



Ticos

After hundreds of attempts in nine years, I still have no concise answers to two questions from our visitors about my involvement with Nectandra. One would invariably be from the Costa Ricans (affectionately known locally as Ticos) and the other from Americans (affectionately as Gringos). The Ticos wanted to know "Why Costa Rica?" and the Gringos, "What made you leap from medical virologist in the US to conservationist in Costa Rica?" Both questions were to the point and perfectly reasonable. Obviously, they were reflections of puzzlement, perhaps tinged with incredulity, of my work place and career change.

Tangles of thoughts and recollections always flashed through my mind on hearing those questions. So many life events, reasons, and soul-searching went into the decisions, all intertwined and webbed together. Coherent and lucid answers would take too long. In the end, I frequently resorted to true but oversimplified replies.

Early on in the project, my answers to the Ticos were to the effect that "My husband and I toured Costa Rica, learned about the rich biodiversity and the country's needs, were inspired by two dedicated Tico conservationists, joined forces with them and here we are." To the gringos, I would add, "I devoted my career studying subjects (viruses) that are invisible for all practical purposes. The Nectandra Project was an opportunity and a novelty for me to work with flora and fauna that I can actually see." To both, I would sometime add "Cloud forests are rare; a fifth of which are concentrated in the neotropics. They are treasure troves of Nature's precious legacy which are being destroyed by human's careless stewardship. We were in a position to react and help."

The ninth anniversary of Nectandra is coming up next February. Surely, I should have polished answers ready to roll off my tongue by now. On the contrary, I am now more tongue-tied than ever. More good reasons have accumulated in the intervening years for me to be at Nectandra. Perhaps a way to explain this would be to introduce our park ranger, Manuel Solis, whose writing follows mine in this issue.

Manuel, in physical appearance, is the least likely park ranger one could imagine. He is about five feet three inches in height, under 110 pounds, wiry, mustachioed, bespectacled, with thinning hair. At 63 years of age, his weathered appearance is in keeping with his professional career being spent entirely out-of-doors, on foot, walking mostly alone in the tropical forests of his country. He has a cheerful demeanor, is passionate about philosophy, politics, nature, poetry, soccer, national parks and the fair sex.

Born to a family of four in Tortuguero, he and his brother had little schooling. Both left home before thirteen to earn a living, wherever they could find work, as loggers or plantation workers. Manuel essentially grew up without his family, often boarding with strangers, such as the family of a professional hunter, who sold his kills to the plantation workers and loggers. Manuel admired the hunters' bravery, skill and was fascinated by their tales. After a short, intense apprenticeship under his hunter "foster" father, he turned professional hunter himself. He was a logger during the week and hunter on the weekend. While cruising for timber on company time, he would note the abundance of prey for his weekend work. Food supplies were chronically inadequate in the outback. Meat was in big demand.

His fellow hunters mostly worked in groups. Manuel preferred to do it alone. Going solo was more profitable and enjoyable. He was good at it, did it day or night, stayed in the dense forest for days, often with only his rifle, a machete to cut through the vegetation, a bit of food for himself and a small quantity of seasoning for curing and smoking the meat. He hunted for pacas, peccaries, feral pigs, deer, tapirs, wild fowl and occasionally, jaguars, under forest canopy so thick that little light penetrated. Hunger, bad weather, and insect bites were the least of his problems. If unsuccessful with his hunting, he would have to face worse hunger on his return. If lost or injured, there would be no communication with the outside world and no possible help. One time, he shattered his right arm in a rifle accident. His younger brother could do little while he bled profusely and suffered excruciating pain until they reached medical help several days later. His early life was unimaginable for city folks like myself.

