

MSU environmental scholar heads into heart of the Amazon

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Bob Walker, Michigan State University geographer, and colleagues are conducting the first research expedition of the westernmost leg of the Transamazon Highway deep in the heart of the Brazilian Amazon. Credit: Michigan State University

A Michigan State University researcher is helping lead the first research expedition along the western-most leg of the Transamazon Highway - a 700-mile dirt road that begins at the point where civilization essentially ends in the Brazilian Amazon.

This summer's trip is part of Bob Walker's ongoing research, funded by the National Science Foundation, into the impact of tree loss, or

deforestation, on the [Amazon](#). Walker, an MSU professor of geography, and colleagues will document logging activity as it impacts the forest and interview workers in the logging industry and longtime residents about the effects of development.

The western Transamazon is unexplored territory. The great unknown. As the Brazilian government cracks down on logging operations in the east to protect the environment, loggers are moving west along this wild stretch of road, Walker said.

While Brazil has become a major global exporter of wood, beef, soybeans and the ethanol used in biofuels, critics say this comes at the expense of the environment. Walker said massive development along the western Transamazon could eventually push the Amazon to its tipping point - when the rainforest ceases to exist.

"This may be the battleground of that tipping point, and it's critically important to study it in the early stages of change," Walker said.

But the trip comes with the threat of danger. Loggers are known to kill one another over territory. There are bandits. Malaria-carrying mosquitoes. Vampire bats with rabies. Massive snakes. Tainted water. Rickety bridges that can collapse under the weight of the researchers' vehicle.

Walker, who made his first research trip to the Amazon 20 years ago, estimates he's spent a good two years of his life crisscrossing the world's largest rainforest to study the effects of agriculture, logging and development. But even after all his time in the Amazon, he admits he doesn't know what the team will encounter.

"It's a new frontier," Walker said, "with indigenous peoples, gold miners and very few settlements. Our feeling is one of excitement, tinged with a

sense of the unknown."

The trip also comes during the 40-year anniversary of the Transamazon, which was started in 1970 and terminated two years later. Officially known as BR-230, the highway was envisioned as a fully paved thoroughfare integrating the isolated Amazon with the rest of Brazil and other South American countries.

But today, while eastern parts of the highway are paved, the western portion remains a dirt roadbed that can be impassable during the December-May rainy season.

The researchers will travel in a standard four-wheel-drive truck from the city of Itaituba west to the small town of Labrea, where the Transamazon ends. The trip should take about two weeks. Traveling with Walker will be three Brazilians: Eugenio Arima, a former doctoral student of Walker's who is now an assistant professor at Hobart and William Smith Colleges; Ritaumaria Pereira, an MSU doctoral candidate in geography; and a local driver.

The researchers will sleep on mosquito net-covered hammocks strung up in the mud huts of local settlers, in the truck, or wherever they can find shelter. They'll pack as much bottled water as possible and eat local fare, including rice and beans, fish and plenty of papaya and other fruit.

For Walker, who made his first trip to the Amazon 20 years ago, the research offers him a chance to help inform environmental policy in one of the world's most ecologically rich regions.

"This is an opportunity to study a place that just 40 years ago was absolutely pristine, and to try to understand how it could be sustained in the face of changes that are coming down the road," Walker said. "I would like to be part of that - helping in that process of protecting a

legacy for future generations."

Provided by Michigan State University

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