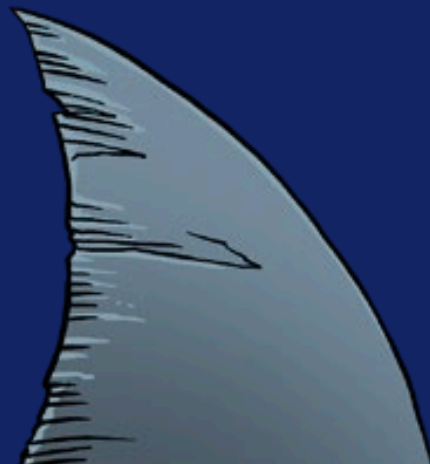



# OPERATION SHARK

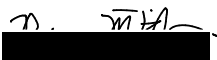
**Addressing the Negative  
Portrayal of Sharks in Media**



FINAL SIGNATURES

Master of Fine Arts | Department of Studio & Digital Arts  
School of Communication & the Arts | Liberty University

  
\_\_\_\_\_  
Joel Cockrell, MFA, Chair

  
\_\_\_\_\_  
Bruce Kirk, ED.D, First Reader

  
\_\_\_\_\_  
Joshua Wilson, MFA, MFA, Second Reader, Thesis Advisor

The thesis presented here is an educational exercise completed by students in pursuit of their degree. The student, committee, and Liberty University make no guarantee (expressed or implied) about the completeness, accuracy, reliability, or suitability of the information presented. The views and opinions (personal, religious, philosophical, or political positions) found in this project are solely those of the student and do not necessarily reflect the views or opinions of the committee or Liberty University.



# Contents

Abstract.....	1
Chapter 1: Introduction.....	4
Chapter 2: Research.....	8
Chapter 3: Visual Process.....	48
Chapter 4: Final Solution.....	76
Chapter 5: Conclusion.....	96

## Abstract

Sharks are some of the most well adapted and effective animals in the animal kingdom. Unfortunately, they are also some of the most feared. For many people the word shark evokes images of vicious attacks like those seen in movies such as *Jaws*. Sharks have also been negatively portrayed in the media. This negative portrayal of sharks has led to misconceptions about sharks that have damaged their populations. Efforts have been made to raise awareness and fight common misconceptions of sharks. However, many people still hold on to the incorrect ideas they have about sharks.

This thesis will examine the negative impact that the media has had on shark populations. It will also examine the role that sharks play in marine ecosystems to raise awareness about these animals. After researching this issue, a literature review was conducted in addition to case studies and visual analyses. This research will inform my final visual solution for this thesis project. I will be creating an educational comic book that addresses the issue of shark conservation and raise awareness of the issues that sharks face. In this comic book I will use illustration, typography, and color theory to create a cohesive visual narrative. In addition, I will be creating a web banner ad as well as three social media ads for this project.







# Chapter 1: Introduction



## Summary of Introduction

I have always had a love for ocean as well as animals. In particular, sharks have always fascinated me. As a child I would often find myself drawing sharks or watching documentaries about sharks. Even since I was very young I took many trips to the beach with my family and loved swimming in the ocean. Rather than being afraid of sharks I found them to be awe inspiring. The perception of sharks as mindless monsters always bothered me. With this project I wanted to do my part to help portray sharks in a different light.

Many people think of sharks as mindless killing machines. The media, and the spreading of false information about sharks, has amplified this problem. Various forms of entertainment such as movies have also reinforced the belief of sharks being mindless monsters. The goal of this thesis is to dispel rumors about sharks and provide accurate information about these animals.

## Research Questions

For this project, research was conducted to answer the following questions.

- What roles do sharks play in marine ecosystems?
- What role has the media played in shark conservation?
- What methods have been used in shark conservation?
- What factors influence people's perception of sharks?
- Which species of shark are most at risk?

This research project aims to answer these questions and more regarding sharks and their conservation efforts. This document includes the literature review, visual process, and the design process that was used to inform the final visual solutions for this project.

## **Observed Problem**

Due to misinformation and their negative portrayal in the media, many people have a detrimental fear of sharks which has resulted in the destruction of their populations and marine ecosystems.

## **Research Statement**

Misinformation and negative portrayal in the media has led to a detrimental fear of sharks. This fear has resulted in their destruction. Sharks play an important role in marine ecosystems and without them, these marine ecosystems will suffer. Many shark species are at the risk of extinction due to illegal fishing and overfishing. Sharks in various forms of media have often been portrayed as mindless killing machines. Many documentaries, books, etc. have tried to address this problem, but the stigma against sharks largely remains amongst the general public. If this continues, sharks will continue to be killed and marine ecosystems will continue to be negatively affected. With proper education, we can change people's outlook on sharks and reduce the fear these people may have.

## **Knowledge Gap**

Since the thesis student is not a specialist in shark conservation, qualitative research must be gathered on the subject. In addition, research must be done about shark conservation to inform the creation of the final design deliverables. Further research must be conducted on which educational comic books/graphic novels have been most successful and well received by the target audience.

## **Knowledge Gap Significance**

Further research must be conducted on which educational comic books/graphic novels have been most successful and well received by the target audience. This is significant as this knowledge will inform the creation of the final design deliverables.





## **Chapter 2: Research**

## Literature Review

What is the first thing that comes to mind when you think of the word shark? Perhaps it is the image of an unsuspecting beachgoer with a 20-foot behemoth lurking just below the water. Or maybe you imagine a shark with its jaws spread wide showing its huge, sharply serrated teeth. Maybe it is the image of a shark's dorsal fin, cruising slowly and menacingly at the water's surface as the shark awaits its next victim. It is not uncommon to have thoughts such as this when thinking of the word shark.

Sharks are one of the most successful and adaptive predators in the animal kingdom and have existed in Earth's oceans for hundreds of millions of years. They are magnificent, awe inspiring, and powerful animals that evoke wonder as well as fear. They spark people's imagination and inspire books, films, and video games.

