

These notes are posted on my site for the following reasons:

- for students to copy in their own hand-writing
 - ◆ in order to complete their class notes
 - ◆ if student did not have enough time in class
 - ◆ if student was away and missed this section
- for assistants and tutors to follow progress of the concepts taught

Photocopied/printed notes can not be used during the Unit Notebook Check in class.

ndupuis@sd61.bc.ca dupuis.shawbiz.ca

3.3 How Introduced Species Affect Ecosystems



- **Native species** are plants and animals that naturally inhabit an area.
 - ◆ Because of the immigration to North America by many people from other continents over the past 400 years, many new species have been introduced accidentally (and on purpose) here.
 - These new species of plants and animals are called **introduced species**
 - Aka foreign species, non-native species, exotic species or alien species.
 - Many of these species are harmless, or sometimes even beneficial.
 - An invasive species, such as Purple Loosestrife, negatively impacts native species, and often reduces biodiversity as a result.

The European leaf-feeding beetle (left), and the Purple Loosestrife.



See pages 138 - 139

(c) McGraw Hill Ryerson 2007

The Impact of Introduced Species



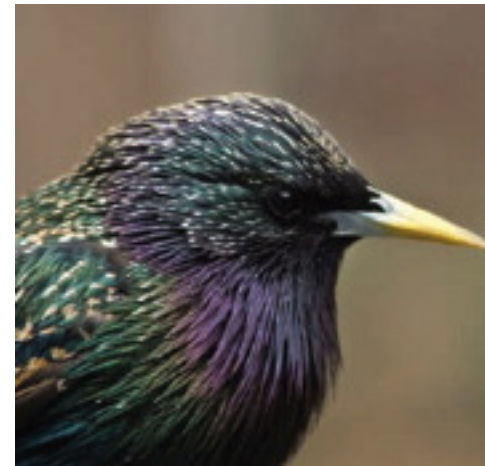
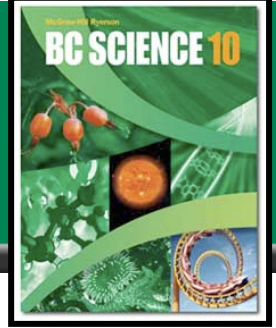
- **Invasive species often take advantage of their new habitat.**
 - ◆ They may have no predators, are aggressive competitors, and reproduce fast.
 - ◆ **Competition:** while the native species have an established balance, the invasive species can throw off this balance.
 - ◆ **Predation:** if the invasive species is a predator, it may have a huge advantage, as the native species may have no methods to survive.
 - ◆ **Disease and Parasitism:** by weakening certain species, a micro-organism invading an ecosystem can drastically alter the entire ecosystem and the niches within it.
 - ◆ **Habitat Alteration:** some invasive species can change the physical structure of the ecosystem by digging, burrowing, blocking sunlight or changing the chemistry of the ecosystem.

The sea lamprey



See pages 140 - 141

Invasive Species in British Columbia



See page 142

Saving an Ecosystem Under Siege



- **It often takes human intervention to save established ecosystems.**
 - ◆ The Garry Oak Ecosystem Recovery Team (GOERT) is trying to save several areas of the Garry Oak ecosystem in BC.
 - ◆ 95% of the original ecosystem has been lost to urban development, and the remaining 5% is threatened by invasive species.
 - ◆ Garry Oak trees are a keystone species.
 - ◆ Scotch broom, English ivy and other plant species are its biggest threats.
- **GOERT has representatives from many groups.**
 - ◆ The BC government, First Nations, conservationists, scientists and businesses believe this work is critical.
 - ◆ Garry Oak forests may be better suited to survive in the future than Douglas fir forests.



See page 143

[Take the Section 3.3 Quiz](#)

(c) McGraw Hill Ryerson 2007