

CHAPTER 3: MYAKKA RIVER

Section 1: Myakka Head

Two otters explore a dead hollow tree. Half its trunk is on the shore; the other half is in Myakka River. They swim into the hollow from underneath. Inside, they climb above the water. The space is dry, and air comes through holes made by woodpeckers. It is a perfect den, and the mother gives birth to three kits.

Three weeks later, the mother and father begin teaching them to swim and to catch food. At three months old, the otters could live without their parents, but the children may stay with their parents for two years.

One day in June, it rains, and the otters play. Leaves and sticks are slick with wetness, so the otters make a slide on the riverbank. Crayfish scuttle from the rising river. The otters make a game of catching and eating them.

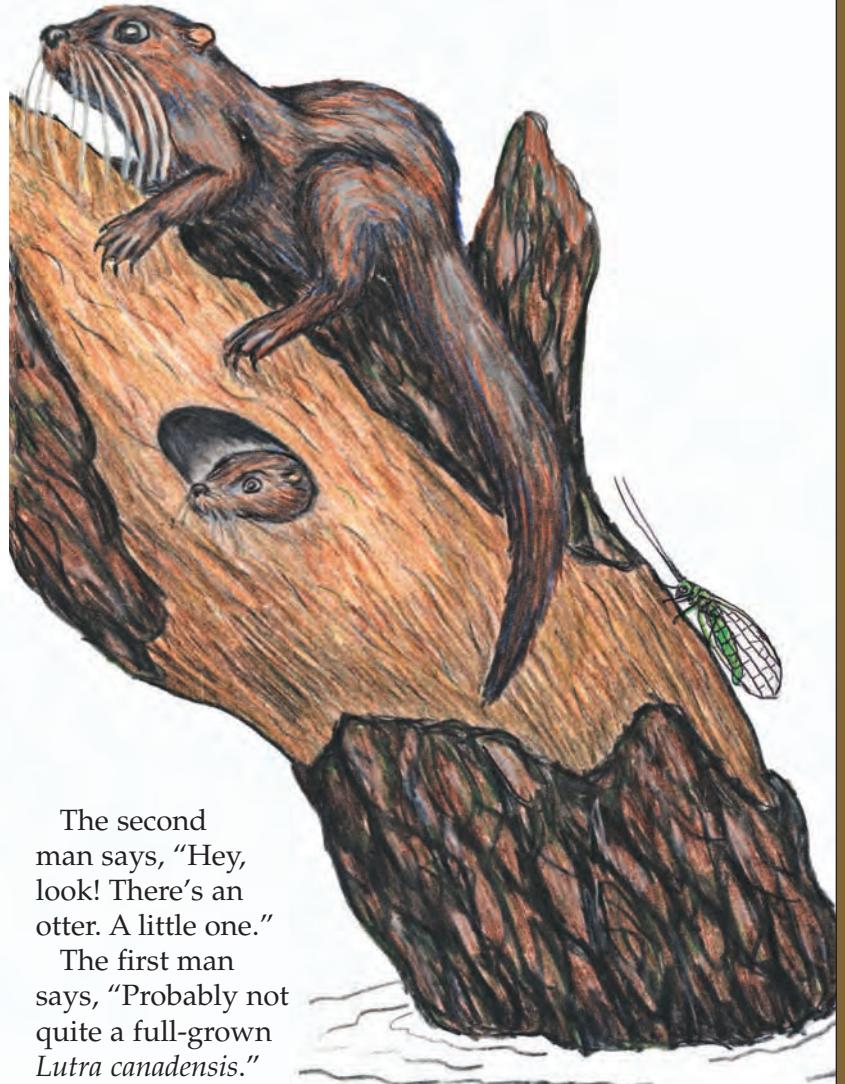
It rains and rains. Their den is flooded inside, so the otters sit outside. A young otter dives for a fish, and the father scolds. Otters are good swimmers, but the current is too strong, and it carries the otter downstream.

Dressed in rain slickers, two men stand near a pickup truck. They watch the Myakka River flow over S.R. 64. The otter hears them talking.

"I can't remember flooding like this," a man says.

"Summer of 1992, it was so bad that they closed S.R. 70," a second man says.

The first man says, "I'm worried about the phosphate mine north of here. It sends clean water into the river, but I hope it stops while the water is this high."



The second man says, "Hey, look! There's an otter. A little one."

The first man says, "Probably not quite a full-grown *Lutra canadensis*."

"A what?" the second man asks.

"*Lutra canadensis* is the scientific name for the North American river otter," the first man says.

"I'll call her Lu, for short." The second man tugs on his cap. "Hey, Lu. You'd better go under rather than over the highway."

Even as the man speaks, Lu dives into the current. It rushes her under the highway. She surfaces on the other side.

The man claps his hands. "Nice going, Lu. Enjoy your swim!"



