Hammock Homes for Hangouts

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2012
This story was written for Junior 4-H youth in Florida to study the Tropical Hammock ecosystem for the Annual Forest Ecology Contest.

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A very glum girl

Corrine was crouched on a broad, low branch of a live oak tree in her yard. She peered out at the house next door through swaying curtains of Spanish moss hanging from an overhead branch. The Gordons had moved in last week from Jamaica, and Corrine was hoping to make friends with their daughter.

A door slammed. Corrine moved forward on her branch in time to see a figure in grey shorts and a red hooded sweatshirt disappear around the back of the Gordons’ house. Corrine moved onto a higher branch and crawled further out. She froze as suddenly the hooded figure emerged around the front again. It was the girl!

The girl paced around the garden in a determined circle, seeming to stop at every tree in the garden, but whatever she was looking for, it was clear that she couldn’t find it. At last, the girl came around the front again, kicked the base of a pine tree, and plopped down onto the porch step. She sat there, staring at her sneakers, her hands shoved into her sweatshirt pockets.

Corrine climbed a little lower, swung herself so that she was hanging upside down from the tree branch by her legs, put her fingers to her lips and blew a loud, quick whistle.

The girl on the porch step looked up. Corrine waved.

The girl pushed herself off the porch step and walked slowly over to the fence separating her house from Corrine’s. The hood of her sweatshirt fell off her head as she gazed up and asked, with a tired look on her face, “What do you want?”

Corrine grinned. Still hanging from the branch, she thrust out her hand, “I’m Corrine.”

The girl sighed. “I’m Annika.” She held out a limp hand, which Corrine grabbed and shook.

“Pleased to finally meet you,” Corrine said.

Annika tilted her head sideways, “You know you look funny, right? Your hair hanging like that.”

“Then how come you’re not laughing?” Corrine replied.
“Because I don’t feel like it.”
Corrine flipped herself right side up on the branch and shook her head at Annika. “That sounds like a serious problem.”
“Do you always climb trees like that?” Annika asked, resting her arms on the fence.
“Yeah, since I was six.”
Annika frowned at the live oak.
Corrine said, “I could teach you how to climb, if you like.”
“I know how to climb,” Annika said, pulling her hood back onto her head.
“You do? That’s excellent! I need a climbing buddy”
“I don’t want to climb these trees,” Annika interrupted.
Corrine looked shocked. “But what’s wrong with them?”

“They’re,” Annika bit her lip, “they’re just wrong. All these pines. These weird oaks. This is nothing like the trees back home. The trees back home, you could make homes inside them, you know? These are just,” she looked around, “no good at all.”
“Do you mean like tree houses? Because we could make a tree house in this live oak, only that might bother all the Spanish moss and other plants up there.”

Annika shook her head. She pulled a photograph out of her sweatshirt pocket and held it out. Corrine jumped down from the tree and took the photograph. It showed what looked like a giant hollow column woven out of tree stems, like if a spider could make funnel webs out of wood.

“That was in my backyard at my old house. In Jamaica. I used to climb it all the way to the top. I could put a couple of planks across between the gaps in the stems and sit there reading or drawing.”

“But we have that kind of tree here too,” Corrine said.

“Well, one would be nice, but I’m not talking about a fancy tree in a city park—I want these trees to be wild—along with all the other trees and plants that belong with them, like gumbo limbo, mastic, and wild coffee,” explained Annika.

“Well, I’m telling you, we have all that here—not everywhere, of course, but in a few special places,” said Corrine.

“What? You mean it? You have wild strangler figs in Florida?” Annika grabbed Corrine’s shoulder. “You have to take me there!”
A changing landscape

“So my dad tells me these places are pretty unique in Florida,” Corrine called over her shoulder to Annika. The two girls had set out the next morning on their bicycles. “We’re lucky that we live close to the state park. Most people will never see a tropical hammock in their life.”

“And how do you and your dad know about them?” said Annika.

“Well, he studies ecosystems for his job. I guess I learned to climb because of him.”