What separates sharks from bony fishes is their cartilaginous skeletons. Unlike bony fishes, the entire skeletons of sharks are made out of cartilage. This comes with a host of benefits. Cartilage weighs much less than bone, this enables sharks to be more agile in the water. It also offers sharks increased flexibility and durability as cartilage is less prone to breaks and fractures than bone. This flexibility and durability helps make sharks proficient hunters. Their jaws can withstand immense bite pressure due to being made of cartilage. Sharks have streamlined bodies that enable them to move efficiently through the water. This maneuverability is also aided by the dorsal fins on their back, pectoral fins at their sides, and caudal fin on their tail. Sharks also have incredible senses, and many

species of sharks have brains that are as complex as mammals. In addition, sharks have specialized electroreceptor organs called the Ampullae of Lorenzini. This enables sharks to detect the electric fields that are produced by their prey and locate their prey even when the shark is unable to see them. This further heightens sharks abilities as apex predators of the oceans. Sharks also have a keen sense of smell. In fact, some species of shark are able to detect tiny amounts of blood in the water from miles away. These are just a few of the adaptations that have enabled sharks to thrive in the world's oceans for approximately four hundred and fifty million years.

During the Ordovician period approximately three hundred and eighty million years ago, the first shark ancestors appeared. During this time, Earth's oceans were dramatically different than they currently are today. Fishes began to diversify and dominate the world's oceans during the Ordovician, and early sharks and armored fish appeared. Primitive amphibians also began to take their first steps onto land. The shark ancestors that existed during the Devonian period were very different than the vast array of sharks that would later rule the world's oceans.

It wasn't until the Devonian period that the animals we would recognize as sharks appeared. During the Devonian period monumental changes began to occur in the world's oceans. Fish evolved during this time and coral reefs became more diverse and widespread than before. In addition, there were also elevated oxygen levels in the Devonian oceans. Sharks took advantage of these changes and evolved into more advanced forms that allowed them to become kings of their underwater domain.

For hundreds of millions of years, the world's oceans have played host to an incredible array of shark species. Many of the species of sharks that have existed over Earth's history have gone extinct, with fossils being the only remaining evidence of their existence. Paleontologists have used fossils to uncover the secrets of these prehistoric sharks. Over time, paleontologists have discovered hundreds of species of prehistoric sharks and learned a great deal about them. From the enormous *Otodus megalodon* to the bizarre hybodont sharks, each species of shark throughout Earth's history has adapted based on their specific ecological niche.

Sharks have not only adapted to a variety of marine ecosystems but have also developed unique traits that make them some of the most compelling creatures to exist. Their finely tuned senses have enabled sharks to excel as apex predators. Their cartilaginous skeletons also provide them with unprecedented agility and flexibility. In addition, their wide range of sizes, body shapes, and patterns reflect their evolutionary journeys through a variety of niches and environmental changes through earth's history.

Sharks have survived and thrived on this planet for millions of years while other species of animals have died out. This longevity is attributed to the ability of sharks to adapt and evolve. Our knowledge of sharks continues to grow as we learn new things about these incredible creatures. There is no doubt that as science progresses, we will continue to unlock new secrets about sharks and uncover more facts about these resilient and awe inspiring animals.

Many species of shark have existed in earth's oceans for hundreds of millions of years, and some of these sharks look very strange. However, despite the millions

of years that have passed since the first sharks inhabited the world's oceans, and the countless species of sharks that have existed, the overall body design of sharks have changed very little. In fact, if species of sharks that existed hundreds of millions of years ago suddenly appeared today, they would be easily recognizable as sharks despite their variety. One incredible prehistoric shark is the mighty *Otodus megalodon*. *Megalodon* grew to over fifty feet long and had teeth that could exceed seven inches in length. An adult *megalodon* was approximately twice the size of a full grown great white shark. *Megalodon* is the largest shark to have ever lived as well as the largest fish to have ever existed. *Megalodon* existed during the Miocene period and went extinct approximately three and a half million years ago.

One of the strangest genera of fish to have ever lived was *Helicoprion*. Though not actually a shark, *Helicoprion* was an extinct genus of shark-like eugeneodont fish closely related to sharks. *Helicoprion* existed from the early Permian period, approximately two hundred and ninety million years ago, to the early Triassic period, approximately two hundred and fifty million years ago. What makes the *Helicoprion* so fascinating and unique is its bizarre spiral-shaped tooth whorl. This whorl consisted of sharply serrated teeth arranged in a spiral pattern which resembled a saw blade.

In his article "The Origin and Rise of Shark Biology in the 20<sup>th</sup> Century", Jose I. Castro explains how sharks have historically been difficult to study compared to bony fishes and other vertebrates. Sharks are fast moving and far-ranging



creatures. Castro explains that the technology used to study such free roaming creatures did not exist until more recently. Today, trackers are used to gather information on shark behavior and monitor their movements. Shark trackers can also be used to provide real-time information about the presence of sharks to authorities and beachgoers. This information can help keep people notified if there are many sharks in the area and can be used to implement safety measures and provide alerts. In this article Castro also explains that it has been difficult to obtain shark specimens to study due to a lack of historical shark fisheries. Another reason for the historical lack of knowledge about sharks was that sharks were often of a large size, and this made it difficult to preserve specimens in a museum for study. Their size has historically made it difficult to find display space for sharks. The cartilaginous skeletons of sharks also makes preservation difficult. This cartilage can decompose rapidly and needs to be preserved. However, traditional methods of preservation has been difficult once again due to the large size of many species of shark. In addition to requiring a great deal of space, the preservation and display of large shark specimens is also costly and resource intensive. In his article, Castro asserts that ichthyologists historically had a lack of interest about cartilaginous fish as opposed to bony fish. This is another reason for the historical lack of knowledge about sharks compared to other kinds of marine animals such as bony fish.

Many books and movies have been created with sharks being the subject matter. In fact, when sharks are the main selling point of a book, movie, video game, or other form of entertainment they are often portrayed as the villain of the story, though these portrayals of sharks in various forms of media can be exciting and

attract audiences, they can have a negative effect on people's perception of sharks and can increase people's fear of sharks. Many people have a strong fear of sharks and immediately associate the word shark with danger. They may also immediately think of shark attacks when they think of the word shark. Over the years, shark films and news reports have sensationalized shark attacks. Shark attacks grab people's attention, so it is no wonder why news networks tend to sensationalize these attacks when they happen. In addition, sharks are also exciting subject matter for movies and draw people to theaters, bringing in large amounts of money at the box office.

