

## Google Maps, Canopy Climber Save Ethiopian Church Forests

By Manuela Hoelterhoff | Mar 13, 2014

Conservation biologist **Margaret D. Lowman** spends a lot of time balancing at the top of trees. To get there, she's designed hot air balloons and travels the world with her climbing rigs.

Recently Lowman, 60, returned from Ethiopia, a country ravaged by droughts, yet also home to unusual Coptic churches surrounded by forests.

For centuries, priests have tended these oases which provide their people with medicines, fresh water and spiritual sustenance.

Lowman went there to raise awareness and document what's left with the help of a **National Geographic** biodiversity survey grant.

We spoke at Bloomberg world headquarters in New York a few hours before she flew to her new post as chief of science and sustainability at the **California Academy of Sciences**.

Hoelterhoff: Forests in **Ethiopia**! Who knew?

Lowman: I didn't. A student alerted me to their existence and the fact that he seemed to be the only one devoting his life to them. I couldn't but go. They're anything from five acres to about 1,500.

Hoelterhoff: What makes them unique?

Lowman: These forest patches are the last native seed banks for northern Ethiopia; think of it as a genetic library for the future of that landscape.

Hoelterhoff: Any drugs, medicines?



Source: California Academy of Sciences via Bloomberg

Conservation biologist Margaret D. Lowman in Ethiopia, home to unusual Coptic churches surrounded by forests.

## Prunus Africana

Lowman: One tree, Prunus Africana, is believed to be a cure for prostate cancer. Wild honey is very important; it's considered holy and is an important part of their cooking.

Water is one of the biggest health elixirs. Sick people come, bathe their feet in the springs, maybe stay a few days, get blessed by the priest. The cycle of water really is healthier with the shade of the trees.

My contribution was hosting workshops with the priests. Most don't travel outside of their own little forest patch and have no idea how unique it might be.

Hoelterhoff: Are the churches decorated?

Lowman: They're very small, but the inner sanctum can be decorated floor to ceiling with biblical scenes in colors derived from the plants.

Hoelterhoff: Their survival over the century seems incredible.

## God's Creatures

Lowman: The priests are responsible for the human spirit and all of God's creatures. So a successful priest must maintain a successful forest.

Hoelterhoff: What kind of animals live there?

Lowman: We're still answering that question. It's obvious there's been hunting -- people get hungry. There are limited populations of birds, a few small mammals, rat-related rodents, small, rabbit-like creatures.

Hoelterhoff: How tall do the trees get?

Lowman: The average canopy is probably about 75 feet (23 meters). The landscape used to be more wooded, and so they probably don't grow as tall as they used to.

Hoelterhoff: What's in the canopy? Any new critters?

Lowman: We've found a lot of nematodes and had to ask an expert in **Russia** to help us identify some of the mites.

Hoelterhoff: I was hoping for something larger. Who wants mites?

Lowman: They're great. Good for what they do. They're predators on really tiny things and part of the decomposition process.

Hoelterhoff: How many of these sanctuaries are there?

Lowman: The priests told us there were 35,000, which must have been a biblical statement. Now that we've had time to study the **Google (GOOG)** Earth images, it looks more like there are 3,500.

The neat thing about Google is that we could show the priests the shrinkage of their forests. They recognized their neighborhood. They never knew such a thing was possible. And they could see the degradation by the cattle eating away.

Now What?

Hoelterhoff: What's the next step?

Lowman: We are hoping to fence 28 **church forests** that are critical for biodiversity and a range of elevations.

Hoelterhoff: You're nickname is "Canopy Meg." How comfortable were these priests with a tree-climbing woman giving them advice?

Lowman: They asked me to promise that I will stay with them for the rest of my life and make sure that their forests are safe.

For more information, go to [www.treefoundation.org](http://www.treefoundation.org), which sponsors workshops to help preserve the church forests.

(Manuela Hoelterhoff is an executive editor at Bloomberg News. Any opinions are her own. This interview was adapted from a longer conversation.)

<http://www.bloomberg.com/news/2014-03-13/google-maps-canopy-climber-save-ethiopian-church-forests.html>