OTTERS

by Diane Herron,
Polk Environmental
Education Resource
Center

Otters are active mammals — eating, playing, running and swimming any time of day or night. They move from place to place but will return to a favorite spot. Sometimes, they make stick homes near ponds that they plan to return to, but these are only temporary or "vacation homes." Otters seem to be fun-loving and playing all the time, but they can bite and scratch when they need to defend themselves. In or out of the water, they eat fish, frogs, crayfish, turtles, muskrats and even baby alligators. Female otters give birth to one to five blind, furry babies, which will grow to be three or four feet.

Section 2: Flatford Swamp

The current slows as the river enters Flatford Swamp. Water spreads across the low-lying ground. Sand Slough meets six creeks here: Ogleby Creek, Boggy Creek, Coker Creek, Young's Creek, Long Creek and Maple Creek.

A man and a boy stand together where Myakka Road crosses Taylor Road. The water almost covers their knee-high rubber boots. Lu rests at one end of a log. Her dark brown fur matches the log's color. An ibis stands on the other end. Lu hears the people talking.

"Wow, Daddy. Was it ever like this? I mean, when you were a boy?"

"Yes, the river flooded, but the swamp was shady then, just full of trees!" the man says.

The boy asks, "What happened to them?"

"They died. You can see the trunks and stumps. Folks say too much water killed the trees. Some have fallen, too, like that log where the ibis just landed."

"How can water kill a tree?" The boy brushes a bug from his arm.

"A tree needs time when the land is dry. You know how you kids say you want to stay in the pool all day, but you want some time to dry out too?"

"Yeah. So why did the trees stay wet?" the boy asks.

Lu watches a damselfly.

"Ranchers around here used to run cattle. Then about 20 years ago, some planted crops, like tomatoes and watermelons. In the dry season, they watered them, and the water that the plants didn't use ran into the swamp. It was wet all the time, so the trees started dying."

The damselfly lands on the log near Lu.

The boy looks around. "But I see some trees."

"That's because some farmers are using a new system. It keeps water in the fields and out of the swamp."

The boy says, "That sounds good!"

The damselfly skims the water. A bass strikes it.

"I think it will help the swamp. Maybe the farmers too. It costs a lot in the beginning, but using it over and over will make watering the crops cheaper."

Lu watches a bluegill caught for a moment against the log.

The boy points to the log as Lu glides into the water. "Hey, Daddy, that log's moving."

Lu catches the fish and eats it as she moves away.