Due to the popularity of sharks and their inclusion in blockbuster movies, it does not seem like sharks will be taken out of movies or other forms of entertainment anytime soon. The portrayal of sharks in the media and pop culture as mindless killing machines has led to the mass killing of sharks, driving many species of sharks to the brink of extinction. Some species of shark that are endangered are the common thresher shark, great white shark, dusky shark, and whale shark. These are just a few of the many threatened species of sharks. Without successful shark conservation strategies more sharks will be added to the list of endangered species.

This literature review will explore the facts behind shark conservation and will examine what the experts have to say about what effect the fear of sharks has on marine ecosystems. It will explore and analyze the most up to date research on shark conservation methods and will also examine studies related to people's fear of sharks. In addition, it will examine the research that has been done on the roles that sharks play on marine ecosystems, and their ecological importance. It will also

explore the psychological components behind the fear of sharks and examine where this fear originates from. This review will also study people's attitudes towards sharks in different regions. Finally, studies on the strategies of shark conservation will be explored, as well as the effects that wildlife tourism has on people's attitudes toward sharks.

Sharks are the fourth most common reason for fear of the ocean and the third most common reason for fear of swimming in the open ocean (Le Busque et al). Though many people fear sharks, this fear is not necessarily an irrational one. Sharks can be scary creatures after all. Some species of shark such as the great white can grow to over twenty feet long and have over two inch long, sharply serrated teeth. It is easy for anyone to fear an animal such as this. However, despite how scary sharks can be, there are many other things that are more likely to kill people than shark attacks. For example, you are much more likely to be struck by lightning than to be attacked by a shark. However, people don't seem to fear being struck by lightning as much as being attacked by sharks. People also don't seem to consider being struck by lightning a legitimate possibility compared to being attack by a shark. In his book *How Risky Is It Really?: Why Our Fears Don't Always Match the Facts*, David Ropeik addresses the topic of risk perception. Ropeik notes that people tend to be overly worried about small threats and not worry enough about bigger ones. This book provides the facts about the things we fear so we can make better, informed decisions about what we should fear, and what we are probably better off not worrying about.

Though being attacked by a shark is not likely to happen, this fact alone is often not enough to comfort someone who is afraid to swim in the ocean. In writing her book, *Shark Attacks: Myths, Misunderstandings and Human Fear*, Chapman found that the human brain tends to oversimplify numbers. If I tell you there's a one in 3,748,067 chance you could be attacked and killed by a shark, that number is too abstract for your brain to be sensitive to it. (If I tell you humans kill about 100 million sharks each year, it could be difficult to process that, as well.). (Zachos)

When people hear the word shark, it is easy to immediately think of a shark attack. In her article "Why are we afraid of sharks? There's a scientific explanation", Elaina Zachos explains that fear is something that develops over time. As infants, people are not scared of things that they may later come to fear as an adult, such as sharks. Fear is something that humans can trace back to their ancestors and it plays an important role in survival (Zachos).

Though the fear of dangerous animals is ingrained in us as human beings from our ancestors, this is not the sole reason for our fear of sharks. This fear is also reinforced by the media and the portrayal of sharks in entertainment such as in movies, books, etc. In her book *Shark Attacks: Myths, Misunderstandings, and Human Fear*, Blake Chapman addresses the fear of sharks and where this fear stems from. Chapman asserts that the media plays a pivotal role in our fear of sharks. In the article "Shark Fears and the Media", Eovaldi et al. state that,

popular media may promote fear and misconceptions about sharks in

multiple ways. Common portrayals of sharks treat them as violent killers who intentionally attack humans ([Kellert et al., 1996](#); [Muter et al., 2013](#); [Friedrich et al., 2014](#); [Sabatier and Huveneers, 2018](#); [le Busque et al., 2021](#); [le Busque and Litchfield, 2022](#)). Most US and Australian news articles about sharks from 2000 to 2010 referenced shark attacks whereas only 11% addressed shark conservation ([Muter et al., 2013](#)). ([Eovaldi et al](#))

This focus by the media on sensationalism and portrayal of sharks as killing machines negatively affects shark conservation. This misinformation or sensationalism by the media can cause the fear of sharks to spread among groups of people.

It is not only news media that increases fear of sharks, but various social media platforms as well. In the article “Influence of Social Media on Fear of Sharks: Perceptions of Intentionality Associated with Shark Bites, and Shark Management Preferences”, [Casola et al.](#) explain that the way in which information about sharks is presented can have a profound impact on people’s perception of sharks. Through a study using a series of YouTube videos, the authors evaluated the impact positive and negative portrayals of sharks in media have on people’s fear of sharks. They concluded that positive YouTube content decreased fright by 24%, perceived danger by 27%, and perception of shark bite intentionality by 29%. The authors noted that negative YouTube videos about sharks had the opposite effect ([Casola et al](#)). In today’s digital age people are often influenced by what they see on social media platforms. It can be easy to take this information as fact without doing further research to verify its

credibility.

The perception of sharks also varies in different parts of the world. In the article “Australian and U.S. News Media Portrayal of Sharks and their Conservation: Media Portrayal of Sharks”, Muter et al. address the portrayal of sharks in the media and the effect that this has on their conservation. The authors note the differences between the portrayal of sharks in the U.S. and Australia. In articles published in twenty major Australian and U.S. newspapers from 2000 to 2010, over half of the articles analyzed focused on shark attacks. Shark conservation was the focus of 11% of the articles. In this article the authors explain that many more Australian articles treated shark attacks and conservation issues as the primary article topics. U.S. articles largely portrayed sharks as entertainment (Muter et al).

Sharks have played a large role in entertainment in the U.S. Peter Benchley’s novel *Jaws* was published in 1974, and one year later the movie followed of the same name. This movie played a large role in people’s negative perception of sharks as mindless killing machines. In the article “The Origins and Rise of Shark Biology in the 20<sup>th</sup> Century”, Castro explains the impact that *Jaws* had on people’s perception of sharks. In this article, Castro explains that *Jaws* is essentially a modern “Moby Dick” story. Both of these novels focused on an exceedingly large specimen of their given species. One of them being a huge great white shark and the other being a huge sperm whale (Castro et al). Castro also explains that,

in both works, the human protagonist is a boat captain bent on revenge against the sea monster. Also in both novels, after a prolonged chase, in the final encounter, the monster rams the vessel, the captain is entangled in the ropes and is dragged to his death, and the monster then dies. The lone survivor, buoyed by flotsam, survives. (Castro)

The novel *Jaws* was based upon a series of shark attack that occurred in New Jersey in the summer of 1916. During this deadly summer in New Jersey, four people were killed and one was severely injured. These attacks occurred over a twelve-day period. The first of these attacks occurred at Beach Haven. The victim was Charles Vansant who died from blood loss from the attack. At this time, sharks were generally seen as harmless creatures, so a shark was not immediately suspected as the culprit for this first attack.

