

Sea Life Park Internship

Participating in an internship at Sea Life Park was the opportunity for the type of experience that I have long dreamed about and hoped to achieve. First, I would like to start off by explaining my background and why and how I ended up with this particular internship. Like most people who aspire to go into marine mammal care and training, I have known that this is what I wanted to do from a very young age. My interest began with awe and fascination with the killer whales in the Shamu show at Sea World, San Diego. In elementary school, I attended Jr. Trainer camps at Sea World and found a way to do nearly every school report or presentation on different marine mammals. I can't remember a time that I ever wanted to grow up to do anything else.

As I grew older, I started to learn about the more practical ways of attaining a career in this field. In High School, I started to study more science related classes. After high school, I began college, studying marine biology. I worked towards and received my certifications in life guarding and S.C.U.B.A. diving. I also began volunteering in order to gain as much experience working with animals as I possible could. The thing I learned quickly is that it is necessary to volunteer for a long time on the "dry side" before you can crossover to the "wet side", which involves hands on animal interaction.

The first place I volunteered was the Los Angeles Zoo. I rolled over into volunteering here from a class I took through UCLA that taught methods for behavioral research on both captive and wild animals. After working on a four month project studying courtship behaviors in a pair of mated wolves, I was asked to stay on as a member of the research team. Concurrently, I began volunteering at the Aquarium of the Pacific in Long Beach, California. Here I was a member of the Education Department. Mainly, I acted as an interpreter throughout the aquarium, explaining and demonstrating exhibits to visitors and school groups. Finally, about three months prior to leaving for Hawaii, I began as a volunteer at the Marine Mammal Care Center at Fort MacArthur in San Pedro, CA. This was the most hands on experience I had yet to have. The MMCC is strictly a rescue and rehab facility, very different from Sea Life Park. The facility primarily cares for California Sea Lions and Harbor Seals, however, on occasion, the center receives elephant seals, and small cetaceans. There is no talking to the animals, or getting attached. This wasn't hard to do because these animals often demonstrated the fact that they are "wild" animals, with growling or biting, and most of the time the staff chose to keep our distance whenever possible. The MMCC allowed me to have my first interaction with large marine mammals. Each day was new, somewhat dangerous, thrilling, educational, and most definitely rewarding. I was only able to stay here for a few months because I soon found out that I had been accepted as an intern at Sea Life Park.

It was a happy coincidence that I ended up at Sea Life Park. I had helped a friend move to Hawaii in August 2004 and we visited the park. I talked to a current intern, who told me about the program and how well she liked it. I sort of did things backwards, interviewing while I was visiting the park and applying when I got home. I found out in October that I had been accepted and moved in December. It was a very quick and almost overwhelming process. In addition to the internship, I had also decided to enroll in Marine Mammal Biology, taught by Kristi West, at the University of Hawaii, per the

recommendation of Dr. Sherwood Maynard, in the Marine Options Program. Throughout this semester in this class, I learned a great deal about anatomy of all types of Marine Mammals. I felt like this was extremely beneficial to me in that I was learning in a classroom format, but then I could go and apply what I had learned while observing the real thing. Much of what I learned in class was things that even the trainers at Sea Life Park did not know.

Upon arriving at the park, I first met the other interns. There was a group of 16 of us, each assigned to different areas. Almost immediately, I learned that a lot of what we had been told prior to arriving was out the window, as the park had been bought out. Dolphin Discovery, a "swim with the dolphins" company, out of Mexico acquired the park, which I learned was going through a period of bankruptcy and in much need of some repair. Sea Life Park had been originally conceived as a park that not only entertained guests with shows, but with the intention of promoting conservation through education. The park also was intended to carry a large rescue-rehab program primarily with the local Hawaiian Monk Seal population. The park was founded in 1963 by Karen Pryor and her husband. Karen is a leading behaviorologist and was a pioneer in dolphin training. She wrote the famous book "Don't Shoot the Dog", which gives basic and practical theory to animal training.

The Dolphin Discovery buy-out eventually led to a lot of changes throughout the course of our internship, most of which will ultimately be good for the park in the long run, but forced us to deal with an internship in a very awkward and stressful transition period.

