

#PrimatesAreNOTPets: The Role of Social Media in the Primate Pet Trade and Primate Conservation

Anna Bockhaus

Department of Anthropology, University of Colorado Boulder

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Thesis Advisor:

Dr. Michelle L. Sauter, Department of Anthropology

Committee Members:

Dr. Carla Jones, Department of Anthropology

Dr. Sarah M. Massey-Warren, Program for Writing and Rhetoric

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Abstract

My research explores the ways in which social media is responsible for perpetuating the trafficking of primates and supporting the pet trade by circulating problematic images of primates and thus influencing the public's opinion about primate conservation. To guide my research, analysis, and reflection I ask two related research questions. First, has the increased circulation of images of exotic animals, such as primates, on social media sites, led to an increase in the desire to own primates as pets? Second, have the same social media platforms that have been settings for the increased visibility of primates also become (or have the potential to become) sites for raising awareness of the illegal pet trade and a way to curb the demand? By applying the assumptions which make up ethnoprimateology, primate conservation, and the scholarship on the primate pet trade to the context of social media, I examine the type of content regarding primates available (and popular) on social media sites, how this content can negatively influence the public's opinion about primates, and what positive actions have been taken (and succeeded) to instead post accurate and helpful information about primates and their conservation statuses. In examining these three components in conjunction with the perceptions of primate researchers gathered through questionnaires and interviews, I argue that social media is an effective platform for educating the public about the realities of the primate pet trade and conservation. I discover many photos of people holding and posing with primates, many of which are celebrities or Influencers on social media, suggesting that basic knowledge about primates and their conservation is lacking. I find that "cuteness" and what I call the "industry of cute" are key motivating factors in one's desire to own a primate and harnessing "cuteness" instead for primate conservation can be an effective approach.

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Chapter 1: Introduction

From the moment I started learning about nonhuman primates (primate hereafter), discussions I had about primate biology, behavior, or ecology were always accompanied by the plight of the Primate order. The same day I was taught that female orangutans (*Pongo spp.*) use their bodies to “bridge” between trees so that their infants can cross, I learned orangutans are on the edge of extinction. I learned that little could help, and the fate of the orangutan is likely sealed. The same day I was taught female lorises lick their infants with their venomous saliva, arming them against predators so that they can “park” their infant while foraging, I learned that slow loris (*Nycticebus spp.*) populations are being decimated by the human desire to own live loris bodies. I learned that the general public is only familiar with the slow loris because of the videos depicting their captive lives as pets. While falling in love with these creatures and the discipline responsible for their study, I learned that many primates will soon disappear and their rapid destruction is, ironically, due to one species of primate: *Homo sapiens* (Estrada et al. 2017).

With the release of the Estrada et al. paper in 2017, the world was provided with a comprehensive overview of the statistics and multi-year studies that confirm what primate scientist have been warning for years: if the human population does not seriously start to reevaluate and alter our patterns of consumption, we will drive many primate species to extinction, and we will do so very soon. With the outlook so dire and the issues so large, how can I, one person, possibly do anything to help? This thesis, examining the effect of social media on the primate pet trade, is my answer to this question. By focusing on one small – yet still significant – portion of a larger issue, I can start the process of beginning to make an impact.

Tens to hundreds of thousands of live primates are traded each year (Nijman et al. 2011). These animals are stolen from the wild, often as juveniles, and sold into the wildlife trade. The estimate is broad due to the mixed methods of trade that include illegal and legal practices, which are often invisible to the public and law enforcement officials. Legal trade may or may not be officially reported to organizations based on policies such as the Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES), and illegal trade, or trafficking, is usually not reported (Nijman et al. 2011; Estrada et al. 2017). For example, Estrada et al. (2017) found that the CITES database reports the trade of some 450,000 live primates between 2005 and 2014. They estimate this number to be substantially understated due to illegal trafficking, especially trafficking that occurs in the given primate's country of origin into other surrounding countries, as these rarely reported numbers are difficult to quantify, and often go unnoticed (Estrada et al. 2017). Clearly, in trying to understand the trade and trafficking of live primates, we face a unique set of difficulties because of the nature of illegal trade with its unregulated and often invisible operation. We can never be certain a statistic is all-encompassing. The fact that the trade of primates is such a difficult task makes it that much more important an endeavor. Humans have the capacity to hunt, trap, and ultimately kill primates, but we also have the ability to give a voice to the exploited, "standing up" for those creatures which humankind so often discounts as less than, and thus less deserving of the rights and protections we expect as humans – the right to decide our own fate and make our own choices. Whether it is a nocturnal slow loris in transit, destined to live an all too (literally) bright and painful life of forced companionship with a human in a private Japanese home or an infant capuchin (*Cebus spp.*), birthed in captivity as part of a legal, yet harmful breeding business in the United States,

with the sole purpose of becoming someone's pet, human beings are responsible for these outcomes and must also be responsible for rectifying them.

Contemporary technology, specifically the ability for instantaneous and mass communication via social media, offers a suite of innovative uses and solutions. We live in a time where I can tell all 751 of my Facebook friends what I think about the latest political scandal, what I had for lunch, or share pictures from my most recent vacation. It seems there are endless social media platforms which exist to display my life in a particular way. Instagram is a visual representation, with all posts being either a picture, series of pictures, or video. Twitter limits my thoughts to 140 characters, which is ideal for quick, short remarks letting my "followers" get a glimpse into my life. LinkedIn displays only my professional side, showcasing my qualifications which would be attractive to potential employers. And the list goes on from there, incorporating almost every possible angle of my life, with an accompanying social media platform to showcase it.

More frequently than posting original content, I can (and do) "repost" content which was developed by another user, usually a public figure or organization. Reposting, retweeting, or sharing lets me post content with which I agree and want to share with my followers or friends, without having to develop it myself. For example, some pages, or public profiles, I "like" or "follow" (i.e., opt-in to receive updates and the content they post) are about primate conservation. One such page, regarding the study of the illegal trade of lorises, recently posted a digital poster depicting every species of loris and how to distinguish each. Given that I liked the content of this post, I shared it through a series of clicks, displaying it on my Facebook timeline (i.e., my personal profile content) and the newsfeed (i.e., a scrollable catalog of recent updates and content from friends) of my friends. The type of content I repost or share directly influences

that which I see on my home screen by remembering what I like and sharing relatable content with me in the future.

The Pew Research Center reports that 67 percent of Americans receive at least some of their news from social media sites, with Facebook being the most popular (e.g., 45 percent of Facebook users use the site as a news source) (Shearer and Gottfried 2017). Social media is a source people turn to, to learn about their world, regardless of whether the information is accurate. Facebook, as a platform, is often responsible for beginning and perpetuating social trends, such as viral videos or photos. When something goes “viral,” it means that thousands, if not millions, of people have viewed or shared the given content. For instance, Nekaris et al. (2013) attribute the increase in demand for slow lorises as pets to the handful of viral videos featuring them doing “cute” things, such as eating rice balls or raising their arms in response to being “tickled.” Social media sites like Facebook, Instagram, and Twitter, which are largely uncensored, can rapidly circulate inaccurate and harmful information to a massive number of people worldwide. In the era of “fake” news, social media platforms are a prime method for delivering information which serves to benefit private interests and implicitly influence our behavior, specifically our consumption. In response, social media can also be used by reputable sources to circulate accurate information and for educational purposes. It has the potential to expose the public to new ways of thinking and to the discovery of worlds which they would normally know nothing. For example, Facebook allows me to share primate facts and information with my friends in a way that differs from academic journal articles. It can make dense, inaccessible scientific material available to countless untapped populations of readers, garnering support and feedback from every corner of the globe (Bombaci et al. 2016; Collins et al. 2016).

This thesis explores how social media is responsible for perpetuating the trafficking of primates and supporting the pet trade due to the unprecedented visibility of pictures and videos which depict primates in anthropomorphic and unnatural settings. To guide my research, analysis, and reflection, I ask two related research questions. First, has the increased circulation of images of exotic animals, such as primates, on social media sites led to an increase in the desire to own primates as pets? Second, have the same social media platforms that have been settings for the increased visibility of primates also become (or have the potential to become) sites for raising awareness of the illegal pet trade and a way to curb the demand? By applying the assumptions which make up ethnoprimateology, primate conservation, and the scholarship on the primate pet trade to the context of social media, I examine the type of content available – and popular – regarding primates on social media sites, how this content can negatively influence the public’s opinion about primates, and what positive actions have been taken (and succeeded) to instead post accurate and helpful information about primates and their conservation statuses. By examining these three components in conjunction with the perceptions and recommendations of primate conservation experts gathered through questionnaires and interviews, I argue that social media is an effective platform for educating the public about the realities of the primate pet trade and conservation.

Chapter 2: Background

In conducting my research, I found it imperative to take an approach which views the interactions between humans and nonhuman primates as crucial and legitimate. According to Fuentes (2012, 102), “ethnoprimateology” – first coined by Leslie Sponsel (Sponsel 1997; Riley

2006) – regards humans and nonhuman primates alike to be instrumental in “shaping social and ecological spaces” as opposed to having a relationship dictated by perpetual conflict. After all, humans as a species, regardless of our immense impact on the planet, are primates ourselves and how we interact with the environment has for most of our history been a sustainable relationship in which we occupied small mobile hunter/gatherer communities. The framework of ethnoprimateology has taught me to view the primate pet trade holistically. It is easy to view humans as the key players in the pet trade with primates as simply a neutral, stationary object. But primates are indeed active participants within their environment whether they are in the wild or captive, living in a private home or their natural habitat. The context in which one finds a primate may, in turn, result in behaviors different from those which are found in contrasting contexts, ultimately teaching us about their welfare within different habitats. The popular YouTube video “Slow loris loves getting tickled” features the action of a slow loris – raising its arms with balled fists upon being “tickled” – which is classified as a defensive response (Nekaris et al. 2013; 2016; International Animal Rescue 2015). In the wild the reaction of the slow loris to being “tickled” – raising its arms – is pertinent as an evolved mechanism which aids in the loris’ survival by allowing it to access their glands that produce a toxic venom, and thus arming their saliva (Nekaris 2014). But in a captive environment, such as a private home, the loris is still acting on instinct by interpreting the things being done to it as dangerous and detrimental to its survival regardless of if the animal is in any immediate danger. A primate is a contributing member to its environment and reacts to stimuli which it deems threatening in a defensive way even if we consider the situation to be harmless or even enjoyable.

Ethnoprimateology views primates as occupying a vital role not only within their own, separate environments, but also within the natural environments which they share with humans.

Mito and Sprague (2013) discuss the importance of the relationship between the Japanese people and the Japanese macaque (*Macaca fuscata*). Macaques (*Macaca spp.*) and the people of Japan have had a shifting relationship which started with prehistoric era art, into the era of Buddhism which brought respect for all creatures, and finally spanning all the way to the present with the instituting of “monkey parks” (Mito and Sprague 2013; Fuentes et al. 2016). These parks allow visitors to feed and interact with the monkeys in hopes of instilling a positive relationship and educating visitors about the conservation threats to monkey populations. Whether or not this type of practice is sustainable or ethical is up for debate, as Mito and Sprague (2013) stress that this form of education and conservation response is not suitable for every population of threatened primate, as such behaviors have the potential to negatively impact both the monkeys and the humans (e.g., it has the potential for disease transmission between the monkeys and humans or over habituation which makes primates vulnerable in areas with poaching). Methods of conservation should be species and group-specific to account for possible risks to the threatened population of primates and to humans.

Regardless of the shifting attitudes toward monkeys harbored by the local human populations in Japan, monkeys maintain a central role within the culture. Throughout the history of Japan, primates have played an important role in the lives and cultures of various human populations and communities. For instance, human groups who live sympatrically with primates often have folklore or mythologies which prominently feature primate actors. Taboos about the abilities and associated curses or powers of different primate species have been passed down as traditions in many local human communities. Cultures which do not share a habitat with extant wild primate species also express a fascination with our primate relatives, as illustrated, for example, by the popularity of zoos in western societies (Waller 2016). Perhaps our recent shared

ancestry is partially to blame for our obsession with primates throughout history and in the contemporary world, leading to the desire to own a primate ourselves. I expand on the human/primate relationship in the following sections.

Fuentes et al. (2016) and Strier (2010) stress the importance of acknowledging that, as researchers, humans play a pivotal role in the lives of primates by simply being present in their natural environments. As such, altering a primate's natural environment with our presence has the potential to result in either negative or positive effects. After many years of continual noninvasive research, Strier (2010) analyzed the potential harm which may come from a near constant presence of human researchers. For instance, the lack of wariness associated with over habituation can be harmful to species that are at risk for being hunted by humans. By taking a holistic approach to the study of primates, ethnoprimateology instructs researchers to view their presence and resulting impact in a more substantial way by considering not only their research subjects but also the local natural environment and indigenous human populations.

A key tenet to ethnoprimateology is taking a multi-disciplinary approach to fieldwork, a practice that involves considering the lives and wellbeing of and including local communities and cultures and understanding primate research through the lens of both biological and cultural anthropology (Riley 2006; Strier 2010; Fuentes et al. 2016). Through her long-term fieldwork in Brazil, Strier (2010) has observed many positive impacts facilitated by her field-work within the nearby human populations, ranging from a local interest in the conservation efforts of a critically endangered primate species, the northern miqui (*Brachyteles hypoxanthus*), to incorporating and training Brazilian students in her work with primates, and collaborating with Brazilian Non-Governmental Organizations (NGOs) working to encourage profitable and sustainable ecotourism. By bringing local communities into the fold of primate fieldwork, we can teach

people the importance of the survival of primates and gain more advocates invested in primate conservation.

Whatever reason is used to explain our intrigue with primates, it is imperative that we use our fascination to conduct our inquiry responsibly. Ethnoprimateology is a method and perspective which exploits our natural wonder as primates, instead of viewing the relationship between nonhuman primates and humans as “us versus them,” it teaches us to see each other as a part of one another’s history, present, and hopefully, future (Fuentes et al. 2016).

The primate pet trade is the small but significant portion of the larger issue that is primate conservation. According to Estrada et al. (2017), ~60 percent of all species of primates are threatened with extinction, and ~75 percent of all primate species are experiencing a decline in their populations. These statistics are daunting in and of themselves, but they become more dire when we consider that primates are one of the top three most abundant mammal groups, with 504 currently recognized species (Estrada et al. 2017). To understand these numbers in more depth, we must first review the International Union for Conservation of Nature (IUCN) Red List.

The IUCN Red List of Threatened Species (IUCN Red List or Red List hereafter) is the world’s leading source for information regarding the conservation status of various plants, fungi, and animals. The “threatened” category collectively includes extant species which have been evaluated and assigned an extinction risk of “vulnerable,” “endangered,” or “critically endangered” (IUCN 2012). The IUCN Red List determines the status of a species based on multiple factors such as population reduction (i.e., how fast a population is falling), geographic range, current population size, and percent probability of extinction within a predetermined number of years. Each threatened category (“vulnerable,” “endangered,” or “critically

endangered”) has specific criteria, with species becoming more vulnerable to extinction as we move toward “critically endangered” (IUCN 2012). The list is not just a repository of species’ names and their IUCN category, but it provides the expected outcome of a species given there are no conservation efforts made. The list also offers possible solutions to benefit the fate of a threatened species based on the characteristics most responsible for the given species threatened status (IUCN 2012). For example, whether the most significant threat facing a species is habitat destruction (deforestation) or the illegal pet trade, the Red List has resources to establish a conservation action plan. To effectively aid in the conservation of a given species, we must first consult the IUCN Red List.

