

By completing this research and reflection activity, students will partially meet Course Outcome:

### **ES20-TE3**

#### **Recognize the need for intact habitat to support animal populations and biodiversity.**

##### **By addressing Course Indicators:**

- (a) Justify the need for habitat protection and restoration in terms of biodiversity (e.g., genetic diversity, species diversity and habitat diversity) and resilience within ecosystems both locally and globally.
- (d) Explain the roles of individuals, governmental and non- governmental organizations such as the Saskatchewan Prairie Conservation Action Plan, Ducks Unlimited and the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), and legislation such as the Species at Risk Act (SARA) in protecting and maintaining habitats and biodiversity.
- (f) Correlate the range and habitat of various animals with Saskatchewan's ecozones and ecoregions and identify changes to an animal's range and habitat due to human activities such as agriculture, mining, oil and gas development, forestry, urbanization and recreation.
- (g) Discuss the implications of the competitive exclusion principle with respect to animals and plants in an ecosystem, including the introduction of invasive species and the potential for shifting ecozones due to climate change.
- (j) Provide examples of projects undertaken to restore damaged or destroyed habitats.

1. The Brightwater Science, Environmental and Indigenous Learning Centre is located on approximately 65 hectares of native prairie, lowland and wetlands. Hypothesize how the species of plants and animals would be different on this land if the land was not protected by the land owners. Also, discuss how the human use of this land would be different.
2. Provide information regarding the following organizations and legislation, including how each protects and maintains habitats and biodiversity:
  - i. Ducks Unlimited
  - ii. Committee on the Status of Endangered Wildlife in Canada (COSEWIC)
  - iii. Species at Risk ACT (SARA)
3. Select a Saskatchewan keystone species. Discuss the species' normal range and habitat. identify changes to the species' range and habitat due to human activities such as agriculture, mining, oil and gas development, forestry, urbanization and recreation.