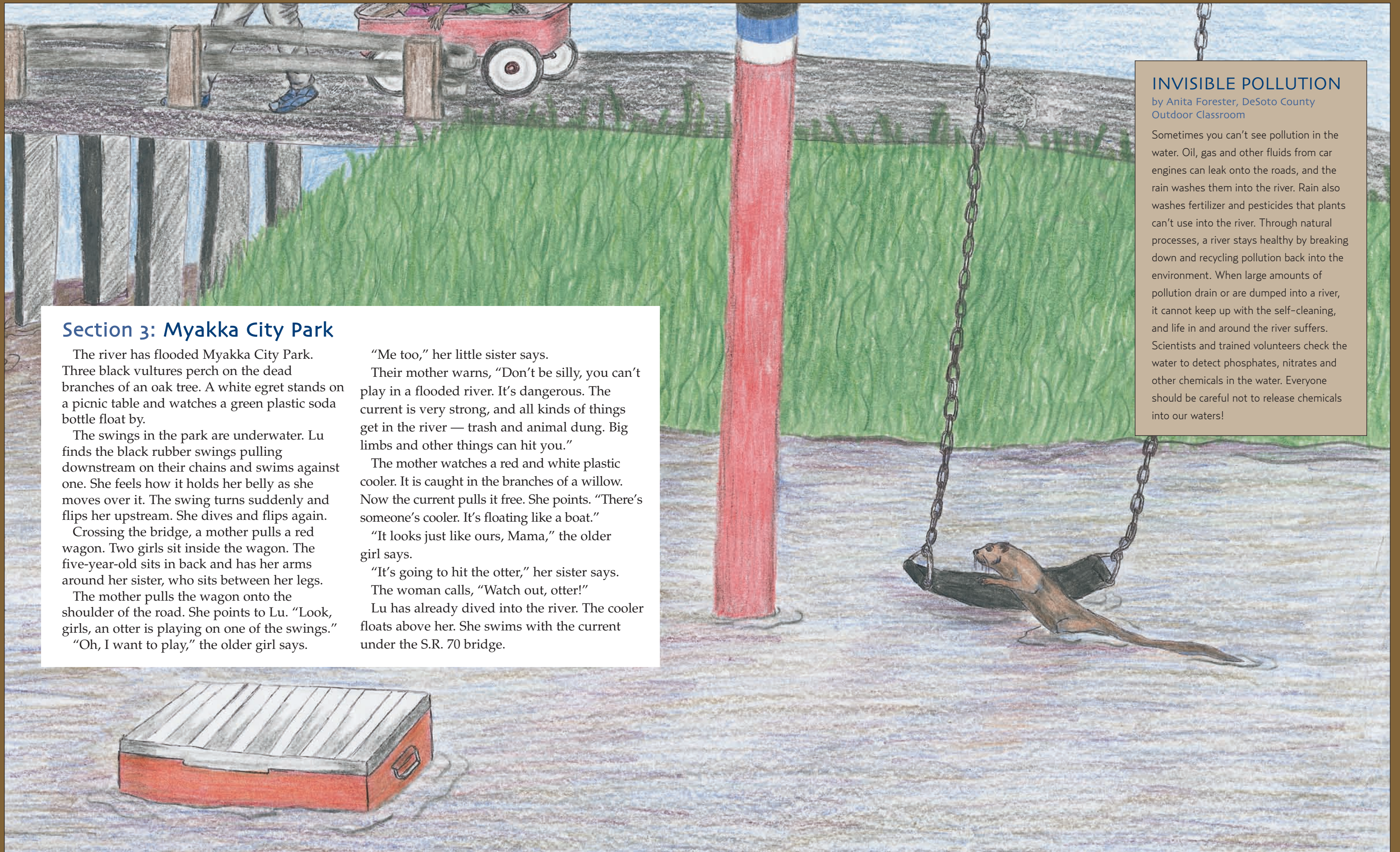


AGRICULTURE

by Curtis Porterfield, Polk County Natural Resources Division

Agriculture is growing food. In Florida, citrus trees are planted in groves, and fruits and vegetables are planted on farms. To make these plants grow well, farmers fertilize them. To make sure bugs don't eat them, farmers spray them with pesticides. When it rains, fertilizers and pesticides get washed into the surface water and ground water. One problem is that

fertilizers will make water plants and algae grow so well that they crowd out other living things. Another problem is that pesticides can hurt some animals. Many farms and groves move, store and use water to the advantage of the plants. This may reduce the supply of ground water and cause other problems.



Section 3: Myakka City Park

The river has flooded Myakka City Park. Three black vultures perch on the dead branches of an oak tree. A white egret stands on a picnic table and watches a green plastic soda bottle float by.

The swings in the park are underwater. Lu finds the black rubber swings pulling downstream on their chains and swims against one. She feels how it holds her belly as she moves over it. The swing turns suddenly and flips her upstream. She dives and flips again.

Crossing the bridge, a mother pulls a red wagon. Two girls sit inside the wagon. The five-year-old sits in back and has her arms around her sister, who sits between her legs.

The mother pulls the wagon onto the shoulder of the road. She points to Lu. "Look, girls, an otter is playing on one of the swings."

"Oh, I want to play," the older girl says.

"Me too," her little sister says.

Their mother warns, "Don't be silly, you can't play in a flooded river. It's dangerous. The current is very strong, and all kinds of things get in the river — trash and animal dung. Big limbs and other things can hit you."

The mother watches a red and white plastic cooler. It is caught in the branches of a willow. Now the current pulls it free. She points. "There's someone's cooler. It's floating like a boat."

"It looks just like ours, Mama," the older girl says.

"It's going to hit the otter," her sister says.

The woman calls, "Watch out, otter!"

Lu has already dived into the river. The cooler floats above her. She swims with the current under the S.R. 70 bridge.

INVISIBLE POLLUTION


by Anita Forester, DeSoto County
Outdoor Classroom

Sometimes you can't see pollution in the water. Oil, gas and other fluids from car engines can leak onto the roads, and the rain washes them into the river. Rain also washes fertilizer and pesticides that plants can't use into the river. Through natural processes, a river stays healthy by breaking down and recycling pollution back into the environment. When large amounts of pollution drain or are dumped into a river, it cannot keep up with the self-cleaning, and life in and around the river suffers. Scientists and trained volunteers check the water to detect phosphates, nitrates and other chemicals in the water. Everyone should be careful not to release chemicals into our waters!



Section 4: Tatum Sawgrass Marsh

Beneath the bridge for S.R. 780, the river flows fast. A large branch is lodged against a bridge support. The water dammed behind it hardly moves. Lu swims there to rest. Branches from a swamp maple overhang the river.



Above her, a man and woman watch a swallow-tailed kite soar above Tatum Sawgrass Marsh. The man swings his arm in a wide arc. "Imagine all the water it took to fill the marsh. It's a lake now. I'm guessing that water covers the boardwalk at Crowley Museum and Nature Center."

The woman says, "Years ago, they drained this marsh and planted all kinds of nonnative grass for cattle."

"I'll bet it didn't look like this back then," the man says.
They both laugh.

"When we canoed it, we saw those grasses growing like a wall along some places. Except for there, it looked like a scenic river. Now it looks wild," the woman says.

"Maybe that's why they call it a 'Wild and Scenic River,' " the man says.

The woman asks, "What does that mean?"

The man says, "The U.S. and Florida legislatures chose the name to tell everybody that a river is special. There are only three Wild and Scenic Rivers in Florida, but only the Myakka got this designation from the state."

Lu sees a tree frog as green as a leaf. She eats it.

The woman asks, "What does it need to be protected from?"

