

# Tundra Food Web Cards

## Sun

I am the sun. *Everything* on earth depends on me. And in my hands I hold the web of life.

## Water

I am water. *All living things* need me to survive. Most plants and animals find me pooled in small depressions on top of the soil. I cannot seep into the hard frozen permafrost of the tundra.

## Air

I am air. I am made up of oxygen and nitrogen. I am very important to *all living things*. *Fish*, which do not breathe air directly, get oxygen from the water. It is important to keep me clean because pollution in the air is harmful to all creatures.

## Soil

I am soil. I am very important to *all living things*. *Plants* use the nutrients in me to grow. Only the top six inches of me thaws in the summer. *Animals* get their nutrients from plants. When living things die, they decompose and form a spongy layer on top of me called peat.

## Zooplankton

I am *zooplankton*. I like to eat *detritus*, *phytoplankton*, and other *zooplankton*. I am eaten by lots of different animals, including *small fish*, *crabs*, *worms* and *snails*. I can be found in the small pools of water scattered across the tundra.

## Phytoplankton

I am phytoplankton. I use *sunlight* to produce my own food. Many different organisms like to eat me, including *aquatic worms*, *zooplankton*, and *insect larvae*. You can find me floating in the small pools of water scattered across the tundra.

## Lichen

I am lichen—part algae, part fungus. I use *sunlight* and nutrients in the *soil* to grow. I am one of the main diets of the *caribou* that nibble on me year round!

## Detritus

I am detritus—dead plant material. When I was a live plant, I used *sunlight* to produce my own food. When I died, I decomposed into a material that feeds lots of other animals. *Zooplankton*, *insect larvae*, *grasshoppers*, and *beetles* eat me.

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## Cloudberry

I am cloudberry. I use *sunlight* and the *nutrients* in the soil to grow. *Ptarmigan*, *Arctic foxes*, *Arctic hares*, and *lemmings* eat my ripe berries in the fall.

## Cotton Grass

I am a cotton grass. I use *sunlight* and the nutrients in the *soil* to grow in clumps across the tundra. I provide shelter and nesting material to many small animals. *Lemmings*, *Arctic hares*, and *musk ox* nibble my delicate shoots and eat my seeds.

## Mosquito/Insect Larva

I am an insect larva. I hatch from an egg my parent laid on the *cotton grass*, *cloudberry*, or in the *water* of the small wetlands pools scattered across the tundra. I eat *zooplankton*, *phytoplankton*, and *detritus*. Tundra shorebirds like the *Pacific-Golden Plover*, the *Buff-breasted Sandpiper*, and the *Dunlin* time their arrival at the yundra just when I am hatching because I give them lots of energy to raise their chicks.

## Ptarmigan

I am a ptarmigan. I eat *cloudberry*, *cotton grass seed*, and *insect larva*. *Arctic fox*, *gray wolf*, and *snowy owl* all try to make a meal of me. Thank goodness for camouflage! There aren't many places to hide from predators on the flat, barren tundra landscape.

## Lemming

I am a lemming. I eat tundra plants like *cloudberry* and *cotton grass* and *insect larvae*, *beetles*, and *grasshoppers*. I have to watch out for *Arctic foxes*, *gray wolves*, and *snowy owls*—tundra predators that eat me.

## Arctic Fox

I am an Arctic fox. I eat almost anything smaller than myself. I chase tundra shorebirds like *Pacific Golden-Plover*, *Buff-breasted Sandpiper*, and *Dunlin*. I will also eat *lemming*, *ptarmigan*, *Arctic hare*, and even *beetles*, *grasshoppers*, and the berries of the *cloudberry* plant!

## Caribou

I am a caribou, the wild relative of the reindeer. Even though I am one of the largest animals on the tundra, I survive by nibbling the *lichen* growing on the rocks scattered across the landscape. While I graze, I keep a careful watch for *gray wolf* which tries to catch the young and weak members of my herd.

## Pacific Golden-Plover

I am a Pacific Golden-Plover. Like other tundra shorebirds, I feast on *insect larvae*, *beetles* and *grasshoppers*. *Arctic fox*, *gray wolf*, and *snowy owl* prey on my chicks and me.

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## Buff-breasted Sandpiper

I am a Buff-breasted Sandpiper. I use *lichen* and *dead willow leaves* to line my nest. I eat *beetles*, *grasshoppers*, and *insect larvae*. Sometimes *caribou* trample my nest and eggs as they slowly graze across the tundra.

## Dunlin

I am a Dunlin. I feed on the abundant supply of tundra insects—*beetles*, *grasshoppers*, and *insect larvae*. My camouflage helps hide me from the *Arctic fox*, *gray wolf*, and *snowy owl* which like to eat my chicks and me.

## Beetle

I am a beetle. I eat whatever I can find including the bodies of dead animals! Mostly I feed on *insect eggs and larva*, *detritus*, *cotton grass*, *cloudberry*, and other tundra plants. In turn, I am food for *Arctic fox*, *Pacific Golden-Plover*, *Buff-breasted Sandpiper*, and *Dunlin*.

## Grasshopper

I am a grasshopper. I feed on tundra plants like *cloudberry*, *cotton grass*, and *dwarf willow*. *Arctic fox*, *Pacific Golden-Plover*, *Buff-breasted Sandpiper*, and *Dunlin* eat me.

## Dwarf Willow

I am a dwarf willow. I offer shelter and protection to many tundra birds and small animals. *Ptarmigan*, *grasshopper*, *caribou*, *lemming*, and *Arctic hare* eat my tender buds.

## Snowy Owl

I am a snowy owl. I hunt from above, soaring in search of *lemming*, *arctic hare*, *Arctic fox kits*, *Pacific Golden-Plover*, *Buff-breasted Sandpiper*, *Dunlin* adults and chicks, and *ptarmigan*. Few tundra predators can catch me, but *gray wolf* will eat me if he can.