Report on captive dolphins in Mexico 2015

by Delfines En Libertad Reviewed by Marisol Guerrero Martinez





Foreward by Marisol Guerrero Martinez



Marisol Guerrero Martinez is

a biochemist engineer in the administration of aquatic research. She worked for over six years in a Mexican dolphinarium and has worked on various research projects on marine mammals.

She has over 20 years professional experience of which at least 12 have been spent working directly with marine mammals.

Ever since I can remember I have been passionate about the sea; particularly marine mammals. It was at seventeen that I began to visit a dolphin aquarium in Mexico City, where a club was formed, called "OCEANIS". Every Saturday they held workshops about marine life, invertebrates and especially about marine mammals. On some occasions they would allow us to swim with the dolphins. In those days, free dolphin swimming was allowed without having a trainer by your side.

For me it was an amazing experience and I learnt a great deal about the behavior of these amazing animals in *captivity*. However, every time I left I would leave with an immense sadness, knowing that these incredible creatures, once free to swim, would have to stay there, condemned to swim in circles, twirl and pirouette for food.

After completing my career as a biochemical engineer in aquatic resources and after working in a variety of areas such as conservation projects, environmental education, environmental placements and assisting in research projects with marine mammals in wildlife for NGOs and government agencies I have expanded, not only my knowledge, but also expertise in the subject of conservation and environmental education. My last position in this area was in a dolphinarium, Dolphinarium Sonora. The state government is in charge of this facility. It was a project set forth by the ex-governor, with the finality to offer assisted therapy with dolphins. I was involved in this project from the beginning.

In regards to the acquisition of dolphins, the intention was always to obtain a capture permit for scientific investigation and educational purposes, since it is the only way to obtain a permit for capture in Mexico.

They proceeded to hire an investigator to do a study on the population of dolphins in the area to see if it was viable to capture. However, someone manipulated the data of the researcher with the intention to capture more dolphins than they were allowed to. Due to this, they were denied the permits. In the course of this they tried to purchase dolphins through a company named Repxotics, who were going to import them from Japan.

Repoxtics ended up being a fraud. They kept the money that had been paid to initiate the transaction and disappeared. So, then, the decision to rent 4 dolphins from Dolphinaris or Via Delphi was made.

While working in this industry I began to read and hear the names of a lot of the same people I remembered from the days at the dolphinarium in Mexico City. It's when I realized that the business of dolphins has always been in the hands of the same people who started the industry. Together with the Wildlife Department (Vida Silvestre) they created NOM 135. This law stipulates the rules and requirements for the care, handling, and use of the marine mammals in captivity. These same people also promoted the prohibition of capture, importation and exportation in order to monopolise the industry by stopping new companies come in, capture and set up new dolphinaria companies.

I ended up resigning from my position when the head trainer of sea lions, who was very close with the director, asked me to alter the results on the reading of the physiochemical parameters. I refused and consistent pressure was put upon me until I decided to resign.

I later returned to work there, after a change of administration that is still in charge today. I covered the position of Coordinator of Environmental Education and as a Responsible Technician.

Three dolphins and one sea lion died. The dolphins were rented from Dolphin Discovery and this all happened under the direction of Carlos Gonzalez Nemmer . This director did not have a professional background or education relating to working with marine mammals.

Dolphin Discovery reclaimed their animals, trainers and veterinarian and left only one dolphin in the installation. This was one of two dolphins that was being held without payment by the last administration.

The remaining dolphin was a female. She was left alone for 3 months and put to work as if she were doing the work of four dolphins. Although, as "responsible technician", I asked that she

not have so many interactions or instead had more days off without working, the director would not follow my recommendations. Later on he decided that he wanted to organize an illegal capture of dolphins in the area, Gulf of California.

I refused to comply with this action again and did not want to be a participant in the plan, explaining why they couldn't do it. The director proceeded to hire a person with a record of trafficking marine species. One day, as I was walking out of my office, I came across the maintenance crew washing and taking out nets and harnesses getting ready to go forward with the capture.

I immediately went to file a complaint with the federal environmental services, the PROFEPA. There were some fisherman and other people waiting for the director to come out for the capture. The next day the PROFEPA went to inspect. That is how they proceeded against the dolphinarium as they found many irregularities. Two weeks later the water levels in the tank began to go up because the chillers were not working and the climate had risen. The director ordered 200 bags of ice to be brought in and without my consent told the trainers to dump the ice in the tank to cool down the water.

When I found out I got very upset and reproached him about the situation. The next day he offered me a resignation, which I turned down. He then fired me, threatening me. The PROFEPA went back and at least we succeeded in removing the one solitary dolphin and placing her in another dolphinarium in Ixtapa.

Even now, after three years, Sonora Dolphinarium has no dolphins. There are only two sea lions left that suffer poor handling, poor nutrition and poor medical attention.

In conclusion, I can say that the reality is that these animals do not belong in captivity. Everything, from transportation to the introduction to a new tank is alien to the species, they have to endure changes in physiochemical parameters, chemicals added to the water that affect their skin and mucous levels (all so the water can look crystalline and avoid the growth of microalgae that makes the water look murky). They are forced to undergo interaction with person after person, diets which will maintain them hungry and willing to do tricks, handling by veterinarians that generates more stress and moreover, the interruption in their hormonal processes to control reproduction.

Contents

| Introduction | 6 |
|--------------------------------|----|
| Methodology | 8 |
| Background | 9 |
| Capture and Trade | 10 |
| National Law | 13 |
| Swim-With-Dolphin parks | 14 |
| Animal Welfare | 18 |
| Reproduction | 34 |
| Dolphin Mortality | 41 |
| Human Safety | 42 |
| Misinformation | 44 |
| Conclusion and Recommendations | 46 |
| References | 50 |

Introduction

There are 29 captive dolphin facilities in Mexico (1) keeping a total of approximately 342 individual cetacea (2). Of the Mexican dolphinaria, at least 67% (3) are located in the state of Quintana Roo, on the Yucatan Peninsula. Since 2008 11 new facilities have opened and dolphin quantities have increased by around 36% (4). Plans to open at least two more facilities are in progress. Dolphinaria can be found in shopping centres, marinas, hotel complexes, zoos and in theme parks.

The dolphinaria industry in Mexico first began in the 70s with a display of two captured dolphins outside a shop (5). Dolphins were used in shows in marine parks and also in touring shows known as ferias. In the mid-90s companies started to develop the now very popular tourist activity known as Swimming-With-Dolphins (SWD).

There are 29 dolphinaria facilities in Mexico, holding between 2 -25 bottlenose dolphins in each establishment. Activities include physical interaction with the dolphin such as The Kiss, The Foot Push, and The Dorsal Tow. These activities involve dolphins pushing and pulling tourists along in the water and posing for pictures with members of the public.

Tourists pay around \$70 to \$200 US dollars to be in the water with one or two dolphins for around 40 - 120 minutes, usually in a group with another 6 -20 people. Marine parks often contain other marine mammals such sea-lions, sharks and manatees.

In the wild, whales and dolphins can swim as much as 160km a day, have home ranges as large as 300km and dive to depths as deep as 60 meters. Living in groups (called pods), these animals are highly sociable and intelligent, displaying self-awareness and differing cultures. Captive facilities cannot compare to the vast, complex natural environment of the wild cetacea and even the largest facilities offer just a fraction of their wild range. Research indicates that the stress of confinement often results in behavioural abnormalities, illness, decreased resistance to disease and reduced life expectancy.

The state of Quintana Roo, where the city of Cancun is located, is one of Mexico's most popular tourist areas. Quintana Roo is situated on the Caribbean coast and large cruise ships carrying thousands of tourists arrive to this area daily.

The SWD activities have become a prime tourist attraction, with all major tour companies selling and promoting SWD excursions. The demand to swim with dolphins in captivity has enabled the Mexican dolphinaria industry to grow exponentially. Some dolphinaria also offer dolphin therapy which is marketed as a therapy to help people with certain illnesses.

Mexico holds 8% of the world's captive dolphin marine parks and around 10% of all captive dolphins globally(6). Mexico has one of the biggest captive dolphin industries in the world and the biggest in Latin America.

There has not been a study on the dolphinaria industry in Mexico since 2008 nor a recent evaluation of the current well-being of captive dolphins. Since starting this research 5 new facilities have opened and more are due to open. Companies are carrying out intensive reproduction programs in

order to sustain and increase dolphin quantities and at least 70 new dolphins have been acquired since 2008.

Dolphinaria facilities are open every day of the year, including weekends and public holidays. Most facilities will see prolific amounts of tourists entering the establishments daily and dolphins will be exposed to high levels of human activity and interaction.

This report focuses on SWD parks and is being undertaken to assess the wellbeing and mental health of the dolphins currently held. It focuses specifically on the animal welfare of the dolphins held in SWD parks and risks humans face by being in close proximity to these large wild animals.

This report does not cover the issue of dolphins being used in traveling circuses (ferias) as this topic and other important topics related to Mexican dolphinaria will be covered more in-depth in subsequent publications.

While the captive-dolphin industry grows exponentially in Mexico, likewise, so does sound peer reviewed scientific evidence which documents cetacean suffering due to confinement. This report is intended to evaluate current industry practices and assess the impact this has on dolphins held.

Our research is intended to act as a resource and point of reference which interested parties, such as tour operators and theme parks, can refer to for further information.

It is also further reading tourists can refer to whilst seeking more information on swimming with dolphins in captivity.

