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Rust Identification: Quick Reference

Always look for:

1. Cankers on stems and branches
    - ❖ rough cracked bark when cankers are inactive or outside sporulation window
    - ❖ Swollen areas that deviate from typical stem or branch taper
2. Orange spores

Comandra blister rust (DSC): *Cronartium comandrae* (Peck)

Alternate host: *Geocaulon lividum* (Richardson) Fernald

Primary host: Lodgepole pine (all ages, found throughout distribution of pine)

1. Rough cracked bark with texture of corn flakes (seral)
2. Wide, cigar shaped infections
3. Length:width ratio ~ 1:2
    - ❖ up to 1:8
4. White blisters and swelling
    - ❖ horizontal across stem
5. Spore with tails – appear as “slivers” with hand lens
6. Pycnial fluid before spores

Stalactiform blister rust (DSS): *Cronartium coleosporioides* (Arth.)

Alternate host: *Castilleja miniata* (Douglas ex Hook.), *Melampyrum lineare* Desr., and others!

Primary host: Lodgepole pine (all ages, found throughout distribution of pine)

1. Length:width ratio ~ 16:1
2. tall/prominent stacking blister columns
3. long linear infections that taper at the ends
4. fine hairs under blister "skin"
5. causes patchy or partial girdling
6. round spores visible with hand lens

Wester gall rust (DSG): *Endocronartium harknessii* (J.P. Moore) Y. Hirat

NO alternate host! Host: Lodgepole pine (all ages, found throughout distribution of pine)

1. round woody galls
2. 90-degree angles from stem at margins
3. orange spores release through fissures in bark

3. Online resources

Field Guide to Forest Damage in BC

Common Tree Diseases of British Columbia

Omineca Forest Health Strategy

2023 Silviculture Surveys Procedures Manual