The first major change was that directly affected us was that the current Curator and the Intern Coordinator left, and the show heads for each major area of the park were taken over by Dolphin Discovery staff. Most of the senior staff prior to this were in their twenties, and each person that took over the areas had over ten years experience training animals and managing staff, so this definitely was a positive change. The loss of the intern coordinator definitely was a hard hit for my group of interns. It was clear early on that we had no one to ask questions to and to voice concerns with. This remained a problem almost through the entire internship.

The area of the park that I was assigned to is called the Hawaiian Ocean Theater. This area is responsible for the care of the following animals.

Name	Species	Sex	Approx Age	Location
Kamalii	Atlantic Bottlenose Dolphin	M	37	HOT
Kawai	Pacific Bottlenose Dolphin	M	23	HOT
Amiko	Atlantic Bottlenose Dolphin	M	50	HOT
Ahi	Atlantic Bottlenose Dolphin	M	9	HOT
Kaiko'o	Atlantic Bottlenose Dolphin	M	17	HOT
Nohea	California Sea Lion	F	9	HOT
Po'okela	California Sea Lion	F	9	HOT
Spike	California Sea Lion	M	13	KK
Makani	California Sea Lion	F	12	KK
Maukele	California Sea Lion	F	15	KK

Makakoa	California Sea Lion	F	19	KK
U'i'ani	California Sea Lion	F	7	HOT
Hanai	California Sea Lion	F	?	KK
Holo	California Sea Lion	F	?	KK
Limu	California Sea Lion	F	?	KK
Mo'opuna	California Sea Lion	F	?	KK
Pi'ilii	California Sea Lion	F	?	KK
Eggie	Humboldt Penguin	M	15	HOT
Willy	Humboldt Penguin	M	15	HOT
Wingnutt	Humboldt Penguin	M	10	HOT
Ekolu	Hawaiian Monk Seal	M	20	MSCC
Spruce	Hawaiian Monk Seal	M	20	MSCC
Holoiki	Hawaiian Monk Seal	F	13	MSCC
Lambchop	Hawaiian Monk Seal	F	18	MSCC
Kumuhone	Harbor Seal	M	30	MSCC
Puiwa	Harbor Seal	F	30	MSCC

The staff at the Hawaiian Ocean Theater spent their time at three locations in the park. The first of these areas is the Hawaiian Ocean Theater (HOT) itself. The theater houses a tank that is partially above ground and partially below, so that the audience can see the animals both from above the surface as well as underwater. This area is home to our Bottlenose Dolphins, 3 of our Sea Lions and our Penguins. Daily, this area puts on 3-4 shows showcasing each of these animals. This is also the area that is used for backstage tours when groups come to the park. The above ground windows allows for guests to meet our dolphins up close. We spend most of our time here as this area requires the most cleaning and food prep. Also, our lounge is below the theater so this is where we will begin and end the day, and catch up on our daily animal logs.

In addition to HOT, we also care for the animals in the Kalohe Kai Surf Club Show (KK). This area houses 7 sea lions. Only Makakoa performs shows twice daily. The others are mainly only there with the hope that they will breed. Spike who is the only male in that area, and the only male in the park who has not been castrated, is the parks only hope for sea lion offspring, so they have set him up with his own harem. Most of the sea lions in this area are not trained and each day began a new challenge of trying to separate them so that we could go in and clean. The show was usually pushed to the wayside because of whatever was going on with the animals backstage.

Finally, under our care is the Hawaiian Monk Seal Care Center. This area houses all of our monk seals as well as our two harbor seals. Not a lot goes on here. We are only allowed to train the Monk Seals for husbandry purposes. Meaning, only behaviors that will assist with some sort of care they may need. They all know their names, when to haul out of the water and basic things like rolling over and opening their mouths. Personally, I felt like this area lacked a lot of attention. The Monk Seals weren't that good for revenue, as they were not able to perform in shows, and so I felt that we spent the minimum time with them possible. The same towards the Harbor Seals, who are extremely old for a seal and therefore not a lot was invested in them.

The interns spent a lot of time running between the three areas and preparing for whatever was to come next. There were five interns originally assigned to HOT. One left within the first 2 weeks, and another left after a month. Only three of us were there

for most of the time, and the workload remained as though there were 5 of us. Another left with a month remaining. Although, this internship was extremely trying, I learned a great deal about animal care and training.