Methodology

From Nov 2012 – Jan 2015 we frequently visited 16 different dolphinaria facilities, focusing our attention in the area of Quintana Roo as this is the prime captive dolphin area in the Mexico and the Caribbean. We also visited facilities located on the Atlantic and Pacific coasts of Mexico. Dolphinaria facilities have been visited over 30 times.

Mexican Dolphinaria Industry

A Freedom of Information request petitioning the Office of Environment (SEMARNAT) for a current inventory of captive dolphins was carried out. We also requested information on death certificates, birth certificates and information on capture licenses granted for scientific or educational purposes.

Current practices

Current practices carried out by dolphinaria companies were observed by filming and recording during visits. We recorded conversations and dialogues with staff regarding practices. Two exworkers of dolphinaria came forward to give interviews, providing their identities were kept anonymous for obvious security reasons.

Extensive searches and evaluations of companies' websites and social media sites were also carried out.

Apart from assessing animal welfare standards, a large focus of this report has been invested in understanding and evaluating the current reproduction programs which are common practice in all dolphinaria across Mexico.

Welfare and cetacean biology

A review of current and up to date research on cetacean behaviour and biology was carried out including an extensive search on current scientific literature and review on current reports documenting the effects of captivity on cetacea.

Background to the Mexican dolphinaria industry

Cetaceans have been held in captivity in both North America and Europe since the 1860s (7) Dolphins were first kept for paid entertainment in 1938 in Florida, US and it was here that it became apparent that dolphins could be trained to perform tricks.

The mid-60s saw dolphinaria increase globally as shows such as Flipper made dolphin performance and interaction more desirable.

Currently there are over 300 dolphinaria and zoos in the world (8), displaying thousands of marine mammals. Bottlenose dolphins are the most commonly used species of cetacean held in captivity due to their trainability. Captive dolphin numbers are sustained by capture and also by reproduction.

Most dolphinaria offer entertainment to the public in the form of shows and, increasingly, interactive activities such as the Swimming-With-Dolphin activities offered in Mexico (SWD).

Japan is a prime captor of dolphins for supply to the dolphinaria industry. In 2013 Japan captured 158 dolphins which were sold onto dolphinaria worldwide. There are also large amounts of dolphinaria facilities in Japan and this country holds around 16% (6) of all captive dolphin parks globally.

The Caribbean and Bahama Islands are a global captive dolphin hot-spot. SWD popularity is increasing in this region as cruise ships visiting different islands promote SWD activities to tourists visiting the different islands. Many of the islands in this region do not have legislation which prohibits capture or importation of dolphins.

Dolphin quantities have been accrued by capture from local waters, Cuba or Honduras or by reproduction.

The Mexican dolphinaria industry is the biggest industry in the Caribbean and in Latin America. Since the 90s Mexican dolphinaria companies have been developing and promoting the swim with dolphin activities. Swimming with dolphins in captivity is ranked as one the top 10 things to do whilst on holiday in Quintana Roo (9). Tour companies and the dolphinaria industry target holiday makers to encourage them to swim with dolphins. Swimming with dolphins in captivity is being branded as a "once in a lifetime experience".

Until 2002 dolphinaria facilities and dolphin capture in Mexico was largely unregulated (5). Mexico was trading wild caught dolphins, importing and exporting them particularly within Latin America. By 2002 dolphinaria companies had captured so many bottlenose dolphins in local waters they caused the species to gain the endangerment status of "at risk" in Mexican law.

In 2002 dolphin capture was prohibited in Mexican waters unless for "scientific or educational" reasons. Dolphinaria companies then switched to accumulate their dolphin stock by importing wild caught dolphins from abroad, particularly from Cuba.

In 2006 import and export of marine mammals was banned unless for scientific or educational reasons. The dolphinaria industry then turned to dolphin reproduction as their main means to acquire dolphins. At present Mexican dolphinaria carry out an intensive dolphin reproduction program. In 2009 one company alone successfully bred 18 dolphins within one year (6).

Interactive dolphin activities are the most popular form of dolphin entertainment utilised by dolphinaria in Mexico at present. Prior to the popularity of these activities dolphins were most

commonly used in shows. Facilities were initially basic concrete tanks with large seating areas on the outside for an audience to watch dolphin and sea-lion shows.

Touring shows known as ferias also started to include dolphin shows. This practice still continues today. The dolphins are transported with the travelling fairs, going to different locations, normally in a van or a truck.

The first dolphinaria company to establish itself in Mexico was a company called Conviencia Marina, (CONVIMAR) which set up in 1979. This Mexican company led the industry until the 90s where it was superseded by the current leading companies Dolphin Discovery, The Via Delphi Group (Delphinus) and Dolphinaris.

CONVIMAR opened Mexico's first dolphinarium; Acuario Aragon in Mexico City. This dolphinarium is still open today.

Capture and Trade

Capture of wild dolphins was the primary means of acquiring dolphins when the industry first began. Around the time that Mexico started to capture and display dolphins, dolphin trade also began to develop with Mexican dolphinaria importing and exporting dolphins.

Fishermen were reported to be selling dolphins to dolphinaria in certain parts of Mexico in the 80s for around \$8,000 dollars each (10). The market price of an already captured and living dolphin at that time was around 40,000 - 50,000 dollars, sometimes more if the dolphin was already trained and of optimum age and gender. Therefore the selling on or exporting of a dolphin could bring in a considerable profit.

Castello (1999) reports that according to an ex curator of dolphinarium Reino Aventura (currently named Six Flags) fisherman often blamed dolphins for eating the fish they wished to catch. Therefore fisherman might capture dolphins (especially if one became tangled in a net) and sell them on to dolphinaria (10).

Capture of dolphins was taking place across Mexico in areas such as Campeche, Yucatan, Veracruz and Quintana Roo (5,10,11). According to Castello (1999) between 1965 and 1983 213 dolphins were registered as captured from the Gulf of Mexico. 21 of which were exported to European establishments (10). These figures only represent one area of México where dolphins were being captured.

Cuba, also being located in the Caribbean and of very close proximity to Quintana Roo began to enterprise from capture and export. The island is only around 90 miles from Cancun so often dolphins were being captured in Cuba and imported to Mexico by boat. Cuba also started to export dolphins internationally as well.

It was common practice to capture dolphins in Mexico or Cuba, train them in Mexico and then export them, mainly to other Caribbean islands or to Latin America (10).

The true numbers of how many dolphins were captured in Mexican waters is still unknown (5). Surveys of wild dolphin populations were never carried out and regulation of this industry which at the time, was relatively new, was not implemented. Capture Licenses were granted for one year, but never monitored, so companies capturing dolphins could technically illegally reuse the license within that period of a year (5).

As the industry developed into the late 90s awareness of this "free for all" on wild dolphin capture started to emerge and resistance started to develop. A group called Blue Sea (Marea Azul) in Campeche, a prime capture area, started to campaign against capture. Members from the group even cut nets to free the recently captured dolphins (10).

In 2001 a scandal broke out which exposed a particularly violent capture of some dolphins in La Paz in Baja California. This scandal caused a stir nationally. Dolphins were transported to the dolphinarium in wooden crates. One dolphin was repeatedly dropped (12). Due to growing pressure from activists, conservationists and environmentalists, capture of wild dolphins in Mexico was finally banned in 2002. Although, a clause in the act still allows capture for "scientific or educational purposes".

With the 2002 ban on capture for non-scientific purposes in place, dolphin imports increased. Cuba was the prime exporter of dolphins to Mexico. Cuba still captures and trades dolphins at present as does Honduras, although Honduras claims not to capture anymore.

Cuba reports to capture 15 dolphins annually. Cuba has received some criticism for the practice of dolphin capture (13,14). Some research suggests that Cuba does not carry out adequate scientific studies on numbers of wild dolphin populations (15) therefore cannot ascertain accurately whether their wild dolphin populations are being adversely effected by capture.

In 2003, a highly controversial permit to import 30 dolphins to Mexico from the Solomon Islands was granted. Dolphinaris, the third biggest dolphinaria company in Mexico (formerly Atlántida) applied to import the dolphins for use in their dolphinarium in the water park Nizuc in Cancun.

This proposed importation caused outrage on an international level. The Australian government urged the Mexican government to disallow the permit as they claimed it not to be legal under the CITES convention (16,17).

However, despite the international uproar, officials from the Mexican environmental protection agency (La Procuraduria Federal de Proteccion al Ambiente, PROFEPA) declared the dolphinarium to have met all legal requirements. In July 2003 the dolphins were exported.

Although a permit for 30 dolphins was originally granted. Only 28 dolphins arrived by plane. The discrepancy between the two quantities remains a contentious issue and the truth of what

happened is still disputed. Environmentalists including Green Peace claimed that 30 dolphins were sent, yet 2 died en route (16). Witnesses claimed to have seen 2 dead dolphin bodies being removed from the shipment upon arrival (16,18).

However, officially only 28 dolphins arrived. One week after the dolphins' arrival to Parque Nizuc and a fair amount of pressure from parties concerned, activists were allowed into the park to examine the conditions of the dolphins. They reported that the dolphins appeared to be in a state of shock (16)

Within one month one dolphin had died (16). This notorious scandal, both nationally and internationally led to the Mexican government eventually banning dolphin importation and exportation in 2006 (5, 19) unless for scientific or educational reasons.

Although capture was banned in 2002 a clause remains in the law which allows capture for scientific or educational purposes.

Scientific capture licenses are granted by the Environmental office (SEMARNAT)

Information regarding captures for scientific and educational purposes is not publically available.

Since the capture ban of 2002 we are aware that various commercial dolphinaria companies made applications for capture licenses (20).

