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## The Butterfly Effect

ECOLIFE conservationist Bill Toone gives us a bird's eye view of the world

By Ann Wycoff



### “Roar of the Monarchs”

eco-trip runs February 26 to March 4, 2012.

[ecolifefoundation.org](http://ecolifefoundation.org)

**Bill Toone grew up in the open space** and natural playground of Poway, circa 1960, with rosy boas and horned lizards as constant companions. For some, destiny appears early on, and for Toone, it revealed itself in the guise of a baby chick at the San Diego Zoo when he was 6 years old. So captivated by the tiny-winged creature, he refused to move beyond the park entrance. Encouraged by his parents to write a letter to the curator of birds, Toone got an invitation to return and left with several chicks as pets. “Birds turned out to be my big passion for most of my life,” declares Toone. At 8, he wrote the director of the zoo asking for an immediate job as bird curator, and was encouraged to come back at age 16. On that very birthday, he showed up, letter in hand, and started his 36-year career at the San Diego Zoo and Wild Animal Park (now Safari Park).

After finishing a master's in avian science at UC Davis, he became the youngest ever curator of birds at the San Diego Zoo and Wild Animal Park. During his tenure, he served on the California Condor Recovery Team. Thanks to Toone

and his zoo colleagues, these massive birds of prey are not extinct, as their population increased from a mere 22 in 1982 to roughly 400 today.

Over the course of Toone's earlier career, he moved back and forth between the zoo and the park. His last position there was as the director of the Applied Conservation Program, where he oversaw projects in places like Madagascar and Costa Rica. “But,” he says, “over time, I found myself frustrated by a number of things. If you look at the history of conservation, we have won a few battles and lost all the wars. There was nothing I saw that I was doing in my career that was going to help us win a war. So in 2003, I started the nonprofit ECOLIFE whose philosophy is to implement conservation programs at home and abroad that have immediate and measurable benefits to the wildlife resources and the community that depends on them.”

In both Bwindi, Uganda, and San Diego, ECOLIFE has implemented aquaponics, a symbiotic cultivation of plants and aquatic animals in a re-circulating environment. “Two thousand years ago, the Chinese recognized the value of having fish swim around in their rice paddies—the rice did well and they had fish, so the concept of aquaponics is not new,” explains Toone.

At the edge of the Impenetrable Forest, in Uganda, home to the last population of mountain gorillas, ECOLIFE has installed a system that grows both fish and plants for the locals to sell to the tourist lodges. “We are one of the fortunate few who get to wonder if our farm will get raided by gorillas,” he laughs. Locally, aquaponics helps anywhere there is a water crisis. “You can grow crops on 10 percent of water and you are getting fish to boot.” In Escondido, ECOLIFE offers classes in aquaponics. The owners of Stone Brewing Co. have participated.

## Love story

ECOLIFE has also led impactful and successful conservation efforts in Central Mexico’s Butterfly Biosphere Reserve. Toone’s interest in saving butterflies began, in fact, with a woman. He courted his wife, Sunni Black, a falconer and bird expert in her own right, by building her a butterfly exhibit at the zoo, and surprising her with champagne surrounded by the fluttering creatures.

Twenty-three years ago, they traveled to Mexico together to witness the awakening of one billion monarch butterflies from hibernation. “I have traveled to more than 100 countries, collected birds of paradise in Papua New Guinea, tracked Bulwer’s pheasants in Borneo, and followed the wildebeest migration, and none of these match the butterfly phenomenon in Mexico.”

As Bill and his wife returned each year, they began to notice a decline in the population—from just shy of a billion butterflies to a quarter of a billion in 2009, Toone says. As the local Mazahua Indians harvested some 250,000 trees a year for fuel wood and cooking, the monarchs lost part of their habitat. ECOLIFE began distributing fuel-efficient stoves to the community and planting trees. At first they tried to teach the locals about protecting the butterflies and using stoves, “but the Indians really only cared about eating their next meal and taking care of their kids, understandably.” Bill caught their attention by explaining the health benefits of the new stoves, as indoor air pollution from primitive cooking is the leading environmental cause of death in the world.

Each February, Bill leads a trip of 18 people to witness the “Roar of the Monarchs.” “Early in the morning, we ride horses up to the forest at 10,000 feet. Then we sit under trees and wait for the sunlight to fully hit the trees. I can literally count down on my fingers and tell you when it will explode. It’s as though when one butterfly lets loose a million others decide, ‘Oh, what the hell.’ It’s like a tree exploding into flames. The only thing you hear at that moment is the beating of 250,000 butterfly wings.”

Today, the locals take pride in their winter winged residents and employ the Patsari stoves, which have greatly reduced deforestation, respiratory illness, and burns. Such successes take years of hard work, but Toone remains hopeful. “I am 56 years old, and when I started in the California Condor Program I was full of piss and vinegar, determined to save the world. Today, if I change one family whose kids are healthier, then I did a good thing. If we all could make tiny efforts it would make such an enormous difference. I am not doing this to save the planet—because I think the planet is fine.” He smiles. “This is about how our grandkids will do in the future.”

## Toone's Eco-Tips

Don’t get caught in false dilemmas. **Paper or plastic?** Bring your own bags. **Choose your battles when donating to conservation organizations.** Do you want to study the problem? Bandage the problem? Solve the problem? There is a place for each—but what do you want to do? Remember conservation is not black and white. **Do a little or do a lot, but do something.** Example: eat low on the food chain—you don’t have to be a vegetarian. Just think, if half of everyone’s meals were vegetarian, it would be the same as half of the world becoming vegetarians. **Eat close to home.** This means more local jobs, a reduced environmental footprint, and quality food—you know where it came from and who produced it.