

One morning, the Lees and the Wilsons hiked to a freshwater wetland, a **marsh** along a river. The day was sunny, but everyone—except the baby—wore boots.

As the families followed a dirt path, their footsteps went “clump, clomp.” But as they came closer to the marsh, the sounds changed. Their footsteps went “squish, squoosh” when the dirt turned to mud; “splish, splash” when the mud turned to water. Just as the water covered their feet, they reached a boardwalk.

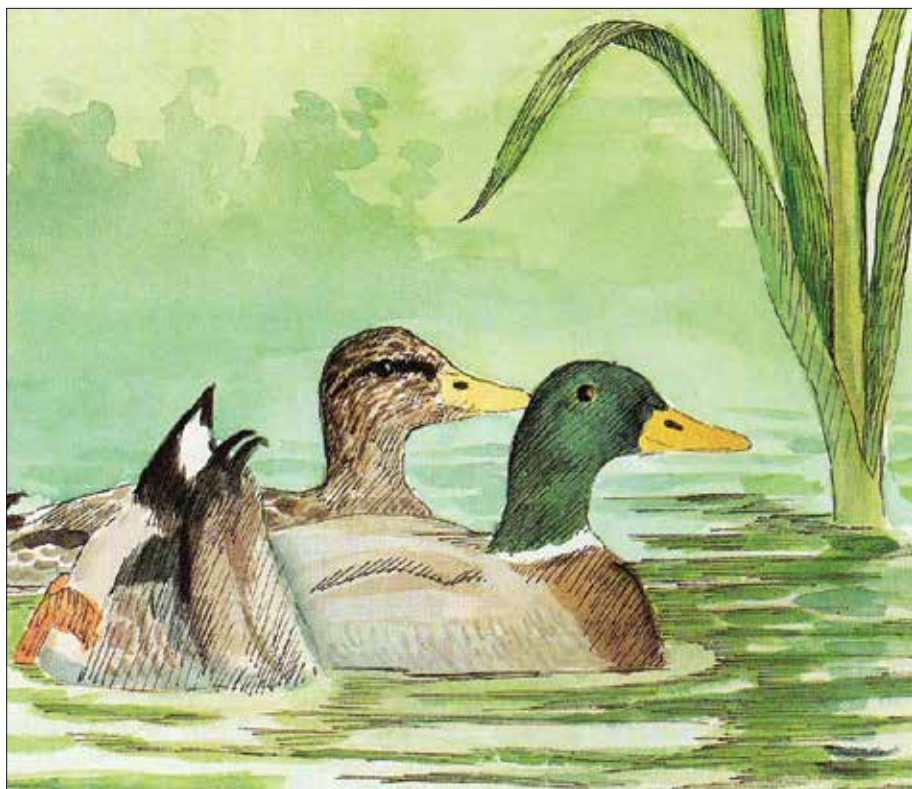
"It's a good thing someone built this," said Edward, stomping on the wooden platform. "The water is getting deep."

"Spring brought heavy rain and melted a lot of snow this year," said his mom. "And it filled streams that run into the marsh. The whole marsh is much wetter than it was in the fall."

Edward marched along the boardwalk, making muddy footprints. Suddenly, he stopped.

"Something else was here," he hollered, staring at a trail of wet prints. He yanked out his magnifying glass to look closer.





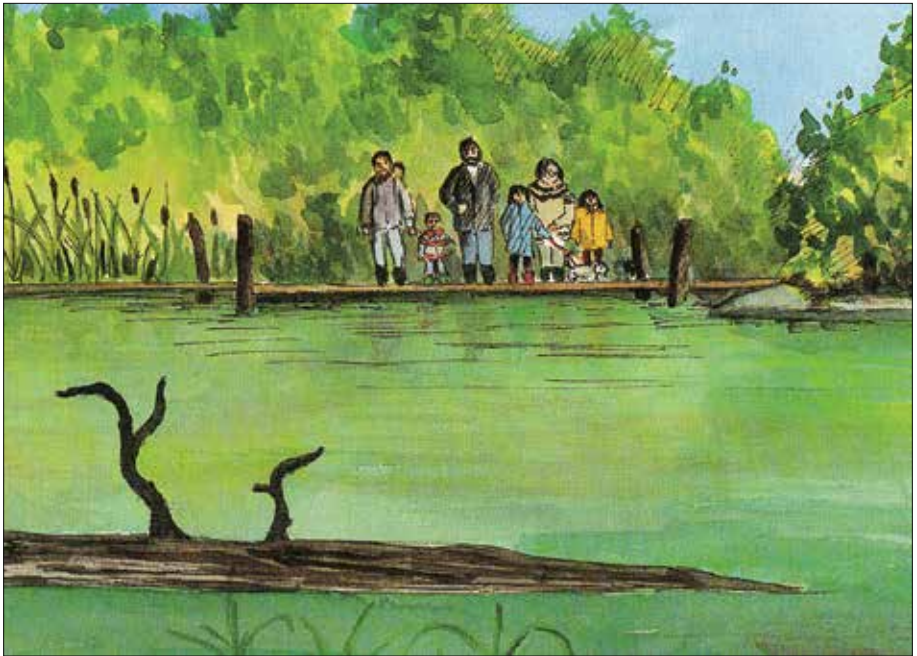
“Ducks,” said Jill. “They must have crossed the boardwalk—and there they are.” She pointed to the water nearby where two ducks were swimming. A third duck was mostly underwater. Only its tail was poking out.