The second attacked occurred only five days later. This attacked would not happen at Beach Haven, but rather forty-five miles north of Beach Haven in Spring Lake. After the second attacked at Spring Lake, panic began to spread, and people became hesitant to go into the water.

The next attacked took place at Matawan creek near the town of Keyport. On July 12<sup>th</sup> Thomas Cottrell, a sea captain and Matawan resident reported seeing an eight-foot-long shark in the creek. His claims were dismissed but two hours later eleven-year-old Lester Stillwell was attacked and pulled underwater. A group of boys and several men attempted to save Lester. One of these men was Watson Stanley

Fisher, twenty-four. Fisher dove into the creek to locate Lester Stillwell. After finding Lester's body Fisher was also attacked and later bled to death.

The final victim of the 1916 shark attacks was Joseph Dunn who was fourteen years old. This attack happened nearly thirty minutes after the attacks at Matawan creek. Dunn's left leg was bitten during this attack, but he was rescued by his brother and friend. These attacks drastically changed people's perceptions of sharks and would inspire Peter Benchley to write *Jaws*.

According to Castro, the movie *Jaws* had such a lasting effect due to its unforgettable scenes. The mechanical shark is not seen often in the movie and was used sparingly. However, this heightened the mystery and suspense in the movie and made the scenes where the shark does appear even more impactful (Castro). Castro explains that,

the scenes terrified movie-goers, despite the obviously fake shark and lack of the constant blood and gore of present-day high-tech movies. Countless children and many adults were fascinated, or traumatized, by the image of the voracious man-eating shark. As a result, sharks would be perceived as malevolent, man-eating creatures for several decades. (Castro)

This movie had other unexpected consequences other than people fearing going in the ocean.

After the release of the movie *Jaws*, a shark killing frenzy begun that lasted



nearly two decades. Sport fishing for sharks had gained popularity in the 1960's. Shortly after the movie appeared, shark fishing as a sport increased greatly, and in the next decade, dozens of shark fishing clubs and tournaments sprang up along the U.S. east coast, these tournaments were often held monthly during the summer at many seaside locations, from New York to Florida (Castro). People wanted to emulate the character Quint from the movie and try to catch and kill as many sharks as they could.

The fame of the movie *Jaws* also led to the creation of Shark Week on the Discovery Channel. The first Shark Week was aired in July of 1988 and this week-long special is still airing annually as of 2023. The first show to air on Shark Week was *Caged in Fear*. This show had a ten-episode run. Shark Week was initially based on conservation and natural history. Its goal was to address people's misconceptions about sharks and to educate. However, over time, this week-long special began to focus more on shark attacks. Most episodes are now centered around white sharks and bull sharks as these are some of the most popular sharks.

As satellite tags were developed and became widely used, filmmakers turned to shark tagging to replace the superannuated shark attack programs. The tagging of a large shark is always an exciting event and could produce the action footage that the networks loved. Because of the high cost of satellite tags, film producers could always find a willing researcher lacking funds or seeking publicity, although most of the time the "researchers" were usually

unknown to those studying sharks. (Castro)

The Discovery channel sought to improve their ratings and attempted to do this through a series of fictional documentaries. These documentaries included supposed experts who were actors. These fake documentaries were confusing and misleading, since the information in these documentaries was presented to appear as fact. One of these documentaries claimed that the prehistoric shark megalodon was still alive.

Though the film *Jaws* had negative effects on sharks, it also had positive ones. One of the main characters in *Jaws* is shark biologist named Matt Hooper. According to Castro, this character had a profound effect on the audience and showed people, especially kids, that there was such a career option as a shark biologist. In fact, Castro states that “many of the people in shark biology today attest to seeing the movie and then deciding that they would be shark biologists. Unfortunately, the sad reality was that there were very few positions available in shark research” (Castro).

Castro explains that within a decade or two, from 1995-2010 sharks went from being feared to being what Castro refers to as totemic animals. “In the shark-enthusiast community, the combination of interest or mild obsession with sharks, the desire to do something and protect sharks, and mysticism, resulted in sharks becoming totemic animals. Even for some in the field of ichthyology, sharks ceased to be “fishes” and became totemic animals” (Castro). People began to not look at

sharks as just another animal but began to almost worship them as sacred creatures. This totemism towards sharks led to a taboo against killing sharks as people looked to protect them and dispel the myths created by *Jaws*. According to Castro,

Most of the logistical difficulties of the past are still with us, and shark research continues to be difficult. Today, much research is mainly concentrated on a few species of sharks, such as the totemic white shark and the “charismatic” whale shark. We have had countless articles on the white shark, and three symposia dedicated to the species in 1983, 1993, and 2010, resulted in three comprehensive publications (Sibley, 1985; Klimley and Ainley, 1996; Domeier, 2012a). But, despite more than 30 years of enthusiastic research attempts on these and a few other species, our knowledge is still fragmentary. (Castro)

A more recent movie franchise that portrays a shark as the main villain of the story are the *Meg* movies. The first movie, titled *The Meg* released in the Summer of 2018 and *Meg 2: The Trench* released in theaters in the Summer of 2023. These movies are based on the popular novels by Steve Alten. The first of which was published in 1997. These movies feature the long thought to be extinct megalodon shark wreaking havoc. Since these movies feature an extinct prehistoric shark rather than a modern great white, these movies have not had the same negative effects on people perceptions of sharks as the movie *Jaws*. Since the release of the movie *Jaws*, people’s perception of sharks has evolved and today there is a greater awareness and appreciation of sharks than there was in the 1970’s. Still, these *Meg* movies prove that sharks are captivating and entertaining subject matter for movie goers and continue

to succeed at the box office.

Sharks have also been used as entertainment in video games. One of these video games is *Jaws: Unleashed* which released in 2006. This game offered players the chance to experience the world from the perspective of the great white shark made famous in the film *Jaws*. This game gave players the freedom to explore the waters around Amity Island and wreak havoc on boaters and unsuspecting beach goers. In addition, the player is also able to attack other sea creatures in this open-world environment. Though this video game was criticized for its technical issues and repetitive gameplay, others praised the game for its unique concept.

