



Mississippi 4-H Forestry



Insects and Disease

Identification

PPB4-0001.00

Study Slide Set: Insects ₁



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Presentation

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Mississippi State
UNIVERSITY
Extension
SERVICE

Forest



Insects

Variable Oak Leaf Caterpillar (VOLC)





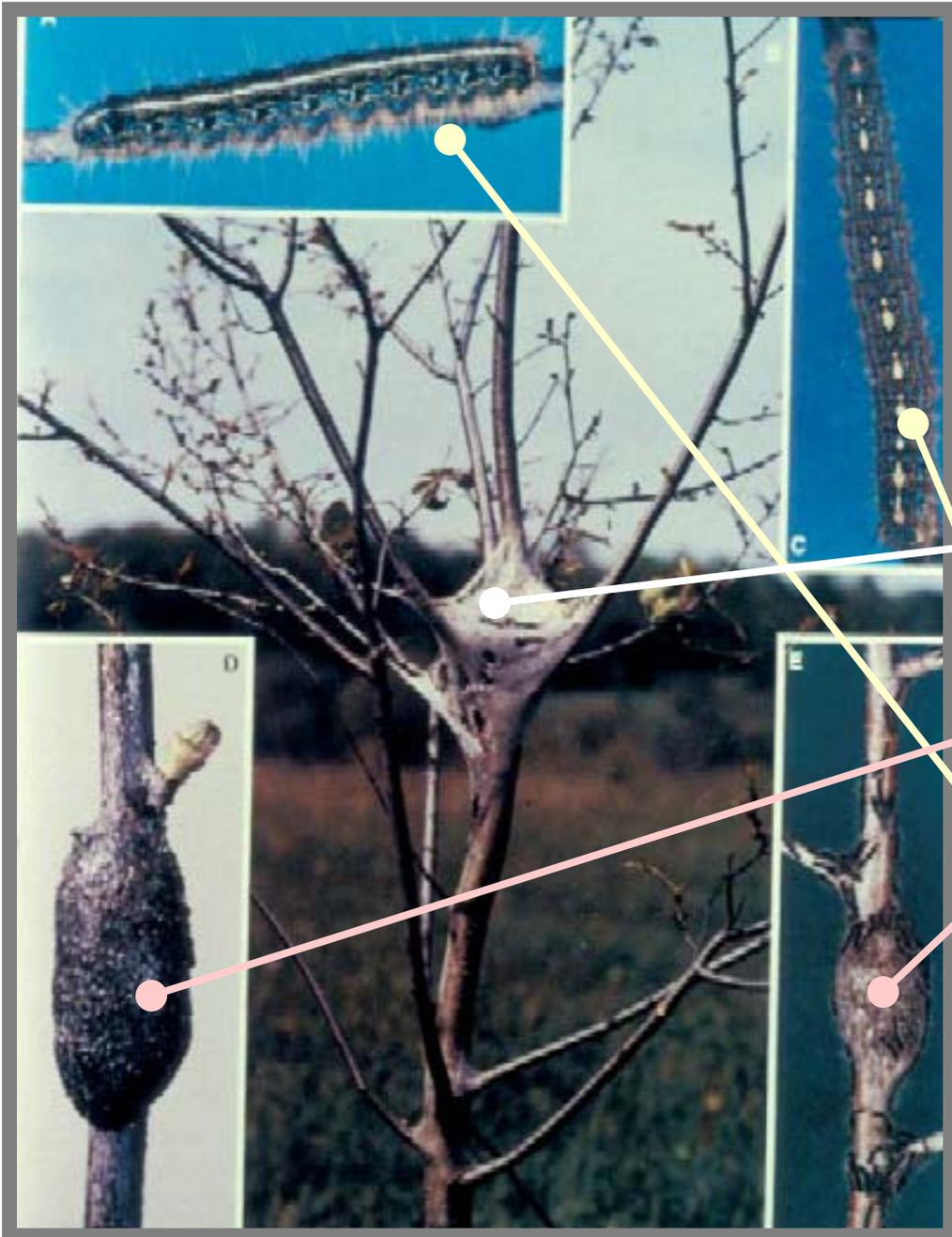
Variable Oak Leaf Caterpillar on Leaf



**Close Up of Variable Oak Leaf
Caterpillar (VOLC)**

Eastern Tent Caterpillar (ETC)





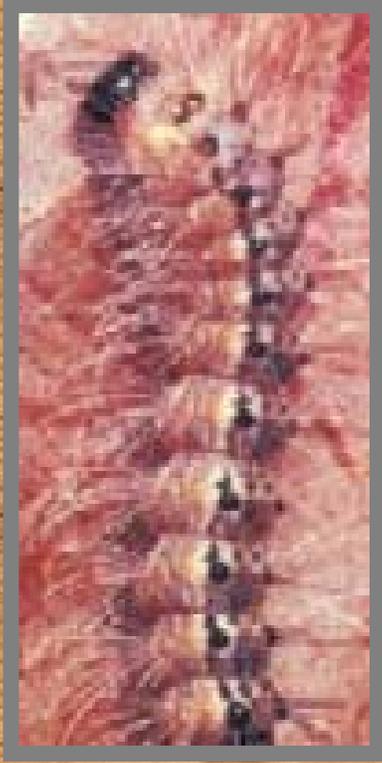
Multiple Pictures:

● ETC Nest

● Egg Mass

and

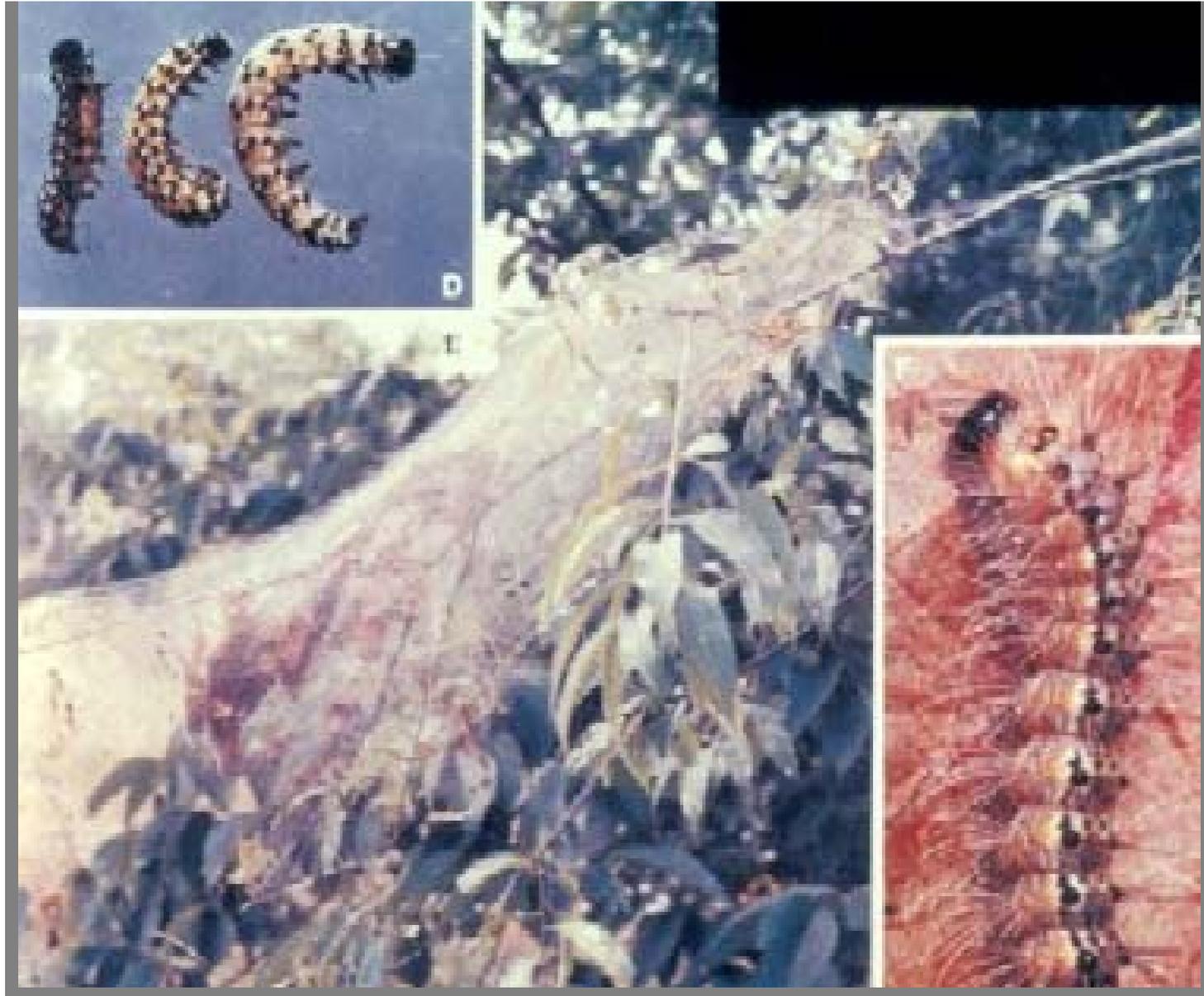
● Caterpillar



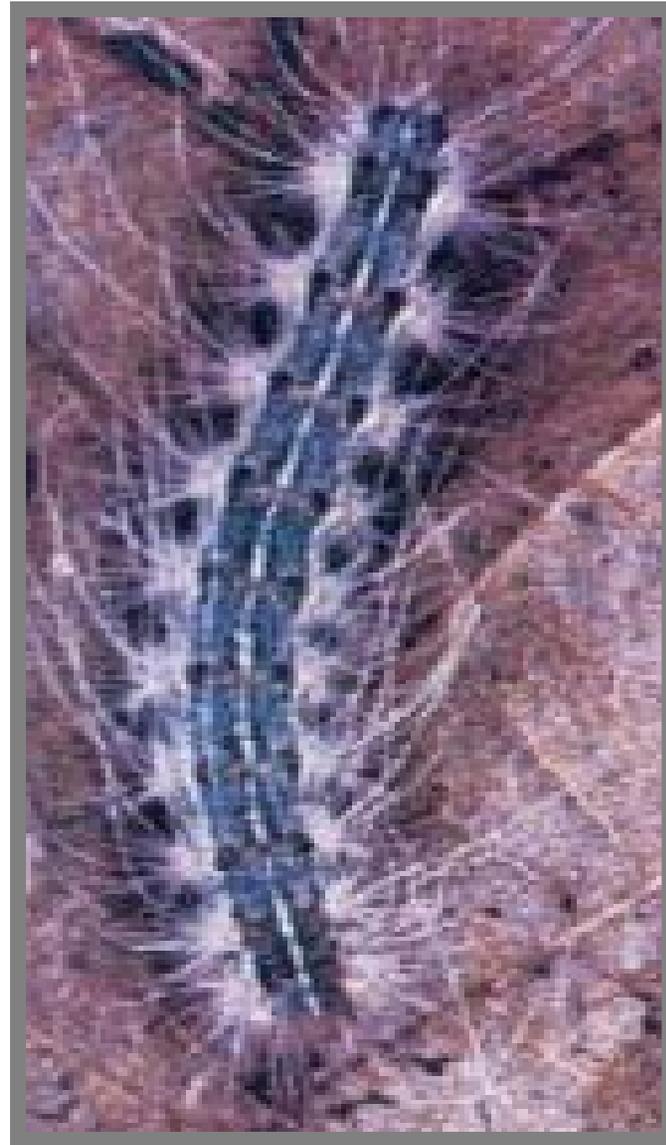
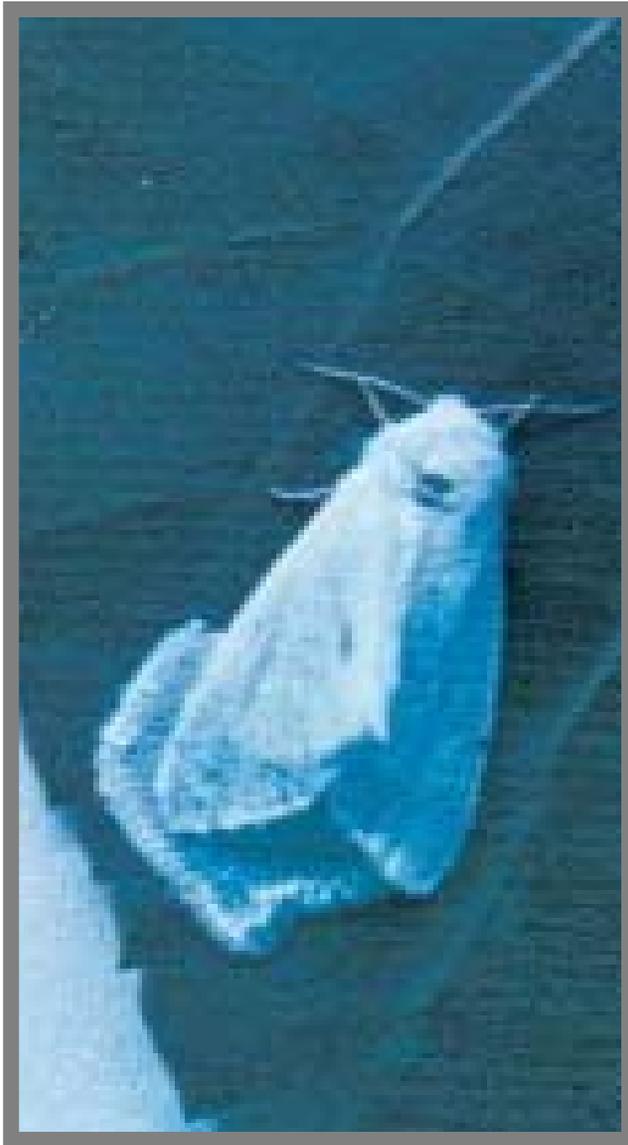
(FW)



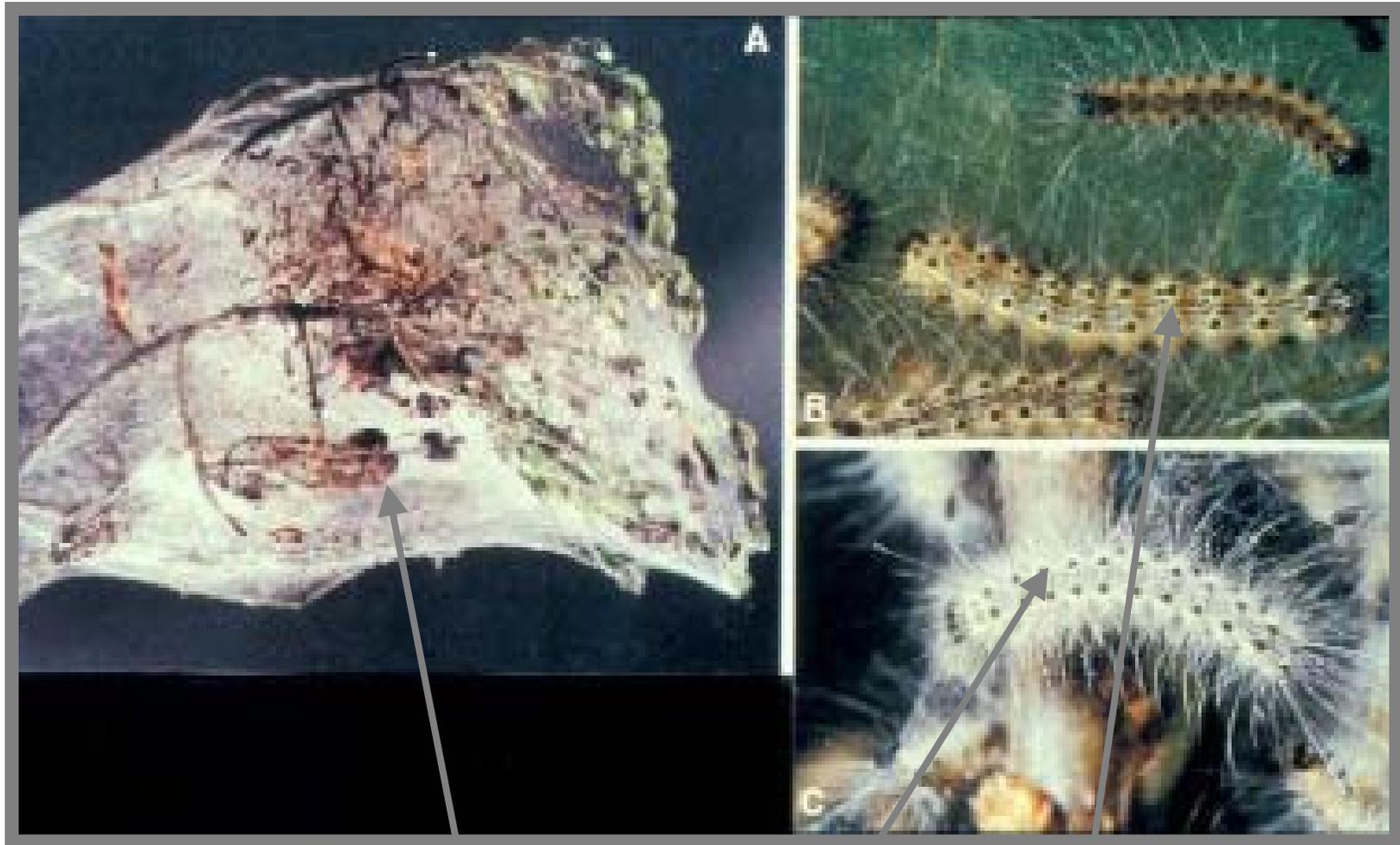
Fall Webworm



FW Caterpillar and Nest



FW Adult and Caterpillar



FW Nest and Caterpillars

Tussock



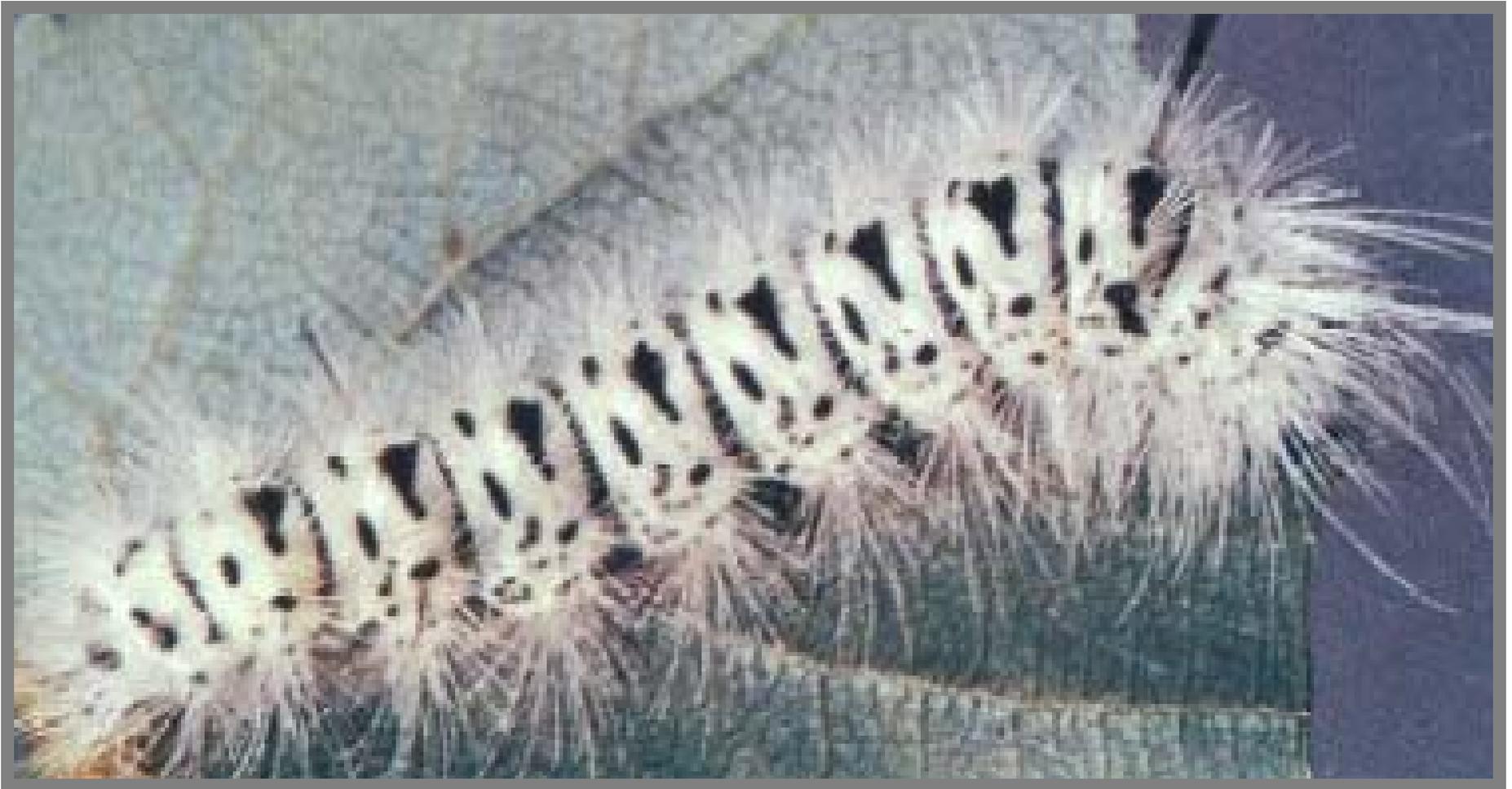
Moths



Hickory Tussock Moth Adult (HTM)₁₅



Hickory Tussock Moth Caterpillar



HTM Caterpillar



Sycamore Tussock Moth Caterpillar



Western Tussock Moth Caterpillar



Western Tussock Moth Adult

Spiney Elm Caterpillar



(Mourning Cloak Butterfly)