In 2010 Veracruz Aquarium petitioned the environmental services for a permit to capture dolphins for scientific reasons in the Gulf of Mexico. The permit was denied as the SEMARNAT did not feel satisfied that the reason for capture were sufficiently "scientific or educational" (20).

In 2006, four years after the capture ban, Sonora Dolphinarium was granted a license for the capture of 6 bottlenose dolphins for scientific reasons (21). However, the license was subsequently revoked. This dolphinarium was also caught in the act of preparing to illegally capture dolphins in 2010. An anonymous tip-off was made to the federal environmental agency.

The dolphinarium is still trying to acquire dolphins and it is rumoured it will receive 8 dolphins in 2015. The origins of these dolphins are unknown. The dolphins will be given to the facility from the PROFEPA. Dolphinarium Sonora currently is without dolphins due to 6 dolphin deaths in the facility.

In 2008 the Mexican based company Dolphin Discovery exported 8 dolphins from a Mexican SWD park to a Bahama's SWD park. This international export took place two years after the ban on import/export for commercial reasons. This implies that the license Dolphin Discovery acquired from the SEMARNAT must have been granted for "scientific or educational" purposes or the export illegal.

Dolphin Discovery recently opened a new facility in the Dominican Republic and imported 8 dolphins to the facility. This caused some uproar in the Dominican Republic as the Academy of Sciences claimed that the construction and import of the facility was illegal for various reasons. One of the dolphins imported was originally captured in Tobasco in 1999 and dolphin is currently on the system

but origin unknown. The origin of the remaining 6 is still a mystery. It is possible they were exported from Mexico. If they were exported from Mexico, again it implies that under the current legislation the export license must been granted for for "Scientific or Educational" purposes or the export is illegal.

National Laws effecting dolphinaria

Wildlife Law Article 60

In July 2000 a chapter of the biodiversity law was introduced entitled the Wildlife law Article 60. This law protects specially endangered species, both plants and animals.

In 2001, the NOM 059 List of Species at Risk was derived from the Wildlife Law. Under this NOM certain species of fauna and flora, including dolphins were put "under special protection".

Dolphins are classified as a species that could become "at risk". Meaning that, if commercial dolphinaria companies continued to capture them, for example, their species could become endangered.

- In 2002 capture of marine mammals in Mexican waters was banned *unless for scientific or higher educational reasons*.
- In 2006 import/export and re-export of marine mammals was banned, *unless for scientific or higher educational reasons*.
- In early 2015 the use of marine mammals in travelling shows was banned, *unless for scientific or higher educational reasons.*

The SEMARNAT governs the Wildlife law and issues licenses for scientific or higher educational reasons. Information on how many licenses have been granted for any of the above reasons is not publically available.

Regulation

In 2004 law NOM 135 was introduced. This law was designed to regulate SWD parks. According to the WSPA 2008 report on Mexican dolphinaria (5) this law benefits SWD park owners and not the actual dolphins. According to the WSPA 2008 report standards ensuring good welfare of captive dolphins was actually diminished.

For example, prior to NOM 135, areas of sanctuary within the SWD tourist parks were encouraged by environmental services, these sanctuaries are quiet zones dolphins can go to escape the constant implosion of tourists, however, under the new regulation they are not obligatory, dolphinaria companies subsequently have not included these areas in the new facilities they build.

Alaniz states that the new regulation of the SWD facilities was actually a deregulation (4)

In national law Swim-With-Dolphin parks are classified as UMA (Management and Use Units, *Unidades de Manejo y Aprovechamiento*). Circuses, zoos and other aquaria are all classified as UMA as well.

In 2010 parks which do not have any breeding or reproductive programs were reclassified as PIMVS (Predios e Intalaciones para el Manejo de Vida Silvestre)

Swim-With-Dolphin Tourist Attraction Parks

Performance

The Swim With Dolphin (SWD) experience is still the primary method used to generate profit for dolphinaria today.

The SWD activity can consist of activities or tricks known as:

- Foot push
- Kiss
- Hand Shake
- Dorsal Tow
- Free Time
- Boogie Board Push
- Belly Ride
- Dolphin Song
- Hug
- Handshake

Although the names may vary slightly depending on each company, the activities offered are generally the same.

Dolphins usually carry out SWD program around 4 times a day to groups of around 6 -20 people. A dolphin may carry out the same activity around 16 - 60 times a day (notes).

The Foot Push

The foot push is carried out by two dolphins. The swimmer leaves the group and swims out into the pool. Two dolphins are sent to the swimmer at speed. They swim behind the person put their rostrums under the swimmer's foot (one dolphin per foot) and push the swimmer out of the water. The person is out of the water for a few seconds and pushed along for a few metres.



The Belly Ride

The Belly Ride is carried out by one dolphin. The swimmer leaves the group and swims into the pool. The dolphin swims up to the person, rolls over on to its back and the person takes hold of the dolphin's pectoral fins.

The person holds onto the fins while the dolphin pulls the person along, for a few seconds and a few metres.



The Dorsal Tow

The Dorsal Fin is utilised in this activity by tourists holding onto it while the dolphin pulls them along. The tow can be carried out by one or two dolphins.



The Dorsal Tow at Dolphin Discovery Riviera Maya

<u>The Handshake</u>

This activity involves one or two people holding onto the pectoral fins. Swimmers are advised to simulate grabbing the fins by placing their hands on the inside or above the pectoral fins, without making proper physical contact.

Training

Dolphins are trained to carry out these activities with human swimmers by a process known as Operant Conditioning (12, 22).

This is a primary positive reinforcement initiative, otherwise known as a reward based system. For every trick a dolphin performs it is rewarded by being fed a fish.

Captive dolphins are fed between 8 - 15 kilos of fish a day. They are fed around 1 - 4 fish per trick. When the dolphin follows a command successfully it receives a fish. If it ignores a command it will not receive a fish.

This process of conditioning the animals to obey and perform is continuously reinforced with food (23). Regardless of whether the dolphins are swimming with the public or alone in the enclosure they will only be fed by successfully performing a command. If they are not swimming with the public the trainer will still go into the water and work with the dolphin, training the dolphin by feeding it.

The dolphins which were originally captured have lost the ability to hunt their own food. Captive born dolphins learn from their mothers and the training they undergo, so have never experienced hunting their own prey or eating live fish.

Dolphins are also trained to engage with medical treatments. The medical treatments captive dolphins undergo are generally quite rigorous. It is recommended by veterinarians specializing in this field that dolphins are trained to allow the taking of regular blood samples, urine samples and stools (24). This way experts can monitor the wellbeing of the dolphins to ensure their survival in captivity.

Blood samples are taken from the dolphin's fluke (end of the tail). The dolphin is coaxed to turn over and a veterinarian takes a sample of blood with a syringe. The injection site is rubbed with a swab before and after the procedure.

Dolphins are trained for this procedure and professionals warn:

"Dolphins are large and possibly aggressive animals. It takes years for a trainer to build up a relationship with an animal and lots of time training a behavior for it to occur smoothly. There must be a great deal of trust between the trainer, dolphin, and veterinarian for this procedure to work properly. If a dolphin becomes aggressive at any point they can bite, hit with their flukes (very strong), move the needle, etc. Not only could you get hurt but the animal might get injured as well" (25).

The procedure to extract blood is often "simulated" (without actually performing the extraction) in an effort to desensitize the animal and provide for lower stress levels when the actual performance is required.

This procedure of holding dolphins in different positions and turning them over to receive treatments is known as Differential Reinforcement for Incompatible behavior (DRI) (26).



Vet at Dolphin Discovery, injection in hand about to extract a blood sample

<u>Summary</u>

Eating dead fish for a wild dolphin is an unnatural act (27). Although dolphins are not underfed they are maintained hungry so they will be eager to perform (12). They do receive a daily quantity of food that is adequate for their size, yet the food is staggered throughout the day ensuring that the dolphin will be hungry enough to obey commands. One dolphin trainer reported 'If the dolphins aren't hungry, you can forget about making them jump for you'. (28)

The fact that the process used to train dolphins to accept medical treatments is referred to as *Differential Reinforcement for Incompatible Behavior* demonstrates that the behaviour is unnatural and incompatible to the dolphin. This unnatural behavior is reinforced.

Animal Welfare

Cuts bruising and lesions

In all facilities visited dolphins were noted to have lesions on their rostrums. We documented rostrums which were extremely raw and damaged. These lesions are caused by lifting tourists out of the water to perform The Foot Push.



Lesion on lower rostrum (chin) of dolphin in Riviera Maya, Delphinus. The lower rostrum is pink and fleshy



Open wound on rostrum of dolphin held captive by Dolphin Discovery

All dolphins continue to work despite injuries to their rostrums, in some cases the lesions had become aggravated by repeatedly performing the Foot Push.

One tourist on Trip advisor Commented:

"The dolphins were fun and the facility was nice. The dolphin we interacted with was well trained, but he had an open sore on his nose. They push you with their nose and I hope we didn't cause him any pain". (30).

There is no restriction of weight on this activity in any facilities. In a review on Trip Advisor one swimmer commented: *"Listen, yesterday two dolphins swam up from behind me, put their noses in the arches of my feet, lifted my 240 pound body out of the water and gave me the ride of my life"*(31).

The dolphins were also observed to have cuts on their bodies especially on their faces and around their fins.



This dolphin has a chunk of skin removed from above its eye

Dolphins with scratches, bruises and marks around their pectoral and dorsal fins were also common. This is due to repeated performance of activities such as the Dorsal Tow, the Belly Ride and the Handshake.