Gradually, Manuel came to know his prey intimately. Their presence always left subtle signs, inapparent to untrained eyes. The patterns of broken branches, marks among the dense vegetation, states of footprints and scats, residual scents, time of year and day, all provided clear and distinguishable clues. His personal hunting philosophy was never to take more than one could eat or carry, always shoot to kill to minimize suffering, spare the pregnant animals and waste nothing of the carcasses. Once he killed, he would immediately dress the animal and build a slow fire *in situ* to smoke the meat. Organs were processed for human consumption, except for the entrails fed to his hunting dogs. Listening today to Manuel describe his former life as hunter, one could not help notice the pride in his voice—a sure sign of how challenging and difficult it was.

Epiphany for Manuel came when one of his usually lethal shots went astray. The injured deer ran to escape the pursuing dogs and left a long trail of blood. Manuel was overwhelmed by the deer's agony, terror and desperation. Running hard behind the deer, he was struck by an intense flashback of his own painful rifle accident. The image of the bloodied vegetation and the dying animal stayed with him so long that he began to consider a future without guns. One day, he came upon a group of surveying engineers lost in the forest. They recruited him to guide them. He jumped at the chance and signed on as ranger in the National Park Service. Not one to do things half way, for the next 25 years he became as passionate a protector of animals as he had been their killer.



Manuel making plaster of paris casts of animal footprints on Nectandra Garden trails.



Manuel using the finished casts to teach visiting school children about the type of information one can glean off an animal's footprints.

Manuel started working at Nectandra six years ago when we needed a ranger. Illegal hunting and plant collecting had continued unabated for three years, even after our fence went up. Hunting dogs could be heard most weekends. Orchid collectors boldly cut trees, meters from our construction crew, to reach the coveted plants in the forest canopy. We would find dozens of large sacks of tree fern logs (valued by orchid growers), stacked by the highway along our fence, waiting to be picked up and sold in the horticultural trade.

For his professional equipment, Manuel requested work uniforms to publicize the nature of his business. He needed sharp machetes to keep the fence line clear, as required by law. A well marked boundary also prevent the hunters from feigning ignorance of the property line. Manuel wears an all-weather hat, impermeable clothing and shoes to protect him from the hard rain, mud and snakes. Patrolling has to be done regardless of weather. He uses a thick notebook to record his daily observations. He carries no weapons, only pen and paper to communicate with the hunters.

As with his hunting, Manuel worked solo on his daily patrol. Very slowly, his *modus operandi* became obvious, to us, and the intruders. While inspecting and clearing the brush along the six kilometers boundary, he recorded daily all the footprints, those of human and animals. In time, he could tell who or what was coming in, when and at what frequency. The tapirs, he noted, prefer the southern route, to browse for their favorite young tree shoots. The large cats, puma and very occasionally jaguar, frequent the northern edge. Not surprisingly, that is also where large troops of peccaries are sighted. The hunters, on the other hand, were clearly targeting the paca, also known as tepezcuintle, a dog-size rodent prized for its tasty meat. Both hunters and prey tend to congregate around fruiting *Billia* trees bearing the pacas favorite food. Gradually, he learned enough of the hunters' habit and approach to initiate his paper campaign.

Before each anticipated visit by the hunters, Manuel would write a one page prose or poetry on his feelings about animals, hunting and the responsibilities of man for Nature. He would leave his articles in plastic clear bags, addressed to "Señor Casador" (Mr. Hunter), and attached to a tree where Manuel was certain the note would be seen. Over the years, Manuel's writing must have been read by many, because not a single note has been left on our premises.

The possible identities of the hunters, of course, didn't escape Manuel's deductions either. He noted three classes of hunters by their mode of transportation—on wheels, on hoofed animals, and/or on foot. To approach our fence by car or horse would require entry, perhaps with permission, through the neighbor's gated property. With each sighting, Manuel would write us an official report. We would make two copies, one for the neighbor and one to the proper authorities, both hand-delivered and signed receipts collected. Over time, Manuel wore out our neighbor's blind eyes to their possible contribution to our problem. With Manuel's poetry, his persistence and perhaps the neighbor's

actions, the hunting slowly waned to almost zero.