"Houses built near the river," the man answers.

"Houses don't hurt the river," the woman says.

"Clearing the land to build them does. Rain can wash sand into the river. Drilling wells, burying septic tanks, making seawalls and docks — it all damages the river. Even drips of oil from roads can wash into the water."

Lu sees a peninsula cooter. She dives below, circles and grabs the turtle.

"But look at this flood." The woman points to the river on both sides of the bridge. "It's doing more to harm the river than building a few houses."

The man says, "Having more water in the river doesn't harm it. The river is alive, so the water can be high or low or even change its banks. It's what people do or don't do beside the river that can hurt it."

Lu paddles back into the current.



MYAKKA ISLAND

by Carol Mahler

Islands are surrounded by water, but Myakka Island is not really an island. It is filled with water that drains into Myakka River. The land in this watershed that is natural is called Myakka Island. The state of Florida and Sarasota County own or manage some of the Myakka Island. People who own large areas of native land have given or sold conservation easements to protect the land and keep it natural. Around Myakka Island, people are building homes, roads, schools and businesses, so it has become an "island" in a sea of change.

Section 5: Upper Myakka Lake

At the end of Upper Myakka Lake, Lu finds a weir — a concrete wall across the lower end of the lake. When the river is low, the weir holds water in the lake. When the river is high, water flows over it.

The sides slope and are worn smooth from 70 years of the river washing it. For Lu, it forms a perfect slide. She climbs to the top of one end and, on her belly, she glides into the water. Her sleek body makes no splash.

The Civilian Conservation Corps built the weir to keep the lake from drying up and help control flooding. But the weir caused other changes in the river. As plants drifted down the river, the weir kept them in the lake. They fell to the bottom and rotted, and the once sandy lake bottom turned to muck. The lake started to die. A few years ago, culverts were added, so now water always flows on either side of the weir. It keeps the lake alive.

Common grackles crowd a water oak. Their iridescent plumage sparkles

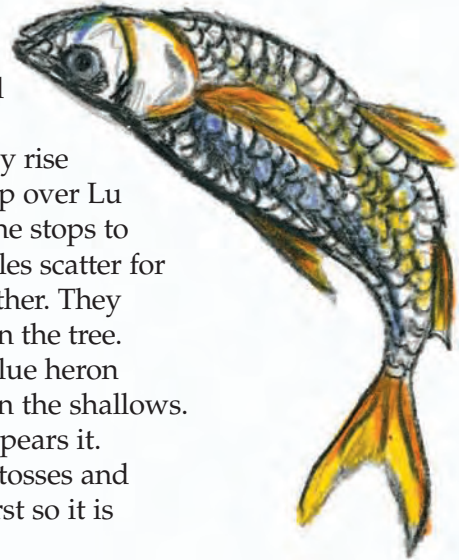
as they chirrup, flutter and change places.

They seem as busy and noisy as a group of children. Suddenly, they rise into the air. They swoop over Lu playing in the water. She stops to watch them. The grackles scatter for a moment and then gather. They circle and settle again in the tree.

Lu watches a great blue heron standing like a statue in the shallows. When it sees a fish, it spears it. Tipping its beak up, it tosses and catches the fish headfirst so it is easier to swallow.

To Lu, this looks like a game. She spies a golden shiner, dives and catches it in her mouth. Crawling up the shore, she flips her head up and opens her mouth. The fish flies into the air, and she catches it. She does it again and again.

An osprey swoops above, hoping to steal the fish. But Lu quickly eats it and then swims downstream.



SURFACE WATER

by Curtis Porterfield, Polk County Natural Resources Division

Surface water is the water that can be seen on top of the land. Examples are rivers, streams, lakes, estuaries and the oceans. When it heats up, surface water evaporates and rises in the air to form clouds. Clouds release rain that replaces the surface water lost by evaporation. This is part of what is called the water cycle, and it helps to keep surface water from disappearing. Many plants and animals use surface water as both a home and a drinking water source. It is also a very important source of drinking water for people.

Section 6: Lower Myakka Lake

Flooding has closed Myakka River State Park. The river is full of floating water hyacinths and hydrilla.

Lu can't swim through the plants piled up beneath the S.R. 72 bridge. She climbs the bank and scampers across the road. Before a car drives by, she dives into the river.

The land south of the highway is Myakka River State Park Wilderness Preserve. People must have a permit to explore any part of these 7,600 acres, but not Lu. She swims in and out of tree branches and trunks that used to stand and hang over the water. When she leaps over one, she looks as graceful as a dolphin.

Leaves, sticks and many other things float in the river. Where the water is too murky, Lu's whiskers find the way. When they brush a crayfish, she catches and crunches it.

She climbs onto a large oak limb. Resurrection ferns grow like fur along it. Spanish moss dangles above and a tree frog

hangs in it. Its tongue snaps a mosquito. Lu lunges for the frog, but it jumps into the water. Then a water snake strikes from beneath the branch and swallows the frog.

