ROOTS OF LIFE

Written by **Henk Ekermans**
Directed by **Barend van der Watt**
Executive producers: **Martin Mészáros, Sabine Holzer**
3 x 50 min., 4K, 5.1 and Stereo

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The creators who brought you the multi-award-winning series "Rooted: Africa", now take you on a new journey of discovery … in the Americas.

Roots of Life' is a three-part series about three of Latin America's iconic trees. Each tree is a vast ecosystem that will entice even the most avid nature lover. A cast of charismatic characters take the viewers on a journey as they visit each tree. This series investigates their fight for survival in these untamed lands, and explores their link to some of the world's oldest living beings… trees! It's a series of extraordinary interlinked relationships… One link simply cannot survive without the others.

Episode1: A Hard Nut to Crack

When you think of a Brazil Nut, you generally picture the large, delectable nuts you buy in bulk at your local grocer… But you don't consider where these delicious treats come from. Yes, they hail from South American countries like Brazil, Peru and Bolivia, but the nuts aren't harvested on a plantation or cultivated in a nursery. For it to reproduce, the Brazil Nut tree relies on a series of intricate symbiotic relationships with plants, animals and insects found in the wild. This means that the Brazil Nut tree only grows in its natural habitat… the Amazon rainforest. It's here, in the heart of the Amazon that we find one of these incredible trees… a Brazil Nut nearly 40 meters tall.

Only one animal has teeth strong enough to crack open the tree's tough fruit, the agouti. For its survival, the tree relies on this rodent to disperse its seeds throughout the jungle. But the story doesn't end there, the Brazil Nut has another unique relationship with one of the Amazon's smallest inhabitants, the female Orchid bee. She alone can pollenate the tree's flowers and her survival depends on an orchid that only grows in the forest's canopy. This is just a small part in the intricate web of life centered around the Brazil nut tree, for monkeys, macaws, termites, and even frogs all utilize this awe-inspiring tree.

Episode 2: Tangled in the Tides

In the dank, tropical marshlands of Mexico, we find one of the biggest Mangrove trees on the planet… a Red Mangrove more than 20 meters tall. This tree, with its elongated spidery roots, is quite a sight to behold. Its vast, tangled root system is a magical realm that provides shelter and food to an array of animal species, from fish, crabs and crocodiles, to larger birds and mammals found nowhere else on the planet. In essence, the mangrove ecosystem is a wild city inhabited by an assortment of creatures… a metropolis for wildlife.

Highly adapted to grow in this swampy setting, the Red Mangrove has developed stilt roots that grow from high on the tree's trunk, or from its branches, down to the ground and into the water. Once the tip of the root meets the earth; many smaller roots develop from it to anchor the tree to the soil.

Unlike most trees, the Mangrove is not dependent on the seasons, but instead is ruled by the tides. And at both low and high tide, two completely different ecosystems manifest themselves. At low tide, mangrove root crabs and hermit crabs leave their burrows at the base of the mangrove and start collecting the tree's discarded leaves. This is also when herons hunt in the tangle of roots to feed on the abundance of crabs and fish living in the area. At high tide, the tree's submerged roots become an entirely different ecosystem. Numerous marine species, including fish and snails, use the Red Mangrove as a nursery. In turn, the fish nurseries attract fishing predators like the American crocodile.

For years, mangrove swamps were thought to be unhealthy breeding grounds for mosquitoes with no value to society. But today, we know that this fragile ecosystem provides valuable resources back to the planet. However, thousands of hectares of mangrove forest are still being raised each year and replaced by plantations and other developments. As the mangrove forests disappear, so does the species that live in them.

Episode 3: The Last Stand

On the snow-covered slopes of the Andes Mountains, living fossils have been rooted for thousands of years… Monkey Puzzle trees. Its most distinguished feature is the tree's leaves; dark green, rigid scales with spiny tips that spiral around the tree's branches. It's these leaves that indirectly give these trees their name; there are no monkeys found in Chile, but it's believed that a monkey would find it quite difficult to scale a tree with such hazardous leaves… hence, a puzzle for monkeys.

Monkey Puzzles belong to an ancient family of trees called conifers; these trees reproduce by means of cones instead of flowers. This episode follows the tale of two Monkey Puzzles, a male and female tree. The male tree's cones produce pollen that fertilize the female tree. The female tree's much larger cones produce large edible seeds, locally known as Piñones. In summer, Austral parakeets swarm the tree and break open the ripe cones to devour their delicious, nutty contents. But the parakeets are messy eaters, as they tear open the cones, many of the seeds spill to the ground unharmed where other animals, like the Chilean rock rat, and even foxes, eat the nuts.

Jeweled lizards also utilize the crevices in the Monkey Puzzle's unique bark, the ideal basking spot and hunting ground for these emerald reptiles. And amongst the trees gnarly roots, the Ocelot tarantula and the Short-tailed snake prowls for their prey.
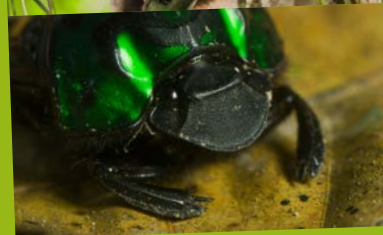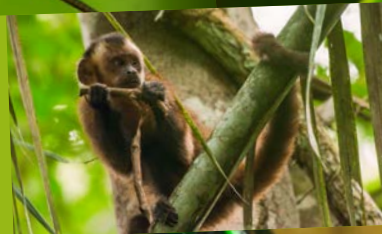
This series will chronicle the lives of various, little-known species found in the Americas, and explore their relationship with these remarkable trees in their natural environment. At the rate that we are losing these habitats, it's our responsibility to make humans understand how important these trees are for the survival of our planet.

A co-production of Terra Mater Studios, Rooted Media (Pty) Ltd., Smithsonian Networks in association with ARTE G.E.I.E.

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