

Table of conifer stem decays. Stem, butt, and root decay fungi of live conifer trees in Alaska with decay type, hosts, and common modes of infection. Includes the conifers: western hemlock (*Tsuga heterophylla*), mountain hemlock (*Tsuga mertensiana*), western redcedar (*Thuja plicata*), shore pine (*Pinus contorta* ssp. *contorta*), larch (*Larix laricina*) and Sitka, Lutz, white, and black spruce (*Picea sitchensis*, *P. lutzii* [*glauca* x *sitchensis*], *P. glauca*, *P. mariana*).

Decay Fungi ¹	Decay Type	Hosts in Alaska	Mode of Infection	Known Distribution in Alaska
<i>Armillaria</i> spp.	white	all conifers (& hardwoods)	vegetative spread (or spores) to stressed or dead trees	Genetic work to date has detected <i>A. sinapina</i> from SE AK to the Kenai Pen. to the Arctic Circle
<i>Ceriporiopsis rivulosa</i>	white	western redcedar	likely root-to-root contact & subsequent spread into butt	Possibly throughout range of western redcedar and yellow-cedar in SE AK; specifics unknown
<i>Coniophora</i> sp.	brown	spruce, hemlock, larch (occasionally hardwoods)	through wounds	
<i>Echinodontium tinctorium</i>	brown	mountain hemlock (occasionally western hemlock)	through branch stubs or live branches	Found in boreal-coastal forests; in coastal forests north of Haines and Skagway, Mitkof Island
<i>Fomitopsis pinicola</i>	brown	spruce, hemlock, pine, larch; sometimes redcedar & birch	through wounds	Most common conk on dead and down wood in coastal AK
<i>Fomitopsis officinalis</i>	brown	spruce, hemlock, larch	through wounds, broken tops	Semi-rare in old-growth coastal forests of SE AK; specifics unknown
<i>Ganoderma</i> spp.	white	spruce, hemlock (& hardwoods)	through wounds, broken tops	<i>Ganoderma applanatum</i> more common; both distributed throughout SE AK
<i>Heterobasidion annosum</i>	white	western hemlock, Sitka spruce	through wounds	SE AK
<i>Laetiporus sulphureus</i>	brown	spruce, hemlock, shore pine (some hardwoods)	through wounds, basal scars	Common on lower tree boles of snags in SE AK
<i>Onnia tomentosa</i>	white	white/Lutz spruce (occasionally Sitka spruce & shore pine)	through root-to-root contact	Detected NW of Anchorage; work is underway to better map its distribution in SC and Interior AK
<i>Phaeolus schweinitzii</i>	brown	spruce, pine western redcedar, larch, occasionally hemlock	through wounds, basal scars & disturbed roots	Common in coastal spruce forests in SE AK
<i>Phellinus hartigii</i>	white	hemlock	through bole wounds, branch stubs, or cracks	Old-growth coastal forests of SE AK; specifics unknown
<i>Phellinus weirii</i>	white	western redcedar (possibly yellow-cedar)	likely through root-to-root contact & subsequent spread into butt	Possibly throughout range of western redcedar in SE AK (Kupreanof Island south); specifics unknown
<i>Porodaedalea pini</i>	white	hemlock, spruce, western redcedar, shore pine, larch	through branch stubs or live branches	Widespread in coastal forests; detected in boreal-coastal transition forests, less common in boreal forests

¹ Some root rot fungi are included because they are capable of causing both root and butt rot of conifers.