One of the most frustrating things about this internship was the lack of structure. What ever animal interaction I participated in, it was because I had to just push myself into or be in the right place when there was no one else to do the job. Thankfully, we were often very short staffed and I was able to do this a lot. While all along, I knew that each animal has their own personality, I had no idea how distinctly different their personalities would be. While each individual was very different, there were a lot of similarities between species. For example, all of our dolphins really seemed receptive towards and excited by any kind of human interaction. That was with all of our dolphins across the board, however this was the most apparent in Kamali'i, who never took his eyes off his trainer. The penguins were all extremely bipolar in that one minute they would be braying (demonstrating love) and the next they would turn, bite, and not let go. Willie was particularly fond of the grass area behind HOT and would not leave without a good fight. Eggie was partial to the staff lounge and Wingnutt just seemed to want to be wherever people were.

It is key in knowing your animals to successfully be able to train and care for them. Certain things that will work for one animal may not necessarily work for another. The type of training that Sea Life Park uses is called Operant Conditioning through the use of Positive Reinforcement developed by B.F. Skinner. The basic way to understand how this works is that when an animal performs the behavior that the trainer is looking for, it is rewarded. Those behaviors that are not looked for are given the "least reinforcing stimulus" (LRS). In most cases, this just means ignoring the behavior. There are various types of Positive Reinforcers. A primary reinforcer must be used initially, which would involve a reward of anything that an animal needs. This would include food, air, water, social interaction, etc. Eventually a secondary could be paired with a primary reinforcer so many times that it can be used as a primary. An example of this would be tactile reinforcement, such as touch or a massage. Many animals aren't immediately receptive to touch, but once it is paired with a fish for so long, they are trained to relax and enjoy it.

A secondary reinforcer that becomes essential in the process of animal training is what's known as a "bridge". A bridge is defined as a stimulus that pinpoints the exact moment that the desired behavior occurs. It "bridges" the gap between the desired behavior and the reward to follow. A "bridge" must occur at the precise moment of the behavior that is being looked for. This tells the animal that they have specifically done what the trainer was looking for and that they may return for a reward such as a tasty treat or a little Lomi-Lomi. The type of bridge used depends on the animal, as it can't itself be something that the animal finds aversive. For example, a high frequency whistle is used with the dolphins, because it is easy for them to hear above and below water. This same whistle seems to startle the sea lions, who do not hear in such high frequency. For them the bridge used is the spoken word "Good!"

It is important that the bridge is clear and concise so that it only targets a specific instant of the behavior. If a trainer is working on increasing the height of a dolphin's jump, it is necessary that they bridge quickly at the peak of the jump. A long drawn out bridge may confuse the animal. If the bridge lasts the entire jump, the animal may not be

sure if it is being rewarded for the ascent, height, or the descent. The bridge targets the moment that the animal is to remember and try to replicate the next time it is asked for the behavior. Likewise, if another behavior is simultaneously taking place with the behavior that was asked for, this may cause for some confusion between the trainer and the animal. For example, if a dolphin's mouth happens to be open at the height of its jump and the trainer bridges, the dolphin may understand the bridge as rewarding the mouth being open rather than the height of the jump. Next time, it is possible that the animal may all together disregard concern for the height of the jump so long as its mouth is wide open. In addition, it is necessary that the trainer be mindful of his or her surroundings. They must be cautious of other animals nearby who respond to the same bridge. They may inadvertently bridge an animal in a back pool biting on a gate while they are trying to bridge an animal in the front pool for jumping.

In addition to the bridge, one other extremely important element to animal training is variability. The necessity of this became apparent to me very quickly. Variability keeps the animals from slumping into a routine and getting bored with their behaviors. Makakoa, who was the only animal performing the KK show, had not dealt with variability in so long that she literally could do the entire show without the trainer. She would take cues off the music and just act out whatever she knew usually came next. This is not favorable because it ultimately means that the trainer is not in control of the animals. It is easy to see how bored animals in captivity can become. That is another reason that variability is key. With little space and limited individuals to interact with, the animals must be stimulated as often as possible. Changing up their routine keeps them on their toes. I never witnessed a situation where too much variability seemed to cause an animal to stress, as long as the trainer stuck to the positive reinforcement method. However, often when a trainer would make a mistake, they would use the excuse, "Hey, its variability!" and these situations did not seem to benefit the animals.

