

“The Power of One”

by

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Tackling conservation issues can appear to be an overwhelming task. Saving the rainforest, cleaning up polluted habitats, preserving land, bringing a species back from near extinction, these all seem nearly impossible. At the very least, they bring to mind images of overzealous activists whose lives are dedicated to a cause. Certainly, such individuals exist. However, invoking a change doesn't necessarily require such extremes. A single ordinary individual can become aware of a conservation issue and can grow that awareness into an environmental movement that changes conservation history. How this can transpire is demonstrated in the following conservation success stories; the recovery of the Peregrine Falcon in the United States, the creation of Hawk Mountain Raptor Sanctuary, and the cleanup of the Nashua River, among others. By attempting to understand the underlying keys to the success of these efforts, it may be possible to discover the potential impact, not just one, but 200 conservation minded individuals can create to help protect, preserve, and restore the natural world.

Recovery of the Peregrine Falcon

Of recent, one of the most moving conservation success stories is the recovery of the Peregrine falcon in the United States. In brief, it is now common knowledge that organochlorine pesticides, DDT, and DDE, contributed to the thinning of Peregrine falcon (and other avian species) eggshells. This in turn led to the breakage of the eggs and, as a result, a decline of the Peregrine falcon population to the extent that, by 1970, the Peregrine falcon was listed in the U.S. as an endangered species. Since then the banning of the use of DDT in the US and captive breeding and release programs have recovered the Peregrine falcon populations to a level that has allowed the species to be completely de-listed in the US as of August 1999. It is a great story. One that many mention in their bird shows, but who are the people that made it happen and how were they inspired to take action?

The story begins, and ends, with people who have an interest and concern for wildlife, in this case, falcon enthusiasts. Falcons have been a fascination for man for thousands of years. The first noted decline of the Peregrine falcon was recorded by falcon enthusiasts who observed Peregrine falcon eyries regularly to ensure eggs and babies were not procured for egg collectors or for falconry. Joseph Hagar watched, as a government paid official and as an enthusiast, nest sites in Massachusetts. And Richard Herbert watched sites on his own in New York. In 1947 Hagar wanted to photograph a family of Peregrine falcons. He set up his camera on his familiar cliffs. Then one afternoon when he returned to the cliff, he saw an unusual sight. Two of the three eggs were broken.The hawks abandoned the nest, courted again, and the female laid 4 more eggs. Only one hatched – and the baby died as a nestling. The following season, 1948, the peregrines had five eggs in two clutches. None hatched. The next year they laid one egg. It, too, failed. In 1950 the two birds made a final valiant effort. Their first clutch had two eggs. Both broke and were abandoned. The female next laid a single egg nearby. It broke. She laid two more eggs. Again one broke. The other vanished. The following spring the pair returned to the cliff, but did not mate. They never again returned. Hagar did not realize at the time that he had seen the first case in an epidemic. He had no idea that DDT had anything to do with what he had witnessed (Zimmerman; 1975).

Richard Herbert, too, had noticed a decline in the numbers of falcons over the years while watching the sites in New York. He shared his observations with Joseph Hickey, a professor at the University of Wisconsin. Joseph Hickey, also a Peregrine falcon enthusiast, learned of similar reports elsewhere; such as Great Britain. Concerned, he organized a conference for the Peregrine falcon in 1965. Sixty participants attended, including Dr. D.A.Ratcliffe, Chief Scientist of the Nature Conservancy Council of Great Britain and author of “The Status of the Peregrine in Great Britain” in 1963, Dr. Tom Cade, professor of ornithology at Cornell University, and Morley Nelson, among others. Joseph Hagar also attended and reported his observations of 18 years prior at this conference.

At Madison, two main points emerged. One was that the Peregrine falcons' populations over a large part of North America and Europe were in serious and evidently increasing trouble; the other was the weight of evidence and opinion that pointed the finger at the persistent pesticides as the cause. (Ratcliffe;1988) The result of the conference was an enormous and extremely varied spread of research effort by many different people, galvanized into an onslaught on these problems. (Ratcliffe; 1988)

Certainly Joe Hickey's effort to bring a collection of concerned individuals together had a tremendous impact. Attendees such as D.A. Ratcliffe went on to unravel the complicated story of the relationship between the use of organochlorine pesticides and the decline of the Peregrine populations. (Cade;1988) Morley Nelson developed public sympathy and appreciation for raptors in many ways, including his motion pictures and promoting the establishment of the Snake River Birds of Prey Nature Area (Cade;1988) And Tom Cade went on to develop captive propagation and release programs and founded the Peregrine Fund.