What seems to be a log veers at the snake, but Lu sees an alligator.

She turns. On a branch beyond her is a limpkin. It dips its beak into a groove of the oak's bark, plucks out an apple snail and eats it. Above, a butterfly orchid grows on the bark of the oak.

Lu dives into the river. It soon widens into Lower Myakka Lake. At the southern end of the lake, she feels the bottom drop away. She is swimming above a natural sinkhole now filled with water. It is called Deep Hole. When the river is low, the lake dries up except here. Deep Hole is home for the alligators.

LAND STEWARDSHIP

by Curtis Porterfield, Polk County Natural Resources Division

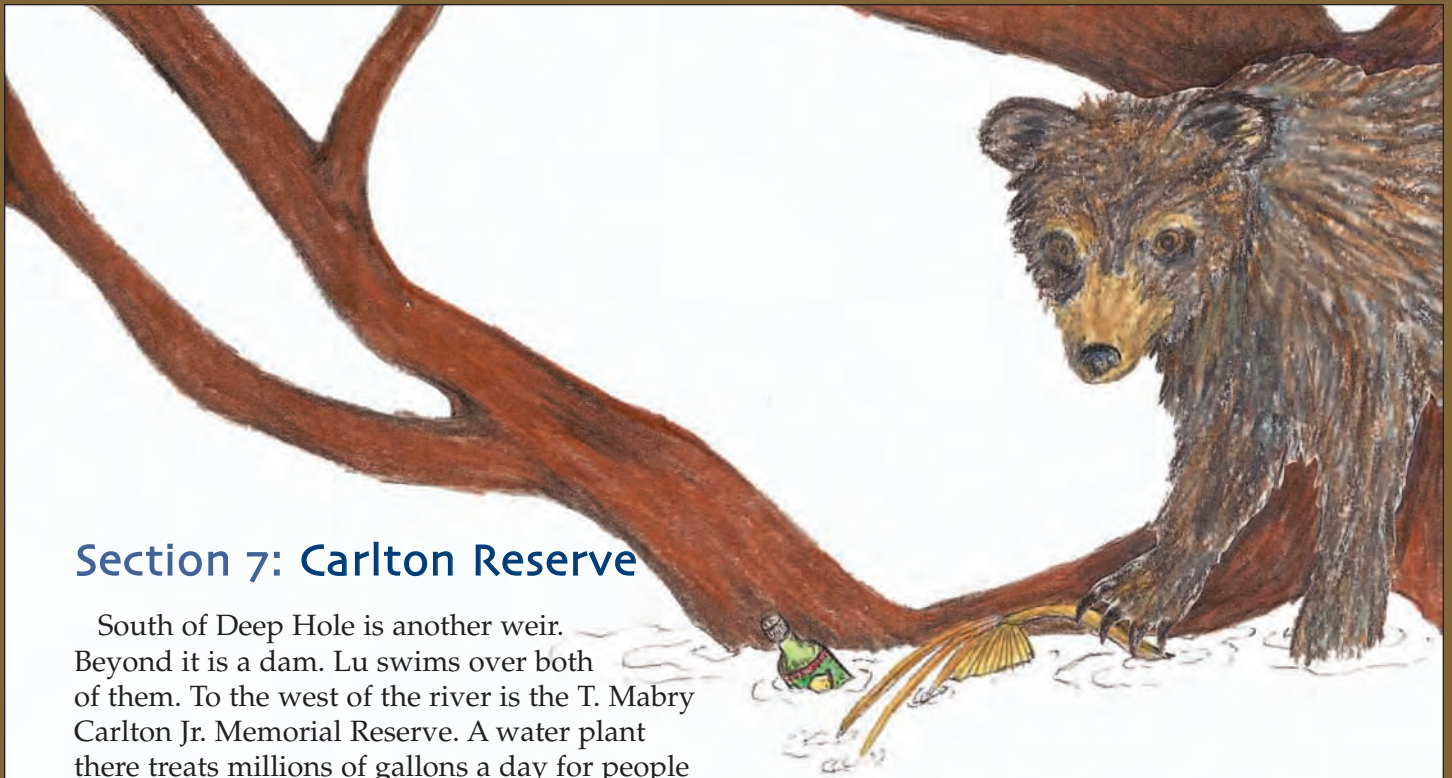
Land stewardship means caring for the land we live around.

This can be done in many ways. One way is to keep our cities and towns clean and free of pollutants. Another way is being responsible with chemicals such as pesticides and fertilizers that can harm natural systems. A third way is

to preserve and protect natural land and the plants and animals that live there.

Properly caring for the land helps to keep surface and ground water clean because any harmful substances placed on the land will be washed into surface and ground water by the rain.





Section 7: Carlton Reserve

South of Deep Hole is another weir. Beyond it is a dam. Lu swims over both of them. To the west of the river is the T. Mabry Carlton Jr. Memorial Reserve. A water plant there treats millions of gallons a day for people in Sarasota County. The water does not come from the river. It is pumped from the aquifer, an underground river.