Gentlemanly pressure and scholarly prose are Manuel's main weapons, used effectively and without bias. When his sense of correctness has been disturbed, his colleagues, superiors, employers, and even US presidents (Carter and Clinton) became recipients of his reports, critiques and expressions of disapproval. A self-taught scholar, he writes in both Spanish and English. His favorite reading material is a collegiate English dictionary.

Every animal and tree at Nectandra became his personal ward. He could tell you the health status of each tree, or which wild avocado seedling was nibbled by what animal at which phase of the moon. The increasing number of active tepezcuintle burrows filled him with happiness and satisfaction. His love for nature permeates his thinking and colorful stories, with which he holds youngsters and adults alike in rapt attention when participating in Nectandra's outreach education program.

Life as a ranger at Nectandra has been a mind-body tug-of-war for him. His home, wife and children are in Osa, a 9-hour bus ride away. He works 20 continuous days in order to take 10 days each month to be with his family. The chilly and damp weather all day in the cloud forest is nearly unbearable for someone who lived all his life in the hotter part of the country. Yet he patrols on, shivering but cheered by the difference he is making at Nectandra.

I admire and appreciate Manuel's deeds and spirit. I feel very fortunate to team up and work side-by-side with him, as well as with a whole crew of others like him.

How do I explain the many reasons, exemplified by Manuel, in a couple of sentences?

•••• *The Editor* ••••

My Friends: The Gringos

At my age (63) I feel a special affection for the gringos, a popular term in usage in Costa Rica with neither offensive nor negative connotation.

My first encounter with Americans from the United States was in the early 50's. My father worked for a gringo company that was exploring Talamanca in search of petroleum. In the labor market of the time, this company paid its employees well, a salary higher than the average in the country. But more importantly, the Americans maintained good relations with its employees, people such as my father who lacked formal education.

Later, as a young adult, I learned about the character and history of the American society, beginning with the Mayflower, the conquest of the west, the Civil War, and Space travel, etc. Perhaps these events had a positive influence on my impression of the gringos.

I spent part of my career working for the Costa Rican

National Park Service. It was in the national parks that I formed lasting relations with the gringos who were either tourists or researchers. I spent a lot of time in the forest with them. I found them cheerful, kind and very brave, and above all, all lovers of nature. It is precisely in the field of nature conservation that the North Americans made a valuable contribution to our country. They not only contributed economically, but also in scientific research, advice etc. I recall especially George Gorman (I believe he worked for Stanford University in California). He was a true gentleman with a strong desire to assist in diverse projects in our national parks.

I must tell you that there were many people at that time with strong anti-yankee sentiment in the national parks, people who hoped that the Cold War at the time would liberate the world. Fortunately for the gringos and for the Ticos, this situation had changed completely. Today, the North Americans are well received, with open-arms, in the parks and the rest of the country in general. Well then, I believe we owe that to Mr. Gorman team's effort. My relation with the mentioned gentleman began in the Hitoy-Cerere Biological Reserve, at the Valle de Estrella on the Caribbean coast of Costa Rica where I was in charge.

I also have a pleasant memory at this reserve of a young American woman who had many special talents and was also very good looking, almost an angel's sigh. The young woman was a park volunteer. Her studies with us contributed enormously toward a good impression, on behalf of the reserve and of herself, amongst the very poor indigenous people and also the white folks. How did she do it? Very easily. She asked me to take her to visit indigenous families that lived nearby. Which families? Well, she selected those that were the hardest hit and poorest. She was interested in the minutest of details of their culture, their traditions, frustrations and illusions. She successfully gained the confidence and esteem of the indigenous women, who were well-known for their shyness and lack of confidence in the presence of strangers. It is the best and nicest praise for someone with a humanist sensitivity, such as she. I also remember another activity (perhaps a childish one) in which she participated. I don't know whether it was in jest or seriousness, but she told me she liked to hear me sing (rancheras). On those patrols in which she accompanied me, she would request that I sing a song; I would agree on the condition that she also sang, in English. And so we did. But for me, the best part of the story is that I truly enjoyed her singing. Her musical themes were beautiful, full of children's innocence and mischief, another one of her great attributes.