While much of the work as an intern was tedious and redundant, we did have a few serious and interesting events take place. The first of these was an ongoing problem with Spike, our male California sea lion. As I mentioned before, Spike is the only male in the park that is capable of breeding. All of the other males were castrated years back, severely limiting the sea lion gene pool, and I am not sure of the reason this was done. This is a problem because so many of the females in the park are Spike's offspring and there a few females left for him to mate with. Spike was introduced to 6 new females for an extended period of time. He made every attempt to stay as far away from them as possible, even when some of the females pursued him. The staff knew for a long time that Spike had an infection in his mouth, for which he was getting daily mouthwash. When the conclusion was made that he wasn't interested in mating because of the pain in his mouth, the park decided to have x-rays taken. After two days of rush training to get Spike to lay his head in the x-ray machine, the pictures came back with sad results. The infection had bore a huge hole through Spike's lower jaw. We were all shown the x-rays as well as a set from five years ago. The old x-rays showed the same hole, however much smaller. Additional vets looked at the photos and it was decided that operating or further treating the problem would likely cause his entire jaw to fall off. Of course, my first question was "Why wasn't something done five years ago?" to which I received no answer. It seems that Sea Life Park throughout the years has had a staff that cares about the animals, but no one with the expertise or the means to fix major problems. On a

positive note, Dolphin Discovery has a network of veterinarians who tend to all of their animals in all of their parks, and this is now a huge resource for Sea Life Park. However, Dolphin Discovery runs as a business and I think that money may win out over the animal's well being at times.

This internship, was indeed a challenging one, however I truly feel that myself and the other interns in my sessions did make a difference in the lives of the animals that we were involved with. When we were actually able to train the animals in shows, we had a pact with the other interns to make them the most stimulating shows for the animals we possibly could. A lot of times, the trainers seemed to get lost in to monotony of their day to day job and would just do the bare minimum in their animal sessions and shows. This was to the point where we would even have park guest complain about how short the shows were. While this isn't good for the patrons, it's worse for the animals. It becomes apparent that these animals look forward to these sessions everyday. It is the time in which they are fed and when they get the most activity. Whenever I or the other interns were able to be involved in these situations, we would try to keep the animals as active and excited as possible, by sending them on behaviors we knew they enjoyed. All this really requires is excitement from us and variability. The animals all really respond well to a lot of body movement and stimulation from their trainer.

Overall, I am glad I did the internship, but I am not completely satisfied with the program. One of the other interns and I scheduled a meeting with the new intern coordinator that was hired towards the last month we were there as well as one of the Team Leaders from Dolphin Discovery. We voiced our concerns over the lack of structure in the program, the negative attitude that staff projected onto the interns, and the lack of respect for what truly felt like "slave labor." I am proud to say that changes were made for the new group of interns, although this is no direct benefit to me. The new interns have a progressive program, so that once they learn one aspect of training, they are able to do another and so on. They also have directly taken on responsibilities of trainers, rather than shadow them for most of the time, as we did. I learned a great deal about training, animal care, and this industry works. While I would not be interested in a career at Sea Life Park, as it is today, working in this field, at a facility that truly puts animal care first, would be something that I am interested in. This internship has re-confirmed my opinion that marine mammals in captivity can be a very positive thing so long as the animals have the utmost care, are the top priority and are not exploited. Parks like these and the staff that work in them promote awareness and concern for amazing animals, stressing the importance of the public's role in education and conservation. I am blessed to have had the opportunity to be involved with these amazing animals.

SPRING INTERNSHIP

Jan-June 2005



Amber Arnold

Since I was a young girl, I have dreamed of growing up and working with Dolphins.



And now, thanks to my internship at Sea Life Park, I have had the chance!

First, some history about myself...

Currently, I am studying Marine Biology at California State University Northridge.



I was a Research Volunteer at the Los Angeles Zoo working on a project which studied Behavioral Patterns of Manned Wolves.

I worked as an Education Volunteer at the Aquarium of the Pacific, in Long Beach, CA.



Before moving to Hawaii, I volunteered at the Marine Mammal Care Center @ Fort MacArthur

Some history about marine mammals in captivity...

The first attempt to display captive Marine Mammals to the public, was by P.T. Barnum, in 1860, who attempted to capture and display two Beluga Whales, which died instantly when being placed in a fresh water tank.



By the 1870's various species of dolphins were captured and transferred to parks all over the United States and Europe. There was a high mortality rate during this early period of capture.

In 1938, Marine Studios opened, and was responsible for the first trained Bottlenose Dolphins, used for performing in shows and films.



The Marine Mammal Protection Act, passed in 1972, placed strong restrictions on the capture of Marine Mammals.

The Captivity Controversy...

In the 1960's began a
Both sides have valid
great debate which
Is Captivity Ethical?
arguments
continues today.

The Captivity Controversy...



PRO's

Unlimited supply of food

Proper healthcare

Promotes awareness
for conservation

Allows humans to see and
experience animals that
they would otherwise be
unable to see

Longer life expectancy

No predators

CON's



These animals are
hunters by instinct

Lack of space

Few individuals to
interact with

Made to "perform"
for amusement

Animals on
human schedule

The Captivity Controversy...

It is up to the individual to weigh both sides and see which they most agree with.

Personally, I side with the "PRO" argument, although, I think it is extremely important to be aware of the concerns of the "CON" side and use these concerns positively, so that animals in captivity have the most beneficial environments and care.





Sea Life Park was founded in 1963 by Karen Pryor and her husband.

Karen Pryor, a famous behaviorologist, wrote the book "Don't Shoot the Dog" and was a pioneer in the field of dolphin training.

Sea Life Park has since cared for many different species, had many successful births, and continues to develop new training techniques

How do they get the animals to do that?

All animal training at Sea Life Park is done so by the use of B.F. Skinner's Operant Conditioning in the form of Positive Reinforcement.

This is the method of training that nearly all animal trainers at virtually all parks use, as it is non-harmful, stimulating for the animal, and consistently effective.



This method is widely accepted as ethical, as opposed to other training techniques, that use force, in that the animal has the choice whether or not to participate. If an animal chooses not to participate, the trainer has no choice but to sit back and wait.

Positive Reinforcement

A basic way to understand how Positive Reinforcement works is that the animal is rewarded for acting out the behavior that the trainer is looking for. Behavior that is not desired is ignored.



An animal eventually puts together a thought like this:
"Hey! When my trainer moves their arm in a circle, and then I roll over, I get a fish."

Over time, the association between the signal and the behavior gets stronger and the time it takes for the animal to respond decreases.

The Bridge

A key element to animal training is the use of a “bridge”

A “bridge” is defined as a stimulus that pinpoints the exact moment that the desired behavior occurs, and it “bridges” the gap between that behavior and the reward to follow.

An easy way to visualize the “bridge” is like a camera that takes a freeze frame of the precise behavior that is looked for.

A common bridge used with marine mammals is a...



Whistle

Or the word...

GOOD!

The Experience of Sea Life Park

At Sea Life Park, I worked in the Animal Programs Department in the area known as the Hawaiian Ocean Theater

This area is responsible for the training and care for..

2 Harbor Seals



4 Hawaiian Monk Seals

10 California Sea Lions



And 3 cute,
but temperamental
Humboldt Penguins



3 Bottlenose Dolphins

The Basic Duties of an Intern...

A *LOT* of cleaning....

