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The Positive and Negative Effects of Photography on Wildlife

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The Positive and Negative Effects of Photography on Wildlife

An Honors Thesis

Presented to

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by

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I. Overview of Wildlife Photography

The purpose of this thesis is to research the positive and negative effects photography has on animals. This includes how photographers have helped to raise awareness about endangered species, as well as how people have hurt animals by getting them too used to cameras and encroaching on their space to take photos. Photographers themselves have been a tremendous help towards the fight to protect animals. Many of them have made it their life's mission to capture photos of elusive animals who are on the verge of extinction. These people know how to properly interact with an animal; they leave them alone and stay as hidden as possible while photographing them so as to not cause the animals any distress. However, tourists, amateur photographers, and a small number of professional photographers can be extremely harmful to animals. When photographing animals, their habitats can become disturbed, they can become very frightened and put in harm's way, and can even hurt or kill photographers who make them feel threatened.

There is an old saying that states, "take only photographs and leave only footprints". This suggests that photography can be a beautiful, environmentally friendly action that respects nature and showcases its fragility (Brower, 2011). Many people have felt a calling in their lives to become wildlife photographers to help animals and their environment. Conservation has been linked to photography since the camera was invented. Some of the first conservation photographers in the 19th century were Timothy O'Sullivan, William Henry Jackson, and Carleton Watkins. These people greatly helped to preserve

national parks, wildlife refuges, national forests, and other public lands. They used their photography to bring awareness to these beautiful locations and get others to see why they need to be protected (Norton, 2020).

It is very important for conservation wildlife photographers to relate animals to their habitats. Oftentimes, conservation photography is attempting to save both the animals and the area around them; for example, both polar bears and the Arctic are in grave danger and need to be saved. It is up to the photographer to accurately portray the relationship between the animal and their home. Photos of large animals, like elk, grizzly bears, lions, or elephants, can be a very easy choice. However, sometimes photographing small creatures can be even more rewarding. While it is much more difficult to capture photos of miniscule insects, it is important for the public to gain awareness of them as well (Norton, 2020).

If a wildlife photographer also wants to be a conservation photographer, which most do, it is important for them to set a scene with their photos that might not normally be appealing. While a photo of a polar bear rolling in a fresh dusting of snow with her cubs is a very beautiful image, it is also important to get a photo of a malnourished polar bear walking on green grass where ice and snow used to be. These images can be devastating and very difficult to view, but it is a vital part of being a conservation wildlife photographer. Sometimes, wildlife photographers have to think like documentary photographers; the subjects and scenes they capture need to tell a story and document a moment in time to be forever remembered (Norton, 2020).

One major task all wildlife photographers must complete is researching the area they will be photographing. It is much easier in today's world for photographers to research locations thanks to the Internet. One quick search, and information like temperatures, landscape, wildlife, and habitats is readily available. However, it is still important to speak with researchers who actually live in the area. It can also be helpful to talk to government agencies or universities to see if they have any ecological or biological studies that are ongoing in the area. While it may seem like unprotected lands need most of the help, protected lands need to be photographed too. There are often very harmful events occurring in protected lands that need to be documented and brought to light. If certain illegal acts are photographed, it can be a huge help when it comes to stopping these incidences from occurring (Norton, 2020).

II. Wildlife Photographers

One of the most recognized present-day wildlife photographers is Joel Sartore. Sartore is the founder of the Photo Ark which is a project devoted to photographing as many species as he can before they become extinct. Sartore wants others to see his work and be moved enough by it to want to help these animals. Sartore has had a very impactful career; his photographs have even been projected onto the side of the Empire State Building in New York, New York. Sartore has photographed 9,844 species, and he has no plans to slow down anytime soon (Sartore, 2020).

Sartore takes portraits of animals in studios that he sets up on location. Sartore and the Photo Ark are featured on the television show RARE where he captures his time spent with some of the most endangered animals on the planet. Sartore said, “The goal of the Photo Ark isn’t just to create a record of what we’ve squandered. It’s to get people to change how they think and act in order to save these species” (Sartore, 2019, para 4). Figure 1 shows a photo of a Mexican gray wolf that Sartore took at the Wild Canid Survival and Research Center in St. Louis, Missouri.

Figure 1



Mexican Gray Wolf. Photo by Joel Sartore

Paul Nicklen is a wildlife photographer who does the majority of his work in the Arctic. Nicklen is a prominent voice for the lives of polar bears and uses a large social media following to inform people of the dangers the Arctic and the animals living there face due to climate change. Nicklen grew up in Canada's Arctic region and was a professional biologist in the Northwest Territories. This prepared him to photograph animals in some of the most inhospitable areas in the world where the temperature can be as low as minus forty degrees Fahrenheit (Nicklen, 2018).