Swimmers are instructed not to grab the pectoral fins during the Handshake, however, we observed swimmers consistently forgetting this instruction and physically grabbing the fin and shaking it as seen in the picture taken in Xcaret park below:



The picture below shows tissue missing from a dolphin's pectoral fin in Dolphin Discovery.



The dorsal fin, located on the top of the animal is filled with fibrous connective tissue. It serves to keep the animal upright (similar to a ship's keel). It also has a thermo-regulation (body temperature adjustment) function. Should a dolphin become overheated, the dorsal fin acts to release excess body heat and maintain the dolphin at its desired temperature.

It is an important function of the dolphin.

The picture below shows bruising to the dorsal fin



Rakes are scratches that dolphins receive on their bodies due to fighting with each other. The teeth of the dolphin scratch the body of the other dolphin. Rakes on dolphins were extremely common in Mexican dolphinaria facilities.



Rake on the back of a dolphin, just below the blow hole

Noise levels

Cetaceans have very fine and sensitive hearing. Exposure to loud sounds, both airborne and under the water has been documented to have a detrimental effect on dolphins (32). When cetacea cannot remove themselves from prolonged, loud sounds physiological stress and damage can result (33).

Dolphins have been proven to be disturbed by boat engine noise at distances up to hundreds of metres away (32). Airborne sounds such as music or machinery can be heard by dolphins under the water (32).

- Captive dolphins in Mexico are continuously exposed to high levels of noise
- There are no restrictions on sound levels in Mexican dolphinaria
- Generally there are always lots of crowds in the dolphinaria people cheering, clapping and lots of children playing, which incorporates loud screams
- Lots of facilities play loud music continuously
- Some facilities are located in busy, noisy shopping centres

- The sea-pens and some converted lagoons have boats moored alongside them, exposing captive dolphins to engine noise and pollutants from the marina, such as sewerage, rubbish and petrol fumes
- Two facilities had building work going on for several weeks. This noise incorporated consistent banging and loud drilling.
- Some facilities carry out free SWD to school children. These days see extremely high volumes of children entering the water with the dolphins with no restriction on noise levels

Medical Treatments

An ex worker told us that dolphins are checked regularly for rakes, scratches and bruising. Cream is administered to the lesions.



A cream called Furacin was observed to be used. Furacin is an antibacterial cream used to deal with skin infections.



Captive dolphins are administered anti-biotics regularly (34). Administration can be via injection, orally in food or via a nebulizer.

A nebulizer is a drug delivery device used to administer medication in the form of a mist inhaled into the lungs. The nebulizer is placed over the dolphins blow hole and the dolphin inhales the medicine. The nebulizer is an electrical device.



Dolphin in Dolphin Discovery receiving treatment via a nebulizer, administered by Dolphin Discovery vet and leading dolphin trainer in Riviera Maya facility.

We also observed staff administering some liquid into a dolphin's mouth via a pipe. One member of staff held the liquid in a funnel attached to the pipe, while the leading trainer forced the pipe into the dolphin's throat.



The whole process went on for 6 minutes 45 seconds. The pipe was shoved deep into the dolphin's throat. The dolphin resisted a little, clearly due to the process being extremely uncomfortable and painful, but the trainer firmly held the dolphin's head in place while the liquid was administered. The dolphin also had a significant lesion on its rostrum. No doubt the dolphin had been previously trained, through Differential Reinforcement for Incompatible behavior (DRI) to accept this medical procedure.

This procedure could be to deliver medication to the animal or force feeding if it had stopped eating.



Dolphin with lesion on rostrum about to receive a pipe into its throat

Two captive dolphins died recently in Switzerland after overdosing on too many anti-biotics which were administered by the dolphinarium vet. These deaths led to the practice of keeping dolphins in captivity to be banned in Switzerland (35).

We were informed by staff that dolphins are given vitamins and mineral supplements every day in their food. As these supplements are added to the dolphins diet it shows that the animals cannot be receiving sufficient nutrients in the food they are given.

One worker informed us that male dolphins are given sedatives to subdue their desire to have sex. This is not administered continuously, it is administered during the seasons when they become sexually active. He stated that if you don't drug them while they're sexually active then: *"They don't want to work, they want to do something else"* (23)."

Dolphins are highly sexual animals, more sexual than humans. They are naturally bi sexual and the act of engaging in sexual activity plays an important role in defining their relationships within the pod and developing their own personalities. By administering sedatives to dumb-down their natural urges important parts of their personalities and lifestyle are not able to develop (36 p148 -149).

Abnormal Behaviours

Studies show that dolphins exhibit signs that they are not comfortable with SWD activities (37). Kyngdon et al 2003 proved that dolphins surface more to breathe when they are involved in the activities. This elevated respiration rate could indicate an increase in stress levels.

It is highly unlikely that dolphins can express themselves equally in captivity as they do in the wild (38).

In the wild dolphins pass 80% of their lives under deep water yet in captivity 80% of their time is spent on the surface. (39) Lying listlessly on top of the water and begging for food are well-documented abnormal behaviours of cetaceans in captivity not seen in wild dolphins.

When dolphins were in their "free-time" albeit not engaged in a SWD activity or being trained they were consistently found to be laying listlessly on the surface of the water. Often they would gravitate towards the edge of the pool where they would lie still. We observed them to be in these sedated like states for hours on end.



Dolphin in Dolphinaris facility listlessly lying in pool

When dolphins were left alone in their free time, we continuously observed them begging for food. The dolphins follow the workers, heads out of the water, mouths open, clearly trying to express that they want food. The life of a captive dolphin is centered around the pursuit of acquiring food and begging (12).



Picture of stereotypical abnormal behavior of dolphins "begging for food. This abnormal behavior is witnessed in <u>all</u> dolphinaria in Mexico

On some occasions dolphins were witnessed to be stationary in the water with at least 50 centimetres of their heads out of the water, rostrums facing up.

One dolphin in Xel-ha, Delphinus facility was motionless in this position for over 20 minutes. Occasionally the dolphin would move to splash its face with water but then it would return to the vertical position.



Dolphin in paralysed state in Xel-ha, Delphinus facility

In her 2008 report on dolphinaria (5), Alaniz comments that dolphins in SWD go through three phases:

<u>Phase of implosion</u>: Involves lots of human swimmers jumping into the water with the dolphins. Lots of noise and forced physical interaction.

<u>Abandonment phase:</u> Involves all the people leaving the water and the dolphins being left alone in the enclosures with nothing to do. The dolphins are still on display to the tourists who are still in the park.

Total abandonment phase: the park closes, no music, stimulation or interaction until the next day.

Aggression and in-fighting

Dolphins' social lives are complex and based on a hierarchy. Dolphins will fight to establish their position in the social structure.

Although fights in the wild occur, evidence suggests that captive dolphin groups may establish dominance hierarchies which are not seen in the wild (39). It is argued that dolphins may behave more aggressively towards each other whilst held in captivity.

Mammals showing aggression towards each other, whilst being held in captivity has also been noted to arise in predators which don't have the natural opportunity to forage and hunt for food. (12)

Also captive dolphins have the added pressure of being stressed from the continuous work and interaction with humans, constant hunger, boredom and probable anxiety. One worker commented *"Here they sleep, here they work, and here they train, all the same"* (40).

Dolphins showed signs of stress and anger toward each other in most of the facilities visited. They can display annoyance and aggression by slapping their tails on top of the water, they can bite each other or the can breach (jump out of the water, landing on their sides).

When the public and the workers leave the facility at night dolphins are left confined in one tank or pen with each other until workers return the next morning. Dolphins are trapped in these enclosures so if fights break out, submissive dolphins will not be able to escape the violence.

• We observed dolphins showing aggression to each other in each company visited

In Veracruz Aquarium, in between some SWD activities and a show, three dolphins were engaged in a fight that lasted over 20 minutes. The dolphins would leave the fight intermittently but then return again.

The aquarium was busy and very noisy. There was a lot of activity in and around the tank where the dolphins were being held.

The fight was occurring in the corner of the tank in the prelude to a show which was about to start. Noise was increasing as people arrived and the music was turned up. Trainers and staff seemed oblivious to the fight. Two dolphins were already separated from the main group. The enclosure was small there was no other area to separate the fighting dolphins.

After the show, when the music stopped and the tourists disappeared the dolphins did not return to fight. It could be argued that the build up to the show was causing the dolphins to be stressed and resort to fighting.



Dolphins in Veracruz Aquarium belonging to Delfiniti, engaged in a serious fight

Uncooperative Dolphins

In the Riviera Maya Dolphinaris facility, a male dolphin, Ajitizi, is held. He is around 28 years old. He is Dolphinaris's oldest dolphin. He was captured in Cuba. Ajitizi doesn't work. He has become too dangerous to swim with the public.

We were told he is traumatized from the capture process as he was "treated badly". He used to swim with the public, but now is too much of a liability.

Ajitizi is kept isolated in a tank at the back of the dolphinarium. He does not integrate with any of the other dolphins anymore although he can see and communicate with some of the male dolphins through the bars of a gate in his tank. He is fed and kept alive. Ajitizi receives little interaction. Sometimes guests are given the opportunity to feed him and train him as a free activity. This takes 10 minutes and sometimes happens twice a day. He also receives some training when he is fed, otherwise Ajitzi is isolated.