Another more recent video game that allows players to take control of a man-eating shark is the game *Maneater*. This game was released in 2020 and was similar in many ways to *Jaws Unleashed*. Like *Jaws Unleashed*, this game also allows players to take control of a man-eating shark. In this game, the player begins as a young shark and evolves into an apex predator as the story progresses. Like *Jaws Unleashed* the player has the freedom to explore in an open-world environment. Though *Jaws Unleashed* focuses more on combat and destruction, *Maneater* incorporates more action RPG elements into its design, giving the players growth and customization options not seen in *Jaws Unleashed*.

In the articles “People’s Fear of Sharks: A Qualitative Analysis”, Brianna Le Busque et al. address people’s fear of sharks through qualitative open-ended methodologies. The goal of this study is to seek to understand people’s fear of sharks and the ocean. People’s past experiences with sharks are examined in this study

as well. This study concludes that the majority of participant's experienced sharks through the media. This study supports the idea that the media has had a profound influence on people's perception of sharks. This study concludes that sharks are the fourth most common reason for participant's fear of the ocean. It also concludes that the fear of sharks is the third most common reason for a fear of swimming in the open ocean.

The fear of sharks directly impacts shark conservation efforts. This is troublesome as sharks play a vital role in marine ecosystems. If the fear of sharks and negative portrayal of sharks is not addressed, marine ecosystems will suffer. The study, "Fear of Sharks Influence Seaweed Growth on Fijian Coral Reefs" noted the first confirmed occurrence of sharks indirectly altering coral reefs. The presence of sharks has a cascading effect down the entire food chain (Fear). This study concludes that the presence and fear of sharks changes the way other fish feed as they try to avoid becoming food themselves. This is further supported by Eovaldi et al. In the article "Shark Fears and the Media", Eovaldi et al. state that the media's portrayal of sharks negatively and directly effects shark conservation efforts. The authors state that sharks influence the behavior of their prey which in turn effects marine ecosystems (Eovaldi).

In the article "Shark Conservation: An Educational Approach Based on Children's knowledge and Perceptions Toward Sharks" Tsoi et al. explain how misunderstandings and the negative perception of sharks have a detrimental impact on shark conservation efforts. This article focuses on a study in which the authors found that eleven-to twelve-year-old primary school students in Hong Kong lack

sufficient knowledge about sharks and possess misconceptions about them. Children's negative attitude towards sharks may be due to a lack of understanding about sharks and the important role they play in marine ecosystems. This study also reports a positive correlation between formal education and perception towards shark conservation. Reading this article, we can see that education plays a vital role in people's perception of sharks. With proper education we can change people's mindset toward sharks and teach people to respect but not necessarily fear them.

A study that was conducted to analyze people's attitude toward sharks following shark bite incidents in two locations in Australia. In this study two separate locations were compared. Both of these locations are communities in Australia where people are affected by shark bites. The communities compared in this study were the towns of Ballina in the State of New South Wales and the City of Perth in Western Australia. This study concluded that in both communities people generally viewed shark attacks as accidental rather than intentional. The authors assert that the fear of sharks lead to support for lethal policies. These findings can have a positive impact on shark conservation because conservation is largely based on people's acceptability of a species.

The article "Turning Wildlife Experiences into Conservation Action: Can White Shark Cage-Dive Tourism Influence Conservation Behavior?" by Apps et al. examines how wildlife tourism influences people's awareness, understanding, attitudes, and behaviors related to shark conservation. In particular, this article explores how

cage dive tourism can help people care more about shark conservation. This study surveyed one hundred and thirty-six tourists who went cage diving with sharks in Australia and found that after cage diving people had increased in conservation related behavior and cared more about sharks. This diving experience gave people a new appreciation of sharks that they may have not had before. Without seeing sharks firsthand, it can be easy to take to heart the media portrayals of sharks as mindless killers. From this study we can conclude that one way to change people's opinions of sharks is to expose them to sharks.

Some people have such a deep-rooted fear of sharks that in person exposure to sharks may not be a viable solution. In this case, other options need to be explored. In the article "Virtual Reality and Fear of Shark Attack: A Case Study for the Treatment of Squalophobia." Malbos et al. address the treatment of the unusual anxiety disorder, squalophobia which is the fear of sharks. Virtual reality was tested as a possible treatment for this phobia. This treatment is beneficial because exposing a person to a marine predator like a shark could be dangerous and impractical.

The effects were evaluated in a single case study involving multiple context-graded aquatic virtual environments with a virtual shark and using affordable apparatus and software. Assessment was based on self-report questionnaires. Scores the psychometric instruments exhibited a discernable reduction in fear toward sharks. Such gains were maintained at a twelve-month follow-up. Presence rates indicated immersion when confronted to a three-dimensional (3D) virtual shark. (Malbos et al)

This study concluded that VR could provide an effective form of exposure therapy and may lead to the treatment of squalophobia.

We can conclude from this literature review that many species of shark such as the common thresher shark, great white shark, dusky shark, and whale shark are endangered. The depiction of sharks in the media and the portrayal of sharks in various forms of entertainment plays a big role in this. Forms of entertainment, including films and video games have used sharks as their main selling point. Often, sharks are portrayed as the villain of the story with the heroes being the people who are trying to hunt and kill the shark. This is the case with films such as *Jaws*. In this literature review we examined how films such as this have had a profound impact on shark conservation. We can also see that sharks play a vital role in marine ecosystems and without sharks, marine ecosystems will suffer. The absence of sharks will negatively affect the biodiversity of marine ecosystems as sharks play an important role in regulating prey population in these ecosystems. Many communities also depend on sharks for tourism. Without sharks, these communities will suffer as well. Through this literature review we learned that education plays a vital role in altering people's perception of sharks. With proper education, and by dispelling false information about sharks, we can ensure a future in which sharks are respected rather than feared. Though people's perception of sharks may not be able to be changed entirely. One can hope that people will look at sharks a little bit differently.



