



INSECTS & INSECT DAMAGE IN WOOD

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Insects & Insect Damage in Wood

- What Every Woodturner Should Know
- Piedmont North Carolina Focus

Why This Matters

- Hidden insects can ruin finished pieces
- Infestations can spread
- Damage often unseen
- Insects can emerge years later

The Big Picture

- Most attack stressed or fresh wood
- Some reinfest finished wood
- Others are one-time hitchhikers

Major Insect Groups

- Powderpost beetles
- Wood borers
- Termites
- Carpenter ants
- Carpenter bees

Powderpost Beetles

- Attack hardwoods
- Fine powder (frass)
- Tiny exit holes
- Can reinfest



Wood Borers

- Attack fresh logs
- Create tunnels
- Includes longhorned and ambrosia beetles



UGA1258201

A flat-headed wood-boring larva in the same genus as the sculptured pine borer.

Photo by Stanislaw Kinselski, Bugwood.org



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The ivory-marked borer.

Photo by Jim Baker, North Carolina State University, Bugwood.org

Asian Longhorned Beetle

- NOT YET FOUND IN NC
- Non-native species likely introduced to USA via wooden shipping materials (e.g., crates, pallets)
- In South Carolina, the closest infestation to North Carolina, it primarily infests red maple (*Acer rubrum*), the second most populous tree in North Carolina forests. ALB is also documented to attack other maples (*Acer*), birch (*Betula*), horse chestnut/buckeye (*Aesculus*), poplar (*Populus*), willow (*Salix*), elm (*Ulmus*), ash (*Fraxinus*), Golden raintree (*Koelreuteria*), mimosa (*Albizia*), Mountain ash (*Sorbus*), Katsura (*Cercidiphyllum*), and sycamore/London planetree (*Platanus*).

Asian Longhorned Beetle



Ambrosia Beetles

- Bore into green wood
- Cause streaking
- Toothpick-like sawdust



Granulate (Asian) ambrosia beetles.

Photo by J. R. Baker



Wood with granulate ambrosia beetle "toothpicks."

