

A Huge Discovery

How do redwoods get so big? The secret is finally revealed.

“Nature’s skyscrapers,” says Lily Fox, pointing to the redwoods towering above her. Some of them are 350 feet tall. That’s taller than the Statue of Liberty!

How redwoods can grow to such heights has long been a mystery. But now Fox says she’s solved it.

Fox is a guide who leads tours of California’s redwood forests. She’s also a “tree-hugger” committed to saving the giant trees. “It takes six people to hug one of these beauties,” she jokes.

Redwoods are the biggest living things on earth. They’re also among the oldest living things. Some live for 2,000 years! Many things contribute to their incredible growth and long lives.

For one thing, they are very resistant to bugs, disease, and fire — things that often kill other trees.

Still, none of that explains why redwoods get to be so much bigger than other trees. But after years of study, Fox thinks she’s figured it out.

“Redwoods thrive in areas that flood a lot, where many other trees would die. And floods leave behind sediment, which is basically new soil,” says Fox. “So the soil level around the redwoods keeps rising.”



Ken Householder

BIG HUG: It would take six people to embrace this ancient giant.

All that soil has a dramatic effect on the growth of redwoods, says Fox. “Like all trees, redwoods grow by taking in soil particles through the roots and feeding them into the tree. The tree turns that soil into the woody mass that makes up the trunk and branches. And since redwoods have much more soil to ‘feed’ on than other

trees, they make more new wood and grow taller than other trees.”

Fox was on the team that climbed the world’s tallest tree — a 379-foot redwood. “As long as floods keep dumping all that extra soil at its base,” she says, “that tree will keep growing. It could top 400 feet!”