Spiney Elm Caterpillars (SEC)



SEC Adult
(Mourning Cloak Butterfly)

Gypsy Moth



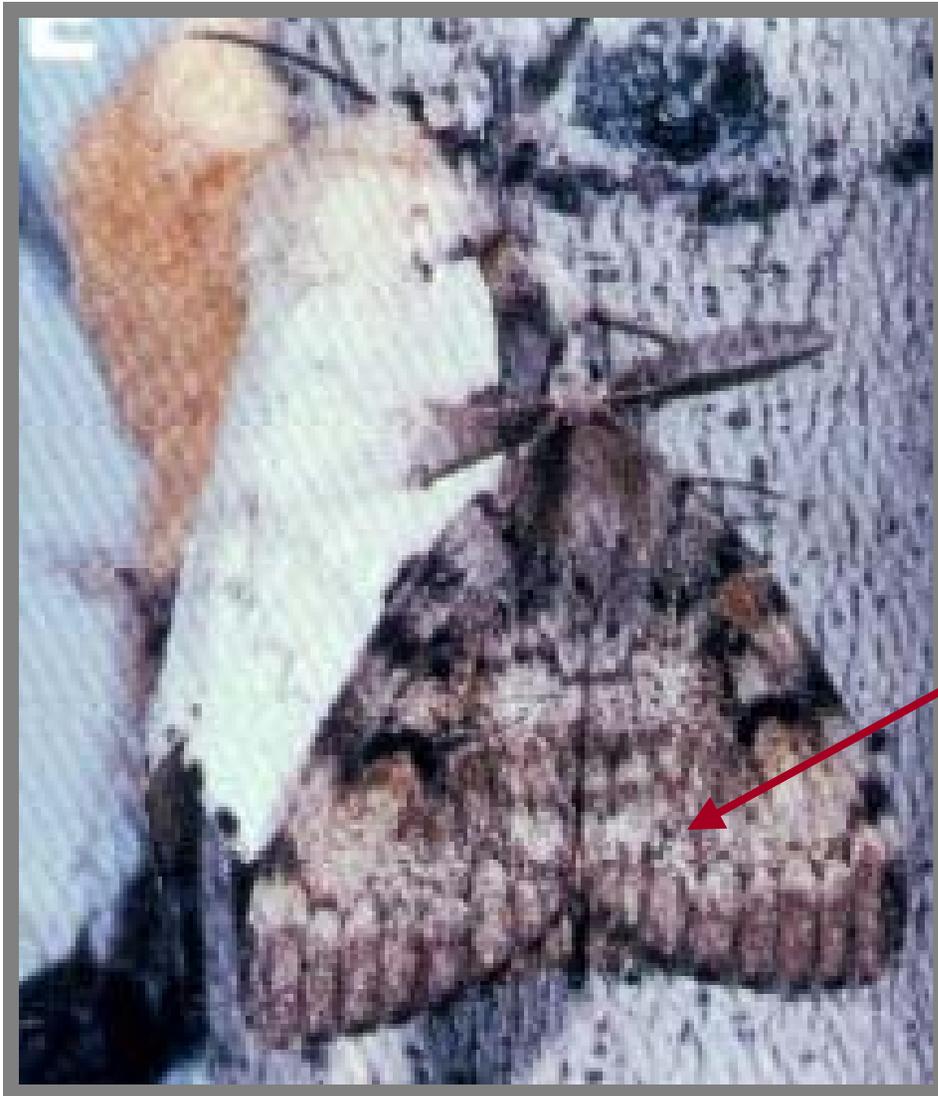
(GM)



GM Caterpillar



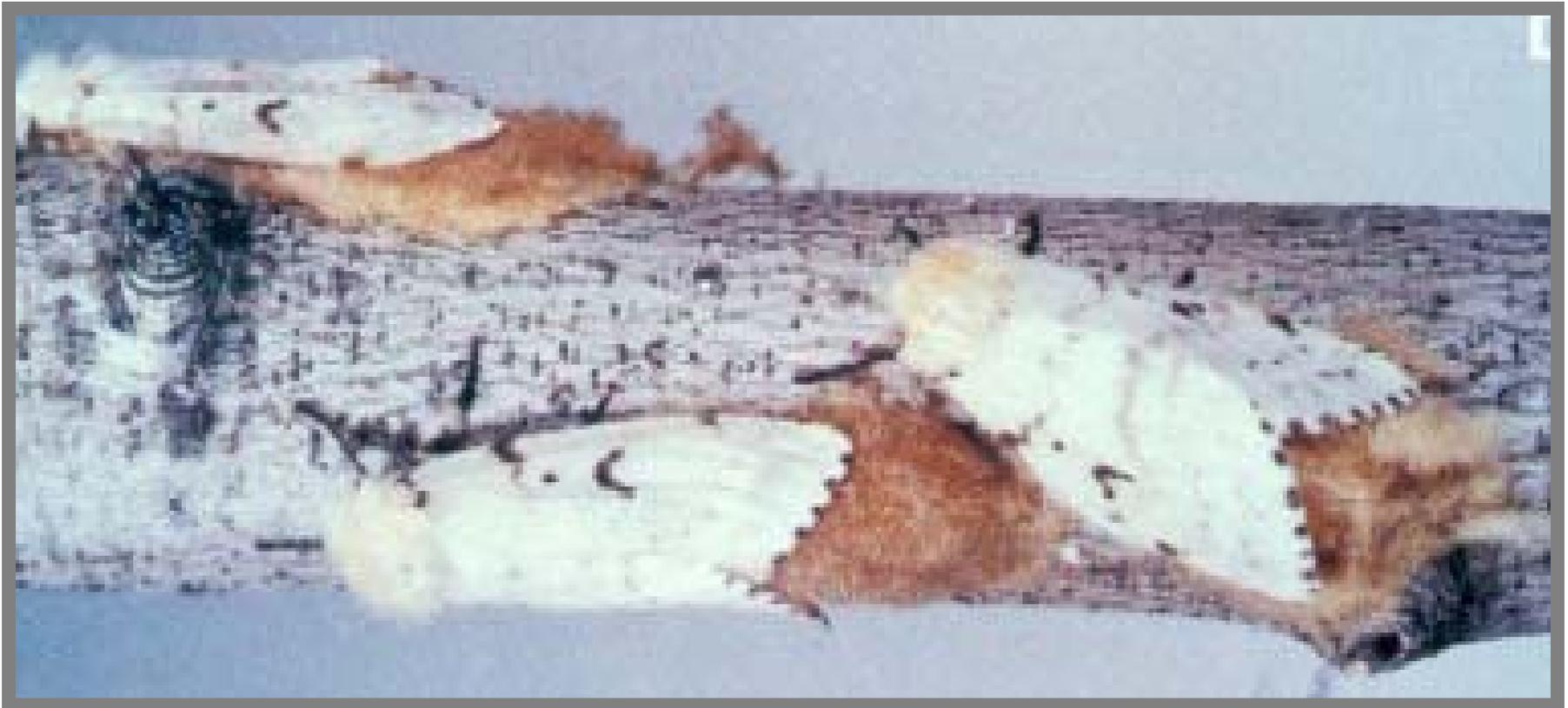
GM Caterpillar



GM Adults
(Male is dark moth)



**GM
Adults**



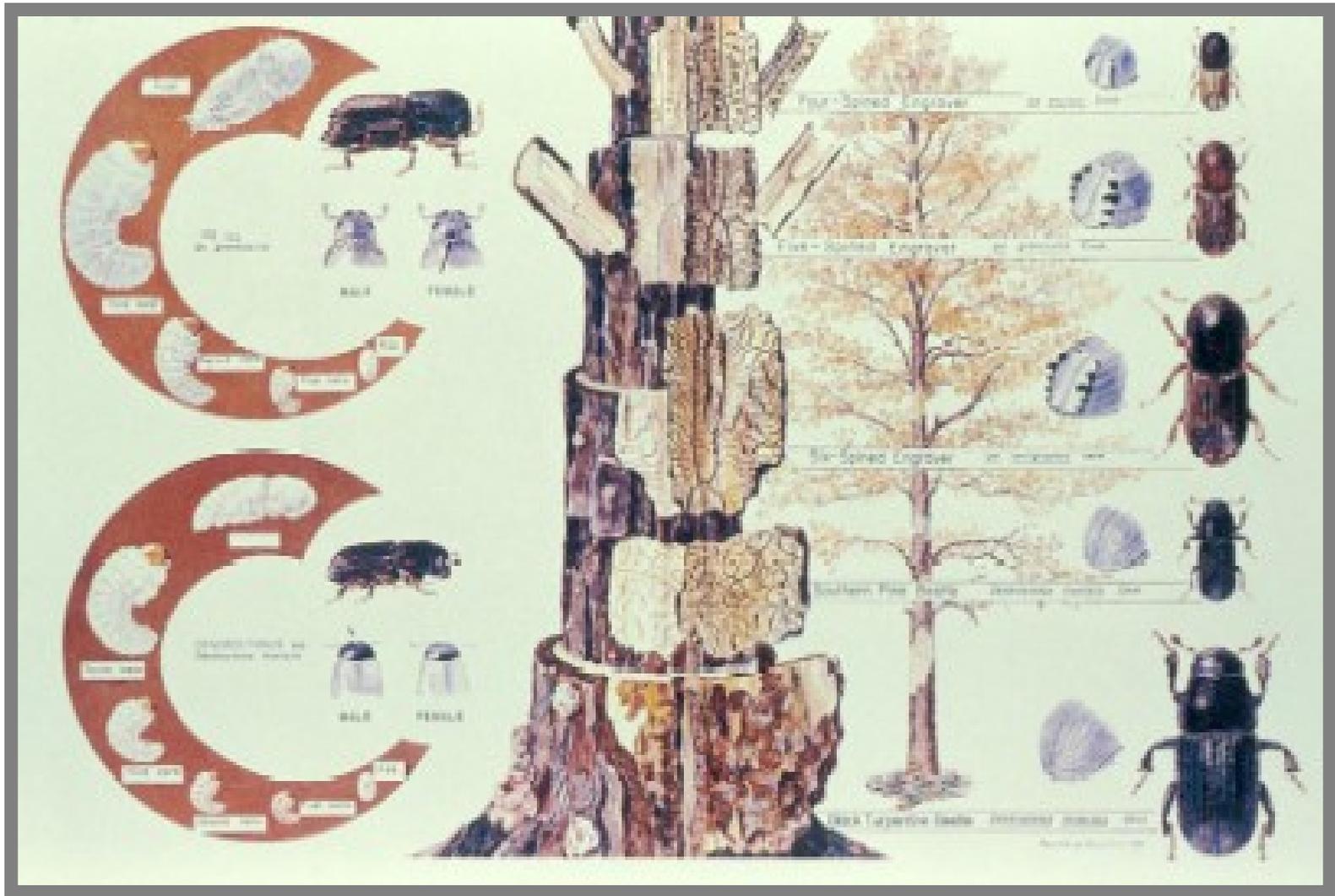
GM Adult Females Laying Eggs



**GM Larvae On
Partly Devoured Oak Leaves**



Trees On Hilltop Defoliated By GM



**Life Cycle & Picture of Southern Pine Bark Beetle:
 IPS Species, Southern Pine Beetle
 & Black Turpentine Beetle**

Black Turpentine Beetle

(BTB)





