Asses to Asses, Dust to Dust

An Overview of the Wild Donkey Population of Bonaire Island Kayla Flinn



"It will be lonely here without you, That's what happens when the sunshine goes away" –Eeyore.

Table of Contents

<u>Acknowledgements</u>

Abstract

Introduction

Methods

Chapter 1: The Past: History of the Donkeys – How Did The Donkeys Arrive in Bonaire?

Chapter 2: Key Players: An Introduction to the Key Players Involved with the Donkeys on Bonaire: How They Differ in Opinion, and a Look at What They Hope to Achieve.

- -The Donkey Sanctuary and its supporters
- -Supporters of a self-sustaining free-ranging population of donkeys

Chapter 3: Understanding the Arguments that Support the Catch Program/Donkey Sanctuary

- -Inbreeding
- The Introduced/Invasive Species Argument
- A brief comparison of the Sable Island Horses to the Bonarian Donkeys
- Traffic accidents
- Dutch philosophy
- The "Cause" of a Variety of Ecological Imbalances

Chapter 4: Why it is Important to Maintain a Healthy Population of Wild Donkeys.

- Culture/Heritage
- Ecological benefits of the Donkeys of Bonaire

Chapter 5: Arguments Against the Catch Program

Chapter 6: Suggestions

Chapter 7: Concluding Remarks

Works Cited

Appendix

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Finally, a special thanks is owed to the two opposing parties involved, the donkey Sanctuary, and the Donkey Protection League Foundation, who set aside their differences to work with me on this project.

Abstract

There is a wild population of donkeys living on the small island of Bonaire, located in the Dutch Antilles. Every topic relating to the donkeys on this island appears to be up for debate, including their historical past. I will do my best as an unbiased third party to provide you with both theories on the topic.

While the population count varies drastically according to whom you talk to, I gather that there are an estimated 250 donkeys in the wild. 90 of these donkeys are males who have been castrated VIA a catch program started by a private sanctuary and the former government- said to be a form of population management. The other 600+ donkeys currently live in the fenced off sanctuary.

What should be done with the donkeys on Bonaire is a complex, controversial topic. It is not only an ecological and historical issue but also a cultural and ethical dilemma.

The goal of this article is to summarize the complex human/animal conflict between the people of Bonaire and the wild donkeys. While bits and pieces on the subject can be located online, I hope this article will be used as a tool to help people understand the entire issue at hand. I formulated this article to provide a foundation of the situation for third party readers, ideally scientists and academics that may want to aid in proper research. This is a cry for help from academics, grad students, and scientists for further research to be conducted on this wild population of equids who are facing eradication.

Introduction

How does a Canadian get involved in researching a wild donkey population on a small island in the Caribbean? Lets start from the beginning.

I received my master's degree from York University in Environmental Studies, where my thesis focused on human/animal relations. I also have an additional graduate diploma in sustainable/environmental education from the same university. While in my masters program I interned at a wildlife rehabilitation reserve in Nova Scotia, my hometown.

Upon graduating, I worked for a fact based production company and was featured on three seasons of the show Hope For Wildlife, where I rescued injured and orphaned animals. I was also an associate producer for the company and was assigned to the show titled *Animal Empires*. For one of the episodes, we were travelling to Bonaire to film the wild donkey population. I was responsible for the on ground logistics of the trip, and this is how I was introduced to the major human/animal relation's conflict on Bonaire.

In 2015, I took three lengthily trips to Bonaire, the first was with my former employer to film the wild donkeys, the second was a two week trip where I collected my primary research, and the third was to follow up on my primary research collected from my second trip.

I was unable to locate any written material explaining the entire problem that is taking place with this unique population of equids and after diving into the topic, much to my dismay, I quickly found out why.

The Donkeys are an extremely controversial topic on the island, rooted deeply in history. It is a topic plagued by corruption that is treaded lightly by everyone, including environmental groups and the government of Bonaire. A topic not discussed at a family gathering in order to avoid awkward confrontation and disagreement.

Those involved have been in dispute for so long, that their hate for one another has severely clouded the actual problem to the rest of the world. It is the most interesting human/animal relation's problem I have ever come across, and believe I will ever uncover. As a non-biased third party, only now am I able to present this issue to you after dedicating most of 2015 to uncovering the truth around this extremely complex topic.

Unfortunately, after a large amount of time dedicated to research, interviews, and fieldwork, my first hand experience only begins to scratch the surface. I decided to write this non-biased article, in hopes that it will be used to introduce academics,

Kayla Flinn Perspective Research Article February $1^{\rm st}$ 2016 and the rest of the world, to the urgent problem that is happening with a unique wild population of equids on Bonaire.

Methods

I decided the best way to learn about the donkeys on Bonaire was to perform, record, and analyze personal interviews with a wide range of individuals involved. Some of these interviews lasted as long as two hours, and each participant signed a personal interview release form.

For your reference, I have included a chart below including the names of the individuals that I interviewed, and their involvement with the wild donkeys of Bonaire. I will be referring to, and quoting them, throughout the article.

