

Parasites, Pests and Pathogens of Concern in Southeast Alaska and Adjacent British Columbia

Disease	Agent	Affects	Species Affected	Comments	Threat Level	References
MAMMALS						
Chronic Wasting Disease	a prion in saliva		deer, moose, wapiti	Not yet reported from Alaska but needs monitoring	High	
Hantavirus	Sin Nombre virus	cardiopulmonary syndrome	rodents, shrews, humans	Several voles (<i>Microtus</i> , <i>Myodes</i>) have recently tested positive for hantaan-related virus in southeast Alaska	High	
Rabies	a virus		bats, wolf, dog, lynx			
Tularemia	bacterium, <i>Francisella tularensis</i> , from tick-borne flea		beaver, snowshoe hare			
Liver Tapeworm Cysts	cestode <i>Taenia hydatigena</i>		deer, moose, wapiti; wolf-dog intermediate hosts			
Cystic Hydatid	cestode <i>Echinococcus granulosus</i>		adult: wolf, dog; larval form (cyst): deer, wapiti, moose	monitor		
Trichinosis	roundworm <i>T. spiralis</i>		bears, wolf, fox, wolverine, lynx, seals, ground squirrel			
Lungworm	roundworm parasites (e.g., <i>Dictyocaulus</i> , <i>Protostrongylus</i> spp.); snail intermediate host for some, plants in others.		deer, moose			
Dog Louse	<i>Trichodectes canis</i>		wolf, dog			
Canine Parvovirus	a virus		canines, cats, mustelids			
Canine Distemper	a virus		domestic dog to wild canids, mustelids			
Contagious Ecthyma	a virus		mountain goat, humans			
Foot and Mouth	a virus		ungulates	Not yet reported in state; needs to be monitored		
Lumpy Jaw	a bacterium		moose, deer (?)			
Papillomas (warts)	a virus		moose			
Moose Fly	biting fly <i>Haematobosca alcis</i>		moose			
Cryptorchidism	unknown (genetic?)	Malformed genitalia causing sterility	deer			Latch et al. (2008)
BIRDS						
Avian Influenza (H5N1)	virus passed through infected bird fecal droppings, saliva, and nasal discharges		Mainly affects birds; can be passed to other animals and people	monitor	High	
West Nile Virus	mosquito-borne virus in migratory birds			monitor	High	
AMPHIBIANS						
Chytridiomycosis	fungi <i>Batrachochytrium dendrobatidis</i>	Spreads through water courses and amphibian-to-amphibian contact, and possibly by other mechanisms not yet fully understood.	frogs, toad	Recently reported in western toads in Southeastern. Associated with amphibian declines worldwide.	High	

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PLANTS						
a fungus	<i>Chrysomyxa abietis</i>	foliar rust	spruce	Not yet reported in Alaska; monitor	High	
a root fungus	<i>Phytophthora lateralis</i>	roots	cedar	Not yet reported in Alaska; monitor	High	
a fungus	<i>Didymascella chamaecypari</i>		cedars	Not yet reported in Alaska; monitor	High	
a fungal parasite	<i>Seiridium cardinale</i>	foliar and stem cankering	cedars	Not yet reported in Alaska; monitor	High	
a fungus	<i>Cistella japonica</i>	stem canker	conifers(?)	Not yet reported in Alaska; monitor	High	
a fungus	<i>Taphrina betulina</i>	foliar “witch’s broom”	birch	Not yet reported in Alaska; monitor	High	
pine wilt nematode	<i>Bursaphelenchus xylophilus</i>	wilt; sawyer beetles (<i>Monochamus</i> spp.) vector	spruce, pine	Not yet reported in Alaska; monitor		
Spruce Budworm	<i>Choristoneura fumiferana</i>					
Spruce Aphid	<i>Elatobium abietinum</i>					
Western Black-headed Budworm	<i>Acleris gloverana</i>					
Hemlock Sawfly	<i>Neodiprion tsugae</i>					
Spruce Beetle	<i>Dendroctonus rufipennis</i>					
Western Balsam Bark Beetle	<i>Dryocoetes confusus</i>					
Hemlock Dwarf Mistletoe	<i>Arceuthobium tsugense</i>					
Spruce Broom Rust	<i>Chrysomyxa arctostaphyli</i>					
Western Gall Rust	<i>Peridermium harknessii</i>		shore pine			
Sirococcus Shoot Blight	<i>Sirococcus tsugae</i>					
Yellow-cedar Shoot Blight	<i>Apostrasseria</i> sp.					
Tomentosus Root Disease	<i>Inonotus tomentosus</i>					
Annosus Root & Butt Rot	<i>Heterobasidion annosum</i>					
Armillaria Root Disease	<i>Armillaria</i> spp.					
Spruce Needle Rust	<i>Chrysomyxa ledicola</i>					
Gypsy Moth	<i>Lymantria dispar</i>			Not yet reported in Alaska; monitor	High	