Although Nicklen's main subject is polar bears, he also photographs seals, whales, sharks, penguins, narwhals, wolves, and grizzly bears. Nicklen founded SeaLegacy, a conservation society, with his partner Cristina Mittermeier in an attempt to show others what is going on in the world's oceans. They want people to see what could happen if pollution and climate change continue at their current rates. Their goal is to make real change for sea life and the oceans they inhabit. Figure 2 shows a fine art photo Nicklen took of a bear emerging from a body of water (Nicklen, 2020).

Figure 2



Bear emerging from water. Photo by Paul Nicklen

Wildlife photographer Frans Lanting has been photographing wildlife and the relationship between humans and nature for more than twenty years. He has photographed everywhere from the Amazon to Antarctica. Lanting likes to use wild animals as ambassadors for the preservation of wild areas. According to Lanting, it can be hard for people to care about a place if there is nothing attached to it; Lanting gets people to care about ecosystems by showing them the animals living within them (Schraub, 2016).

Lanting is a Photographer-In-Residence for National Geographic Magazine. He has done various assignments for them including a circumnavigation of South Georgia Island by sailboat and a first look at an extremely endangered great ape species, bonobos, in the Congo. One of Lanting's most notable assignments involved spending weeks on a platform in a remote part of the Amazon River Basin where he attempted to photograph rare views of wild macaws through the tree-canopy, which can be seen in Figure 3 (Lanting, 2019).

Figure 3



Wild Macaw in the Amazon River Basin. Photo by Frans Lanting

Art Wolfe has been honing his craft for over forty years. He has photographed wildlife on every continent. He travels nine months out of the year photographing new projects, leading seminars and photographic tours, and giving presentations to educational, corporate, spiritual, and conservation groups. The former president of the Wildlife Conservation Society, William Conway, describes Wolfe as, “the most prolific and sensitive recorder of a rapidly vanishing natural world.” Wolfe has produced millions of photos throughout his career (Wolfe, 2019).

Wolfe was a conservation photographer long before it was a known practice. In 1997, he created a conservation photography contest, the purpose of which was to bring awareness to the preservation of the environment through photography. In 2012, the International Conservation Photography Awards received entries from all over the world. The photographers from the contest were featured in a traveling show by The Burke Museum of Natural History and Culture in Seattle, Washington. Figure 4 is a photo Wolfe took of a Bengal Tiger in the wild (Wolfe, 2019).

Figure 4



Bengal Tiger. Photo by Art Wolfe

III. Interview with Thomas Mangelsen

One very popular wildlife photographer is Thomas Mangelsen. Mangelsen is based in Jackson Hole, Wyoming and has had a very famous career.

Mangelsen was kind enough to agree to a personal phone interview on February 3, 2020, at four in the afternoon, for the purpose of this research.

When asked what drew him to wildlife photography, Mangelsen said he grew up in Nebraska along the Platte River and he spent a lot of time hunting and fishing with his father. Through that experience, he fell in love with wildlife and art. He became interested in trying to capture wildlife he had seen on the river. Mangelsen said he, “put down the shotgun at one point and traded in the gun for a camera.” He studied zoology at the University of Nebraska, and while there, he met a man that taught him how to photograph birds of flight. Mangelsen became his off and on assistant in the field, and he then moved to Boulder, Colorado.

He also had another mentor who was a wildlife oil painter. This man was doing limited editions of his prints, and he suggested that Mangelsen do that with his photography. Mangelsen described himself as being very young and naive enough to think that he could do that, but he began to sell limited edition prints at art fairs and craft fairs.

He also began to do some wildlife film making. He said it was a challenge to tell a story making films, but he did both film and photography for ten to fifteen years before he began only doing photography. Mangelsen opened his first gallery in Jackson Hole in 1978. He still has a very prominent gallery in Jackson

Hole, however, he moved to a different location as he gained success. Later on, he opened another gallery in Park City, Utah that is still there today.

When asked how wildlife photography has changed from when he started to now, Mangelsen said that he bought his first camera in 1969 when he was around twenty-two years old and there were no photography classes back then and there were not as many photographers. There were mostly wedding and portrait photographers. No one was photographing wildlife. Today, there are thousands of workshops on how to effectively photograph wildlife. Also, cameras used to be completely manual; you really had to learn your equipment and learn lighting and composition. Photographers had to learn artistic elements; they could not let the camera do all of the work for them. Mangelsen spent a lot of time observing wildlife and seeing what the animals were doing. Through this, he realized that photography is not all that different from hunting. You still have to study the animal. Mangelsen said that when he first started, there were maybe eight or ten wildlife photographers in the country and three in Japan, and he knew them all personally.

The equipment has changed dramatically thanks to auto control. Everything is much more simplified now. The leap into digital photography was a huge technical change, and now almost everyone has an iPhone. Mangelsen also said that iPhones today are as good as his first camera. It took a lot of equipment back then to be a photographer. One component of photography that has changed is the ISO of a camera. ISO is used to measure the sensitivity in an image sensor of a camera. A lower ISO makes a camera less sensitive to light.

When Mangelsen was first starting his career, many films had an ISO of 25 whereas today, digital ISO can go as high as 25,000. Today, there are thousands of photographers, whether they are professional or amateur. Anyone can go out and take a picture, but to do it every day, you have to study the animal and learn it's behavior.

