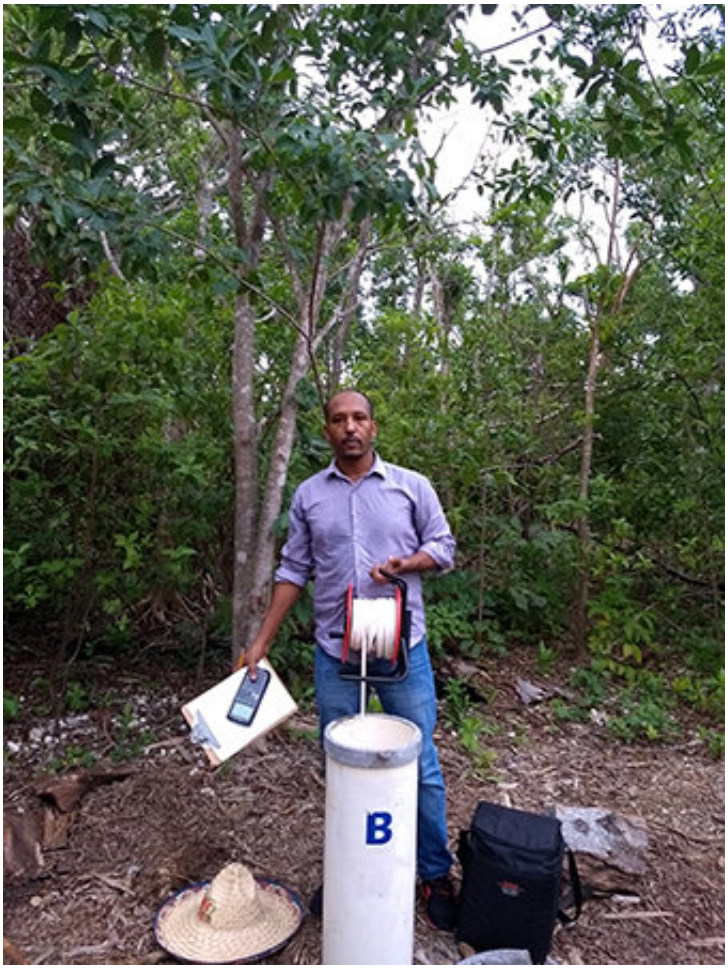
Researcher is thirsty for sustainable Everglades

April 2 2018



Anteneh Abiy conducts hydrology field work in the Florida Everglades.

Small-scale droughts can have big effects on the Florida Everglades. Ph.D. student Anteneh Abiy is digging deep into these abnormally low

rainfall events. He doesn't have to do go too far into weather data to begin his work. 2017 was drier than usual. The Everglades received 6 inches of rainfall less than the annual average.

Fresh water in the Everglades feeds into the Biscayne Aquifer, the main water supply for Broward, Miami-Dade, Monroe and Palm Beach counties. Small-scale drought events have cropped up over the past two decades, leaving lasting impacts on the county's water supply.

"Drought is a cancer. Its effects creep up little by little and you don't notice them until it's too late," Abiy said. "You can't predict when drought will happen. But, with the right information, you can design sound strategies to better store water in the Everglades, manage our water supply and take action immediately."

Rainfall puts fresh water into the Everglades. But lack of it causes communities to pump more water out from the ground for people to drink, cook with and clean with. At the same time, drought causes ground water levels to drop and salt water from the ocean to creep in to the ground water. The effects of increased demand from people and salt water intrusion circle back to impact the Everglades.

As part of his research, Abiy will present different management options that take into account how drought, sea level rise and water consumption all interact to affect the Everglades. He hopes the information will inform sound water management to ensure a sustainable future for the Everglades.

"Drought is a global phenomenon. What we learn about it in the Everglades can be applied to anywhere it happens," Abiy said. "If I can help uncover how drought affects our water supply, I feel like I'll have helped people. I feel like I'll have accomplished something with my life."

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Provided by Florida International University

Citation: Researcher is thirsty for sustainable Everglades (2018, April 2) retrieved 19 April 2024 from https://phys.org/news/2018-04-thirsty-sustainable-everglades.html

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