Annika stared at the trees along the streets they were passing as they biked out of town. “I’m not sure about this, Corrine. I’m just seeing pines, palms and more pines with more palms. Oh, there’s an oak. Pine, palm, pine, oak, pine, palm—”

“Hey, trust me, the landscape changes, and the trees change too. You are in for a long ride, and I promise you figs at the end. We have to get closer to the coast and we have to get out of this town. No stranglers for stragglers!”

Corrine and Annika pedaled from one subdivision to the next, came out of the last residential neighborhood then took a side road toward the beach to a dirt track that ran parallel to the coast.

“We got about a mile of this stuff to go through before we get to the park trail,” panted Corrine.

“I still don’t see my trees,” pouted Annika. “These are still pines and palms!”
“This is the pine flatwoods,” explained Corrine. “This part of Florida is prone to wildfire from lightning, and this is the type of forest that can recover quickly. Where there are low spots you might see cypress trees, but usually there are pines with saw palmetto in between.”

Eventually the girls came to a fence and foot access. They locked their bikes to a fence post and gulped some bottled water “Do you see any familiar “faces” yet, Annika?”

“I have noticed that little differences seem to change the trees. Where there’s a lot of sand on the road, there are more pines. Where the wind from the beach blows the sand away, the rock is uneven. And this spot seems to be a heap of shells,”

“A shell mound!” Corrine explained excitedly. “My Dad says the Calusa Indians left piles of oyster shells near their villages, hundreds of years ago. And yes, the rocks are limestone—probably part of the old coral reef.

“We’ve got a lot of limestone in Jamaica as well,” Annika said as they began following the trail over the uneven ground. “Did you know the Caribbean islands used to be underwater millions of years ago? The limestone comes from layers and layers of deposits of ancient sea corals.”

Corrine nodded. “A lot of Florida was underwater too. Sometimes you’ll find sinkholes here, from where the rainwater has dissolved a cavity into the limestone rock.”

“I can see now that the type of land might influence the kinds of trees growing on it, but I’m still not convinced we’ll find strangler figs—” Annika stumbled on a rock and steadied herself by grabbing the branch of a nearby shrub. The branch snapped.

“Oops!” said Annika.

Annika stared at the broken branch in her hand. The leaves were a shape she recognized, two opposite stalks branching into three almost diamond-shaped leaflets.
“Oh, you don’t have to worry, that’s not poison ivy, its leaves are alternate, not oppo—” Corrine began to say, but Annika put the branch to her nose and sniffed, her eyes growing wide.

“Smell this,” Annika said, thrusting the branch towards Corrine. “That’s torchwood. My grandmother used to burn it all the time, because it smelled so beautiful. It’s a tropical plant. What is it doing here?”

Corrine smiled as she sniffed—a sharp smell, almost like sandalwood—and said, “Welcome to the tropical hammock.”
The familiar faces of trees

Corrine followed after Annika as she ran from tree to tree. For the first time since she’d met her, Annika was smiling.

“This is pigeon plum,” Annika said, pointing to a tree with wide, crinkly oval leaves that looked a bit like lily pads. Corrine nodded. Annika glanced past. “And that is mastic,” she said, running to a tree with scaly red-brown bark. She jumped and caught a low-hanging branch and swung a leg over.

Corrine laughed. “You do know how to climb!” As she reached for the branch herself, Annika jumped down from the other side of the tree. “You’re fast too,” said Corrine.

Annika gave Corrine a mysterious grin. “Have you ever eaten mastic fruit before?” she asked, holding out a handful of yellow fruits that looked like olives. “I’ll eat one if you eat one,” Corrine answered.

Annika nodded. The two girls picked a fruit each and brought their hands to their mouths. They chewed silently.

“Another one,” Annika said.

“After you,” said Corrine.

