

Conservation – In-Situ, Ex-Situ, why not me too?

Abstract:

This presentation represents the thoughts of the past several years from an individual, not an institution, as he has searched for a philosophy that works for him in the arena of conservation. It begins with disillusionment in the status quo of institutional conservation, examines the issue of conservation, and presents an alternative approach to engaging local effort for a global conservation mission.

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This journey began several years ago as I became increasingly disillusioned with the approach to conservation being taken by many zoos and other animal related organizations. Typically conservation programs in zoos appeared to be centered on captive breeding programs for large charismatic species, the so-called “mega-fauna.” Millions of dollars are spent breeding these animals. The institutions present this activity to the public as being driven by a strong social conscience “to help Mother Nature.” In reality, few such programs appear to make much progress towards this goal. Indeed the cynics in the world would even point a finger accusing the institutions of exploiting the conservation minded public to attract more visitors, and put more money in their coffers.

Such anger and negative drive are only a waste of energy; they consume a valuable resource, which if channeled in a positive, constructive direction can be both successful and fulfilling. Positive attitudes and enthusiasm are infectious and inspiring; negative attitudes and whining are depressing and de-motivating.

Conservation, according to the Oxford American Dictionary means “preservation, especially of the natural environment.” To some it is collecting baby rabbits that have been “abandoned” by their mother, raising them, and releasing them back into the meadows and fields around their homes. To others it is ensuring that the white rhino lives without the devastating intentions of the ivory and trophy hunter. However, conservation needs to be directed globally towards the *whole* ecosystem. Without attention to the *whole*, the individual species we seek to conserve will slowly and surely disappear.

My first thoughts on how to conserve the *whole* began with the mega-fauna mentioned earlier. Maybe the institutions were actually right but just not taking the final step they expounded. If we could raise and release these large animals into an environment that could support them then by definition the environment would also be able to support all the other smaller animals. This supportive environment would also contain the plants and insects that complete the system. However, this approach is not without its problems.

An examination of why the animals being bred are endangered leads to two distinct causes:

1. Habitat loss due to environmental pollution caused by accidental or ill-informed release of chemicals.
2. Habitat loss caused by population growth, logging, or agriculture.

Habitat loss due to environmental pollution is perhaps the cause to which the traditional breed-and-release programs are best suited. In general if action is taken in a timely manner, the environmental pollution can be stopped and the effects either removed manually or, given enough time, nature itself may clean and restore the system. Either way the environment is available and the animals being bred can be released into a supportive system. A prime example of the success of this approach is the removal of the peregrine falcon from the endangered species list. The major threat to the bird was identified as DDT. Removal of DDT from the birds' habitat meant that after careful, informed breeding the birds were released into an environment that was better able to support them.

The picture is not so good when one examines losses in the second category. When large tracts of forest are cleared the *whole* ecosystem is lost. It is disappearing so fast that the number of places into which captive bred animals could be released is rapidly declining. Raising public awareness of the need to preserve these old growth forests can be a difficult abstract process. The forests are typically in regions of the world that few people get to visit and experience. Plus the remaining forest areas may be too small to support the original range of species that were found there. What is needed is a plan to expand the remaining areas so that they are large enough to support something closer to the original biodiversity.

In the early 1980s a biologist named Dan Janzen began to promote a radical idea. He took his idea on the road and on February 25, 1986 he presented “How to Grow a Tropical National Park: A Case Study in Restoration Ecology.” In these presentations he proposed the purchase of areas of former tropical forest for the express formation of the Guanacaste National Park (GNP) in Costa Rica. Janzen came to believe during his many visits to Costa Rica that given the right environmental and social conditions the forest could recover. The group started out with just 39 square miles, by the year 2000 the park had grown to 463 square miles of land and another 290 square miles of marine habitat. If this project demonstrates only one thing it is that the drive and passion of a single person can and *did* make a huge impact.

Dan Janzen is the epitome of an environmental evangelist. He demonstrates over and over again that when one presents a case passionately even the most seemingly jaded step up to the plate. This is perhaps best demonstrated with an example. In 1988 Janzen gave a presentation about Guanacaste at the Solomon Brothers office in the World Trade Center. The audience was young lawyers, traders, and other financial controllers. The purpose was to describe a scheme called a debt swap plan. These schemes are a creative way for a country’s debt to be leveraged in a way that provides funds for conservation. This program is well described in the book Green Phoenix by William Allen. Janzen had in mind a debt swap that would involve \$5 to \$6 million worth of debt. He spoke with excitement and enthusiasm; he even asked that they do all the financial legwork for free. The result was beyond his wildest dreams. The total debt involved in the deals amounted to over \$24 million and the services for processing the debts were donated by the traders and lawyers. This scheme produced \$17 million for the GNP project and set up the largest endowment in the history of tropical conservation, driven by the passion of one individual.

It may seem a large step from conservation programs in a small regional zoo to “saving the tropical forests.” However, the generosity and drive of inspired people is boundless. The trick is in getting people inspired. Once again it is necessary to tap into positive inspiring emotions and to stay clear of doom, gloom, and disaster. Nobody wants to be an evangelist for a lost cause.

