PHOTO: MPI FOR CHEMICAL ECOLOGY

80



Both the fruits and the leaves of the wild blueberry are a sought-after food. Clabe Wekesa is researching how plants defend themselves against pests.

Max Planck researchers cooperate with partners in more than 120 countries. Here they write about their personal experiences and impressions. Clabe Wekesa from the Max Planck Institute for Chemical Ecology in Jena spends two summer months north of the Arctic Circle. Using wild blueberries, he is investigating how arctic light conditions affect

plants' resistance to pests.

- While some people go for a jog to get away from work, I grab my basket and go blueberry picking. As I stroll around, I find it a wonderful time for contemplation. Besides, the small berries that grow even by the roadside here taste simply delicious – much better than the much larger cultivated blueberries from the supermarket.
- I've been in Tromsø in northern Norway for seven weeks now, nearly 350 kilometers above the Arctic Circle. Currently, I'm sitting in my office at the Arctic University of Norway, the

northernmost university in the world. In front of me is a stack of publications on the blueberry Vaccinium myrtillus because my research also revolves around this plant. The goal of my project, which is financially supported by Velux Stiftung, is to determine what influence the constant brightness of the Arctic summer has on the plant's capacity to defend itself against pests. As climate change progresses, this question becomes increasingly important because with rising temperatures, many plant pests are spreading further and further north. In my project, I collaborate with colleagues from the local university. I compare plants that grow here at 69 degrees north latitude with those from Jena at 50 degrees latitude. For my analyses, I collect leaves from my experimental plants and preserve them in liquid nitrogen. Thanks to state-of-the-art analytical methods, I can later not only break down plant hormones and metabolic products in

the laboratory, but even determine which genes were active in the leaf at the time of collection.

I owe the fact that I became a plant researcher to fortunate circumstances: I grew up in Kamukuywa in Bungoma, a remote village in western Kenva. My parents did not have even basic education, but they placed great importance on my three siblings and me attending high school. Afterward, I initially wanted to study pharmacy to research new active ingredients for medicine. However, the University entry requirements for pharmaceutical courses proved to be a real a challenge for me, so I enrolled in biochemistry instead and wrote my master's thesis in the field of plant biotechnology. I haven't regretted that decision for a second. Today, plants are the subject I find most fascinating! My professor at the time encouraged me to pursue a PhD. I was selected for a DAAD scholarship, and so I came to

POST FROM

Jena, where I completed my doctorate as part of an International Max Planck Research School. I now live there with my wife, who is also from Kenya, and my three-year-old daughter. While I'm in Norway, we communicate every evening via WhatsApp or have video calls. Being away from my family is not easy, but as a scientist, you have to be flexible about where you work.

TROMSØ,

NORWAY

Otherwise, I'm enjoying my time in Tromsø. I'm fortunate with the weather; it's usually sunny, with temperatures reaching up to 25 degrees Celsius. On weekends, I go hiking or sit by the window of my third-floor apartment, gazing out over the sea and the mountains while programming on my laptop. Late in the evening, I often take walks through the streets or along the beach. The perpetual brightness is fascinating. Sometimes I even get up in the middle of the night to take pictures of the

Sun. Perhaps one day, I'll manage to come here in winter. I would love to see the aurora borealis!

At the Arctic University of Norway, there are three research groups working on blueberries. The plant is also highly popular with the locals. Once, I had covered ten of my blueberry bushes in a small, forested area with black plastic caps to test the effects of light deprivation. The next time I visited, all the covers were scattered on the ground, and a woman was in the process of harvesting my test plants! She argued that the berries were common property, so it was not okay for me to claim the harvest for myself. Fortunately, the experiment could be quickly repeated – unlike a previous incident from an earlier stage in my career when cattle devoured the bean plants I had grown for my doctoral thesis. That mishap cost me three months!



81

Clabe Wekesa

37, appreciates wild blueberries not only for their research value, but also as a delicious treat. The plant scientist comes from Kenya and pursued his studies at Kenyatta University in Nairobi. Since June 2023, he has been working as a postdoc in Axel Mithöfer's research group at the Max Planck Institute for Chemical Ecology, where he investigates how plants defend themselves against pests.