Again they picked a fruit and chewed, staring at each other. They both waited for the other to speak. Finally, Corrine burst out laughing.
“You cheated!” Annika gasped.
“You did too!” replied Corrine, opening her hand to reveal the two fruits she’d pretended to put in her mouth.
Annika laughed.
“My grandmother taught me the trick. I used to walk with her in the forest near our home, asking her questions nonstop. One day she gave me mastic fruit and said, ‘Eat up, it’s delicious.’”
“But that’s not true, is it?” Corrine said, “It’s not really delicious at all, and it—”
“—glued my mouth shut,” Annika nodded. “My grandma smiled at me with a finger to her lips and continued her walk. But the thing is even though I couldn’t ask her questions she kept pointing to the trees and plants telling me their stories. She always knew what I wanted to know about the forest, even before I had to ask.”
“I bet you miss her,” Corrine said, patting Annika on the shoulder.
Annika sighed. “But I can write to her with good news now, that there are our trees here, even though this isn’t home.”
“Come on,” Corrine took the lead, pulling Annika after her. “We’ve still got to find you some strangler figs.”
They continued through the hammock. The ground felt soft underfoot from a buildup of leaf litter and lack of sunlight. The girls could see through the forest in patches but the vines blocked their view in other spots. It was shady and noticeably cooler in the tropical hammock.
“Snowberry!” Annika cried out as they walked past a bush laden with bright white berries. “It’s so good to see all these familiar plants again.”

Corrine said, “Do you know they’re all travelers, just like you?” Annika shook her head in confusion. “What do you mean?”

Corrine picked a snowberry and crushed it between her fingers. The flesh of the fruit gleamed like fresh snow. “What do you notice about the plants you’ve found here so far?”

“Well, they’re all tropical plants, and they like moister soils” Annika burrowed her foot into the damp, thick carpet of leaf litter. “The tallest trees form a dense canopy, shading and cooling the forest.”

Corrine waved the crushed snowberry at Annika. “They—” Annika hesitated, “they have soft, edible fruits?”
“Kind of. My dad pointed it out to me. Many of the plants here, like the snowberry, torchwood, pigeon plum, mastic, even the strangler fig—which I promise is here—produce small, brightly colored, flavorful berries that birds really like.”

Annika’s eyes widened in understanding. “So what you mean is the plants were introduced here? By migrating birds from the Caribbean?”

“Exactly,” said Corrine, “but a long, long time ago. These are Florida natives now. They were here long before people ever were. And there are other plants here that came on the wind. Hurricanes might have brought the seeds with them.”

Corrine wiped the snowberry off on her pants and pointed to the mastic. “Many of the plants you recognize are at the northern edge of where they naturally occur. It’s either too dry or too cool for them to spread any further north. Meanwhile,” she paused as she reached for a branch of a live oak and began to clambered up into the tree, “some plants here cannot spread any further south, because there is no cool season or it is too wet.”

“Like this live oak?” asked Annika as she climbed up after Corrine. The two girls monkeyed higher.

“Yes,” said Corrine, “and some others.” They stood on opposite sides of the live oak trunk, peering into the crook of its branches. The tree was crusted with many little plants of various sizes. “This is why I love climbing live oaks,” Corrine whispered. “It’s like a microscopic world here.” She pointed at a cluster of leaves that looked like feathers. “That’s Boston fern.”

“We call it sword fern,” said Annika. “And those are bromeliads, and those orchids.”

“And did you see this at home?” Corrine pointed to a small, tightly curled nest of dead-looking leaves.

Annika shook her head.

Corrine pulled her water bottle off her neck and carefully poured water onto the brown leaves. “Let’s mark this spot with some sticks so we can find it on our way back. This is resurrection
fern,” she whispered to Annika’s unspoken question. “It shrivels up when water is scarce and opens green when it rains.”
Hurricane-proof homes

The girls continued exploring the tropical hammock, peeking into occasional sinkholes, and climbing up interesting-looking trees. There were snails and insects nestled in the ferns and bromeliads hanging from tree branches. Occasionally they’d here the flutter of bird wings or the rustle of an animal clambering through leaf litter.

“Green anoles,” Corrine pointed out. Annika stopped behind her. They looked at the small, slender green lizard, which stared back at them warily from the trunk of a pigeon plum tree. The lizard’s little blue eyelid blinked. Corrine shifted her feet and the lizard darted around the trunk out of sight.

“We have brown anoles in Jamaica,” Annika said, “very similar to that little fellow, but with light brown diamond markings on their backs.”

“We have brown anoles here too, sadly,” replied Corrine. “They’re invasive though. They were brought here accidentally by people, and now they are multiplying faster than the green anoles.”

“It’s funny, isn’t it, that some species that come here from somewhere else settle in just fine, and others can be a problem?” said Annika.