**BTB Pitch Tube
(entry into host tree)**



BTB Adult



**Tree with
BTB
Pitch Tube**

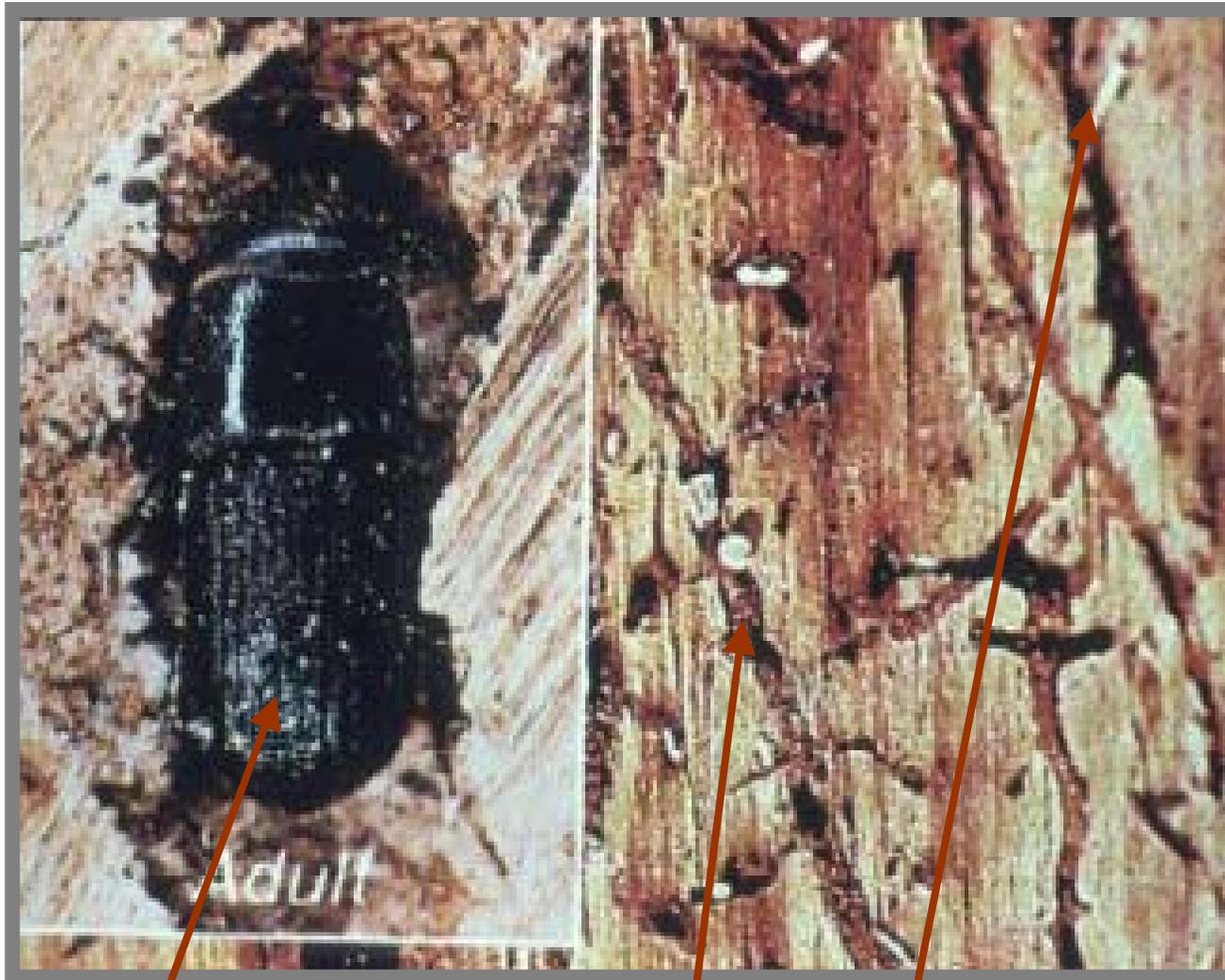
Southern

Pine

Beetle



(SPB)