When asked if he had personally seen professional or amateur photographers encroach on wildlife Mangelsen said, "Oh, a couple million times I suppose." He lives right at the edge of Grand Teton National Park, so he has seen attendance at Yellowstone National Park go from around five hundred thousand people, when he moved there forty years ago, to four million people visiting the park currently. This includes a lot of tourists from Europe and Asia, many of whom may not speak English, making them unable to read signs advising them to stay away from animals. Many of these visitors have never seen animals like this before since they live in crowded cities, and their excitement to experience seeing a bear and an elk in the wild wins out over caring for the animal. Mangelsen explained that there aren't that many wild places that have not been discovered by television and videos.

Mangelsen cites David Attenborough's Planet Series as one of the best things for wildlife. Attenborough sheds light on the dangers facing animals and does a lot to help them. The pressure on animals is a lot higher than when Mangelsen started. He said that it cannot be defined as wildlife photography when there are fifty people in a field taking photos of an elk. In general, that is more along the lines of tourism. Everyone has better cameras than they did when

Mangelsen first started. A lot of the tourists coming to national parks like Yellowstone might have another job such as a lawyer or a dentist, and they are just taking photos of the animals for fun. Many people say parks are being loved to death, and there is something to be said for that. There are a lot more people now with access to high tech digital cameras which makes it easy for them to get a good picture. More people are also traveling and bird watching. According to Mangelsen, bird watching has become the largest outdoor activity in America.

The population in America keeps growing, and we are not preserving more parks or wild areas. Mangelsen expressed that President Donald Trump is getting rid of wild areas as opposed to preserving more. Trump is also converting preexisting wild areas to farm land and development opportunities, taking away the small amount of undisturbed land the United States has. The preservation of parks depends on a lot of things, like politics and conservation areas. There are too many people on Earth, whether they are in Africa, China, or North America, and this puts a lot of pressure on wildlife.

Mangelsen said that it is great that people are enjoying nature, but hopefully they will preserve it, protect it, and speak up for it if they have had great experiences getting to see animals like grizzly bears, wolves, or mountain lions in the wild. There are a lot more people out in nature doing things like cross country skiing, backpacking, and photography. People find it hard to protect things they do not love. If someone sees a grizzly bear and her cubs, they are much more likely to try to protect them, whether that includes writing a letter about grizzly bear sport hunting or talking to their neighbor about how great it was to go to

Yellowstone and see bears. Everyone has an effect on wildlife, and it is very important for people to examine theirs and see how they can help.

There was a blizzard outside Mangelsen's window during the interview, and he used it as an example of what not to do when photographing animals. He would never go out and try to move a moose for a different photo angle, it would put stress on the animal during the bleak winter months, which is a difficult time. During winter, animals do not need to burn calories, especially due to the interference of people, whether they be animal watchers, photographers, or hikers. We are all somewhat guilty of displacing wildlife. When you see ten people taking pictures of an elk, more than likely eight of them are tourists and two of them could be avid or professional photographers. Any time of the day, there could be a different mixture of people vying for pictures.

Mangelsen mentioned a website called Nature Scapes, which can be found at <https://www.naturescapes.net>. This is an online forum that is not used as often anymore but has a lot of information on game farms. Game farms are areas that have animals for rent to photograph, and they are located in Montana, Idaho, Vermont, and other areas across the country. Patrons can photograph wild animals like mountain lions, Siberian tigers, snow leopards, turkeys, and many more. These places are not like zoos. Mangelsen described them as much worse versions of zoos. He likes zoos if they are done well through educating children, rehabilitating animals that are injured, and saving species to then put back into the wild. Mangelsen said game farms just exist to rent their animals to photographers, film makers, or artists.

Mangelsen described the animals as being kept in very small cages, usually six feet wide by ten feet long by five feet high. Mangelsen said the animals are stacked in iron cages like jails, and the operators take around twenty animals and ship them across the country to various places to be photographed there. For example, if there is a game farm in Montana, people might shoot an animal there to make it look like they are in the mountains. Then if they want to shoot a lion, they would take it to the desert in New Mexico or Arizona to make it look more natural. If a fall color is desired, they would ship the animal to Vermont or New England in the fall to be photographed. After photographing the animal, it would be captured and placed back in captivity until the next photo shoot.

This is a very lucrative business. Customers easily spend two or three thousand dollars in a week which allows them to shoot all of the big carnivores in North America and all over the world. Mangelsen said game farms are a lazy man or woman's way to photograph a lot of animals in a short period of time. He said the animals are usually half starved to keep them obedient and easy to train. They will have an electric fence around a five-acre area that looks like a natural habitat where the animal would be, according to Mangelsen. Game farm operators will rent a piece of land from a rancher and let the animals out of their cage, and it looks like the natural area of the animal, but it is actually confined by the fence. The animals are usually hungry, so operators will throw a piece of meat, or even chocolate, on a rock and the animal, possibly a mountain lion, lynx, or bobcat, will run up on top of the rock and pose for the photographer. Operators have trained animals to do anything a photographer might ask for. For

example, wolves are trained to howl, and bears are trained to stand on their hind legs. According to Mangelsen, after the animals have been exploited in this way, they are put back in their cages and forgotten.