Corrine nodded. “I think it all has to do with how long the ecosystem has to adapt to the new critter. If it arrived here thousands of years ago, the ecosystem has adapted to it. Twenty years ago, not adapted yet.”

“I arrived here last week,” said Annika, winking.

Corrine shook her head. “You aren’t exactly the first of your SPECIES to live here! Remember those Calusas? And there were probably different groups of people here before them. People just shift homes. Our impact comes from how many of us there are. People keep looking for jobs, for land, and for opportunities.”

“Maybe,” said Annika, “but maybe we also need to be careful what we bring when we move. My parents told me I couldn’t bring my pet snake with me, because it wouldn’t be allowed.”
“There are places here in south Florida where Burmese pythons now live in the wild,” said Corrine. “They’re eating up native birds and reptiles. Some of those pythons were probably once pets too.”


They stopped again at a gumbo-limbo tree. “We call it the tourist tree, because of its peeling red bark,” Corrine explained to Annika, “since it resembles sunburned skin.”

“I’ve never been sunburned,” Annika said.

“I wish I could say the same,” said Corrine.

“My grandmother taught me how to make a house from this tree,” said Annika, looking up into the gumbo limbo’s canopy. “If you stick a cut branch in the ground, it can sprout. So my grandmother cut enough branches to plant in a square, to make a small, one room house. She did this many years before I was born, so when I finally saw the square, it looked more like a bushy cube.”

“How did you get in and out of it?” said Corrine.

“That’s the genius part,” said Annika as they walked on. “My grandmother pruned it, so between two branches she cut all the little side-sprouts so that there’d be a doorway, and inside she cut all the inward growing sprouts so it’d be an empty room. She let the top sprouts branch out, and told me that if I wanted windows I just
needed to peek through the leaves. When I left the roof was finally thick enough to be kind of rainproof.”

Corrine shook her head in amazement. “Gumbo limbos are able to re-sprout after a hurricane that way, you know?”

“I didn’t, but that makes a lot of sense,” replied Annika.

“In fact, many of the trees here are adapted to withstand strong storms,” said Corrine. “Tropical hammocks are quite wonderful that way. They are like refuges. Since this ground is a bit higher, it is less likely to be flooded during a storm, and since the soil holds moisture, the plants may be less likely to burn in a drought. And many of the trees can stand up to high winds, so it’s a really great place for animals to find shelter. Of course there are still really strong hurricanes that can flatten a forest, and there are still severe droughts and fires that can do damage.”

Annika noticed a drop in Corrine’s voice. “So what’s the bad news?”

Corrine sighed. “There’s not much of this wonderful forest left. It is one of the rarest ecosystems in Florida.”

“Well, I’m glad I get to see it,” said Annika. “This place is special. It feels like home.”

The girls stopped. Up ahead, at last, was a strangler fig.
The lacey tower

“That’s it,” Annika squealed. “That’s a strangler fig!” Corrine watched as Annika made a running jump for the hollow column of tangled woody vines. Soon Annika was out of sight.

“You might at least say ‘thank you,’” grumbled Corrine to herself as she crawled under a vine and stood upright inside the column. She spread out her arms and turned, pretending to be the ghost of the old tree that had died in that space. The strangler’s roots had grown around the old tree, choking it to death by stealing light and water and nutrients. The old tree rotted to bits, leaving a hollow space inside the twisted strands and solid sheets of strangler roots. Corrine’s hands and feet found rippled edges of vines to grip. As she hoisted herself up, she heard Annika’s voice filter down from high, “Thank you, thank you, thank you, Corrine, this place is absolutely perfect!”

The girls moved from outside to inside the strangler as they spiraled up into the forest canopy. About 30 feet off the ground the vines branched into a shelf-like network and Annika paused to inspect her surroundings.

“These are pretty weird trees when you think about it,” mused Annika, as Corrine’s head popped up through vines and the other girl clambered onto the shelf. “They start growing when a seed sprouts high on a tree branch, maybe right here!”
“My Dad said that a fig-eating bird probably carried the seeds,” Corrine replied. “The birds fly and poop on other trees, dropping fig seeds in high branches. The seeds sprout and put out roots which dangle down the branches making for ground. Once the roots hit soil, the fig starts stealing nutrients and water from the host tree. It puts out leaves that capture the sunlight, shading the host tree in the process.”