Interviewees name	Basic Title
Marina M. Melis	Founder and owner of The Donkey
	Sanctuary of Bonaire
Marion Jeursen	Full time staff member at the Donkey
	Sanctuary
Pauline Kayes	College Professor and close friend of
	the Donkey Sanctuaries.
Eric Gierman	President of Bonaire Cultural Heritage
	Foundation
Raymundo Saleh	Former Governor of Bonaire
Robert Beukrnboom	Island council member, 20 years in
	parliament
Elsmarie Beukenboom	STINAPA employee
Al Catalfumo	Founder of Bonaire Donkey Protection
	League
George P. Thode	Park Ranger for STINAPA

Chapter 1: The Past: History of the Donkeys - How did the Donkeys Arrive in Bonaire?

The donkeys have established themselves on the Island of Bonaire for ca. 500 years. All parties agree that they were brought over from Spain in the early 1500's.

According to Marina, the founder of Donkey Sanctuary of Bonaire, the donkeys were originally brought over by the Spanish navigator Alonso de Ojeda, who also brought with him goats, pigs, sheep and mules. She says the donkeys were used as beasts of burden for the people. She explains that in 1950 when the luxury of the car was introduced to the island, people no longer had any need for the donkeys so they released them into the wild.

However, according to an online article written by the Donkey Sanctuary UK, the donkeys were thought to have been imported to Bonaire in the 1500's to work on the islands salt trade, but as technology improved, their use diminished and the donkeys were abandoned in the 50's and have now become "feral".

While on the island I interviewed Eric Gierman, the president and founder of the Bonaire Cultural Heritage Foundation. Eric is also a member of the Wild Donkey Protection League Foundation. Similarly, he agrees that the Spanish imported the donkeys to Bonaire in 1527. However, he argues that from the first day they were brought to the island by Juan de Ampies, they became part of the cultural heritage as wild, free roaming donkeys.

Eric said that there is only one book that accurately depicts the history of Bonaire. Dr. J. Hartog wrote it in 1957 in Old Dutch. Eric read the entire book, and focused his attention on the archives from the former lieutenant governor general who references catching the free roaming donkeys for export. According to Eric "We have it as fact that they were brought to the island, roamed freely around the island, and were wild from day one. So this is not a domesticated species we are dealing with, this is a wild species and I think that is very important to the discussion." He argues that because they have been roaming freely on the island for almost 500 years, from a cultural heritage perspective, this should continue.

So, why is this difference in outlook significant?

This variance in opinion is important because one theory suggests that the donkeys have been wild for only 66 years, while the other (supported by the founder and president of the cultural heritage foundation) states that they have been living in the wild all along, for 489 years.

Regardless of how long they have been free roaming the island for, they are a crucial part of Bonaire's identity to the rest of the world and reflect important critical periods of the islands history.

Dr. Dallen J Timothy is a professor and senior sustainability scientist at the Global Institute of Sustainability. In a letter he wrote that was presented to the government of Bonaire, he explains that the donkeys are in fact inextricably linked to the colonial heritage of Bonaire, and that protecting the donkey population is closely aligned to the goals of UNESCO in its efforts to protect natural and human heritage (See Appendix I)

Chapter Two: Key Players: An introduction to the key players involved with the donkeys on Bonaire, how they differ in opinion, and a look at what they hope to achieve.

The Donkey Sanctuary and its Supporters

The Donkey Sanctuary of Bonaire is a private foundation; originally intended to care for sick, injured, and orphaned donkeys of Bonaire. Dutch national Marina Melis and her husband Ed Koopman started the sanctuary 22 years ago.

With an increasing human population, major developments have covered majority of the donkey's fresh water drinking holes. The freshwater wells in the mundy are all dry and in need of repair. Because of this the donkeys often make their way to town in search of fresh water runoff from roads, where they create road hazards, and get into locals garbage.

Because of complaints from locals, four years ago, the Bonaire Government proposed to solve the problem via relocation of the donkeys off the island, where they would be used as working animals. With hundreds of donkeys facing deportation, Marina convinced the government to agree to an alternative plan, thus the catch program was created where the original intention was to manage the wild population of donkeys over time. For the past four years, males have been captured, castrated and released back into the wild. Mares and foals are captured and brought to the fenced in sanctuary to live.

My first trip to Bonaire in March 2015, I spent a considerable amount of time with Marina as we were filming for a TV show that included an episode that featured the donkeys of Bonaire. I went on a ride along with her to three separate locations where she had been baiting three isolated wild groups of donkeys. For several months, she had been trying to get the herd comfortable with humans. She did this by feeding them white bread by hand. In August, she would fly a vet in from Holland who tranquilizes the animals, and performs the castration on the males. The females and foals are brought into the sanctuary to live.

What started as a small sanctuary for the sick, injured and orphaned, has recently expanded to provide a fenced in area for 600+ habituated donkeys.