Each step of the Peregrine falcon story took the power of an individual to gain ground. We rattle off the story of how DDT caused eggshell thinning etc., etc. But individuals such as Dr. Ratcliffe and Dr. Nethoside Thompson proposed these hypothesis then spent years to research and prove them. Other individuals may have played less high profile roles, but were none the less essential. One smooth talking individual, Daniel W. Anderson, was at the time a graduate student who sweet-talked private egg collectors into letting him measure their prized, but illegal, possessions of bald eagle and falcon eggs. Because egg collectors carefully recorded collection information, these measurements became very useful in pinpointing DDT as the culprit in egg-shell thinning. Many others contributed as hawk site attendants, in captive breeding programs, observing birds, etc. etc. No doubt many IAATE members have contributed to the Peregrine's success.

The story of the Peregrine falcon began with a few observations by individuals here and there and grew into an enormously successful project based on the contributions of these individuals. Quite possibly nothing can compare to the feeling those individuals experienced the day their final goal was accomplished, the Peregrine falcon was taken off all Federal listings in the US as of August 1999.

Hawk Mountain Raptor Sanctuary

In the early 1930's Rosalie Barrow Edge, the strong minded organizer of a group called the Emergency Conservation Committee, learned that hunters climbed Hawk mountain every fall to shoot hawks migrating along the Kittatinny Ridge. The hawks, then unprotected by law, were being killed by the hundreds and thousands each year, and many of them suffered lingering deaths on the stony slopes below the shooting stands. Mrs. Edge arranged to lease the mountain and then to buy it. (Broun; 1977) Again it seems a simple story, but what really precipitated a change? Rosalie Edge was a woman whose background included periods of poverty, hardship, and affluence. In her 40's and 50's she developed an interest in birdwatching. She was an avid bird watcher and a life member of the Audubon Society. In 1929 she received a pamphlet called "A Crisis in Conservation" authored primarily by Willard Gibbs Van Dame, a devoted conservationist. The pamphlet set forth the danger to many North American birds, particularly birds other than the small song and insectivorous birds. (Edge; 1999) The greater shock conveyed by the pamphlet lay in its descriptions of the slaughter practiced and condoned by groups of sportsmen. The most serious charge of all was that the Audubon Society was exposed as not only being inactive in their protection of birds, but was in league with the gunners to protect their sport. (Edge; 1999) As a result of the pamphlet, Rosalie Edge formed the Emergency Conservation Committee. The committee consisted of Rosalie Edge and two other members, with occasionally 2-3 more. Through the Emergency Conservation Committee Rosalie Edge pioneered several causes. She challenged the Audubon's condoning of certain hunting practices and their acceptance of funding from muskrat hunters looking for Audubon's favor. In part, due to her actions, laws now exist that regulate hunting limits and the Audubon Society's practices were revised and leadership reorganized. In addition, the Emergency Conservation Committee focused on campaigns to create or add resources to the National Park system. Some of the most significant were a sugar pine grove in Yosemite, the creation of King's Canyon National Park in California and the establishment of Olympic National Park near Seattle.

Rosalie Edge is perhaps best known for Hawk Mountain Sanctuary, established to protect migratory hawks on their flyway in eastern Pennsylvania. Prevailing winds create air currents ideally suited to the soaring of thousands of raptors that migrate every fall on their route from Canada and New England to Georgia and tropical America. The ancient road, once traveled by troops during the American Revolution, made it possible for local gunners to get within easy shooting distance of the hawks. Thousands of hawks were killed each year and thousands more were wounded and left to die on the mountain slopes. (Edge;1999)

Locally the shooting was well known, but it was only in 1932 that the Hawk and Owl Society published a descriptive article that exposed these horrors to the general public. Rosalie Edge resolved that the shooting should stop. Rosalie Edge visited the site and soon thereafter arranged to lease the two-mile square area for a year for \$500, with an option to purchase for \$3,500. (Edge;1999) Dr. Van Name, the author of "A Crisis in Conservation" loaned her the money.