While keeping in mind what we have learned about the IUCN Red List, let us revisit the previously stated statistic: 60 percent of all primate species coming from each of the 16 extant families are presently threatened with extinction. These numbers mean that approximately 302 of the 504 recognized species of primate are threatened due to the unsustainable activities of humans (Estrada et al. 2017). Currently, the biggest threat to primates as an order is deforestation due to agriculture (Estrada et al. 2017). Many primates are primarily arboreal creatures which depend on robust forest coverage for survival. For example, the orangutan, a well-known large-bodied Asian great ape, is highly arboreal. Rarely, if ever, do orangutans make their way to the forest floor. Foraging, sleeping, and mating all take place high in the trees. Orangutans are also frugivorous, meaning they primarily subsist on fruit – fruit which is often variable and requires orangutans to travel many kilometers on a daily basis to acquire the amount needed to meet their energetic needs (Delgado and van Schaik 2000; Estrada et al. 2017). As the human population continues to increase, more land must be devoted to agriculture, resulting in the deforestation and fragmentation of the once lush equatorial rainforests in which many primates have evolved to

survive. The Sumatran Orangutan (*Pongo abelii*) is especially suffering from the results of rainforest deforestation and its conversion into palm oil fields as many foods we eat today contain palm oil. The Sumatran Orangutan is one of only two species of orangutan (both are critically endangered) and resides solely on the island of Sumatra in Indonesia. They have been on the list for the top 25 most endangered primates since 2002 (Singleton et al. 2015).

Unfortunately, orangutans are just one example of a primate which has had their range drastically decreased to support an ever-imposing number of human lives.

In the grand scheme of things, why do primates even matter? I have found myself asking this question when I consider the perspective of someone who is not naturally fascinated or adoring of primates. As previously stated, primates hold an important place in human history not only regarding ancestry but culturally. Primates, specifically monkeys, play an essential role in many societies and cultures, such as is depicted in Buddhist and Hindu mythologies in which the Hanuman (or Gray) langur (*Semnopithecus hector*) is referred to as the monkey god, Hanuman, from the Indian poem and epic, the Ramayana (Estrada et al. 2017). Primates also bear importance regarding ecological diversity and the success of many natural resources we humans have come to take for granted which rely on primates for reproduction. For example, primates occupy prey, predator, and mutualist levels of their local food webs, meaning that they are not only essential to the survival of other animals in the form of food, but they are also important predators responsible for the population control of individual species. As mutualists, primates are pollinators and seed dispersers, which are the necessary actions accountable for ensuring the propagation of new plant generations and continued forest diversity (Estrada et al. 2017). The various species of primate each occupy an important part of their local ecosystem. Without primates, the diversity of their (and our) habitats would drastically decrease, resulting in an

insurmountable cascading effect both up and down the food web. But perhaps of equal importance, primates tell us about ourselves. Because humans are primates, we have a shared evolutionary history with all other primates. It is a shame to let our selfish tendencies drive our closest relatives to extinction, if not because of their own importance as sentient beings, at least due to what they can teach us about ourselves.

Little scholarship exists solely concerning the primate pet trade and trafficking, even though these practices are considered to be threats to primate conservation and constitute a highly profitable, illicit business (Nijman et al. 2011; Estrada et al. 2017). The greater commercial wildlife trade is the third largest form of illegal international trade following that of illicit drugs and arms (Giovanini 2006; Reuter and Schaefer 2017). To limit the trade of wildlife, specifically threatened wildlife, CITES was established in 1975 as an agreement between and signed by over 150 countries dedicated to ensuring the international trade of wild plants and animals does not threaten their survival (Nijman et al. 2011; CITES n.d.). The agreement lists species in one of three appendices depending on their threatened status. Appendix I lists species which are threatened with extinction, and the trade of these species is prohibited. Appendix II lists species which are not threatened with extinction currently, but the trade of these species is regulated to avoid a threatened status (Nijman et al. 2011; CITES n.d.). Appendix III lists species which are protected in at least one country (CITES n.d.). All primate species are listed in either Appendix I or II of CITES (Nijman et al. 2011). Despite the agreement and the gravity of being listed in the first two appendices, the illegal trade of primates persists.

That all eight species of the slow loris are listed in Appendix I of CITES is a prime example of the persistence of the illegal pet trade and the damage it can cause (Nekaris and

Nijman 2015). One of the top threats to the various species of slow loris is the illegal pet trade. Through a series of videos on social media sites such as YouTube, which depict the loris in domestic settings and living as companion animals, the demand for their live bodies as pets has drastically increased (Nijman et al. 2011; Nekaris 2012; 2014; Nekaris et al. 2013; 2016; Nekaris and Nijman 2015; Estrada et al. 2017). With the amplified visibility of these nocturnal and cryptic primates, local entrepreneurs within the slow loris' natural range may capture them to sell into the pet trade or to keep as pets themselves, which can be profitable as they may charge tourists a fee to take pictures with the animal (Osterberg and Nekaris 2015).

The country of Indonesia has substantial regulations in place for protecting the local wildlife and their natural habitats. Yet according to Nijman et al. (2008; 2015), the illegal trade of wildlife, such as protected and unprotected species of primates, is rampant on the Indonesian islands of Bali, Java, and Borneo. In the early 2000s, Nijman et al. (2008) surveyed local animal markets and zoos to gauge the degree of trade in orangutans and gibbons (*Hylobates spp.*). They found that the trade of these protected species was widespread, evidenced by many local peoples knowing the commercial value of an orangutan or gibbon infant. Although these animals are protected, and their trade is illegal in Indonesia (as well as internationally), there was little active enforcement of the laws which protect primates and other threatened species. Nijman et al. (2008) determine that the rapid rate of deforestation of these primates' habitat is to blame for the high abundance of orangutans and gibbons in animal markets. They reason that until the protection of an adequate amount of land, both on paper and in real time, the displacement of endangered primates species will result in an abundant amount of displaced animals easy to capture and make available for trade (Nijman et al. 2008).

Recently Nijman et al. (2015) conducted an updated assessment of the species and frequency of primates being sold in Indonesian animal markets, again from the islands of Bali, Java, and Borneo. The long-term survey revealed that since 2009 apes, such as orangutans and gibbons, were no longer present in these markets. Instead, there was a large number of macaques and a steady availability of slow lorises (Nijman et al. 2015). Again, many of the observed species which were available for purchase were and continue to be protected under Indonesian and international law, but the enforcement of such laws was rarely present. The results of the surveys conducted by Nijman et al. (2008; 2015) suggest that the abundance of trade in Asian primate species is not due to a lack of official protection and laws, but rather an enforcement issue. Without enforcement, the protected status of a given species is meaningless.

According to Duarte-Quiroga and Estrada (2003), large Central and South American cities make-up a substantial demand for pet primates, creating concerns about the impacts of the pet trade on primate conservation and welfare, yet we know little about the local practice. In reaction to this gap in knowledge, Duarte-Quiroga and Estrada (2003) conducted a survey in Mexico City regarding pet primate ownership in order to gain an understanding about the pet trade in terms of where the primates come from, the species that are involved, how long they are kept as pets, and the issues involved with their ownership (Duarte-Quiroga and Estrada 2003). Duarte-Quiroga and Estrada (2003) found that primate species native to Mexico were the most common, attributing this to the low cost (compared to that of the cost of species from other countries), the relatively high availability, and the avoidance of the costs associated with illegally importing an animal. The commercialization of wild primates in Mexico is illegal, and thus, the authors assume all 179 pet primate owners from the study population acquired their pet through an illicit means. The species most impacted were the spider (*Ateles spp.*) and howler monkeys

(*Alouatta spp.*), both native to Mexico. Infants and juveniles were more common than adults, which is in line with other reported trends of primate ownership, due to their small and easily manageable size. As the animal becomes older, larger, and harder to maintain (all of which vary by species), the primate ultimately ages out of their original allure as a pet. The conditions people kept the primates in were often hazardous, such as being tied to a rope and tethered to a stake, in many instances resulting in the death of the pet. The health of the animals was also often poor as owners did not know the proper diet to feed the animal. Furthermore, many of the pet primates were sick due to the close contact they maintained with their owner and the ability to contract human illnesses (Duarte-Quiroga and Estrada 2003). Overall, the study suggests that pet primate owners have a poor understanding of basic ecology and biology of their pet, making primate pet ownership a hazardous practice.

Up to this point, much of the scholarship concerning the pet trade of primates is regarding Asia and, to a smaller extent, the Neotropics. Every three years, the illegal pet trade impacts some 28,000 lemurs in Madagascar (Reuter and Schaefer 2016; 2017). In response to the obvious need of scholarship concerning the pet trade in Madagascar, Reuter and Schaefer (2016; 2017) conducted an (ongoing) survey of pet lemurs in Madagascar as well as collected data from local hotel websites and social media pages. The survey asks the participants a series of questions concerning pet lemurs in which they observed: age, species, living conditions, diet, and location. The results of the survey identified 30 different lemur species kept as pets, the six most common species coming from the family Lemuridae, present all across Madagascar (excluding only two regions), and urban centers as the most common place to encounter pet lemurs (Reuter and Schaefer 2016; 2017). In addition, Reuter and Schaefer (2016; 2017) found that many of the captive pet lemurs were kept in dismal conditions and within unsuitable environments, such as

small cages or connected to chains/leashes and receiving inadequate food to meet their nutritional requirements, all of which may have contributed to the reported poor health of the majority of the observed lemurs.

In reviewing the scholarship of the primate pet trade, a couple of themes emerged: lack of knowledge and lack of law enforcement. Possible solutions to the wildlife trade in live primates must consider how to educate communities, not only on a local scale involving indigenous communities within the natural range of primate species but also worldwide, reaching those who desire to own a primate and continue to fuel the international black market for live primates. Law enforcement must also take the same path, instituting local and international implementation of agreements such as CITES and following through “on the ground.”

Chapter 3: Methods

To gauge how damaging, and potentially helpful, social media can be, I conducted my research in two different ways. First, I asked some of the leading scholars in the field of primate research and conservation about their perceptions and opinions regarding social media and the primate pet trade. Second, I conducted a systematic study on a series of top posts on Instagram regarding the presence of primates in social media. In addition, through my own use of social media, I saved popular posts depicting primates originating from public Facebook (“Facebook,” n.d.), Instagram (“Instagram,” n.d.), or YouTube (“YouTube,” n.d.) pages in which posting about primates was uncommon, thus reflecting the scope and popularity of the given primate post.

Questionnaires and Interviews

I sent out 25 emails to prospective research participants briefly explaining who I am, my project, and asking them whether they were willing to take part in my research. The type of potential participants I emailed all hold Ph.D.'s in a field involving the study of primates and/or conservation. Many of the participants work in an academic environment and regularly publish their research in academic journals. A few of the participants work with conservation agencies, with their specific work focusing on primate conservation. Although these participants do not work in an academic setting, they work closely with those who do and also often publish their findings in academic journals.

The majority of the prospective participants were in different states and often different countries. Due to this disparity, I devised an email questionnaire which the respondents could take their time filling out. My research protocol, including the questionnaire, was reviewed and approved by the Institutional Review Board of the University of Colorado Boulder (IRB Protocol #17-0549). The questions with each participant's response are listed in Appendix A. The length of responses varied, with some participants providing a lot of detail and others providing less. In total, I received seven partially to fully completed questionnaires.

One local participant from the University of Colorado Boulder community was interviewed in person for approximately an hour on November 8th, 2017. An additional – non-local – participant was interviewed via Skype for approximately half an hour on November 22nd, 2017, in addition to filling out the email questionnaire.

The eight participants are as follows:

1. Andie Ang, Ph.D. has done studies with both captive and wild primates. She is currently doing field work in which she follows primates to record observational data

- and collect fecal samples. She then uses the fecal samples to conduct molecular work, which is used along with the observational data for conservation applications. Ang is a member of the IUCN SSC Primate Specialist Group (Asia) as well as a chairperson for the Raffles' Banded Langur Working Group (Ang 2017).
2. Herbert Covert, Ph.D. currently does conservation work with primates in Southeast Asia, specifically in Vietnam. His work ranges from behavioral ecology to the collecting of data that can be used for conservation purposes. Dr. Covert also works with the protected area park system in Vietnam in which he educates rangers about the local legal framework regarding animal protection and helps the government develop conservation action plans. Dr. Covert is a Professor of Anthropology at the University of Colorado Boulder (Covert 2017).
 3. Marni LaFleur, Ph.D. conducts scientific research and conservation with lemurs. Through her organization, Lemur Love, she is active on social media and aims to raise awareness about primate conservation, ethical tourism, and ways to interact with wildlife without causing harm. LaFleur and colleagues' (including Reuter and Clarke) recent research on Twitter demonstrates that viral videos showing a direct interaction between humans and lemurs increases peoples' desire to keep these wild animals as pets. LaFleur is the founder and director of Lemur Love, a lecturer in the Department of Anthropology at the University of California San Diego, and an IUCN SSC Primate Specialist Group Member (LaFleur 2017; "Dr. Marni LaFleur" n.d.).
 4. Jonathan O'Brien, Ph.D. studied primate feeding ecology while working with both captive and free-ranging primates in Vietnam. He has conducted field surveys using traditional as well as more technologically focused field methods. O'Brien currently

- teaches Biological Anthropology and Primate Behavior at the University of Colorado Boulder (O'Brien 2017).
5. Erik R. Patel, Ph.D. conducted his Ph.D. fieldwork in Madagascar where he studied the behavior and ecology of the silky sifaka (*Propithecus candidus*), as well as developed and managed conservation programs in northeastern Madagascar. In addition to sifakas, Patel has worked with red-fronted brown lemurs, red-bellied lemurs, rhesus monkeys, and bonobos. Patel is the conservation program director for Lemur Conservation Foundation, the Madagascar country representative for Seacology, and is an IUCN Primate Specialist Group Member for Madagascar (Patel 2017; "Dr. Erik R. Patel" n.d.).
 6. Jonah Ratsimbazafy, Ph.D. does lemur conservation as the president of Group d'Etude et de Recherche sur les Primates de Madagascar (GERP), which "work[s] to protect the biodiversity of Madagascar" by managing the protected forests of Maromizaha and Manombo. He is an adjunct professor at the Universities of Antananarivo, Mahajanga, and Toamasina, the vice co-chair of the IUCN Primate Specialist Group for Lemurs and Madagascar, and the Director of the Houston Zoo's Madagascar Programs (Ratsimbazafy 2017; "GERP" n.d.).
 7. Kim Reuter, Ph.D. conducted her Ph.D. work in Madagascar where she studied the trade of wild animals. She has also studied the feeding ecology of fruit-eating wild lemurs, *Eulemur coronatus* and *Eulemur sanfordi*. Her recent research focuses on the pet trade of wild lemurs in Madagascar and running the Pet Lemur Survey which gathers information about pet lemurs in Madagascar. Reuter is on the IUCN Primate Specialist Group for Madagascar (Reuter 2017).

8. Catherine Workman, Ph.D. was a field biologist for nearly ten years during which she studied wild and captive primates. While she no longer works directly with primates, she is responsible for evaluating grant proposals concerning primates and primate research at National Geographic. In 2017 Workman led a National Geographic Expedition on the Great Apes of Rwanda and Uganda (Workman 2017).

Review of Instagram

The intersection of social media and primate conservation is of key importance to understanding the primate pet trade. To document the type of images including primates which are circulating social media, I conducted a systematic review of one of the most common social media sites used for sharing photos and videos: Instagram. Data from Instagram was found using a series of hashtags (or tags) which are represented by the pound sign (#) followed by a word or phrase. I determined which tags to search based on the tags present on some of the top posts as well as the name of primate species which are often seen as pets. Due to the sheer number of posts which are uploaded to Instagram each day, the number of searched tags were limited to 15. The searched hashtags were as follows:

- (1) #primate
- (2) #primateconservation
- (3) #babymonkey
- (4) #petmonkey
- (5) #petprimate
- (6) cutemonkey
- (7) #monkey
- (8) #instamonkey
- (9) #capuchin
- (10) #marmoset
- (11) #tamarin
- (12) #slowloris
- (13) #lemur
- (14) #apesofinstagram
- (15) #internationalprimateday

I recorded the “top” Instagram posts (i.e., posts with the most comments, likes, or views) containing primates, excluding posts which did not contain primates or were not relevant to the data (e.g., Halloween costumes, stuffed animal or toy primates, etc.). Each search typically

consisted of one to nine posts per tag search. The resulting posts of each tag search were recorded from one 24-hour period. Screen-shots and transcripts were taken and recorded for each post and used to develop a spreadsheet to gauge the type of words associated with photos and videos depicting primates and the post's overall popularity. For example, many of the most popular posts, in terms of the most likes and comments, featured a primate in close contact with a human, often with the animal sitting on a shoulder or being held.