Dolphin Discovery's oldest dolphin is Helen. They say she is 36 but she was captured from Cuba and so her exact age is unknown. She is being held in Isla Mujeres facility. She too is now showing signs of not wanting to engage with humans in the SWD activities. One customer commented on Trip Advisor:

"Our dolphins were the oldest ones there, and unfortunately we had one named Helen that was unpredictable and didn't always listen to our trainer Carlos. At the end we were hoping Carlos was going to have them perform for us, but he didn't so that was a slight disappointment" (41). It seems that there could be a pattern developing regarding older dolphins which have been in captivity for some time and are refusing to work or engage appropriately with the public. This is a very legitimate potential problem and begs the question of what will happen to the dolphins in their retirement?

Maintaining a dolphin in captivity is extremely expensive and also requires space. Perhaps companies can manage to sustain one unworkable dolphin as Dolphinaris are doing with Ajitizi, however, it is economically unviable that they can do this on a larger scale. The facilities just do not have space to maintain isolated dolphins long term. The space that Ajitizi inhabits is extremely small.

The mental wellbeing of dolphins kept in social isolation permanently needs to be addressed.

Transport

Transportation of dolphins has been proven in scientific studies to increase stress levels in dolphins. Increased stressed levels could have a detrimental effect on the immune system (42).

Transport of dolphins in Mexico is common practice. The dolphins are transported between facilities frequently, dolphinaria companies claim this is to alleviate boredom.

The dolphins are removed from the water, put in a stretcher and carried by around 8 staff. The stretcher is then placed in a van, plane or boat.

Often the dolphins are kept inside a container which has water inside during the transport. Many members of staff accompany the dolphin on this journey including a vet and leading trainers.

Over the course of the journey the dolphins are lubricated with Vaseline and water. The staff keep the dolphins hydrated by pouring water on them constantly and the vet is equipped with medication for any eventuality. They register and control the breathing and the blood pressure of the dolphins.

We were told by one member of staff that sedatives are administered to dolphins if they become too nervous so their breathing can be controlled (43). They said it was more common to sedate new dolphins which were not accustomed to the upheaval (43).

One ex worker described how during a fierce hurricane, the dolphins from a sea-pen were urgently transported to a nearby swimming pool. They were loaded into 3.5 tonne trucks. Possibly due to the urgency of the situation the appropriate equipment was not available. The dolphins were put on the hard surface of the truck on a layer of foam. When they were removed from the truck and carried to the swimming pool one dolphin was dropped on the ground (44).



Dolphin being put in swimming pool after being transported from a sea-pen to protect it from a hurricane

Dolphins have not evolved to live outside of the water. When dolphins are removed from the water they can often overheat. Being placed on a hard surface can cause unnatural pressure on inner organs. This unnatural act of being put on a hard surface for prolonged periods of time can cause pain and sometimes permanent cramps all over the dolphins' bodies.

Studies show that even captive dolphins which have been transported on various occasions never become accustomed to being transported. Stress levels remain high and risk of illnesses increase immediately after transport (42).

The socialisation process after transport

After a dolphin arrives from being transported it will be stressed and anxious. It may be in pain from the journey. The dolphin will be isolated in an enclosure on its own and left to calm down. Staff will observe the dolphin to be sure it has not acquired any physical problems from the transport. It will not be made to work with the public immediately as the dolphin must undergo what is known as the Socialisation Process (23).

The dolphin will remain isolated in a pen although it will maintain visual contact through the nets with the other dolphins.

Upon arrival to a new dolphinarium and whilst undergoing the socialisation process, dolphins will feel anxious and nervous (23). They have to await the "acceptance" of the other dolphins.

Socialisation can take up to 2-3 weeks. Staff observe the behavior of the dolphins to see if they will get on. Some dolphins which have been in captivity for many years will be more accustomed to this process and may already be acquainted with some of the dolphins present. Therefor the process may take less time and run more smoothly, however, for new dolphins, perhaps young dolphins, recently separated from their mothers, or dolphins being taken to a new facility for the first time, the process takes longer.

Different species of dolphins are mixed together in the same facility. For example T. truncatus, bottlenose dolphins from the Atlantic Mexico are held in the same enclosures as T. anducas, bottlenose dolphins from the Indo- pacific. This integration does not occur in the wild.

We were informed how one time an alpha male dolphin, Zeus, was introduced to a new dolphinarium which had an already long-term established leader, Titan. Titan was apparently an extremely intelligent dolphin and knew how to open some of the pens' gates. During the socialisation process the new dolphin Zeus started to provoke Titan.

Early one morning, before any tourists arrived, Titan, the already established alpha male of the dolphinarium, managed to open his pen gate and escape. He got into the pen where Zeus was held and was reportedly very angry. He approached Zeus and jumped out of the water and breached him with his body. Titan hit Zeus extremely hard. We were informed by the person relaying this event that when dolphins fight they know which parts of the bodies to strike each other in order to do the most damage.

Zeus sank to the bottom of the pool and Titan returned himself to his pen. Zeus was recovered by staff and was nursed back to health, had staff not intervened Zeus would have been killed. He was in recovery for at least 3 months. He never returned to provoke Titan again.

Threats from hurricanes

A serious threat to facilities and the dolphins in the facilities is the very real and plausible possibility of hurricanes and storms. Coastal areas in Mexico where dolphinaria are situated can be prone to hurricanes and bad weather. Three hurricanes have hit Mexico since 2003 and caused serious and detrimental damage to dolphinaria.

When weather is so severe, people cannot risk leaving the safety of their homes, so often dolphins are left abandoned in the dolphinaria. During Hurricane Marty in La Paz in 2003, the dolphinarium was abandoned as the weather was too severe to go out in. Four of the seven dolphins died during this period (45).

A recent hurricane in September 2014 led to 22 dolphins being urgently evacuated by plane from the dolphinarium (9). Although the dolphin entertainment company claims that none of the dolphins were harmed during this evacuation, considering the evidence presented above, this sudden upheaval will have undoubtedly put stress and physical strain on the dolphins both physically and emotionally.

In 2005 hurricane Emily hit Quintana Roo which resulted in the death of one dolphin. 4 sea-lions ended up being lost from the facility as well, but were later recovered.

In 2006 hurricane Wilma hit the coast of Quintana Roo and over a period of three days managed to destroy 3 of the 5 dolphinaria. Nets of the sea-pens were destroyed and broken and parts of the enclosures completely submerged under water and destroyed.

As mentioned previously staff in one dolphinarium had to urgently transport dolphins from a seapen to a nearby swimming pool where they stayed for the duration of the storm. The swimming pool was only around 1.5 metres deep. One female dolphin with a young calf could not be transported as the stress of the move would have been too traumatic for them (44).

It's confirmed that one calf definitely died during this ordeal and there were other reports indicating the deaths of some female dolphins and their calves. The dolphins were abandoned in the swimming pool for 3 days during the storm.

Chemicals added to water

Another issue effecting dolphins held in in-land dolphin facilities such as all the facilities belonging to Dolphinaris, Maroma of Dolphin Discovery and Interactivos of Delphinus, is the levels of chemicals which are put into the water. Dolphins naturally live in the sea therefore in-land facilities are pumped with sea water. The sea water is then treated with other chemicals such as chlorine. Exposure to concentrated amounts of chlorine can be toxic and cause irritation to the skin, eyes, nose, and mucous membranes of the animals.

The reason these chemicals are added to the water is to stop algae growing on the walls of the tank and also make the water appear crystal clear and inviting to tourists.

A lot of the chemicals are strong and in some circumstances staff are required to wear safety equipment, such as rubber or neoprene gloves, impervious boots, apron, googles and face shields. Over exposure of these chemicals to dolphins can have an adverse effect on their health.

Summary of Animal Welfare

In the wild dolphins have been proven to range over an area of 1,000 - 1,500 square miles. In one day they can swim up to 140 km. Although the quantity of territory covered may vary from cetacean to cetacean, these mammals will cover more territory in the wild in one day then what they ever can do in even the largest captive facility (36 p199).

'Wild dolphins have to learn, at the very least: echolocation; identifying and hunting for food; navigation; recognizing and avoiding predators and other strategy; and the ability to respond to unexpected situations and solve a variety of problems'. (36 p209)

On top of that dolphins, are suffering physically with very visible repetitive strain injuries due to continually carrying out SWD tricks on members of the public.

SWD activities are designed to be commercially viable to tourists it appears that the welfare of the dolphins is overlooked. SWD activities continuously utilize important parts of the dolphins' bodies and although dolphins are much stronger than humans, carrying out the same trick, such as the Foot

Push around 50-60 times a day clearly causes injury and strains on the dolphin. The effects of SWD tricks on the dolphins is clearly visible.

Dolphins are trapped together in small confined areas with each other and little else to do. Tensions can be high. Submissive dolphins can be bullied as they have nowhere to escape to. In the wild if a dolphin feels threatened or is ready to leave the fight, it can just swim off. However, in captivity there is nowhere to run. Submissive dolphins will fare worse in captivity than in the wild.

The fabricated and controlled manipulation by staff of dolphin communities interferes with the natural balance that occurs with dolphins in the wild. In the wild these highly social animals form their personalities by the relationships they create with other dolphins. In captivity this is denied to them or is engineered. Dolphins in captivity do not have a choice with whom they integrate. The mixing of the varying bottlenose dolphin species does not occur in the wild, all of this must put a strain on the well-being and stress levels of the dolphin.

It's clear to see that dolphins held captive are suffering in varying ways due to confinement. Dolphins are exposed to many different practices that are completely alien to their species. Continued transportation, forced integration, extremely high noise levels and confinement to a very small area all have a detrimental effect on the wellbeing of the animals and scientific evidence is consistently coming to light which proves this.