SPB Adult and Eggs and Larval Galleries



SPB Pitch Tubes On Bark

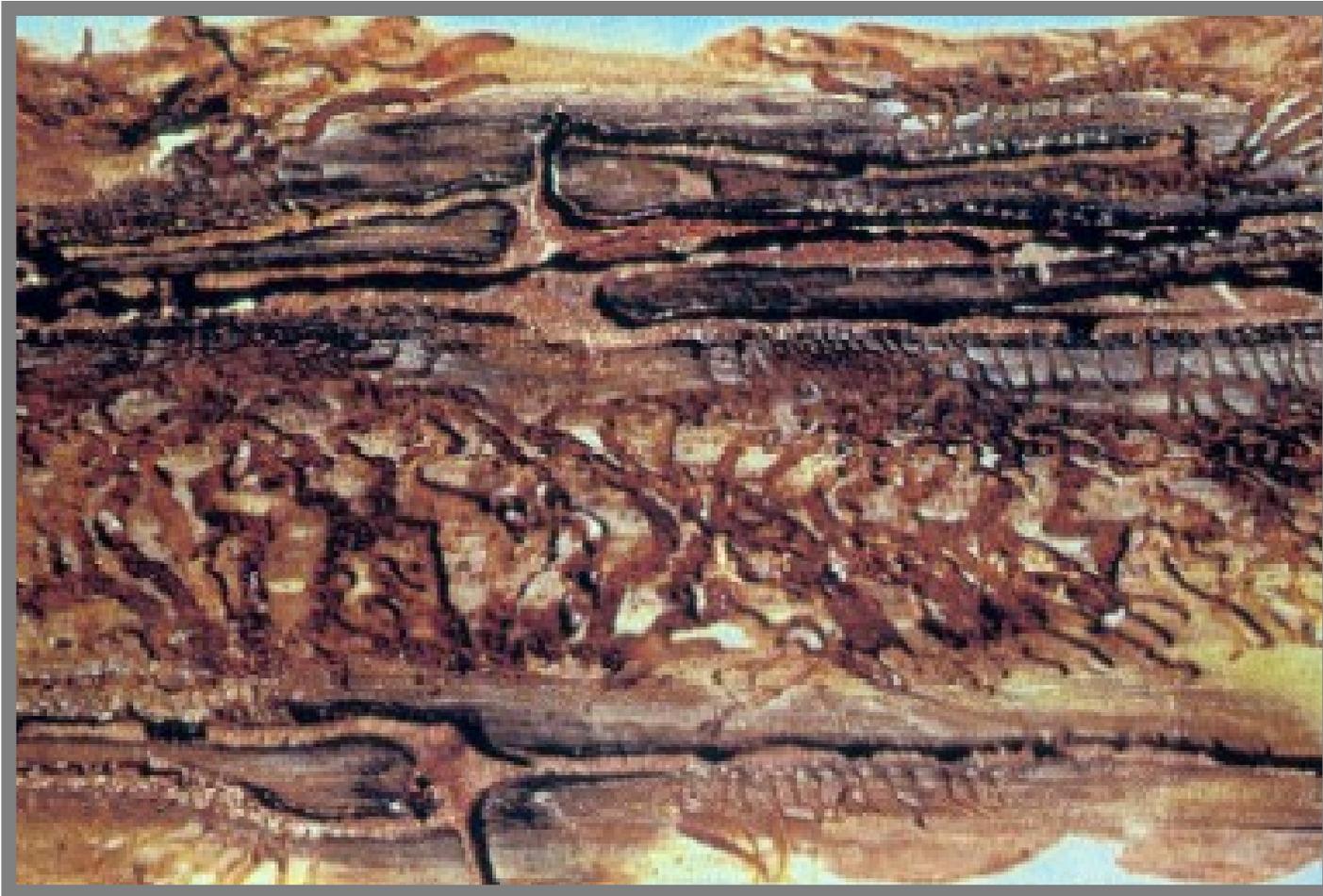
IPS



BEEETLE



IPS Adult



IPS Larval Galleries

Texas Leaf Cutting

Ant





Texas Leaf Cutting Ant

Periodic



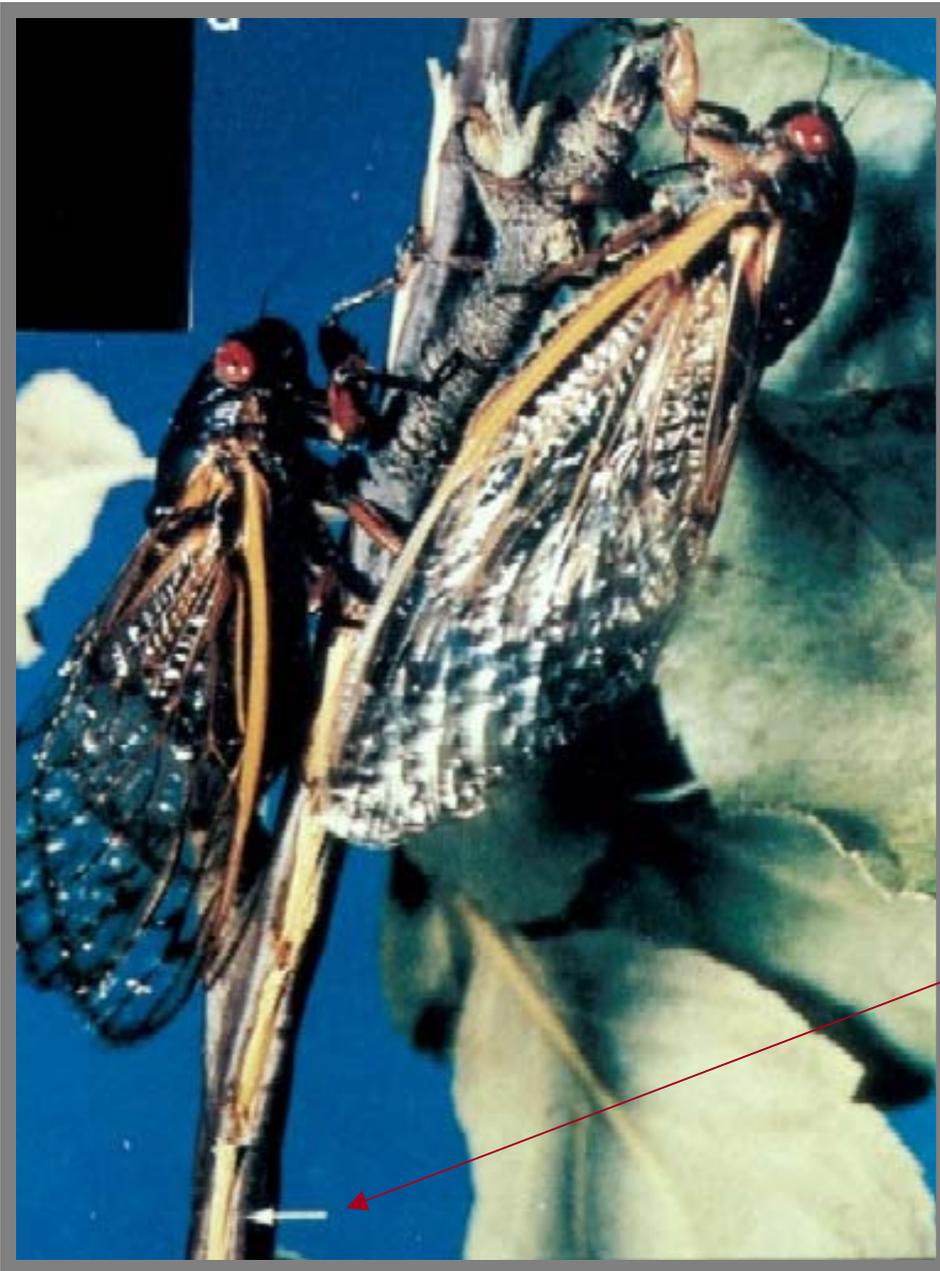
Cicada



Periodic Cicada



**Periodic
Cicada
Injury
To
Maple**



**Periodic
Cicadas
(note arrow
where eggs
have been
laid)**

White Oak Borer



(WOB)

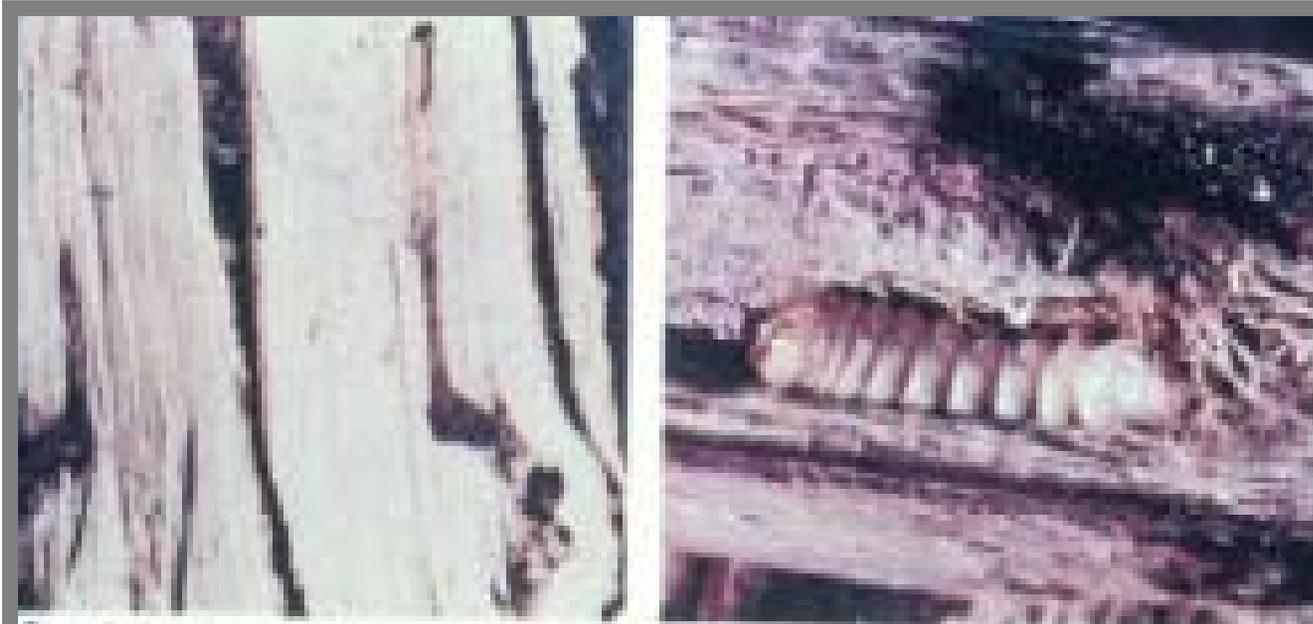




WOB Adult



WOB Adult

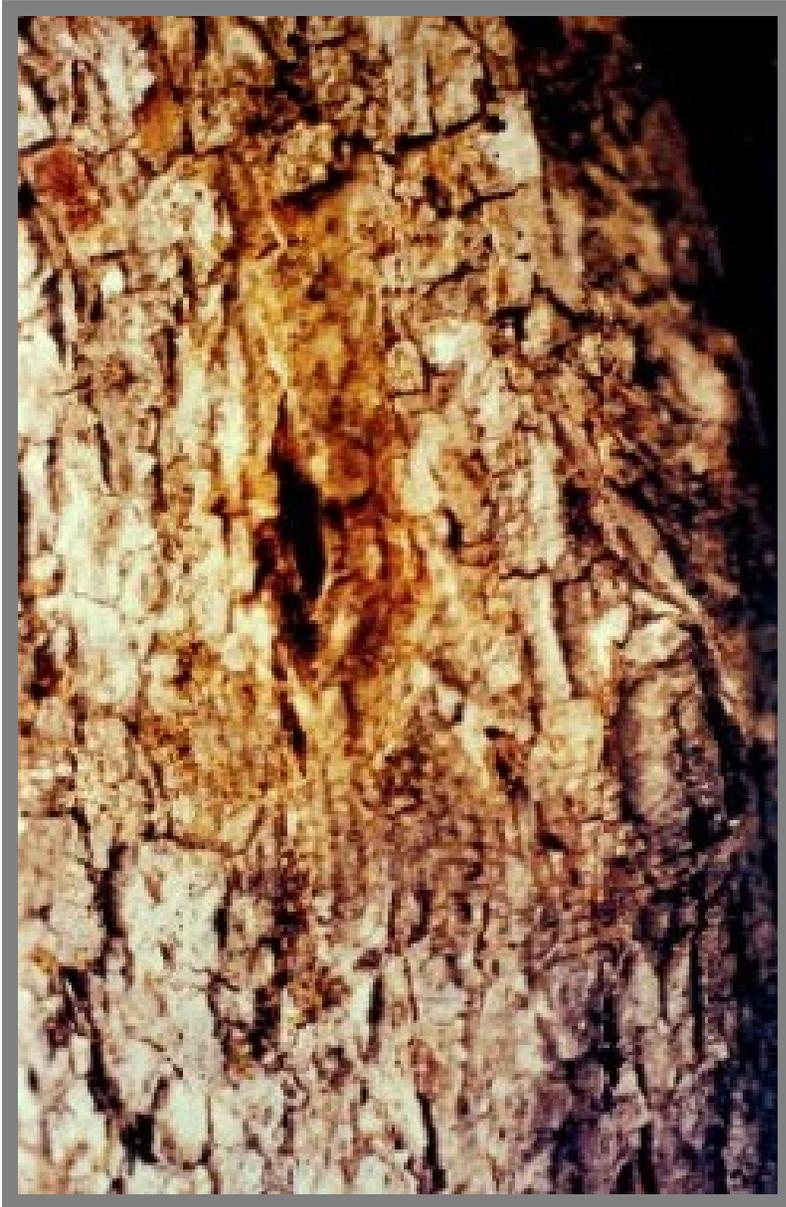


Red oak borer larval damage

Red oak borer larva



Borer Injury



**WOB
Attack
Injury**

Locust Borer



(LB)





LB Adult



LB Adult



LB Injury



**Trees
Damaged
By
Locust
Borer**

Bronze Birch Borer



(BBB)