As with any study, it is important to address the limitations. Given that I conducted much of my research on social media, there were factors unbeknownst to me in the way Instagram and Facebook prioritize posts and determine which posts I see. These factors were the most limiting on Facebook as my timeline is specific to me based on the friends I have and the pages I like. Although using my own Facebook account to find content is limiting, it has also been helpful in my research given that I follow many pages having to do with primate conservation and education. Due to the primate advocacy Facebook accounts I like and from which I repost content, I would only occasionally see harmful posts with primates like those discussed below, displaying just how popular such content has become on Facebook. Rather than searching for specific primate content, my own Facebook friends provided me with ample data for the type of content currently popular on social media containing pet primates.

Second, by searching with tags on Instagram, I was provided with the top and most recent posts containing the given tag in either its caption or comments, but many users do not always tag their posts. I could have missed many posts with primates because they were not tagged and thus not sorted into a searchable category. Given that tags are used by users to find content which they like and wish to follow, it stands to reason posts without the appropriate tags not only fail to be viewed by me in my research but also by users, thus making tagless posts less popular. Social

media is a platform with ample research potential, but many factors regarding the algorithms for choosing what content in which users are exposed remains unknown, making social media a tricky platform for research as well.

Finally, although I searched for content containing live monkeys and other primates, often the posts I encountered reflected a recent social scandal or viral story that involved primates in a more abstract sense. At first, I thought the best way to account for irrelevant posts was to collect data from multiple days and times, hoping this would result in more useable content and less irrelevant posts which I could not involve in the dataset. I quickly realized that waiting for the perfect time to collect was pointless. Instead, I decided to collect all the data concerning Instagram on one day. Due to how quickly the content of social media changes in response to countless social trends, I question whether finding an “average” day on Instagram is possible, instead focusing on the content of primates which is most popular and what people had to say about it in the form of comments. Although the resulting dataset is small and establishing a representative population would require a much larger study and volume of data, it does provide a glimpse into what a day on Instagram looks like for content regarding primates. In other words, the point of the Instagram study is not to make statistical assumptions but instead to investigate the types of posts containing primates. By incorporating data from Instagram and other social media sites, I thus begin to expose and address the issues regarding harmful representations of primates.

Chapter 1 introduced readers to the field of scholarly primate research and conservation while also presenting the questions I used to guide my research and my argument, given the implications of the data I collected. Chapter 2 discussed the critical context of my research by exploring the background of three larger fields which must be considered when conducting

research which concerns primates and their conservation. In Chapter 3, I described the methods for data collection and the associated limitations. Chapter 4 delves deeper into the type of posts that are present on social media regarding primates. I outline the trends I discovered through interviews, questionnaires, and social media searches – highlighting prime examples which portray primates in damaging ways. I also discuss the concept of “cute” and its prominence in association with primates, especially pet primates. In Chapter 5 I reflect on how images of primates are influential in altering the public’s opinion towards primates. I look at the new method for marketing products – Influencers – and how primates are incorporated into this approach. I highlight a key Influencer who has interacted with a primate in a way that is damaging to the conservation of the given primate species, and arguably, primates as a whole. Chapter 6 focuses on how to move forward given what my data revealed about the primate pet trade, conservation, and how they interact with social media. I address the emotional impact of doing work that can so often be fueled by emotion, and I illustrate a series of organizations which have used social media as a method for affecting change. I then discuss how cuteness has been used to educate the public about primates and how cuteness can be used in the future by addressing possible future research questions. Finally, the Conclusion – Chapter 7 – I discuss the significance of each chapter and address the implications of my findings, focusing on harnessing the power of social media in order to affect positive change regarding the public’s opinion about primates as pets and their conservation. In closing, I look toward future research and leave the reader with a call to action focused on the responsible circulation of images of primates.

Chapter 4: Primates in Social Media

Social media sites such as Facebook and Instagram offer a unique platform for investigating phenomena which permeate the social world, and according to ethnoprimateology, primate research does not exist separately from the human realm. As primates researching other primates, the line between the nonhuman, human worlds is blurred, making the incorporation of not only biological but also cultural practices imperative in primate research (Rees 2001; Riley 2006). By conducting my research through social media, about social media and the presence of primates on social media, I exposed the tricky relationship humans have with primates and how this often is reflected by their incorporation into human-made environments such as social media, itself. In other words, the very presence of primates on social media, warrants research such as mine and others (see above and below) providing the legitimacy for niche fields which emphasize the overlapping lives of humans and primates.

Welfare

Given that social media is a key component in my research, and I am a user and consumer of social media myself, I used my presence on sites such as Facebook and Instagram to document any material posted by my friends or followers concerning primates, specifically primates in captive settings. One such video, captioned “Where can I get me a bushbaby?” depicts a pet galago (*Galago spp.*) (sometimes called bushbabies) doing a number of activities to display how “cute” it is, such as drinking from a straw, jumping onto its owner, and swinging in

a tiny hammock. Throughout the montage of video clips, there is an added banner on the top of the frame which says, “I have found my spirit animal and I want one now.” The video, which I have encountered multiple times as reposted content by a handful of my own Facebook friends, was originally posted by “The Aardvark” which describes itself as a public, verified, media/news company. The page has over 1.3 million “likes” and over 1.4 million followers. The page takes the original content of pets and animals from other Facebook and Instagram pages, adding a funny or relatable banner and caption. The first comment on the videos then tags the account from which the content originates. The video of the galago links the viewer to the Instagram account of “Pizzatoru” the galago from Japan, featuring over 750 photos and videos documenting his life, at least the portions which the owner chooses to share with the world. The account has over 119 thousand followers.

Many accounts, like that of “Pizzatoru,” are pages purely devoted to a pet or “cute” animal. Often the captions of these posts on Instagram are written as if the animal themselves are writing and posting the content. Other accounts simply post about the animal, rather than from their perspective. Regardless of the perspective from which the caption is supposed to come, both forms tell the viewer about how the animal is feeling or what they are thinking. Of course, all the content is coming from human beings, with the animal as only a subject within the photo or video, having emotions and thoughts projected onto them. This phenomena, known as anthropomorphism, can be defined as humans attributing their human mental states onto nonhumans, specifically for this thesis, onto nonhuman animals (Serpell 2002).

The photos and videos which depict primates in captive settings and living in private homes as pets make it look like the animal is free from suffering and often, enjoying living and being treated like a human. Who am I to say that the galago swinging in a hammock and jumping

through the park, attached to a harness is suffering? How could I possibly know if the animal is “happy”? Part of acknowledging how humans anthropomorphize our nonhuman companion animals is realizing that we cannot know if the animal, like Pizzatoru, is happy because “happy” is in and of itself a human way of describing human emotion. For example, during my interview with Dr. Covert (2017) he said, “...even if you think the little animal is happy and well taken care of and well fed – it may be well cared for and fed – I don't think we have the ability to judge if it's happy or not...”. I can, however, based on the conditions shown in a given post, assess how different from their natural environment a primates’ captive setting compares and thus their welfare. In many instances during which my research participants witnessed primates being kept as pets, either during their travel or research, the conditions in which the given primate was kept were most often detrimental to the animal’s health and overall well-being. For example, O’Brien (2017) saw primates “kept in cages at gas stations and other tourist destinations” and “in cages at local markets for sale as pets or other uses.” Others noted that seeing an infant or young primate almost guarantees the mother had been killed during the capture of the animal, in turn impacting not only the primate captured as a pet but the overall population of the primate community.

Schuppli and Fraser (2000) provide a standardized method for assessing the welfare of exotic pets, such as primates. Their framework includes “five freedoms” which must be met in order to guarantee the welfare of the given animal. The first is freedom from hunger, thirst, and malnutrition. Freedom from hunger, thirst, and malnutrition incorporates not only feeding the animal but knowing and having access to the food which is appropriate for their biology and meets their nutritional needs. The second is freedom from disease and injury. Freedom from disease and injury requires access to the knowledge of the species-specific veterinary needs. The third is freedom from physical and thermal discomfort. The third freedom is especially

significant with reptiles that rely on external sources for heat. The fourth is “freedom from fear, distress, and other negative psychological states” (Schuppli and Fraser 2000, 341). The fourth freedom requires having adequate captive conditions which include proper handling by humans and the ability of the owner to recognize when the animal is in distress. The fifth is freedom “to carry out most normal forms of behaviour, knowledge of their natural behaviour is needed, and important features of their natural environment need to be provided” (Schuppli and Fraser 2000, 341). Natural and normal forms of behavior may include social behaviors seen in the wild, such as living with other conspecifics or activity patterns such as the time of a day the animal is active were it still in the wild.

The galago, Pizzatoru, is seen exclusively in photos and videos taken during the day, in full light. Whether the light is artificial or natural, the amount of light Pizzatoru is subjected to may make for capturing a good photo, but is unsuitable for his biology. In the wild galagos are nocturnal primates, meaning they are active during the night when it is dark and sleep during the day when it is light out. Because Pizzatoru’s species evolved to be nocturnal, it is not a concern of simply changing his sleep cycle like humans do when they work at night and sleep during the day. His eyes are specifically adapted to nighttime activity which means that Pizzatoru’s eyes are designed to let in as much light as possible in order to hunt prey and forage during the night. Keeping a night active animal in day active conditions goes against their welfare and must be painful to the animal. This pain is what animals like Pizzatoru experience daily, as their eyes are not adapted to live in active conditions with full light. According to the posts of Pizzatoru, the environment in which he lives violates the freedom from physical and thermal discomfort and freedom to carry out naturalistic behaviors within a natural environment.

As seen from the Figure 4.1 below, Pizzatoru is drinking from a human-made dairy product which violates the first freedom, the freedom from malnutrition. Pizzatoru’s actions reflect poorly on the knowledge of his owner. Galagos are primarily insectivorous, meaning that much of their subsistence – and nightly activity – comes from the catching and eating of insects. The few posts of Pizzatoru eating show him consuming human food, such as yogurt drinks, milk, and potato chips. Although the Instagram account does not provide me with Pizzatoru’s complete diet, every instance of eating violates the first freedom and demonstrates that Pizzatoru’s owner does not have the knowledge required to feed him a diet suitable for a galago.

I have found my spirit animal
and I want one now



Figure 4.1 A still of Pizzatoru drinking from a yogurt beverage while riding in a car.

As a result of my Instagram study, most of the posts of primates that were pets violated a combination (or all) of the five freedoms established by Schulppi and Fraser (2000). The most common, though, was that concerning “fear, distress, and other psychological states” as it relates

to human contact (Schuppli and Fraser 2000, 341). Many of the photos in my dataset were of human beings holding and touching the primate, or with the animal sitting on their head or shoulder (see below Fig. 4.2-4.5). No protective wear, such as gloves and facemask, was worn in handling the animal. Those that do not understand primate biology and ancestry do not realize the potential for disease transmission between the primate and themselves. It stands to reason that they do not know we can pass whatever sickness we have onto the animal and vice versa (Jones-Engel et al. 2005). According to Ang (2017), “[w]e should also emphasize the possibility of disease transmission between non-human and human primates as we are so closely related” as “[t]his can help deter people from getting too close with primates” and thus discourage the practice of keeping primates as pets.



Figure 4.2 was found on Instagram under the tag “babymonkey” and was a post containing both photos and video. It received 155 likes and 22 comments.



Figure 4.3 was found on Instagram under the tag “petmonkey” and was a single photo. It received 16,458 likes and 419 comments.



Figure 4.4 was found on Instagram under the tag “petmonkey” and was a single photo which received 194 likes and 20 comments.



Figure 4.5 was found on Instagram un the tag “instamonkey” and was a video of the featured man sharing an apple with the owl monkey on his shoulder. It received 26 comments and was viewed 1,735 times.

The majority (67 percent) of the Instagram posts a part of my dataset showed primates in unnatural settings, doing unnatural things, such as wearing human clothing, which all contributes in viewing wild animals in an anthropomorphic way. In asking about the role of social media in the pet trade, Reuter (2017) said, “There are studies that have been published which show that when people see primates in an anthropomorphized setting, they are more likely to want them as pets. We have seen this in our own research” One such example is Ross et al.'s (2011) study which found that people are less likely to think chimpanzees (*Pan troglodytes*) have a threatened conservation status when pictured with humans and/or in human settings such as an office space. Additionally, they found people are more likely to believe chimpanzees are suitable pets after viewing photos portraying them with humans and/or within a human-made environment (Ross et al. 2011).

Anthropomorphism impacts wild animals in a genuine way. Thus, instead of portraying wild animals, such as monkeys and apes, in anthropomorphized settings, it is important to show

them in their natural environment, in order to make the association that they are, indeed, wild animals. According to the Rees (2001), through a series of interviews with primate researchers, some primatologists perceive that the public is not interested in scientific information – especially regarding primates – unless it is portrayed in an anthropomorphic way. In order to receive the attention of the public, scientific research must be compromised and told through anecdotes and in anthropomorphic terms (Rees 2001). Although there may be truth to this assertion, social media may allow scientists to disseminate their research in a new way, exposing it to populations of people that would otherwise not have access, thus negating the need to use anthropomorphism in order for the research to receive attention.

The following Instagram posts are good examples of how to post photos of wild animals free of an anthropomorphic overtone. Even in instances of captive settings like that of a sanctuary or zoo, it is important to portray the animal either by itself or with other conspecifics instead of with human beings and in an environment that is as natural as possible. The following posts also do a good job of giving facts about the primate subject and the greater species to which they belong rather than projecting human emotions and constructs onto them. During my research, I also came across posts that would use the photo as a luring mechanism to get the viewers' attention, then taking the opportunity to not only provide facts about the primate species but to inform the viewer about the species' conservation status. Figure 4.6, for example, portrays a slow loris in a naturalistic forest setting at night, which is the nocturnal animals' natural activity pattern. Although the post is ultimately used to promote a business (National Geographic Expeditions), the caption first provides a few facts about the animal regarding their biology and conservation status. They even go so far as to say how the pet trade is threatening the species. The comments on the post were less concerned about the cuteness of the animal, with “cute”

appearing only once; instead, the comments were about the quality of the photo or the essence of the animal in more respectable terms, with fewer undertones of anthropomorphism.



Figure 4.6

Other posts were products of wildlife photographers and excelled at capturing the animal in their natural habitat. Figure 4.7, for example, is of a Mountain gorilla (*Gorilla beringei*) in Volcanoes National Park, Rwanda. The caption describes what the photographer observed the gorillas doing but with little anthropomorphism. The photographer describes his own feelings during his encounter with the gorillas (*Gorilla spp.*), and the little anthropomorphism he uses is minimal compared to the overt anthropomorphism used in other primate posts. Additionally, the wildlife photographer demonstrates an appreciation for the gorilla beyond the “cuteness” of the animal by photographing him within the gorilla’s natural habitat and by making the point that the gorilla is indeed a wild animal.



Figure 4.7

It can be difficult, as an animal lover myself, to leave out anthropomorphism when talking about nonhuman animals. The issue of anthropomorphism is not in itself problematic but its implications can be detrimental when there is no foundation of understanding of the natural world of wild animals such as primates. Or, as according to Rees (2001, 243), “In other words, ‘you can talk about it in anthropomorphic terms, as long as there’s a deep layer of hard concepts underlying it.’” To garner respect for primates, we must first do everything in our power to understand them on their terms. Without this appreciation, primates become objects at the mercy of humans, regardless of an understanding of their various biologies, ecologies, and evolutionary histories.

SO CUTE!