## Works Cited

- Apps, Kirin, et al. "Turning Wildlife Experiences into Conservation Action: Can White Shark Cage-Dive Tourism Influence Conservation Behaviour?" *Marine Policy*, vol. 88, 2018, pp. 108-115, ISSN 0308-597X, <https://doi.org/10.1016/j.marpol.2017.11.024>.
- Bochdansky, Alexander B., and Brittan Virden. "The Global Impact of Shark and Ray Research." *Conservation Biology*, vol. 33, no. 5, 2019, pp. 972-976.
- Casola, William R., et al. "Influence of Social Media on Fear of Sharks, Perceptions of Intentionality Associated with Shark Bites, and Shark Management Preferences." *Frontiers in Communication*, vol. 7, 2022.
- Castellanos, Edwin, and Carlos Monteverde. "Sharks in Ecuadorian Waters: Current Status, Conservation Challenges, and Conservation Action." *Frontiers in Marine Science*, vol. 6, 2019, p. 685.
- Chapman, Blake. *Shark Attacks: Myths, Misunderstandings, and Human Fear*. Columbia University Press, 2020.
- Eovaldi, Benjamin, DO, et al. "Shark Fears and the Media." *Wilderness & Environmental Medicine*, vol. 27, no. 1, 2016, pp. 184-185.
- "Fear of Sharks Influences Seaweed Growth on Fijian Coral Reefs." *Space Daily*, 2017.

- Le Busque, Brianna, et al. "People's Fear of Sharks: A Qualitative Analysis." *Journal of Environmental Studies and Sciences*, vol. 11, no. 2, 2021, pp. 258-265.
- Malbos, Eric, et al. "Virtual Reality and Fear of Shark Attack: A Case Study for the Treatment of Squalophobia." *Clinical Case Studies*, vol. 19, no. 5, 2020, pp. 339-54, <https://doi.org/10.1177/1534650120940014>.
- Muter, Bret A., et al. "Australian and U.S. News Media Portrayal of Sharks and their Conservation: Media Portrayal of Sharks." *Conservation Biology*, vol. 27, no. 1, 2013, pp. 187-196.
- Pepin-Neff, Christopher, and Thomas Wynter. "Shark Bites and Shark Conservation: An Analysis of Human Attitudes Following Shark Bite Incidents in Two Locations in Australia." *Conservation Letters*, vol. 11, no. 2, 2018, pp. n/a.
- Probert, P. K. *Marine Conservation*. Cambridge University Press, Cambridge, 2017, doi:10.1017/9781139043588.
- Ropeik, David. *How Risky is it Really?: Why Our Fears Don't Always Match the Facts*. Bloomsbury, 2010.
- Shiffman, David. *Why Sharks Matter: A Deep Dive with the World's most Misunderstood Predator*. Johns Hopkins University Press, Baltimore, Maryland, 2022.
- Shiffman, D.S. and Hammerschlag, N. (2016), Shark conservation and management policy: a review and primer for non-specialists. *Anim*

Conserv, 19: 401-412. <https://doi.org/10.1111/acv.12265>

Tsoi, Kwok H., et al. "Shark Conservation: An Educational Approach Based on Children's Knowledge and Perceptions Toward Sharks." *PloS One*, vol. 11, no. 9, 2016, pp. e0163406-e0163406.

Westbrook, Vivienne, et al. *Sharks in the Arts : from Feared to Revered*.  
Routledge/Taylor & Francis Group, 2018.

Zachos, Elaina. "Why are we afraid of sharks? There's a scientific explanation."  
*National Geographic*, 29 June 2019.

Young, Karen Romano. *Shark Quest: Protecting the Ocean's Top Predators*.  
Twenty-First Century Books, 2019.



# Case Studies & Visual Analyses

## Case Study #1

**Project Title:** *Predator declines and morphological changes in prey: evidence from coral reefs depleted of sharks*

**Project Overview:** This paper was written by Neil Hammerschlag, Shanta C. Barley, Duncan J. Irschick, Jessica J. Meeuwig, Emily R. Nelson, and Mark G. Meekan. These researchers are affiliated with the following institutions.

**Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, FL 33149, USA**

**Leonard and Jayne Abess Center for Ecosystem Science and Policy, University of Miami, Coral Gables, FL 33146, USA** **School of Biological Sciences and the Oceans Institute, University of Western Australia, 35 Stirling Highway, Crawley,**

**Perth, WA 6009, Australia**

**Australian Institute of Marine Science, The Oceans Institute, University of Western Australia, 35 Stirling Highway, Crawley, Perth, WA 6009, Australia**

**Department of Biology, 221 Morrill Science Center, University of Massachusetts at Amherst, Amherst, MA 01003, USA**

The goal of this project is to provide insights into how both predators and prey respond to overfishing and the damage that overfishing causes to these populations. This project explains how overfishing is a severe problem for marine creatures and is leading to a drastic decrease in their worldwide populations. Some of the species affected by this overfishing of the world's oceans include billfish, tunas, and sharks. This project aims to study the impact the absence of marine predators has on marine ecosystems. This study asserts that the impact of the absence of predators on marine ecosystems has not been previously well documented. However, this information is vital due to the unprecedented rate at which marine predators are vanishing from oceans worldwide. According to this paper, previous studies have looked at the cascading effects that predators have on their environment. However, these studies have been typically limited to laboratory experiments. The authors explain that

less attention has been paid to studying the absence of predators in the wild. They also explain that studying the effects of the absence of predators in their natural environment has been difficult.

This project aims to answer three main questions which are

- Can changes in the presence and absence of sharks impact the community structure of coral reef fishes?
- Can changes in the abundance or movements of sharks affect the feeding behaviors and diets of coral reef fishes?
- Can changes in the abundance or behavior of sharks affect the physiology and/or reproductive behavior of coral reef fishes?

This study compared the ecology of two coral reef sites off north-western Australia. These sites are the Rowley Shoals and the Scott Reefs. These two sites are very similar except that the Scott Reefs has been exposed to nearly exclusive commercial fishing of sharks, while the Rowley Shoals is a protected site with healthy shark populations. Seven fish species were collected at both reefs and studied. These species include the Steephead Parrotfish, Humpback Snapper, Humpnose Big-eye Bream, Bullethead Parrotfish, Checkered Snapper, Red Snapper, and Bluestripe Snapper. Scientists photographed these fish and measured traits such as fins and eyes. They found that where shark populations have been depleted, prey fish had significantly smaller caudal fins and eyes.

