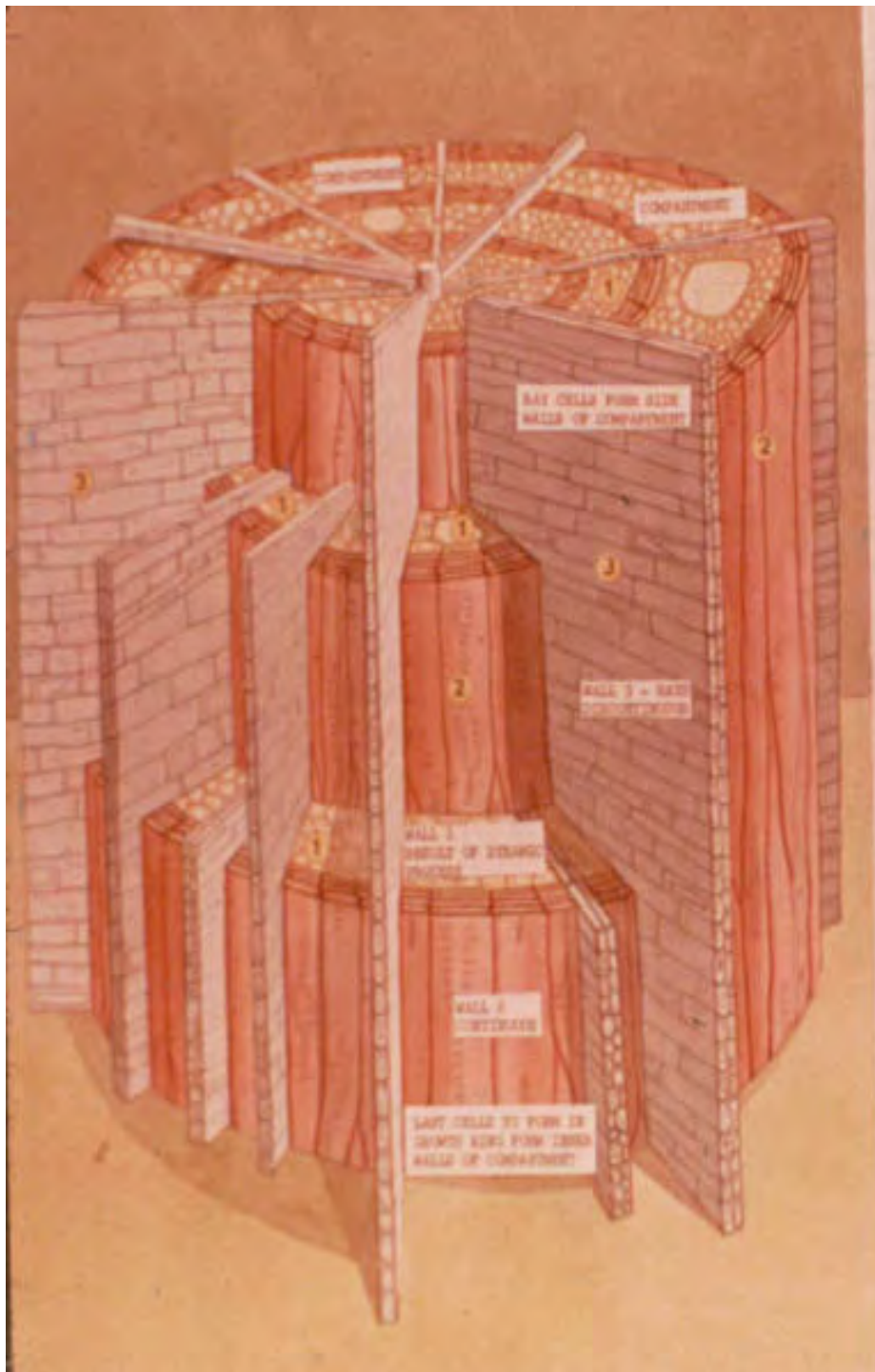
**Gray, Maine**  
**November 8, 2013**

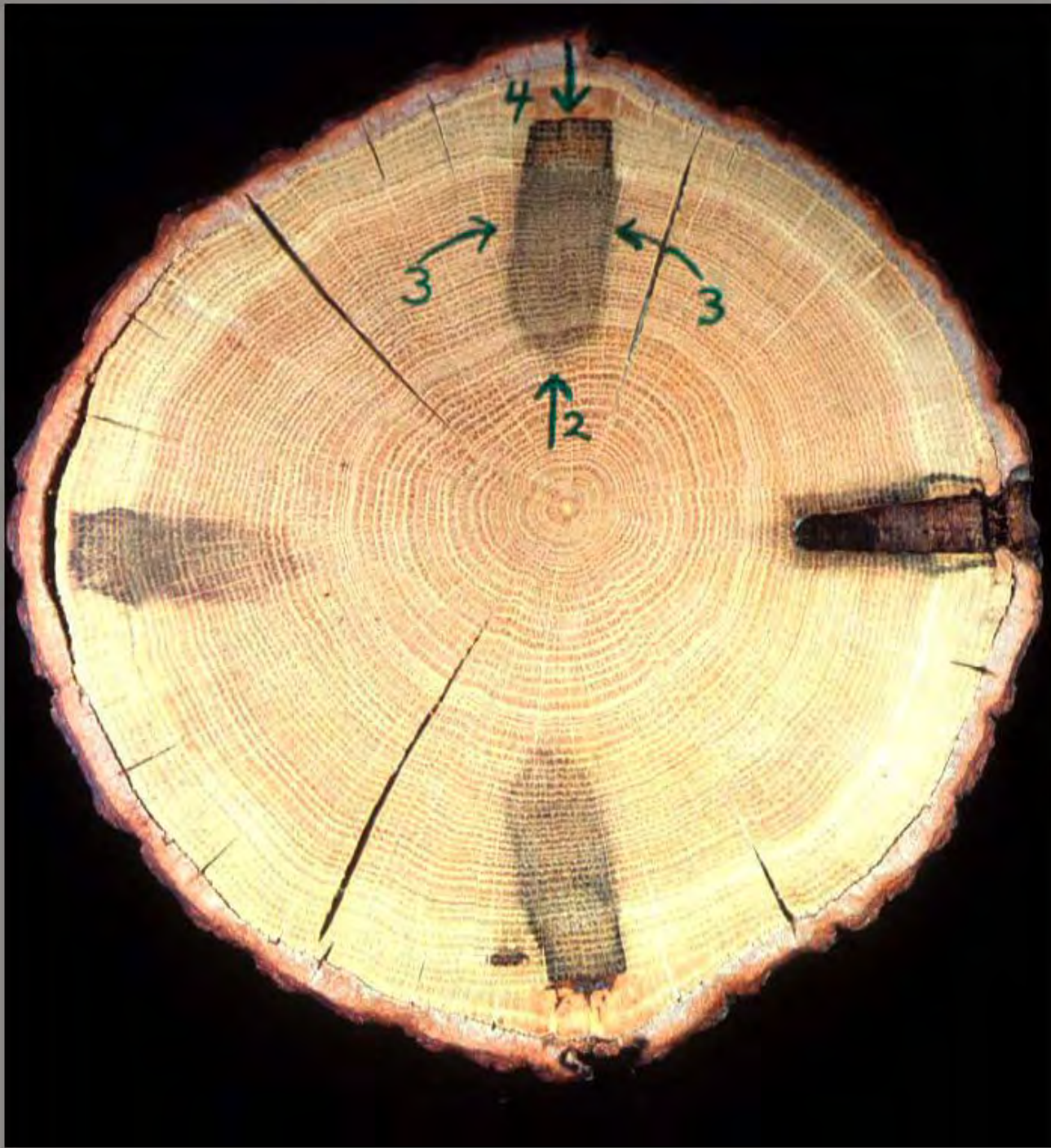


**Strength**



**Weakness**





## True heartwood:

Can become  
discolored and  
compartmentalized  
via passive  
response  
mechanisms