Cleaning the animal habitats each morning

Scrubbing buckets

Washing windows

Weighing out and packing fish for each animal

Pilling fish with proper vitamins and medication

Setting up equipment for training sessions

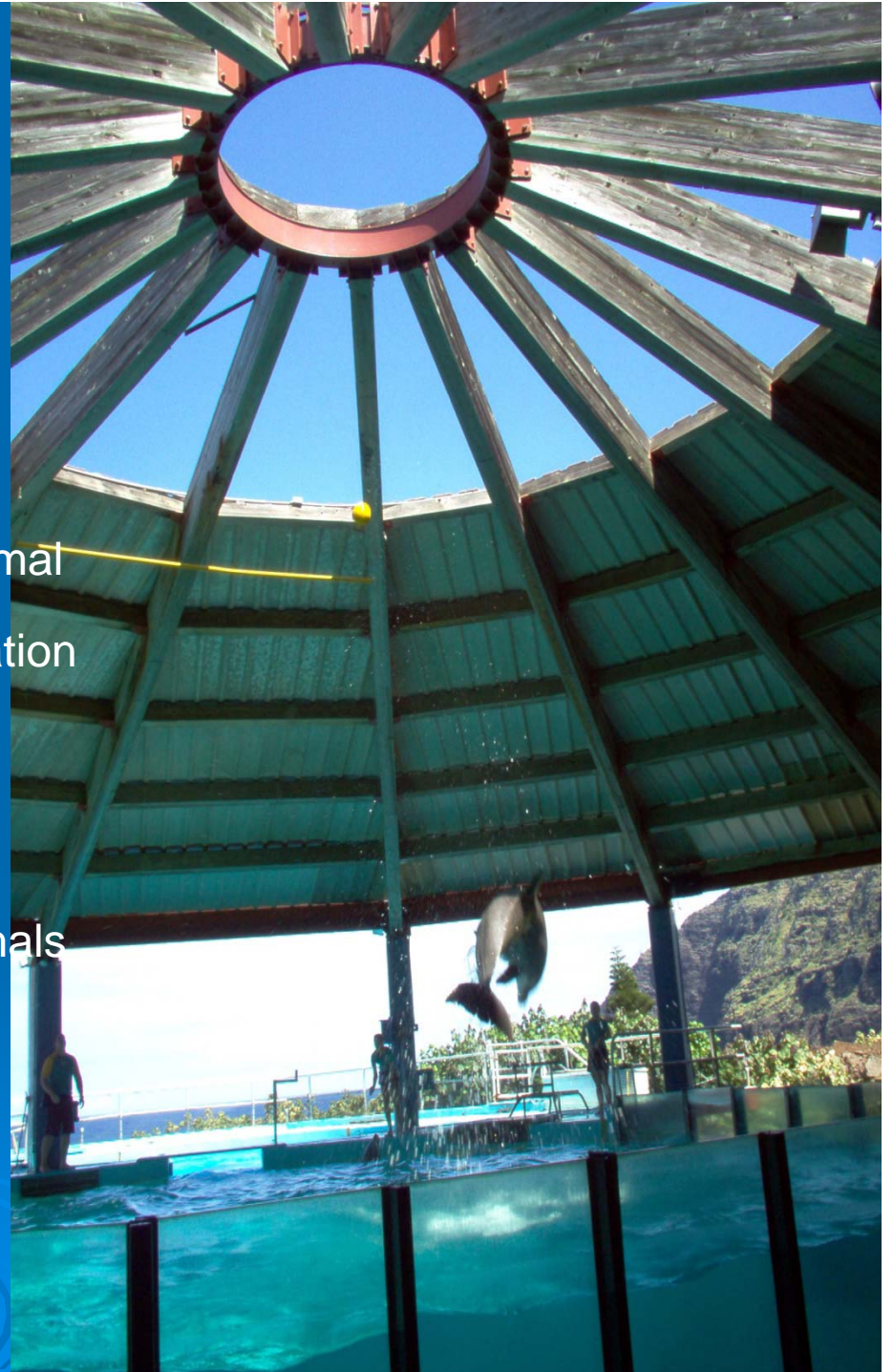
Operating sound booth for shows

Giving lectures to the public about our animals

Diving to pick up fish at the bottom of pools

Folding Laundry

And even painting!



There were perks too...

While there was never actually animal interactions planned for the interns, occasionally we were thrown in as guinea pigs, which usually worked out in our favor.



This picture was taken during a training session. Makani the Sea Lion was learning how to give kisses.

Part of her training was learning where exactly to place her nose on a visitors face.

So this was something we would do over and over again, until she was comfortable with placing a wet one right on the visitor's cheek.

There were perks too...

