



quantities of sea salt into the air and study their cloud-whitening effects.

The meeting also featured five breakout groups that focused on drafting research guidelines for the various kinds of approaches. What level of involvement by governments is appropriate? What role should the military or private companies play? A breakout group devoted to the idea of blocking sunlight, for example, struggled over whether for-profit companies should be barred from the enterprise to ensure maximum “transparency.”

Given all the conferees were asked to take on, it’s not surprising that many loose ends remained as they headed home. (The 14-hour days drew few complaints—“I had no one ask that we meet less and go walk on the beach,” marveled scientific organizing committee chair Michael MacCracken of the Climate Institute, which co-sponsored the meeting.) The final statement was approved by the 13-member organizing committee, for example, although MacCracken hopes to gather signatures from all of the participants over the next few weeks. In addition, the

breakout groups are still massaging suggestions on voluntary guidelines for specific geoengineering approaches.

Reflecting the feeling that the meeting was only a start, some participants dubbed it “Asilomar 2.1” as a sign that more meetings would be needed. But everyone seemed optimistic that the answers would eventually provide a solid foundation for the fledgling—if frightening—field. “Asilomar 3 will be in another 30 years, for the next discipline,” predicted Socolow.

—ELI KINTISCH

## ECOLOGY

# Madagascar’s Forests Get a Reprieve—But for How Long?

Conservation biologists are cautiously celebrating a victory in the effort to pull Madagascar’s unique biota back from the brink of extinction. Last week, after months of pressure from scientists, conservation groups, and foreign diplomats, Madagascar’s military rulers announced a ban on the logging and exportation of rosewood, a commodity from a threatened ecosystem. Logging of rosewood was banned before but resumed after a military coup toppled Madagascar’s science-friendly government a year ago and relaxed controls (*Science*, 27 March 2009, p. 1654). By decree on 24 March, the military government reversed its decision of 6 months earlier.

The government decree has cheered ecologists who have heard only bad news from Madagascar for the past year. “We made it,” says Lucienne Wilmé, editor of *Madagascar Conservation & Development*. But now, she says, the challenge is to ensure that the rosewood ban is enforced.

Madagascar has 43 species of rosewood trees—all but one of which exist nowhere else—and thousands of endemic plant and animal species that depend on them. One such species is the silky sifaka, a lemur. It is one of the rarest mammals on Earth, found only in Madagascar’s

northeastern rosewood forests, where loggers are encroaching.

Conservation in Madagascar has never been easy, says Brian Fisher, an entomologist at the California Academy of Sciences and director of the Madagascar Biodiversity Center in Madagascar’s capital, Antananarivo. Inhabitants of the California-sized island are among the poorest in the world. They have stripped more than 90% of the forests for agriculture and charcoal. Since the coup, most foreign aid to the country has been frozen and eco-tourism has plummeted, worsening poverty.

In the months after the regime’s relaxation of restrictions on the hardwood trade in September 2009, researchers watched helplessly as Madagascar’s forest reserves were plundered. “First come the loggers,” says Fisher. After the loggers cut down trees, “the next victims are the lemurs, as [loggers] set up lemur traps to feed themselves and to sell locally for cash.”

If it stopped there, says Fisher, “these forests might recover.” But what comes next is far more destructive: The vegetation is cleared to the ground, and “the door is now open for settlers.” In the middle of the northeastern

Ambatovy Reserve, a government official “has built his home out of rosewood and moved in 60 cattle,” says Fisher. “If the land grab continues another year, there will be nothing left of what was once the most beautiful, species-rich lowland forest in Madagascar.”

“The northeast is a precious area, and it is being hit very hard right now,” says Anne Yoder, director of the Duke Lemur Center in Durham, North Carolina, but it’s not the only place. Data gathered by Meredith Barrett, Yoder’s Ph.D. student at Duke University, reveals that other rosewood forests across the country are in danger. Rosewood is particularly sensitive, says Barrett, ▶



**Tree tragedy.** One year after a bloody military coup in Madagascar, logging of endangered rosewood forests in formerly protected areas is rampant.

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because “it is slow-growing and also grows at a very low density.” Populations of rosewood could go extinct locally in a matter of “months or years,” she says. To be more exact she needs more data.

But studying Madagascar’s forests has become dangerous. Fisher says visitors are sometimes threatened by organized criminal loggers. During his recent survey of the northeastern forests, he says, “we had to monitor our food for possible poisoning.” He found only a single unpaid ranger “confronting the lemur trappers and loggers. ... His life is continually threatened.”

