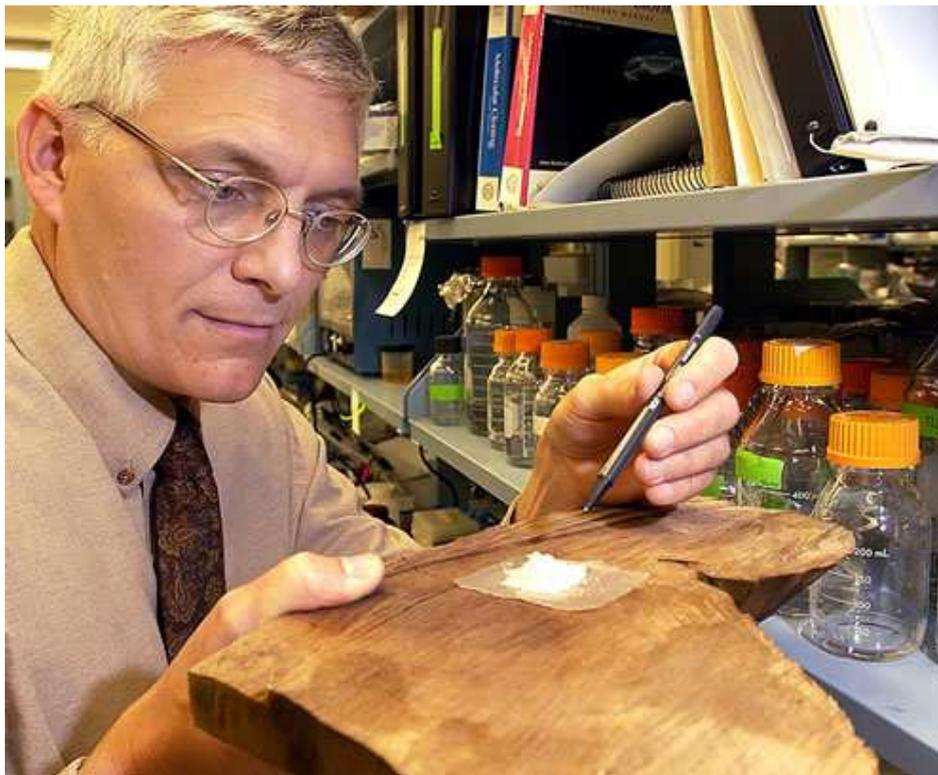




May 2nd, 2008 at 10:20 am

Scientists Creating Archive of All Tree DNA Worldwide

in: [Ecological Products](#), [Latest Trend](#), [People Making a Difference](#), [analysis](#)



TreeBOL, or tree barcode of life, will record and save all tree DNA

The New York Botanical Garden may be best known for its orchid shows and colorful blossoms, but its researchers are about to lead a global effort to capture DNA from thousands of tree species from around the world.

The Bronx garden is hosting a meeting this week where participants from various countries will lay the groundwork for how the two-year undertaking to catalog some of the Earth's vast biodiversity will proceed.

[Accredited DNA Test R2350](#)

Based in Johannesburg Accurate, Reliable, Fast
Results 5-7 Days
www.easydna.co.za

[South African DNA Test](#)

No Obligation Home Test Kit Paternity, Maternity
Accurate Test
www.dnatest.co.za

[ZS Genetics Images of DNA](#)

ZS Genetics Sequencing & Expression Detailed
images of DNA. Learn more
www.ZSGenetics.com

Ads by Google

The project is known as TreeBOL, or tree barcode of life. As in a similar project under way focusing on the world's fish species, participants would gather genetic material from trees around the world.

A section of the DNA would be used as a barcode, similar to way a product at the grocery store is scanned to bring up its price. But with plants and animals, the scanners look at the specific order of the four basic building blocks of DNA to identify the species.



The resulting database will help identify many of the world's existing plant species, where they are located and whether they are endangered. The results are crucial for conservation and protecting the environment as population and development increases, said Damon Little, assistant curator of bioinformatics at the Botanical Garden and coordinator of the project.

“If you don't know what you're potentially destroying, how can you know if it's important or not?” he said. “We know so little about the natural world, when it comes down to it, even though we've been working on it for hundreds of years.”

The undertaking is massive. Trees make up 25 percent of all plants, and Little estimates there could be as many as 100,000 species. The participants hail from countries such as South Africa, India, and, of course, the United States.

In order for the database to be useful, the same section of DNA must be used in all the samples so comparisons can be made across species. Part of the work at this week's meeting is to figure out which section to use, as well as other logistical issues among the

more than 40 participating organizations.

The garden received a grant of nearly \$600,000 to coordinate the project. While the genetic database won't be completed for two years, Little anticipates making headway in some specific areas — such as the flora of the Northeastern U.S. and parts of Malaysia, India and South Africa, as well as endangered tree species — in the meantime.

While the garden is a city cultural institution, researchers say visitors shouldn't be fooled by the pretty flowers — serious science goes on here.

“I think your average visitor comes here and sees the conservatory and the orchid show and goes home thinking it's a beautiful place, but doesn't realize this is home to one of the most active research programs in plant sciences in the world,” said James Miller, the garden's dean and vice president for science.

The garden was started with a science mission, since founder Nathaniel Britton and his wife, Elizabeth, were dedicated to researching the plant world, Miller said. They had a research interest in the botany of the Caribbean, which remains a focus at the garden.

These days, the research has expanded. The garden has projects in South America, is helping the government in Micronesia with habitat preservation and has an emerging program in Southeast Asia.

And back at home in the Bronx, state-of-the-art labs allow researchers to examine plant DNA to figure out how genes influence plant development and to examine the relationships between plant species. The garden is also home to a collection of more than 7 million dried plant specimens, Miller said.

“It is some of the best and brightest botanical science done anywhere in the world,” said Thomas Lovejoy, president of the H. John Heinz III Center for Science, Economics and the Environment in Washington and a member of the garden's board.

Via [CNN](#)

You must be [logged in](#) to post a comment.