Annika frowned in confusion. Corrine said, “It’s like the strangler fig becomes a jacket for the host tree. Except, the strangler is like a monster—it steals your food, drinks your water, and grows and grows, so that soon you’re tripping over your own feet because the cloth is tangled around your legs, and your face is peering out of collar because the monster grew up and over your head as well.”

Annika laughed as Corrine came around behind her in a bear hug. Corrine made her hands look like creeping vines and used them to cover over Annika’s face. She continued, “The poor host tree eventually dies, smothered,” Annika pretended to collapse and wiggled out of the bear hug, “and the fig can stand on its own.”

Corrine continued to make a hollow shape with her arms, and Annika imagined the old tree in that space. She then looked down through the shelf of vines and said, “Look at the size of these roots—they are a curtain of wood, just like in Jamaica.

Corrine cried out, “Wow, is that an orchid over there?”

The girls scrambled across the parting branches of the strangler. Corrine said, “Here’s a pretty snail, too!” She pointed to a tiny snail with a pink band and yellow and blue stripes crawling up the stem of the orchid clinging to a strangler branch. A frilly white flower dangled off the tip of the stem.

“The tree snails around here often have unusual, pretty colors and patterns,” Corrine explained. “That’s because the tropical hammocks are like islands in the middle of a “sea” of grasses or pine forest. So families of snails become isolated, and they develop unique characteristics not shared by other snails.”
Corrine gently touched the tip of the snail’s shell with her finger. The snail retracted into its shell. “A snail like this, specialized to live on a strangler fig, can’t cross the pine forest we just came through for new neighborhoods. Sometimes I feel very glad to have long legs.” She smiled at Annika, “and the ability to fly on airplanes. Come on, let’s climb a little higher and see if we can see the edge of this hammock.”

Annika did not need any encouragement to keep on climbing. Squeezing between two branches, she lifted herself to a sitting branch from which she could see the top of the forest.

“Oh!” she exclaimed. “We are nearly at the edge—and look down there. It’s a bunch of people!”

Corrine joined Annika on the branch and followed her gaze to the edge of the hammock. “You’re right. Be very quiet—we can spy on them from up here!”

Annika watched the group and then realized what they were doing. “Watch the one by the truck, Corrine. He is passing out something, and it looks like people are planting it. Who would want to plant a garden out here? Do you suppose it is sugar cane?”

Corrine watched the same person, and then the planters. “They aren’t planting in rows, that’s for sure. They are scattered all over the place. And that isn’t private property—I think it is part of the park that was hit by a hurricane a few years back. It really flattened most of the trees. Hey, maybe they are restoring the forest!”

“They must be,” agreed Annika. “Maybe we can help them!”

The girls scurried down the fig to the forest floor. They jumped and hopped over logs and vines as they made their way to the edge of the forest and the planting crew. As they got closer, however, they were surprised to see a barbed wire fence between them and the planters and a big sign that said “No Access.”
“Where did you come from?” asked the leader of the planters when he spied the girls peering through the fence. “This part of the park is closed to the public, you know.”

“We came to help,” offered Corrine. “Are you replanting the forest?”

“These are my favorite trees—just like the ones at home,” said Annika, “and I want to make sure this forest lasts a long time.”

A planter came forward and patted the leader on the shoulder. “They want to help, Bob, that’s good enough for me. We can use their energy.” She wiped the sweat from her forehead with a slightly muddy bandana and succeeded in smearing the dirt so that her eyebrows connected in a brownish fog.

“You need a mirror, Emma, or maybe a clean bandana,” chuckled Bob. “Ok girls, you can help us. If you go down to that corner you can squeeze through the fence opening, then come on back and get some seedlings. I’ll assign each of you to a planter to get started.”

The girls ran to the hole in the fence as Emma cleaned her face with some water. “Is that better, Bob?” she asked.

Bob inspected her face and nodded, “Now you’ve got it.”

“Thank you. Now, why don’t I take both girls? We can get to know each other a bit,” offered Emma. “Come with me,” called Emma as Annika and Corrine returned to the truck. “I’ll show you what we are doing here.”

