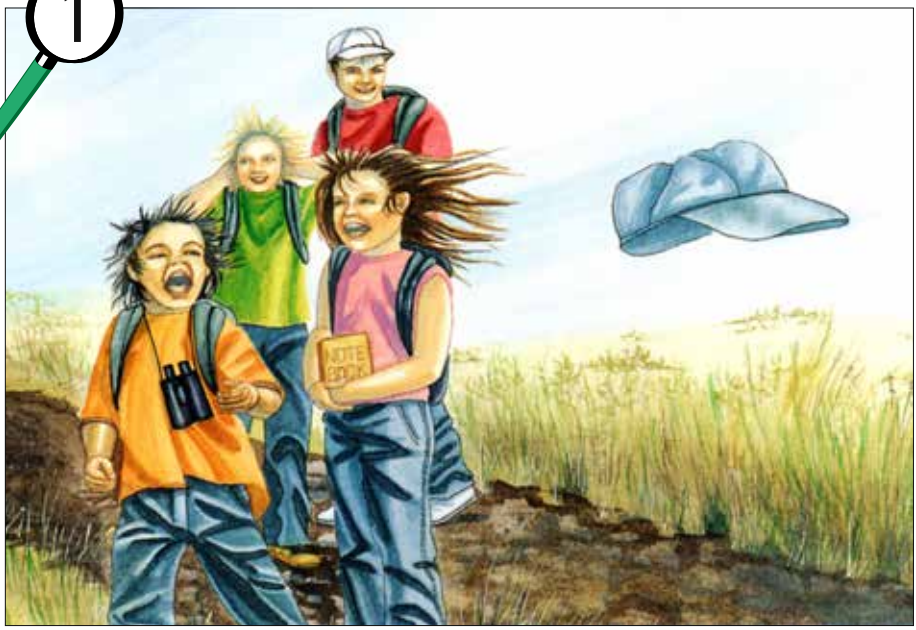
CHAPTER 1

The Dry Life



Early one summer morning, Tim and the Gibson Gang walked to the edge of town. From there, they took a trail that stretched far across a huge, grassy field. As they walked, their footsteps raised dust.

"The ground is really dry," said Christie.

"This wind will make it drier," said Mike as a strong breeze almost blew off his cap.

"It's too dry for a forest and too moist for a desert," said Tim. "But it's just right for a grassland. Plants that grow here are suited to dry soil. Whenever it rains, their roots can take in **moisture** fast."

"Even though these plants get very little water, they get a lot of light," said Lynn. "There's not much shade around here."

Tim agreed. "That's important. Plants use sunlight to make their own food—a kind of sugar. Their leaves make sugar from water and air. The dark soil of this grassland helps plants grow, too," he added. "It's rich in **nutrients**."

Christie stopped by a shrub that was as tall as she was. "**Sagebrush**," she said, pulling out her magnifying glass. "Up close, you can see a lot of silver hairs all over the leaves and twigs."

"That hair helps protect the shrub from hot and cold temperatures—and from the drying winds," said Tim. "Sagebrush keeps its hairy leaves even in winter."

As Mike looked through Christie's magnifying glass, Lynn breathed deeply. "I love the smell of sagebrush," she said.

"You're not the only one," said Tim. "According to my guide book, First Nations people boiled sagebrush in the water they used to wash their homes. That helped kill germs. It kept out **insects**, too. Some First Nations people used the **bark** from sagebrush to make mats and baskets."

"But many of the plants on the grassland are grasses," said Mike. "Did First Nations people use them, too?"

"They used grasses for a lot of things, like bedding and lining for baskets," said Tim. "Cooks made beaters from dried **bunchgrass**. Children threw **speargrass** seeds like darts."

"Neat," said Christie.

"So is that," said Mike, excitedly. "Check over there."

The gang turned to look where Mike was pointing. On the far side of the field, the grassland sloped up toward some large rocks. There, on the slope, stood five bighorn sheep.

"**California bighorn sheep**," said Mike as he focused his binoculars. "All males. I can tell by their big, curly horns."

"The females would be in bands of their own—with their young," said Tim.

Taking turns with Mike's binoculars, the gang watched the sheep. The little band was moving slowly, grazing grass along the way.

"They seem to be eating a lot," said Lynn.

"Will that kill off the grass?" asked Christie.

Tim ran his fingers over his sister's head. "Grass is like your hair," he said. "It still grows after you cut it—as long as there is moisture."

"Grass plants have growing points," he explained, picking a stem to show the gang. "This joint is one point where new growth can start—to replace what an animal bites off."

"Some kinds of grasses—like bunchgrasses—grow a lot of stems from the same plant," said Lynn.

"Each stem can live on its own, even if the others die off," Tim added. "Wild animals like California bighorn sheep help keep grass plants healthy by grazing them. And animal droppings **fertilize** the soil. That helps grass grow, too."

"Hey, they're gone," said Mike, looking back at the slope where the bighorn sheep had stood. "We didn't even see where they went."

"It's a good thing we came early, or we might not have seen them at all," said Christie. "It makes me wonder what else we'll find today."

SMALL BUT SPECIAL


antelope-brush

In British Columbia's south Okanagan Valley lies a small, very dry grassland with sandy soil. There, among clumps of bunchgrass, **antelope-brush** grows up to three metres tall.

This special grassland provides shelter and food for many kinds of animals. **Great basin pocket mice** scurry about, gathering seeds. **Mule deer** and California bighorn sheep nibble the antelope-brush. **Pallid bats**, which live nowhere else in Canada, hunt **crickets** here. And more kinds of insects feed on the antelope-brush grassland than on any other grassland in B.C.


pocket mouse


cricket

PRICKLY BUT PRETTY


prickly-pear cactus

Canada's smallest cactus grows on its grasslands. The **prickly-pear cactus** is well suited to dry soil; it is able to store moisture for very dry days.

With **spines** up to five centimetres long, the prickly-pear cactus earns its name. Even its small, reddish fruit is spiny.

Because it grows close to the ground, the cactus can be hard to see. But when it blooms, it draws attention. Its large, showy flowers bring a special beauty to the grassland.


spines

Nature Notes

WHAT I DISCOVERED

1. *Different grasses, other small plants and some shrubs live on the grassland.*
2. *The roots of grassland plants take in water fast.*
3. *Many plants use light to make food from water and air.*
4. *Tiny hairs on leaves and twigs help protect sagebrush.*
5. *Light, soil and water are non-living parts of the grassland.*
6. *California bighorn sheep graze plants without killing them.*
7. *First Nations people used grass and sagebrush for many things.*

THINGS TO CHECK LATER

1. *How much rain and snow fall on grasslands?*
2. *Besides grasses, what kinds of small plants grow on grasslands?*