Others who became critical to the success of Hawk Mountain included Maurice Broun and Irma Broun. Maurice had walked into Rosalie Edge's office to contribute \$5 to donate to the Emergency Conservation Committee. This was their first contact and led to a partnership as caretakers for Hawk Mountain. Maurice operated the Sanctuary, performed counts, made observations and published reports. Rosalie Edge made sure the financial issues were handled. In addition, Maurice's wife Irma Broun became an important component to the success of Hawk Mountain. While her husband went off to count birds, she became the "keeper of the gate". Irma tried – often quite successfully- to encourage would be hunters to lay down their firearms and appreciate raptors for their role in the natural scheme. (Keeler;1999). Irma patrolled the trailhead for over 20 years collecting 15 cents from visitors to help defray Sanctuary expenses. Irma sat with her dog on top of a blanket-draped boulder, collected admissions, answered questions, and sold Mrs. Edge's conservation pamphlets from a wooden stand. (Keeler;1999). Today Hawk Mountain Sanctuary is thriving with more than 70,000 visitors each year.

Nashua River Clean –up

In north central Massachusetts there is a river called the Nashua. It is an Algonkian Indian name meaning "river with the beautiful pebbled bottom". By the 1960's, you could no longer see those pebbles. For over 200 years, industry used the river as a 50-mile long sewer (Berger; 1986). The river carried typhoid and other diseases, could not support aquatic life, and actually gave off a putrid odor that could be smelled two miles away. Marion Stoddart, a grandmother, moved to the town of Groton on the banks of the Nashua. An optimist, Stoddart had a vision of restoring the river. Stoddart was sophisticated enough to know that the task she was undertaking was formidable and that success was uncertain. At best the project would take years to complete. Yet she was going through a period of personal crisis and felt unfulfilled by her role as a wife, a mother, and a small town citizen. She had an almost desperate need for a more challenging and significant vocation. As her parents had been active in community service, it was natural for her to think in terms of public service, and, after vacillating for months between social work and conservation, she finally chose the Nashua River, drawn by the excitement of her vision of a "wonderful, cooperative venture by the industrialists, business people, and homemakers (from which) everyone would benefit". (Berger; 1986)

Stoddart's effort began by determining who were the community leaders. She then organized a citizens clean-up group. She also set out to change legislation to help gather support for the clean-up. Along the way, Stoddart's citizen group, the "Nashua River Clean-Up Committee", collected 6000 signatures in support of the clean-up to influence the governor to help. At a meeting, the committee presented the governor with a bottle of revoltingly dirty river water. The sample shocked the governor and he promised to keep it on his desk as a constant reminder until the river was cleaned up (Berger; 1986)

Stoddart, although much the leader on the clean-up effort, found many allies that contributed to the effort. Wayne Kimmerlin also organized citizens. Bill Farnsworth worked to restore the river area. Together, they contacted all 34 communities along the river and helped them to organize clean-up committees. Even a local military base near the river offered help in the form of an office, plus full time service of professional military officers and men. Four hundred to 500 youths hauled tons of trash off the riverbed banks. Many of the children were troubled youths who gained their first successful work experience and earned job references and

and community respect for their efforts. Marion Stoddart gained the nickname “Mother Nashua”. In addition, famous environmentalist and children’s book author, Lynne Cherry, inspired by the real life story, authored the children’s book “A River Ran Wild” to showcase the moving story. By 1986, the end result of the efforts was a river that now had bass, perch, pickerel, trout, mergansers, bald eagles, osprey and herons. The water had not been completely restored, but it certainly no longer had odors, sludge banks, foam, floating solids, and discoloration. Still a success worth celebrating.

Discussion

The stories I have described showcase some truly remarkable individuals. However, as we look at each story there are several common threads. For example, in each story, individuals focused on a very specific issue and then accepted the responsibility of making a difference. (Joseph Hickey and the Peregrine Falcon, Rosalie Edge and Hawk Mountain, Marion Stoddart and the Nashua River.) They then went on to share the information they had and to generate awareness and gather support. Joe Hickey organized the Madison Conference, Rosalie Edge wrote and distributed pamphlets and Marion Stoddart collected 6000 citizen signatures. With that support came help from many different crucial individuals. Each playing very important roles critical to the success of each conservation effort. And through it all, these people believed in their causes despite odds of success, obstacles and/or opposition. They also believed in the possibility of eventual success. Bill Burnham, current President of the Peregrine Fund wrote that “Failure was never really a consideration; the loss of the Peregrine was unconscionable”. What is interesting to note is that, although individuals made great contributions, it was the combined efforts of many people that eventually created success. I find it so fascinating how each piece and player in the stories lead to another piece or player falling into place. (i.e. Herbert told Hickey who held a conference that brought in Cade and Ratcliffe and Nelson and so on) These efforts, big or small, were essential. We now look to these people as conservation heroes, and they are! However, I feel everyone in this room is a conservation hero or a hero waiting to be set to task.