Merriam-Webster defines the popular usage of “cute” as “attractive or pretty especially in a childlike, youthful, or delicate way” (“Cute” n.d.). This simple definition gives a general idea of what “cute” and “cuteness” are but fails to express the accompanying sentiment of desire and pity. The idea of “cute” originated in Japan, known as “kawaii” and was originally associated with “pitiful” (Granot et al. 2014). For something to be considered cute, it reflects helplessness, naiveté, and lacks any form of strength or power. In this sense, one does not need to be a child to exhibit cuteness, but the traits, especially physical traits, are associated with childhood are cornerstones of what makes a person, an animal, or an object cute.

What I call the “industry of cute” profits greatly from cultures, such as Japan and the United States, which are obsessed with owning products which have been specifically marketed to display “cuteness.” For example, Hello Kitty and Pokémon – both from Japan – have characteristics which exhibit large eyes and a large round head and face, making them desirable to consumers based on their cuteness. According to Granot et al. (2014, 71), “no one denies that cute sells.” Due to the association between cuteness as a marketing strategy, I suggest that “cute” and “cuteness” have become synonymous with desire. Instead of appreciating cuteness as simply a characteristic, humans have coupled it with the desire to own that which they deem as cute. Although the industry of cute may be a powerful strategy for selling products, it has implications which reach beyond the human-made world of consumer products. Cuteness and consumer culture do not end with human-made objects but incorporate many aspects of the natural world – natural finite resources and organisms which do not hold up well within cultures of consumerism and capitalism fueled by the industry of cute.

Cuteness has permeated the natural world, specifically for this thesis, the natural environments and bodies of primates. A variety of human cultures have taken their obsession with cuteness – and the ability to own that which embodies it – and made it detrimental to our nonhuman counterparts. Over 50 percent of my Instagram posts of primates were associated with “cute” or “adorable” either within the comments, caption, or both. Cuteness was often coupled with the desire to possess a primate like the one pictured in the given post. One post from the Zoological Wildlife Foundation in Miami, Florida posted a photo (Figure 4.8) of a three-month-old capuchin named Abella. “Cute” was used 16 times in the comments and “need” or “want” was used eight times. Among all the “She is so cute!!!!” and “SOOOO CUTE,” there were comments such as “I want a monkey they so cute 🥰,” “...i want her!!!”, “...🥰 I died ! 🦴 I need it,” and “This is what I want for xmas,” describing the desire associated with the young capuchin’s cuteness. Very few of the comments on any of the Instagram posts were associated with the danger of owning a primate unless the author of the post was explicitly posting in regards to the pet trade or the conservation of the given animal. These findings suggest that many of the comments were products of a surface level desire to own a cute animal with no thought given to the practicality or consequences of owning a wild animal as a pet. Many of my research participants are well aware that cuteness is often a driving factor in determining which species of primates were at risk for becoming pets. They also brought up interesting observations about the popularity of nocturnal and infant primates. For example, Ang (2017) posits that lorises are popular targets for the pet trade because “they are cute with large round eyes and are small and furry. Similar for gibbons and orangutan babies, they are adorable.” Covert (2017) spoke of similar traits which make nocturnal primates cute “...they’re like us; they have flat nails, they have stereoscopic vision – they have forward facing eyes. Some of these things could fall into

the category of cute and cuddly and I think nocturnal primates are often attractive...as pets because we can see ourselves in them in a number of ways...” Other participants, instead, used “cute” as an intrinsic characteristic of the targeted primates:

[Y]oung primates, cute ones, small ones, ones that have been shown in media, ones that have a less specific diet and therefore last longer...they are cute, shown in media as desirable, and range in countries with weak governance (Workman 2017).

...species that are cute or smart or well-known are likely more vulnerable (O’Brien 2017).

These findings beg the questions: what makes something cute? Why do we find cuteness in young animals and nocturnal animals with large eyes and round heads?



Figure 4.8 Abella

First developed by Konrad Lorenz (1943) is the idea of the traits which make something cute – large eyes, large head, round face, etc. – elicit care and affection from humans and promote nurturing behavior. This suite of features came to be known as “baby schema” due to its

presence regarding human and nonhuman animal infants (Lorenz 1943; Borgi et al. 2014). Cuteness has become a key anthropomorphizing characteristic of nonhuman animals which humans seek to own, and is evidenced by the process of artificial selection of wild animals, leading to domestication. At the beginning of the domestication of dogs, people selected for traits based on temperament and the ability to assist in activities such as hunting. With the domestication of more species – cats, rabbits, etc. – the selection of traits became associated with aesthetics, lending no evolutionary adaptation except in desirability to humans (Serpell 2002). In rabbits, various breeds have been produced through the artificial selection of cute traits such as floppy ears, mushed faces, and wild “lion mane” hair. Many of these attractive traits would be disadvantageous in the wild as they would drastically increase predation and thus, from an evolutionary perspective, would fail to become a trait with any significant frequency. The retention of “baby schema” traits were selected for artificially, resulting in a perpetual infant-like appearance, or neoteny, and thus “cuteness.” They were not selected for as adaptations for survival into adulthood but for attractiveness throughout an animals’ lifetime.

Primates, though, are not domesticated, so their cuteness is inherent. What makes primates, especially so many adult primates, cute to humans? Certain species of primates, such as lorises and galagos, display “baby schema” traits which persist throughout adulthood which happen to also be adaptations for survival. For example, both species are nocturnal and thus have large eyes for their body size. As suggested by one participant, the large eyes and small body size of nocturnal primates may be what makes them so attractive as pets. Not only do these features classify, for example, lorises and galagos, as cute, but their small size makes them manageable. Unlike infant chimpanzees and orangutans which quickly become too big to manage, small nocturnal primates retain their small body size and thus retain their cuteness.

Chapter 5: Influencing Public Opinions and Perceptions

Undue Influence

Marketing and ad campaigns have been used for generations to influence the buying patterns of consumers. Every day we are inundated with advertisements about what we should eat, wear, love, and ultimately what we should buy – products for virtually every realm of life. Not only do the advertisements we see on billboards and television often determine our patterns of consumption, but the people we follow on social media may also influence these patterns more than we are aware.

Influencers are individuals that corporations use to sell their products. Instead of promoting a specific product, corporations/companies rely on the notoriety and influence of the person. For the purpose of this thesis, Influencers on social media serve to endorse a product and the accompanying lifestyle through a word-of-mouth-type endorsement (Talavera 2015). Endorsements can take the form of promoting one's own clothing and merchandise line to publicly endorsing weight loss products and exercise regimens. On Instagram, Influencers post professional-level selfies wearing an outfit from an online clothing brand and in the caption they provide followers a coupon code to buy products from the same website. They may also do short skits in which they use a product or the backdrop at an event. These examples and more are used to promote a brand and a lifestyle which values attractiveness and consumption. Large portions of their lives then become privy to the public. They do not only post videos and photos on Instagram and YouTube which are posted and/or scripted, but they bring their followers with them through live Snapchat and Instagram stories. Followers become, in a way, the Influencer's

family. Some followers even have nicknames, such as Logan Paul's "Logang," who he encourages to be "Mavericks" like himself. The relationship between Influencers and their followers is different from traditional celebrities and their fans because followers feel as if they know the real person. Furthermore, the Influencer started off as a normal person, gaining fame through social media suggesting to followers that they too, can become famous on the internet and social media.

Influencers range in the type of products and lifestyle they promote. For example, some focus on technology and gaming while others promote products related to parenting or fitness. A large portion of Influencers on Instagram make up what is called "entertainers." Entertainers, especially, promote a wide variety of products while at the same time promoting their own clothing lines, roles in upcoming movies or television shows, and partnerships with different companies. Their influence does not go unrecognized, as many Influencers have millions of followers (O'Connor 2017).

What is so unique about Influencers is that they have gained their support and popularity, not from previously established stardom – such as starring in a movie or having a famous parent – but have done so solely from the internet and the use of social media. Movie and television roles, clothing lines, and VIP events come after the individual has already established their popularity on the internet and garnered a large mass of followers (Talavera 2015). Due to their immense influence, Influencers contribute to acceptable cultural practices and have a hand in proliferating and appropriating current social trends, especially social media trends. One such trend I have noticed through my use and review of social media is Influencers posing with primates. The primate may be their pet, the pet of a friend or someone they are working with, or a fixture of a tourist spot they visited during their travels. Viewers are provided with little

context “and therefore it is really hard to tell when you are seeing an illegal/legal pet or primate in the wild” (Reuter 2017).

Logan Paul is a popular Influencer which Forbes lists as a “top influencer” in entertainment (O’Connor 2017). He makes YouTube videos which feature him doing outrageous things which often go against the local norms. In fact, Paul recently got into trouble for a controversial YouTube video in which he films a dead body in the Japanese forest of Aokigahara and showing a general disrespect for the culture by posting the entire Aokigahara experience on YouTube and making a joke out of violating the local societal norms (Griffiths 2018). With 16.1 million Instagram followers and 16.7 YouTube subscribers (as of February 2018), Paul has a large audience of people who support – and finance – his success. It would be reasonable to say that Paul has a substantial impact on social trends through the choices he makes and ultimately represents. Figure 5.1 is a still from one of Paul’s YouTube videos in which he is seen holding and kissing a young chimpanzee at a privately-owned farm (by another, local Influencer) in Dubai. In the video, Paul asks the handler of the chimpanzee how much the “monkey” costs but is told the animal is not for sale. From the context of the video, it appears the chimpanzee is a part of the private farm, or more accurately, a collection of exotic animals. Many of the comments on the video are concerning Logan kissing the chimpanzee. Rather than questioning whether Paul’s actions are appropriate, jokes are made about the chimpanzee being Paul’s girlfriend or being a better kisser than the girls he has dated. Representations of primates like Paul’s condone and endorse behavior which anthropomorphizes wild animals and belittles their worth as individuals in and of themselves and as a protected species. At no point does Paul question his encounter with the chimpanzee, instead embracing the unnatural encounter with a primate in a diaper, “mak[ing] them [primates] seem okay as costumed friends that don’t mind

living in a human’s world” (Workman 2017). Other research participants also had concerns about how social media can be used to implicitly endorse primates as pets. For example, Patel (2017) “worr[ies] [social media] can influence people in subtle ways if people see images where people are holding or touching primates, it’s like a social endorsement that pet primates are ok.”

In their recent study of Twitter, Clarke et al. (in review) found further evidence that inaccurate representations of primates on social media, like videos and posts such as Paul’s, have a significant impact on the public’s desire to have a primate as a pet, despite being protected under CITES Appendix I or II making the trade and possession of such primates illegal (CITES n.d.). During their study, a video from Madagascar featuring two young boys stroking a ring-tailed lemur’s back went viral, producing more than 20 million views with a corresponding increase in tweets on Twitter expressing users’ desire to own a ring-tailed lemur (Clarke et al. in review). As discussed in Chapter 1, the importance of social media trends like those experienced



Figure 5.1

during my own and Clarke et al.'s (in review) data collection illustrate the fast-paced environment of social media and its ability to rapidly alter public opinion.

During his use of social media, Patel (2017) said he has come across “many [posts] which show lemurs on people’s shoulders and too many [posts] which show imagery of people holding nonhuman primates like infants; such images send the wrong message.” Indeed, such posts communicate a message “that make people think primates are appropriate as pets” (LaFleur 2017), despite the ample evidence to the contrary (Soulsbury et al. 2009). Additionally, Nekaris and colleagues (2013) found that the desire to own a slow loris was the second most frequent type of comment found on YouTube videos of slow lorises being “tickled,” eating rice balls, etc., contributing to the evidence of YouTube and similar social media sites’ influence over public opinion. Consistent with other research findings (Musing 2015; Musing et al. 2015), Nekaris et al. (2013) found that many of the comments on slow loris videos asking how to obtain a loris as a pet, often came from users from Japan. Japan is a major destination for the illegal trade of slow lorises that are destined for the pet trade, and this finding is consistent with my research, in which 57 percent of the posts found under the tag “slowloris” on Instagram were photos or videos of pet lorises living in private Japanese homes.

Representations of primates are crucial in communicating to the public the species’ conservation status. Ross et al. (2008) conducted a survey in which they found that visitors of zoos are less likely to believe chimpanzees are endangered compared to both orangutans and gorillas. When those who did not know the true conservation status of chimpanzees were asked why they answered this way, they attributed their belief to the frequent portrayals of chimpanzees in popular media and as pets (Ross et al. 2008). Ross et al.’s (2008) finding suggest images of primates portrayed as pets on social media are far more harmful than simply viewing

and sharing a “cute” video, but have real consequences in the continued survival of species on the verge of disappearing from the wild.

Chapter 6: Taking Action

Emotionally Involved

Participating in research that aims to uncover the cruelty sustained by primates due to the primate pet trade and the lack of awareness on the part of the public is difficult from an emotional perspective. As someone who values primates not only for their aesthetic value as “cute” animals but as a scientist that sees their inherent value in telling us more about humanity and the realm of nonhumans that so closely aligns with our own, I find it difficult not to be emotionally impacted by these findings. Much of what I discovered was discouraging due to the sheer ignorance involving primates but also the selfishness on the part of humans. I had a hard time believing how many people can disregard the individual innate rights of these animals, as a being with their own place on this planet, in favor of their own yearning to own a wild animal which has been labeled through their increased exposure on social media as “cute” and thus desirable as a pet. This emotion spurred me to include a set of questions to my participants regarding whether such emotions play a role in conservation efforts – efforts that so often seem pointless.

Every participant acknowledged that emotions play an important role in the efforts against the pet trade and harmful perceptions regarding primates, as well as in affecting positive change. For instance, emotions are important because they can “help spur our actions” (Ang 2017) and can be used “[a]s a motivator to develop rational arguments” (Patel 2017). Emotions have served as a motivator for my own research, but as noted by some participants, emotional

arguments “will always be appropriate for a certain audience. However, there may be other audiences that respond to different types of arguments for why primates should not be pets” (Reuter 2017) and “if you think that emotions can play [a role] in for instance in Japan, but not in Tanzania...let’s use emotions in Japan. Maybe different strategies work in Tanzania...” (Ratsimazafy 2017). No one strategy is effective in every context with every type of audience.

O’Brien (2017) brings attention to the “differences between animal welfare advocates and conservation / wildlife advocates” in the way these types of groups respond to issues impacting animals. I would also expand O’Brien’s observation to include a difference in approach between animal welfare activists and scientists such as primate researchers. “While these groups have very similar interests and some overlap – one deals very heavily with emotional response, while the other (in my opinion) cares deeply, but tries to avoid overly emotive responses” (O’Brien 2017) which suggests that the arguments of both animal activists and scientists are based on factual, scientific inquiry, but the delivery of the advocacy is based on a response that may or may not be effective for certain audiences.

Responses may be initially motivated by emotions, but this does not mean it cannot also be followed by a well-thought-out argument based on scientific facts and evidence. In other words, “passion is fine as long as you have a consistent message to go along with it...if we’re simply reactive...it wouldn’t be appropriate and it won’t make the change but we should keep the passion when we can” (Covert 2017).

How We Make a Difference

Chapters 4 and 5 demonstrate the impact social media has on the understanding of primates and their conservation by the public. Anthropomorphism of wild animals – as

represented in popular media and as privately owned pets – aids in the public’s misconception about the threatened status of species such as chimpanzees, lorises, and lemurs. The sharing of viral videos featuring “cute” primates leads to an increased desire for humans to own primates as pets. Such outcomes are made possible by mass communication through social media. Negative images and messages regarding primates are not the only information that social media can facilitate. In assuring images and other information occur within the proper context, social media offers a platform for positive change by bringing education and awareness of primates and their peril to the public.

The Barbary macaque (*Macaca sylvanus*) is the only macaque species in Africa, and as such, is often targeted for the pet trade especially among Morocco’s urban middle class (Waters and El-Harrad 2013). In 2012, Barbary Macaque Conservation in the Rif (BMCRif) – an “interdisciplinary Moroccan conservation NGO using social and natural science research methods to drive conservation action” – began a Facebook page in order to bring awareness to the public concerning the conservation of primates (Waters and El-Harrad 2013, 67). Within a year of launching the Facebook page, BMCRif received sixteen notifications regarding the illegal possession of six Barbary macaques as pets, which resulted in the confiscation of four by the authorities. Of the remaining two, one had been sold and the other had been returned to its wild group (Waters and El-Harrad 2013, 68). Such action would not have been possible without BMCRif’s Facebook page and the ability for informants to report anonymously.

