



# The Future of Biodiversity

## 'Species at Risk'

# Saving Species One at a Time

- Captive-breeding programs
  - Hope of reintroducing such species back into the wild
  - Ex. condors
  - Preserving genetic material
    - Germ plasm is any form of genetic material
    - Used for future use in research and species-recovery efforts
  - Zoos, aquariums, parks and gardens
  - Typically, a last resort for a species' survival
- More study needed

# Preserving Habitats and Ecosystems

- The most effective way to save a species
- More species can be targeted in conservation efforts
- Focus on hotspots and those areas that are linked to larger networks

# Legal Protection for Species

- Such laws protecting species are recent
- Endangered Species Act
- Habitat conservation plans attempts to target certain species across large areas of land through trade-offs and cooperative agreements
- International agreements happen through the IUCN (International Union for the Conservation of Nature)
  - Red lists
  - CITES (Convention on the International Trade in Endangered Species)
  - The Biodiversity Treaty from the Earth Summit



### The 10 most recent animal extinctions in Canada

These creatures have either died out entirely or are extirpated from Canada

by [Blog of Lists](#)



**COSEWIC...**  
**Committee**  
**On the**  
**Status of**  
**Endangered**  
**Wildlife**  
**In**  
**Canada**

## Species of Risk Levels...

There are seven different designations that COSEWIC uses to determine the level of risk for a species. Under the SARA, COSEWIC uses seven categories to indicate the level of danger an at-risk species currently faces:

**Extinct** - a species that no longer exists anywhere on Earth.

**Extirpated** - a species that no longer exists in the wild in Canada, but is still living in other areas of the world.

**Endangered** - a species that is facing imminent extirpation or extinction.

**Threatened** - a species that is likely to become endangered if nothing is done to reverse the factors leading to its extirpation or extinction.

**Special Concern** - a species that may become threatened or endangered because of a combination of biological characteristics and identified threats.

**Data Deficient** - a category that applies when there is not enough available information to determine if the species is at risk or not.

**Not at Risk** - a species that is not at risk of extinction.

**NOTE: SARA**  
'Species at Risk Act'

## Species at Risk in Canada

- Since the arrival of the first European settlers, more than 30 wildlife species have become extinct in Canada.
- At present, over 500 plant and animal species are considered at risk in Canada.
- Everywhere in Canada, people are engaged in recovery activities that benefit more than 200 species.
- All Canadians can take simple actions every day to help species at risk.





### THE NUMBERS

This chart indicates the number of species in each of the

10 taxonomic groups from the SARA list that are of Special Concern, Threatened, Endangered or Extirpated.



	Mammals	Birds	Reptiles	Amphibians	Fishes	Arthropods	Molluscs	Vascular plants	Mosses	Lichens
SPECIAL CONCERN	17	19	9	7	25	5	4	26	4	3
THREATENED	13	20	13	6	12	6	1	51	3	2
ENDANGERED	18	27	14	7	26	18	13	91	7	2
EXTIRPATED	4	2	4	1	3	3	2	3	1	0

COSEWIC assessments results with range of occurrence (by province, territory, or ocean), november 2013.

Common name (population)	Taxon	Status	YT	NT	NU	BC	AB	SK	MB	ON	QC	NB	NS	PE	NL	Arctic Ocean	Pacific Ocean	Atlantic Ocean
Little Brown Myotis	Mammals	Endangered	X	X		X	X	X	X	X	X	X	X	X	X			
North Atlantic Right Whale	Mammals	Endangered																X
Northern Myotis	Mammals	Endangered	X	X		X	X	X	X	X	X	X	X	X	X			
Tri-colored Bat	Mammals	Endangered								X	X	X	X					
Plains Bison	Mammals	Threatened				X	X	X										
Steller Sea Lion	Mammals	Special Concern				X											X	
Wood Bison	Mammals	Special Concern	X	X		X	X		X									
Piping Plover <i>circumcinctus</i> subspecies	Birds	Endangered					X	X	X	X								
Piping Plover <i>melodus</i> subspecies	Birds	Endangered									X	X	X	X	X			
Short-tailed Albatross	Birds	Threatened				X											X	
Grasshopper Sparrow, <i>pratensis</i> subspecies	Birds	Special Concern								X	X							
Harlequin Duck (Eastern population)	Birds	Special Concern			X						X	X	X		X			



## B.C. humpbacks lose 'threatened' status, opening door for Northern Gateway



### CTV National News: Politics vs. preservation



Omar Sachedina explains why downgrading the extinction threat of humpback whales is about politics and preservation.

### Power Play: Eliminating red tape for pipeline



Mark Matton, Lake Ontario Waterkeeper president, says downgrading the status of humpback whales removes barriers for the Gateway pipeline.

### CTV News Channel: Humpbacks not threatened



Keith Stewart of Greenpeace says political considerations are the main reason for the whales' removal from the threatened species list.

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