Will the new rosewood logging ban reverse the damage? “Given this government’s track record, I would be surprised if

they actually enforce the decree,” says Yoder. She says it is likely “a PR move” to placate international aid donors. Rosewood exportation remains temptingly lucrative. Edelin Calixte Randriamiandrisoa, a former army officer who is now Madagascar’s Minister for the Environment, declined to comment. Still, the ban is undeniably “good news,” says Yoder. “The government is obviously beginning to feel the international heat.” But she says the international community needs to move quickly.

“The next and best step” is to protect all of Madagascar’s rosewood trees as threatened species under Appendix III of the international Convention on International Trade in Endangered Species of Wild Fauna and

Flora (CITES). Nine of Madagascar’s rosewood species are already listed as endangered. But once the trees are reduced to logs, “identifying specific species is next to impossible” without a DNA test, says Erik Patel, a lemur biologist at Cornell University. So all of Madagascar’s rosewood trees would need equal protection, he says.

Madagascar could call for protection of its rosewood unilaterally under Appendix III of CITES. If it doesn’t, the next chance to propose global protection of rosewood will be at the 2011 meeting of the CITES Plants Committee in Geneva, Switzerland. But if the 2 years go by without enforcing the logging ban, says Barrett, “then the outlook does not appear good.” —JOHN BOHANNON

## ScienceNOW

### From *Science’s* Online Daily News Site

#### Could Tiny Bubbles Cool the Planet?

In an effort to curb global warming, scientists have proposed everything from launching sunlight-blocking dust into the stratosphere to boosting the amount of carbon-sucking algae in the oceans. Now, a Harvard University physicist has come up with a new way to cool parts of the planet: pump vast swarms of tiny bubbles into the sea to increase its reflectivity and lower water temperatures. <http://bit.ly/microbubbles>



#### Murder or an Accident? The Brain Knows

If a stranger steps on your foot, you’d probably shrug your shoulders and assure him that no harm has been done. But if that stranger instead takes a swing with his fist, most people are unlikely to be so forgiving. Researchers now believe they’ve demonstrated which part of the brain gauges another person’s motives, a find that could lead to a greater understanding of Asperger syndrome and other autism spectrum disorders. <http://bit.ly/moraljudgement>

#### Toward Liquid-Cooled Computers

Tired of the dust bunnies sucked into your computer’s air-intake grill? Experts say a new technique called superwicking could provide a better way to cool computer hardware and could help remove one of the biggest barriers to a new generation of high-powered microprocessors. And in the meantime, it could prove a boon to tiny fluid-based sensors. <http://bit.ly/coolcomputers>

#### First Motion-Powered Nanodevices

Someday soon, simply walking with your iPod in your pocket could keep it charged, and the lub-dub of your heart could power a portable blood-pressure sensor. These innovations might be based on flat, paper clip-sized “nanogenerators,” unveiled in a new study, that pump out the same voltage as a AA battery when they are squeezed, bent, or shaken. <http://bit.ly/nanodevices>

Read the full postings, comments, and more on [news.sciencemag.org/sciencenow](http://news.sciencemag.org/sciencenow).

## ScienceInsider

### From the *Science* Policy Blog

The most controversial patents in biotechnology—covering **breast cancer genes *BRCA1* and *BRCA2***—were declared invalid this week by a U.S. district court. <http://bit.ly/diZOey>



**Cold Spring Harbor Laboratory** has sued its law firm, claiming that the patent application it submitted for discoveries in RNA interference contains “extensive portions” of material from another scientist’s patent application. <http://bit.ly/c67Wf7>

Britain’s Labour government provided **additional support to universities** for training science and engineering majors and backed construction of a London biomedical center in a new budget that largely marks time before the country’s general election later this spring. <http://bit.ly/aDBApl>

U.S. Energy Secretary Steven Chu has steamed to the rescue of one of his flagship research programs less than a week after a congressional spending panel reiterated its confusion over the **large, multiyear energy hubs** in the department’s 2011 budget. <http://bit.ly/a7cd4p>



A thumbs-up this spring by the host prefecture would allow Japan’s **Monju experimental fast-breeder reactor** to resume operations after a 14-year delay. <http://bit.ly/ci954m>

Britain’s new “Principles for the Treatment of Independent Scientific Advice” have stirred controversy by suggesting that **scientific advisers be required to “maintain the trust”** of politicians. <http://bit.ly/bbmoiA>

For the full postings and more, go to [news.sciencemag.org/scienceinsider](http://news.sciencemag.org/scienceinsider).