BMCRif’s conservation work through Facebook exemplifies the effectiveness of social media platforms if an effective approach is employed. As discussed in Chapter 2, representation matters. The “cuteness” factor may initially attract the public to primates – contributing to videos featuring pet primates going “viral” – but this attraction can be used to draw in the public, then

taking the opportunity to inform the viewer of the conservation status and/or simple biological or ecological facts about the featured primate species. For example, the Instagram account “Apes Like Us” often uses the “cuteness” of primates, especially juvenile and infant primates, to get the public’s attention to ultimately bring awareness to their conservation efforts and facts about primates. Figure 6.1 is one of Apes Like Us’ recent posts which was accompanied by the following caption:

Hey — Where's your mom?

Orangutan offspring will sometimes be carried until they are 5 years old and be breast-fed until they are 8 years of age. Even when young orangutans are too old to be carried and fed by their mother, they may still remain close to her, traveling with her, eating, and resting in the same trees, until they are about 10 years old. Such prolonged tie between mother and offspring is rare among mammals. Few animals have a more intensive relationship with their mothers. Primatologists believe that orangutans have such long “childhoods” because there is so much that they need to learn before they can live alone successfully. Young #orangutans learn almost everything from their mothers, including: where to find food, what to eat and how to eat it (sometimes this involves using special tools), and how to build a proper sleeping nest (Instagram 2018).



Figure 6.1

Too often photos of wildlife are taken either without a proper context or as “selfies” (see Figure 6.2) with humans (Hamilton 2017). Selfies may be with a primate sitting on the photographer’s shoulder or the photographer standing close enough that the primate is included in the frame of the photo. Such activities are often a byproduct of tourism in areas which primates occur naturally. It is easy to understand the allure of such actions, as many tourists originate from countries which do not overlap with the natural range of primates, with their previous encounters taking place at a zoo in which no contact is allowed. If it were not for my knowledge about primates and their conservation crisis, I would be tempted to participate in such activities like wildlife selfies, which ultimately emphasizes the importance of education. How can we expect the average social media user to be aware of threats facing primates? As a scientist and primate advocate, I believe it is part of my responsibility to educate those around me in my daily life and on social media.

One such genus of primate which continues to suffer from “selfie tourism” are slow lorises due to the “viral” video of a pet slow loris being “tickled,” which has maintained popularity despite being originally posted in 2009 (Nekaris et al. 2016; Hamilton 2017; Clarke et al. in review). In response to viral videos portraying lorises in a harmful way, the International Animal Rescue, which rescues animals – ranging from lorises and bears to cats and dogs – from harmful situations, founded “Tickling is Torture” aimed at bringing awareness to the public about cute “viral” videos featuring lorises as pets (Hamilton 2017; “Tickling Is Torture” n.d.).



Figure 6.2 Trevor Noah's recent wildlife "selfie." The caption of the photo provides no context as to the origin of the monkey, or even where the photo was taken.

Founded in 2011, Dr. Anna Nekaris and colleagues operate the Little Fireface Project, which aims at “[s]aving the slow lorises through ecology, education, and empowerment” (Hamilton 2017; “Little Fireface Project” n.d.). The website links visitors to multiple resources to help bring awareness to the public about lorises and more broadly about primate conservation and wildlife trafficking. The Little Fireface Project is also particularly involved in social media, posting valuable conservation information on Facebook and Instagram pages multiple times each week. Although the project is especially focused on lorises, they do a great job of sharing information with the public about many aspects of primate conservation and wildlife trafficking more broadly.

The work of organizations committed to primate conservation, such as the Little Fireface Project, has led to social media sites taking a more active role in monitoring posts which advertise and enforce damaging behavior. For example, Instagram recently implemented an alert system targeting posts and searches associated with threatened wildlife species and the accompanying tags. When I search the tag “slowloris,” a message pops up with the title “Protect Wildlife on Instagram” and is followed by “Animal abuse and the sale of endangered animals or their parts is not allowed on Instagram. You are searching for a hashtag that may be associated with posts that encourage harmful behavior to animals or the environment” (Daly 2017; Clarke 2018; "Instagram" n.d.). The notification then allows me to exit and view the posts or learn more about the exploitation of wild animals, which in turn leads me to general information about and links to conservation and trafficking websites. The notification system is only attached to tags of animals that are threatened and thus only deployed when tagging threatened animals. In the United States, many pet primates are species which are not currently threatened, making them legal to own as pets, often coming from lucrative breeding businesses. These species, despite their domestic birth, are still wild animals. When I asked Covert (2017) about captive breeding programs, he said that despite its legality, “to own one [a primate] as a pet is actually torturing the animal in some respects...I would argue that these animal are part of the natural world...and they have hundreds of thousands of years of natural history and evolution where they have developed the skill set which can probably be described as adaptations” relative to a specific environment. Being a pet in the United States may not immediately impact the conservation of the legal-to-own species’ wild counterparts in their natural habitat, but keeping primates as pets still serves in influencing the public’s perceptions, in turn supporting the illicit sale and ownership of threatened species. Additionally, legal primate ownership in the United States

contributes to the misconceptions that primates make suitable pets despite the research that concludes, they do indeed, make terrible pets, evidenced by Soulsbury et al. (2009), who found through their systematic study of pet primates in the United Kingdom, that every instance of primate ownership violated at least one of the five freedoms set forth by Schuppli and Fraser (2000). They found that primate pet owners were unable to meet the intricate needs of their pet and the animal often quickly became unmanageable, and at times, dangerous. Highly social wild animals with increased cognition, like primates, are unsustainable, unpleasant, and unsuitable as pets.

In asking my participants about their use of social media, each has experience with numerous sites – Facebook being the most popular – and use them for personal use, as platforms for their research, or as a method for educating the public. For example, Lemur Love, founded by LaFleur, is active on Facebook, Twitter, and Instagram. They post information about lemurs ranging from cute photos of infant lemurs from the Duke Lemur Center to scholarly articles concerning lemur research. The language Lemur Love uses to communicate conservation news with their followers is conducive to the public’s knowledge (or lack thereof). Furthermore, they use “cuteness” to attract followers which as a consequence end up learning about primates, the pet trade, and primate conservation. (“LEMUR LOVE” n.d.). In conjunction with Ratsimabazafy’s organization, GERP, and various other sponsors and organizations, Lemur Love participated in the Wildly Beautiful print campaign which focuses on keeping wild Malagasy animals in the wild and educating the public about the damage of wildlife trafficking (U.S. Agency for International Development n.d.). Figures 6.3-6.5 are examples of some of the media used for the print campaign. As we can see (figure 6.3 and 6.4) the campaign uses photos of lemurs in their natural habitat, which are arguably still perceived as cute by the public. This

initial positive image which attracts viewers takes the opportunity of having the public's attention to communicate a simple message: "Lemurs Are Not Pets!"

Such campaigns aimed at the public result in an increased general awareness of the threats that face primates and can turn members of the public into advocates in the fight against illegal trafficking of primates and the keeping of primates as pets. For example, "shaming [people] publicly" (Workman 2017) on social media about the mistreatment of threatened species can serve as a motivator for authorities to act (Nghiem et al. 2012). In countries with laws protecting threatened species and prohibiting their trade, social media can serve to hold authorities accountable if the public feels they are not doing their job, which in turn is fueled by the knowledge the public gains about threatened species online, through the use of social media.



Figure 6.3

Wildly Beautiful

Embassy of the United States MADAGASCAR

The production of this brochure and the other printed materials in the "Wildly Beautiful" campaign was funded by the U.S. Department of State and the content developed by:

USAID FROM THE AMERICAN PEOPLE

TRAFFIC the wildlife trade monitoring network

WWF **GERP** **TSA** **CONSERVATION INTERNATIONAL** **DURRELL** **MWC**

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 Le Voyageur Solitaire (tourist/immigrant): © Serge Robain

Wildlife is our heritage and our future!
La nature est notre patrimoine, notre avenir!
Lanontsika sy ho avantsika ny zavaboahary!

Mila mandray anjara amin'ny ady atao amin'ny fanondrana zavaboahary antsokosoko ny rehetra.

Na dia ny mpizahatany sy ny mpitsidika an'i Madagasikara aza no iantefan'ity boky kely ity, dia ny vahoaka malagasy no mibaby ny volakry ny fanondrana antsokosoko ka voa mafy amin'izany.

Ny atao hoe fanondrana antsokosoko zavaboahary dia ny fivarotana tsy ara-dalana ny biby sy ny zavamaniry. Fananana lombonana eto Madagasikara ireo biby ireo, ary ny fanalana azy amin'ny toerany ka itondrana azy ho fananan'olon-tokana dia halatra atao amintsika rehetra.

Arontsika atao ny manova izany! Lazao izay fanondrana zavaboahary mampihialy anao. Antsoy ny polisy eo amin'ny toerana misy anao na ny Service de la Surveillance et de la Lutte Contre la Contrebande ao amin'ny Fadinteranana, amin'ny Jaharana 034 30 810 10, na manorita amin'ny silcantanimena@yahoo.fr. Ananao atao lea ny manohana ino sampa-draharaha miasa ho an'ny fiarovana ny hakitontoni Madagasikara! <https://goo.gl/Kd9tJb>

Manan-danja lhibe ho an'ny harinkarena ny zavaboaharin'i Madagasikara: tsy ho an'ny mpizahatany ihany, fa indrindra ho antsika satria lovan-tsika iho, harena mipetraka ho an'ny taranaka ka mila arovana.

Une Beauté Sauvage
Kanto Loatra

Figure 6.4

You can't take a bad picture in Madagascar, and with the right light and a steady hand you can create something truly amazing. The mind-blowing variety of wildlife observable here is pivotal to the rich heritage and iconic natural beauty of this island.

But all that you see through your lens is fragile.

Many of Madagascar's iconic species are endangered. The second-greatest threat to Madagascar's wildlife, after habitat loss, is trafficking—the illegal trade of animals and plants.

Like the illegal trade in drugs and weapons, the trafficking of wildlife is often coordinated by criminal organizations and the revenues generated go on to fund further illegal (and sometimes terror-related) activities.

Each year, the Madagascar Customs Service seizes hundreds of illegally trafficked species, often finding them hidden in luggage and stashed in ingenious concealments. The penalty for this attempted illegal export is up to \$65,000 and/or up to 10 years in a Malagasy prison.

Wild animals need to remain wild. Before having a 'pet' lemur on your shoulder for a fun photo, or taking a colorful chameleon home to keep you company, consider the consequences to yourself and the people of Madagascar.

The wildlife of Madagascar should be viewed in their natural habitats, where they can prosper and everyone can enjoy them. Visiting national parks and reserves throughout the country gets you incredibly close and contributes to the well-being of these animals and the local human communities as well.

You can make a difference! Report suspected wildlife trafficking. You can contact the police in your locality or the anti-smuggling section of the Madagascar Customs Service at: 034 30 810 10 or silcantanimena@yahoo.fr. You can also support a variety of organizations working to protect this Wildly Beautiful Madagascar! <https://goo.gl/C83b7h>

I prefer my home in Madagascar!
Je préfère rester chez moi, à Madagascar!
Alahelo tsy mianina any amin'ny eto Madagasikara!

A cage is no place for me!
Je n'ai pas ma place dans une cage!
Ty mery amin'ny trano-miloly!

Luggage is not our natural habitat!
Les bagages ne sont pas notre habitat naturel!
Ty fomanana voafandriany ho amin'ny kitapo!

Vous ne pouvez pas rater une photo à Madagascar, et, avec la lumière qu'il faut et une main qui ne tremble pas, vous pouvez créer quelque chose de vraiment stupéfiant. La variété extraordinaire de faune et de flore qui existe ici est essentielle au riche patrimoine et à la beauté naturelle emblématique de l'île.

Mais tout ce que vous voyez à travers l'objectif est fragile.

Beaucoup d'espèces emblématiques de Madagascar sont menacées. La deuxième plus grande menace à la nature malagasy, après la disparition des habitats, est le trafic, le commerce illégal de faune et de flore.

À l'instar du trafic de drogues et d'armes, le trafic de faune et de flore est souvent coordonné par des organisations criminelles et les revenus ainsi produits continuent de financer d'autres activités illégales (ou quelquefois terroristes).

Tous les ans, le service des douanes de Madagascar saisit des centaines d'espèces trafiquées illégalement, souvent trouvées dans les bagages et dissimulées de façon ingénieuse. La sanction pour une tentative d'exportation illégale est le paiement d'une amende jusqu'à 65.000 USD ou un emprisonnement jusqu'à 10 ans dans une prison malagasy.

Les animaux sauvages doivent rester sauvages. Avant de vous prendre en photo avec un lémurien 'domestiqué' sur les épaules ou d'amener un caméléon coloré à la maison pour vous tenir compagnie, réfléchissez aux conséquences pour vous-même et pour la population de Madagascar.

La nature de Madagascar doit être vue dans son habitat naturel où elle peut prospérer et que tout le monde peut apprécier. Une visite dans les parcs et les réserves naturelles du pays vous en rapprochera et contribuera au bien-être aussi bien des animaux que des communautés humaines.

Vous pouvez changer les choses en signalant tout trafic d'espèces sauvages! Contactez la police de votre localité ou le Service de la Surveillance et de la Lutte Contre la Contrebande du Service des Douanes de Madagascar en appelant au 034 30 810 10 ou en écrivant à silcantanimena@yahoo.fr. Vous pourrez aussi appuyer diverses organisations qui œuvrent pour la protection de la Beauté Sauvage de Madagascar! <https://goo.gl/Kd9tJb>

Figure 6.5

Harnessing Cuteness

Is it possible to use cuteness to reach populations of people on social media that value cuteness the most? Many social media platforms allow users to search for posts that are tagged with or contain certain words. As we saw with the Wildly Beautiful print campaign and Lemur Love's work, cuteness is effective in getting the attention of the public. In fact, my first attraction to primates started with their allure as cute animals; this in turn developed into a deeper appreciation and ultimately the desire to study and learn about these fascinating creatures. The Little Fireface Project has also used the industry of cute to gain support from the public. For example, with the popularity of pet loris videos and the response by the Little Fireface Project and International Animal Rescue, viewers soon began to learn about the realities behind such videos (International Animal Rescue 2015; "Little Fireface Project" n.d.). The success of such campaigns has been seen in comments on videos like Pizzatoru, the galago. Although many of the comments expressed one's desire to own a galago and the cuteness of Pizzatoru, a substantial amount also brought up that such animals should not be pets and keeping one is abusive. Given the success of educating the public about pet lorises, much of the public's knowledge about the primate pet trade is solely in relation to lorises, and thus the advocates in the comments of the Pizzatoru video may have mistaken him as a loris, but the sentiment that primates should not be pets, remains the same. It appears that the awareness of the pet trade has infiltrated the public's consciousness for species that have a threatened conservation status perpetually attached to content regarding them, whereas species that do not have a threatened status or the status is rarely discussed with the public, the public is more likely to support them being pets.

Looking toward future research, we should speak directly with the public about their general perceptions regarding various species of primates, expanding on Ross et al.'s (2008,

2011) studies with chimpanzees. We should use the industry of cute to instead target populations who value cuteness above all else, instead educating them about primates and encouraging them to spend their money in places and on products which work toward conserving primates. For example, supporting businesses such as Lush Cosmetics that works with “grassroots groups looking to make change in the areas of animal welfare, human rights and environmental conservation” helps support conservation efforts impacting wild primate populations (“Lush Charitable Giving” n.d.). Speaking directly with the public – the consumers of cuteness and the potential buyers of primate bodies – is the next step in changing the public’s perceptions about primates and to a greater extent, all wildlife.