# Overview of Diseases and Defects Damaging Oaks

## *Defects*

Wounds

Spider Heart

“Frost” Cracks and “Frost” Ribs

## *Diseases*

Internal Decays

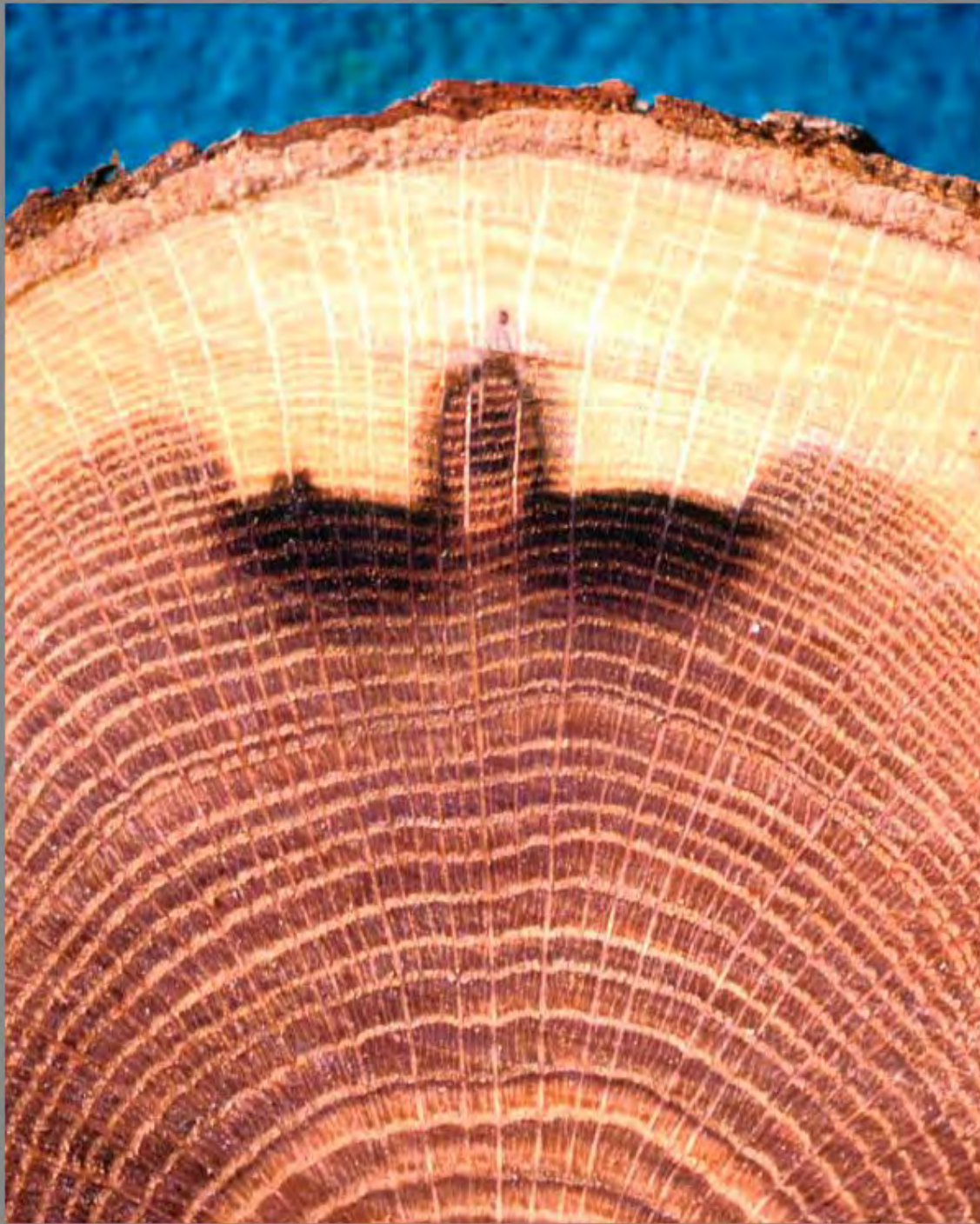
(branch and wound origin)

Root Rot (*Armillaria* spp.)

