

FOREST PATHOLOGY AND ENTOMOLOGY WITH DR LORI ECKHARDT

TALKING POINTS

1. Pine decline is a complex disease? What does this mean? (See *What is pine decline?* p1)
2. What are the main threats to forest health in southeastern US? (See *Is pine decline causing trees to die in large numbers in southeastern US?* p1)
3. Why are non-native pests harmful to trees, plants and wildlife? Can you think of any non-native pests that are causing problems in your region and/or country? (See *Is pine decline causing trees to die in large numbers in southeastern US?* p1)
4. Can you explain a water cycle? Similarly, what is a nutrient cycle? (See *What do we know about bark beetles?* p1)
5. What is the relationship between bark beetles and blue stain fungi? What are the benefits for each of these organisms? (See *What is the beetle's relationship with ophiostomoid fungi?* p2)
6. Lori uses hyperspectral interferometry to look for fungal spores on the bodies of bark beetles. What is hyperspectral interferometry? Why is it useful for Lori to be able to use this imaging technique? (See *What is hyperspectral interferometry?* p1)
7. What careers are available in forestry? Are there any careers in this field that would excite you? (See *About forestry and forest pathology*, p3)
8. Lori is an entomologist (as well as a forest pathologist). In what ways are insects beneficial to us and the planet? (See *About entomology*, p3)

ACTIVITIES YOU CAN DO AT SCHOOL, COLLEGE OR AT HOME

1.

Working in groups, research and produce a PowerPoint presentation to show the class how to identify a local species of tree. Now find out which pests or diseases affect this species of tree, and present this information to your class.

2.

Explore a woodland or forest near you. Spend time looking at the trees and photographing them. How many species can you identify? There are lots of websites that can help you. Here are two:
USA: <https://www.arborday.org/trees/whattree/>
UK: <https://www.woodlandtrust.org.uk/visiting-woods/trees-woods-and-wildlife/british-trees/identify-trees-with-our-tree-id-app/>

3.

Whilst identifying the trees, look out for any signs of disease. Here are two websites that can help you:
USA: <https://www.thoughtco.com/an-index-of-common-tree-diseases-1342808>
UK: <https://www.gov.uk/guidance/identify-a-tree-pest-or-disease-overview>