Dolphinaria companies value dolphins as their product which they market. It is in their interest keep them as happy possible to ensure their survival and continued profit growth generated by each dolphin. The mental health of dolphins, the suffering they undergo due to confinement is not an issue for dolphinaria companies, unless it negatively effects the generation of profit.

Reproduction

Intensive reproduction programs are being carried out by all the main dolphinaria companies in Mexico. Dolphins are being bred to expand the industry and also to be sold onto other dolphinaria or rented out.

It is clear that companies invest a great deal of resources into dolphin reproduction. One successful birth in captivity is a massive asset for the industry, generating a great deal of profit.

The first captive dolphin birth took place in Mexico in 1992. The dolphin was named Xuna and she was born in a Via Delphi (currently named Delphinus) facility. Xuna was born to a dolphin which had been captured pregnant.

The birth of this dolphin was by chance as the mother was captured pregnant and managed to be kept alive during transport from the wild into captivity.

Despite this birth in the early 90s captive dolphin reproduction in Mexico was not common practice until the mid-2000s once the ban on capture and import and export was firmly in place.

The Reproduction Programs

At present dolphinaria companies are carrying out blanket reproduction programs. In 2009 18 dolphins were bred in one company alone. Whilst visiting facilities it was common to see reproducing females nursing calves or due to give birth.

In each facility visited the pregnant females were due to give birth around the same period of time literally within a time frame of 2-3 weeks. The synchronized delivery date implies that the dolphinaria companies could be using Artificial Insemination (AI) to impregnate the dams.

Dolphinaris' first captive birth took place in 2009. Captured dolphin Electra was artificially inseminated with frozen semen which had been preserved since July 2007. In December 2009 Electra gave birth to Golden Boy.

Pregnant dams are monitored in the lead up to giving birth. When the calves are born, mother and calf are continuously monitored day and night, normally for around three months.

Calf Training

After around three weeks after giving birth, mothers will be put back to work in the SWD activities. Customers of the SWD will enter the enclosure with the mother, using food incentives to coax the pair apart.

The mother will carry out the usual SWD activities with tourists while the calf will begin to be trained to carry out SWD tricks.

Members of the public swimming with the mother are advised not to go near the calf or touch the baby. If they do the mother may become angry or upset.

Over the next period of 12 to 18 months the calf will gradually be trained to perform SWD activities correctly and little by little will become conditioned to human intervention and accustomed to being separated from its mother. Inevitably, a permanent separation of mother and calf is made. Young dolphins will be sent to new facilities or sold on or rented out to other companies, fully trained.

Natural Bond

In the wild dolphin calves will stay with their mothers for around 3-4 years. They will suckle for 18 months or longer. Dolphin gestation is 12 months.

Female calves will stay close to their mothers all their lives, if they do leave to join another pod it will still be within close proximity of their mothers. Male dolphins may drift further from their mothers

to start their own pods, but there will usually always be some form of contact. They have been proven to always remember each other.

In the wild dolphin mothers have been proven to show very tangible signs of grief and distress at the loss of a calf (36 p74). They can show severe effects of grief at the loss of a calf such as dissociating from the pod or becoming solitary and withdrawn. They've also been witnessed to attempt to resuscitate the dead bodies of their calves by pushing the body up to the surface, or denial of death or mourning of death, by carrying the lifeless body on their backs (46).

As dolphins are such intelligent and highly social animals, their sense of family and kinship is part of what makes up the culture of their species.

Some serious issues concerning dolphin welfare and current practices of reproductive programs were flagged up during this investigation. Most notably:

- High rates of calf mortality
- > Forced separation and manipulation of the natural bond between mother and calf
- > Loss of culture
- > Trauma caused by permanent and unnatural separation of mother and calf
- > Trauma caused to reproducing females by *repeated* permanent separation from calves
- Cover ups of calf mortalities
- > Over work of reproducing females in the lead up to giving birth and shortly after

High rates of calf mortalities

- An ex-worker claimed that calf mortality in captivity is high. He witnessed many calf deaths and cited illnesses such as cardiac or heart problems as a consequence. The ex-worker explained that calf death could occur after a few weeks or a few days, or the pregnant dolphin could miscarry (23).
- New-borns are not named until they are at least 4 months or older, implying chances of death prior to 4 months is high
- Often, when asked, staff could not give a definitive answer on how many pregnant dolphins there were, or how many mothers and calves there were, also implying that calf death is high and breeding is high
- Out of 4 pregnancies monitored during Jan 2014 in Dolphin Discovery's Riviera Maya facility only 1 calf is alive today. Implying a survival percentage rate of 25%

Forced separation and manipulation of natural bond between mother and calf

Humans enter an enclosure with a nursing mother when the calf is practically new born. This agitates and stresses the mother as this situation would never happen in the wild.

In the wild the mother would be able to leave an area with her young when she feels threatened. It is natural for the dolphin mother to try to protect her calf, however, in captivity she has no choice but to accept the presence of human swimmers.

In the Riviera Maya facility belonging to the company Dolphin Discovery, staff forcefully separated *a one week old calf* from a mother to carry out some medical procedures on the newly born calf. Security staff asked members of the public not to film the event:

- No less than 13 staff members surrounded the mother and calf in a small enclosure and closed in on them
- The calf was visibly panicked and frightened and tried to jump onto its mother's back for protection



Mother and calf being temporarily separated in Dolphin Discovery facility so staff could insert something into the throat of one week old calf

- Staff managed to forcefully grab the mother and calf and separate them
- The mother was held down by at least 8 staff members while the calf was taken a few meters away
- Veterinary staff entered the water
- The mouth of the baby was forced open and something was shoved into its throat
- An injection/blood sample was also given to the baby
- The pair were reunited again after the procedure

SWD sessions where mother and calf are separated in order for the mother to perform the SWD activities also demonstrate unnaturally forced separation and manipulation of the natural bond between mother and calf, this was clearly expressed by:

- Dolphin mothers consistently disobeying orders and leaving the SWD swimmers to rejoin with their calves
- Calves consistently trying to rejoin with their mothers once separated
- When the dolphin mother leaves the SWD activity to rejoin with her calf staff consistently ask members of the public to step away from the pair as the mother could be "angry, stressed or anxious"

Dolphinaris's Riviera Maya facility had a four month old nursing calf being trained in SWD tricks while the mother, Nautica, was supposed to be swimming with the public.

- During a SWD session of one hour staff lost control of Nautica and her calf no less than 3 times
- Staff had no choice but to allow mother and calf to circle the pool until they could regain control of the pair and separate them again by coaxing them apart with food

Nautica's four month old calf already being separated and trained to work SWD activities for tourists



Loss of Culture

Dolphin calves naturally copy their mothers in the wild and culture is passed on. In the wild dolphins will learn to hunt and forage for food and interact socially with each other by watching their mothers. However, the opportunity to do this in captivity is not available and so captive dolphin calves begin to learn SWD tricks:

- Whilst observing SWD activities we occasionally witnessed older calves *voluntarily* attempting to join in with the SWD activities
- Captured dolphins are not able to teach skills which they were taught by their mothers in the wild

- The natural skills and behaviours which dolphins have developed in the wild are being lost with each new generation of captive dolphin births

Trauma caused by permanent separation of mother and calf

As mentioned, dolphins are very social animals and have strong family kinship. In captivity this bond is destroyed and dolphins will have to suffer the trauma of being unnaturally separated from their families

The progress of one male calf, Thor, was monitored since birth :

- Thor was born in December 2012 to mother Regina. Mother Regina was originally captured in Cuba in 1999
- By 12 months old Thor was working as an adult male dolphin, carrying out full commercial SWD activities such as performing the Foot Push and the Dorsal Tow
- This separation was made 12 months before the lactation process had naturally ended
- After around 13 months Thor and Regina were transported to another facility together but inevitably the pair were separated
- Due to the continued transport and swapping of dolphins between facilities sometimes mother and child may be put back in the same enclosure with each other for a temporary amount of time but will be separated again when the dolphins are transported to different facilities
- Sometimes newly born dolphins are sold to different companies and will never see each other again

Trauma caused to reproducing females by *repeated* permanent separation from calves

Due to successful animal husbandry practices staff will select females to be used in reproduction programs which will be more favorable to the process, this often means that some of the females will be repeatedly used.

As calf mortality in captivity is very high and also permanent separation of mother and calf is inevitable, the same females are suffering the proven trauma of calf loss on several occasions:

- At least 48% of females used in Dolphin Discovery's breeding program have suffered a calf mortality
- 33% of reproducing females in Dolphin Discovery have been separated from at least 3 4 calves.
- In Interactive Dolphinarium in Cancun 2 pregnant reproducing females had been permanently separated from 3 calves and were due to be separated from the coming calves if the calves survive

Cover ups of calf mortalities

- Of the 4 pregnancies monitored, the three calf losses were not reported to the public
- Staff denied that the dolphin mothers were ever pregnant

- 2 ex-workers of dolphinaria admitted that calf mortalities are not reported to the public (23,44)
- Due to this overt cover up of calf mortalities it's impossible to trust the information dolphinaria companies give out regarding successful reproduction programs
- If 18 dolphins were successfully bred in one year by one company alone, does this mean that companies endeavor to breed this many dolphins every year, yet only a handful survive?

