Questions and Answers

Q Why does BC Parks leave fallen trees lying on the ground? Why don't they clean up?

A Downed trees are a result of natural events such as windstorms, floods and slides. Through time, a rotting tree provides nutrients and habitat for a host of forest species. All these organisms in turn contribute to the decomposition of wood back into nutrients. In rainforests, where the ground is prone to flooding, downed trees provide critical roles as nurse logs to tree seedlings, ensuring the future of the forest.

Q Why not log dying trees or old trees before they fall or blow down?

A The value of a tree in a forest starts with a seed and continues until it is completely decomposed. When a tree starts to die it is half way through its contribution to the forest. As a standing dying tree, it is very important habitat for insects, birds and denning animals. The overall goal of protected area management is to maintain biodiversity and ecosystem functions. The removal of dying trees can impoverish the ecosystem of species that rely on wildlife trees. More than 80 species of animals depend on wildlife trees for food, shelter, or nesting sites.

Q How safe are these dead trees and snags?

A BC Parks staff monitor dead trees on an on-going basis and are trained in danger tree assessment. In high public use areas, staff might survey the area and fall any problem trees in immediate danger of falling. There is always some risk involved in walking on any forested trail. However, the normal chances of injury increase dramatically when strong winds blow through the protected area. During a strong wind you should be very cautious walking in any forest.

Q How will insect attacks in protected areas affect adjacent lands or working forest?

A BC Parks must take into account values held for lands outside provincial protected areas. Where adjacent land or timber values are threatened by insect attacks, BC Parks looks at various management tools, such as prescribed fire or insect traps to ensure adjacent landowners concerns are addressed.

Q Does BC Parks use insecticides?

A Insect attacks of trees are one of the many natural agents of change in an ecosystem. Ecosystems are dynamic places and require disturbances to maintain diversity of habitats, such as dead and decaying trees and new growth. Spraying stops natural processes from occurring. It may also kill species other than the problem insect. Wherever possible BC Parks will avoid spraying in protected areas to maintain a diversity of insects and their predators. Having a diversity of species is the best way to ensure forest health over time.

Q Does BC Parks have a different management policy in campgrounds and other intensive use areas compared to backcountry areas?

A Campground areas and park facilities require a management approach that takes into account the pressures of visitors in small localized areas. Management is designed to balance natural values, safety and operational needs. Management activities and facilities also are directed to prevent degradation of the local environment.

For More Information

BC Parks

http://wlapwww.gov.bc.ca/bcparks

BRITISH COLUMBIA

Ministry of Water, Land and Air Protection

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Natural Cycles of Change

PROTECTED AREAS

Many visitors to provincial protected areas are curious about why trees are left to lie on the ground or insect attacks are sometimes left unchecked. This brochure provides information on the ecological importance of these natural processes.

Natural Cycles of Change

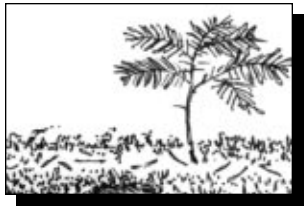
As you walk through provincial protected areas, you might notice signs of natural disturbances: fire scars, fallen logs, lighting strikes, ice-shattered branches or trees dying from insect attacks. You are seeing the evidence of how an ecosystem renews itself. Different places have their own distinctive natural cycles of change. Fire, wind, floods, ice, and insects are all agents of change. Some of the changes happen slowly, others are more rapid. The type and scale of change varies with the terrain and climate of the region.

These cycles of change have ensured:

constant recycling of nutrients to the ecosystem,

gaps for young trees to grow,

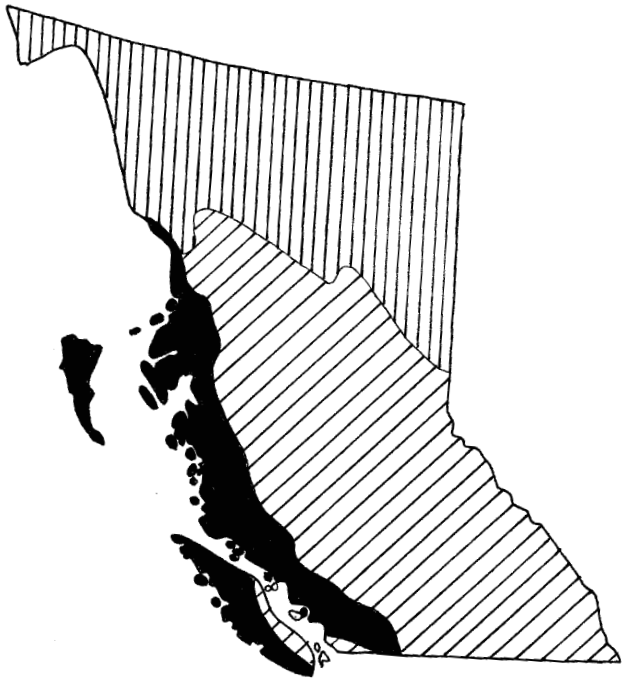
diverse habitats for animals,



opportunities for different stages of ecosystem renewal.

Different Cycles of Change for Different Ecosystems

Ecosystems are natural communities of plants, animals and microorganisms that share a living environment in a sustaining and interdependent way over time.



Coastal Temperate Rainforest

Change happens very slowly but constantly in a West Coast rainforest. A stand can take as long as 1200 years to be completely renewed. If you were to live in a rainforest during the winter, you would witness a few old trees falling down as a result of a high wind or a flood. This creates spaces or gaps in the forest that allow light to reach the forest floor.

By the following spring, a new succession of different plants starts to grow up in the gap. Salmonberry or alder spring up in thickets and enrich the soil with nitrogen. Fungi, insects and other animals slowly break down the wood. Over time, the fallen tree becomes a nurse log to young tree seedlings. After many decades, dominant trees break through the canopy where the gap had been formed, ready to start the cycle again.

Northern Forests

In northern forests, cycles of change reflect the force of winter storms. Frost-shattered branches are signs of freezing and thawing cycles. Winds or avalanches knock down many exposed stands; branches break under the weight of ice and snow. These natural events provide niches for new trees, and nesting or denning habitat for animals.

Fire plays a dominant role in renewal. Due to long, cold winters, fallen wood decays slowly, leaving more fuel. Although short, the Northern spring and summer seasons can be dry and hot. Fire cycles vary from frequent, mild fires to occasional intense fires affecting large areas.

Interior and Coastal Dry Forests and Grasslands

In the Interior, and the Georgia Basin, there are dry open forests and grasslands. These ecosystems are normally renewed through fire and insect attacks. Changes are rapid, dynamic and occur frequently. The average fire frequency in these systems generally ranges from four to forty years.

Fire history is revealed by fire scars on tree growth rings. Typically, fires occur during or after a hot summer. A fire might sweep across the land burning ground cover, young seedlings and fallen limbs. The fire might stop as quickly as it started at natural boundaries such as wetlands or old fire edges. Insect attacks spread in much the same way as fire.

Many provincial protected areas have landscapes traditionally renewed by fire and insects forming a patchwork of grasslands and forests of different ages. Plants and animals have adapted to this dynamic landscape, benefitting from the new habitat and new ecological communities that replace the old.