Mangelsen explained that eight or ten people around a herd of elk in Yellowstone is nothing compared to what these animals have had to endure by being trucked across the country. Animals are confined in cages, which are in close proximity to their natural predators, putting the animals in a constant state of fear. A lot of animals are used for poses for other animals. A snowshoe hare might be used as bait for a photo of a mountain lion, lynx, or bobcat. There may be a photo opportunity of a predator catching its prey, and after the prey is caught, it will die. Also, when the animals get too old, the operators dispose of them because no one wants them. Game farms also produce numerous babies; Mangelsen described it as a glorified puppy mill.

On Nature Scapes, there is a forum discussing game farms. Mangelsen, who is opposed, debates with Joe McDonald, who is a proponent for game farms. Both men have written articles stating their positions on the topic. Mangelsen said that there are fifteen to twenty people that go out on a trip together. McDonald and his wife are “photo leaders”, and they charge the participants based on the species they are photographing and how long they stay there. The group may spend three days at a game farm in Montana and three days in Yellowstone with their clients from all ages, usually adults. There is a lot of money spent on camera gear for these trips. The people who participate do not usually see where the animals are living because the leaders want to hide the

horrible conditions the animals have to endure. Mangelsen described that the animals are driven out to fenced in fields with rocky areas, so it looks like the animals are in the Rocky Mountains, and if you put a snow leopard or a wolf out there in the winter time, most people would not be able to tell the difference. He said that these places have every animal you could think of available to photograph. According to Mangelsen, customers are deceived by game farms. Participants believe the animals are well cared for, however, it is all a lie. Mangelsen explained that after they have been photographed, the animals are put back in cages that are much too small for their species and spend the rest of their days there.

Mangelsen has personally been to a game farm in Montana, and he saw five wolves in a twenty-foot by ten-foot kennel. There were no trees or shade, only a few bowls of water. Some game farms are equipped with log cabins, so guests can spend a week there and are charged for lodging as well as photography. Many of the game farms then take participants to Yellowstone, and they shoot photos of animals there. This is very confusing to the public because they see a wolf in Yellowstone that was photographed a mile away and then a head and shoulder shot of a wolf. This makes the public think that it's just a close up of a wolf that is a respectable distance away, but it really is not; it is a captive animal that is terribly stressed and neurotic. Mangelsen can usually decipher between a photo taken at a game farm and a photo taken in the wild. According to him, they no longer have a certain light in their eyes, similar to that of a beat-up dog. One of Mangelsen's biggest goals in life is to close down all game farms.

However, it is a big business, and it is an easy way out for being able to take amazing photos without working hard to get them.

Certain professional photographers live on these game farms three hundred sixty-five days a year and have every possible picture of various animals. Mangelsen used a cougar as an example; he said that a participant could get a photo of a cougar with its offspring, a cougar and a flower, a cougar in a stream, a cougar with a duck, or a cougar jumping across red rocks in Arizona or New Mexico. Mangelsen said that organizers put multiple photographers near a cougar while it is against a blue sky and they will throw a piece of meat twenty feet across a “canyon” and everyone will get underneath the cougar to photograph it while it jumps back and forth, and everyone gets a great shot. Mangelsen asked, “What is the chance of getting a cougar jumping across a ravine with a blue sky in the background?” He said that it is very obviously fake, but this is the kind of photo people want. However, according to Mangelsen people cannot even sell these photos, they are worth nothing now because there are so many. This practice is ruining the profession for photographers that are actually going out into the wild to get these photos. A lot of people, including Mangelsen, made their living on capturing beautiful shots of animals. When game farms came into existence, and skill was no longer needed to be a photographer, people were able to just point and shoot and end up with the “perfect” image.

Game farms are one of the much more cruel and unethical aspects related to tourists getting too close to animals. Mangelsen really put everything into

perspective by saying that if you have a herd of elk in rut in the fall and there are a multitude of people in Yellowstone photographing them, that is not the worst thing that could happen. Those elk can walk away and go deep into the woods away from tourists. However, if there is a moose in four feet of snow and people are chasing it, that is a different kind of an ethical dilemma. If there is a bird sitting on eggs and people pull back branches or remove some leaves to see them better, two hours later the sun will be baking the eggs, or a predator might be able to see in the nest and eat the chicks. So, there are a lot of different levels of behavior, but we all have an effect on wildlife.

Nothing has really changed since Mangelsen wrote his article on game farms; he has been a very outspoken voice against that practice. Nature Scapes asked him if he would write an article on the cons of game farms, and they asked McDonald to write the pros. According to Mangelsen, it is possible that things are even worse now than when he wrote the article fifteen years ago. McDonald says that these animals in cages are ambassadors for the ones in the wild so there are not ten people out in Yellowstone photographing elk. Instead, there are ten people photographing an animal that comes out of a cage and is plopped down in a five-acre plot.