Over work of reproducing females in the lead up to giving birth and shortly after

One of the females monitored during pregnancy who lost her calf, Estrella, was:

- repeatedly performing full SWD activities 3 weeks before she was due to give birth including carrying out the Belly Ride
- Put back to work in SWD almost immediately after the loss of her calf
- Observed by dolphinarium staff to be "tense" and "uncooperative" once put back to work after the loss of her calf (47)

Another problem captive cetacea may face is inbreeding. Most companies have key alpha males that will be used to breed, such as Titan and Picasso for Dolphin Discovery, Amizcle in Dolphinaris and in Dolphin Adventures. Sperm from key alpha males is often frozen and sold between different dolphinaria.

Although other male dolphins maybe used for the breeding process often the same females are sired (bred) by the same male. Therefor it is not uncommon to see cross breeding of cetaceans in captivity (48).

Summary

Dolphins demonstrate tangible signs of trauma, anxiety, stress and sadness caused by being involved in the reproduction programs. Female dolphins are continuously exposed to the same trauma of calf mortality or becoming permanently separated from their calves.

The natural bonds between mother and calf are broken as soon as the calf is born.

The Born Free 2011 investigation cites 4 studies which compare deaths of dolphin calves in captivity to deaths in Europe of calves in the wild. All four studies show dolphin deaths in captivity to be between 5.6 -7.4% compared to the death rate of dolphins in the wild which was 3.9% (12).

Trade in dolphins nationally still occurs. The intensive breeding programs which are being carried out by all dolphinaria companies demonstrate that dolphins are valued as investments and assets. This desire to expand and increase the industry through dolphin reproduction overlooks the suffering and torment caused by human interference of natural family relationships.

Dolphin Mortality

Bacterial infections in captive dolphins are a common cause of death. Pneumonia, which is often brought on by another condition, such as stress or a low performing immune system is the most commonly cited cause of death. Dolphins often hide injuries as in the wild they would not want to show weakness to predators, therefore it is difficult for staff to pick up on when a dolphin is sick (24). Dolphins also have very little movement in their face, therefor staff cannot notice via facial expressions when a dolphin is ill.

If a dolphin is ill it may often stop eating, anorexia is noted within the species. It can also start to avoid the trainer. If these symptoms occur it is usually an indicator that the dolphin is suffering from an illness and medical practitioners will carry out tests (24).

Necropsies (dolphin post-mortems) rarely report the cause of the pneumonia. Alaniz reports that in 2008 20.8% of dolphins in captivity in Mexico died from pneumonia, she also comments that 15% die from Sepsis which is a severe infection, often bacterial. Although sepsis is the ultimate cause of death, like pneumonia, it is normally triggered by another illness prior to this final disease. Dolphins in captivity suffer from respiratory and digestive problems, bacterial infections and ulcers (45).

Pneumonia and combined Sepsis make up 35% of deaths of dolphins in captivity in Mexico in 2008. 20-25% of deaths are due to reckless handling of the animals; this includes head trauma (8.3% of deaths) and intestinal obstruction of swallowing foreign bodies (45).

Data obtained from necropsies have shown obstruction from foreign bodies such as

- Several kilos of tree leaves blocking the stomach
- Baseball cap
- Plastic bags
- Ropes
- Metal objects

The third cause of death of dolphins held captive in Mexico is myopathy. Myopathy is the process of rising body temperature and heat attack. This is brought on by stress. Transport has been proven to significantly increase stress in dolphins as does being handled by humans. (49)

4 - 6 % of dolphins and seal-lions in captivity die due to old age. Heart, liver and problems related to old age occupy the last cause of death in official records.

Life expectancy of dolphins in captivity is less than in the wild (12,33). At SeaWorld San Antonio, the average lifespan of a captive-bred dolphin is four years (50)

Summary

As such aggressive and vigorous health treatments exist to maintain the health of dolphins in captivity, it shows that dolphins do not adapt well to captivity. Captive dolphin life expectancy is compromised in captivity and this is reflected in the fact that only 4 -6% of captive dolphins die from old age.

Human safety

Several incidences of dolphin attacks during SWD have been recorded and noted in the history of dolphinaria globally.

- Between 1989 -1994 more than 12 people reported injuries from dolphins during SWD activities.
- In 2004 a 49 year old man was admitted to hospital after being injured by a female dolphin in Miami Sequarium.
- In 2008 in Curacao a dolphin breached and landed on a group of swimmers, causing pain and injury.

In 2010 in Mexico one incident of violence from a dolphin toward member of the public occurred. The comments on Trip Advisor read:

'Bitten but well compensated"

"The dolphin was not acting aggressively but was so keen to do the "boogie board" trick that she went out of turn and "encouraged" my husband to lift his feet so she could push him. Unfortunately, she used her teeth to do this, made 3 attempts and ended up by leaving 8, 2-3 inch gashes of varying depths on her attempts to get him to lift his feet! The facility was aware that this particular dolphin didn't always listen' (51)

The person had to go to hospital and has been left with permanent scars. Cabo Dolphins compensated the family to their satisfaction and the matter did not go further.

Workers in Mexican dolphinaria commonly informed us told that dolphins can become angry and are often removed from the SWD group. It is not uncommon to find a dolphin isolated in a pool on its own.

A worker in Veracruz Aquarium told us that they have

"to separate one or two dolphins from time to time. It's a question of space. Sometimes the dolphins are angry. They have their own personality, if they're stressed we move them and we keep them apart" (40).

One ex worker informed us that when dolphins are suffering from stress or do not want to work, they separate them from the group for the security of the public (23).

The trainer always has to be watching and monitoring the mood of the dolphins, there are precursors to look out for to ensure the dolphins are not stressed. At the end of the day, they're wild animals. A dolphin can hit you with its tail, with its body; which is tremendous. It can bite you. Although the bite isn't deep, it can scratch you with its teeth and this will be a shock. So it's down to the trainer to look out for when the animal is stressed. If there's a sign it's stressed they change the dolphin (23).

One member of the public commented on Trip Advisor

"Our dolphin Jacanda was not cooperating at first so they switched with another dolphin Shanda(52).

Therefore, staff are aware that there are safety risks for members of the public. One worker commented that

"if a dolphin does become aggressive, it is never the fault of the dolphin, it the fault of the trainer for not isolating the dolphin quickly enough" (23).

There are also risks for the public by being in a small enclosure with a female dolphin when she is separated from her calf. Staff routinely warn people to step away from the mother when she feels threatened if people go too close to her calf.

Risks to members of staff

Working with captive dolphins poses risks to members of staff also. One form of communication dolphins use to demonstrate annoyance and anger is by making a fast clicking noise with their mouths.

An ex-worker explained that if he was under the water, cleaning a net of a dolphin enclosure and a dolphin approached him making the clicking noise, he knew the dolphin was angry so he would have to get out of the water immediately and leave very calmly (23).

Transporting dolphins can also be dangerous for workers, dolphins are extremely strong and large animals, around 10 times stronger than humans (53), staff have to be careful not to get hurt (23). One person interviewed informed us that during a transport a worker got hit by the tail and taken to hospital. The person was ok but did spend four or five days in the hospital recovering (23).

Disease

Studies show that disease and illness can be passed onto humans from marine mammals (54). Diseases and illnesses can be difficult to treat and a diagnosis maybe overlooked as health practitioners are not familiar with the problem (12).

Health risks also pose a problem to staff and members of the public in the form of skin rashes and other ailments contracted by being in such close proximity to dolphins and also from being in enclosed tanks where dolphins are regularly urinating and defecating.

One review on Trip Advisor regarding a Delphinus facility located in the hotel Dreams, read:

"Very dirty water/my girls got a rash"

"We took my girls to the dreams hotel on Sept. 3, 2013. When they both went into the water and stood on the steps the water stung their skin. They both said it felt like the water was burning their skin. When we got home both of my girls had a rash like chicken pox. It is a bacterial infection" (55)

Summary

Although staff are trained to carry out risk assessments and try manage dolphins if they become angry or stressed, the fact remains that incidences of injury from dolphins to workers and members of the public do occur.

Many children and babies will swim with dolphins in captivity, this poses a risk to the whole family.

Dolphins are large wild animals that have not evolved to interact with humans in the dynamic in which they are currently held. Attacks, injury and illnesses from diseases pose a serious threat to members of public and staff.

Misinformation

What we found concurrent in our investigation into dolphinaria was endemic misinformation being delivered to the public.

We asked the same questions to different members of staff at different dolphinaria in different companies and received the same misinformation. From this we can only deduce that this misgiving of information is deliberate and not just a one off mistake from a worker. -The deliberate misinforming of the public is systematic-

An ex worker informed us that staff are given a script to learn to tell people (44).

The most common piece of misinformation being routinely delivered to the public is about the origins of the dolphins confined. Staff consistently inform members of the public that "75% or the majority of dolphins are captive born". (56,57).

Although our inventory is approximate we can deduce that no company has 75% captive born. The quantity of captive born Vs captured is circa 55% captive born, and this does not include dolphins which have been captured for "scientific or educational reasons" as this information is not public.

On one visit to a facility a member of staff informed us there were three generations of female dolphins in the facility; grandmother, mother and daughter (a young calf) (56). On checking the

validity of the claim we learnt that the alleged grandmother and daughter actually had no relation to each other at all, one was captured on the Pacific coast the other captured in the Atlantic.

Currently there is a lot of controversy around keeping dolphins captured from the wild in captivity. Dolphinaria companies come under a lot of criticism about this practice. All dolphinaria companies now claim to be "against capture".

They believe it to be in their interest to promote births in captivity above dolphins acquired through capture.

When pushed to answer where the older dolphins were acquired the companies did admit to capture *with the exception of Dolphin Discovery*.