Already, IAATE members practice various forms of conservation. We create and increase awareness of certain issues facing wildlife, we try to empower guests to take action, some members breed endangered species, we donate funds, etc.,etc.,etc. All of these are very admirable practices. However, I believe we have the potential to create a conservation movement as large and impactful as any issue on the forefront today. I believe we have an amazing opportunity because we are a group so dedicated to conservation and we share such a compassion for the natural world. I would like to recommend we follow the examples of these conservation success stories and create our own conservation success story by doing the following:

- 1u Pick a specific conservation effort or efforts and take responsibility for it/them.
- 2u Share our knowledge of the issue and generate support.
- 3u Contribute to the cause through our own individual efforts.
- 4u Believe in the cause and it’s eventual success.

1. Pick a specific conservation effort or efforts and take responsibility for it/them.

Certainly there are many issues that would benefit from national and international attention. Some options include maintaining bio-diversity through the preservation of habitat, discouraging the use of pesticides and toxic chemicals, supporting the recovery of specific species and/or habitats (such as wetlands, rainforest, coastal, etc.), and supporting an existing cause or organization. Bio-diversity remains a critical issue of our time. Many people are already familiar with the Adopt an Acre program, a program dedicated to buying rainforest land in an effort to preserve natural habitat. In addition, being that we are an organization that deals directly with the public, I personally find that educating the public on toxic chemicals and pesticide use one in which an impact could be easily made directly on our audiences. This can be done by offering alternatives to chemical use, encouraging guests to buy organic and certainly discussing the effects of toxic chemicals and pesticides to species many of us are familiar with, such as the Bald Eagle and the Peregrine falcon, and other species. (Current research

suggests some of the declining amphibian phenomenon of the last ten years may also be attributed to agricultural pesticide use.) In addition, supporting an existing organization, such as the Cornell University Ornithology Lab, The Peregrine Fund, World Parrot Trust, etc. offers an excellent opportunity for show guests to become active. Cornell offers opportunities for members to contribute to scientific studies by having them count birds that visit their feeders, put up and monitor nest boxes, participate in field studies, and more. And, of course, all these organizations can benefit from funding.

2. Share our knowledge of the issue and generate support.

Spreading the word is perhaps what IAATE can do best. Currently, IAATE has about 100 facilities represented in the US and internationally. If we averaged that each facility does roughly 3 show per day (some maybe through school programs, etc.), 180 days per year (6 months) for an audience of 500, our members would have spoken to approximately 27 million people. Have we ever thought about that figure? Can you imagine the impact if our organization focused attention on a specific conservation issue and made a concerted effort to educate and empower our audiences to take action for that purpose? Even if only half that number actually took action, the repercussions could be tremendous. If we recommended to 27 million people to buy organic foods because it will discourage the use of harmful pesticides, I think agriculture may be pressured to reconsider current practices that harm the environment.

3. Contribute to the cause through our own individual efforts.

It is astounding to think how many people we can reach and what they, in turn, can be empowered to do. However, each of us can contribute as individuals as well. Many members here have the power to influence legislation, develop creative fundraising ideas, create shows that feature the issues, write information packets IAATE members could use, etc., etc., etc. The talent that exists within IAATE is phenomenal. And I believe we have yet to see the full potential of this organization.

4. Believe in the cause and it's eventual success.

Finding dedication and belief in a cause, I believe, is something that would come very easily to this conservation-oriented group. Watching the output of support and generosity for Brian Jones's efforts last year was an emotional moment, and, I feel, a proud one for this group. I believe that same passion for conservation is certainly still within all of us waiting for some guidance and direction to allow it to "move mountains" or in our case save rainforests, or spix macaws, or martial eagles.

Conclusion

We are fortunate to have the privilege to share every single day of our lives working with animals. I can't imagine a greater reward than making sure these creatures are around for future generations to enjoy. I hope these stories offered insight and inspiration. What chapter follows is up to us.

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