In examining ways of inspiring people one must understand why anyone would want to help at all. In general it is necessary to instill a sense of value or ownership in what one is trying to conserve. If an individual or an

industry sees value in something then tapping into that value drives the motivation to support its conservation. Value in this context need not be financial, although many times it is financial value that must be instilled to make a change. A prime example of this is the values promoted by those responsible for the protection of migratory birds at a time when the millinery trade was taking profit from the killing of many native and rare bird species. A massive campaign was mounted to educate the “ladies of fashion” who indirectly drove this industry. By convincing the “consumers” of the feathers that they should not be wearing them, a negative financial effect was had upon the millinery industry. Seeing their profits declining they adjusted their attitudes to the use of feathers from exotic and declining species and began promoting the feathers of domesticated and farmed birds. The lobby for the legal protection of the birds was then able to attract the milliners support for the legislation because it presented them, the milliners, in a positive light. It was financially beneficial for the millinery trade to support the protection plans.

Promoting or adding value to species and environments are the areas where zoos and other animal related institutions are able to play the greatest role. When people experience and appreciate the diversity of nature or the plain functionality of a species in a global context, they give value to it. By educating the public in a positive, inspired manner these institutions can raise the value given to each species that the public experiences. Telling stories and experiences that relate the awe of a moment often connects deeply with an audience. The following extract from “The Green Phoenix” by William Allen embodies this theme:

Dick and I joined a group of strangers and watched a turtle scour out a pit. A long time later, she dropped her eggs into the bottom, one by one or sometimes two or three at a time, and I imagined that she was sending signals, a kind of reptilian Morse code, into the abyss of time and space. I was awed at the timelessness of this moment – it had been preceded by billions of such moments over millions of years. I looked at the mosaic of the stars, their light gathered into irregular clumps, and considered the life of this individual turtle: a journey over thousands of miles of open ocean, a chance encounter with a mate, and an improbable return journey guided by some mysterious navigational intelligence, back to this beach of her birth and the births of countless previous generations. It was a sublime feeling, of wonder at the grandeur of life, of ancestors and possible descendents.

It was humbling, too, like looking at the stars and suddenly realizing how vanishingly small our planet is, and how insignificant the humans who inhabit it.

When an educator stands before an audience with a live animal, a unique opportunity is presented to connect them with not only the beauty of the animal but also with its integration within ecosystem in which it lives. It has been my experience that people will attach higher value to what they have experienced personally.

Raising the perceived value of flora and fauna is only one part of the process. Making the connection between these plants and animals and the global conservation effort is not easy for many institutions. It may seem a daunting task for the smaller places and impossible for the lone inspired individual. However, help is at hand.

Several years ago while attending an American Association of Zookeepers (AAZK) conference in Houston, Texas, I discovered a small room that was overflowing with people. The room was full to capacity and the crowd was ten deep or more at the door. The sign on the wall said “Presentation by Norm Gershenz of the Center for Ecosystem Survival.” Eventually I pushed my way into the room; the speaker was throwing small red plastic frogs and candy into the audience. He spoke with the enthusiasm of a revivalist preacher and the audience was responding in kind. What was the Center for Ecosystem Survival (CES)?

CES was formed in 1988 with a mission to develop conservation programs to unite zoos, aquariums, natural history museums, botanical gardens, and science centers in a concerted conservation alliance to preserve threatened and endangered in-situ ecosystems worldwide. There are 112 zoos, aquaria and like-minded institutions that are participants in CES's in-situ conservation programs. To date the CES program has raised more than \$2.2 million for 12 field conservation projects throughout Latin America and the Asia/Pacific region. These include the purchase and/or protection of endangered and threatened habitat in the countries of Costa Rica, Peru, Bolivia, Guatemala, Brazil, Belize, Panama, Dominican Republic, Palau, and Komodo Islands. The programs developed by CES include: Adopt an Acre, Adopt a Reef, and conservation meters for institutions. Driven individuals in their place of work and their local community have raised the bulk of these funds.

It took several more years of searching and thinking before the connection was made for me between global and local conservation efforts. Working at a small institution and trying to raise funding to grow and maintain this regional zoo was all consuming. However, recently CES introduced a new fund raising program that permits institutions and individuals to make a global contribution and still provide some income for the local effort. Their plan is to return a portion of funds collected in their Adopt an Acre and Adopt a Reef programs to the institutions that made the contact with the donor. CES will supply a pair of flyers with the institution's name printed on it. Individuals may request that the name of any project or institution on the flyer that they wish to support. To assist groups and individuals in getting out into their communities and making professional, entertaining presentations CES has available a set of slides taken in the tropical forests. These are professional slides and they come with a script for the presenter to use or modify. Using the slides many individuals have made significant contributions to the global conservation efforts and educated their local communities to the incredible biodiversity in tropical forests. Once again the passionate individual can make a contribution.

It has been said many times that the children in our school systems are often the best educators of adults. When a child has a great classroom experience they take it home and may pass on the message to parents and relations in such a way that the adults are forced to change some life-long habit. A fellow educator relates the following story from one of his outreach experiences:

While I was giving a presentation with a bird on the glove a large older man approached looking decidedly unhappy. "Are you the bird man?" he asked with a challenging tone. Nervously I replied "well ...yes". "Well my grandson says I can't go hunting anymore and it's your fault." Apparently after attending a school outreach program the child had taken to heart the conservation message of the educator and had returned home to his grandfather to explain that he should not be killing animals anymore and would he please stop hunting. The man loved his grandson so much that he gave up hunting.

The best kinds of conservation programs use local conservation to generate funds for both local and global conservation. These programs generate immediate reinforcement for the donor. When a school builds and sells

bluebird-nesting boxes to generate funds to adopt acres of tropical forest, the local community sees the joy of the children and they get to enjoy the bluebirds. Meanwhile thousands of dollars are generated for tropical forest conservation. Engage your enthusiasm and others will be infected by it. By being creative and enthusiastic any individual can make a difference.

References:

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