Dolphin Discovery tells their customers that the captured dolphins were rescued. We were told in two different facilities that the dolphins were rescued. Not once did their workers mention capture.

Only two dolphins have ever been rescued by Dolphin Discovery as far as we can tell. One dolphin in 2012 was rescued by the Environmental Services (PROFEPA) and quarantined in a Dolphin Discovery facility, this dolphin was not a bottlenose dolphin and could have infected all the other dolphins with deadly viruses if exposure occurred (8), this dolphin was released within the month.

The only other dolphin which Dolphin Discovery rescued was a stranded bottlenose dolphin in 2002. The company did not release it when it was healed, instead they put it to work in SWD programs and the dolphin died two years later (6)

For Dolphin Discovery to claim all their captured dolphins were rescued is a systematic fabrication of the truth.

It appears that they embellish this dishonesty as well. One review in Trip Advisor read:

I was told that many of the dolphins that are in the DD parks are rescues who would have died without the intervention of the staff at the DD parks. While I can neither validate nor disprove this statement in entirety one of the dolphins who was with us was definitely a rescue who was found on the other side of the island and was close to death. This dolphin had many scars on him—he was a male, and was very distrustful of humans. Nobody knows if he had been hurt by another animal or fish or maybe ran into the propeller of a boat, but in any case, the staff at DD took him in, provided him with the necessary veterinary care to heal his wounds, and worked with him patiently until he began to trust the humans around him. His name is Picasso. (58)

Picasso was captured in Cuba and imported to Mexico in 1998 (6).

Another review in Trip Advisor read:

All (dolphins) are rescued and rehabilitated animals and not caught for tourist activities like some other attractions in Cancun main strip. I suggest always ask if you feel it's important as I do (59).

So clearly some swimmers are questioning the origins of the dolphins, yet Dolphin Discovery puts their minds at rest with fallacious information.

One of Dolphin Discovery's head trainers also informed human swimmers carrying out SWD excursions that dolphins born in the wild live till 25 years but in captivity they live 45 - 50 years (60). This is untrue and is more likely the reverse.

Summary

This brazen disregard for the truth is alarming, especially by Dolphin Discovery. A common concept companies use to promote and justify dolphin captivity is "education". They say they are educating the public about dolphins. How can programs delivering misinformation be educational?

This brings the environmental office which monitors dolphinaria, the PROFEPA into question. Their failure to adequately monitor the information companies deliver clearly enables companies such as Dolphin Discovery to embellish the truth. If the companies can so easily bend and mismanage the truth isn't it the responsibility of the PROFEPA to hold these companies accountable? Tourists pay a lot of money for their excursion to SWD and clearly some issues, such as capture, are

important to them. Dolphinaria companies like all businesses should be obliged legally to tell the truth.

Conclusion

Unfortunately, achieving a thorough assessment of the industry is severely hindered by a lack of transparency. An official up-to-date inventory of dolphin numbers and origins is not available. We carried out a Freedom of Information (IFAI) request to attain an inventory of captive dolphins, death certificates, birth certificates and information regarding scientific captures, including licenses granted.

The Freedom of Information Office informed us that they did not have this information available and referred us to SEMARNAT, the federal environmental protection agency directly concerned with regulating and monitoring the captive dolphin industry. As advised, we repeated contacted this agency, but to no avail.

Therefore, and in view of this essential lack of information, true analysis of the industry is stunted. Due to the lack of transparency, the current dolphin inventory cannot be cited as 100% correct.

For a thorough inventory to come forward the Mexican government must engage with requests to make it public. Dolphin calves are being born and are dying at potentially prolific rates in Mexico and this report exposes calf deaths which are being hidden from the public.

No information on captures for "scientific or educational" reasons is available, either.

Therefore, this report is by no means a completed analysis of the industry. Although we have discovered and documented many factors regarding Mexican dolphinaria this area of study is still massively overlooked and requires further research.

Mexico is a country with a proven poor human rights record and critical levels of corruption (61). It is also a country where organized crime activity pervades every level of civil society, governmental agencies and the judiciary, with inevitable consequences for dissenters, both political and those daring to speak about powerful economic interests. Due to potential psychological and physical pressures being put upon them we found it very hard to find employees (former, or current) willing to come forward and speak to us about how the industry functions. Those willing to talk did so only under strict anonymity.

Despite the lack of transparency surrounding the present industry this investigation has been able to document serious issues regarding the exploitation and suffering of dolphins in Mexico. Practices proven to cause anxiety, stress and possible death - such as regular transportation and exposure to continued noise - are the norm for captive dolphins in Mexico.

Visible lesions are noted on the animals, particularly open wounds to their rostrums, bruising, cuts and scrapes around their pectoral and dorsal fins. These injuries result from continued exposure to SWD activities.

Captive dolphins in Mexico systematically show signs of psychosis and abnormal behaviours only witnessed in dolphins held in confinement.

As the Federal Environmental agency responsible SEMARNAT fails in its duty to protect dolphins. Regulation has been reduced to practically nothing.

Up to six dolphins died in Sonora Dolphinarium in just six years. For those 6 years SEMARNAT did not act on the matter. It was only after pressure resulting from an anonymous tip-off that that the one remaining dolphin was ordered to be removed from the hazardous facility and even after the order was made it took over one month carry out the transfer order.

The SEMARNAT and the PROFEPA are failing captive dolphins in Mexico at present.

Systematic misrepresentation of the truth to the public is continuously documented. The research carried out by companies on captive dolphins bears very little relevance to wild dolphin conservation.

It appears that although a great deal of money is invested into the physical survival of dolphins their mental health is systematically overlooked. The dolphin entertainment business treats these highly intelligent and social marine mammals like company assets to be exploited and over worked. Whatever money dolphinaria invest in medical treatments is offset copiously through profit earnings (21).

Seeing dolphins in captivity and performing unnatural tricks to amuse humans does not teach about ecology or conservation, but it actually sends out the opposite message, one which is both

retrograde and detrimental and states that the environment, the flora and the fauna belong to humans and exist to be exploited for our entertainment.

Just as the world is waking up to the plight of captive dolphins, Mexico sees an expansion in the dolphin entertainment business.

Tourists from all over the world visit Mexico to swim with dolphins. Many of the people who pay for these excursions come from countries which do not allow dolphins in captivity for ethical reasons, such as the UK, or Chile.

The world is moving towards ending the confinement of these intelligent beings. Since starting this report, dolphins have been granted non-person-human status in India, Dolphinaria has been banned in Switzerland and other countries are currently discussing ending dolphin captivity, too.

Mexico must move with the times and recognize evidence pointing to the high levels of cetacean intelligence. Not only are dolphins highly intelligent, they are highly social and emotional and, to quote Thomas I White, any form of captivity of these animals is '*ethically indefensible*'.(36)

Recommendations

We believe that any form of dolphin captivity for entertainment is "morally indefensible" However, we appreciate that there is the question of what to do with the 337 dolphins held in captivity in Mexico.

Rehabilitation into the wild is a lengthy process and no doubt costly. Although some dolphins have been successfully reintroduced into the wild, this practice is still being developed. We appreciate that it needs time and resources. Unfortunately at present there is no sanctuary in Mexico for dolphins which have been released from captivity and cannot live in the wild due to being institutionalized.

What must happen in the mean-time to protect dolphins whilst they are being exploited for human profit is serious regulation and control of the industry.

Dolphinaria does generate money in tourism. Without a doubt captive dolphin companies do generate jobs in the local areas.

However, what would benefit Mexico and humanity much more would be for tourists to visit dolphins in the wild. There are wild dolphin populations all around the different coasts of Mexico and many local businesses offer trips to see them.

Seeing dolphins in the wild actually teaches people about the real lives of dolphins.

The natural biosphere of Sian Ka'an, for example, is located in the state of Quintana Roo where 60% of dolphinaria are found. This national park contains many miles of virgin beaches and exhibits many wonderful differing species of flora and fauna.

In Sian Ka'an tourists pay to observe the natural wonders of this beautiful wild expanse of nature, which includes boat trips to see wild dolphins. The operators of the boats strive to maintain a respectful distance from the dolphins, unless of course the dolphins choose to interact with the public and approach the boats, which on many occasions dolphins will do, free and wild and on their own terms.

Higher standards and tighter regulation needs to be implemented immediately. Dolphins are suffering terribly in captivity and the state needs to protect them.

- Sanctuaries and buffer zones should be introduced to protect from overwork and anxiety
- Certain tricks dolphins perform during SWD activities should be abolished. The Foot
 Push, the Dorsal Tow and the Belly Ride should be banned
- Dolphins' bodies should be respected and should not be touched at all. Captive dolphins bodies <u>are not</u> public property
- Noise levels should be monitored ensuring that noise levels are kept to a minimum

Reproduction must be banned immediately. The torment of forced separation of mother and calf is highly unnatural and causes mental suffering of both. Calf mortality is also extremely high in captivity

Not only must reproduction be banned to benefit the welfare of the dolphins, reproduction must be banned to ensure the industry ceases to grow and begins to phase out

Until there is a solution for the dolphins being held in captivity the industry must engage in a phase out period, where it can invest its energies into redeveloping its business into something truly beneficial to the environment

Capturing dolphins from the wild for any purpose at all must be banned immediately.

Research on captive dolphins cannot give a true representation of the dynamics of the species. For a true understanding of dolphins one must study the species in the wild. Education on these animals can be given without confining them. There are also plenty of dolphins already captured and held captive, Mexico or any other country does not need to capture anymore dolphins

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