The reserve is 24,500 acres, but 200 acres are used for a public park with picnic tables, restrooms and trails. The rest is wilderness area, and people must have a backcountry permit to hike, bike or ride horses there.

Lu has traveled the river, and people can too. Or, they can walk. The Myakka-Carlton trail starts at the north entrance of Myakka River State Park, crosses the Myakka Prairie and ends in the Carlton Reserve.

Lu sees a black bear in a tree, where the trunk grows into three wide branches. One limb curves into the water. Dead palm fronds, sticks

and leaves are trapped there. So is a bass. The bear leans into the water and grabs it. Water drips from its fur as it eats the fish.

Downriver, Lu explores a willow thicket. Caught on the twigs are fern fronds, pasture grasses, Spanish moss and a piece of window screen. The current pulls it against the branches, forming a net. A redear sunfish struggles inside.

Lu pushes her head into the net and grabs the fish. Then she can't move because the current pushes her into the net. Her sharp teeth and claws rip at the screen. It breaks from the branches on one side, freeing her to eat the fish.



GROUND WATER

by Curtis Porterfield, Polk County Natural Resources Division

Ground water is water contained underground in aquifers. When surface water sits on top of the land, some of it leaks into the soil and deep into the ground. This ground water also moves upwards in the ground and refills surface waters. In Florida, ground water and surface water are very

much connected because the bedrock (the rock beneath the soil) has many holes in it. The holes let water travel from the surface to the ground and from the ground up to the surface. Ground water is especially important to people who live in Florida because it is our main source of drinking water.

Section 8: Snook Haven

Soon Lu hears the rumble of traffic on the bridges for Interstate 75. To escape the noise, she swims under the water.

Branches, leaves and other debris pile up against the bridge piers. She twists and turns through the maze. She holds her breath a long time to swim under the bridges. When she rises to the surface, she breathes deeply and paddles to keep herself safe in the current.

Where the river curves, she can see buildings. Under oak trees, two men stand on a deck filled with picnic tables. Mosquitoes and gnats fly in a cloud around their heads. Water covers the feet of their rubber boots as they lean against the railing. Lu hears them talking.

"I don't know how much more the river will rise," the first man says.

"If it's no more than this, you'll be okay," the second man says.

The first man slaps a mosquito on his arm. "It'll be a mess to clean up."

Above Lu, nighthawks dip and soar.

The second man fans the bugs away from his face. "I'll bet it's not the first time Snook Haven has seen a flood."

"You're right about that. It was here for more than half a century before Sarasota County bought it. People came here to fish and stay in the cabins. Others rented canoes or boats or took the boat tour to see the river."

The second man points to the river. "What's that?"

The first man says, "Fire ants! Stay away! When their nests are flooded, they gather into a ball and float on a branch or something. They'll latch onto anything they bump up against — even people."

Lu watches a nighthawk swoop to eat a mosquito.

The second man watches the ants float downstream. "I heard two movies were filmed here."

"That's right. The most famous one was a Tarzan movie that featured killer turtles. Some of the monkeys that escaped still live around here. Most people see them across there."

The first man points across the river.

The second man points at Lu.

"Hey, there's one in the river!"

The first man chuckles. He says, "That's not a monkey. That's a river otter."

Section 9: Jelks Preserve

Downstream in Jelks Preserve, Lu rests on a picnic table near the river. Water flows beneath. In an oak tree above, two squirrels chase along a branch. In another tree, a mockingbird sings. First it trills like a meadowlark. Then it chirps like a wren.

She hears some splashing and footsteps. Then she watches two women wearing raincoats and boots walk along the path, which is as wide as a road. A pileated

woodpecker swoops in front of them as they stop at the water's edge.

"I can't believe how high the river is," the first woman says.

"Remember when we came here a few weeks ago? We saw a gopher tortoise on the trail and a rabbit was eating grass over there." The second woman points to the table where Lu is. The woman doesn't see Lu because the otter's brown fur blends with the wet wood.

"It was a lovely evening, as I recall. The river didn't seem to move. It reflected everything, like a mirror."

"At least until those boats came speeding by," the second woman says.

"That's right! And as the waves washed in, I could see some freshwater mussels. But the clam shells surprised me."