Chapter 7: Conclusion

Social media is a relatively new platform for communication and social connection that appears to be constantly changing and adapting to the lives of humans and our current fascinations. While we get into heated arguments about politics on Facebook and Twitter, we rely on the same sources for domestic and international news. We visually display our lives through Instagram, posting the best forms of ourselves and connecting with followers from across the globe. We have created activist movements for civil rights which use hashtags as a quick and memorable line associated with the message, such as #BlackLivesMatter, which relies heavily on social media for spreading awareness and organizing actions (“Black Lives Matter” n.d.). Social media has become the ultimate platform to “get the word out” and motivate people to act. Primates are no exception, as they too have become subjects of many posts on social media.

Through my usage of social media, I kept coming across posts – usually videos – of primates wearing clothes, wearing makeup, being held, and being involved with various other activities including close contact with humans. Often times my friends or followers would share these posts with me based on their knowledge that I love and hope to study primates. My reaction to these posts, contrary to my friends’ expectations, was concern followed by anger as many of these animals were obviously pets. I would read the endless comments about how “cute” the animal is and the viewers’ desire to own such an animal. Although some comments would point to the welfare concerns involving the post, these comments are few and far between. I began to wonder how such posts influence my friends’ – and the public’s – opinions and perceptions about primates given these types of representations. In order to circulate accurate information about primates I started searching for social media accounts regarding primates and their conservation, I began to share posts generated by reputable primate experts with my group of friends and followers. The concern I felt – and continue to feel – for the primate victims of the pet trade spurred me to act, resulting in this project and thesis which aim to uncover the motivations behind displaying unhealthy relationships with primates on social media and investigate possible solutions to the practice, rooted in educating the public.

By first reviewing the larger disciplines which appropriately frame the primate pet trade – ethnoprimateology, primate conservation, and the scholarship on primates as pets – I demonstrated the importance of an intersectional approach. The pet trade cannot be discussed without first addressing the relationship between primates and humans, which cannot be fully appreciated without including the conservation implications. The three fields are intertwined, with humans and primates making up the center. Ethnoprimateology forced me to take an approach which views humans and primates through both a biological and cultural lens. Instead

of deeming every interaction between humans and primates as problematic, an ethnoprimateological approach frames these interactions within a larger perspective which realizes primates and their environments are every bit as natural as the local human populations and the position they occupy within these environments. The unsustainable relationship many contemporary human societies have with their environments and the creatures which inhabit these environments is where it is crucial to consider the conservation of primates. By turning to social media, I looked at how scientists and conservation organizations educate the public about the pet trade as well as the plight of many primate species.

Following the examination of the critical contexts of ethnoprimateology, primate conservation, and existing research of the pet trade of primates, I reviewed the popular posts on social media which feature primates and found some troubling themes. I discovered how prominent a role anthropomorphism plays in triggering people to desire owning a primate and how the industry of cute feeds into this desire by valuing and consuming “cuteness.” Taking it a step further, I analyzed the allure of “cute” and certain cultures’ fascination with it by looking into its history and possible biological explanations for what makes something cute. From here I delved into how certain social (media) actors – Influencers – condone and advertise behavior which harms primates by displaying unhealthy encounters and anthropomorphism of primates without an underlying knowledge about primate biology and conservation. By investigating the actions of Influencers, I connected the Influencer phenomenon to the impact their actions have on the behavior and perceptions of the public, thus emphasizing the importance of circulating accurate and helpful information and images about primates on social media sites. Finally, using the preceding evidence to argue the importance of primate conservation initiatives on social media, I reviewed the organizations that have successfully done so all while considering the

perceptions of primate experts gathered through questionnaires and interviews. By highlighting agencies such as the Little Fireface Project and Lemur Love, I found how “cuteness” can play a positive role.

Trafficking wildlife for the purpose of the pet trade has gone on within the shadows, ignored, and unacknowledged by the public for far too long. With today’s technology that allows us to communicate with one another within seconds from across the globe, such capabilities should allow the public to be better informed about the illicit trade of wildlife. In the preceding thesis, I argued that conservation agencies and organizations that are active on social media are making this crucial information available to the public. In addition to primate advocates taking the initiative to educate the public, is there not a greater responsibility we have as humans to the creatures which make up our world? How have we reached a point in our history that we assume using and abusing nonhuman animals is acceptable? By continuing to inform the public, we may change this mindset which values human desire and consumption above all else.

Recently, I was reminded about the importance of small, impactful actions of individuals. When facing a problem so large, like primate conservation, it may be hard to realize the progress which is being made. So often we look at the good we have done and think “yes, but…” because we are not able to fix every issue facing every primate. Small victories, like those I presented in this thesis, are more significant than we often give them credit. Through the strides that are being made by primate advocates and scientists, I believe there is reason to be hopeful.

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Appendix A: Questionnaire Data

What type of work do you do/have you done with primates?

ANG: I have carried out studies on both wild and captive primates. Currently, I follow primates in the field to collect observational data, and also do molecular work using their fecal samples. The information is then used for conservation applications.

LAFLEUR: Scientific research and conservation with wild lemurs and confiscated wild-captured pet lemurs.

O'BRIEN: I have worked with captive and free ranging primates focusing mostly on feeding ecology. This work has occurred mostly in Vietnam, but also in Nicaragua. I have also conducted field surveys using traditional and more technologically focused methods. Additionally, I teach a primate behavior course online for the University of Colorado Boulder.

PATEL: PhD Field Research in Madagascar on silky sifaka (*Propithecus candidus*) [*sic*] behavior and ecology as well as management of conservation programs in northeastern Madagascar. Have also worked with red-fronted brown lemurs and red-bellied lemurs (3 months), semi-free ranging rhesus monkeys (10 months) and zoo living bonobos (6 months).

RATSIMBAZAFY: I do lemur conservation work. Our Association GERP as I am the President manages two protected forests (Maromizaha and Manombo), but we also conduct conservation activities in the west (see: www.gerp.mg). But in addition, I am also an adjunct professor at three Universities (Antananarivo, Mahajanga and Toamasina). I am the Vice co-Chair of IUCN Primate Specialist Group for Lemurs/Madagascar section.

REUTER: I did my PhD in Madagascar where I studied the wild trade of animals, including primates (lemurs). I also studied primates (specifically *Eulemur coronatus* and *Eulemur sanfordi*) [*sic*] in the wild during my PhD, examining how they were eating fruit at trees. More recently, I have studied the trade of lemurs in Madagascar for pets. I am on the IUCN Primate Specialist Group for Madagascar.

WORKMAN: I was a field biologist in the past, 2000-2010 and did my undergraduate thesis, Masters, and PhD studying wild and captive (sanctuary) primates. Now, I am involved with reading primate grant proposals, but not working with primates. I led a NatGeo Expedition on a Great Apes of Rwanda/Uganda tour in early 2017.

How familiar are you with the primate pet trade (either legal or illegal)?

ANG: I have not studied primate pet trade, but know the growing use of social media for such transactions. I had an illegal pet monkey (vervet monkey from South Africa)

growing up (late 1990s-early 2000). It was given to me by a relative who was a sailor. After five years, with the help of an animal rescue organization in Singapore, I sent my monkey to a wildlife sanctuary in Zambia for rehabilitation.

LAFLEUR: Very.

O'BRIEN: I am familiar enough with it (mostly illegal), but have not been in constant contact with it for a few years now.

PATEL: Well familiar with the issue in Madagascar and somewhat familiar with the issue in other parts of the world. In Florida, there is also a disturbing pet trade in lemurs, apparently legal.

RATSIMBAZAFY: I do know well about the pet trade as I used to be the Vice President of Conservation of the International Primatological Society (IPS) from 2008-2010. In Madagascar of course, I am part of the project on lemur pet trade. I work with the Service of Water and Forests, and I am a group member for CITES for Primates in Madagascar

REUTER: Very familiar – this is a key research subject that I study, though I focus my efforts on Madagascar. In the past I worked as a field assistant studying the effects of illegal hunting (though not the pet trade) on six primate species on Bioko Island, Equatorial Guinea.

WORKMAN: I am familiar but not current on latest legislation globally and certainly not by country. I am aware that there is a legal and illegal trade in primates.

Which species of primates are most at risk for becoming “pets”?

ANG: I'm more familiar with the ones in Asia: long-tailed macaques, pig-tailed macaques, rhesus macaques, dusky leaf monkeys, slow lorises, gibbons, orangutans

LAFLEUR: It depends on how you are defining “risk”. For lemurs, ring-tailed lemurs are the most frequently reported illegal pet in Madagascar.

O'BRIEN: I think some of this depends on where you are talking about. In smaller, rural communities animals found in the surrounding habitats are more likely to become ‘pets,’ but in larger more cosmopolitan areas there may be a desire for more interesting or novel species.

PATEL: In Florida, ring-tailed lemurs. In Madagascar, in my experience, some of the most common include Lemur catta, Eulemur coronatus, Eulemur albifrons, Hapalemur alaotrenis, Hapalemur occidentalis [*sic*].

RATSIMBAZAFY: There are articles of Kim Reuter about the surveys on lemur pet trade in Madagascar. We have other articles on press too, but from Kim surveys, 28,000 lemurs have been kept by people as pets. Ring-tailed lemurs and brown lemurs are mostly the

species of lemurs that people like to take as pets. In the north of Mada[gascar], the species *Eulemur macaco* [*sic*] is hunted and kept as pets. Also, bamboo lemur and mouse lemurs. 94% of the lemurs of Madagascar are considered as threatened (Critically endangered, endangered and Vulnerable). All lemurs live in the forest (and marsh of Lake Alaotra for the bandro), but we have only less than 10% of the original forest left.

REUTER: It depends on how you define ‘trade’ – there is domestic trade and the international trade. I wouldn’t be able to name one individual species most at risk, but see my answers below. Also, there is a difference between trade that is taking individuals illegally out of their range countries and trade that is illegally moving captive bred individuals. For example, someone in the United States might own an illegal primate but that primate has been bred in captivity somewhere in the western world; that is different than the illegal extraction of a primate from its habitat.

WORKMAN: young primates, cute ones, small ones, ones that have been shown in media, ones that have a less specific diet and therefore last longer; chimps, lorises, douc langurs, capuchins, baboons, gibbons, oranges, gorillas, bonobos

Is there something which makes these species more vulnerable?

ANG: They are either common (e.g. macaques), rare but considered charismatic (e.g. gibbons and orangutans), or cute (e.g. lorises).

LAFLEUR: They are iconic- most people know and like ring-tailed lemurs. They are also pretty hearty compared to other lemur species, so there is a good chance they survive capture.

O’BRIEN: This is probably very subjective, but species that are cute or smart or well known are likely more vulnerable. Also, the ability of the species to survive in captivity will increase their vulnerability.

PATEL: Can survive in captivity, not “dedicated” folivores which notoriously do poorly in captivity, may be found in secondary forests near villages, somewhat flexible diet.

RATSIMBAZAFY: Yes, habitat loss from deforestation, clearings by slash and burn agriculture, selective logging, mining and hunting

REUTER: Species that are small and easy to move in concealed containers (i.e. slow lorises or smaller monkeys), as well as species that are near borders where illegal traffickers can move them across/out of countries seem to be more vulnerable to illegal pet trades.

Species that are rare are sometimes prized more – when it comes to birds and reptiles/amphibians - although I haven’t really seen evidence of that in primates per se.

For lemurs, it’s definitely species that can be kept well in captivity – so ring tailed lemurs and brown lemurs are often popular. We also find that lemurs that are perhaps

easier to catch (those that have already been habituated in protected areas by tourists or species that range lower to the ground) might be more at risk.

WORKMAN: As above – they are cute, shown in media as desirable, and range in counties with weak governance

What about these species do you think makes people desire them as pets?

ANG: In the case of macaques, local people consider them useful (e.g. helping to retrieve coconuts from trees) and as tools for tourism (but they are often caged to be exhibited). For lorises, they are cute with large round eyes and are small and furry. Similar for gibbons and orangutan babies, they are adorable.

LAFLEUR: People want to either have them as a status symbol or use them to make money (i.e. as tourist photo props or to lure in tourists).

O'BRIEN: I am not certain why people would want a non-human primate as a pet to begin with! That being said- primates are intelligent, social, and can be quite gregarious. There is also the possibility of the pet being a status symbol- something exotic and flashy to show off.

PATEL: Diurnal or Cathemeral (i.e. not exclusively nocturnal). Somewhat Small-bodied. Some species approach humans which makes them easier to catch for example *Eulemur albifrons* [*sic*] often engage in a mobbing type behavior where a group will approach a human, grunt loudly and flag their tails. This may make them easier to catch.

REUTER: Looking at lemurs, people keep pets for many reasons – they are often money makers (tourists will pay to take a photo with a pet lemur), or they convey social status (i.e. rich people keep primates as pets), or they are kept for the same reasons why people in the USA would keep domestic animals (i.e. they are seen as companions). These motivations are not mutually exclusive [*sic*]; for example, someone can keep a lemur as a companion pet but still also use the lemur to make money.

WORKMAN: Cute, shown in media, ‘human-like’

Does your work ever have you directly or indirectly witnessing the impacts of the primate pet trade?

LAFLEUR: I’m not really sure what this question is getting at... I’ve seen the negative impacts on the animals in that they are in poor physical or mental health as a result of capture, inappropriate diet, abuse and neglect.

O'BREIN: Yes.

RATSIMBAZAFY: YES [*sic*]

REUTER: Yes – I study it ‘on the ground’ in Madagascar. So I proactively look for pet lemurs that are being kept illegally.

WORKMAN: yes [*sic*]

What have you seen and/or experienced?

ANG: I have seen long-tailed macaques and pig-tailed macaques caged or chained up to be displayed as monkeys for tourists to see (Vietnam, Indonesia). I have seen gibbon babies being used as photo props in Thailand. I have seen dusky leaf monkey babies being kept as pets at home in Malaysia.

O'BREIN: I have seen primates:

-kept in cages at gas stations and other tourist destinations.

-kept in cages at local markets for sale as pets or other uses.

-killed and cut apart for sale.

-killed, stuffed, and displayed in houses, restaurants, tourist destinations, gas stations, etc.

-captured in Forest Ranger raids of local villages (both alive and dead).

I have also removed many animal traps from numerous forests throughout Vietnam.

PATEL: Red ruffed lemur in a small cage in Sambava, but the owners said it came from far away (Masoala). Eulemur albifrons [*sic*] group as pets at a local tree nursery in Sambava. The owner serves them beer and complains that his neighbors have hunted and killed some of them, though the group has been there semi-free ranging as his pets for several years now, their numbers are dwindling. The same place had several Hapalemur occidentalis but they died in less than 1 year. Eulemur coronatus [*sic*] in a cage at hotel in Sambava. Hapalemur occidentalis [*sic*] as a pet in rural outskirts of Sambava. Eulemur coronatus [*sic*] in a cage at a wealthy French residence in Sambava.

RATSIMBAZAFY: I saw lemur traps and dead lemurs caught in the trap. In addition, we saw photos from several sites where lemurs are hunted... and we learned that there are hotels have lemurs in their menu. We see small and big hotels have lemurs in a small cage to entertain their clients. It is clear that lemurs should not be kept as pets, but because of the laws are not reinforced, it seems that the laws do not exist.

REUTER: Lots of examples of pet lemurs being kept illegally by private owners or hotels in Madagascar. You can see a bunch of photos on the pet lemur survey site (which I run): www.petlemur.com

WORKMAN: In DRC [*sic*], I was involved with a project that was reintroducing bonobos from a sanctuary into the wild; while in the field, two more infant bonobos came to us after their moms were shot by hunters; in Vietnam, I worked for many years at a rescue center for endangered primates confiscated from illegal situations

How would you describe the impacts of the primate pet trade?

ANG: Having macaques caged or chained to be displayed, having gibbon babies used as photo props for tourists, make people think that it is ok and acceptable. To obtain primate babies, it meant that their moms probably died in the process.

O'BREIN: The impacts are widely varied, but a direct impact can be depopulated forests.

