Invasive species in Canada

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The threat of invasive species

Invasive species are plants, animals, aquatic life and micro-organisms that outcompete native species when introduced outside of their natural environment and threaten Canada's ecosystems, economy and society. They can come from across the country or across the globe.

In Canada, there are hundreds of invasive species including insects, birds, mammals, reptiles, amphibians, crustaceans, aquatic and terrestrial plants, marine and freshwater fish, algae, fungi, and molluscs. About 10 per cent of all plants are also considered invasive species.

Some better known examples of invasive species in Canada include the emerald ash borer, zebra mussels, sea lamprey and purple loosestrife.

Invasive species generally share common characteristics which can make them difficult to control and contain. These characteristics include higher rates of reproduction, fewer natural predators and the ability to thrive in different environments.

Environmental, social, and economic effects

Invasive species are a serious threat to biodiversity in Canada. They create an imbalance in nature by competing for the same resources that native species need to survive. Like a ripple in a pond, their impact is far-reaching.

New species are continually arriving in Canada. In the Great Lakes alone, a new species is discovered approximately every six to nine months. If given the opportunity, these new species could become invasive and do widespread damage by:

- negatively impacting biodiversity;
- competing with native species until they become threatened, endangered, extirpated or extinct;
- degrading and eroding soil;
- degrading water and habitats;
- altering infrastructures;
- introducing disease;
- reducing land and water recreational opportunities;
- increasing control and management costs;
- reducing productivity in forestry, agricultural, and fishing sectors;
- having export and import trade restrictions imposed; and

• reducing property values.

Introducing and spreading invasive species

Invasive species are a cost of globalization. They are introduced and spread through various pathways, including:

- goods such as firewood, plant products or wood packaging;
- live food imports;
- aquarium and horticultural imports;
- vehicles such as aircraft, commercial and recreational boats;
- ballast water from large ships; and
- diseases in wildlife.

Key terms

- An Invasive Alien Species Strategy for Canada In September 2004, the federal government and its provincial and territorial counterparts introduced this strategy to reduce the risk of invasive species and conserve our ecosystems.
- **Biodiversity** Variability among living organisms from all sources including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems.
- **Convention on Biological Diversity** A convention signed by world leaders at the 1992 Earth Summit in Rio de Janeiro. The key objectives of the convention are the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources.
- **Ecosystem** A self-sustaining community that consists of a dynamic set of living organisms interacting with each other and with their environment.
- **Ecosystem Diversity** The variety of plants, animals, and micro-organisms that are found in an ecosystem.
- **Endangered species** A wildlife species that is facing imminent extirpation or extinction.
- Extirpated species A wildlife species that no longer exists in the wild in Canada, but exists elsewhere in the wild.
- **Habitat** Location where a plant, animal, aquatic life or micro-organism naturally lives and grows.
- **Invasive Species** A species of plant, animal, aquatic life or micro-organisms that outcompetes native species when introduced outside of its natural environment and threatens ecosystems, economy and society.

- **Pathway** The route or mechanism by which an invasive species arrives or spreads in a country or in a region.
- **Pest** Any species, strain, or type of plant, animal, or pathogenic agent (disease-causing agent, such as a virus or bacterium) that can damage plants or plant products.
- **Species** A classification of a plant, animal, or micro-organism within a group that has distinct characteristics and reproductive processes.
- **Species at risk** An extirpated, endangered or threatened species, or a species of special concern designated under Canada's Species at Risk Act..
- **Species of special concern** A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.
- **Threatened species** A wildlife species that is likely to become an endangered species if nothing is done to reverse the factors leading to its extirpation or extinction.