

Web of Life Cheat Sheet

Prairie Ecosystem	
ELEMENTS	LINKS AND FACTS
ABIOTIC	
Soil	<ul style="list-style-type: none"> • Prairie soils can be very fertile but with regular drought they are prone to erosion if grass cover is removed.
Sun	<ul style="list-style-type: none"> • Sun is important for the growth of rich grasslands. However, in combination with wind it is capable of evaporating more water during the average year as compared to what the clouds bring as rain or snow.
Water	<ul style="list-style-type: none"> • Prairie areas are often semi-arid. Water is rarely abundant and most species have some kind of mechanism to deal with drought. Plants may grow very deep roots and many animals get all the water they need from their diet.
BIOTIC	
Ferruginous Hawk	<ul style="list-style-type: none"> • This species of hawk prefers open prairie, badlands and ranchlands. • In Alberta, the prairie is relatively abundant in the correct habitat but as habitat type is declining as a result of agriculture, there is concern for the long-term stability of this bird. • The Ferruginous Hawk feeds on small mammals, birds and reptiles.
Western Prairie Rattlesnake	<ul style="list-style-type: none"> • The most recognizable feature of this snake is that it can rattle its' tail when it feels threatened. • Its bite is venomous, but not normally fatal in adults. • It gathers in large dens or hibernacula for the winter. Dens are often abandoned diggings of badgers or prairie dogs. • It will eat small mammals (mice, kangaroo rats, baby rabbits, prairie dogs, lizards and birds).
Sage grouse	<ul style="list-style-type: none"> • The Sage grouse is one of the few species of birds or mammals that can actually eat and digest sage. • It is famous for its spring mating ritual where males gather in traditional areas called leks, dancing, and displaying puffed up feathers and red expandable patches on their necks. • The population is declining across their Canadian range.
Mixed grass prairie	<ul style="list-style-type: none"> • This is the most extensive grassland type on the Great Plains including Grasslands National Park. • It is composed of a variety of grasses, some short and some medium in height, including Needle-and-thread grass, blue Gramma grass, June grass, and Western wheat grass.
Sagebrush	<ul style="list-style-type: none"> • This is a drought tolerant plant found in prairies and deserts across North America. • It contains chemicals that taste unpleasant, protecting them from browsing animals. • It is an important food source for sage grouse, one of the few species evolved to eat this plant.
Black-tailed prairie dog	<ul style="list-style-type: none"> • This is a very social mammal that lives in large colonies called "towns". • They are native to shortgrass prairie and have suffered decline or local extirpation throughout their range. • It is important to the prairie community because other prairie animals

	<p>such as burrowing owls quickly take up its abandoned burrows.</p> <ul style="list-style-type: none"> • The Black-tailed prairie dog eats grasses, roots, leaves and flowers. They do not need to drink water because they get enough moisture from their diet.
Loggerhead Shrike	<ul style="list-style-type: none"> • The Loggerhead Shrike is a predatory songbird found in prairies and ranchlands. • It eats other songbirds, insects, small mammals and reptiles. • It has a hooked beak that is similar to hawks and other birds of prey. • This bird has a peculiar habit of displaying prey items on thorns barbs and branches.
Pronghorn Antelope	<ul style="list-style-type: none"> • The Pronghorn Antelope is the fastest land animal in North America. • It is a poor jumper but can slip easily under fences if the bottom wire or rail is raised. • It is very curious and will often investigate anything unusual on the landscape. • Adults have very few predators. • The female Pronghorn Antelope stash newborns in the prairie grass and ignore them for most of the day. If a predator comes, the females will often leave the area where their fawns are hidden. • Newborns are most susceptible to predation and are hunted by golden eagles and coyotes. • Pronghorn will often 'race' along a vehicle and then suddenly speed up and jump across the path of the vehicle. •
Prairie Crocus	<ul style="list-style-type: none"> • This species is one of the first flowers to bloom in the early spring. • The stems and buds are covered with fuzzy hairs that decrease the movement of cool spring winds. • Flowers track the movement of the sun each day to maximize warmth. The inside of the flowers can become several degrees warmer than the surrounding air, making a warm and inviting spot for early spring bees and flies that pollinate this plant.
Western Prairie Fringed Orchid	<ul style="list-style-type: none"> • This is one of many rare orchids that can be found in the short grass prairie particularly in places that have never been broken for cultivation. • It will not survive without a special fungus it requires around its roots; this makes transplantation almost impossible.
Burrowing Owl	<ul style="list-style-type: none"> • Unable to dig its own burrows effectively, it relies on abandoned dens and digging of badgers, foxes and coyotes. • The population is declining across North America. • It migrates south to Texas, Mexico and other unknown locations. • It eats grasshoppers and small rodents.
Swift Fox	<ul style="list-style-type: none"> • This small fox of the prairies has been in serious decline or extirpated across most of its range. Enormous effort to breed and reintroduce this fox has had some success in Alberta and Saskatchewan, including Grasslands National Park. • Coyotes prey upon this species and also compete with them for food. • Swift fox will accept an abandoned den of a badger instead of digging its own.
Badger	<ul style="list-style-type: none"> • Badgers are often hunted and removed from the land by farmers and ranchers because of the prolific holes that they dig and their aggression if they are cornered. • Female badgers can maintain dozens of active dens at once.

	<ul style="list-style-type: none"> • They hunt for prairie dogs by digging up their “towns”. • Abandoned dens become dens for coyotes, burrowing owls and swift fox.
Eastern Short Horned Lizard	<ul style="list-style-type: none"> • This species of lizard is only found in the prairies and badlands of the southern parts of central Canada. They are more commonly found in the US. • The Eastern Short Horned Lizard will eat hundreds of ants each day. • It maintains small territories. • To protect itself from predators, this lizard will become very still and rely on camouflage or cryptic coloration to avoid confrontation.
Ecosystem Processes	
Herbivory	<ul style="list-style-type: none"> • Prairie ecosystems are adapted to some level of herbivory that was historically provided by large herds of bison.
Competition	<ul style="list-style-type: none"> • Recent studies have indicated that in Alberta, coyotes and swift fox directly compete with each other for resources. Coyotes will kill foxes if they encounter them.
Fire	<ul style="list-style-type: none"> • Prairie ecosystems are adapted to periodic fire. Roots deep below the ground are not affected by moderate intensity fire, and burned areas quickly “flush” or regrow. • The suppression of fire in grassland ecosystems is contributing to the decline in biodiversity.
Mutualism/Symbiosis	<ul style="list-style-type: none"> • Many species of grass, orchids and other prairie plants rely on the presence of beneficial fungus around their roots in order to obtain required nutrients and remain vigorous.