

Rosy pilgrimag finding the water

"Soil and water, a source of life"

Text and illustrations by Diana Sandoval and Leidy Niño

All life on Earth thrives thanks to a simple yet extraordinary molecule: water. It flows throughout the terrestrial sphere in an endless cycle, sustaining life.

However, certain regions on Earth have historically experienced prolonged droughts. Have you ever wondered what happens beneath the surface during a drought?"

This story tells us through a worm the importance of water in the soil.



This book participated in the FAO scientific children's book contest, titled "Soil and Water: A Source of Life," on World Soil Day 2023.



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*Illustrations by Leidy Niño and Diana Sandoval

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My name is Rosy Peregrina, and this is my adventure in search of water.

I belong to the Glossoscolecidae family, one of the nine earthworm families found in Colombia. Often referred to as pilgrims, my family and I inhabit humid soils, contributing to soil formation. Moreover, we enhance soil fertility and physical properties by transforming it through our galleries, which serve as our homes. These galleries facilitate improved circulation of water, air, and plant roots. For this reason, we prefer soils with a medium texture, avoiding those that are too sandy or too clayey to ensure smoother movement.

We thrive among traditional crops like coffee and cocoa plantations, as well as the 'three sisters' polycultures of corn, pumpkin, and legumes — my favorites!. These environments are ideal for the natural multiplication of our species.

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A few days ago, we encountered a problem: the water sensors installed by the engineers reported a significant loss of moisture. A healthy soil should ideally consist of 25% water, 25% air, and 50% solid material. Currently, we are at only 10% moisture. If temperatures continue to rise and without rain the soil will become compacted, leading to the collapse of our water galleries and air passages. In a matter of days, the water supply will be depleted, leading to chaos.



Last night, I ventured out for some fresh air. The ground was arid, scorching, and compact rough to the touch and difficult to move. Despite the difficulty, hunger drove me forward. We cannot allow the rivers to dry up while the sky remains sealed. Without water, the life cycle will be disrupted, the soil will deteriorate, and life as we know it will cease. I know where I need to go. I have the coordinates, but it will be a long journey to find the water.

I remember my grandfather speaking of a place abundant with water, in the valley to the east. From there, one can see the towering mountains shrouded in clouds. This beautiful place is known as the 'Fluvial Star of the Cauca.' It's a privileged location situated in South America, in the southwest of Colombia.



This place is also known as a 'Páramo,' where my relatives reside. This species of worms is large, thanks to the higher concentration of oxygen in the water, and robust but quite slow. These worms dig deep to shield themselves from the cold and are responsible for caring for the 'water watcher's' land, known as frailejón. This exuberant plant is charismatic, with leaves resembling ears and tiny hairs covering its body. It absorbs moisture from the fog and releases it through its roots.

Yes! They produce pure water and facilitate its flow towards streams and rivers, making it drinkable for both humans and animals.



Although it may seem incredible, despite being so small, l can travel long distances. For me, crossing the village to reach the potato fields is not a challenge. Perhaps during the harvest, after the full moon, I can cling with all my strength to a potato root and be carried to the high mountains ...

Three days passed, and the harvest began. Many peasants arrived in the village, vigorously pulling up the potato plants with speed. Meanwhile, I clung cautiously to the roots, exerting all my strength, hoping not to be noticed. However, due to a sudden jolt, I was thrown off and fell to the ground.

My plan had failed. Feeling disheartened, I shared my concerns with my parents, siblings, and friends about the diminishing moisture and the urgency to find the source of water production. I spoke of how we could save our soil, our home, and our food, but no one seemed to understand.

I pondered how to travel to the Páramo. I knew that alone, I wouldn't get very far.

Today, I decided to explore the surface in search of a solution. However, I encountered the icy whiskers of a gluttonous mole. Moles are dangerous predators; their primary food is worms. They are swift diggers, capable of traveling long distances guided by the Earth's magnetic field, essentially using it as a map. With my last bit of strength, I shouted, 'Hey, heyeeeeee!' until I captured their attention.

- I said, 'I am Rosy. We are both blind, but I sense that you're aware of the water situation. Instead of making a meal out of me, would you like to join me on the greatest adventure of our lives? Would you come with me to the Páramo?
- He replied, 'Why would I want to go there?'

-I responded, 'In search of water."

- With a laugh, he said, "That's too far away, and it's too cold. I couldn't stand it.

I shared with him the stories my grandfather told me and my belief that the sealed sky indicated we were on the brink of a severe drought. Without water or food, everyone would be in peril.

-Fearfully, he asked, "Do you know how to get there?"

-l answered, "Yes."

-He said, "Nice to meet you, I'm Miguel. Where are we going?"



I lost track of how many days and nights passed before we reached the Páramo. The ground changed to a muddy texture, and a bone-chilling cold enveloped us, freezing us to the core. I finally understood why my relatives moved so slowly.

We encountered three worms who turned out to be my cousins. They led us to meet the water watcher, a wise and ancient frailejón. It was breathtakingly beautiful, even better than I had imagined.

-I said, "Lord Frailejón, we've come seeking your help. It hasn't rained in the valley for days, and the soil is becoming increasingly dry. I sense an impending drought. It may sound exaggerated, but I've followed my heart to come here. Can you please assist us in ensuring the rivers and streams don't run dry?" - The ancient frailejón responded, "The pure water flowing towards the surrounding regions of the valley will reach the sea. Along its path, it will rejuvenate the arid soil, fostering life. Fruit trees and various plants will flourish, yielding bountiful harvests. The fruits will nourish all, and their leaves will serve as medicine."

- All of this will continue to happen as long as humans preserve our habitat.

The drought lasted more than a year, but thanks to the active subway life, the rivers did not dry up and the soil did not continue to lose moisture, the plants survived and so did the life cycle. We realized that despite our differences—language, diet, species—we are united by a common desire to preserve life. The quest for water bridged the gap between predator and prey, propelling us on a joint journey in search of sustenance.

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This is the tale of Rosy, an earthworm who, confronted with an impending drought, embarks on a quest for water. Along the way, she forms a deep friendship and experiences various adventures. Join Rosy and his friend on this journey, highlighting the vital role of this magical liquid in our ecosystem.