Treetop ecologists brought down by miners

Declan Butler, Paris

Tropical ecologist Pierre-Charles Dominique will be out in a helicopter over the Amazon this month, helping to track down illegal gold-miners.

The 'garimpeiros', who have been wreaking damage on the environment for years, have now had a more direct effect on ecological research in the area — last month they ransacked Dominique's research camp, taking material worth €75,000 (US\$92,000) and delaying an ambitious new project.

According to witnesses, illegal gold-miners arrived by canoe at a camp belonging to the Nouragues research station in French Guiana on 12 June. They stripped it bare, taking everything from hydraulic pumps and diesel engines to solar panels and food.

The material was intended for the first trial of the Canopy Operation Permanent Access System (COPAS) — a European project designed to allow researchers easy access to the treetops of a tropical rainforest. When completed, a huge helium balloon will float above the trees suspending a basket that can hold two scientists, who will be able to move vertically and horizontally within the canopy along a system of cables. This will be a boon for researchers who have had to climb trees, swing on aerial walkways or hang from giant cranes to get their data.

The ransacking will delay the project for several months, predicts Dominique. The researchers will also have to ask the French



Dirty tricks: illegal mines damage the Amazon.

National Centre for Scientific Research (CNRS) for extra funds to replace equipment.

Mining has flourished in Guiana over the past two years; there are now at least 10,000 clandestine miners. More than 25 illegal mines are though to operate in the 1,000 square kilometres of Les Nouragues natural reserve.

These cause substantial ecological damage: river beds are suctioned for gold nuggets, trees are felled, and mud and mercury pollute waterways. Studies show that some 280 tonnes of mercury compounds have accumulated in the environment because of mining in Guiana over the past century, and illegal mining continues to add

5 to 10 tonnes annually. Mercury levels in fish and the local population are also high.

"Without massive intervention by the gendarmerie, it will soon be impossible to pursue the scientific research, carried out since 1986, at the Nouragues station," warned the World Conservation Union following a meeting in Paris on 22 June. On 28 June, the local government in Guiana called on the French president, Jacques Chirac, to establish an emergency plan that "mobilizes all human and material means to have the law respected".

The police have already been given some powers to tackle the situation. In September 2002, they were authorized to destroy on sight all miners' equipment. Special intervention squads have also been created. But search-and-destroy missions are not easy, says Dominique. Illegal sites are readily spotted from the air, he says, but miners deliberately fell trees in nearby clearings to prevent helicopters from landing. This forces the police to make risky rope descents or to approach inland, giving the culprits time to escape.

Several sites have been destroyed in a recent intensification of operations, and the police are also working to dismantle the criminal networks that organize the mining. Dominique says his discussions with local officials have reassured him. "It's too soon to have an official response" from the French government, he says. "But I'm working closely with the local gendarmerie, and they have made Nouragues a priority."

'Inspirational' leader quits Madrid heart project

Quirin Schiermeier, Munich, and Monica Salomone. Madrid

A top Spanish cell biologist has spurned the chance to lead a huge cardiology centre under construction in Madrid.

Salvador Moncada, director of the Wolfson Institute for Biomedical Research in London, has been consulting for five years with the National Centre for Cardiovascular Research (CNIC), which is being built by the Spanish health ministry.

Moncada — an expert on the role of nitric oxide in cell signalling — had been planning to take over as the CNIC's scientific director early next year, when about 100 researchers already employed by the centre will move into its new laboratory building.

But immediately after the Spanish elections in March, and just before the newly elected socialist government took power, the health ministry terminated Moncada's consultancy contract. According to sources close to negotiations, officials at the ministry decided that its terms were too generous.

The ministry offered him new terms, but Moncada turned them down and said he would quit the CNIC.

"The rigid Spanish bureaucracy, the excess of authority and, lately, the political defamation have made me take this decision," he wrote in an e-mail to CNIC staff. By defamation, Moncada is believed to mean information leaked to Spanish newspapers about alleged irregularities with business expenses that he claimed while consulting for the centre in 1999. The source of the leak is not known.

Moncada says the salary he has been offered by the ministry is a quarter of what he gets in Britain. "If the government is serious about calling high-profile scientists to Spain it must offer competitive conditions, as Real Madrid did for David Beckham," he says. Beckham is a footballer who left Manchester United for Real Madrid in 2003.

Senior researchers at the CNIC fear that Moncada's departure will spell trouble for the laboratory, which is expected to host up to 15 internationally recognized groups, including more than 300 scientists, by 2007.

"The huge respect he enjoys in the community was key to attracting some of the most talented young researchers in the field," says Santiago Lamas, a group leader at the CNIC who studies diseases of bloodvessel walls, such as arteriosclerosis.

"It's an immense loss," says Juan Redondo, who leads a group investigating gene expression in blood-vessel walls. "The inspiration and motivation he has given us are not going to be easy to replace."

Redondo hopes that Elena Salgado, health minister in the new government, might yet persuade Moncada to change his mind. But some observers doubt that the left-leaning minister will go out of her way to up the terms of the deal offered by her predecessor.

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