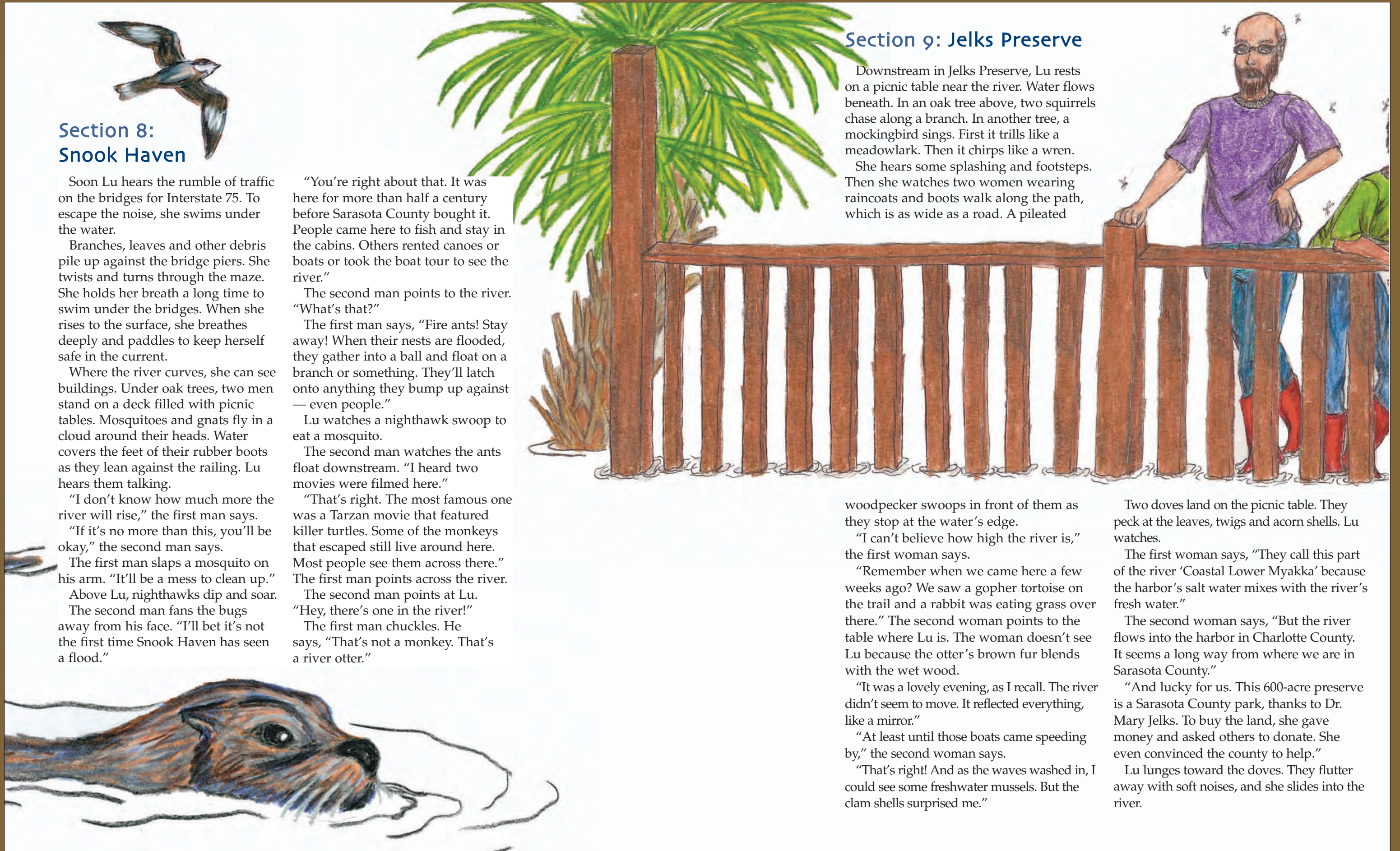
Two doves land on the picnic table. They peck at the leaves, twigs and acorn shells. Lu watches.

The first woman says, "They call this part of the river 'Coastal Lower Myakka' because the harbor's salt water mixes with the river's fresh water."

The second woman says, "But the river flows into the harbor in Charlotte County. It seems a long way from where we are in Sarasota County."

"And lucky for us. This 600-acre preserve is a Sarasota County park, thanks to Dr. Mary Jelks. To buy the land, she gave money and asked others to donate. She even convinced the county to help."

Lu lunges toward the doves. They flutter away with soft noises, and she slides into the river.



Section 10: Myakka State Forest

Several miles downstream, Lu sees another picnic table in the Myakka State Forest. The state forest is 8,590 acres within the City of North Port.

A grill near the table is full of water, and Lu sees a small turtle swimming inside. She catches it and sits on top of the grill to eat it. She hears grunting and digging under the oaks. A family of wild hogs pushes through to the edge of the water. The mother drinks, as the piglets splash around her. They are descendants of pigs that the Spanish brought to Florida 500 years ago. From her perch, Lu sees how the pigs have rooted up the soil and plants.

A Florida scrub-jay glides by. Lu watches it land on a saw palmetto. The trunk is black where a fire burned. A black beetle crawling there is almost hidden, but the jay catches and eats the bug. Once called the Florida jay, it lives only in this state. The jay needs scrub oaks and scrub pines to live, and fire helps them survive. Many trees have been cleared away for roads, houses and orange groves. Winchester Boulevard passes through this forest, so a sign there warns "Scrub-Jay Crossing."

At the edge of the Myakka State Forest, the river widens. Lu misses the oaks and palms that grew on its banks upstream. She sees an island covered with mangroves in this wide part of the river. It is a rookery for wood storks.

Lu swims to the island. A stork is watching. It flaps its wings and sounds an alarm. Other birds see the otter.