BBB Adult



BBB Larvae

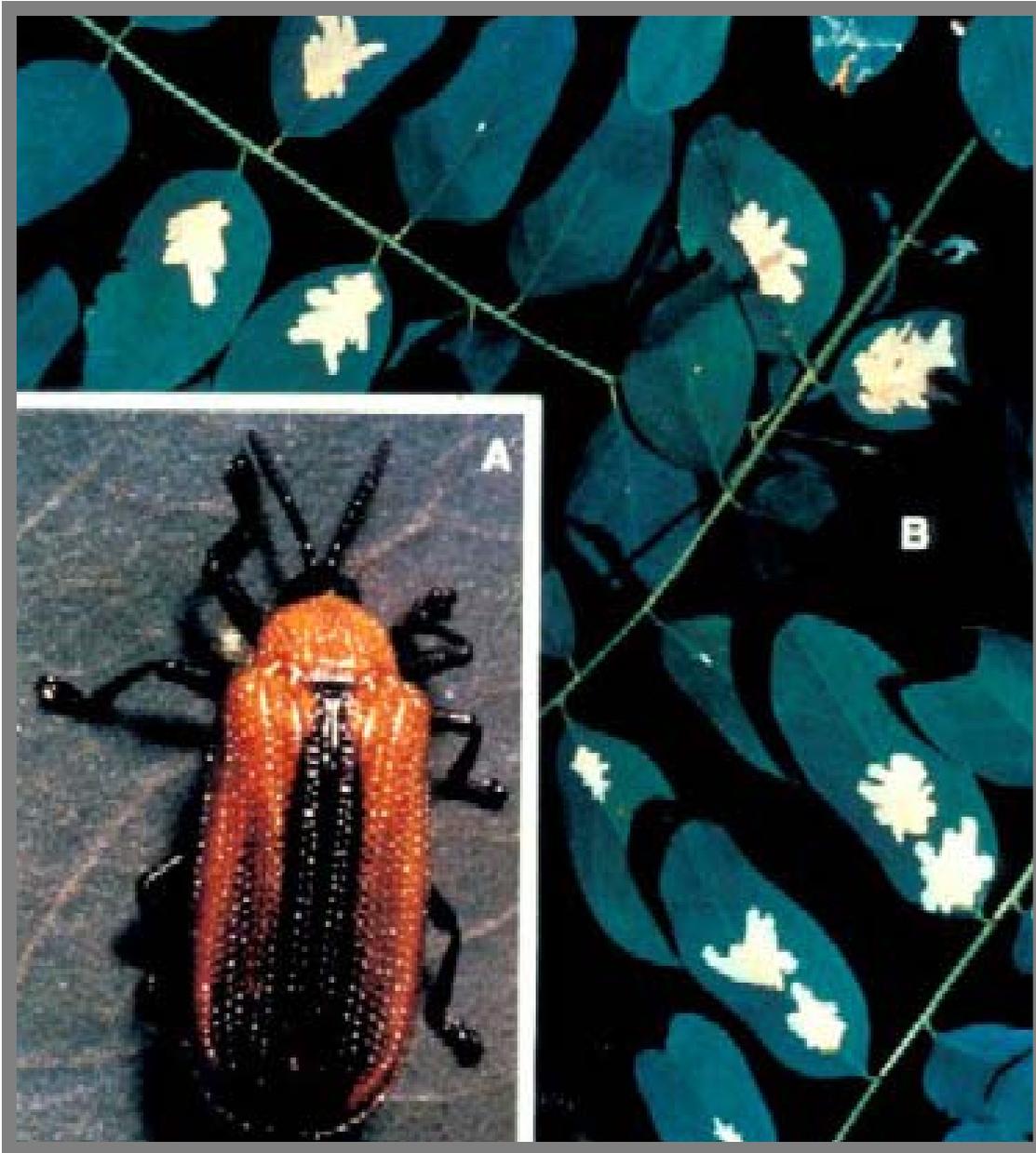


**BBB
Injury
To
Paper
Birch**

Locust Leafminer



(LLM)



**LLM Adult
And
Leaf
Injury**



**LLM
Adult
Defoliation
And
Injury**

Birch

Leafminer



(BL)





Adult BL



Larvae of BL



BL Damage

Bagworm





Bagworm Pupal Cases



**Bagworm
Pupal
Case**



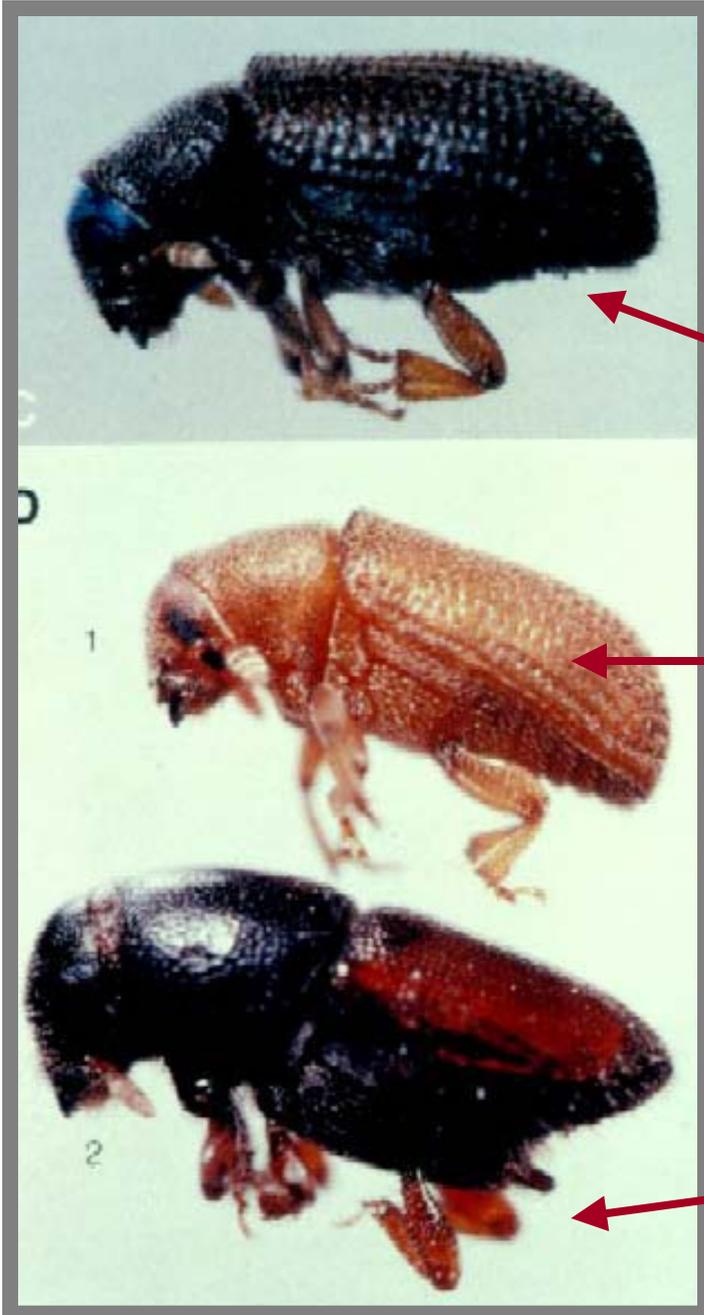
**Bagworm Pupal Case
Opened To Show Pupa**