But as all things, my long relationship with gringos had two minuscule blemishes: the first was with a gringo born with the peculiar "ability" to not get along. He was truly unbearable. The other case was of a young woman. She was intelligent, well educated and very brave in the forest. Only she considered us Ticos like strange insects, of the third category. These were the two sad exceptions to the rule and human society.

I have no doubt that the friendship and work with these individuals had a positive effect on me. More than friends they were teachers—good teachers who taught and inspired me till today in my personal conduct.

Ah, the most inexcusable! I forgot to mention the most important part: the gringas are more than beautiful.

—Manuel Solis Fernandez

October 2007

Nectandra Institute Events of 2007

February - We hosted a lecture by **Dr. Pedro Arrojo**, the renowned Spanish economist activist who initiated a sane and rational water culture and successfully influenced the European Community toward improved standards for water management.

March - The bryophyte inventory work started in earnest with **Jim Henrich**'s visit. Off-duty as the director of the San Francisco Conservatory of Flowers, Jim spent a month collecting liverwort and moss specimens for our herbarium, as well as suitable samples in alcohol for future nucleic-acid work. The bryophyte inventory work was made possible by a grant received from the Evergreen Foundation.

April - **Luis Villa** joined the Institute's staff to administer the newly established Nectandra Eco-Loan Fund (ELF), made possible by a grant received from the blue moon fund, a non-profit private foundation based in Charlottesville, VA. Luis will elaborate the details of this significant program in a following newsletter. Briefly, ELF make loans to community water associations in the San Carlos region (where Nectandra is located) to purchase watershed properties. These formally registered associations (manned by mostly volunteers) administer and maintain community water source and supply, many in isolated rural areas. Most do not own the lands from which they draw their water, which are increasingly at risk of environmental contamination from urban, agricultural and industrial development. While the capital has to be repaid, the "interest" will be repaid in the form of watershed conservation, restoration and monitoring during the entire term of the loan. The eco-interest programs are results of joint efforts between Nectandra Institute and the associations. NI advises and monitors, while the field work will be executed by the community members.

May - The First Water Soccer Annual Championship was inaugurated by **Alvaro Ugalde**. Four men's and three women's teams vied for the Water Drop Trophy. The team members are from several local watershed-based communities. Many of the soccer team members are also water association volunteers.

July - **Dr. Daniel Norris**, expert taxonomist of tropical bryophytes from the Jepson Herbarium of the University of California at Berkeley, donated two-weeks of his time to help on the bryophyte inventory work. He is currently working on the identification of the more than 700 dried specimens collected during his stay.

August - **Manuel Solis** received Special Service Recognition from the National University for his environmental services as a national park ranger. He was also interviewed by a historian from the same university, who was commissioned by Ministry of Environment and Energy, to record Manuel's background as a professional hunter and his reflections on hunting.

All Year - More than a dozen all day workshops, plus many shorter ones, were held at Nectandra Garden to introduce our loan programs to the various community groups. As part of our general forest conservation effort, with specific focus on

communal and private watershed conservation, we are also trying to act as catalysts in the formation of networks and collaborations among the communities.

Staff member **Randall Varela** organized and led many training workshops (as well as Al Gore Movie Night) to the members of the communities who will be doing the restoration on the principles of water management and technical field work. These training sessions have been very well received and spread enthusiasm among neighboring communities to plan and secure their respective water source.

Primary School Environmental Programs - **Manuel Solis** and **Arturo Jarquin** organized several education events at our local schools. Many of the schools are one-room school, with children ranging from 7 - 12 years in age, taught by a single teacher. Manuel, a natural story teller, would talk about the consequences of environmental destruction through his own personal stories as a former hunter. Arturo would highlight the forest and plants.