Wetwood

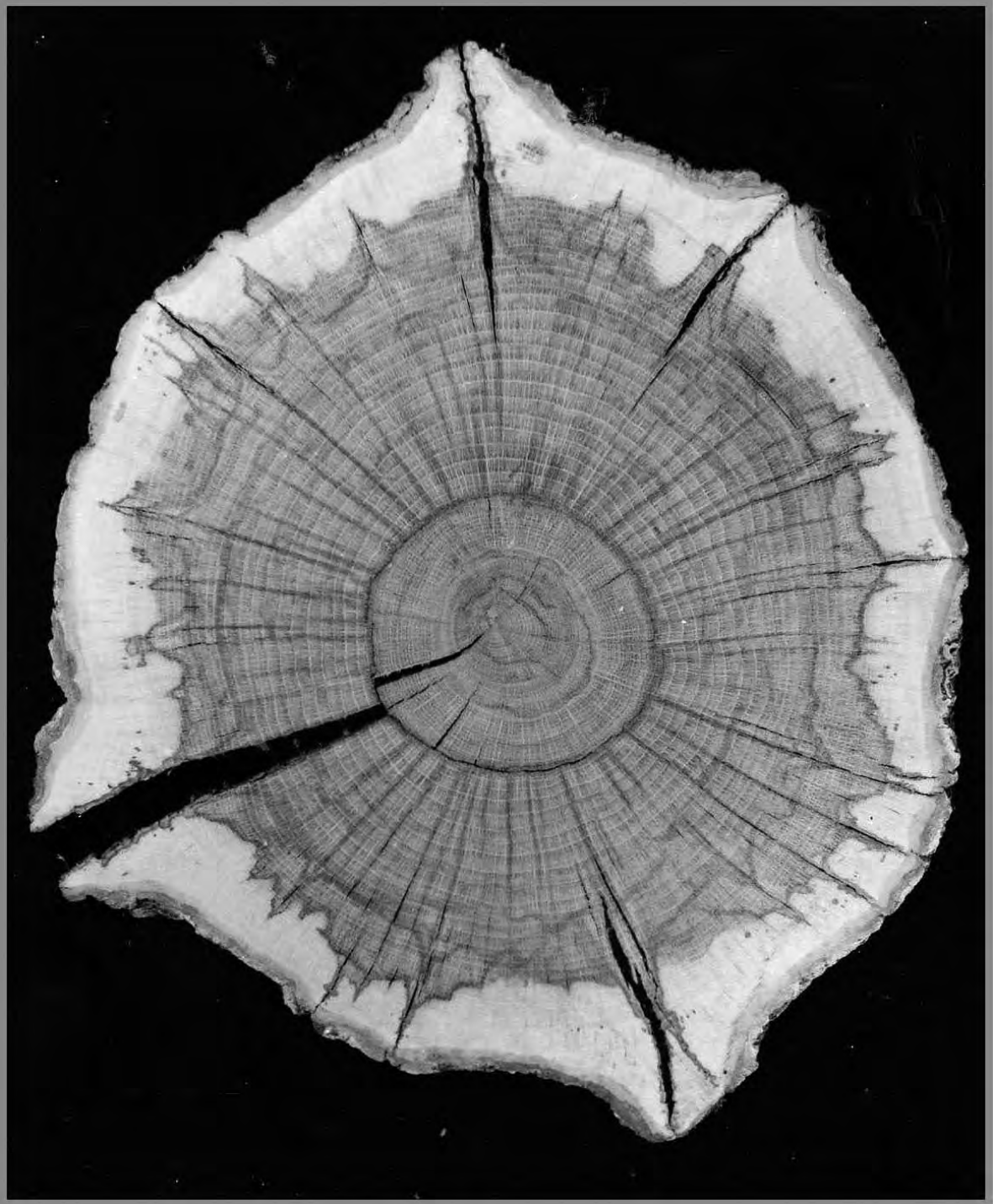
Cankers (*Strumella* and *Phomopsis*)

