Conservation

A New Beginning

BY GEORGE REIGER

Over the past four January's, this column has been devoted to FIELD & STREAM's annual Dumb Dumb Awards. They were made to deserving individuals, organizations, or governmental agencies displaying exceptional stupidity or cupidity in the realm of conservation during the previous year.

However, in the spirit of the Reagan Administration's "new beginning," this January I am going to document a conservation success story to show what enlightened government can do to restore economic stability and, at the same time, provide for the future through conservation.

Of course, I can find few such examples in the United States, where our federal and many of our state governments appear locked into the notion that the only way we can reinvigorate the economy is by reeling back to the rape-and-run policies of the 1950's.

- Americans are scheduled for still more nuclear power plants long after nuclear power has shown itself to be astronomically more expensive and infinitely less dependable than coal—of which we have a dozen lifetimes' supply, even if we sold half to Europeans and Asians in order to invest a tiny portion of the profits to develop truly clean and perpetual sources of energy.
- Americans are told they must tighten their belts and forgo environmental protection while strategic minerals are ripped from their backyards by *subsidized* multinational corporations—even though it is still far cheaper (and you would think smarter) to import such minerals from abroad.
- Americans will continue to see the cost-effectiveness of local railroads and even highways threatened by still more *subsidized* waterways, which not only destroy wetlands and even productive farms, but frequently disrupt or contaminate local aquifers and water supply systems.

No, there is not much to be upbeat about on the environmental front in North America, where the very emblem of our aspirations for a more refined environmental ethic—the Wilderness System—is being dismantled with the blessings of an Administration whose motto seems to be The Business of America Is Business As Usual.

Instead, our model for a genuine New Beginning is Costa Rica, which did not have a single acre of national parks in 1969, but which now has 4 percent of its land area so protected.

In addition, because Costa Rica has dozens of distinct ecosystems lying between the Caribbean and Pacific Ocean, governmental planners say they will not rest until significant land and water areas of each of these systems are protected, which, over the next five years, will mean at least another 1 percent of Costa Rican territory.

By contrast, America's much vaunted National Park System encompasses less than 4 percent of this nation's land area, and many key ecosystems—for example, Midwestern prairies and Southern river bottomlands—are not included at all.

How did the Costa Rican enlightenment come about? And why, when the rest of Latin America seems bent on imitating many of Uncle Sam's worst land and water policies, does this tiny, West Virginia–sized country stand like a conservation colossus among the dwarfs of laissez-faire development?

Costa Ricans have learned from American mistakes because Costa Ricans are neither intimidated nor defensive about American influence in this hemisphere. After all, in the only military confrontation between Costa Rica and an American-led army, the local Costa Rican militia beat the tar out of the invaders, who had already conquered neighboring Nicaragua.

And whereas only gun-owning Americans support the implications of the Second Amendment, which places the burden for national defense on "well-regulated militias," the Costa Ricans actually go the whole route by having long ago abolished their army and navy and having never created an air force. Costa Ricans don't want any retired generals running for political office or taking over their government when the mood strikes them. Furthermore, Costa Ricans figure the next time an American backed army invades their country, the local police and militia will mop them up as effectively as they did the first time around.

In addition to the victory at Santa Rosa, which became the site of the country's first national park, Costa Rica has never been wracked by the racial or class tensions found most everywhere else in human society. And because a significant portion of Costa Rica's blood flows from northern and eastern Europe as well as Spain, Costa Ricans are far less rigid in their allegiance to ancient, and in the case of conservation, outmoded traditions.

Today, most of the best tropical research in agriculture, medicine and, increasingly, ecology is done in Costa Rica. But in fact, many of Costa Rica's best conservation laws go back long before the current surge of land preservation began a dozen years ago.

As early as November 1863, in recognition of the fact that highways contribute to an ethical paradox by helping to generate personal profits from public funding, the Costa Rican legislature created an "inalienable tract" of 2,800 feet on both sides of the nation's new Northern Highway. In August 1945, in order to prevent helter-skelter development, a 2,000-meter zone on both sides of the new Pan-American Highway was protected, and wherever adjoining rain forest oak stands were found, they were preserved in perpetuity.