During my stay in Bonaire in August of 2015, the current government placed a pause on the catch program. During this time I interviewed Rumundo, a former governor of Bonaire and a past director of STINAPA. He explained to me that for a long time, the locals were not focusing on what was actually taking place inside the private sanctuary. Most people assumed that the sanctuary was conducting the work that their foundation papers give them permission to do: care for the sick, orphaned and injured. As soon as the local people of Bonaire realized that the wild population of donkeys was at risk of eradication, experts were notified who then contacted the government and a pause was placed on the catch program.

There is a call for scientific research and impact studies to take place before the program can continue. Rumundo says that it is a good decision, but there is no check

and balance in place to make sure that the sanctuary is abiding by the pause to the program. He says that there is nothing set in place to monitor the sanctuary ensuring that they are no longer bringing in any more donkeys.

When I interviewed the women in charge at the sanctuary, Marion, Marinas right hand woman, explained to me that they had not properly been notified that there has been an official pause to the catch program, and until they receive a letter explaining such, they will continue on with their work. She states "The catch program is temporary, we don't know because we didn't get a letter, but it was on the Facebook, we saw it on Facebook". Marina then explains to me "We are confident we are doing good work. And we are confident because Bonaire is getting busier and busier. And I won't stop. Never. Because it's helping the donkeys.

Marina told me that she believes without a doubt that it is much safer for the donkeys in the future, if they were all to be in an enclosed area. She explains her plan to expand, stating "When we want to have them all in and safe, we will need big areas. There is an area on the other side of this lake where we could keep the males separate from the females". She then went onto explain that in order to do this, they will need more money.

Wether or not Marina has malicious intentions is still to be determined. The worst thing she is being accused of is attempting to make money from the donkeys of Bonaire. They are an iconic cultural symbol of the island, and if she has the entire population in her private sanctuary, the only way for people to see them in the future would be to pay her to see them. There is no doubt in my mind that she thinks that she is doing the right thing. Her plan to expand the sanctuary allowing for a male population, at the very least, leads me to believe that she *is* attempting to monopolize the wild donkey population. However, I genuinely think that she believes that they *are* safest under her watch and in her control, but weather or not this is the right thing to do, ethically, culturally, economically and ecologically is up for serious debate.

Supporters of a Self-Sustaining Free-Ranging Population of Donkeys

The other parties involved include groups such as the Bonaire Donkey Protection Foundation, We Care for Bonaire, BICEPS Bonaire and Citizens for a Better Safer Animal Friendly Bonaire. Based on all of my interviews with a variety of members of these groups, there appears to be two common modes of thought across the board.

Firstly, everyone that I interviewed thinks that there will always be a need for a donkey sanctuary on Bonaire. This is one area that I found everyone lobbying for a healthy population of wild donkeys agreed upon: that a sanctuary *is* necessary, but only for its initial purpose: to care for the sick, orphaned and injured (and of course, the other 600 healthy donkeys in her care that have already been imprinted on humans).

Secondly, everyone that I interviewed who supports the existence of a self-sustaining free-ranging population of donkeys on Bonaire identified one goal in particular; that formal research by an appropriate third party take place before all of the wild donkeys are captured and placed in the sanctuary where they will become habituated.

I feel that it is a common misconception in the community that these non-profit grass roots organizations think that ALL of the donkeys should roam free on the island. In reality, they are simply lobbying for a proper impact study to take place to determine how many wild donkeys the island can sustainably support. The leaders of these groups understand that uncontrolled populations are problematic, but with help from a variety of reputable academics, they have identified minimally intrusive solutions to the human/animal conflicts that exist on their island.

Dr Daniel Rubenstein is a professor of zoology at Princeton University who specializes in the social and population dynamics of equids – horses, zebras, and asses- and how they impact humans and their livelihoods. He wrote a letter in May of 2015 to the government of Bonaire formally requesting a delay in the decision of the fate of the wild donkeys (See Appendix II). He requests the government's support in gathering appropriate data that will inform future decisions about the fate of the wild donkey of Bonaire. In addition he states that he, as well as his research team, stands ready to assist in an impact study that will provide data that will help to properly shape future well-informed decisions on the donkey population.

Waltraud Kugler, the Project Director of SAVE foundation also wrote a letter to the government (See appendix III). SAVE foundations is a European umbrella organization for the conservation of rare breeds and verities. In her letter she states "We appeal not to allow the decimation and probable eradication of the donkey population of Bonaire before investigations on the population and their impact are done."

Craig C. Downer, a professional wildlife ecologist with expertise in the order of the donkey as a member of the IUCN SSC, also called for the immediate halt to any and all further captures and castrations until research is conducted on the population. He says that people must stop destroying the last of Bonaire's reproducing donkeys, as is currently happening either through culling or the catch program via castration. If we continue in this way, he is certain that it will lead to a dead-end population that will die out in a relatively few short years (See Appendix IV).