Anthracnose



**Severe wounding  
often “arrests”  
development of  
true heartwood.**

**Wounds initiate  
The development  
of “virtually *all*”  
cracks, seams,  
and ribs in oaks.**







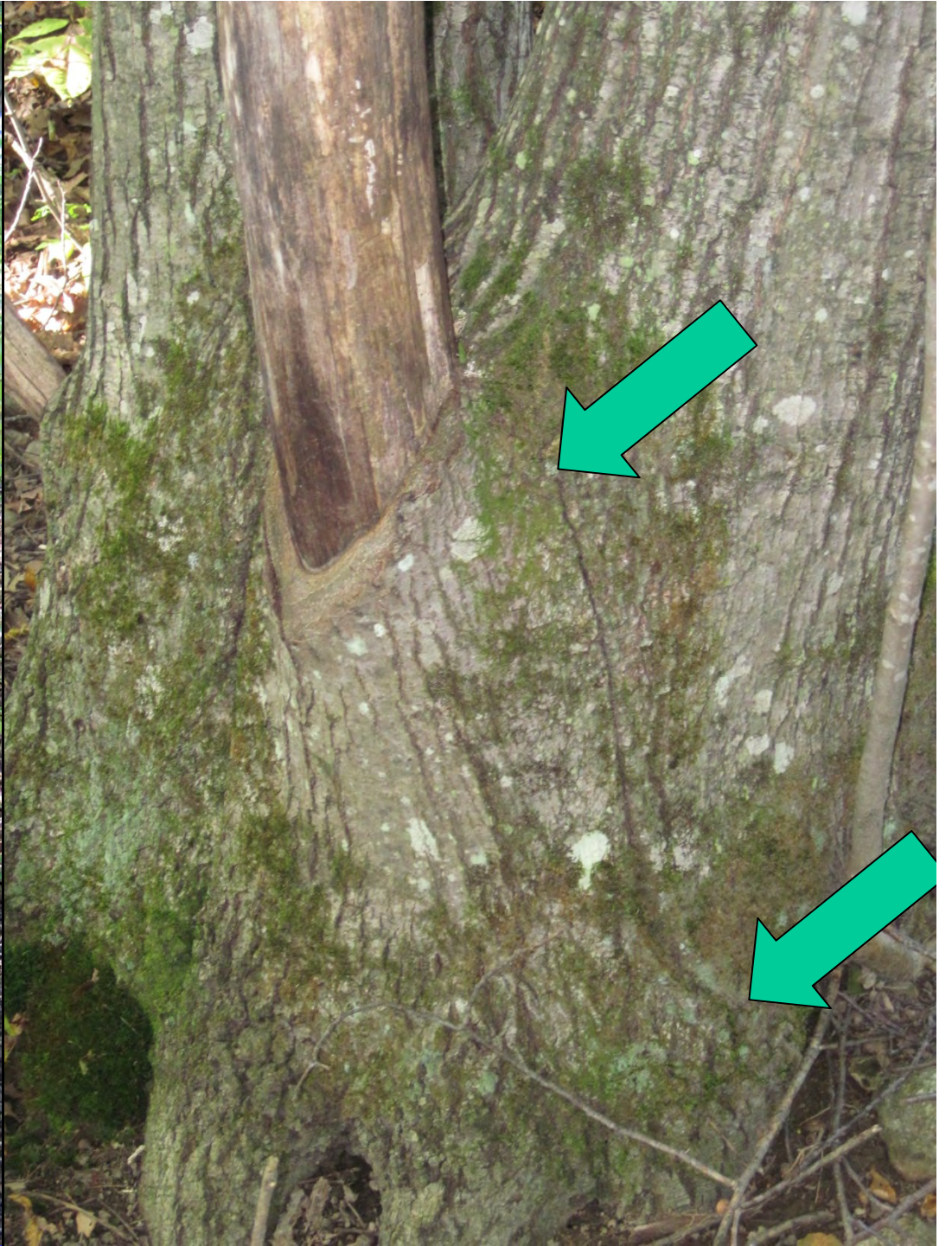




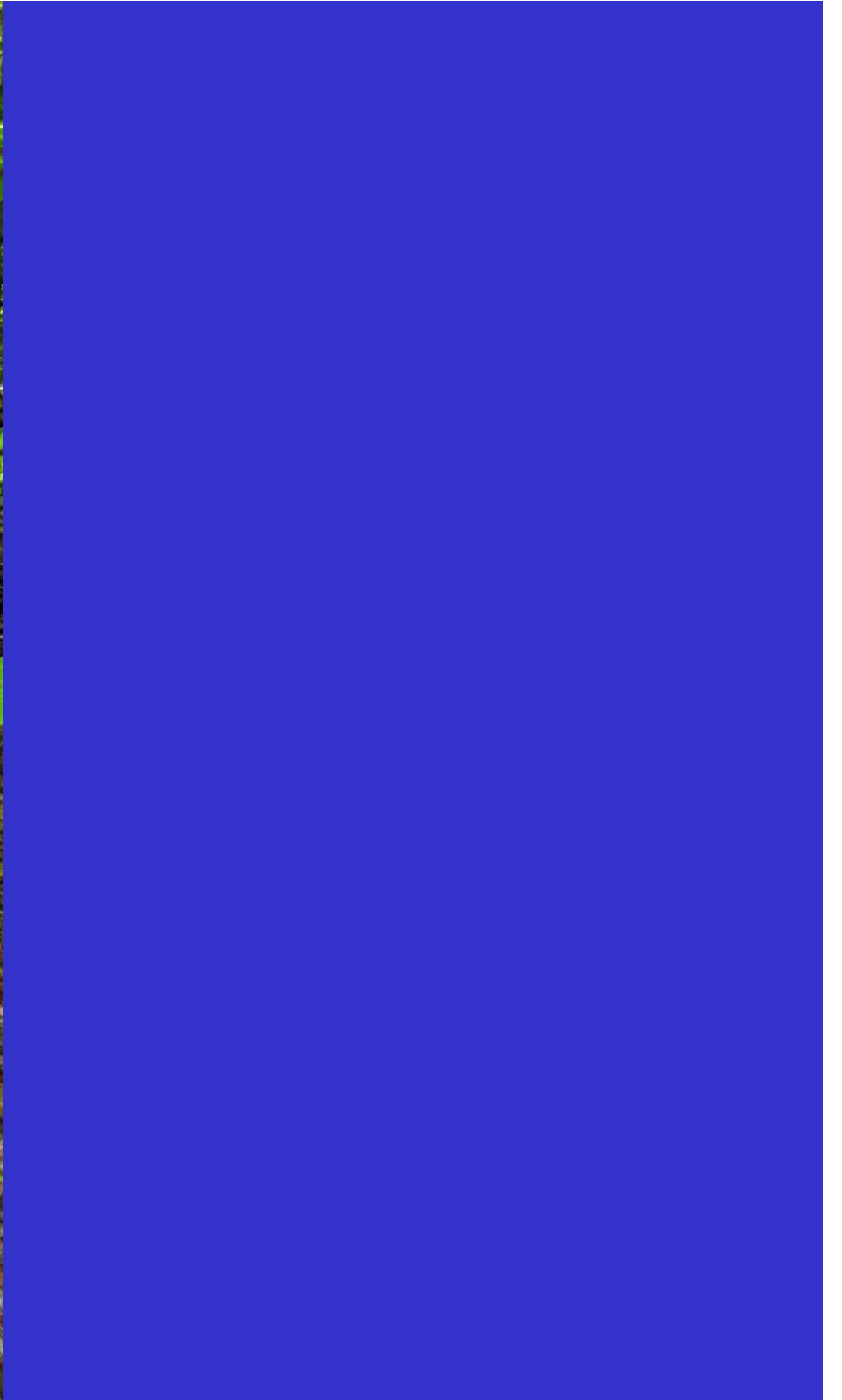
## **Internal Decays:**

**in true heartwood species (oaks) follow the same patterns of defect development and compartmentalization as non-heartwood forming species (i.e. birches and maples)**











**Saprot - Commonly develops *after* tree death. Salvage can be prolonged compared with trees with internal decay.**

*Armillaria* spp.  
Root Rot







# Wetwood Infection



*Phomopsis* Galls  
Hebron, Maine



# Oak Anthracnose (*Apiognomonia quercina*)

Oak leaf blades  
Petiole “snap”





UGA5025051

# Overview of Insects Damaging Oaks

## *Defoliators*

Fall Cankerworm

Winter Moth/Bruce Spanworm

Bare-Patched Oak Leafroller

Gypsy Moth

## *Borers*

Red Oak Borer

Two-Lined Chestnut Borer



## *Oak Defoliators:*

**Often initiate tree stress and can trigger infection by root rots and infestation by insect borers**

*Thinning Caution!*



**Fall Cankerworm**



**Bruce Spanworm and Fall Cankerworm  
Old Town, Maine - 2012**





**Winter Moth:  
Female (left) and Male Adults.**



# Winter Moth

Larvae and  
Leaf Damage:  
Harpswell

# **Bare-Patched Oak Leafroller**



**Infestation centered  
in coastal areas  
around Cherryfield**

**2012 - 9,000+ Acres**

**2013 - ?? (Less than 2012)**



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# Two-lined Chestnut Borer



