

Mexico's monarch butterfly reserve stops logging (Update)

August 15 2012, by MARK STEVENSON



In this Dec. 9, 2011 file photo, a Monarch butterfly perches on a branch in the Sierra Chincua Sanctuary in the mountains of Mexico's Michoacan state. The Monarch butterflies arrive in central Mexico usually around the first week of November, after their yearly migration from Canada and begin their return around March. (AP Photo/ Marco Ugarte, File)

(AP) — Illegal logging has practically been eliminated in the western Mexico wintering grounds of the monarch butterfly, according to a research report released Wednesday, and Mexican officials now hope to use the successful program of anti-logging patrols and payments to rural residents to solve other forestry conflicts throughout the country.

The government, environmental groups and private donors have spent millions of dollars to get residents of forest communities in the butterfly reserve to plant trees and start ecotourism businesses to benefit from

widespread fascination with the monarchs' yearly multi-generational migration through Canada, the United States and Mexico. They hope a similar solution can work for areas where illegal logging has caused armed conflicts and killings.

"This has been a successful program," said Environment Secretary Juan Elvira Quesada. "We want to keep expanding it."

It is the first time that logging has not been found in detectable amounts since the mountaintop forests west of Mexico City were declared a nature reserve in 2000, according to a study of aerial photographs of mountain reserve.

"The battle is not yet won," said Omar Vidal of the environmental group WWF Mexico, saying that policing efforts in the pine and fir forests must be continued. He said small-scale logging may still be going on, and that more efforts are needed to offer economic alternatives to the communal farmers who live in the reserve and formerly made money from logging.

Logging was once considered the main threat to the reserve. At its peak in 2005, logging devastated as many as 1,140 acres (461 hectares) annually in the reserve, which covers 193,000 acres (56,259-hectares).

Around the same time, armed police were assigned to patrol the reserve and shut down illegal logging operations. Elvira Quesada recalled directing one of the first mass police raids against loggers in 2003, when saw mills and trucks loaded with logs were still a common sight. "There were hamlets that hung out signs saying 'no environment department official allowed.'"

Simultaneously, donor groups started nurseries in the local towns to grow seedlings for reforestation efforts and helped build tourism facilities, to

give communal farmers alternative sources of income. Some are paid to be part-time guards and report the presence of loggers.

Lincoln Brower, an expert on monarch butterflies and emeritus zoology professor at the University of Florida said "it appears that the Mexican government has greatly improved their stand against massive illegal logging, for which I congratulate them heartily."

Brower cautioned in an email that "predatory individual tree removal (by individuals and small groups of loggers) is largely undetectable" by studying aerial and satellite images. He said he had seen forest degradation during visits to the reserve in 2010 and 2012, and said "until the government establishes a system of close and continuous year-round, on-the-ground monitoring and official guarding, this ongoing and progressive degradation will continue."

Vidal said climate change now appears to be affecting the forests that shelter the butterflies after their annual migration from the United States and Canada. The study shows that bark beetles, drought and a parasitic plant infestation of mistletoe, a vine that strangles trees, caused a combined loss of almost 52 acres (21 hectares) of pine and fir forest.

Changing climate patterns have alternately caused droughts, which stress the trees and make them more vulnerable to bark beetles, and also heavy rain and wind storms such as those in 2010 that caused forest loss due to mudslides. Brower criticized government efforts to remove fallen trees from those storms, saying it was better to let them lie where they had fallen.

The number of monarch butterflies wintering in Mexico dropped 28 percent this year, according to a report released in March, a decline some experts attribute to drought in parts of the United States and Canada where the butterflies breed and begin their long migration south.

The numbers of butterflies spending the winter in Mexico have varied wildly in recent years. Concern rose two years ago, when their numbers dropped by 75 percent in the wintering grounds, the lowest level since comparable record-keeping began in 1993. The number nearly doubled last year from that record low point.

The migration is an inherited trait; no butterfly lives to make the round-trip. The millions of orange-and-black butterflies cluster so densely on tree boughs in the reserve that researchers count them by the number of acres they cover.

Elvira Quesada said officials are trying the same approach in the Michoacan town of Cheran, where a conflict between illegal loggers and local residents has resulted in about a dozen deaths in recent months. Residents of Cheran put up roadblocks and demanded the army be sent in to protect them from logging gangs.

It is also being tried in the Chimalapas region on the border between the southern states of Oaxaca and Chiapas, where Indian communities are fighting over land and forest resources.

The measures could be used in "land conflicts, environmental and law enforcement disputes, where the key to the solution is preserving natural resources," Elvira Quesada said.

Copyright 2012 The Associated Press. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

Citation: Mexico's monarch butterfly reserve stops logging (Update) (2012, August 15) retrieved 14 July 2024 from <https://phys.org/news/2012-08-mexico-monarch-butterfly-reserve.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is

provided for information purposes only.