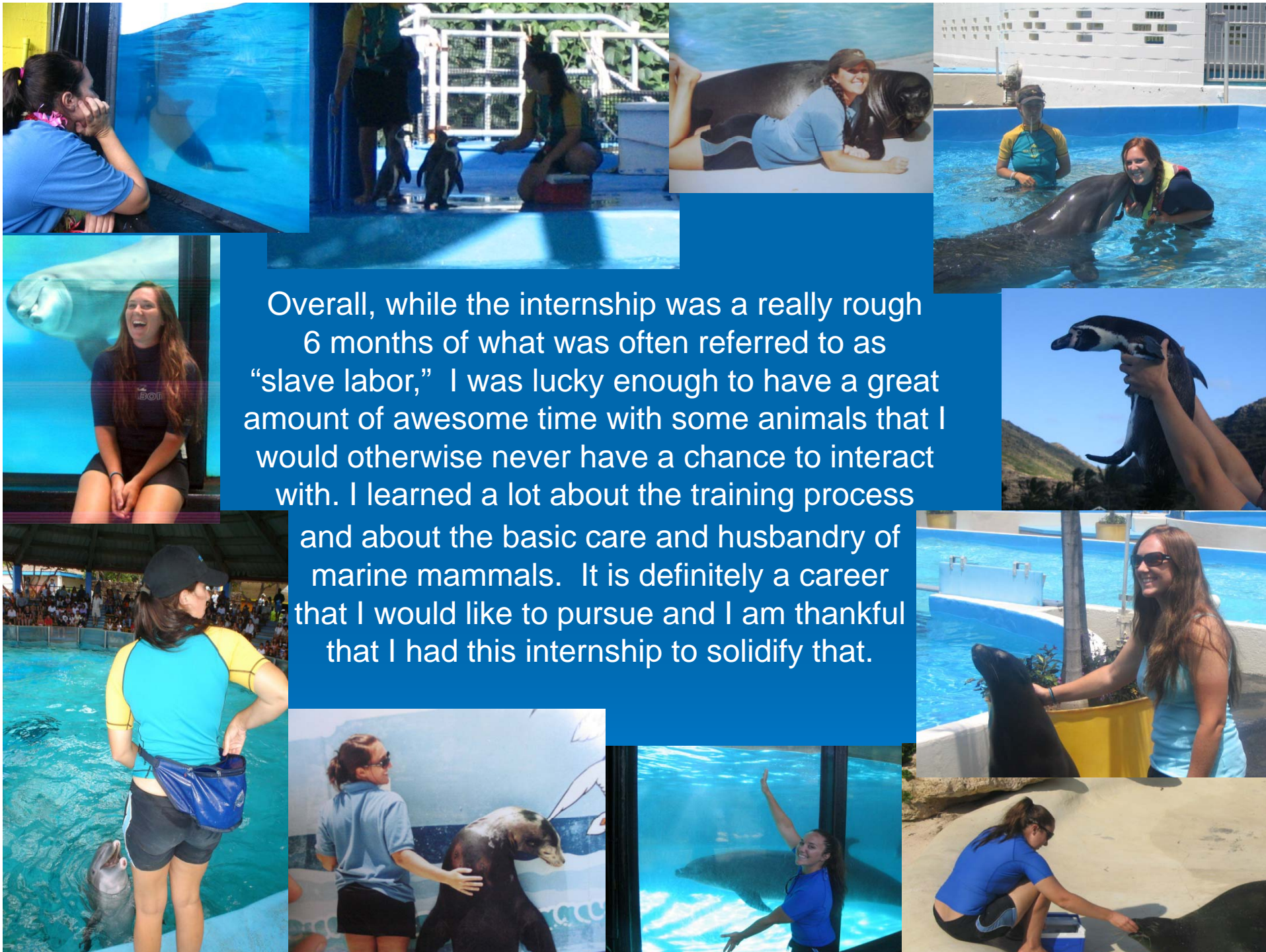
Towards the end of the internship, we were actually able to train shows.

Even though shows are only 20 or so minutes, they require a ton of coordination and cooperation between you, your animal, and the other trainers.



Although stressful, the shows are very spontaneous, so they can also be a lot of fun!





Overall, while the internship was a really rough 6 months of what was often referred to as “slave labor,” I was lucky enough to have a great amount of awesome time with some animals that I would otherwise never have a chance to interact with. I learned a lot about the training process and about the basic care and husbandry of marine mammals. It is definitely a career that I would like to pursue and I am thankful that I had this internship to solidify that.