

Decay Fungi

Echinodontium tinctorium (E. & E.) E. & E.

Brown stringy trunk rot

Indian paint fungus

A true heartrot decay of mainly hemlock and true firs. Most common in the ICH, where it produces significant amounts of decay at or close to rotation ages. In some places hemlock is not considered an acceptable species at regeneration because of this decay. Note hymenium on spines and the red context. Basidiocarps usually produced below dead branch stubs (the common place for 'true heartrots'). Traditionally used as a mycopigment

Notes:



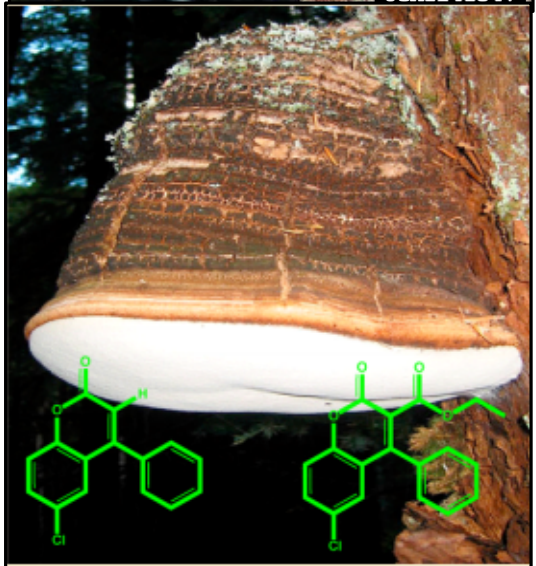
Fomitopsis officinalis (Vill.:Fr.) Bond et Sing

Brown trunk rot

Quinine fungus

This is a common decay of larch and of old-growth Douglas-fir in the Pacific NW. Recognized by its chalky white fruiting body and its bitter taste. Although fruiting bodies contain no quinine, ongoing research is finding that extracts have antimicrobial and antiviral activity.

Notes:



Fomitopsis pinicola (Sw:Fr.) Karst.

Brown crumbly rot

Red band fungus

A common brown rot decay of dead conifers (less frequently found in living trees), particularly of hemlock, true firs, spruces, and other species lacking strong heartwood toxins. Generally *F. pinicola* decays the heartwood while other fungi (particularly *Trichaptum abietinum*) decay the sapwood of the same tree. Basidiocarp is perennial, white when young, then brown with a reddish edge above and creamy white below. Found throughout the northern hemisphere.

Notes:



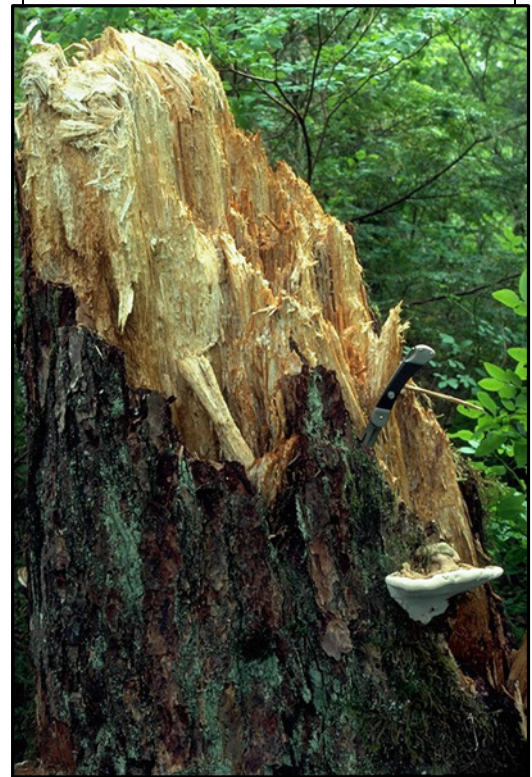
Ganoderma applanatum (Pers.) Pat.

White mottled rot

Artist conk

The 'artist's fungus' because the large, flat basidiocarps are used for paintings. A common decay of living and dead hardwoods in the Pacific NW (aspen, alder and maple). Also on conifers. The upper surface is even light brown; the margin and lower surface are white (when actively growing), turning tan brown.

Notes:



Gloeophyllum sepiarium (Wulf.:Fr.) P. Karst.

Brown cubical sap rot

Rusty gilled polypore or slash conk

On dead hardwoods (throughout NA) and conifers (PNW). Easily recognized by its hirsute (hairy), brown, concentrically zoned upper surface and the gill-like pores.

Notes:



Laetiporus sulphureus (Bull.:Fr.) Murr.

Brown cubical rot

Chicken of the woods

The brightly coloured (orange above, sulfur-yellow below), annual fruiting bodies, produced in large quantities, are edible and by some considered choice. On living and recently killed conifers, particularly hemlock and Sitka spruce.

Notes:



Phellinus pini (Thore:Fr.) Ames

White pitted rot

Red ring rot

A 'true heartrot' on all conifers, but especially common on Douglas-fir, spruce, and pine. In the early stages it produces a red stain in the heartwood, and, in time a pitted white rot. The dark brown basidiocarps, usually situated below branch stubs, are often partially embedded in a callus. Members of the genus *Phellinus* all have some parasitic ability, meaning that they can invade (from the heartwood) and kill living sapwood (particularly in roots, but also in boles). In the case of *P. pini* this can result in cankers on the bole.



Notes:



Phellinus tremulae (Bond.) Bond. & Boris

Aspen trunk rot

A true heartrot found only on aspen, and the main cause of decay in aspen. Often developing before the tree has reached a commercial size. Thus it is the major problem in utilization of aspen. Some clones appear to have some resistance, and hence there may be an opportunity for genetic improvement.

Notes:



Stereum sanguinolentum (Alb. et Schw.:Fr.) Fr.

Red heart rot

Bleeding fungus

The hymenium is arranged as a flat, exposed surface of a paper-thin fruiting body covering the surface of the substrate. When fresh fruiting bodies are bruised, they turn red (sanguine=blood red). Common on slash, but also causing decay in mature, living pine, spruce, and true firs. Entry through wounds.

Notes:



Trametes versicolor (L.:Fr.) Pilat.

White soft stringy hardwood rot

Turkey tail

The most common decay of dead hardwoods in the west. Decayed wood is soft, light in colour, and often exhibits dark zone lines.

Notes:



Trichaptum abietinum (Dicks.:Fr.) Ryv.

Pitted sap rot

Purple pore fungus

The common decay of coniferous sapwood in dead standing or down trees. Produces a pitted white rot. Often associated with *Fomitopsis pinicola*. Pore surface violet when fresh with coarse, sometimes toothed, pores

Notes:



CANKERS

Atropellis piniphila (Weir) Lohman & Cash

Atropellis canker

A canker of hard pines. Symptoms include long, narrow, sunken patches of dead bark with copious resin flow and a blue-black stain in the underlying sapwood. Seldom kills dominant or co-dominant trees, but leads to major reductions in lumber recovery. More common on drought-stressed sites.

Notes:



Hypoxylon mammatum (Wahl.) Mill.

Hypoxylon canker

One of several cankers of aspen. Immature cankers appear yellow and fade to black as they age. The perithecia are formed inside black stromata (crusts of fungal hyphae).

Notes:



Nectria spp.

Nectria canker

Form cankers on several hardwoods. Attempts by the tree to seal of the fungus results in concentric rings of callus tissue and a target shaped canker scar. Abundant red-orange pycnidia (fruiting bodies) on bark near canker.

Notes:

