

George's Jungle

An effort to save some of the planet's most critical habitat leads to creating an international research station

by Nina Shepherd

On May 23, Bell Museum curator of plants George Weiblen was surrounded by heads of state from Papua New Guinea, top executives of a transnational shipping company worth billions—and 22,000 acres of the densest tropical rainforest in the world.

As a leading scientist at the newly opened Swire Papua New Guinea Research Station, a facility devoted to tropical forest research, botanist Weiblen was on hand to celebrate the center's grand opening, as well as a wonderland-like journey eight years in the making.

Swire station is located in Papua New Guinea's Madang Province, a low-lying region known for its punishing humidity and lush, tropical rainforests. Third in size only to the

Amazon and Congo's, Papua New Guinea rainforests make up less than one half of one percent of the Earth's land mass, but are home to more than 5 percent of the world's plant and animal diversity.

The research station, located in a 22,000-acre forest, is a four-hour hike from the nearest road. It's only a brief walk from the research station to Weiblen's research plot where he and his research students began to map, measure and identify some 250,000 trees in a 125-acre plot of jungle just last year.

Weiblen's research is part of a global network of rainforest studies coordinated by Harvard University's Center for Tropical Forest Science (CTFS). The center provides a long-term scientific framework for monitoring the effects of climate change through a series of forest plots across the globe.

"Trees are



perfect climate-monitoring stations," says Weiblen. "They don't move and their growth and health are affected by carbon dioxide in the atmosphere, as well as other variables like rain, sun and temperature."

Like many forests in undeveloped countries, Papua New Guinea's tropical forests are in the crosshairs of international logging companies. The majority of the country's trees are mature hardwoods of a uniform size—highly prized on the

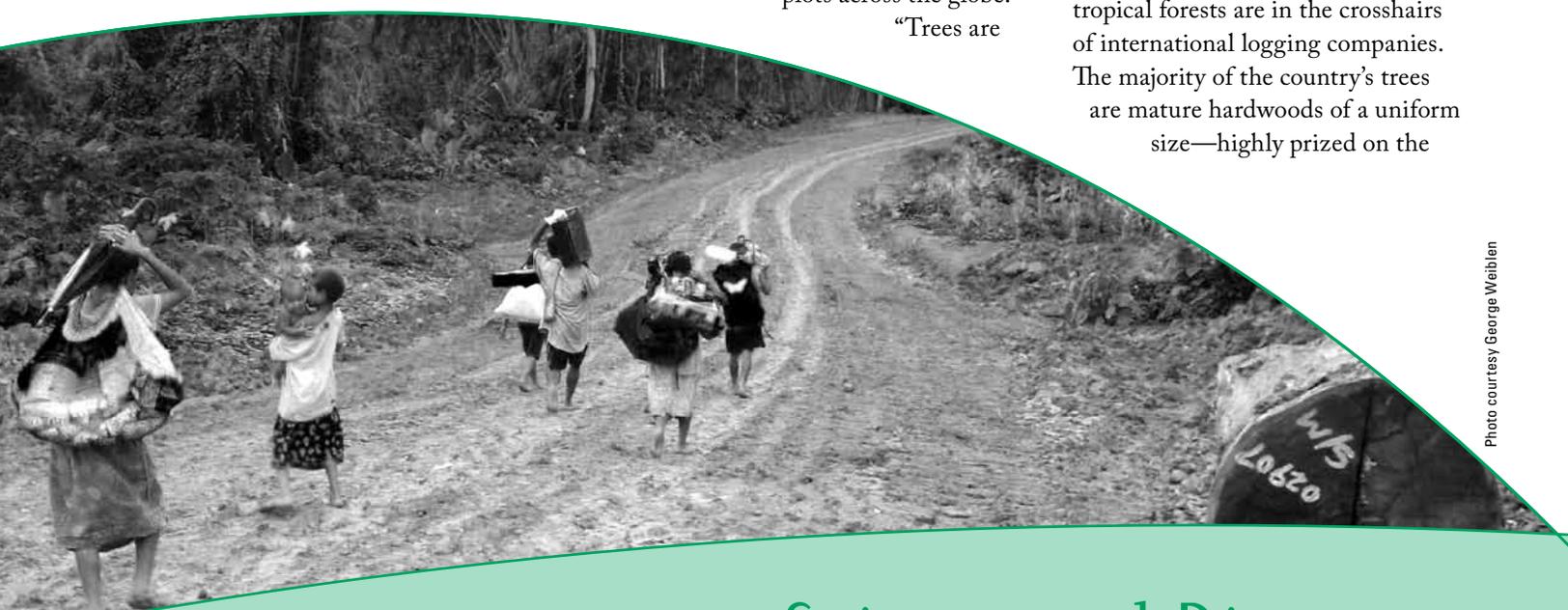


Photo courtesy George Weiblen

Logging roads provide access to the jungle but also are reminders of dwindling habitat for animal and plant species—known and unknown—in Papua New Guinea.

Science and Discovery



Photos courtesy George Weiblen

Building trust and true partnerships with native peoples is central to the success George Weiblen is having in Papua New Guinea.

international market and quick work for experts in tree removal.

One of the most diverse countries in the world in terms of people and languages, Papua New Guinea is a tribal society with indigenous clans claiming ownership of the land. Members of the Wanang clans watched their neighbors sell logging rights to the forests in exchange for a devastated landscape, small royalties and temporary roads. Wanang leaders approached Weiblen and colleagues, who were doing ecological research in the area, with the idea of renting the forest to researchers. Instead of exporting raw logs for cash why not import jobs to the community through field research?

With financial support from CTFS, the National Science Foundation and John Swire & Sons Ltd., a British-based international shipping company, Weiblen presented tribal leaders with a plan—long-term access to the forest in exchange for on-site education, health care and local employment opportunities. Despite cultural challenges, land disputes, language barriers (Weiblen speaks Melanesian pidgin), and financial pressures, the new research station is officially open for business.

“Forest conservation on indigenous lands is a tricky proposition—one that hasn’t been perfected by anyone,” says Weiblen. As the project’s go-to guy with a 25 person staff, Weiblen often receives urgent satellite phone calls from Wanang in the middle of the night at his home in St. Paul. And Weiblen is still in a race against time as development threatens to extinguish Papua New Guinea’s biodiversity before it can be recorded or protected.

Weiblen has led an effort to designate forest reserves in lowland logging areas by founding the station, the forest plot, and a surrounding protected area. “I suppose it’s Lutheran guilt that compels

me to give something back to Wanang after all we’ve discovered there,” he says. He’s confident that the Papua New Guinea experiment has enriched the lives of students, researchers and local people. He’s less sure about whether what he’s done to help protect the biodiversity will stick; “the biologist in me is content, but the environmentalist in me isn’t at peace yet.”

Weiblen plans the next steps for one of his collection trips with the advice of village leaders. Their knowledge of plants and animals, as well as the local terrain, is critical to Weiblen’s research.

