

Butterflies Make Partial Comeback in Mexico

AP Associated Press



AP – FILE - In this Nov. 25, 2007 file photo a couple of monarch butterflies perch on a tree at the Monarch ...

By MARK STEVENSON, Associated Press – Mon Feb 14, 2011; 4:47 pm ET,br>

MEXICO CITY – The number of monarch butterflies migrating from Canada and the U.S. to Mexico has increased this year, a hopeful sign following a worrying 75 percent drop in their numbers last year, experts reported Monday.

The total amount of forest covered by the colonies — millions of orange-and-black butterflies that hang in clumps from the boughs of fir trees — more than doubled from last year's historic low. But concerns persist about the monarchs' long-term survival, because their numbers remain well below average.

This winter, there are 9.9 acres (4 hectares) of colonies, more than double the 4.7 acres (1.9 hectares) last year, the lowest level since comparable record-keeping began in 1993.

"These figures are encouraging, compared to last year, because they show a trend toward recovery," said Omar Vidal, director of the conservation group World Wildlife Fund Mexico, which sponsored the study along with the government Commission on Natural Protected Areas and the cell phone carrier Telcel. Despite the rebound experienced by this mysterious scientific phenomenon, historically a huge tourist draw, the latest numbers are well below the almost 20 acres (8 hectares) covered in the 2008-09 winter season and the record high of 45 acres (18.2 hectares) in 1996-97. <P>

"Fluctuations in insect populations are normal in nature," the study's sponsors said in a statement. "With regard to the monarch butterfly, these fluctuations could be due mainly to climatic conditions," including especially cold or dry years in the United States and Canada, where the butterflies that make the trip are born.

But experts said natural variation doesn't fully account for a long-term decline in average numbers. The butterfly population also has been hurt by deforestation of the mountaintop pine forests in Mexico's western Michoacan state that serve as "blankets" to protect the insects against winter rain and cold. The WWF, private companies, international groups and Mexican state and federal governments have been battling deforestation over the past decade. They sent police to raid illegal sawmills and started alternative income projects, such as tree nurseries, for the farm communities that own land in federally protected reserves.

Lincoln Brower, an expert on monarch butterflies and zoology professor at the University of Florida, said this year's recovery is good news, but adds that each time the butterflies "recover," they slip to lower and lower numbers. "What is ominous is that all of the last seven years have been below average," he said.

Brower points to several possibilities for the decline: climate changes, deforestation, and the existence of genetically modified crops and pesticides, which crowd out the milkweed plants where monarchs lay their eggs.

Brower also noted monarchs have disappeared from some forest patches where they traditionally wintered. The study released Monday said two traditional wintering areas — Cerro Prieto in Michoacan and La Mesa in neighboring Mexico State — had no butterfly colonies this year.

No monarch lives long enough to make a round trip from the U.S. and Canada to Mexico. That is what makes the return of new butterflies each year more fascinating: No single butterfly "remembers" the route. Some colonies return to patches of forest that have been dangerously denuded by logging or severe storms. The preference for areas they "know" can create a death trap as they try to winter in inadequate surroundings rather than seeking better patches of woodland nearby.

Brower is investigating the hypothesis that if butterflies somehow "mark" their wintering grounds, perhaps chemically, that marker could be replicated and used to lead the monarchs to areas where they would be safe.

Mexico appears to be winning its battle against logging in the monarch reserve. Illegal tree-cutting amounted to 3.7 acres (1.5 hectares) last year, down 97 percent from two years ago. At its peak in 2005, logging devastated as many as 1,140 acres (461 hectares) annually.

Regardless of the area's comeback, the 193,000-acre (56,259-hectare) reserve in Michoacan faces other threats: Drug-fueled violence in the state has prompted travel warnings by foreign governments and cut tourism revenues that farm communities need to offset income lost from logging.

Rosendo Caro, director of the reserve, said the number of tourists has fallen as much as 50 percent in recent years — even though no violence has taken place within the reserve. Previously, more than 110,000 people visited each year. "The many people who visit realize that, while there is undeniably an atmosphere of violence, that's really more of a problem of perception," Caro said. "The people in the region are friendly and respectful."