

FACTSHEET



New Infestations of Harmful Insects and Diseases are Often First Found in Campgrounds and Parks

British Columbia's ecosystems are vulnerable to the introduction of invasive species that threaten biodiversity. Invasive species can negatively impact native species by competing with them for resources, by predation, parasitism, or the spreading of pathogens and diseases. BC's forests are threatened by invasive insects and diseases that can destroy large areas of trees.

Invasive Species are Excellent Hitchhikers

Invasive insects and diseases can hitchhike within firewood and travel undetected from one location to another. There are 60 million hectares of forest in BC, which provide a huge range of benefits including carbon storage, water and air purification, wildlife habitat, recreation, timber and traditional resource use¹. Invasive species pose a great risk to trees in these forests, parks and green spaces as they can be accidentally introduced by firewood that is brought into new areas from elsewhere. **Don't be fooled by the outside appearance of firewood.** Many life stages of invasive species can seem invisible. Even if you see no signs of the species, it is still not safe to move.

Some Pests Transported by Firewood

Emerald ash borer (*Angrilus plannipennis*)

The species has not yet been detected in BC but has been found in several eastern provinces and many US states. Claimed to have arrived in North America via wooden packaging materials, the Emerald ash borer invades new areas by hitchhiking in firewood.



Debbie Miller, Bugwood.org

Larvae and adults feed on Ash trees (*Fraxinus* spp.), resulting in mortality of infested trees and subsequent loss of ecological, economic, and cultural values. In 2020, the estimated cost of removing and replacing urban street trees at risk, if EAB spread across Canada, was around \$1.384 billion to the year 2035, while rural ash tree losses were about \$38 million².

Asian long-horned beetle (*Anoplophora glabripennis*)

Asian long-horned beetle has not yet been reported in BC but has been found in Ontario. The species has been known to travel long distances hiding in firewood and logs. Asian long-horned beetle feeds on species such as Mountain ash (*Sorbus americana*) and Horse chestnut (*Aesculus hippocastanum*), as well as maple (*Acer* spp.), willow (*Salix* spp.), poplar (*Populus* spp.) and birch (*Betula* spp.) families. Feeding damage stunts tree growth, makes them susceptible to disease, and leads to mortality.



Kenneth R. Law, Bugwood.org



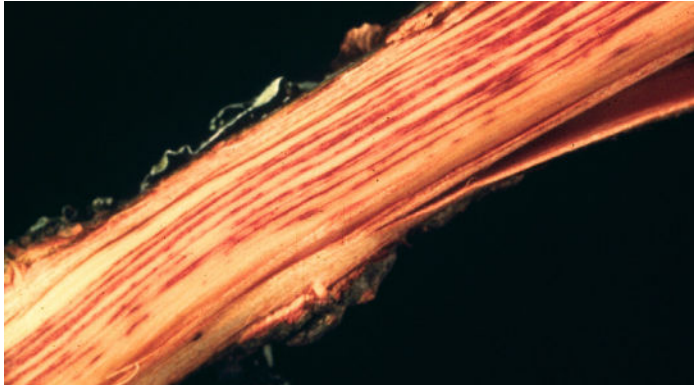
USDA APHIS, Bugwood.org

Spongy moth (*Lymantria dispar dispar*)

Each year small populations of Spongy moth are discovered, but is not established in BC. The species is spreading widely throughout eastern Canada and can be found hitchhiking in firewood. Spongy moth caterpillars have been known to feed on over 300 species of deciduous and coniferous trees and shrubs, including maples (*Acer* spp.), oaks (*Quercus* spp.) and apples (*Malus* spp.). If they were to establish in BC, it would cause significant damage to forestry and nursery industries.

Dutch elm disease (caused by two species of fungi; *Ophiostoma ulmi* and *Ophiostoma novo-ulmi*)

BC is one of the few areas of the world yet to see impacts of Dutch elm disease (DED), and thus is a large exporter of elm saplings (over 10,000 annually). DED is transmitted by several species of Elm bark beetles, some of which are present in southern BC. When beetle galleries become colonized by the DED fungus, they may spread it to new areas as the beetles disperse to feed. Moving firewood poses a significant risk to introducing DED to BC.



Vascular discoloration under bark of infected elm branch. North Carolina Forest Service, Bugwood.org

These are just four examples of many species which can hide in firewood and remain undetected as you transport them from place to place. The best way to ensure you are not transporting invasive species in firewood is to BUY IT WHERE YOU BURN IT!

Best Practices

Be Aware of Movement Restrictions

Moving firewood from places where regulated pests are found can be a violation of the Plant Protection Act, with penalties of up to \$50,000 and/or prosecution. Moving firewood from inside to outside of a regulated area and/or bringing firewood into a national park in Canada is prohibited. Contact your local Canadian Food Inspection Agency (CFIA) office to learn about restrictions that may affect you. Currently, the entire province of BC is a regulated area for Hemlock woolly adelgid (*Adelgis tsugae* (Annand)), meaning no firewood may be moved out of BC³.

Purchase and Sell Firewood That Has Been Heat Treated

Commercially heat-treated firewood has been treated at a standard temperature and duration to kill insects, larvae and fungi, as well as reduce moisture content. Buy this firewood from local retailers whenever possible.

Buy local!

Buy firewood at or near your destination to ensure that you are not introducing invasive pests or diseases.

- Firewood can often be purchased from gas stations and retailers in the closest municipality to your destination during the warmer months.
- Firewood can often be purchased directly from the campgrounds at your destination.

Burn local!

If you accidentally brought any non-local firewood with you, use it first and burn it completely.

- Burning this firewood first will help ensure invasive species do not escape into the surrounding forest.
- Do not store this firewood on the ground. If possible, leave it in your vehicle until it is burned.

Leave local!

Do not transport firewood. If you have firewood left over from your stay, leave it behind for the next visitor.

- Instead of bringing firewood home, leave it at your site. This will help prevent bringing hitchhiking invasive species home with you!

Unattended and out of control campfires can spark disastrous forest fires. Many regions in BC have fire restrictions throughout months when temperatures are warmer. Please be aware of any fire restrictions that are in place at your destination before you go.

- 1 <https://www.nrcan.gc.ca/our-natural-resources/forests-and-forestry/sustainable-forest-management/forest-ecosystem-products-services/13177>
- 2 https://publications.gc.ca/collections/collection_2020/rncan-nrcan/Fo143-2-454-eng.pdf
- 3 <https://inspection.canada.ca/plant-health/invasive-species/directives/forest-products/d-07-05/appendix-1/infested-place-order/eng/1509477446884/1509477563680>
- 4 <https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/animal-and-crops/plant-health/phu-dutchelmdiseases.pdf>
- 5 <https://inspection.canada.ca/plant-health/invasive-species/regulated-pests/eng/1363317115207/1363317187811>
- 6 <https://inspection.canada.ca/about-cfia/contact-a-cfia-office-by-telephone/eng/1313255382836/1313256130232>