

Creating Connections to Islands Far, by Connecting to the People Near: Building a Madagascar exhibit with the human element in mind



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“Culture is a way of coping with the world by defining it in detail.”
By Malcolm Bradbury.

INTRODUCTION

When creating an experience for our guests, we often focus on the species represented; the threats, the habitat, and their life histories. The value of these educational pieces are critical to helping us as zoo professionals connect our neighborhoods to the wild world outside their doors. Yet when we talk about these aspects, they are only expressing one side of conservation. When creating new signage for an exhibit that highlights the island ecosystem of Madagascar for example, it can be approached in many ways: highlighting the limited resources, the struggles of the species that live there, and the human impacts that can determine the fate of these delicate ecosystems. However, there is one major element missing from the picture we attempt to build with our graphics; the people who share the space with these species. Many factors contribute to the endangerment of species, especially on an island like Madagascar. It is our responsibility as zoo professionals to give our guests a picture that can create empathy for the ecosystem and the species it serves; animal or human.

THE PEOPLE OF MADAGASCAR

The endemic animal species are not the only ones struggling in Madagascar, the humans that call the island home can help us understand why that is. A way that we can understand a country’s life satisfaction is through the Happy Planet Index (HPI). Happy Planet Index is based on human well-being in relation to the environmental impact of that country. With HPI, subjective life satisfaction, ecological footprint per capita, and life expectancy at birth can be rated on a scale that is universal and easily quantifiable. These values suggest the acknowledgement of impact as well as the action of protecting the country’s people by restoring the local environment. The country that led the world in 2020 is Costa Rica with a 76.1 HPI rating. Costa Rica also counters their own carbon footprint through planting



trees once they are harvested, and has many successful recycling programs. The country encourages their citizens to live healthy, long, and fulfilling lives while not threatening the opportunity for future generations to do the same.

At the other end of the spectrum, the United States of America (U.S.) ranks #114 with a HPI of 30.7. This lower ranking is primarily due to the country’s large ecological footprint when compared to its population. The United States of America as a whole uses more than its fair share of resources which contributes to planetary damage as a result of that. Madagascar is rated #113 with a HPI of 31.5, considering that it is barely ranked higher than the U.S. with a population of 331 million people compared to 27,857,179 people living on the island of Madagascar (MADAGASCAR COUNTRY REVIEW, 2020). It is concerning for many reasons that a country as small as Madagascar is comparable to a country as large as the U.S. in its environmental impacts. With a smaller population the amount of environmental damage that is happening per person is substantially larger than the U.S. The U.S. luckily has the resources and the ability to help ease their own environmental shortcomings through

technological advancements and wealth. An island like Madagascar has very limited resources and relies heavily on their natural resources for their own sustainability. Without the ability to replenish their natural resources or find alternatives like the U. S. or Costa Rica, Madagascar overall does not reverse their environmental impact faster than they damage it. The implications of this put tremendous pressures on the people and animals of this island, which can lead to desperation and conflict between the human and animal residents.

BUSHMEAT

Bushmeat is a common threat to native wildlife in economically poor regions of the world, including many areas of Madagascar. In Madagascar over 90 percent of the population live on less than two USD per day. Bushmeat is the collection or hunting of exotic meats and commonly refers to smaller species like lemurs, fossa, or fruit bats. Many poor communities see the availability of bushmeat as a substantial addition to their overall diets to add needed vitamins and protein that they otherwise do not have easy access to. Not only does bushmeat allow people to feed their families with a more balanced diet; but it can add extra income to a family who



is struggling financially. There are often complex reasons for why bushmeat is consumed or harvested and it has an impact on the biodiversity of a given area. Species may be hunted for different reasons; lemurs are harvested for bushmeat due to insufficient food resources of a family or village. While fossa are a result of human-wildlife conflict dealing often with property (Reuter et al., 2016).

Interestingly enough, the collection of bushmeat is actually illegal in the country but the regulation on it is extremely weak and bushmeat is often found in markets around the island. These markets are common in both urban and rural areas and many people who choose to purchase bushmeat are often opposed to hunting it themselves. Bushmeat is seen as a critical answer to malnutrition in economically poor populations. Struggling with dietary needs is already a huge stressor but when space for resources becomes a factor as well, things can get tricky. With limited resources from island living, these markets do not always offer as nutritious and plentiful options as markets that are found in larger, less restricted countries, like the U.S. or China (Reuter, 2018). The value of space can really alter the potential for growth and opportunity when it comes

to making a living from the land. The unregulated markets are essential to the health of the people in Madagascar, yet the act of collecting bushmeat is also destroying the biodiversity that the people rely on.

