

LITTLE WYOMING

ECOSYSTEM ENGINEERS

Engineers alter landscapes so humans can thrive. Before engineers designed the roads, bridges, dams and buildings that we now see around us, the areas in which we live looked and functioned very differently! Many animal species engineer their environments to function in a way that helps them thrive. Animal species that make significant modifications to their environment are called ecosystem engineers.

An Engineered Landscape

Ecosystem engineers can be found in different habitats all around the world, but they all cause significant changes by making the landscape more suited for their needs. In doing so, they create habitat features that often also benefit a multitude of other plant and animal species. Even ecosystem engineers as small as ants or termites can alter the landscape in ways that persist for millennia, long after the species has disappeared from the area.

Building Dams

Beavers build their homes in streams and rivers by creating a dam made out of sticks, mud and other natural materials. When a water source is dammed, it creates a deep pool of water behind it. These deep pools allow beavers to dive to avoid predators. Deep water also doesn't freeze solid like shallow water does, so beavers can keep a cache of food at the bottom of their pools that they can access all winter.

Creating Wetlands

Seventy-five percent of animals in Wyoming heavily rely on wetlands and riparian areas. Yet, wetland habitat only accounts for 1.5% of the land area in Wyoming! When beavers build their dams in riparian areas, they slow down and spread out the flow of water, which benefits the landscape on a large scale by recharging groundwater reserves and reducing the effects of flooding and erosion. These beaver-created wetlands attract and sustain a flourishing population of native fish, plants, insects, waterfowl and mammals.

