Tropical Fish Trade
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Abstract
An aquarium is something that almost every person has in their home at least once in their lifetime, whether it is a goldfish, or an aquarium full of tropical fish. These fish have to come from somewhere, but where? How are they captured? The path from their home in coral reefs to their new home inside a tank is not always a positive experience. It can be very stressful for the fish, and even result in death. There is also a negative effect on the habitat of the tropical fish when they are being captured. Many techniques of capturing tropical fish from coral reefs, such as cyanide poisoning and coral notching, non-target species are damaged or even killed in the process. These negative actions often have a strong effect on the corals in the coral reef. From all the stress and damage, they may become bleached, and lose their vibrant coloring. Just like someone would want to bring a tiger from the wild and put it in their home as a pet, one would also capture and put these fish in their new home. This problem not only has to do with the stress that fish are under when they are moved from their home, but also the environmental impact of the process. The goal of this project is to see if there is a way to capture these tropical fish without causing the damage to their home. We will be focusing on the individual species of clownfish, and seeing how they are captured. Using different collection techniques, we will be analyzing the environmental and stress effects on the clownfish. By doing so, we will be able to determine if it is possible to capture these fish in a more sustainable way.

Finding Nemo
The number one family of marine aquarium fish that is imported into the United States is the Pomacanthidae, with 1750 different species in that family being imported. Included in this family are the fish most commonly imported as clownfish. In 2003, the film “Finding Nemo” was released. “Finding Nemo” was an animated movie about a clownfish who is captured by humans and brought to the largest aquarium on the Australian coast. In the movie, the demand for tropical fish, including clownfish, increased dramatically. Between 2000 and 2003, the use of cyanide to capture fish from New South Wales increased by 34.5% from 2000 to 2004. While the import of clownfish increased, the number of corals damaged by cyanide increased as well. This increased demand for tropical fish, which brought in the negative effects of the fish trade, actually led to an increase in the number of fish captured and imported. The entire synopsis of the movie was to show that tropical fish belong in the ocean, not out of the ocean in small tanks. Although “Finding Nemo” led to the increase in the import of tropical fish, there were also some positive effects brought on by the popularity of the movie. One example of a positive effect brought on by the movie is the Saving Nemo Conservation Fund. The Saving Nemo Conservation Fund was founded by a group of aquaculturists and is an attempt to cut down on the collection of wild life and instead focus on aquaculture. 

The Cyamid Effect
Because of the demand for tropical fish, the means in which they are caught are often overlooked. Many of the collection techniques used to capture tropical fish are often harmful to the fish and their surrounding environment. Often a fish cannot be caught as easily using nets, cyanide is usually used instead. Although the use of cyanide to capture tropical fish has been banned in many countries, many still do it. Cyanide is used on fish as a stunning agent. When the fish is temporarily stunned, it makes easier to catch them. The possibility of the fish dying and being the fish may be damaged in the process. This can be very harmful to the fish and can even lead to death. Much of the catching is done in the coral reefs of the Philippines, home of the true red clownfish. The use of cyanide has increased by 10.3% from 2000 through 2004, and how it relates to the red and white. This event is known as coral bleaching. While this can sometimes be caused by natural occurrences, it is also caused by humans. The damage to coral reefs is to the persistence to capture tropical fish lead to coral reef degradation. Because of this damage caused by humans, coral reefs often don’t recover as well from natural disturbances.

Coral Reefs
These tropical fish live in a habitat that is almost as beautiful as them. The largest of these habitats is the Great Barrier Reef. The Great Barrier Reef is a coral reef that stretches along the north eastern coast of Australia. When fish are collected from coral reefs, the impact on the collection site and the coral reef itself is often ignored. The wide-pitch family of fish collectors is to capture the large species and as effective as possible. The fish that call coral reefs home use many distinct ways of reproduction. One example is the way clownfish reproduce. Clownfish are viviparous, meaning they bear live young that hatch inside the female. The young clownfish are released into the surrounding water, where they are then carried on by the surrounding water current. This means that same fish can be captured as several times as possible. If done in this way, it can cause a species to become endangered. For this reason, there is a need for marine ornamental trade to consider the long term effects of the processes used to capture these fish. 

Conservation Efforts
Because of the harmful ways tropical fish are captured and because of the post-capture death rates, there are many organizations trying to pressure fisheries to be more sustainable. Marine conservation is a way that humans could improve the quality of life for coral reefs and their inhabitants. Marine conservation is the act of collecting coral and other organisms for use in the aquarium trade. This industry is huge and has the power to improve marine conservation and the need to care for the corals in the world. Although the future will not always be bright, there are still many challenges that arise. Such as fails attempts at making certain species because they spawn their eggs freely in the water, instead of attaching their eggs to something stable. Another way to reduce the negative effects of the tropical fish trade is to limit the quota being exported. If there is a limit on the number of fish being exported, then that would result in less pressure to get as many fish exported as possible. Just by limiting the number of fish exported would have a positive impact, the limit on the number of fish exported would have a positive impact. A large number of clownfish are often over collected because they have the brightest coloration. However, they are also the more easily stressed of the two and suffer high mortality rates.

Ocean to Tank
Fish are the most commonly imported species of fish. People are captive at a fast rate because they are easy to transport and care for. clownfish and the need to capture them from the ocean will subside. Although the future will not always be bright, there are still many challenges that arise. Such as fails attempts at making certain species because they spawn their eggs freely in the water, instead of attaching their eggs to something stable. Another way to reduce the negative effects of the tropical fish trade is to limit the quota being exported. If there is a limit on the number of fish being exported, then that would result in less pressure to get as many fish exported as possible. Just by limiting the number of fish exported would have a positive impact, the limit on the number of fish exported would have a positive impact. A large number of clownfish are often over collected because they have the brightest coloration. However, they are also the more easily stressed of the two and suffer high mortality rates.

Literature Cited