“Is that one getting food?” asked Jill.

“Probably,” said Edward’s dad. “Ducks eat plants and tiny animals in the water. One of their favourite foods is duck potatoes.”

“Duck potatoes?” laughed Edward.

“That’s what some people call thick, rootlike parts on plants named **arrowheads**,” said his dad.

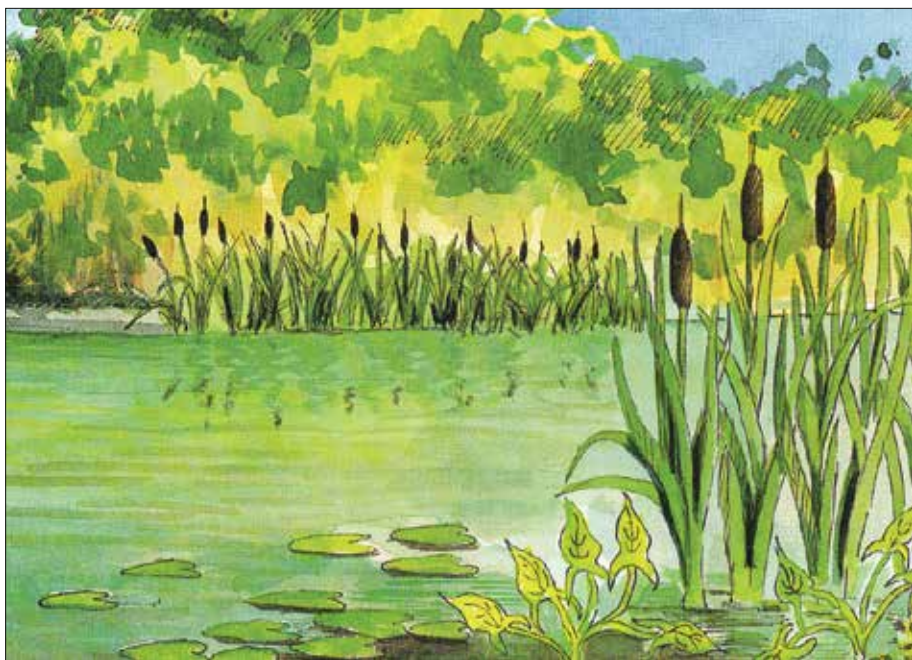


From the boardwalk, the families looked out across the marsh. There were plants living under the water and plants floating on top. Grasses and other plants were growing right out of the water. Their roots were in the mud at the bottom of the marsh, but most of their stems and leaves were in the air above.

“What a lot of plants,” said Amy. “They all need light, water and air to grow. Right?”

“Right,” said her mom. “They need **nutrients**, too, which they take from the water and the soil—the mud.”

“There are only a few trees close by, so the marsh gets a lot of light,” said Jill. “And there’s plenty of water, but how do the plants get enough air? They seem to be drowning.”



“Marsh plants are well suited to living here,” said her dad.

