



2012 Yosemite Forum

Sponsored by Resources Management and Science, Yosemite National Park

An interactive lecture series designed to bring evolving knowledge of the Sierra Nevada to the public and the park.

Endophytes of Forest Trees: Specificity & Adaptive Potential of an Unexplored Symbiosis

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The relationship between forest trees and the endophytic bacteria colonizing the interior of their leaves, stems and roots, is likely to be one of the world's most wide-spread symbioses, yet it is virtually unexplored. Complex communities of microorganisms could help long-lived trees to resist centuries of variability in climate and disease. We use DNA-sequencing methods to determine the extent to which forest conifers (limber pine, Jeffrey pine, lodgepole pine, giant sequoia and coastal redwood), form adaptive associations with bacterial endophytes. Our results suggest that conifers form relationships with specific bacteria that may benefit the plant through nitrogen fixation and growth promotion.

Tuesday, December 11, 2012
Auditorium, Yosemite Valley
Noon to 1 p.m.

Yosemite Forum is a partnership among:

- ☞ Yosemite National Park, Resources Management and Science Division
- ☞ USGS, Western Ecological Research Center, Yosemite Field Station
- ☞ University of California, Sierra Nevada Research Institute
- ☞ The Yosemite Conservancy