McDonald thinks that it is a matter of sacrificing a few for the betterment of the group, or the flock, or the herd. Most animals at Yellowstone, like elk, are not bothered by a group of ten people. They would go up the canyon where you would have to find them. They can move around, but not if they are in this five-acre area with an electric fence. Mangelsen said that game farms have had

some instances where handlers and trainers have used cattle prods on bears and wolves to get their attention when they are dozing off, or to move them from one place to the other, or to get them to stand up. He said that there are a lot of really cruel things that happen behind the scenes. Mangelsen expressed his frustration by saying that game farms are all about money in the end. If an operator does workshop photography and takes ten people with them, they make a few thousand dollars a week, maybe even more.

When asked if he can think of a specific instance where wildlife photography has helped a species, possibly in danger, Mangelsen said it is a matter of educating people. The best example he can give of that is Attenborough's films, which he describes as amazing, with incredible cinematography, and effective storytelling. These films show behaviors and make people realize animals are very special, and wild places are worth protecting and saving. Mangelsen said that it doesn't matter if you are a filmmaker, still photographer, writer, or sculptor, everyone can help.

Mangelsen said that he believes that overall, films like Attenborough's mini-series are the best way to reach the general public. They enlighten a lot of people and make them love and appreciate animals for their intelligence, beauty, and the places where they live. It makes a difference when there is a wilderness area, park, or place that needs to be protected. Mangelsen said that President Trump has spent a lot of his first three years in office redesignating wilderness land for four wheelers when the land is accustomed to never having any mechanized vehicles. He also said that the Trump administration has let wild

horses be killed and allowed farmers and ranchers to put more cattle on public lands. Mangelsen hopes that people will see Attenborough's film, or one of his own pictures, or maybe he will do a talk, give a lecture, or write a book that will inspire the public to think about what we have to lose.

Mangelsen expressed that America is probably in the worst three or four years of losing wilderness and wildlife that he has seen in his entire lifetime. He hopes that the more people learn, understand, appreciate, inspire, speak up, and vote for people who care about nature and climate change, the better things will be. Whether it be nature writers or musicians, there is a way to influence everyone. It is very important that people respect wild places and wildlife and be ethical about photographing them. Hopefully, people who love animals will give back to conservation.

Mangelsen has spent the last twenty years photographing polar bears and grizzly bears and wrote books on both. His work helped to fight grizzly bear hunting in Wyoming, Idaho, and Montana. His stunning images, paired with his passionate objections, touched people in a way that gave them a newfound love for these creatures. In the last few years, grizzlies have been taken off the endangered species list because of Mangelsen and others like him. By seeing animals in places like Yellowstone and Grand Teton, seeing the previously mentioned films, viewing Mangelsen's photographs, and reading books on the topic, he hopes that people will hopefully be inspired to write their representatives. The more exposure that can be given to wild places and wild animals, the better the chance that our children will also be able to see them.

When asked if he has any tips for an aspiring wildlife photographer, specifically a bear photographer, Mangelsen said to be careful when shooting in the wild because animals can be very unpredictable and dangerous. He advised wildlife photographers to have the right equipment. The equipment does not have to be expensive, but a long lens is needed. For example, a 300mm, 400mm or 200-500mm lens is needed so the photographer does not have to get too close to the animals. Mangelsen said photographers need to learn all they can about the animal's behavior and what they want to photograph before actually going into the field. Figure 5 is one of Mangelsen's most popular photos, a bear catching a fish midair in a river.

Figure 5



A grizzly bear captures a salmon. Photo by Thomas Mangelsen

IV. Conservation Efforts

The social media network, Instagram, has recently taken a stand to help animals who might be harmed through photography. They have developed a warning system that lets users of the app know when photos or videos may be putting endangered animals at risk. Some examples are, when a user searches for hashtags such as #elephantride, #slothselfie, or #tigerthailand, a warning notification will pop up on the user's screen, warning them that the photos they are searching for may encourage behavior that is harmful to animals and the environment. When this notification pops up, it then allows users to click a 'learn more' button that takes them to a page with information on the exploitation of wildlife. The information page says:

It's easy to get caught up in the moment when you're surrounded by nature's beauty, but risking damage to the environment - whether it's walking on wildflowers, moving a nest or carving initials - is never worth a few likes. We also encourage you to be mindful of your interactions with wild animals, and consider whether an animal has been smuggled, poached or abused for the sake of tourism. For example, be wary when paying for photo opportunities with exotic animals, as these photos and videos may put endangered animals at risk (Mills, 2017, para 7-8).

Instagram worked with the World Wildlife Federation and World Animal Protection to develop this warning (Mills, 2017).