Photo by J. R. Baker, NC State Unive

Termites



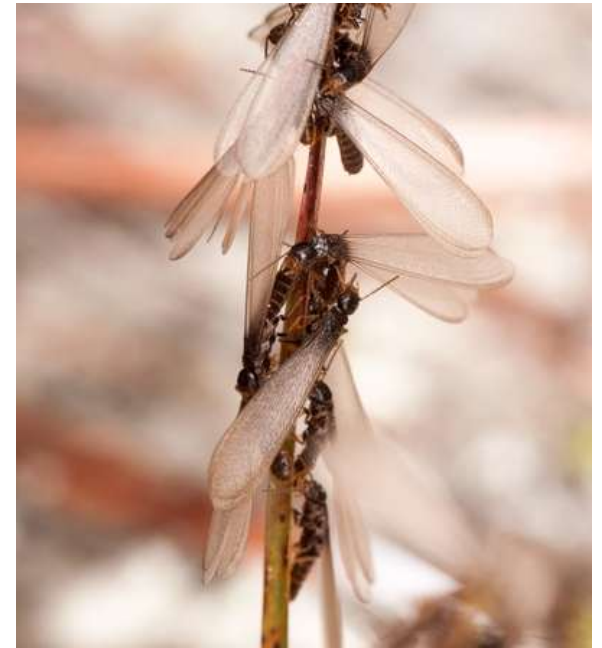
REQUIRE
MOISTURE



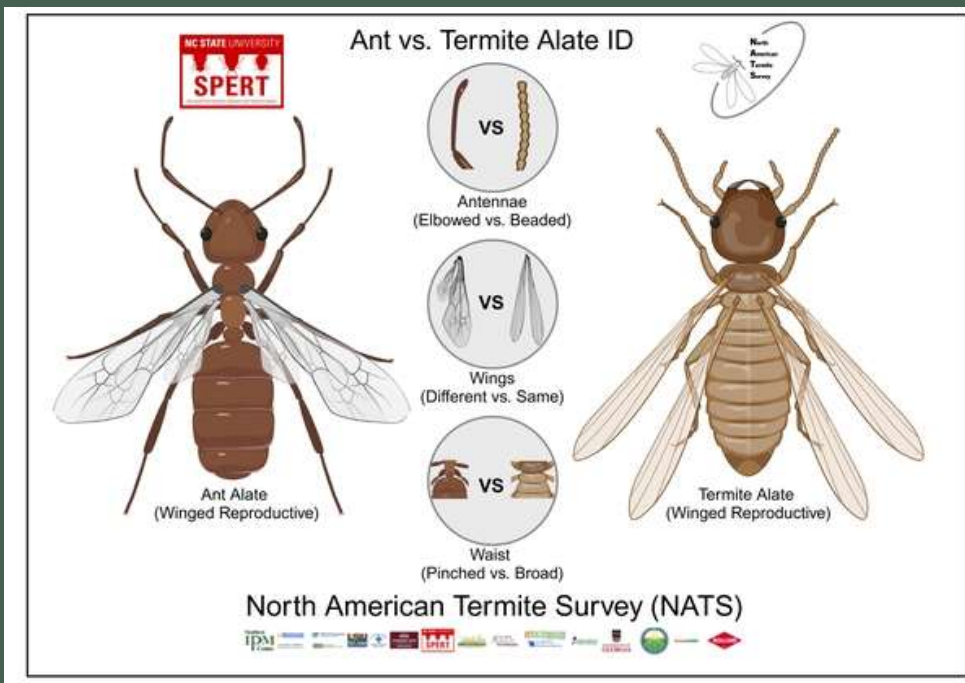
MUD TUBES



HOLLOW
WOOD



Termites



Carpenter Ants

- Excavate wood
- Coarse sawdust
- Prefer damp wood



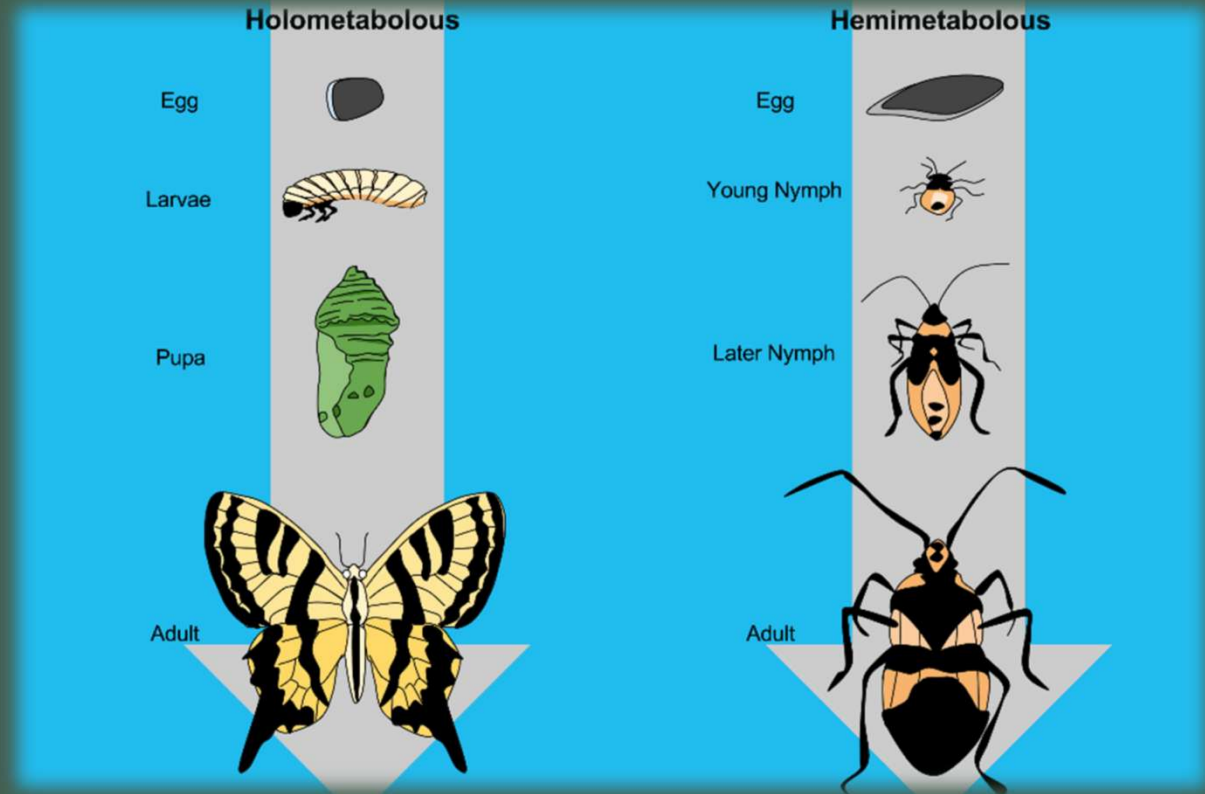
Carpenter Bees

- Round holes in softwood
- Common in pine/cedar



Life Cycle

- Egg → Larva → Pupa → Adult
- Larvae cause damage
- Can last years



What to Watch For

- Exit holes
- Frass
- Bark loss
- Staining



Wood Risk Levels

- High: storm wood
- Moderate: air dried
- Low: kiln dried



Moisture & Storage

- Remove bark
- Dry quickly
- Store off ground





Prevention

- Use kiln dried wood
- Seal surfaces
- Store properly

Treatment

- Heat treatment
- Freezing small pieces
- Borates

Heat Treatment

- 130–140°F internal temp
- Several hours



Control



120°C-45
minutes



160°C-45
minutes



180°C-90
minutes



200°C-45
minutes



Keep or Toss

- Keep if inactive
- Discard if active



Beneficial vs Problem

- Insects recycle wood
- Problem in your shop

Key Takeaways

- Most damage pre-harvest
- Powderpost biggest risk
- Monitoring is key



QUESTIONS