Native

Elm Bark

Beetle

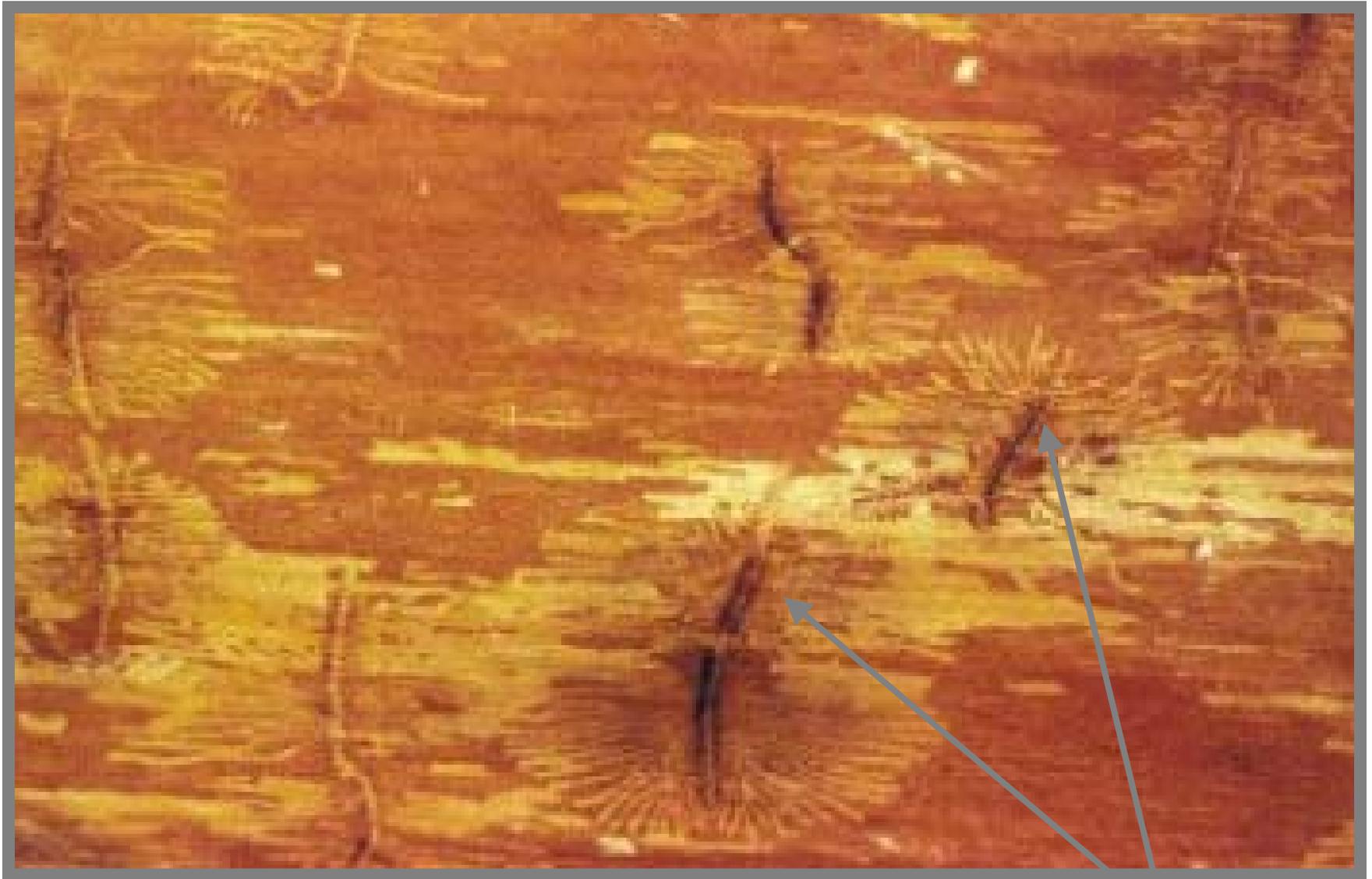


**For
Comparison:**

**Adult
NEBB**

**A Newly
Emergед
NEBB**

**European Elm
Bark Beetle**



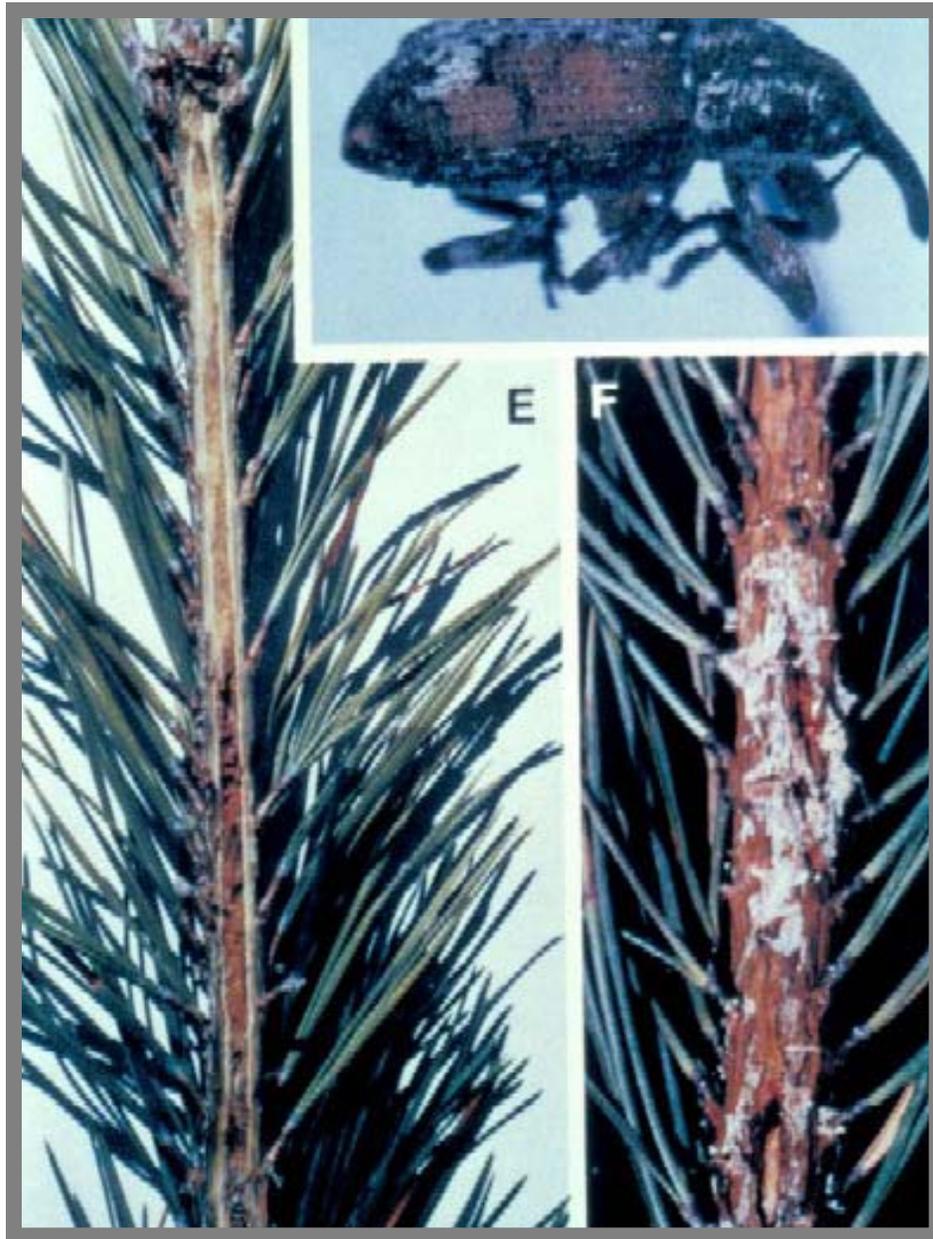
Brood Galleries of NEBB

White Pine

Weevil

(WPW)





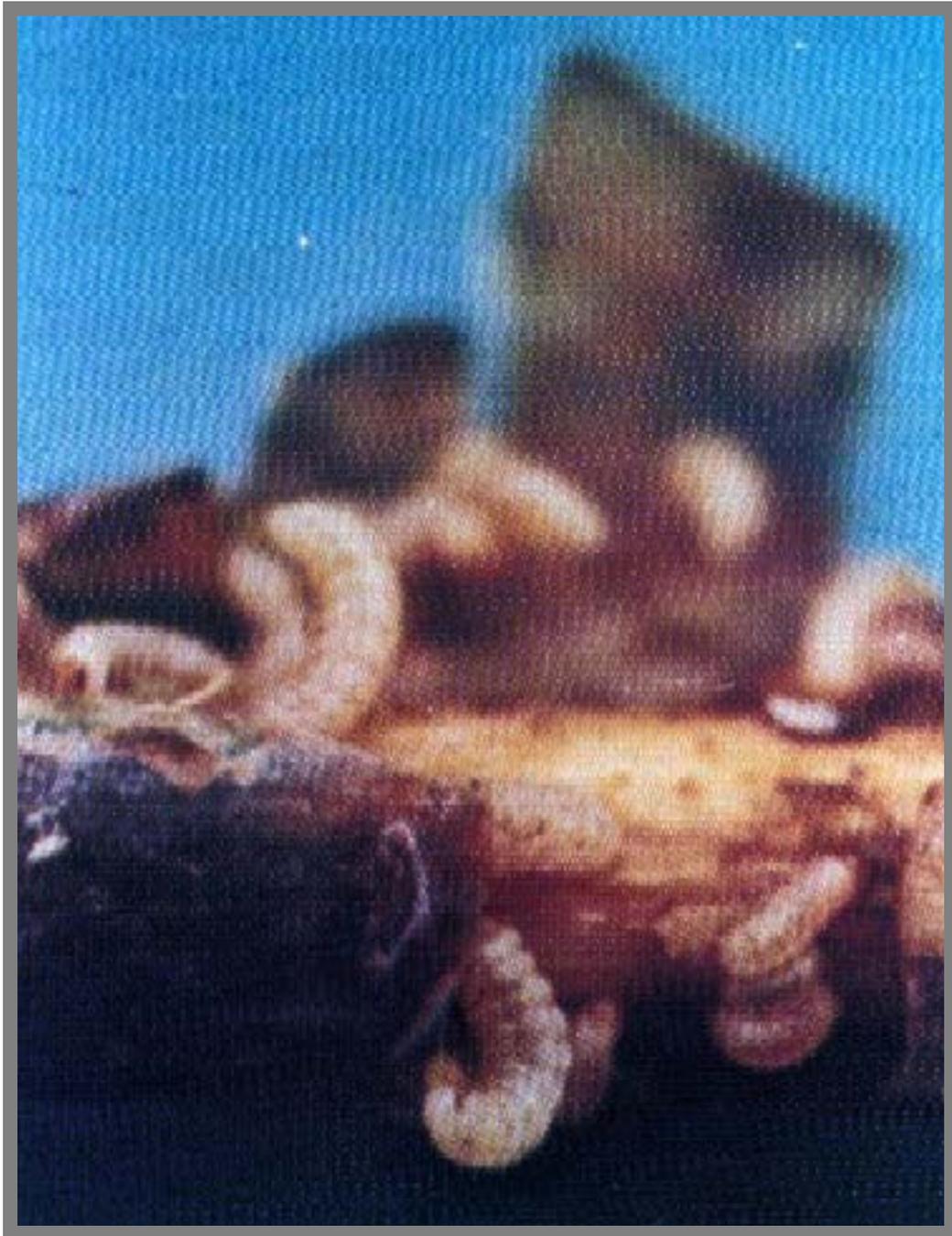
**WPW
Adult
And
Twig
Injury**



**WPW
Injury**



WPW Damage



**WPW
Larvae**



WPW Adult (note long snout)



WPW
Damage To
Young White
Pine

Pales Weevil

(PW)





PW Adult



PW Adult With Injury

Walking Stick



(WS)



WS Adults

Slug Oak

Sawfly



(SOS)



SOS Larvae And Injury



SOS Damage

Conifer Sawflies (CS)

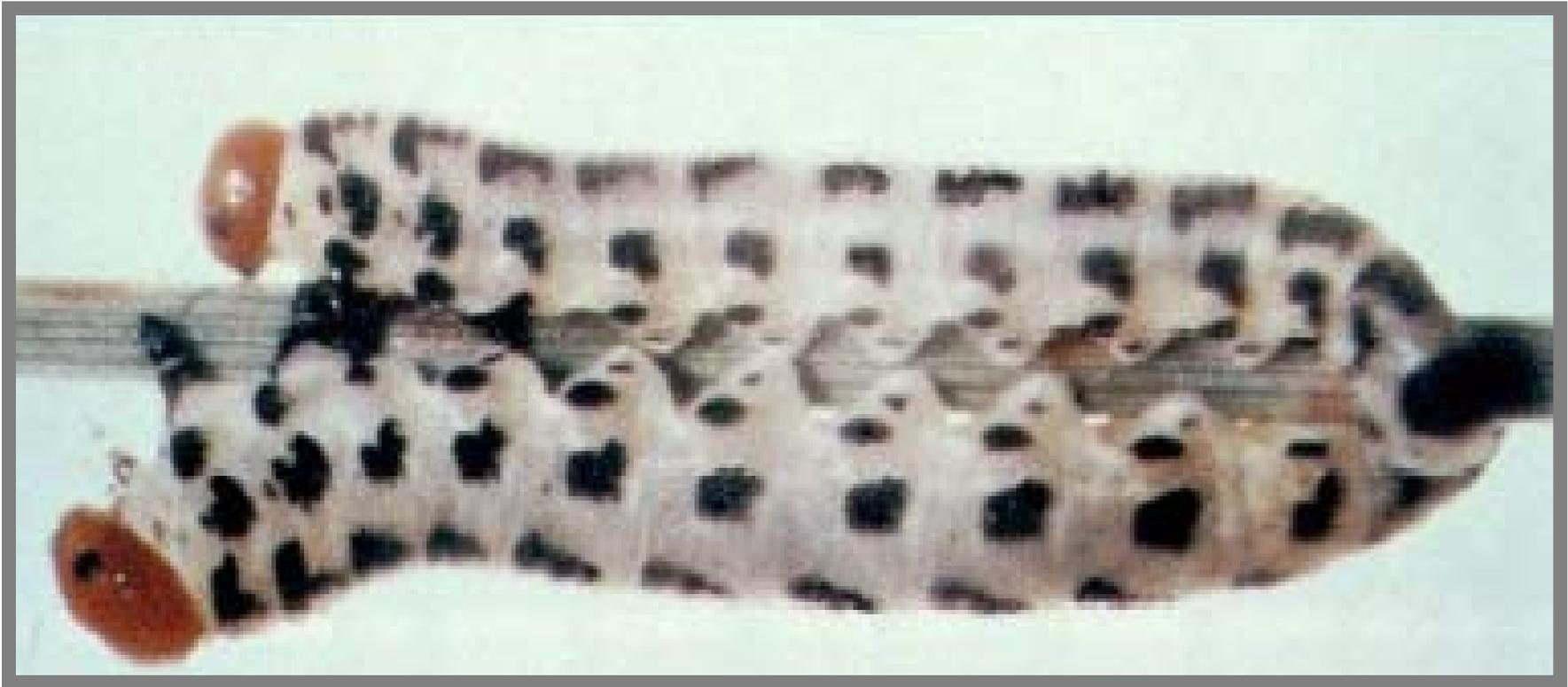




Adult Larch Sawfly



Mature Larvae of Introduced Pine Sawfly



Redheaded Pine Sawfly Larva



**Redheaded Pine Sawfly Damage
(larva at arrow)**



Examples of CS Larvae:

European
Pine Sawfly

Jack
Pine Sawfly

Introduced
Pine Sawfly

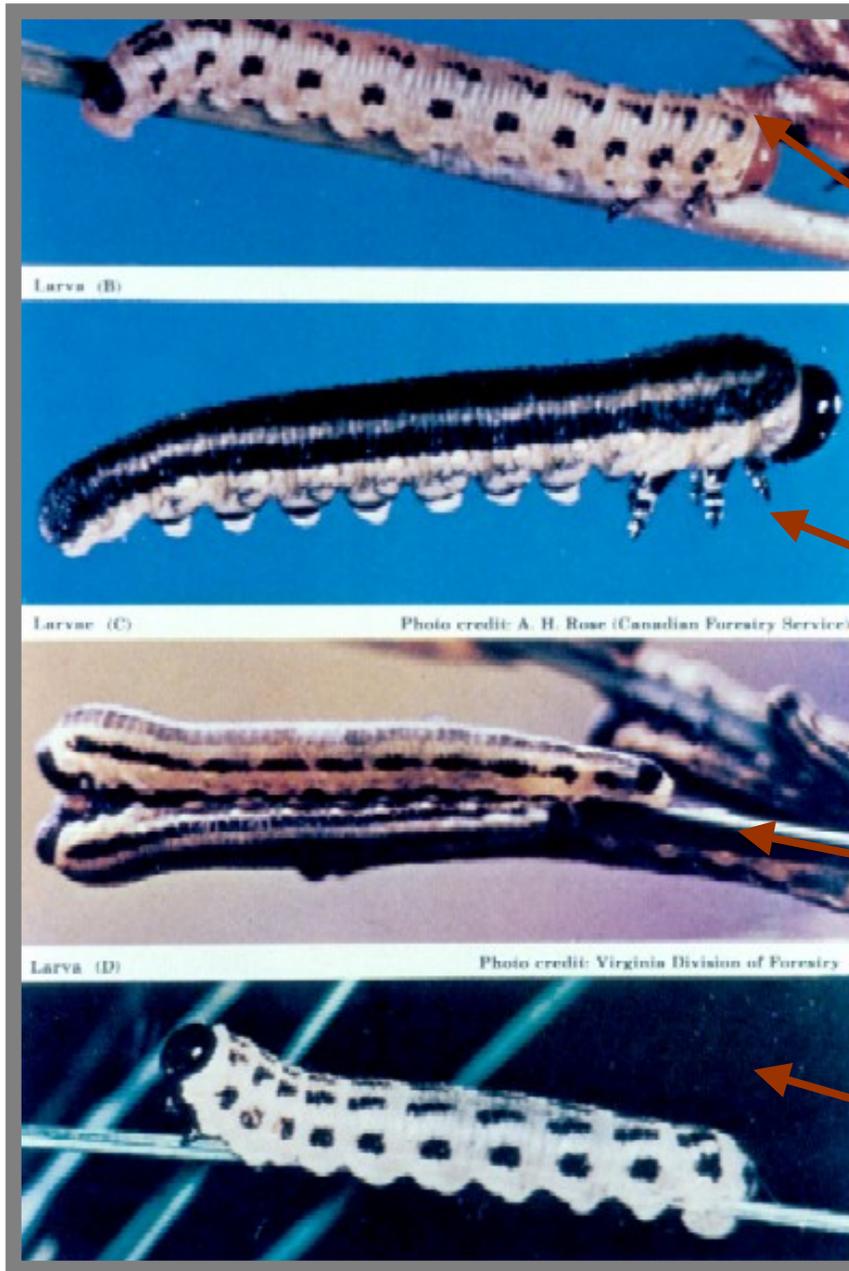
Examples of CS Larvae:

**Redheaded
Pine Sawfly**

**Red
Pine Sawfly**

**Virginia
Pine Sawfly**

**White
Pine Sawfly**





Black-headed Pine Sawfly

European Pine Shoot Moth (EPSM)





Adult EPSM



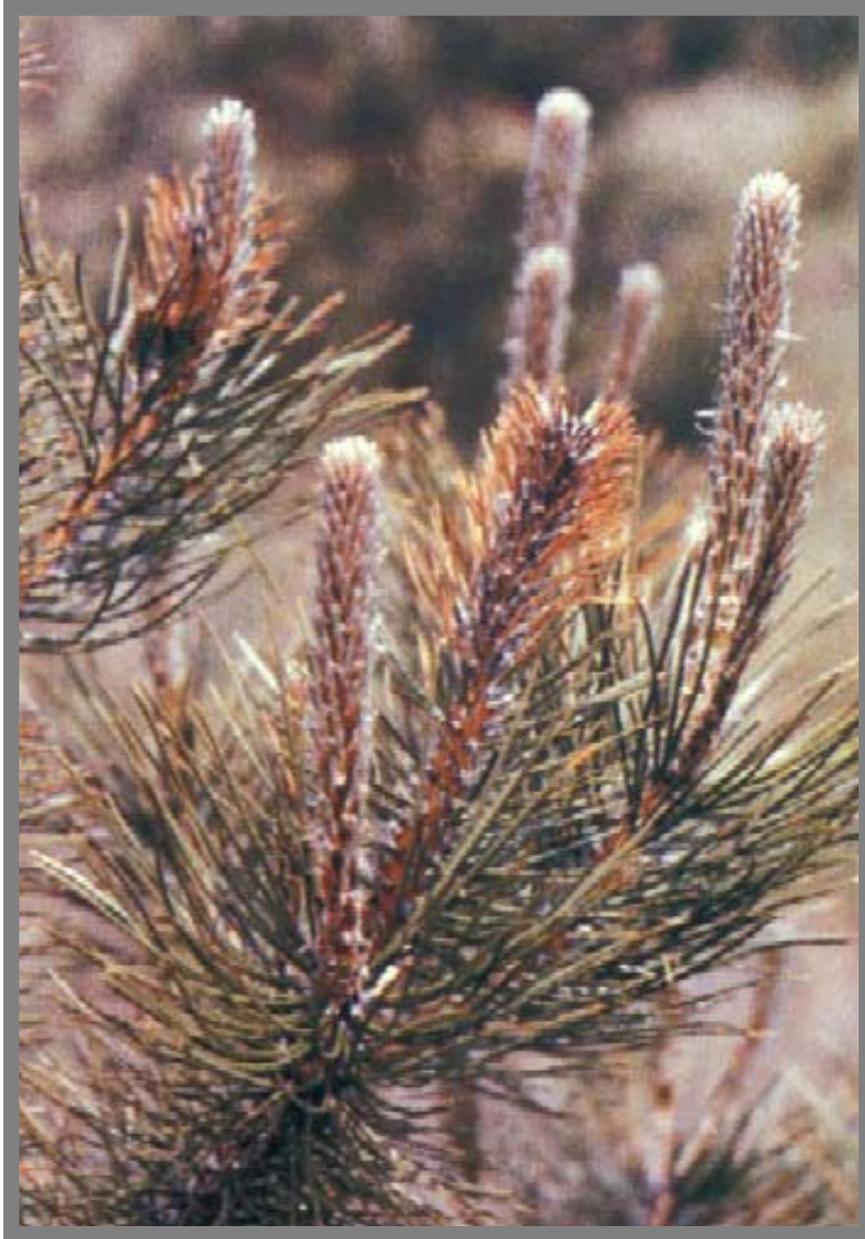
EPSM Pupa In A Tunneled Twig



EPSM Damage On Pine Twig



**Pitch
Accumulation
Where EPSM
Larva
Is Feeding**



**Symptoms
Of
Injury
From
EPSM**

Spruce Budworm (SB)





Adult Female SB



SB Larvae



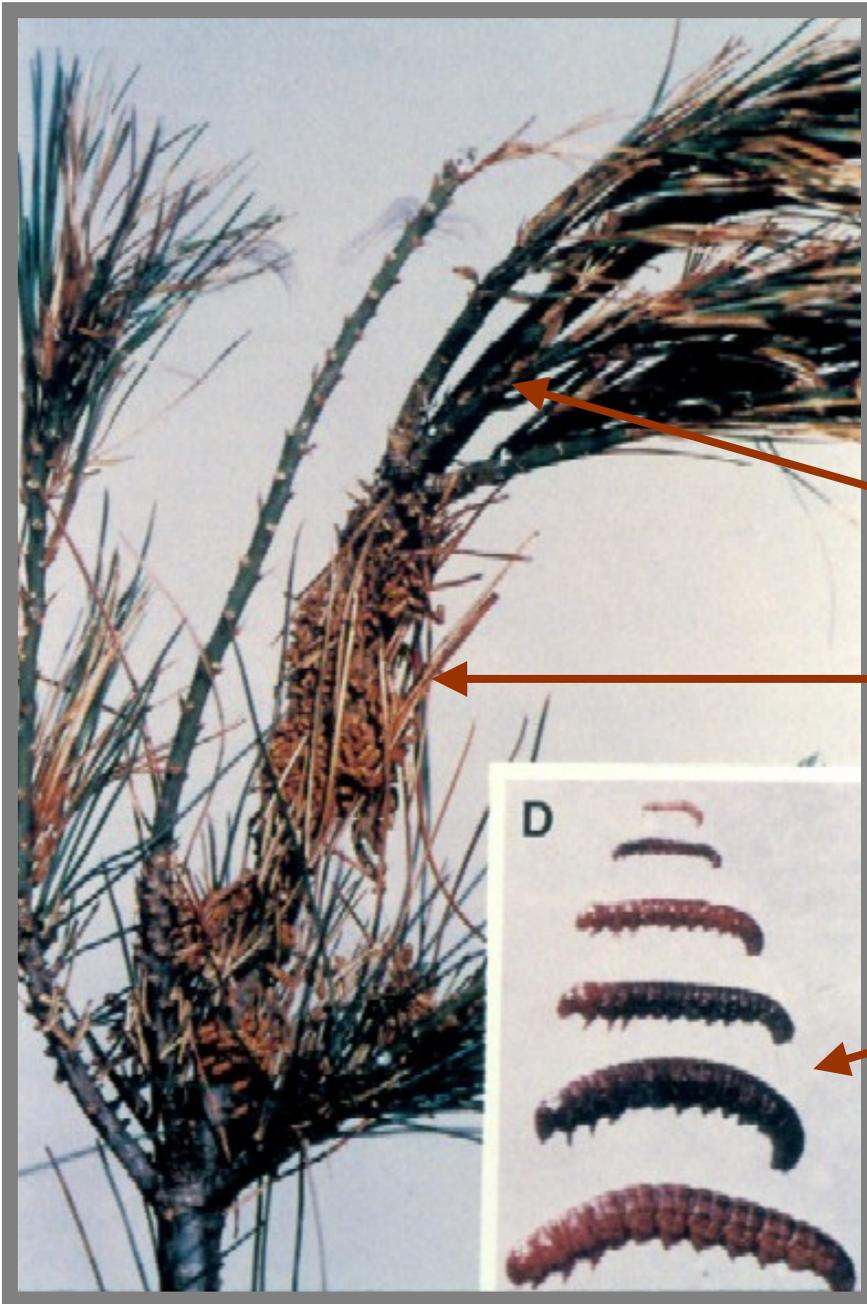
**SB
Damage
On
Balsam
Fir**



Pine Webworm (PW)



**“Web”
Of
Pine
Webworm**



PW
Damage,
Nest (web)
And
Larval
Stages

Nantucket Pine Tip Moth (NPTM)





NPTM Adult



Typical NPTM Damage To Pine Shoot¹⁵

The

End



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