PATEL: Damaging wild populations and reducing wild populations as most are wild caught. Most pet lemurs die quick (less than 1 year as a rough estimate in my experience) and are often in ill health and poorly fed. It also sends a bad conservation message that this is an acceptable practice. Owners frequently say that they buy them in order to save them because otherwise the lemurs would be eaten, though in some cases that may be true, buying the lemurs and keeping them is only perpetuating the problem and funding it.

RATSIMBAZAFY: - Frugivorous/Fruit eater lemur are seed dispersers and flower pollinator, so if they are no longer in the forest, that will impact the composition and integrity of the forest

- Bad reputation for Madagascar, so the tourists will no longer come to visit Mada[gascar]. That means No foreign money which means Poverty. Therefore, the children of Madagascar will no longer know their patrimony/treasures.

REUTER: The pet trade is very detrimental to some lemur species in Madagascar. While there are other threats facing the species – like deforestation or bushmeat hunting – the pet trade is most definitely increasing in Madagascar and is taking thousands of individuals out of the wild per year. I have a variety of statistics in my papers that I have published but in brief – many of the lemurs that are extracted from the wild die shortly after being extracted and most are so thoroughly habituated or aggressive that they can never be reintroduced into the wild again.

WORKMAN: Devastating; adults are killed to get the baby(ies); horrible welfare situations for the animals in captivity including starvation, thirst, fear, loneliness, trauma; for those confiscated, rescue centers reach capacity and face pressure to reintroduce/ financial challenges to sustain

Do you use any popular social media sites? (i.e., Facebook, Instagram, Snapchat, Twitter, YouTube, etc.) If so, please list which sites.

ANG: Facebook, Twitter, YouTube, Vimeo

LAFLEUR: Facebook, Twitter, YouTube.

O'BRIEN: Yes- Facebook, YouTube

PATEL:

Facebook pages for Lemur Conservation Foundation and Silky Sifaka Conservation.
Twitter for Lemur Conservation Foundation.

Vimeo for videos (my own account has many conservation videos), for example:

<https://vimeo.com/238417941>

<https://vimeo.com/143107540>

<https://vimeo.com/241022563>

And Youtube:

<https://youtu.be/uRboalFBf4s>

<https://www.youtube.com/watch?v=gu33LgqWIA8>

RATSIMBAZAFY: I use twitter and facebook (Jonah ratsimbazafy) [*sic*]. Just tape my name on google, then the youtube [*sic*] link will appear...

REUTER: Twitter, Facebook, Instagram, Youtube

WORKMAN: Facebook, twitter, Instagram

What sorts of posts regarding primates have you come across while using social media?

ANG:

--primate research work by colleagues

--primates seen during holiday trips

--primates being sold through Facebook (posts reposted by friends to slam the FB [*sic*] page)

LAFLEUR: Lots, including those that make people think primates are appropriate pets.

O'BRIEN: I have come across a variety of posts- many of my friends live and work in Vietnam for government agencies, NGOs, and educational institutions so I get a pretty good snapshot of what is going on. I also 'like' many NGO pages that are directly involved with primate conservation in a number of countries.

PATEL: All varieties. Too many which show lemurs on people's shoulders and too many which show imagery of people holding nonhuman primates like infants; such images send the wrong message.

RATSIMBAZAFY: Many: sometimes primate hunting, habitat destruction, good primate photos with babies, petition on primate habitat loss, documentary film on primate conservation activities by Associations and/or NGOs

REUTER: We did a study looking at twitter data to how many people were expressing a desire to keep lemurs as pets on twitter – we found that there was an increase in the number of people expressing a desire to keep lemurs as pets (in the USA) after a youtube [*sic*] video went viral of two children petting a pet ring-tailed lemur in Madagascar.

Most of the time, I'm not seeing many posts of primates on social media but I do regularly have people on facebook [*sic*] share posts with me from people in Madagascar

who are interacting with illegal pet lemurs. Malagasy people are more on facebook than any other social media platform.

WORKMAN: Few; mostly re wild primates, some re illegal pet trade, few that inappropriately highlight primates as pets

Do you use social media in relation to your work with primates and conservation? Please explain.

ANG: Yes. I have a FB [*sic*] page dedicated to sharing information on the Raffles' banded langur conservation work that I am doing in Singapore and Malaysia. I also share about primate news and primate watching sites through Twitter and Vimeo.

LAFLEUR: Yes. Lemur Love is on Facebook and Twitter. We try to raise awareness about the negative impacts of the pet trade to individual primates and conservation. We've also used Twitter to monitor peoples' posts about wanting primates as pets.

O'BREIN: Very little. I often end up in pictures with groups while working in primate conservation (e.g. primate conferences group photos, small group work in field settings, round table discussions, after work bar photos), but I do not actively use social media to promote the work we are doing (although others in the group may be more engaged in this and I can be noted as a part of it).

PATEL: Lemur Conservation Foundation posts the results of our conservation programs in Madagascar on social media and our captive breeding and educational work in Florida.

RATSIMBAZAFY: Yes many times, almost everyday [*sic*]... I send news related to primates in general and lemurs in particular. For example: The World lemur festival event. Just go to my fb[*sic*].

REUTER: Yes, I use my twitter account to share information on why it is bad to keep lemurs as pets. I also run the pet lemur website where people can access information about the illegal ownership of pet lemurs in madagascar [*sic*]

What type of audience do you or do you try to reach when posting about your work?

ANG: Friends, nature groups, people interested in primates

LAFLEUR: Animal lovers, conservationists, tourists, donors.

O'BRIEN: Again, I really do not, but the groups being reached would be friends or friends of friends involved in the work. The interesting addition to this is the increased exposure to 'other friends' not involved in the work at all, but who are captivated by primates and conservation work!

PATEL: General audience of adults and young people and kids, though each Monday we have “Madagascar Monday” and post more serious content about Madagascar and Conservation.

RATSIMBAZAFY: Public at all ages, gender, different social status, authorities/government people but if it is scientific info, then the primatologist scientists (students, teachers)

REUTER: In most of my work, I am looking to reach NGOs and decision-makers on the ground – in Madagascar. We have also done an outreach campaign through posters in Madagascar – 1000 posters were hung up in public places in Madagascar encouraging people not to keep lemurs as pets

Do you think social media sites play a role in the primate pet trade?

ANG: Yes

LAFLEUR: Yep.

O'BRIEN: Yes.

RATSIMBAZAFY: Yes bit [*sic*] not enough

WORKMAN: yes [*sic*]

What role or roles does social media play?

ANG: Easy access and contacts. Ability to share to reach a larger audience.

LAFLEUR: People see cute pictures and videos of primates and then think they want one as a pet.

O'BRIEN: I know that social media can be used to display or sell primates, but I have never seen animals for sale in any of my feeds.

PATEL: I worry that it can influence people in subtle ways if people see images where people are holding or touching primates, it's like a social endorsement that pet primates are ok.

RATSIMBAZAFY:

- Sensibilisation [*sic*] in order to raise public awareness about the value of the lemurs for instance. More than 40% of the Malagasy do not attend school, so they could learn about lemurs via social medias... But I said not enough, because maybe 10% max of the Malagasy can get can have telephone and 5% get access to internet. Madagascar is the 5th poorest country in the world.
- Education

- They can learn about biodiversity in general

REUTER: Yes – it definitely does. There are studies that have been published which show that when people see primates in an anthropomorphized [*sic*] setting, they are more likely to want them as pets. We have seen this in our own research.

When people see something on social media they just think it's a cute primate. There is no context and therefore it is really hard to tell when you are seeing an illegal/legal pet or a primate in the wild.

WORKMAN: Youtube infamously touted lorises as good pets/made them seem desirable (see Little Fireface Project and Anna Nekaris work); dressed-up primates on inappropriate social media sites make them seem okay as costumed friends that don't mind living in a human's world; positively – social media can be a way that conservation messages are shared, by highlighting their conservation need or them as wild creatures in the wild

How do we make sure it is a positive role?

ANG: Whenever we report illegal pages or groups selling wild animals, social media platforms such as Facebook should be held responsible to share all information with local enforcement and government agencies to lead to the arrest of the people involved in illegal pet trade. Facebook should partner with local government agencies dealing with illegal wildlife trade.

LAFLEUR: By not reposting obvious primate exploitation and by letting people know that these animals suffer when they are kept as pets.

O'BRIEN: I think that if conservation groups works [*sic*] are being displayed or if news (positive and negative) is being distributed, then this could be helpful.

PATEL: By including clear text and statements and being very careful about what photos are uploaded. What may help is starting a clear social media campaign that pet primates are not ok, perhaps Reuter and colleagues have already done this.

RATSIMBAZAFY: When people participate to a given discussion and give positive feedback. Limit negative message, but use the media as tools for good education. When people learn good things, then their attitude will change. So, you need to set up indicators to measure behavior change and attitudes toward wildlife.

Make media fun and open access. It will be much better if there is online forum, so people can share and take the infos [*sic*] what they need from the news they investigate. Sharing good success stories.

WORKMAN: Keep primates in wild settings; any great profile should have a conservation message (doesn't need to be doom and gloom)

Do you think your social media presence regarding primates and their conservation is more justified as an authority in the field? Please explain.

ANG: Yes, because it is a FB [*sic*] page dedicated to a specific species, and an official working group was set up and managed by me.

LAFLEUR: More justified? In comparison to what? I feel I am an authority on the subject, as a primate researcher and conservationist who studies the pet trade.

O'BRIEN: Interesting question- more justified as an authority? Possibly, only because I work in the field with Vietnamese colleagues who are also experts in the conservation of primates in the region.

PATEL: Yes, I think our posts may be taken more seriously which is good but it's really the large ngo's [*sic*] like WWF and others that have enormous social media followings. We've actually worked some with the US Embassy in Madagascar because their Facebook page has more than 114,000 viewers...that's A LOT!

RATSIMBAZAFY: It depends, but I would say yes if you make the local communities as the main players. The big mistake and failure of conservation is top down and/or dependance [*sic*] of the local communities for permanent support to external donors

REUTER: Yes and no – most people I interact with on twitter do not know who I am. So even I must be careful not to share items that could be misinterpreted.

WORKMAN: Yes, if I chose to be more active online

How do you identify yourself as a primate and conservation authority when using social media?

ANG: Rather as an individual, I do it through a FB[*sic*] page.

LAFLEUR: I don't generally, but in the past I have said thing like "I am a professor of primatology" or say that I have 'x years' experience' in the field or something like that.

O'BRIEN: Again, I don't really use social media in this manner, but quiet often I am identified by title- Dr. O'Brien (often with... of the University of Colorado) in photos of this attribution.

PATEL: photo pic and bio [*sic*]. Ironically, I am holding a lemur...is this hypocritical? Well, I don't think so because I have gloves on and it's clearly a field photo of a bio-medical exam but perhaps I should consider changing it...it does worry me...something for all lemur researchers to consider as we all have some darting photos...the more I think about it, the more I want to change it.

RATSIMBAZAFY: I often told that we are closely related to primates by showing some common characters that we share with other non-human primates (for example: 5 fingers with the thumb opposable to the rest of the fingers. Then find as many similarities on behavior, reproduction ect. Between human and other primates... Then, speak about their crucial roles as described above (seed disperses of the plants that we may use in our daily life...)

REUTER: I identify myself in my bio (on twitter) as a Technical Director for Conservation International. So it is clear that I work in this field; however, not everyone is going to read my bio. My facebook page is a private page that is not used for information sharing purposes.

WORKMAN: I don't

What sort of rules/practices/regulations would you like to see in place on social media sites for protecting primates against exploitation?

ANG: Rather than setting rules, practices, regulations, I would like to see the admins of social mediate platforms such as Facebook play a more active role in notifying local authority/government/enforcement team whenever an illegal pet trade page/group/community is set up. I would also like to see Facebook respond ASAP whenever someone reports a page/group/community.

LAFLEUR: We suggest not posting pics of people in direct contact with primates (i.e. touching or holding them). Anything with primates dressed up or doing tricks is not cool

O'BRIEN: I think that if there are illegal activities then the information should be used to find the responsible parties and make certain that this type of behavior is not continued.

PATEL: Banning sales of primates on social media. This does occur. I recently read a New York Times article about the illegal pet trade in Great Apes, absolutely horrific! Social media was used in these transactions, here is the article: <https://www.nytimes.com/2017/11/04/world/africa/ape-trafficking-bonobos-orangutans.html>

RATSIMBAZAFY: First I always that a poacher turning in game keeper talk to people rather than a scientist who often think to communicate with other scientist, so use the language of scientists than many people could not understand even the decision makers etc... It is always needed on how to pass the message, who is the audience, what is their knowledge level. For instance, you cannot talk the complexity of genetic or gene loss to a simple farmer whose education level is primary/elementary school, whereas he/she is an important person within the community. Therefore, I would use first of all the Medias as source of information, then education. Then it is easy for them to listen Rules [*sic*] and regulations etc. because if you start to use: It is forbidden by laws doing this and that, then people won't listen. It should be a place of exchanges of ideas, or debates where

people can use. They can complain or express their thoughts etc. They should feel part of it.

REUTER: People should not share photos of themselves with primates (i.e. selfies) – except for when it is clearly in a zoo. People should not pay to take photo-ops with animals in developing countries where it is likely that the primate is not being kept in adequate conditions.

WORKMAN: No costumed primates; no celebrities holding infant apes; no ‘Ross with capuchin’ on the show Friends

How do we enforce these rules on social media so that it is used responsibly?

LAFLEUR: Abuse can be reported to the host site. There are also groups that monitor. Facebook has the ‘online primate defenders’ group. IDK [*sic*] how much they actually accomplish though.

O’BRIEN: Good luck, but all that can be done is trying to make certain social media is being used responsibly (without pushing this behavior further underground?).

PATEL: Perhaps using some of the same tools/strategies for preventing ISIS from recruiting on social media and for preventing fake news on social media. These are two issues where there used to be much more lax freedom but now there are more rules in place.

RATSIMBAZAFY: We need good governance and transparency in order to make people to believe on you. The problem for Mada[gascar] is currently that the authorities. Justice are so corrupt, so people do not trust them. Punishment goes after Education. It is through education by using different methods such as Panels, Posters etc. to remind people what are protected by laws to prevent people from taking rosewood for instance. We often say that there should be a special justice to judge crime on biodiversity, because it is often the judge him/herself does not the importance of goose laying the golden eggs (lemurs for example), so it is the same for the judge when people kill a chicken and a lemur...

REUTER: I have no idea. Awareness is lacking but also – even when people know it’s not right to take a photo with a primate – they still do it. People going to Madagascar (tourists) often know that the lemurs they are interacting with are not wild; they know these are probably illegal pets. But they would rather have their selfie posted online with it than step away from the situation.

WORKMAN: Need buy-in from companies – the USWTA (US Wildlife Trafficking Alliance) does this by bringing in major companies to be leaders so the content is removed from their platforms/by them; Etsy, e-bay etc – check the website for list!

Where is the line between free speech and responsibility to our nonhuman relatives?

WORKMAN: Some of this stuff is illegal, so that's an easy one to tackle! CITES Appendix 1 species can't be traded

How do we navigate the fine line between letting people know the reality of what's going on with the primate pet trade and conservation while still avoiding the exploitation of the animals?

ANG: While sharing information on illegal wildlife trade, we do not have to say which sites/vendors people can obtain the animals from. We can also emphasize the cruelty to the animals. In this way there is no difficulty in navigating between letting people know the reality of what's going on with primate trade and their exploitation.

LAFLEUR: Sometimes we just have to be a bit uncomfortable and point out that the behavior they may see as 'harmless' is in fact harmful to the primate.

O'BRIEN: I am not certain I understand what you are trying to say with this question. I think you can let people know the realities of primate pet trade and conservation without exploiting the animals. Unless you think it is inappropriate to report and show pictures of dead animals to people- would this be exploitation?

PATEL: Tough question, an example would help.