More recently, when an expressway between the capitol city of San José and the Caribbean port of Limón was proposed, the legislature approved the highway department's request for funds with the stipulation that most of the money be used to create a new national park on either side of the roadway to an overall width of 15 kilometers. No exits to other towns; no clover leaves to suburban sprawl. Just a great green tunnel to the sea.

In June 1913, the Costa Rican legislature codified the proposition that it is inevitably costly to the public to allow private citizens to build close to volcanos by declaring a mile radius of "inalienable" land around the summit of Póas Volcano. In 1953, this law was expanded to include all volcanoes, and the radius was enlarged to 2 kilometers.

By contrast, our tax laws still subsidize developers working in flood plains or on the shifting sands of barrier islands. And you and I have a tremendous rescue bill in store when another mighty California quake occurs, as scientifically predicted, some time in the next fourteen years. While I don't mind helping those who have honestly tried, it galls me to see substandard housing still being approved practically on top of the San Andreas Fault!

The folly of allowing private interests to own and develop areas as fickle as geological faults, riverbanks, and coastal

shores has been appreciated by only one of our fifty states. Hawaiians not only prohibit development on the higher sides of active volcanos (and a pity they didn't also prohibit it on the sides of dormant volcanos like Diamond Head), but they also regard all watery margins to be public property. There is no question of beach access for shore fishermen in our southernmost state!

Likewise, in January 1939, the Costa Rican government declared that "an extension of 200 meters wide along the coasts and 500 meters wide along the rivers is reserved for the conservation of forests and other related [conservation] uses."

THUS, commonsense has long been part of Costa Rica's political makeup. It only required a few dedicated men and women to bring this commonsense to fruition in other conservation matters. One of the best examples is marine turtle expert, Archie Carr, whose research station in the Tortuguero National Park I visited last fall.

Each year, thousands of green, loggerhead, hawksbill, and leatherback turtles come to Costa Rica to nest along less than a dozen miles of coastline. It is one of the natural wonders of the world. Yet without the tact and tenacity of Dr. Carr in spreading the marine conservation message among well-heeled Americans and politically important Costa Ricans, this beach might today be only a memory, as is the case with almost every other important turtle nesting beach that existed when Columbus first victualed his ships with this seemingly illimitable resource of the sea.

Dr. Carr's quest for knowledge about sea turtles is told in *The Windward Road*, first published in 1956 and fortunately reprinted in paperback by the University Presses of Florida. It is a beautiful book, a funny book, and a tragic book, for the future of sea turtles is so much more grim than it was even when Dr. Carr first wrote about them a quarter-century ago.

The most bitter irony is that unlike the bison, whose vast numbers stood in the way of "progress" (meaning man's swelling populations) and were, therefore, doomed even before the first farmers reached the banks of the Mississippi, sea turtles have never been in conflict with any of man's material necessities—unless you call our attempt to settle barrier island beaches with casinos and amusement parks "material necessities." Once teeming numbers of sea turtles made it possible for explorers, and later traders, to exploit Caribbean sea lanes with the knowledge that everywhere they wandered, they would find fresh meat and eggs.

As Archie Carr remarks in the last paragraph of his book, "we are not at deadlock with the green turtle as we were with the buffalo. We are killing it out idly, aimlessly, with no conviction of any sort, with most of us not even aware that it is going. We have no need for its habitat for any of our own schemes. Territorially, its interest and ours overlap only on the sea beach, and even there Chelonia comes when we are asleep. And because the creature congregates each year to mate and lay its eggs, real protection for a few beaches not only would help save for the future a species now threatened with extinction, but might even bring back the fleets Columbus found."

The Windward Road is not just pleasurable and informative reading, it is a milestone in the creation of one of Costa Rica's most splendid national parks. Shortly after the book's publication, Joshua B. Powers, a New York publishers' representative, happened to read it, and in Dr. Carr's words, "he sent copies of the book to twenty influential friends who he hoped would share his interest. They did, and the Brotherhood of the Green Turtle was promptly formed." Through individual contributions and grants, a seasonal turtle tagging camp was set up in 1956 at the Tortuguero, Costa Rica, nesting ground, and the program has been in effect ever since.

