

Insects and diseases of cottonwood, willow, juniper and pinyon

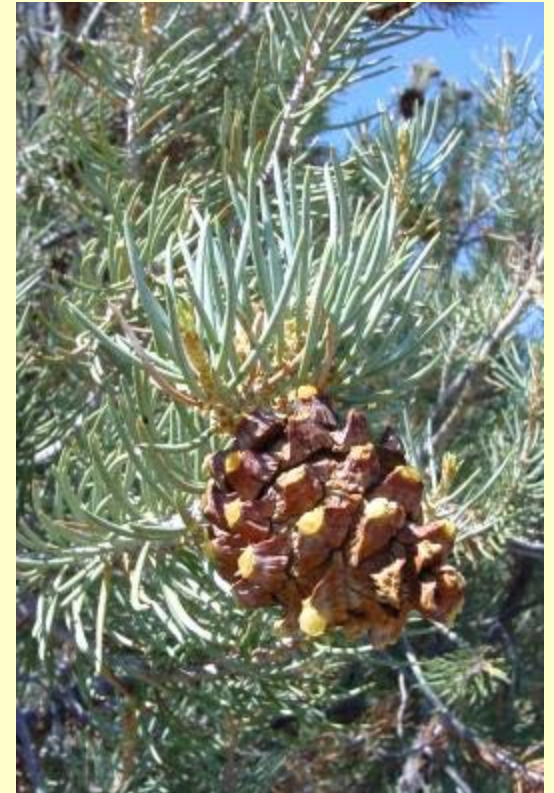


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Outline

- Fremont cottonwood galleries
- Willow rust
- Juniper
- Pinyon



Fremont Cottonwood Galleries

Apache cicadas (*Diceroprocta apache*)



Fremont cottonwood galleries

Western Poplar Sphinx (*Pachysphinx occidentalis*)



Southwestern Tent Caterpillars (*Malacosoma incurvum*)



Cottonwood Petiole Gall aphid; *Pemphigus* sp

Alternate host = weeds or crops



Psyllids with Formica ant



Willow rust – 2014

- North of Elko, NV on the way to the Jarbidge Mtns,
Humboldt-Toiyabe National Forest



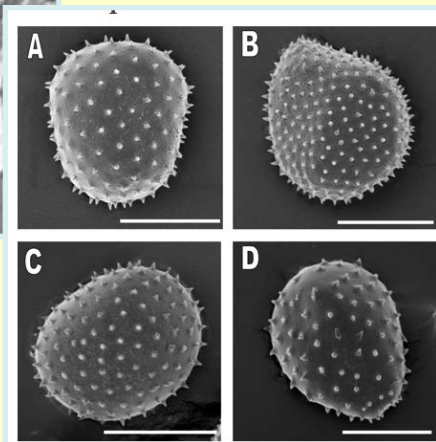
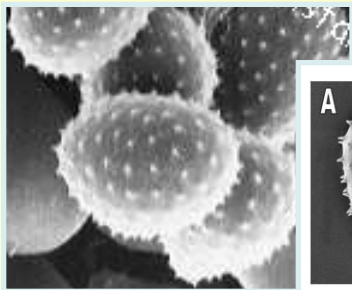
Willow rust



Willow rust



Willow rust
Melampsora epitea
Alternate host *Ribes* and *fir*



Juniper (and pinyon)



Juniper Borers



Western cedar borer, *Trachykele blondeli*
Black-horned juniper borer, *Callidium* spp.



Juniper borer, *Atimia* spp.
Juniper twig pruner, *Styloxus bicolor*



True mistletoe *Phoradendron* species



Juniper pocket rot *Pyrofomes demidoffii*



Pinyon



Pinyon dwarf mistletoe,
pinyon blister rust,
black stain,
pinyon Ips,
pitch mass borer,
pitch moth, *Dioryctria* spp
pinyon needle scale, and pinyon sawfly



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