When I landed at India’s Bangalore airport the morning of May 23, 2010 I wasn’t bombarded with a sensory overload of sights, sounds, and smells. Instead I moved quietly through various security checks and screening procedures that seemed ill-monitored and quite relaxed. For a moment I began to question whether everything I had been told about this bustling country had been an exaggeration. It wasn’t until we got outside and into the city that I learned I was completely wrong. My first impressions of India were that it was much more than simply an exotic location; even at 5:30am it was a living, breathing organism in itself. We jumped in a taxi and headed to our destination in Bangalore but the forty minute drive literally flew by as our driver whipped in and out of lanes and sped impossibly close to the surrounding cars, horns were sounded constantly as a form of roadway communication. But it seems that there is a method to the madness because during my seven-week stay I saw only one accident.

Thus began my learning experience in this wondrous country that was vastly different in culture, economy and biodiversity than anything I had ever known. During my time in India I had an array of teachers ranging from highly educated scientists, naturalists, ornithologists, botanists, herpetologists, and various PhD students to simple village and tribal peoples. I learned about the biodiversity hotspots in India, which number anywhere from two to four depending on whom you ask. Although only 4% of India is designated as protected space, the flora and fauna biodiversity in the South is so vast that it would literally take years so obtain the most basic understanding of it all.

Lecture topics included the environmental issues of India such as overpopulation, pollution, deforestation, animal extinction, habitat destruction and invasive weed species.

Field techniques including quadrant and transect sampling were introduced in the area around Bannerghatta National Park and were then observed in Bangalore University bio-park, Male Mahadeshwara Hills, and Biligirirangaswamy Temple Wildlife reserve as methods for monitoring floral growth and diversity. We gained first-hand field experience in scrub, shola, bamboo, dry deciduous, moist deciduous, evergreen, riparian, and rainforest areas. Hikes with our teachers and guides allowed us to explore the forests and learn not only through visual observation, but also by touching, smelling and even tasting the plants in order to identify them.

During the first few weeks of our trip we were given lessons on the taxonomy of native plant and tree species such as sandalwood, neem, and teak. We used these techniques throughout the rest of the trip to identify other species we encountered and kept a herbarium with us to collect specimens. One of the most interesting conservation techniques was described at Bangalore University as Field Gene Bank Conservation. This technique involves
extracting samples of one tree species from various locations all over Southern India and planting them in a single line to observe their assorted phenotypes. If one specific tree is found to contain all of the genetic variations in the entire sample, then the area from which the tree came from is the area that needs immediate conservation.

We were lectured about the problem of *Lantana camara*, an invasive plant species from Central America, which has become an increasing concern for forest health because it is spreading rapidly without competition and choking out other forest species. While traveling to Bannerghatta National Park we stopped by the Byrmangala lake or reservoir just south of Bangalore and saw the extensive water pollution; chemicals were churned up in the small rapids and resulted in huge piles of foam that looked like small ice caps. It was quite shocking to see villagers using the water from that exact reservoir as we traveled further away. This initiated discussions about possible solutions and villager rights but, as with most major environmental issues, mitigation and prevention is easier said than done; especially in a developing country that has only been independent for sixty-two years.

Our group worked with ATREE, a conservation organization to learn about their eco-agriculture activities in Kanakapura. These initiatives include more efficient planting techniques and the use of shade trees to cover fields. We toured the site for a community center and rainwater harvesting area in Male Mahadeshwara Hills as well as a workshop in which villagers can earn a living by building lantana furniture. We also met with a self-help group for Soliga tribeswomen in which they produce and sell honey in Biligirirangaswamy Temple Wildlife Sanctuary. Through these meetings and tours we were taught the ways in which programs such as the above are able to reap the largest benefits for villagers and tribals. We were able to visit schools and interact with the children to learn about environmental education being introduced. Many of the schools are also being used as areas to re-plant native flora. The benefit of educating young is doubly important because their parents are being educated as well.

In Bandipur and Mudumulai tiger reserves as well as Top Slip in Anamalai, there were incredible wildlife sightings. Our group was able to observe bonnet macaques, rhesus macaques, common langur, Nilgiri langur, Nilgiri tahr, gaur, dhole, wild elephant herds, wild boar, Indian giant squirrel, cobra, chital, sambar, blackbuck, barking deer, kingfisher, peacock, and mongoose. We also saw evidence of large cat species including tiger and leopard tracks to name a few. There were also sightings of native birds, insects and reptiles on a daily basis.

During our time in the tiger reserves we learned about “eco-tourism” activities and the elephant camps often associated with the term. The benefit for this new wave of recreational sightseeing is that it raises awareness for environmental issues and stresses the importance of coexisting with the environment. People are able to take tours on elephant back and experience the environment in a non-destructive way. However it was troublesome to realize that often times, the villages and elephant camps in the surrounding areas do not see enough of the profit from these tours.

Apart from the environmental experiences we had on our journey, the group was also immersed in a rich culture that was unlike anything I had experienced in
the Midwestern United States. We were able to witness and ask questions about concepts foreign to us, such as arranged marriage, and attend a wedding party. We learned about the Hindu religion and were able to visit temples and sacred areas where we observe ritualistic worship ceremonies that were incredibly beautiful. Even simple activities like reading local newspapers gave us different perspectives on world politics and domestic issues than those we are used to in America. In fact, the entire parliamentary system of government is a completely different concept than that of the United States. Lastly, and probably the most shocking cultural element were the remains of the caste system. While not as prominent as it once was, this social and economic hierarchy has been (and to a degree still is) a defining factor in the lives of many people.

Although the intents and purposes of our trip was to engage in field ecology and learn about the environment and issues of India, my time spent there has also taught me more about human nature than I expected.

The tribal people stand out the most in my memories of India because of their relationship with the environment. They have a deep-rooted and traditional knowledge of the forests that has been lost in the urban people. Unlike commercialized cities, the tribal people within the forests do not try to mold the environment to fit their personal needs. They coexist within the ecosystem and are as integral to the setting as the plants and animals. They were familiar with every tree and plant in the forests and knew how to use many of them. I was humbled when given the opportunity to try to plow a field, which truly gave me insight into the struggles of village livelihood. It was inspiring to learn about traditional medicinal plant remedies and non-timber forest products that the Soligas have used for hundreds of years. Materialism does not exist within these villages. They have very minimal possessions consisting of simple pots and pans and a few articles of clothing but they do not wish for more “things”, instead they were eager to share everything they had with our group and offered us tea and fruit. This treatment struck me as quite odd; ever since childhood I had been instructed to be wary of strangers for my own safety, but that is not the case here. Strangers are welcomed with open arms and treated like family. There is such beauty in the simple lifestyles of the tribal people. The children are carefree and do not need the newest electronic toys to have fun. And, the adults want their children to have opportunities and happiness rather than monetary wealth.

In spite of all these differences the most important thing I learned was not a new concept but rather something I had heard many times. I’d been told all my life that we, as human beings are similar because we share the same genes and inhabit the same planet. That message truly came to life before my eyes when I was able to travel halfway across the world and connect with complete strangers through the common bonds we share as human beings, despite different races, upbringings, languages and homes. This commonality is the thread that holds all people together and will enable us to work together for a common goal; the protection and appreciation for the planet that we call home. #