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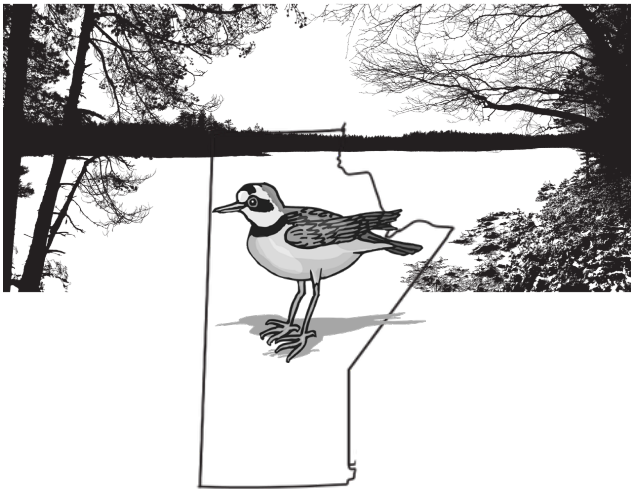
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## Factors of an Ecosystem

This activity was created by Kajal.

An **Ecosystem** is a geographic area made up of abiotic and biotic factors that interact with each other. It consists of animals, plants, organisms, rocks, temperature, humidity, etc. All of these factors work together to form an ecosystem. This is a delicate balance so if something goes wrong, everything in the ecosystem is affected. This is why we must preserve our ecosystems.

A larger problem can be broken down into smaller problems. Let's look at these smaller solutions as functions. In programming, a **FUNCTION** is a part of the program that accomplishes a goal and can be called over and over again. Some functions for the management and preservation of an ecosystem and species are: environmental, economic and social.



ENDANGERED

**Species:** Piper Plover.

**Habitat:** Lakeshores and saline wetlands of southern Manitoba.

**Location:** In Manitoba, Piper Plovers are most consistently found nesting on broad beaches along Lake Winnipeg, Lake Manitoba, West Shoal Lake, and occasionally Oak Lake and Whitewater Lake.

Fill out the missing sections of the functions below with ideas of how we can help preserve the Piper Plover.

**Function name:** environmental

**Goal:** environmental ways to help preserve Piper Plovers.

**Ways this can be done:** protect their nests (maybe fence them off?)

**Function name:** economic

**Goal:** economic ways to help preserve Piper Plovers.

**Ways this can be done:**

**Function name:** social

**Goal:** social ways to help preserve Piper Plovers.

**Ways this can be done:**

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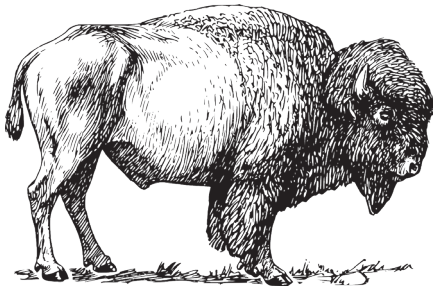
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Each species listed below is or was native to Manitoba. List some environmental, economic and social factors that contribute to the situation of the species.

There are 4 types of species:

1. Extirpated species: have disappeared across Manitoba.
2. Endangered species: vulnerable to disappear across Manitoba.
3. Threatened species: native species that may become endangered due to declining numbers in Canada.
4. Special concern species: species that would become threatened or endangered if factors do not improve.

#### EXTIRPATED



**Species:** Plains Bison

**Habitat:** The Canadian range of plains bison once extended over the prairies, including grasslands, shrub-lands and some woodland areas. However, plains bison currently exist in regions containing suitable grasslands and meadows.

**Potential causes:**

#### ENDANGERED

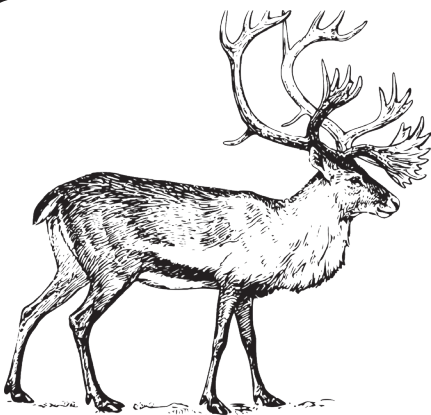


**Species:** Peregrine Falcon

**Habitat:** Prefer open habitats such as tundra, grassland, sea coasts and marshes, but will also hunt in open forests. Their nests are built on ledges of steep cliffs. In areas where humans live, peregrines often nest on tall buildings with ledges. Pairs maintain a nesting territory of at least one kilometer radius.

**Potential causes:**

#### THREATENED



**Species:** Boreal Woodland Caribou

**Habitat:** Inhabit lichen-rich areas of the boreal forest, preferring mature pine, black spruce and tamarack forests, intermixed with peatland complexes. Large tracks of undisturbed habitat are required.

**Potential causes:**