Although it can be very difficult to photograph animals in the wild, there are many ways to do it safely. Cary Wolinsky and Bob Caputo (2012) are both

veteran photographers and have a combined sixty-four years of experience. They released a website together in 2010 called *PixBoomBa.com* where they give wildlife photography tips to others. *National Geographic* did an article on the two, compiling some of their tips. The most important tip they gave is to be patient. Wildlife photographers can't coach their subjects on what to do during photos; they have to wait for extended periods of time to get good shots and even longer to get great ones. Spending ample amounts of time watching animals also helps photographers to get to know these animals and understand their daily schedules, which leads to photos that are more intimate and personal (Caputo, 2012).

Photographer Craig Hull (n.d.) has also created a guide with tips on wildlife photography. Hull's guide includes eighty-nine tips that he split into sections including camera gear, accessories for wildlife photography, lenses, camera settings, how to start in wildlife photography, improving, underwater wildlife photography, aerial wildlife photography, compositions in wildlife photography, being respectful and staying safe, and post-processing. One of Hull's most notable tips was for photographers to dress properly for the climate where they will be shooting. When photographers are more comfortable in the wild and in warm, dry clothes, they will be happy and have a much better experience. Hull also brought up safety. While it is very important to closely monitor animals and make sure they are okay and not anxious, it is also crucial for photographers to take care of themselves. Hull said that photographers need

to be aware of where they are going and not fall into a hole, which could lead to a bad outcome for the photographer (Hull, n.d.).

There are many moral aspects to examine when it comes to photographing wildlife. Melissa Groo (2019) is a wildlife photographer and conservationist, and she recently wrote an article for *National Geographic* called, "How to Photograph Wildlife Ethically". Groo said that wildlife photography can be very beneficial for animals; it can show people the beauty of nature and inspire them to want to protect wildlife. Thanks to social media, photos can become viral in minutes, touching thousands of people around the world. However, there are some people who take dangerous shortcuts to get photos, and the public would never know the difference. Groo expressed it is very important to be an ethical wildlife photographer and gave the following tips to be as ethical as possible, do no harm, keep it wild, follow the laws, consider the captive, and caption with honesty. "Do no harm" means to not hurt an animal's habitat to get a better photo, do not try to get an animal's attention for a photo, be mindful of breeding seasons, and know the signs of an animal in distress (Groo, 2019).

"Keep it wild" is referring to leaving animals alone, do not feed them because they will learn to associate humans with food. It can be very harmful for animals to get used to humans in their habitat; that can lead to the death of the animal and the human. When it comes to following the law, wildlife laws can be different in various locations, and laws can change based on the method and purpose of photography. "Consider the captive" means to be wary about photographing captive animals. Photographers should do their research when it

comes to zoos and sanctuaries and not support places where captive animals are used for a profit. "Caption with honesty" means to be very honest and transparent about how a photograph was made. It is important to be honest about how a photo was obtained, or if an animal is trained so audiences will have the full story (Groo, 2019).

V. Hardships on Wildlife and Photographers

Being a wildlife photographer is a very difficult job. Author Rick Budai (2017) expressed that there are many hardships that must be faced in order to take on this profession including, losing touch with friends and family, weather, loneliness, isolation, disease, food and water, wildlife, and local inhabitants. Losing touch with friends and family is a very common side effect to being a wildlife photographer. This is because there is usually a lot of traveling involved with this kind of job, and weeks or months can go by without seeing loved ones. Budai said that it is important to remember important dates, like birthdays or anniversaries, and try to visit as often as possible. Weather can be a common obstacle for wildlife photographers. There can be intense cold or heat, snow storms, or thunderstorms. Photographers need to prepare themselves for various weather forecasts before going on assignment. Loneliness and isolation can be a big issue due to the fact that during most assignments, photographers are alone (Budai, 2017).

It is important for wildlife photographers to let someone know where they will be in case something were to happen to them while they are in the wild away from cell phone reception. Disease is an issue because in places like India and Africa, diseases like malaria and Ebola are very common. It is crucial that photographers speak to their doctors before embarking on a trip to a part of the world that could be dangerous, and also act quickly if they feel ill when they return from their trip. Food and water is something to be cautious about because there are certain diseases that can be contracted from ingesting contaminated

substances, such as typhoid fever or salmonella. To prevent this, photographers should make their own food whenever possible and be very wary of what they eat. Wildlife can be a hazard because of how unpredictable animals can be. Photographers can be charged by elephants or attacked by bears. The best thing to do to prevent this is to respect all animals and study their behavior. Local inhabitants can be dangerous due to threats of war and differing customs. The best way for a wildlife photographer to keep the peace with locals is to research the area before traveling there to ensure that it is safe to travel, and familiarize themselves with the beliefs of the area (Budai, 2017).