RATSIMBAZAFY: Sometimes, a given primate is protected because of the taboo or vice-versa like the case of the aye-aye as considered as a bad omen. Once again that Education is always the basis of this. For instance, everyone likes to have a lemur because they are cute... But you need to have a strong argument with a good communicator saying simple but strong message with nice illustration about why we should not keep lemur as a pet and why they should stay in the forest... I believe that people will listen. As an alternative then, people can have a cat or dog etc. Indeed, when lemur become adult they can bite, then people often kill them. I often say: that they live in a family like us with their dad and mom etc. The main goal is that the whole community will be proud of having the lemurs in their forests etc.

It is true that when people hear about the high crazy price of the ploughshare tortoise of Baie de Baly on the internet, the situation become very difficult, because illegal trafficking increased drastically. Therefore, you won't believe how complex is the situation, because politicians of the regions, authorities, police/gendarme etc... are involved in the traffic, especially when you have a weak government control in those remote areas. So, for some case, the interventions of the international partners are needed. The best solution is to empower the local community by providing what they need to do ensure good patrolling etc. And the protector activists need to be protected....

WORKMAN: Carefully; devising messages with marketing campaigns – doing research into the social science of how audiences receive messages and speaking to them

For example, should we be using “cute” or “funny” viral videos featuring primates in order to explain the realities behind these videos by providing context and thus advocating for them and their conservation? Please explain.

ANG: Yes we can, such as the ones used by Anna Nekaris and her Project FireFace.

LAFLEUR: I use still shots from videos rather than playing videos and risking them gaining popularity. I also use ‘tickling is torture’ or other resources that point out how harmful these videos are to wildlife.

O’BRIEN: No, but these videos can be instructive as to what is wrong with mindsets about conservation and pet trade.

PATEL: Yes, great question, at our organization I worry that our staff posts too many cute videos sometimes but the public certainly does seem to enjoy them and most of the cute videos are naturalistic videos while the animals are free ranging or interacting with enrichment toys. I guess it depends what you mean by cute, we certainly don’t dress our lemurs up in children’s clothing like Paris Hilton:

<http://www.cnn.com/2016/05/04/entertainment/celebrities-paris-hilton-ape-monkey-un/index.html>

RATSIMBAZAFY: Depends on the message and context. Maybe you can use both. What need to be avoid is to undervalued them. What I often use know when I address to people is that they should believe that the lemurs can change the livelihoods of the communities and from now on, I asked the Public institutions to change their zebu logo to a lemur... It is always nice to have number about how much for instance the village raised from the tourist visiting the forest to see the lemurs.... So their conservation is a collective tusk. Look at the behavior of people who can see the lemurs in the Zoos, but working with zoos with conservation program could be a good idea too. We produced a short video film with high respected people to say good things about lemurs, which has made a good impact throughout the country.

WORKMAN: I don’t understand the question clearly, but better not to exploit animals to show that exploitation is wrong; use people and messages that speak to particular audiences (ie [*sic*] young American pop stars; influential Chinese business people; Senegalese soccer stars, etc)

If so, how should this be done without increasing the demand of primates as pets and making the videos more popular?

ANG: Insert in these kind of videos segments of the cruelty imposed on the poor animals. Visual has to be strong.

LAFLEUR: Don’t play the videos. Use still shots or advocacy materials instead.

O'BRIEN: I am not certain what leads to the increase or decrease in the demand for primates, but greater enforcement or penalties may help curb casual interest in this. The illegal animal traders know what they are doing and the penalties associated with being caught. This varies by region and culture.

PATEL: Only naturalistic behavior, no human contact (or clothing!).

RATSIMBAZAFY: Let the big and respected people send a message in the video.

If not, what should be used instead to circulate accurate information regarding the primate pet trade?

O'BRIEN: We are visually directed creatures and often times 'seeing is believing,' I have seen newsletters, airport displays, NGO funded outreach videos (using local celebrities), government decrees, and education outreach. I do not know that there is a better method as a blanket answer to the issues.

PATEL: Actual news articles are so much more informative than little social media posts, we could work harder to post links to credible articles.

RATSIMBAZAFY: In the video, they can be straight forward to say that Do not be part of those who keep primates as pets, because they are protected like the Panda etc...

WORKMAN: See above; need social science research to learn how people receive messages and what messages are most efficacious; health sector is ahead of the conservation sector on this front

As someone who studies/has studied and loves primates, these issues and questions may be difficult to think about.

How do we fight against the exploitation of primates without becoming emotional?

ANG: I think it is perfectly normal and ok to be emotional. It's the emotions that help spur our actions. What's important is what we do next about our emotions.

LAFLEUR: There is nothing wrong with being emotionally involved. I care deeply about the animals I work with and its [*sic*] really hard to see them suffer.

O'BRIEN: Another great question- this one really gets at differences between animal welfare advocates and conservation / wildlife advocates. While these groups have very similar interests and some overlap- one deals very heavily with emotional response, while the other (in my opinion) cares deeply, but tries to avoid overly emotive responses.

PATEL: Very challenging but first by recognizing that we have a bias and that we should always work to see the other side, even if we don't agree with it, it should be a rational disagreement not an emotional one.

RATSIMBAZAFY: Few years ago, we provided training to the police who work at the port about each endemic plants and animals of Madagascar. They liked it very much. Then put posters with the laws and punishment to those who are caught having primates at those places (airport etc.). So collaboration between different services (Environment, Justice, Police etc..) are needed.

REUTER: I think – for me – this isn't about emotions, it's about pragmatism. Primates are an important part of ecosystems world wide [*sic*] and it would be a disaster to lost them. However, you are right that emotions are one way to show others the intrinsic value of primates. So I do think that there are several ways in which you can convince/persuade others/the public to improve their behaviors towards primates. Some people are convinced by an emotional argument; others (like myself) are convinced by a logical argument.

WORKMAN: Use data, evidence-based decision making; see above re social science and looking to other sectors to learn what has worked

Or should emotions play a role in this issue?

ANG: Yes.

LAFLEUR: Yes, we need to invoke empathy in others.

O'BRIEN: They have a place, but should not be the sole thing driving the message.

RATSIMBAZAFY: It depends again, if you think that emotions can play for instance in Japan, but not in Tanzania, so let's use emotions in Japan. Maybe different strategies work in Tanzania...

WORKMAN: Emotions are fine as a motivator; some messages might best be shared emotionally; need data to know what works because what works for some audiences might not for others; for example, data have shown that Chinese consumers who want to own ivory are not swayed by messages of elephant welfare/conservation, but are influenced by legal consequences or enforced laws; know your audience

If so, what role do emotions play?

ANG: Our emotions can motivate our actions.

PATEL: As a motivator to develop rational arguments.

RATSIMBAZAFY: The role of emotions is first of all, that people can have a good attachment/feeling to those primates who cannot defend themselves, but they can have you and me to be their advocate, so to be the voice of those who have no voice...

REUTER: See above answer. An emotional argument for the conservation of primates – and for fighting against the ownership of primates as pets – will always be appropriate for a certain audience. However, there may be other audiences that respond to different types of arguments for why primates should not be pets (i.e. healthcare arguments – i.e. the transmission of diseases between humans and non-human primates).

WORKMAN: Can play a role with audiences where animal welfare/conservation is emotional -some, not all audiences

Primates are often used as a form of tourism. This may take the role of tourists taking photos with local or pet primates or feeding populations of primates around popular tourist sites. What possible solutions do you think may help with deterring this?

ANG: The local government agencies and nature groups have to be the ones to step up on this issue. They have to be on the same page in terms of how wildlife is being portrayed and used. Ground up and top down approach to exterminate such usage.

LAFLEUR: Education for tourists. Enforcement for those keeping illegal animals.

O'BRIEN: Education and enforcement may help, but it can depend on the political will of where you are

PATEL: More signs prohibiting feeding and more assistance in enforcement by local authorities. More publicly available literature that feeding can lead to aggression and disease.

RATSIMBAZAFY: Yes it is difficult when it is already an habit in some areas, but for people who think in the long term for the best of the primates, we should start to talk to those hotels who have lemurs for exhibition to their clients. Meantime, work with dedicated Zoo to conservation to keep in quarantine before bringing back confiscated animals to their natural habitats. As one of the strategies, we can make a big campaign of something like: Let the primates live in their natural habitat, let them eat the food they like, to choose the friends they like etc... because... then the attitude of the people/tourists will change.

REUTER: Enforcement. There needs to be a legal, policy, and regulatory framework that prohibits interactions between people and illegally captive lemurs; and this needs to be enforced. So for example, in Madagascar, there are some rules on the ownership of lemurs as pets but they are not enforced at any level – there are no consequences on the lemur owner (who knows better), the tour guide, etc. etc.

Legally captive primates should be clearly marked as such; in other words, if someone has a permit to keep a primate as a pet or in captivity, this should clearly indicated. This can help ensure that if tourists are interacting with primates, they are aware whether it is legal or not.

There needs to be awareness raising of both the local population and of tourists – all parties should be aware that this is 1) illegal; and 2) not a good thing for XYZ reasons.

WORKMAN: again, companies have a huge role to play here- some tourist companies are leaders in this regard (check USWTA website) – Trip Adviser changed policy of promoting sites that allow elephant interactions after an investigative report showing the welfare issues of those places; exposure helps; carrots and sticks (promoting/thanking places that work for welfare); legal consequences; shaming publicly

How can we tell different countries to stop participating in and to stop tourists from participating in this type of behavior when it's often a form of revenue?

ANG: There are successful cases of responsible ecotourism. Yes indeed, if we stop people from using monkey as props, what other income alternatives can we provide for them? Local sites with wildlife can be identified and the guides properly trained by nature groups to carry out responsible eco-tourism. For tourists, information needs to be provided even before they embark on their journey. Sites where irresponsible ecotourism occurs can be identified and people discouraged from going. Sites where responsible ecotourism happens can be identified and tourists encouraged to visit. We should also emphasize the possibility of disease transmission between non-human and human primates as we are so closely related. This can help deter people from getting too close with primates.

LAFLEUR: It is often illegal and can lead to bad publicity. We are trying to work with the Madagascar tourism Authority and emphasize that ecotourists want sustainable interactions with animal, not exploitative ones.

O'BRIEN: We cannot. Getting a tourist destination to stop using primates, as an attraction would take either, local enforcement of laws (if they have any) or likely a personal connection and trying to convince them of reasons that it would negatively impact their business. This holds true for trying to tell a different country to stop participating in these practices- the best method may be to establish a working relationship with the country and try to work with them to mitigate the effects of tourism or change models of tourism to still benefit them and the animals as well.

PATEL: Like the boxing Orangutans in Thailand:

<https://www.nytimes.com/2017/11/04/world/africa/ape-trafficking-bonobos-orangutans.html>

It can only be done internally by working with in-country organizations and governments to try to stop this. Surely there will be some compromised welfare issues and by documenting that, it may help to stop those practices.

RATSIMBAZAFY: We can use a world day/festival for primate by saying that Primates are not a pet/food but a friend who deserve to be protected. I already made a tee-shirt on that and many people wear the tee-shirt...

REUTER: There are multiple things to consider here:

- 1) Conservation programming will never be successful if this is outsider telling another country/community/area to stop doing something. It needs to be a local movement.
- 2) There are different things that are meant by “country”. Are we using international trade sanctions/rules like CITES? Are we working with a national ministry of environment to institute a new program? Or are we working with members of parliament to pass new laws? There are many different ways of going about this
- 3) It is important to understand the motivating factors behind ownership. If there is money-making involved then there needs to be a consideration of how one can institute alternative livelihoods programming, etc. etc.
- 4) Tourists should be informed and moreover, tourist-facing businesses (i.e. hotels) need to face consequences when they break the law and keep primates as pets (if it is illegal)

WORKMAN: See above; also, enforce laws and if by ‘we’ you mean the US, we need to get our own house in order re primate trade; if by ‘we’ you mean primate conservationists/researchers, again we need to get our own house in order and also need to be creative and think of partnerships that will advance cause (again with using appropriate evidence-based marketing, celebs (in some cases) or influential people to spread message; for some people it would be less compelling to have a scientist say something that it would be to have a sports figure or singer; again, need to know your audience

Is there a way in which primates can remain a tourist attraction without compromising the animals? Please explain.

ANG: Yes, as explained above, we emphasize the beauty of seeing animals in the wild doing their natural activities, not chained up or caged. For people who want to see animals up close, they can be directed to rescue centers or wildlife sanctuaries.

LAFLEUR: Yes- if they are wild and we just observe the animals.

O’BRIEN: I believe there are ways, but it takes buy in from all parties involved. There are different models for primate tourism – charge a higher amount of money for fewer individuals or charge a lower amount of money and try to get many people to go. My understanding is that mountain gorilla conservation had benefited from being a tourist attraction with the more expensive model to help fund and protect the animals. In Vietnam, there was a project that habituated a family of gibbons and for a cost (more expensive than other tours in the park) you could go out into the forest with a ranger/guide for the opportunity to see them. This is the important part of the tourist statement- ‘for the opportunity to see them.’

PATEL: Yes, Marojejy National Park in Madagascar is a good example, the park has always been very protective and quite strict when tourists go to see the silky sifakas. There is just one easily accessible group for tourists to see, and the local guides are generally very well trained and do not permit noisy groups and visitors must maintain at least 3 meters distance, and visits with the group are usually short, typically 30 minutes to

an hour. It's a long and challenging hike to see them, so that helps. Plus Marojejy doesn't get enormous numbers of tourists, perhaps 200 to 300 foreign tourists per year, and mainly between September and December. All of this helps protect the animals even if it is more fortuitous than intentional.

RATSIMBAZAFY: Yes, even in the plain or boat before entering the country, there should be brochure/flyers for tourists saying that to save the Primates of Borneo, you should only see them in the following sites: zoos etc...

REUTER: Yes:

- Primates in the wild
- Primates kept in well-kept zoos

WORKMAN: Yes, if kept wild or if the site visit involves a sanctuary where seeing the animals may or may not be possible; guaranteeing seeing a wild animal likely means the animal is being coerced or is in too small a place for them; might be opportunity in virtual reality too...

Couple places to look:

US Wildlife Trafficking Alliance: <http://uswta.org>

GRASP: <http://www.un-grasp.org>

Mongabay – covers environmental issues, including trafficking

Wildlife Watch – couple recent relevant pieces:

<https://news.nationalgeographic.com/wildlife-watch/>

Also recommend social and interdisciplinary studies of reaching audiences with different messages and doing the initial research to determine what messages matter/work (Oxford has a good program on this, and the health sector & development donor communities too)

Appendix B: Photo URLs

Title page: <https://www.instagram.com/p/BcDP6SPA59O/?taken-by=apeslikeus>

Figure 4.1: <https://www.facebook.com/JungleAardvark/videos/1894453394216619/> originally from this page: <https://www.instagram.com/pizzatoru/?hl=en>

Figure 4.2: <https://www.instagram.com/p/BdimXXsnoTR/?taken-by=mylymediary>

Figure 4.3: <https://www.instagram.com/p/BLDNuL0gRWx/?taken-by=alvinchong123>

Figure 4.4: <https://www.instagram.com/p/7HBdddijjO/?taken-by=juliohincapie>

Figure 4.5: <https://www.instagram.com/p/Bdw9I3tHxN1/?taken-by=animalhubb>

Figure 4.6: <https://www.instagram.com/p/BWaRjQqBS6x/?taken-by=natgeoexpeditions>

Figure 4.7: <https://www.instagram.com/p/Bcu4oqlh850/?taken-by=danachber>

Figure 4.8: <https://www.instagram.com/p/Bb7I77wAMcm/?hl=en&taken-by=zwfmiami>

Figure 5.1: <https://www.youtube.com/watch?v=TIqqEJg4q7c>

Figure 6.1: <https://www.instagram.com/p/Bfi6me9gVMd/?taken-by=apeslikeus>

Figure 6.2: <https://www.instagram.com/p/BeJGjiBHXMm/?taken-by=trevornoah>

Figure 6.3: https://www.usaid.gov/sites/default/files/documents/1860/WB_Posters.pdf

Figure 6.4 & 6.5: https://www.usaid.gov/sites/default/files/documents/1860/WB_Brochure.pdf