Eric, the founder of Bonaire's heritage Foundation, argues that the problem is that the government didn't really do any substantial research prior to the approval of the catch plan. He says, "In the Netherlands, you would never be allowed to make a decision like this based on the opinion of civil servants. It shouldn't be that a civil

Kayla Flinn Perspective Research Article February $1^{\rm st}$ 2016 servant makes an opinion and that is then the foundation for a policy that the government approves."

Eric explains that it is obvious that the government made a crucial decision regarding an entire population of animal not on facts but on personal opinion. He is also lobbying for proper research to be conducted before the entire population is placed in the sanctuary.

Eric warned me that if you question the work of the donkey sanctuary, you are often publically bullied and labeled an animal rights activist, an extremely dirty word in my line of work. Eric is a small business owner, who was initially fearful to speak with me openly about the topic because he was worried his opinion may hurt his small local business.

Eric says he thinks that the donkey sanctuary is treating the donkeys as a business model. He explains, "If you catch all of the donkeys on the island, and the donkey is loved by the visitors, you have monopoly on the donkeys, and you know, business wise, that is very smart." He argues that in a decent normal community you would have a civilized discussion on the topic, but the community is divided and people who hold opposing opinions are no longer civil to one another. He said, "give them both a sword and they will cut off each others heads."

Chapter 3: Understanding the Arguments that Support the Catch Program

Inbreeding

One of the main reasons given by the sanctuary for why the donkeys should be sterilized is that they are extremely inbred. In my interview with Marina, she states, "Of course the brother and sister are mating, that is happening. We see back problems, weak bones and bad nervous system, and walking like a drunk. We have examples, the fur on some donkeys are like pig fur, you know, and two genders in one body." She goes on to explain that all of the donkeys come from the same bloodline, and that bloodline is getting lower and lower, and the body's of the donkeys are, according to her, getting smaller and smaller.

While I am sure that some of the donkeys that come to the sanctuary have health problems, Marinas argument that these donkeys are inbred is nothing but her own speculation.

DR. E. Gus Cothran is a clinical professor at the College of Veterinary Medicine and Biomedical Sciences. He has been involved in domestic animal conservation for over 30 years and currently serves on the Livestock Genetic Diversity Conservation committee of the International Society for Animal Genetics. DR. E. Gus Cothran has done genetic testing on over 30 of the donkeys on Bonaire and concluded that the observed level of genetic variability within these donkeys does *not* indicate any

evidence of inbreeding. In a letter he wrote to the executive council members of Bonaire, he explains that in addition to the Bonaire donkeys showing no signs of inbreeding, he has tested over 40 feral populations and breeds of donkeys and many have far lower genetic diversity then that of the Bonaire donkey (See Appendix V). Because of this, he states, "Genetic diversity and inbreeding should not be a concern for the preservation of these donkeys".

The Introduced/Invasive Species Argument

Because the donkeys are an introduced species, they are technically categorized as "invasive", especially by their critics. This is where the importance of the disagreement on the donkeys historical past is significant. People who believe the donkeys were released into the wild in the 50's have a more sound argument for why this *newly* invasive species should be eradicated. But historical evidence supports that they have been free roaming for almost 500 years, and have lived in harmony with the ecosystem for all that time. While this doesn't disprove that they are by definition, an introduced species, there is a huge difference between a species that was introduced into the ecosystem 65 years ago vs. one that has been living in the environment for 500 years.

When I interviewed Elsmarie, a friend of the donkey sanctuary and former director of STINAPA, I asked her what the sustainable amount of donkeys Bonaire could hold was. Her answer was simple: zero. She states that donkeys are an introduced species and any number will harm the environment if left roaming in the wild. Bare in mind, she was also unable to point me to any official or unofficial studies that have been completed on Bonaire's donkeys.

Craig C. Downer, the wildlife ecologist, argues that Bonaire's donkeys are *not* the "feral destructive exotics" that their critics claim they are. He adds that donkeys and horses can actually help restore the native forests of the Americas by passing the seeds of many of the trees, often with hard coating, through their digestive system. In fact, donkeys are actually being reintroduced and let go into Costa Rican parks and other places for this very reason (See Appendix VI).

In addition, we need to keep in mind that donkeys are not the only wild grazers on the island. This is interesting considering they are the only animals being targeted, captured/sterilized, and made scapegoats for ecological problems. I got my hands on an official survey listing the amount of humans, goats, sheep and donkeys in Bonaire from the 16^{th} century until 1956. In 1956 it shows that there were 30,000 goats and 6,500 sheep on Bonaire. That same year, there were only 1,000 donkeys roaming the island (See Appendix VII). If critics are going to argue that this is an invasive, introduced species and therefore should be removed from the wild, why is there no discussion about the goats and sheep that benefit the environment far less than the donkeys? Why is there no goat sanctuary in place? What is the hidden agenda here? Craig states "it is very unfair to lump, or group, donkeys with domestic

Kayla Flinn Perspective Research Article February $1^{\rm st}$ 2016 livestock and then target them for elimination. This is dishonest, and not at all objective and scientific.