One of the biggest issues with wildlife photography is people feeding wild animals to get them to cooperate for photos. There is a myriad of photos on social media that look too good to be true, like the quintessential squirrel eating out of a photographer's hand. While this may seem like a beautiful, natural moment, it is actually extremely dangerous for the animal. A large part of an animal's day is spent foraging for food, when a human gives it to them so easily, it changes that animal's entire outlook on food. If it begins relying on humans, there is a possibility the animal will go hungry. This can also change the area where an animal lives and wanders; if there is a location that the animal associates food with, then it will most likely stay in that area. Sometimes this area can be very close to civilization including houses, roads, and businesses. This then puts an animal, like a squirrel, at risk of being run over on a road, and an animal like a bear at risk of being shot for coming into contact with humans or pets (Cancellare, 2017).

Another very dangerous situation that can be caused by people trying to take photos of animals occurs when amateur, and sometimes professional, photographers get too close to animals in national parks, like Yellowstone. There are rules in a park like Yellowstone that say visitors must stay one hundred yards away from bears and wolves and twenty-five yards away from all other animals. If a person is this distance away, and an animal begins to get closer, that person needs to back up further to maintain the distance. Sadly, many people do not adhere to these rules, and end up putting themselves and the animals in dangerous positions. Photographer Trent Sizemore (2017) wrote about a situation he experienced where this occurred. He was at Yellowstone when he saw a herd of elk in a field. There were four photographers photographing the elk from the twenty-five-yard distance which can be seen in Figure 6. However, Sizemore said that when there is a bull elk filled with testosterone in a field, twenty-five yards is still too close (Sizemore, 2017).

After seeing these people photographing the elk, others began to get closer and closer to the elk as well. Figure 7 shows that eventually, there was a massive crowd of over twenty people standing extremely close to these wild animals. This type of action can cause animals to become very distressed. Eventually, Sizemore saw the bull elk start to get aggressive towards the crowd of people and begin gathering his cows to leave. However, a few photographers remained even as they were running off the elk, which is pictured in Figure 8 (Sizemore, 2017)

Figure 6



Photographers photographing elk at Yellowstone. Photo by Trent Sizemore

Figure 7



Tourists crowding around elk at Yellowstone. Photo by Trent Sizemore

Figure 8



One man remains after elk have tried to flee. Photo by Trent Sizemore

Sadly, Sizemore has seen countless situations like this. He has witnessed many professional photographers get too close to wild animals, which leads to people with camera phones thinking they can do the same. (Sizemore, 2017).

Ruth Mayhew (2017) wrote about the many disadvantages to being a wildlife photographer. While the end result seems very magical and beautiful, it is very hard to get to that point. The job market is one major roadblock wildlife photographers face. There is not a high demand for wildlife photographers, and it takes years of very hard work to get to the point of working for a company like *National Geographic*. Access is another hurdle; at times animals may be in extremely remote areas which are very hard to access. Wildlife photographers

sometimes have to pay a fee to photograph certain species on private land (Mayhew, 2017).

Equipment is very expensive, especially for new wildlife photographers just starting out who do not have much of an income. Equipment needs to be up to date or else photos may not have a high quality. Photographers must also be prepared for dangers they may encounter in the wild. Oftentimes, wildlife photographers must go to remote areas to photograph their subjects such as jungles, deserts, or the Arctic. When in these locations, if something were to happen to the photographer, it would be very hard for them to get help (Mayhew, 2017).

Photographers Shekar Dattatri and Ramki Sreenivasan (n.d.) believe that if photographers will self-regulate, together they can end unethical wildlife photography practices. They shed a light on a very harmful tactic that took place in India in the early 1990s. Photographers would pay villagers to find active bird nests, and after one was found, they would do something called 'gardening'. This was a euphemism that meant they were removing leaves and twigs to get a better view of the nests for their photos. Photographers would then photograph the nest from all possible angles, even using flash on the animals. When they were done, they would leave the nest uncovered which made it more susceptible to predators. Some photographers would take it a step further and destroy the nest, eggs, and chicks so other photographers would be unable to photograph them (Dattatri & Sreenivasan, n.d.).

Conservationists and photographers began condemning the practice. Nesting photos were banned from competitions. However, even nesting photos that are shot the right way are still viewed with skepticism to this day. The cartoon in Figure 9 depicts photographers crowding around a fake bird nest that the father has made to distract the photographers from the mother and chicks (Dattatri & Sreenivasan, n.d.).

Figure 9



Cartoon illustrating distributive photography. Source: Dattatri & Sreenivasan

VI. Prize Winning Wildlife Photography / Tips for Photographing Bears

Every year, wildlife photographers work extremely hard to take the most astonishing photos possible. In 2019, London's Natural History Museum awarded Yongquin Bao with Wildlife Photographer of the Year. Bao's photo included a fox chasing an extremely expressive marmot and is titled "The Moment". The photo was taken in the meadowland in China's Tibetan Plateau. The plateau is called "the roof of the world" because it is 14,800 feet above sea level. Photos from this region are extremely rare which is what makes this one even more remarkable (Daly, 2019).

