

# Chemical volatiles emitted from fungi associated with bark beetles

## PROJECT DESCRIPTION

Earlier we have found that (1) interactions (competition or facilitation) among different species fungi can be mediated by volatiles they emit, (2) different species fungi can metabolize tree chemicals differently, (3) fungi can metabolize pheromones emitted by their host beetles, and (4) fungi produce some pheromones emitted by their host beetles. We will continue our long-term investigations. This particular project will investigate if there is a variation in volatile chemicals emitted by the same species of fungus but different isolates within North America. Our model fungus will be *Grosmania clavigera*. This particular fungus is wide spread from southern United States to western Canada. We already have the fungal cultures and using established protocols, we will collect volatiles from the different isolates of the fungus and identify them using Gas Chromatography/Mass Spectrometry.

## FACULTY-DEPARTMENT

Agriculture, Life and Environmental Sciences - Renewable Resources

## OPEN TO STUDENTS FROM THE FOLLOWING INSTITUTIONS

Chinese universities participating in the [\*Double First-Class Initiative\*](#).

## DESIRED FIELD OF STUDENT STUDY

Ecology, chemical ecology, entomology

## INTERNSHIP LOCATION

Edmonton Campus

## NUMBER OF INTERNSHIP POSITIONS

1

## INTERNSHIP DATES

Start: July 2, 2019

End: October 2, 2019

## ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.