In Venezuela’s Savanna, Clash of Science and Fire

By SIMON ROMERO

YUNÉK, Venezuela — The mist-shrouded mountains rising out of the forest here form one of the world’s most beguiling frontiers of exploration and research, inspiring Arthur Conan Doyle’s 1912 fantasy novel “The Lost World” and teams of biologists who still mount expeditions to remote escarpments in hopes of finding species new to science.

But in the savannas below, the tendrils of smoke hanging over the landscape attest to a custom that has set off a fierce debate among scientists in Venezuela and beyond: the Pemón Indian tradition of repeatedly burning grassland and forest to hunt for animals and grow food.

The drought that afflicted Venezuela this year is intensifying claims that the Pemón have unleashed a surge in fires that rains would normally extinguish. Some forestry specialists say the fires put the Gran Sabana, a region about the size of Ireland that includes the enigmatic tabletop mountains known as tepuis (pronounced tey-POO-ees), at risk of deforestation and species loss.

President Hugo Chávez’s government is already facing broad public ire over electricity shortages, and the state electricity company fears that the fires could diminish the forests that help gather and release water, and boost river sediments into the Guri, the hydroelectric complex that provides Venezuela with most of its electricity.

But many Pemón, along with some of the scholars who study them, say the fires help prevent grasses from building into biomass for much larger fires that could tear through the region, in the way vast wildfires devastated parts of Indonesia in 1997.
“Outsiders think we are primitive savages, but they are ignorant of our ways,” said Leonardo Criollo, 46, a Pemón leader whose village, Yunék, sits in the shadow of the Chimantá Massif, a collection of 11 tepuis from which waterfalls descend from mile-high rock walls. “We burn so that we may live in harmony with the savannas around us.”

The clash of views on the centuries-old practice is part of a broader debate over the sovereignty and proper management of indigenous lands. Much of the Gran Sabana is cordoned off as either national park or military territory. But some fire ecologists claim that indigenous people around the world have long used fire to alter their ecosystems and shape regions like the prairies of the American Midwest.

Accounts of the origins of the Pemón in the Gran Sabana differ, but some historians say they may have migrated here about five centuries ago from the coast of what is now Guyana, after incursions by European explorers. Paleoecologists also debate how much of the Gran Sabana was originally covered by forests, and when fire-setting by humans here actually got under way.

Either way, the Pemón, who today number about 25,000, largely had the Gran Sabana to themselves until the dawn of the 20th century, when missionaries began strengthening their presence. The missionaries were then followed by teams of scientific researchers and, in more recent decades, by Venezuelan officials who built a highway in the 1970s.

The entire area is now in flux. Trucks from Brazil barrel down the paved highway with consumer goods. Smugglers take the same road across the border with contraband gasoline. Sullen soldiers solicit bribes at checkpoints. The military is increasing its presence in the area with a new satellite-monitoring base in the village of Luepa.

Throughout all this, the Pemón keep setting parts of the Gran Sabana on fire, since recently burned areas soon give rise to fresh grasses that lure coveted prey like white-tailed deer.

“Why would I change a custom that has worked for generations?” asked Antonio García, 70, a Pemón hunter, as he set out one recent morning near Santa Elena de Uairén, a squalid border town rife with smuggling activity.

Hunting is not the only reason. Bjorn Sletto, a planning expert at the University of Texas who studied Pemón fire customs, saw them burn to clear grasses of snakes and scorpions; to
communicate with smoke signals; and to fish, with fire causing insects to leap into water and attract fish.

But foremost among the Pemón’s reasons for burning the savanna, Mr. Sletto said, may be to create a mosaic landscape divided by natural fire breaks that prevent larger fires from spreading. “There are ecologically sound reasons for the Pemón to keep fuel levels on the savanna low,” he said.

Others disagree. Nelda Dezzéo, a forestry biologist at the Venezuelan Institute for Scientific Research, contends that some forests in the Gran Sabana may never recuperate from repeated fires. She said the threat of fires spreading from savanna to forest were especially worrisome.

“There are cloud forest areas in the Gran Sabana where new tree species are still being studied,” she said. “If damage migrates to these areas, these species could be lost, or we might lose species we’re not even aware of yet.”

The Pemón face a backlash over the fires beyond the realm of scientific debate. Nonindigenous Venezuelans here often call them “quemones,” a play on the Spanish word for someone who burns a lot. “The Pemón are pyromaniacs by nature, and this year we’ve seen some of the worst fires in memory,” said Raúl Arias, 54, who operates a helicopter service in the area.

Some Pemón chafe at such statements. “Outsiders come here and leave their excrement and trash on the tepuis, then complain to us about fires that spoil their view,” said Miguel Lezama, 46, a leader near Mount Roraima.

New motivations for some Pemón to light fires complicate matters further. Scholars have seen an increase in fires to protest the installation of electrical towers and the opening of the satellite-monitoring base. Other Pemón sometimes start fires to harass the government into meeting demands for services.

Few experts know how these fires will affect the Gran Sabana, aside from sowing dissent.

“The government is wrong if it thinks the Pemón are its docile sheep in the savannas,” said Demetrio Gómez, 36, a Pemón leader who took part in a violent protest near Santa Elena de Uairén this year to dislodge squatters from Pemón land. “We burned these lands long before anyone else arrived,” he said, “and we’ll keep burning them into eternity.”
Maria Eugenia Díaz contributed reporting from Caracas.