

IGUANA: SURVIVAL OF THE TASTIEST

SORREL DOWNER

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Green iguanas are already a threatened species—and soon they'll be featured on the best Costa Rican menus. What's more, every environmentalist will be duty bound to eat as many of them as possible.

This is not an inversion of logic or a ploy to get rid of the *Iguana iguana* to make space for something more attractive, but a move away from the idea of preservation towards a more realistic sustainable conservation.

Preservation, involving a patch of land, a perimeter fence and a Keep Out sign, ignores people's needs and human nature; it creates a conflict of interest and eventually forces protection to be compromised. Sustainable conservation projects take into account that rather important factor—man's need to make a living, and look for practical ways of protecting wildlife and the environment while creating jobs and generating enough profit to make it all worthwhile.

To sustain the delicate balance between man and his environment, it is almost always necessary to take a few steps back in time, to revert to old methods of farming and production or even to reintroduce traditional produce and handicrafts.

German biologist Dr. Dagmar Werner's pioneering iguana farming project is sustainable conservation at its best. Throughout Central America, iguanas have been regarded as finger-lickin' good since time immemorial. (One 16th century conquistador reported that they were "a most remarkable and wholesome food" but the colonists still cleared the ground for cattle.) Today, although much of the forest habitat of these tree dwellers has disappeared and iguana numbers have dwindled, there is still a bit of rural demand for the pollo de palo, or "chicken of the trees."

It's impossible to prevent the illegal poaching and selling of iguanas and it's unlikely the demand will die out before the iguana does. So Dagmar Werner is doing the only sensible thing

and increasing supply. Her Green Iguana Foundation aims to increase the iguana population through a protected breeding program that encourages people to farm them.

Iguanas are easier to farm than cattle. They don't wander off and need no fencing. They yield more than 10 times the amount of meat per hectare, need a minimal amount of attention and, most importantly, don't require a huge area of deforested land to graze and reduce rapidly to dust.

Quite the reverse, to raise iguanas, farmers need to protect their existing forested areas and also reforest cattle pastures with the sort of native trees that iguanas like best. Thus, the project restores the iguana population. It provides Costa Ricans with an ample supply of product they like. It generates a new line of business for small farmers and offers financial inducement for cattle farmers to reforest their pastures and farm iguanas.

The long-term aim is reforestation. The immediate benefits are obvious to the iguanas and to the communities surrounding the reserve. The farmers are given loans for the equipment and craft training to start businesses through the foundation's extension projects in order to regenerate the area.

The wiry Dr. Werner, who has been variously described as "aggressive, a go-getter and a little nuts," spent seven years studying iguanas in the Galapagos islands before being appointed director of the Smithsonian Institution's Iguana Management Project in Panama back in 1983.

When Panama's political climate began to jeopardize future funding, Werner took a teaching post at the National University and arrived in Costa Rica accompanied by 1,200 iguanas. There is an organization in Costa Rica called the IDA which leases out land seized from the terratenientes, or land barons, after the 1949 Civil War. The IDA allocates 12 percent of this land to conservation projects and provided Werner with a beautiful 280 hectare (700 acre) tract, lying

between Carara Biological Reserve and the Turubares Forest Preserve, on which to continue her pioneering work.

There are thousands of sun-bathing iguanas in the cages at the Green Iguana Reserve. The youngest are slim, turquoise and fast on their feet. The sound of footsteps is enough to trigger a writhing heap of iguana panic and a lot of scuttling as they slither and slide over corrugated iron to get inside one of their bamboo pipes.

Most will be released at seven months when most of the danger from predators is past. Some will be kept for breeding. These veterans are fat [they can reach six kilograms (13.2 lb) after three years], slow and watchful, with thick, powerful tails, spines and slack jaws. They have also turned dull greenish brown, a camouflage that blends well with the type of branches they need to support their bulk as the bluish green did with the fresh young shoots they used to romp about in during their salad days.

One hundred thousand iguanas have already been released in the wild. Werner's success with breeding and raising iguanas has surprised the scientific world. When the farming project was first proposed, a group of scientists were employed to make a feasibility study. They studied nutrition, maintenance and behavior and concluded that it would take 20 scientists 100 years of research each



to discover whether iguana farming was possible.

Werner took things into her own hands and three years later released her first home-grown iguanas into the wild. "It was very simple," she says. She believes her success has more to do with intuition than her scientific background and admits to thinking like a farmer and perhaps, a bit like an iguana—although female iguanas, apparently, are very hard to fathom.

Feeding them is easy. They like leaves, flowers, passion fruit and papayas and they don't need entertaining. The hardest part was working out the best male-to-female ratio.

"There needs to be a level of arousal," says Werner. Establishing territorial rights, fighting over females and general bullying is all part of a male iguana's warm-up to mating. No fighting, no reproduction.

On the other hand, if there are too many fighting males the females will say, according to Werner, "Oh my god, this is not a stable situation. I'd better emigrate."

The feasibility studies never even got on to the subject of marketing. This is where the real problems lie. How do you tell a farm raised iguana from one that's been illegally poached? "I don't want to put a new item on the market if I can't guarantee a legal market," says Werner. Because people are entitled to collect and sell turtle eggs laid during the first arribadas at Ostional, eggs are stolen from nesting areas all over the country throughout the year and sold as "legal" Ostional eggs. Werner has been careful to ensure that the legal iguana trade won't encourage a similarly increased illegal trade. When the first batch of foundation iguana meat hits the market early next year [1994], it will be sold through a limited number of licensed retailers and served at a restricted number of restaurants.

Between now and then the foundation is working to change iguana meat's image from poor man's food to rich man's delicacy. Foreigners who find the whole idea hard to swallow should bear in mind that iguanas, like everything on most people's essential shopping B-list like snake and frogs, taste just like chicken and has, with the possible exception of seafood, the low-

est fat content of any meat making it a must for environmentally friendly healthy eaters. Worth noting also is a marketing survey which reveals that out of the 21 percent of Costa Ricans who've tried it, 95 percent liked iguana.

Iguana ham, iguana sausages and smoked iguana will be among the first delicious lizardly products to come on the market. As well as being available in various Central Valley outlets, they'll be sold at the Green Iguana Reserve shop and Visitor's Center which is due to open early next year.


Here, too, you'll be able to buy the results of the foundation's handicraft training schemes along with all manner of seeds, plants and medicinal herbs from the surrounding area and souvenirs with an iguana slant, like iguana brooches.

Profits will go towards reforestation and community development.

The difference between preservation and conservation is, on the surface, subtle, but contextually, it can make a world of difference. Preservation can be defined as keeping things the way they are, reducing or eliminating human impacts on an area. Conservation preserves an area through low-impact or traditional interactions with the people who have lived in the area for generations. Instead of chopping down the forest to build golf courses and hotels and huge visitor centers, as is happening in and around the Parque Nacional Manuel Antonio, the Green Iguana Preserve conserves the wild plant and animal life in the area while providing the local communities with the means to earn a living by harvesting, not depleting, the natural resources of the area.



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