HUMAN CONFLICT WITH CARNIVORES

Human-Animal conflicts occur across the world in many walks of life. It can be as simple as an animal going through your trash and making a mess, or as extreme as wildlife disrupting your livelihood by killing your livestock. When the conflicts affect livestock, tensions can run high and retaliation can occur that can highly impact biodiversity. Fossa, the largest native carnivore on the island of Madagascar, usually stick to more native prey, yet conflicts with farming communities occur, which often results in small livestock deaths (Hawkins & Racey, 2008). These types of attacks can really cause heavy tensions in a community. Conflict with humans impacts the fossa populations, especially when farmers come into contact with these carnivores. Retaliation for loss of property in terms of chickens or small livestock is often widely accepted in small rural communities due to the large effect on their livelihood. In a study that interviewed over 1,750

households in Madagascar throughout the different forest regions, over half of the households disliked fossa specifically for their predation on poultry. Retaliation killings of fossa may result in extinctions of already small fragmented populations (Merson, Dollar, Johnson, and Macdonald, 2019).

NATIVE HARDWOODS

One of the larger industries the country boasts is the harvesting of native hardwoods. Malagasy rosewood was first documented as being exported in the early 1900s. It is commonly exported for use in musical instruments, luxurious furniture, and rosewood oil which led the species to the brink of extinction. Since this species is endemic to the island, its exportation is a sign of wealth and privilege that also brings in a huge profit to those who harvest it. High demands for the native wood from numerous Asian markets led to the restriction of this exported wood in 1975. From the year 2000 to current day the regulations have been lifted and restricted on the hardwood numerous times. This back and forth of government's involvement creates a higher reward for those who wish to export the wood illegally to foreign buyers (Zhu, 2018).

As of 2017, the Convention on International Trade of Endangered Species of Fauna and Flora (CITES) put heavy restrictions on the export of Rosewood, citing that the high demand of this wood would result in conservation issues as well as violence in the areas where the trees are grown. These restrictions exclude instruments due to the highly sought after sounds that this wood produces when used in guitars and fingerboards (Benincasa, 2019). Rosewood is a critical habitat component for many species in Madagascar yet the price tag on this tree can result in deforestation that can decimate an ecosystem. When the people see a demand that has a large pay off, sometimes the risk is worth the short-term reward.

ILLEGAL PET OWNERSHIP AND TRADE

Pet ownership in Madagascar is an issue that has negative effects on the native species. Lemurs are a popular pet in Madagascar, yet it is illegal to keep them and often there is a lack of education on the subject of lemurs, and their dietary and social needs are mishandled by the pet owner. According to a national self-assessment survey conducted between 2013 and 2016, it was estimated that between 24,846 and 33,428 lemurs reside in some sort of residence (Reuter et al., 2019). This number encompasses both urban and rural homes, yet tourist towns were seen to have more visible lemur pet ownership present than in other locations. In larger villages, the impacts of pet ownership can highly affect biodiversity; especially if there is a specific interest in one species over another. Ring-tailed lemurs were noted to be the most popular and most recognizable when it came to pet ownership. Many people across the world recognize this lemur species due to its appearance in media and being the sort of “face” of lemurs as a whole (Reuter et al., 2019). This has made them a higher target for pet ownership and illegal poaching due to this attraction. According to Scientific American, it is estimated that 28,000 lemurs have been stolen from the wild between 2012 to 2015. These lemurs are often used to attract tourists to establishments, typically by being chained to walls inside a restaurant or gift shop. Though it is not known specifically how much money one can gain from the presence of lemurs in

their establishments, it is seen as a common practice since tourists often identify lemurs with the country as a whole. Though not all people who house lemurs in their homes treat them poorly intentionally, many stereotypic behaviors arise in individuals that are not housed correctly or fed proper diets. The government attempts to confiscate lemurs when they are reported in homes or discovered in pet trade situations, but the number of lemurs that are seized often outnumber the available space at organizations set up to aid them. Funding is also of concern when it comes to housing and feeding lemurs that have experienced the horrors of the pet trade or have had negative impacts from being a pet (Platt, 2015). With the struggles the people of Madagascar experience being one of the world’s poorest countries, it is understandable why individuals may participate in the illegal pet trade. Risking the punishment of poaching for a financial reward can make or break being able to feed a family. If the demand of these species continues, the extraction of lemurs will continue to occur, slowly destroying the ecosystem stability of Madagascar.

CONCLUSION

It is human nature to distance ourselves from an act that we see as evil or cruel without understanding why it is occurring. When we cannot relate to the struggles of another we remove our empathy for their situation and how it cascades through an entire country. It is easy to demonize a group of people for the endangerment of a species or

many species we as humans enjoy. Though we may not understand why the people of Madagascar own lemurs as pets, poach, hunt for bushmeat, or participate in deforestation; we must look at all these pieces to see the picture of why conservation efforts are needed and how we can work with the people to achieve our goals. To connect our guests to the creatures we love, we must also build a bridge of empathy to our fellow humans who cohabitate with these amazing animals we represent. If we look down upon people who do not live like we do, we will never see their point of view. 🐒

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