The Effects of Malaria in the New World

These excerpts are taken from Robert S. Desowitz's book *Who Gave Pinta to the Santa Maria?*, *Torrid Diseases in a Temperate World*, W.W. Norton & Co., New York, N.Y., © 1997 by Robert S. Desowitz.

The purpose of this paper is to accompany the May 27, 1829 letter from E. North in Alexander, New York to his parents in Colebrook, Connecticut. In this letter he describes his illnesses in great detail. North's descriptions compared to Desowitz's make fascinating reading. Desowitz is a pathologist with world-wide experience.

Chapter 10 – Great Expectations 1900 to 1945: Malaria – Death at Our Doorstep.

"In the summer of 1926 a prosperous looking Yankee came to a town in the Carolinas. The mayor thought the man must be an agent of industrialists up north who was scouting for a place to locate a factory, a textile mill maybe. 'This is a great town', the mayor tells the man. 'It's as healthy and happy a place as you can find anywhere in the United States. We've got lots of good workers for you, real go-getters, full of energy. And they work cheap. Cheap! Especially the blacks, they'll work practically for nothing. Bring your kids here; they'll grow up big and strong.'

The man corrects the mayor. He has mistaken his identity. He's not an industrialist from up north but a government agent working for the Public Health Service who has been sent to investigate health problems in the region. On hearing this, the mayor turns on the man; he is livid with anger. 'Investigate! Investigate! That's all you damn government people can do! This place is a pesthole, a deathtrap. We got so much malaria fever, everybody's so sick and weak all the time they can't work a lick. The malaria is taking our blood. We had a mill here, but nobody could come to work regularly; they was too sick. The mill had to close and now we haven't any proper employment. Spring planting went to hell because half the farmers were down with the fever. We need help. For God's sake man don't just investigate, help us. We need help. Do something!'

Imagine yourself a farmer, the owner of 15 acres of good land about a mile from the distraught mayor's town. This early summer morning is a glory of the Carolinas, an intense blue sky, the musty smell of newly plowed sandy earth mixed with a faint resinous hint from the stands of longleaf pine. Crows wheel and call. On such a day you might look up from behind the old mule as it knowingly pulls the plow in a straight furrow, marvel at the beauty of the day, and have a sense of contentment, even happiness. But today you know you're in for trouble. The fever is about to come.

It begins in the way you know all too well since childhood – a shadow, a painful throb in the head. A chill comes over your body that denies the warmth of this southern season. You know that you should unhitch the mule and ride it into town to see the doctor. You did that last spring when the malaria came on strong. The doctor charged \$2 and another \$2 for the medicine; quinine he called it. The quinine broke the fever. You could work two days later, but

it certainly made your head sing; that high pitch twanging still never lets up in your ears. That \$4 was money well spent, even though you only make about \$400 a year from the farm and from that there's six mouths to feed, six bodies to clothe, and supplies to buy for the kid's schooling. This spring there was a lot of rain and the cotton bolls will be fewer and smaller; you'll be lucky to clear \$300 from the crop. There's no money to spare for medicine except maybe for the store-bought medicine for your wife. She's got 'woman's troubles' and that tonic makes her feel better even though she's kind of dreamy most of the time since she's been taking it. The rain brought lots of mosquitoes. The doctor says that the mosquitoes bring the malaria, but your old daddy used to say that the fever came from the bad air coming up from the wetland. Now you're getting cold and shaky. It's the scattergue. You better get to the house and go to bed.

You are shaking uncontrollably as you stagger into the house. It's the deep cold in your body; never on a winter morning have you felt such an icy bite in your marrow.

Your wife knows the trouble; she knows what to do. In bed she covers you with every blanket. A roaring fire is lit and still you shiver. The headache is now like a searing iron in your brain; your bones ache. There seems to be no let up; the sickness goes on and on although your wife later tells you that you had the shakes for about three hours.

For a moment there comes relief; the shivering stops. The respite is brief and now the heat comes; your body burns with an intense fever. The covers are thrown off. The sweat pours off you like a river, drenching your clothes. The head throbs with an even greater pain and you can't think too clearly; it's like a drunken delirium and vicious hangover all together. The hot phase lasts for about four hours and then, mercifully, the great fever breaks. You are tired, so baby weak. Exhausted, you sleep.

The next morning the fever is still gone. You feel a bit better, but are still too weak to even think about working. The oldest boy has stayed home and is trying to do the chores. But he's only 11, and you can't send a boy to do a man's job, no matter how willing the boy. You also know from past springs and summers of malaria that it is not over, the devil in your blood had not yet run its course. The expected new attack comes two days after that first rigor. It goes through the all-too-familiar course, not quite as bad as that first rigor-sweats, but still bad enough, and this time you feel nauscous, you vomit, and your bowels loosen. Another two days, another attack, and then it's over, the malaria has finished with you for this season.

That next week you move listlessly about the house, sit on the porch with your face to the sun. That's about all you can do. Except worry. The thought of poverty, the inability to provide for your family, is the constant dark companion of your mind. In other years when the crop was poor or sickness struck, you could make it by working extra in the lumber mill in town, but the mill closed last year. There was so much malaria sickness that the mill was almost always short handed and the owners from up in Boston couldn't make a profit, so they closed it down. How grimly funny, so many people in the county out of work and there wasn't enough healthy labor to keep the mill going.

And it is here that our imaginary narrative stops. No happy ending. No resolution. I don't know what you, the poor Carolina farmer, do next in the aftermath of your malaria."

Desowitz goes on to say that malaria was well established in Connecticut by 1650. As the country moved westward, malaria kept pace with the frontier, it thrived from New York to Florida, from the Great Plains to the Pacific shore.

In the Finger Lakes Region of New York, malaria once held sway. With the coming of spring and temperatures rising to 70°F, thousands of malaria cases erupted each year in Ithaca. In 1905 the city fathers committed funds to begin a large-scale anti-mosquito program. The nearby wetlands were drained and the remaining standing waters were oiled, so the aquatic mosquito larvae who breathed air through their siphons were suffocated. Three years later, in 1908, Ithaca was malaria free and has remained so.

North's letter is especially intriguing as it reminds us that in the 1790s, when a dam was constructed across what we now call Loon Brook, which backed up waters on the meadows, several people became sick, and two of the Rockwells died as a result "of the vapors rising from the shallow pond" that resulted. It might well be that Mr. North would have recognized it for what it most likely was. At any rate, the dam was removed, the meadows ceased to be a lake, and tranquility reigned, or so we are led to believe.