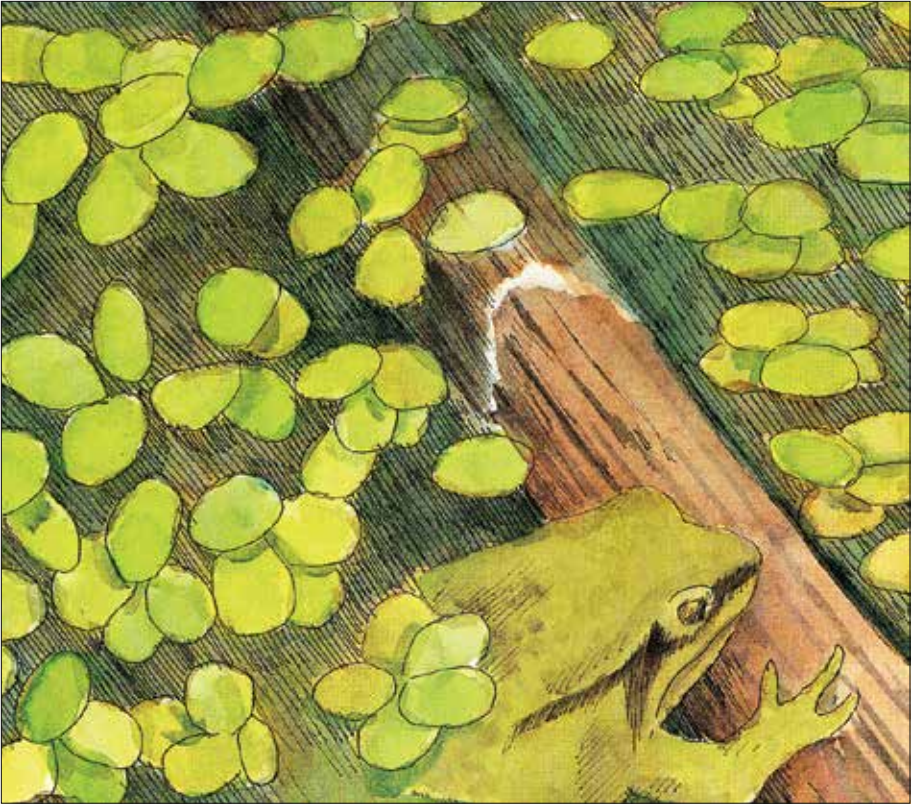
Pointing to his *Wetlands Field Guide*, he said, “My book says many underwater plants have **pores**, or openings, in their roots. That’s how they take in air from the water. Floating plants such as **water lilies** breathe by having pores on the tops of their leaves—not the bottoms, like most plants do. Arrowheads and other plants that grow out of the water have special tunnels in their stems. Air moves through these tunnels to the underwater parts of the plants.”

“Even the way some of the marsh plants produce new plants is special,” he added. “The seeds of some can float. They drift across the water before they **sprout**.”

The families walked to the end of the boardwalk and onto a drier path on the other side. Munch seemed to want a drink. Pulling toward the marsh, he stepped onto a large, green mat—and disappeared into the water. Seconds later, he jumped back onto the path, shaking water and leaves over everybody. The baby giggled.



“You can’t walk on floating **duckweed**,” laughed Amy’s mom. “It looks solid, but it’s really thousands of plants—the smallest flowering plants in the world. Their leaves are only the size of match heads. But massed together, duckweed covers a big part of the marsh.”



"Why are there so many plants?" asked Jill.

"Besides growing from seeds, new duckweed plants grow and break off older ones," said Amy's mom. "Then the new plants grow more new plants. They spread fast."

"I'll bet ducks eat duckweed," said Amy.

"Duckweed AND duck potatoes," said Edward, chuckling.



SWEET TRAPS



In wetlands with few nutrients, certain plants, such as **sundews**, take some nutrients from **insects**. Red hairs on their leaves ooze sweet, sticky liquid that attracts insects. When an insect lands on the leaves, it sticks to the liquid.

The leaf and hairs fold slowly around the insect, and the plant **digests** it. When only the insect's **skeleton** remains, the leaf opens again. It is ready to trap more insects.



GRASS IN THE WETLANDS



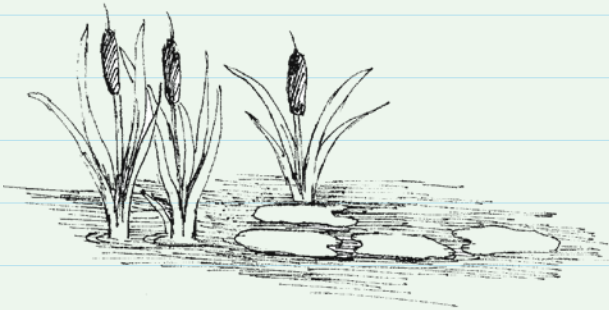
Different kinds of grasses live in different kinds of ecosystems. **Reedgrass** is one kind that lives in many wetlands. Its roots help hold soil in place.

Reedgrass grows as tall as one or two doorways. Its leaves are long and flat. Its flowers are fuzzy, and its stems are smooth and shiny. First Nations people used reedgrass stems to decorate baskets.

Nature Notes

WHAT I DISCOVERED

1. *Wetlands are wetter at some times than at others.*
2. *Some plants live under the water. Some float on top. Others grow right out of the water.*
3. *Many plants use light to make food from water and air.*
4. *Light, water and mud are non-living parts of the wetlands.*
5. *Many plants grow from seeds. Some branch off older plants.*
6. *Thousands of tiny plants, called duckweed, float together.*
7. *Ducks eat duckweed and duck potatoes.*



THINGS TO CHECK LATER

1. *Where do ducks lay their eggs?*
2. *What other wetlands are close to us?*