According to Dr. Neil Hammerschlag, a co-author on this paper, this difference in tail and eye size indicates that having large tails and large eyes are energetically costly

for fish. Though costly, these traits have benefits in allowing fish to swim faster and see better. However, without predators, these traits are not needed and therefore have reduced in size. This study concluded that the depletion of predator populations by humans can cause morphological changes in prey species. This study further supports the need for prompt conservation efforts of top predators. With the absence of predators, prey fish may shift their energetic resources to reproduction rather than somatic growth. This can lead to a shift in demography, population dynamics, and trophic relationships.

This case study will benefit my thesis project by increasing my knowledge about how sharks affect marine ecosystems and the vital role that sharks play. This knowledge will enable me to create a more effective final solution for my thesis project. This project shows that the absence of marine predators such as sharks do indeed have cascading effects in marine ecosystems. By looking at this study, we can see that each marine creature plays a vital role in their environment. We can see first-hand the adaptations that fish make when marine predators are present and when they are absent.

## **Visual Analysis #1**

This study utilizes various visual elements to convey vital information. In this paper, we can see illustrations of simple maps that show the locations in which fish species were studied for this project. These maps show the study locations of the Rowley Shoals and Scott Reefs in north-western Australia. In these illustrations we also see that the fish collection sites are marked with red dots. These maps utilize flat



colors and do not include any rendering or shading. The Indian Ocean is colored a light blue, a light brown is used to color Western Australia, and green is used to color the Rowley Shoals and Scott Reefs. Each of these maps include a north arrow at the bottom right as well as a 10 km scale. In one of these maps there is an illustration of a globe with the region of the study marked with a red rectangle. These map illustrations are simple yet effective.



This paper also includes illustrations of the various fish species that are being studied for this project. These appear to be cropped photographs of different species photographed from the side. There are a total of eight fish featured. Under each fish photograph we see information such as the common name of each fish species, the scientific name, and a number representing the trophic letter. Under each fish photograph we also see a small circular icon indicating whether this species of fish is a carnivore, herbivore, or omnivore. The fish that are carnivores feature a fish in this icon, the fish that are herbivores feature an illustration of seaweed/coral, and the

fish that are omnivores feature both. There is a key next to these fish photographs that represent the meaning of each icon.



In addition, we see the use of various graphs and charts throughout this paper. One of these graphs is a bar graph that shows the percent relative difference in size-adjusted mean caudal fin area and eye area at the Rowley Shoals compared to the Scott Reefs. This bar graph once again features the same fish photographs that were discussed earlier. In this paper we see other types of graphs used such as box plots and scatter plots. This paper is not heavy on illustrations but rather uses mostly photographs and graphs to convey information. Figure 3 in this paper shows examples of morphological comparisons in eye area and caudal fin areas of two species of fish, *Monotaxis grandoculis* and *Lutjanus gibbus* of the same length collected from the Scott Reefs and the Rowley Shoals. The bottom row illustration shows the eye and caudal fin areas of the Scott Reefs individual (dark blue) overlaid on the eye and caudal fin areas from the Rowley Shoals fish (white).



On the website [sharkresearch.earth.miami.edu](http://sharkresearch.earth.miami.edu) this project is explained. On this website an infographic as well as an informative video is used to explain this project. The infographic featured on this site includes details such as the locations that were analyzed for this study. It also provides information about Scott Reefs. At this location, shark populations have been depleted by humans. This infographic provides information about the findings of the study and includes illustrations to clearly show the difference between the size of the eyes and caudal fins in prey fish populations. It is a simple and clear infographic and features blue and yellow as the prominent colors. The video details the findings of this study and explains that the presence of predators can cause physical changes to their prey including changes in body shape. This informative video features a voice over as well as video of both land and sea animals such as lions, sharks, and other species of fish. It also includes a brief interview with Dr. Neil Hammerschlag.

## Case Study #2

**Project Title:** Global spatial risk assessment of sharks under the footprint of fisheries.

### Project Overview:

This study was published in the journal *Nature*. For this study movement data from nearly 2,000 sharks tracked via satellite tags were combined by a team of scientists and researchers. The goal of this study is to understand the migratory routes and patterns of sharks in the subtropical Atlantic with the aim to undercover “hot spots” where sharks mate, feed, and give birth. It also aims to identify locations in which sharks are particularly vulnerable to fishing. This valuable information can positively impact shark conservation efforts.

The questions that this study aims to answer include.

1. What is the distribution and scale of seasonal movement patterns of Hammerhead, Bull, and Tiger Sharks in the subtropical Atlantic?
2. Do these species exhibit site fidelity and/or habitat specialization and if so, is there evidence of differences between individual and species preferences?
3. To what extent do sharks use habitats across a range of management and jurisdictional boundaries?
4. In what areas are sharks most vulnerable to capture by industrial fishing?

These questions will provide vital information that can help shark conservation efforts. Conservation efforts could be specifically target towards the areas where

sharks are more vulnerable. As I work on my thesis, I want to ensure that the final solution I create is as informative as possible and provides accurate information. The information provided in this project will enable me to reach this goal.

## Visual Analysis #2

This study utilizes an infographic that shows sharks movements revealed through satellite tracking. It shows tracking information for three different species of shark. These are bull sharks, great hammerheads, and tiger sharks. Three different individuals of each species of shark were tracked. This infographic shows how many days each shark was tracked for, and how many miles they traveled. In addition, this infographic shows a map that displays the movement patterns of these sharks.

This infographic works well in showing the information that it is attempting to convey. We see various colors used in this infographic to convey the different types of sharks that were tracked in this study such as bull sharks great hammerheads and tiger sharks. On two maps, one more zoomed in than the other, we can see colored dots and lines that correspond to the swim patterns of these different species of sharks in the ocean. At first glance the information and complex swimming patterns shown in these maps

can be confusing when viewing this infographic. However, the color coding makes this much easier to understand than if these were colored the same. The fonts used in this infographic are simple and easy to read. They are not decorative in nature but rather seek to simply convey information. As I work on my final solution to my thesis project, I can use some of the techniques used in this infographic in my own work as well. For example, as I work on developing a comic book for my thesis project I can use different colors to lead the viewer's eye as well as present information in a more clear and easy to understand manner. The colored points on the map represent a moment in which the sharks in this study surfaced. This surfacing allowed its tag to transmit data. The most recently recorded locations are white, while the older data points are darker.



## Case study #3

### Project Overview:

The core research team of Global FinPrint consists of seven of the world's top shark biologists and marine ecologists. These scientists provide the expertise and network of postdoctoral researcher, students, collaborators, and volunteers.