The birds know that otters eat bird eggs and baby birds. Several storks soar above, and others perch on the low branches of mangroves. They don't want Lu near their rookery, and they swoop toward her. She turns away from their sharp beaks and dives deep into the river.

FIRE

by Carol Mahler

Sand hills, pine flatwoods, scrub and marsh need fire to live. Without fire, these areas change into another kind of habitat. For years, people have stopped natural fires started by lightning. Now, managers of wild lands start fires, called "prescribed fires" or "controlled burnings," to protect wilderness without hurting people or their property.

ENDANGERED SPECIES, THREATENED SPECIES, SPECIES OF SPECIAL CONCERN

by Carol Mahler

Endangered species are groups of animals that may not survive because there are so few alive. Some endangered species are sea turtles, wood storks, Florida manatees and Florida panthers. People have hunted some, and pollution has killed others. Many are in danger because people have destroyed their habitats to build homes, roads, businesses, churches, schools, farms and groves. Threatened species and species of special concern are groups with more members, but their survival is also at risk for the same reasons. Some threatened species are the southern bald eagle, Florida sandhill crane, Florida scrub-jay, fox squirrel, gopher tortoise and Florida black bear. Some species of special concern are the American alligator, eastern brown pelican, reddish egret, little blue heron, tricolored heron, roseate spoonbill and limpkin.





Section 11: El Jobean

Not far from shore, a boy with a fishing pole stands on the pier. Sitting in a folding chair beside him, his mother holds a pole too. His father baits and casts four poles and leans them against the railing.

Underwater, Lu sees crayfish on the hooks. She climbs the riverbank and then crawls onto the pier. She hears the boy say, "Hey, Mom. Joey told me that this pier once burned."

"Part of it did. The county was going to tear it down but people asked them to rebuild it because it's such a good fishing pier," the mom says.

"It would be better away from the bridge. The traffic's noisy," the boy says.

Lu sniffs the air.

"It was here first, and it wasn't a fishing pier. The railroad built this trestle for trains on their way to Boca Grande," the mom says.

"Why? So people could swim and find shells?" the boy asks.

His mother laughs. "Sometimes. But they made money by hauling phosphate. At the south end of Boca Grande, it was loaded onto big ships."

Lu creeps beside a bucket full of bait. Black flies buzz around it.

"Where'd the phosphate come from?" the boy asks.

"Somewhere up the Peace River," the mom says.

"Why didn't they ship it from some place closer?" the boy asks.

"The river's too shallow. Ships need deep water," the mom says.

Lu thrusts her head into the bucket and eats a crayfish.

The boy pulls his line from the water. "Hey, Dad! I caught a crab!"

The father grabs the net and runs to the boy. "Pull it up before it lets go."

The boy yanks the pole up. The blue crab drops, but the father swings the net and catches it.

The mother cries, "Good teamwork!"

Lu eats another crayfish and another.

The father tells the boy, "Bring the bucket over here. I'll get this crab out of the net." The crab clacks its claws as it struggles to get free.

When the boy turns, he sees Lu. "Hey, Dad — there's something —"

"— I don't care," the father says. He watches the crab. "Just get me the bucket."

The boy sees Lu dive into the river with a crayfish in her mouth. He carries the bucket to his father. The father shakes the crab loose from the net, and it falls into the bucket. Beneath the pier, Lu eats the crayfish.

"I can't believe the size of this crab," the father says.

"It's probably all we'll catch tonight," the boy says.

"Why is that?" the mother asks.

"Because something ate all the bait," the boy says.

"You're kidding! What was it?" the mother asks.

The boy says, "I don't know. It was brown, had whiskers like a cat and a long, thick tail."

The father says, "Sounds like an otter. Other fishermen have complained about otters stealing bait and fish."

Lu swims under the pier and the bridge for S.R. 776.

Section 12: Tippecanoe Bay

On the eastern shore, Lu sees mangroves. A fox squirrel sits on a branch and a reddish egret wades near the roots.

She turns away from the shore and swims into deep water. She can feel the push of the current. Then she sees a sawfish swimming toward her. Using her strong tail, she steers into Tippecanoe Bay. The sawfish does not chase her as she swims into the shallow water at the mouth of Sam Knight Creek.

On the bay is Tippecanoe Environmental Park, 380

acres owned by Charlotte County. People can enjoy the nature trails that include a boardwalk through the mangroves and marshes.

It is evening when Lu swims into a creek under the oaks. She hears buzzing and sees a wasp. It flies to a nest hanging from a limb.

Grapevines curl through the branches. Near the ground, the vines are as thick as an otter's tail. Cabbage palms stand together and among the oaks.

A strangler fig grows around one tree as if it were hugging it. Lu hears tapping and sees a red-bellied woodpecker pecking at the trunk. Underneath, a skunk digs in the leaf mold for a palmetto bug. A centipede runs past a raccoon holding a crayfish. Crayfish is Lu's favorite food, so maybe Lu has found a home.