Emma gave Corrine and Annika each a bag from the truck. Inside, the girls found tiny seedlings, different species with round, or star, or spiky leaves.

Emma explained, “We’re from the Native Plant Society. We’re restoring this area since it was so damaged by the hurricane. We are planting groups of shrubs and trees to mimic the natural forest. What you’ve got in those bags are baby canopy trees like mastic, gumbo-limbo, mahogany, and soapberry. In a year or two we’ll
return to plant trees and shrubs that will grow in the shade of tall trees, plants like wild coffee, pigeon plum, and white stopper.” She watched the girls finger the delicate seedlings. “So, how did you find us over here? We’re pretty far out in the park, after all.”

“We saw you from the top of one of the big fi—” Annika swallowed the rest of her sentence as she realized that maybe climbing the park’s trees wasn’t allowed, but Emma immediately guessed what they had been doing.

“You both climb trees?” Emma was surprised and amazed. “That’s an unusual hobby for girls your age.” She paused to think for a moment. “I think that puts a new twist on your offer of assistance. Let me go find Bob. Stay right here.”

As Emma walked off Annika grabbed Corrine’s arm and whispered, “I hope I didn’t get us into trouble—I want to help these people!”

Corrine whispered back, “I know, me too. Shhh! They’re coming back.”

Bob stared hard at the two girls. Emma cleared her throat and said, “Bob, do you remember the folks at the native plant nursery saying they needed more seeds to be able to supply seedlings for all the restoration activities that are going on?”

“I do, Emma. Have these girls collected seeds on their way through the park?”

Corinne and Annika stared at their shoes and shook their heads.

“No, but maybe they could, if we ask them nicely to climb some trees for us.” Emma winked at Annika and Corrine, whose faces were transformed into big smiles.

“You mean you don’t mind us climbing the trees?” Annika asked. “Then yes, of course we’ll help!”

“Yeah, we can climb any tree you want!” Corrine exclaimed. “We can’t always promise to beat the birds, but maybe someone can help steer us to the trees that have ripening fruits?”
Bob nodded. “I’ll get a list from the nursery of what they need, and ask the park naturalist if we could collect some seeds. I’m sure they will think that’s a better idea than bringing in seedlings from the other side of Florida.”

Corrine and Annika beamed. “We can help you any Saturday during the school year,” Annika offered.

“We live a few miles north of the park and we rode our bikes here today,” explained Corrine. Emma smiled at the girls and said, “I bet your Grandmother would be real proud of you, Annika, helping to restore a tropical hammock in Florida. It’s about time to put your tree-climbing skills to good use!”

The girls finished planting their packet of seedlings, left their names and phone numbers with their new friends, and agreed to take a ride around the park to get back to their bikes.

“I’m glad you pestered me into talking to you today,” admitted Annika. “This has been a great day!”

“And I’m glad our tropical hammock forest reminds you of the trees from Jamaica,” said Corrine. We can thank the birds and winds thousands of years ago that brought seeds to Florida from the Caribbean!
**Places to see tropical hammocks in Florida:**
Tropical hammock are restricted to South Florida, below the frost line, with well-drained soils. You can find examples of this rare system in
Arch Creek Park
Big Cypress National Preserve
Castellow Hammock Preserve
Collier-Seminole State Park
Everglades National Park
Fakahatchee Preserve State Park
Highland Hammock State Park
John Pennikamp Coral Reef State Park
Key Largo Hammock Botanical State Park
LaBelle Nature Park
Lignumvitae Key State Botanical Site

**Study Questions:**
What conditions make it possible for a tropical hammock to thrive?
What conditions make it difficult for a tropical hammock to survive?
Why is this a rare ecosystem in Florida?
Where can you find a tropical hammock?
Why do plants grow in a tropical hammock and nowhere else in Florida?
Be able to identify these plants:
gumbo-limbo
pigeon plum
poisonwood
strangler fig

Links to learn more:

South Florida Hikes -- http://www.floridahikes.com/south


Audubon of Florida-- http://audubonoffloridanews.org/?p=7296

Everglades National Park -- http://www.nps.gov/ever/index.htm