

# ICWA LETTERS

Since 1925 the Institute of Current World Affairs (the Crane-Rogers Foundation) has provided long-term fellowships to enable outstanding young professionals to live outside the United States and write about international areas and issues. An exempt operating foundation endowed by the late Charles R. Crane, the Institute is also supported by contributions from like-minded individuals and foundations.

## TRUSTEES

Carole Beaulieu  
Bryn Barnard  
Richard Dudman  
Peter Geithner  
Kitty Hempstone  
Thomas Hughes  
William E. Knowland  
Samuel Levy  
Stephen Maly  
Mildred Marcy  
Peter Bird Martin  
Joel Millman  
Carol Rose  
John Spencer  
Edmund H. Sutton

## HONORARY TRUSTEES

A. Doak Barnett  
David Elliot  
David Hapgood  
Pat M. Holt  
Edwin S. Munger  
Richard H. Nolte  
Albert Ravenholt  
Phillips Talbot

**The Institute of Current World Affairs**  
THE CRANE-ROGERS FOUNDATION  
4 West Wheelock Street  
Hanover, New Hampshire 03755

TCY-7 1997  
SUBSAHARAN AFRICA

*Teresa Yates is a Fellow of the Institute studying land tenure and redistribution in South Africa.*

## Masonja: A Worm by any Other Name

PIETERSBERG, South Africa

February 1997

By Teresa C. Yates

The first time I came to South Africa, in 1990, I spent three months in Mamelodi township. Almost every evening I would visit different people in the township and sit and talk and answer various questions about the United States and about my views on politics in South Africa. All of these visits — and there were usually several each evening — included the offer of food, usually a piece of meat and some pap, a thick porridge that is the staple food in most black households in South Africa, and something to drink, usually cold beer.

By the time we visited our third or fourth house I was usually stuffed. I tried to refuse to have anything to eat but these refusals were met with such protest that I would eventually bow to the pressure and take some food, sometimes only a small piece of meat. Everyone explained to me that in South African culture it was considered rude to turn down an offer of food. At the end of three months I had an additional twelve pounds to show for my politeness.

The only time I stood firm on my refusal to eat even a small amount of food that summer was the first time someone offered me masonja. I was in a village in Lebowa, one of the former South African homelands. "No thank you," I said politely, trying not to frown and cringe. The friend I was visiting also declined, so I felt that I was not insulting our host, who was his mother, by refusing the offer.

"I tried to refuse to have anything to eat but these refusals were met with such protest that I would eventually bow to the pressure and take some food, sometimes only a small piece of meat."

Masonja, or mopani (mo-PAH-nee) worms, are one of the traditional treats of black South Africans living in the

Northern Province. The worms live in mopani trees, which are indigenous to this Province and other parts of Southern Africa. Masonja, is the indigenous name for these thick, black worms, which are really caterpillars.<sup>1</sup>

## THE TASTE OF THE WORM

"How do they taste?" I asked several people in Pietersburg. I got a different answer from each person.

"They taste like crawfish," one friend said. "They are delicious."

"I don't eat them, because they don't really taste like anything," another said.

1. "The so-called worms are actually caterpillars of the emperor moth, *Gonimbrasia belina*. Their common name derives from the mopane tree, *Colophospermum mopane*, where the moth spends most of its short life. In the last century, Europeans reported the collection and consumption of the caterpillars by local peoples, most adding that they found it a 'filthy' practice." Ellen Bartlett, "Hold the Turkey..." *New Scientist* 21/28 December 1996.



*The worms are sold in small plastic bags, or tin cups are filled from large bags or buckets and sold for R2.50 per cupful.*



"They are really delicious, but I don't think they taste like anything you've ever eaten," was yet another response.

"You should taste them. How are you going to write about mopani worms if you haven't tasted them?" another friend complained.

"Taste them?! I can't eat worms," was my immediate reaction to this suggestion.

"But you eat shrimp, you eat snails, you eat crabs, you eat catfish, you eat crawfish. I don't think that mopani worms are any more disgusting than any of those, in fact they are probably cleaner and more nutritious than any of those creatures."

"This may be true, but I still am not prepared to eat

worms," I thought to myself. But to my friend, I said, "I'll think about it."

## WORM NUTRITION

I thought about eating mopane worms and wondered why I have such a strong objection to the idea. It is true that the worms are very nutritious. Thoko Legoabe (TO-GO Leh-WAH-bee), a nurse in Pretoria, says that the family-planning clinic she works in recommends that pregnant women eat masonja because they are an excellent source of protein.

Indeed, a recent study by the South African Council for Scientific and Industrial Relations, a government-financed operation, found that the mopane worms are high in crude protein, 65 percent of their dry weight. The study found that "One hundred grams of dried mopane worm provide 76

percent of an average human adult's daily protein requirement and 100 percent of the daily requirement of many important vitamins and minerals." The nutritional value of the worm is therefore comparable to meat and fish.

## WORM ECONOMICS

The worms are also an important source of income for poor rural women. A woman will purchase an eighty-kilogram bag of worms for R300 (U.S.\$75). When she takes that bag to the local market she will subdivide it into R3, R5, and R10 bags. The 80-kilogram bag of worms that was bought for R300 will yield at least R600 (U.S.\$150) when all the worms are sold. This is a significant amount of money here in the Northern Province, where the average *annual* income is just over R700. Many of the women selling the worms in the markets are undocumented aliens from Zimbabwe or Mozambique, who come to South Africa take advantage of what is a growing demand for masonja and to supplement rural incomes that are even lower than those in the Northern Province.