"Invasive species" is one of those terms that packs a tremendous amount of negative punch. When we speak of invasive species, images of the poisonous cane toad devouring everything in its path spring to mind, or that of the snakehead fish, a nightmarish animal from East Asia who decimated the native food chain from Maine to California. It is unfair to lump the donkeys of Bonaire in with your typical introduced species as they have been living cohesively on Bonaire for almost 500 years.

A Brief Comparison of the Sable Island Horses to the Bonarian Donkeys

Sable Island is a small island situated 300 km southeast of my hometown of Halifax, Nova Scotia. The island is home to over 400 free-roaming horses that are protected by law from human interference. Historians believe that they were deliberately introduced to the island during the 18th century. Much like the donkeys of Bonaire, the Sable Island horses were introduced to the island by Thomas Hancock, a Boston merchant and ship-owner who was paid to transport the Acadians to the American Colonies (CBC, 2014).

According to Bill Freeman, an ecology professor at Dalhousie University, the idea was that the horses would take care of themselves, they would reproduce, their numbers would build up and periodically they could be harvested and sold for profit (CBC, 2014). This is extremely similar to what Eric said was documented in the historical book of Bonaire, except the horses of Sable Island are extremely protected while the donkeys of Bonaire are facing human induced eradication.

Another reason Marina thinks that donkeys would be safer in an enclosed sanctuary is that they are starving and are sometimes found dead. But on Sable Island every winter, many horses don't survive. While Bonaire does not have harsh winters, they do have periods of drought and sometimes donkeys don't make it through. Philip McLoughlin is a biology professor at the University of Saskatchewan who is overseeing research students on Sable Island. He explains that in one year 80 foals were born but only a few will make it and they wont know exactly how many until they crunch the numbers after the winter. He explains that as far as death, there are a number of things that can happen, especially in the late of winter when mortalities manifest themselves in old age (CBC, 2014). On Sable Island, that's just a fact of life. On Bonaire, some think its cruel to let nature take its course and that intervention is the best coarse of action.

The horses on Sable Island are as controversial an issue as the donkeys of Bonaire. Martin Willison, a conservation biologist and the president of the Nova Scotia chapter of the Canadian Parks and Wilderness Society says the horses on Sable Island are controversial in some circles because they are not native to the island. He

explains that the usual rule in maintaining the native biodiversity of an island is to remove alien species. However, Willison says, "The question is, how do we define these horses? Because they've been there for hundreds of years. So are they alien and should they be removed? Or are they native and should be maintained and left alone to go on in a normal manner?"(CBC, 2014). This is exactly the question I am posing to the people of Bonaire, if the donkeys have lived on the island of Bonaire as free ranging animals for almost 500 years, shouldn't they be maintained and left alone?

In addition, Mcloughlin says that the key issue is that without the horses, Sable Island would not exist as it does today, and I feel exactly the same way about Bonaire and its wild donkeys.

"There's a question there that Nova Scotia's and Canadians have to ask themselves and it is: do they want the Sable Island horse? And I think overwhelmingly they would say, 'Yes.' This is a breed that is valuable, it's important to the ecosystem as it exists right now.", says Mcloughlin. Unfortunately, people like Elsmarie only see the donkey as an introduced species, and thus should be eliminated from the wild, prior to research.

The wild horse on Sable Island is not an identical situation to that of Bonaire but there are enough similarities to make legitimate connections between the two. Both are an introduced, technically invasive, species. Both have a long standing history on an island interacting with the natural environment. Both are members of the equid family, and have to survive harsh periods of weather. Despite all of these similarities, one is extremely protected from human interference while the other is facing eradication.

Traffic accidents

The human/animal conflict that essentially fueled the catch program was the issue surrounding cars and donkeys. With an increase in popularity, every year Bonaire is growing in size. The traffic accidents are basically a destructive trend that is human caused, but one that got the attention of the old government who agreed to the catch plan presented to them. Robert Beukrnboom, an island council member, who has been in parliament for 20 years, said that when a few accidents happened, the former government came under pressure to come up with a solution. The simplest solution was to agree to Marina's catch program. In addition, that decision was made prior to any significant proper research or impact studies.

I interviewed Elsmarie Beukenboom, a former director of STINAPA, a National Parks foundation whose mission is dedicated to the conservation of Bonaire's natural and historical heritage through the sustainable use of its resources. I asked her if she was aware of any official, or unofficial studies that have been done on Bonaire's

Kayla Flinn Perspective Research Article February $1^{\rm st}$ 2016 donkeys. She simply answered that she does not have background or scientific information on the subject.

Despite my efforts, I was unable to find any statistical evidence pertaining to traffic accidents caused by donkeys. Out of everyone I interviewed, no one could recall a car accident involving a donkey that resulted in a human death. However Marina told me in her interview, that when she started the sanctuary, there were two or three accidents every week involving donkeys. She even goes as far to say that if there are free-roaming donkeys, the accidents will never stop: a bold statement considering little has been done to prevent said accidents.