Figure 10



The moment before a fox captured a marmot. Photo by Yongquin Bao

Bears are one of the most popular wild animals that get photographed. Wildlife photographer Joseph Classen (2017) wrote a book titled, *How to Photograph Bears: The Beauty of the Beast* that informs others about bears and how to effectively photograph them. Classen states that photographers should do extensive research on the type of bear they want to photograph. He also said that it is a good idea to practice photographing bears at places like zoos, wildlife preserves, conservation areas, or national and state parks. This will allow people to photograph bears for extended periods of time without being deep in the forest and possibly getting hurt where there is no one there to help them. It is also important to become accustomed to how bears eat, drink, interact with others, move, and the way they look in different kinds of light. Photographing bears in the wild will be much easier if these concepts are understood. One key proponent of bear photography is to figure out where to go to shoot bears. Classen said that one of the best things photographers can do is talk to people, like park rangers or nature enthusiasts, about the best place to find the type of bear they want to photograph (Classen, 2017).

Classen (2017) also discusses what to do after a photographer is done with their photo shoot. He said that it is tempting for amateur photographers to jump up and hurry back to where they are staying to look at the photos they took, leaving behind trash and a disturbed area. However, this type of behavior will scare bears away and is very harmful to their habitat. As much time and preparation that went into setting up the shoot, is how much needs to go into the clean-up. The area should be left as close as possible to the way it was found so

as to respect the wildlife that live there and not disrupt their home (Classen, 2017).

VII. Camera Traps

Camera traps are another important aspect of wildlife photography.

Oftentimes, rare species are hidden deep within forests or jungles where it can be extremely difficult for people to monitor these species without disrupting their entire habitat. The animals may be spread out over a wide area, and they could have evasive behaviors, making tracking them impossible. In situations like this, camera traps are used to survey a species easily without causing any harm. In a research study done by Paula A. Pebsworth and Marni LaFleur (2014), camera traps were used to survey primates and conservation tactics used to protect them. Camera traps are used to assess populations, record behaviors, and survey rare species. They can also help conservation efforts by using the data they provide to gain public support, inform industry, and provide photos to habitat monitoring projects (Pebsworth & Lafleur, 2014).

One of the most well-known camera trap users is Joe Riis. Riis was a trained wildlife biologist and is now a full-time photographer as well as a Fellow of the International League of Conservation Photographers. Riis is interested in the migration of pronghorns, which are native to North America and a distant relative to antelopes, and wanted to capture photos of the animals. However, pronghorns are extremely shy and have been hunted for centuries, thus making them very hard to approach. Riis realized that the only way to truly document the movement of pronghorns was to use camera traps (Norton, 2020).

Pronghorns migrate from Jackson Hole, Wyoming to the Green River Basin wintering ground which covers a span of around one hundred twenty miles.

In the spring, they reverse the migration, and for the most part, stay in very rural areas which is where Riis set up his camera traps. Commercial camera traps have lower resolutions than other cameras and fixed lenses. Riis knew that he wanted his photos to have more range and better quality, including background shots to showcase the environment. So, Riis used Nikon 7100 cameras with 10-24mm zoom lenses, Nikon flash units, and Trailmaster 1550 infrared motion-sensing triggers which he put in waterproof housings that were custom-made. The National Geographic Society built and designed some of the camera housings, while others used GoPro cameras and point and shoot still cameras (Norton, 2020).

Riis had a limited number of cameras, so he had to be very careful when choosing where along the path to place them. He worked with researchers who had radio-collared pronghorns and used their GPS data to determine the likeliest path the animals would take. The cameras were usually set very near to or at ground level and were set to record the animals and the surrounding habitat. The process is very risky, and Riis has said, “if I get one or two great shots a year, I feel good” (Norton, 2020, p. 82). Over the course of his project, Riis obtained many wonderful photos depicting pronghorn’s movements, habitat, and terrain. Many of his photos have been featured in *National Geographic* and a number of other publications, one of which is included below in Figure 10 (Norton, 2020).

Figure 10



Pronghorns during their migration. Photo by Joe Riis

VIII. Conclusion

Wildlife photography, ethics, and morals all go hand in hand. In some cases, it seems as if photography is one of the worst things for wildlife. People are obsessed with getting the perfect picture and showing their social media followers the incredible experience they had with a bobcat on a game farm. Other people encroach on animals to an extremely harmful degree, ruining their habitat, routine, and exposing them to threats from other animals and civilization.

However, there are wildlife photographers who strive to do everything in their power to observe wildlife undisturbed and capture beautiful animals in their natural habitats. Photography has helped to raise awareness of endangered species, inform the public about the everyday dangers animals face, study the migration patterns of animals, and provide an accurate count of many different species.

In today's technologically advanced world where most everyone's cell phone can take very high-quality photos, it is crucial to inform the public about the dangers of wildlife photography. People need to be educated on game farms and how their animals are treated. Game farms are not like a zoo or rehabilitation center.

They also must be informed of the dangers that come with getting too close to an animal and how that can hurt both the animal and them. It is wonderful that so many people love photographing animals and seeing photos of them, it is just vital that they know the right way to do it.

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