The worms are value for money for poor families also. It takes three or four of the small bags to feed a family of five or one large bag to feed up to three people. Beef for the same meal would cost R30, or lamb R28. A whole 2 lb. chicken would cost between R26 and R35. This makes the worms economical as well as nutritious for people living in rural areas, where it is not easy to find nutritious food that is also affordable.

## WORM HARVESTING

This also explains the practical side of worm consumption among the local population. But almost everyone I talked to claimed that, practicalities aside, masonja are really delicious. "Taste them!" was the resounding advice I got from everyone. I was still not convinced that a taste was in order. After all, they are the same caterpillars that make my skin crawl. I was not ready to put the worms in my mouth, chew, and then swallow them.

I needed more information before I was going to consider tasting the worms.

"How do you kill them?" I asked a farmworker in Popela.

"We collect them from the trees, put them in a large bag and beat the bag. We boil them in salt water and then cook them in oil."

I asked a woman from Zimbabwe who was selling the worms in a market in Pietersburg how the worms are killed. "We take them from the trees and clean the dirt out of them then we put them over hot coals. We boil them in salt water to be sure that they are clean and then we prepare them for eating."

I asked another farmworker who said that they, too, put the worms over hot coals, then boil them in salt water.

There are currently no regulations on distribution of the worms, therefore no way of knowing what method has been used in killing them or cleaning them, if they have been cleaned.

All of this talk of taking the worms from the trees and cleaning them made me think of the times I went fishing when I was a child in South Carolina. The worst part of those outings for me was baiting the hooks. The feeling of the worm struggle between my fingers always made me sick. I was not convinced that mopani worms were any better than fish bait.

## WORM RECIPES

One friend suggested that I go to a village where there is no electricity and try them when the sun goes down. "You will really enjoy them if you can't see what you are eating," she claimed. "The problem is that they are cooked whole so you don't want to look at them. But if you try them in the dark, you will want to eat them every week."

"Come to my place in Shirley Village, my mother will cook some very nice mopani worms for you. She will make a stew with tomatoes and chillies (hot peppers). You'll love them," was the encouragement I got from a friend who says that he loves to eat the worms but is afraid to touch them when they are alive.

"I was still not convinced that a taste was in order, after all they are the same caterpillars that make my skin crawl. I was not ready to put the worms in my mouth, chew, and then swallow them."

The recipes for cooking the worms vary with the ethnic background of the cook. The North Sothos will boil the worms in salt water and then fry them in a pan with just a little oil. Their children also eat the worms dry, like potato chips. Shangaans and Vendas prepare the worms in a tomato-based stew and the Shangaans add hot peppers for more flavor. But no one chops up the worms to make them look less like caterpillars and more like ground beef. They are always cooked whole, becoming plump like ball-park franks when they are boiled.

## THE ECOLOGICAL WORM

Mopani worms are more than a local treat. They are also significant in maintaining a delicate ecological balance in this arid part of the country. South Africans, mostly in the Northern Province, consume tens of thousands of tons of mopane worms per year. This extraordinary demand is having a negative impact on the mopane worm population. Indeed, the mopane worm population has disappeared from parts of Botswana, and it is uncertain whether they will reappear.

Research at the University of Pretoria over the past five years found that overharvesting the worms could have long-



term implications for the mopane worm population and for land use. The mopane tree covers large areas of southern Africa, in dense and infertile land. The trees were historically kept in check by large mammals such as elephant and rhinoceros. The birth of game parks and the relocation of these animals into the parks allowed the mopane trees to prosper. The mopane worm is seen as a crucial bar to the encroachment of mopane veld. It would appear to be a huge task for mere caterpillars.

A case study of a 4000-hectare farm near Pretoria found that 19 million mopane worms consumed 873 tons of dry weight mopane material, and excreted 690 tons of dung in the course of their six week lives. The study estimated that the area could support 14 mature elephants, and that 27 percent of what the elephants ate they would take from trees. It was then calculated that in the course of one year the elephants would consume 83 tons dry weight of mopane leaves, and would produce a total of 179 tons of dung. In six weeks the caterpillar ate more than 10 times the leaf material and excreted nearly 4 times the dung that the elephants managed in one year. The worms must therefore be seen as having an enormous impact on the ecology of the area. Their dwindling numbers are therefore cause for concern.

In order to slow down the desecration of the mopane worm population, and to preserve the commercial exploitation of the worms, studies are being conducted aimed at farming the worms. The idea is to breed the worms under controlled conditions and then to place them on selected farms for harvesting by rural communities that would, it is hoped, ease some of the pressure on the natural mopane population.

## THE BIG TASTE TEST

I finally bowed to the pressure and agreed to go to Shirley Village and eat mopane worms. I did not take the advice and eat the worms in the dark. I would have imagined that the creatures were still alive if I had not been able to see them.

Among the tranquil hills of Shirley Village the pot of worms was placed in front of me along with a bowl of pap. Shirley is a Shangaan village, so the worms were prepared in a tomato-based stew.

"Just take a couple with a little pap, and try them," my friend advised.

I couldn't stop staring at the worms thinking that they looked like fake worms found in novelty shops. "You eat some first," I implored.

He took two of the worms with some pap and ate them. I could hear the worms crunch each time he chewed, shattering any hope I had that this was a joke and that the worms were really made of rubber.

It was time for me to taste the masonja. I took one of the small worms, I had been warned not to eat the very big ones because their prickly skin would stick the inside of my mouth, and some pap, closed my eyes and ate it.

The taste? After eating about five of the worms, I was convinced that ecologists will not have to worry about one more consumer adding pressure on the strained mopane worm population. They tasted, to me, pretty much like nothing at all. □



*I finally found the courage to taste the thick, crunchy creatures. They were not as disgusting as I had imagined, nor as delicious as some of my friends claimed them to be.*