In his article titled *Bonaire's Wild Donkeys, Why They Belong and What Can be Done,* Craig C. Downer, a wildlife ecologist, argues that the dire problem with the donkeys being hit by cars could easily be remedied by the judicious employment of public education, speed bumps, stricter light reflector, and strict law enforcement (see Appendix IV). He thinks that the serious problem of automobile accidents with donkeys is not their fault and must be solved by the people of Bonaire. He argues that these animals are not being given there due consideration, but are instead being targeted for blame despite having inhabited the island for five centuries. All of a sudden they are being made scapegoats for imbalances that are basically human caused.

Dutch Philosophy

Road kill is an unfortunate reality in most areas of the world where roads encroach on the natural environment. In Halifax, Nova Scotia, where I am from, road kill is a common sight on every major highway. Every day deer, porcupine, foxes and raccoons are hit and usually killed instantly due to collisions with cars. While this is a common and unfortunate occurrence, steps have been taken to limit the frequency of accidents. What is not an option, is corralling all of these common victims of road kill into a sanctuary and calling it progress, which is exactly what is happening in Bonaire.

A few people I interviewed had an interesting point to make in regards to the sanctuary and the philosophy for why they think all of the donkeys will be safer in an unnatural fenced in area. Eric, the founder of the Cultural Heritage Foundation of Bonaire is a former resident of the Netherlands, having lived there for over 40 years. He explains that in the Netherlands there is no wild nature anymore and that people are not used to seeing wild animals. He says, "everything is fenced off, neat and tidy, and that is how it's supposed to be in the Netherlands according to Dutch standard because it is such a small amount of land for 17 million people. However, this is the Caribbean, things are different here. The Dutch people of Bonaire, [like the folks who run the sanctuary] take their standards and try to implement them here."

So, with the founders of the sanctuary being from Holland, it makes sense that Marina thinks it is the safest and most humane solution to have all of the donkeys in her sanctuary, as opposed to having any roaming free. Unfortunately, there are a variety of severe consequences for removing an entire species from its home of over 500 years without any formal research or impact study. We will discuss these consequences in Chapter 4.

The "Cause" of a Variety of Ecological Imbalances

Another explanation for eliminating the wild donkey population is that they have a negative effect on the natural environment. To that I ask, where is the research? You cannot say that the donkeys are causing ecological imbalances and not have significant data to back up your claim. This is exactly why many of these groups are lobbying for proper research to be conducted. Dr. Daniel Rubenstein says in a letter to the Bonarian government that understanding the ecology of the situation helps provide the knowledge that is essential for developing actions that can satisfy competing desires. Without research and a proper impact study, everything is just speculation.

Craig C. Downer explains in his article that summarizes Bonaire's wild donkeys and the ecosystem that they donkeys are being targeted for blame, and although they have inhabited the island for five centuries, all of a sudden they are being made scapegoats for ecological imbalances that are basically human caused (See Appendix VI, p 1).

He says that ecological studies need to take place that will distinguish donkey impacts from other impacts such as land clearance by people, domestic livestock, pollution, mining for salt or limestone, monopolization for natural water sources, etc. He explains "Their detractors like to blame them for just about everything, from killing birds and snails to killing plants and causing the erosion of soils, though they are greatly outnumbered by goats on this island and their impacts are dwarfed by problems caused by people. These anti-donkey claims seem tinged with prejudice; and lacking is a rational, objective, as well as thorough-going assessment of the situation at hand."

Some critics suggest that the donkeys are to blame for a lack of vegetation on the island, a ridiculous claim with no research to back it up. I had the pleasure of speaking with George Cultra, who has been the park ranger of STINAPA for over 45 years (and who's father and grandfather were park rangers before him). For his entire time as a park ranger, George has been recording the dry seasons and the rainy seasons on Bonaire. He has a wealth of knowledge and has been collecting data on the island for as long as he can remember, he is a true naturalist. He explains to me that this used to be the job of a bush walker, someone in charge of the nature/seasons and records. Unfortunately, after 1984 there were no longer any bush walkers, but George has records dating back to the early 1900's. He explains

that according to his records, between 1800 and the mid 1900's there were a variety of large tropical storms that came and damaged a tremendous amount of the larger trees and vegetation. He says it was tropical storms that removed all of the larger trees from Bonaire and it has nothing to do with the donkeys as some critics suggest.

He explains that in the dry seasons, donkeys do die, but he has maps of every natural well on Bonaire and a lot of the wells that are broken require a very minor part to fix. He explains to me that it has been 30 years since the wells have been working and if the wells in the mundy were restored, the donkeys would stay out of town, away from traffic. It has been 30 years since the bushwalkers have been present, and 30 years that the wells have all been damaged and the problems with the donkeys and people/car accidents/dehydration has only developed in the past 30 years.