Tortuguero, meaning "turtle region," was first discovered by the Dutch in 1592 and soon became an important provisioning center for ships trading in the western Caribbean, particularly Spanish ships receiving treasure brought overland from the Pacific. When the efforts begun in 1963 to protect nesting turtles through regulated hunting and egg collecting failed to stem the growing tide of poachers who killed far in excess of what the beach could yield on a sustained basis, Tortuguero National Park was created in 1970. Except for the subsistence needs of villagers living within the park, marine turtles cannot be killed, nor their eggs collected, within the nearly 40,000 acres that make up the preserve.

The significance of this park is based on more than the thousands of sea turtles that nest here every year. Tortuguero is located in one of the rainiest parts of a very rainy country, and there are five main plant associations with dependent invertebrates, birds, reptiles, and mammals living in the park.

BESIDES tapir and an amazing assortment of wild cats including jaguar, ocelot, cougar, jaguarundi and tiger cats; three-toed sloths; howler monkeys; spider monkeys; and river otters are found in the jungles and along the natural freshwater canals behind the black, volcanic-sand barrier beach where the turtles nest. In addition, the canals are loaded with tarpon and snook, as well as a few endangered manatees.

The bird life is equally varied and abundant, and in the evening there is only the slightest pause between the fading of bird song and the start of amphibian twittering, clucking, buzzing, and grunting.

However, it is not always paradise in paradise, and not all Costa Rican public servants are servants of public interest. In 1979, a serious threat to the marine turtles was concocted by a legislative proposal reducing the protective zone off the beaches from 12 miles to 3. Since green turtles do their mating in waters adjacent to the nesting beaches, and since the females crawl ashore to lay eggs over a period of several nights and rest offshore during the intervening nights—frequently more than 3 miles at sea—this law would have allowed market hunters to take a dangerous toll of turtles in the unpatrolled waters beyond the beach.

Conservationists around the world petitioned Costa Rican President Rodrigo Carazo to veto the pending law. Whereas many other political leaders would have been inclined to sign the bill precisely *because* of "all the outside (especially American) agitation," President Carazo recognized the dire ramifications of the legislation and vetoed it.

TURTLE aficionados sighed with relief. Clearly the greatness of a politician has nothing to do with the size of the nation he administers, but with the size of his sense of responsibility to its future!

And the greatness of the nation itself has nothing to do with the number of obsolete SST's (disguised as B-1 bombers) it can build, the number of rivers it can kill with dams, or the number of people it can kill with polluting chemicals. A nation's greatness lies in its ability to learn from the errors of others.

After Uncle Sam outlawed the use of DDT in this country, our chemical companies shamelessly continued producing it for use abroad. And since DDT makes no distinction between helpful birds and insects and pests, its use generally leads to a demand for still more of it in increasingly more lethal doses to make up for the many allies it has killed in the process of killing a few enemies.

Thus, malaria has become a side-effect of the "green revolution" in Latin America—with the notable exception of Costa Rica. Chemical poisoning and human illness is becoming a side-effect of the "green revolution" in Latin America—again, with the notable exception of Costa Rica, where harsh, long-term pesticides are banned.

Last September, Georganne Chapin and Robert Wasserstrom of Columbia University reported in *Nature* that where only a decade ago, fields in Guatemala, Nicaragua, and El Salvador were sprayed eight or nine times a season, "they must now be fumigated on as many as fifty occasions. Consequently, the amount of pesticide which enters the local ecosystem has expanded at an increasing rate . . . [and] at current [levels] each kilo of insecticide added to the environment will generate 105 new cases of malaria" from pesticide-hardened mosquitoes.

Integrated pest management is studied and used in Costa Rica. By contrast, in one recent two-year period, Nicaragua increased its annual imports of DDT from 29,000 kilograms to 521,600 kilograms.

So if you really want to get away from it all this winter, there's only one place to consider. For information on Costa Rica, write M. Silver Associates, Inc., Dept. FS, 360 Lexington Avenue, New York, N. Y. 10017. You may even be lucky enough, like my river-running friend Michael Kaye, to find a way to work and live there! RP