While I was in Bonaire, I spent a bit of time with a man name Al Caltalfumo. Al is the founder and president of the Wild Donkey Protection League Foundation. Each trip I spent several days with Al, who would fill large containers with fresh water and drive them up to the mundy. He knows the locations of old wells that no longer work but where a dry cement pool-like structure still remains. Every few days, Al pours water into these barren pools, and every time when I was with him, I knew where the old broken well was because there would be several wild donkeys waiting for a drink. This leads me to believe that George's suggestion is a valid one, if you restore the natural freshwater wells outside the city, they will stay out of town, away from roads, and away from peopled garbage.

It appears to me that the donkeys are made scapegoats for just about every ecological problem that exists on the island. When I was there my last trip, I heard on the local radio that the donkeys walking on the island were loosening up the dirt, which was then washing out to sea, damaging marine life in the process. Yes, lets ignore all of the human construction, mopeds, motorcycles, and cars that loosen up dirt and have a conversation on public radio about how the donkeys are to blame for this contrived issue. It's too ridiculous to even discuss.

Chapter 4: Why it is Important to Maintain a Healthy Population of Wild Donkeys.

Culture/Heritage

The donkeys of Bonaire are an extremely important part of the local heritage. They are intrinsically linked to Bonaire's colonial Heritage and reflect important periods of history. As stated previously by Dr. Dallen J. Timothy, protecting the donkey population is closely aligned to the goals of UNESCO in its efforts to protect natural and human heritage (see Appendix I) . He argues that they are a salient element of Bonaire's cultural heritage and maintaining a wild population preserves local

Kayla Flinn Perspective Research Article February $1^{\rm st}$ 2016 identity, maintains a sense of community pride, and enhances the islands tourism potential.

Ecological benefits of the Donkeys of Bonaire

Bonaire's donkeys have been adapting to Bonaire for almost five centuries and their abrupt removal will undoubtedly cause a massive ecological unraveling. The fact is that no species can survive for 500 years if it is destroying its habitat. Despite some of the communities push to use the donkeys as scapegoats for ecological imbalances, the donkeys in fact benefit the unique environment of Bonaire in numerous ways.

First of all, donkeys are exceptional soil builders. They help increase the vital humus content to soil through the decomposition of their feces; this makes soil more nutrient rich and water absorbent.

They also keep the island safe from forest fires in two ways. First, without their feces making the soil more water absorbent, the soil would become drier and less cohesive (See Appendix IV, p. 1). This has potential to lower the water table all over Bonaire, and according to Downer "rendering the island ecosystem much more subject to fire." Secondly, through foraging, the wild donkeys greatly reduce dry flammable vegetation that could fuel wild fires.

They also contribute to a more diverse ecosystem as major dispersers of intact seeds of a variety of plants. Donkeys posses a post gastric digestive system and their natural tendency is to disperse their foraging pressure over large areas while keeping on the move (See Appendix IV, p. 3).

Many of the seeds on Bonaire need to have their hard coats softened by passing through the digestive system of animals like donkeys (Stolzenburg, 2006). Goats on the other hand posses a pre-gastric, multi-stomach, ruminant digestive system (Grzimek, 2004; Janis, 1976, MacDonald, 2001). This makes goats capable of digesting very hard/course vegetation, such as sharp thrones, hard woody stems and branches, or hard seed casings. Downer says "Goats most probably have a lot to do with the profuse thorny vegetation that has evolved on Bonaire." (See Appendix IV, p. 2).

Furthermore, Downer explains that post-gastric digesters are known to complement the pre-gastric digesters, to balance out the effects of ruminant grazers (see Bell, 1970; Odadi and Rubenstein, 2011; Johnston, 2011; Downer, 1997 & 2001).

Finally, donkey feces compared to the feces of goats is less degraded thus more greatly feed the animal community. This includes tiny microorganisms, insects, lizards, rodents, and birds (See Appendix IV, p. 2).

According to Craig, "Were the donkeys to be suddenly jerked off this island, many of these sound ecological dependencies with species that have been formed here not only over the past five centuries but harken back to the multi-million-year coevolutionary history of the donkey in the Americas could come to a crashing halt; and many species could suffer or even disappear." (See Appendix IV, p.2)

Chapter 5: Arguments Against the Catch Program

There is a tremendous amount of hypocrisy and irony when it comes to the catch program.

If critics think that part of the problem with the donkeys is that they are inbred, wouldn't castrating majority of the population of males only contribute to the hypothetical inbreeding problem?

If the main problem with the donkeys on the island is human/animal conflict, doesn't baiting them for months in order to castrate the males create an unhealthy human/animal relationship with the donkeys? Robbie had a good point and that was that once you get a donkey into the sanctuary, it gets used to humans, and it is only that much more difficult to introduce them back into the wild again.

This brings up another interesting point, and that is that the readers should understand that the land the sanctuary is on is not large enough for the donkeys to feed themselves naturally by grazing. Two times a day trucks are loaded up with hay and whatever food is donated, and they drive around the perimeter of the sanctuary and dump the food into the feeding stations. I was there to help with one of the feedings and the donkeys literally gallop behind the trucks that are filled with their food. If the main problem is that donkeys get too comfortable with humans in town thus create car accidents, and in the sanctuary two times a day they are literally taught to chase running cars, then this situation is a catch 22.

Chapter 6: Suggestions

In Craig C. Downers article *Bonaires Wild Donkeeys: Why They Belong and What Can Be Done*, (see appendix IV, p. 4-5) he developed a list of major components of a reserve design that was specifically adapted to Bonaire and its wild population of donkeys. I am in full agreement with his nine recommendations and have summarized them below.

- (1) Where possible and/or necessary, employ natural barriers, or where such do not exist, semi-permeable, artificial barriers, to contain Bonaire's wild donkeys to places where they will not interfere with concentrated human dwellings/activities and be harmed or themselves harm properties, vehicles, etc.
- (2) Establish buffer zones between donkey-inhabited areas and human inhabited areas. Employ special techniques of positive reinforcement and where necessary

adverse conditioning to keep donkeys away from civilization. Adverse Conditioning need not be overly harsh to be effective.

- (3) Reactivate water sources, including wells to restore donkeys to more extensive habitats. This will relieve donkey pressure from towns and cities, farms and industrial areas, such as the salt ponds and in combination with barriers provide a limit to donkey expansion triggering their natural self-stabilization.
- (4) To the extent possible, restore a full complement of natural species both plant and animal, to ensure a healthy and balanced wild-donkey-containing ecosystem in Bonaire.
- (5) Employ a combination of speed bumps coated with phosphorescent paint to warn people, Stricter-Lite light reflectors, infra-red large warm-blooded animal detectors with flashing warning devices, fences, etc. to greatly reduce donkey-vehicle accidents.
- (6) Mount an intelligent and enthusiastic public education campaign that will increase the appreciation of donkeys in the wild and their positive contribution. This will stress how to live safely and respectfully with them and be coupled with more stringent law enforcement and public education through all types of media: newspaper, magazine, internet, TV and radio. This can be combined with ecotours to show people the donkeys (see point 8).
- (7) Involve qualified scientists as well as the public in monitoring the donkey population, including ongoing ecological and behavioral studies to include: (a) location, (b) census, (c) age and sex composition (d) movement patterns on the island and their seasonality, (e) species-specific dietary composition to assess which plants are eaten by donkeys, (f) effects on soil and plant germination via control plots and germination observations and experiments involving the feces of donkeys (see Downer 2001).
- (8) Mount Wild Donkey Ecotours for Bonarian, Antillean and Dutch citizens and international visitors. This will be rotated among the various donkey-inhabited areas of Bonaire so as not to overly disturb any one group of donkeys. Guides will be very respectful and only observe from a distance. There should be no feeding of the donkeys so as to avoid a dependence upon humans. Since donkeys are a fascinating and ancient presence upon the Earth and they have been associated with mankind for thousands of years, there should be a very positive response to these ecotours from the public. This will bolster the island economy in a wholesome and non-destructive way and will generate many jobs.
- (9) International financial support can be obtained for the restoration and long-term genetic viability of the Bonairean wild donkeys in the wild wherever and whenever possible. A Bonairean wild donkey conservation and research center can be established whose goal will be the harmonious ecological adaptation of the donkeys to all elements of the Bonairean life community. By working with such organizations as the IUCN SSC Equid Specialist Group, Wild Horse and Burro Fund/Andean Tapir Fund, Wild Horse and Burro Freedom Federation, International Society for the Preservation of Mustangs and Burros, Texas A & M University (all of which have expressed a keen interest in Bonaire's donkeys) as well as Citizens for a

Kayla Flinn Perspective Research Article February $1^{\rm st}$ 2016 Better and Safer Bonaire and We Care for Bonaire, enlightened change can come to this Bonaire.

Chapter 7: Conclusion

If there is anything I have learned during the process of writing this article it's this: The more controversial a situation, the fewer third parties want to get involved. This topic has not only divided a community, but it's snowballed into a catastrophic mess. A mess that I believe can only be cleared up once a proper impact study takes place. As is, there are already 600+ donkeys in the sanctuary that now rely on constant human care. What we are left with is a small population of under 200 wild donkeys. What I fear most is the community's inability to set aside past differences to work together to devise a plan that will provide the best outcome for both the environment and the community.

With so many players with opposing opinions involved, this situation needs a leader to push things along before any more irreversible damage is done. This leader already exists, as the Government of Bonaire, who I think should take a serious look at the suggestions outlined by Dr. C. Downer and start their implementation.

If things remain stagnant, I do believe that one-day the world will look back on this situation as the most iconic human/animal relation's disaster of equids. It will be used as a cautionary example in academia of what can go wrong to a wild population when those in power disregard science and turn a blind eye to conflict in their own backyard – where a once vibrant population of sensitive, intelligent animals is reduced to dust.

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Appendix

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