Global FinPrint launched in 2015 and is world's largest shark survey. The director of Global FinPrint, "Demian Chapman deployed 22,000 baited remote underwater video stations (BRUVS) on about 400 reefs in 58 nations and territories". The study showed the decline of reef shark populations and concluded that "reef sharks were functionally extinct on about 20% of surveyed reefs and the five main reef shark species had declined globally by 63% on average" (Expanding).

The results of the Global FinPrint project indicated that the well-being of reef sharks in various regions was linked to the implementation of management strategies that were culturally and socio economically tailored to the community.

Some of these management approaches included

- Nationwide shark fishing bans.
- Nationwide limit on shark catches.
- Marine protected areas.
- Restrictions on loglines and gillnets.

One of the most evident conclusions of this study is that sharks were not detected

on approximately 20 percent of surveyed reefs, and that reef shark populations are depleted in most nations around the world. However, despite this startling discovery, this study also concluded that there are places where sharks are still relatively common. The term “reservoirs of hope” are used for these locations. These are places where sharks could spread out to repopulate areas with depleted shark populations if given the chance.

This project provides information of management strategies to benefit the well-being of sharks. This information will be useful in crafting a thesis solution because by knowing the shark management options available, we can look for new ways to further shark conservation in the future.

### **Visual Analysis #3**

This study uses an infographic as well as an educational video about the project. The infographic featured on the website about this study includes info such as,

- The global decline of sharks.
- The reefs that were studied for this project.
- The number of baited remote underwater video cameras used to document rays and sharks.

This effective and well-designed infographic utilizes simple illustrations and designs to clearly convey important information about this project. The color palette for this infographic is predominantly various shades of blue. This is fitting due to the subject



matter of the infographic. This blue contrasts nicely with the red that is also used in this infographic. Red is used sparingly, but where it is used it is effective. Its use helps to capture the attention of the viewer. For example, we can see a red silhouette of a shark that contains text that reads “63% global decline”. This is immediately eye-catching and is created to invoke concern over the rapidly declining population of sharks. We can also see red used to show many locations that were included in this study. Red dots are used on a map to show these locations. The illustrations featured in this infographic are simple. They include an illustration of the underwater camera used for the study, illustrations of sharks and rays, and an illustration of a woman sitting at a computer. These illustrations do not feature heavy rendering, but rather rely on basic shapes and flat, simple coloring to clearly and immediately be recognized for what they are. They fit the style of this infographic well and help create a cohesive visual narrative in this infographic.

I can use some of the techniques used in this infographic when creating my final solution. For example, I can be sure to choose a color palette that effectively conveys the points that I’m trying to make in my final solution and fits the theme of my project. One thing that is clear in this infographic is that color is used to lead the viewer’s eye around this infographic. This is something that will be important as I develop my visual solution.

For my visual solution I will be creating a comic book addressing the issues of shark conservation and the role the media plays in shark conservation. Due to the visual narrative nature of this final solution, I will lead the viewers eye through the pages through the use of my illustrations, typography, and choice of color. I can also use the designs of my panel borders in my comic book to lead the viewer's eye as well as create visually engaging pages that effectively tell a story. In the infographic used in this visual analysis we can see a lighter shade of blue that leads the viewer's eye in the clockwise pattern through this infographic. This creates a clear and direct path and helps avoid confusion on the part of the viewer allowing them to take in the information without questioning what part of the infographic they should be looking at next. On this infographic there is also a link to a website to learn more about FinPrint.



## Conclusion

Through my research I arrived at the following critical discoveries.

- The fear of sharks leads to the support for lethal policies regarding shark conservation.
- The presence or lack of sharks has a cascading effect down the entire food chain.
- There is a positive correlation between formal education and perception towards shark conservation.
- Children's negative attitude towards sharks may be due to a lack of understanding about sharks and the important role they play in marine ecosystems.
- Exposing people to sharks first-hand positively changed people's perception of them.

These discoveries were vital and highlighted the importance of education and the positive effects of seeing sharks first-hand. This informed the creation of my visual solution. My visual solution educates the reader and shows that through first-hand experience people's perception of sharks can change. One of my critical discoveries shows that children's negative attitude towards sharks may be due to a lack of understanding about sharks. This further informed my decision to create an educational comic book.

## **Chapter 3: Visual Process**

## Creating a visual solution

### Idea

For my thesis project I chose to create a comic book as my final visual solution. This will be a full color comic book that I will illustrate, color, and letter. I will also be creating the logo for this comic book. In addition, I will be creating a web banner as well as three social media advertisements for this comic book.

### Inspiration

When creating this comic book I looked at other shark related comic books for inspiration. I also looked at other educational comic books and comic books that aim to address a similar issue.

## Key Competitors

Other comic books/graphic novels have been created that aim to address the issue of shark conservation. One of these books is *Science Comics: Sharks* by Joe Flood. This is a full color graphic novel that includes facts about sharks and covers topics such as the adaptability of sharks and the vast variety of sharks that exist. This graphic novel is 128 pages and is aimed at readers 9 to 13 years old.



## Crafting a story

After deciding to create a comic book as the visual solution for my thesis project it was time to work on crafting a story. Delving into this part of the creative process was exciting. I knew I wanted this story to be fun as well as educational. I didn't want the reader to feel that they were being lectured to. I also wanted to make sure this comic book was suitable for all ages.

This story focuses on characters who are learning about sharks for the first time. I decided to tell the story of an alien and a robot who travel to our galaxy in search of the most dangerous creatures in the universe. They arrive in our galaxy and learn that sharks are one of the most feared creatures on the planet earth. Initially, this extraterrestrial duo have a bias against sharks due to what they hear from the inhabitants of the planet earth. However, upon traveling to earth and meeting sharks first hand, these character learn that all is not what they initially thought. Though they are powerful animals, sharks are not the mindless killing machines they expected them to be.

When crafting this story, I immediately wanted to capture the reader's attention. I did this through a dramatic first page in which the extraterrestrial characters are viewing a hologram of a shark and prepare to travel to earth. After hooking the reader, I built suspense and drama until we arrive at the final climax of the story. With only eight pages to tell this story it was important to hook the reader right away and tell a fast-paced exciting story that is easy to understand and read.

## Shark comic logo Roughs

### Title possibilities

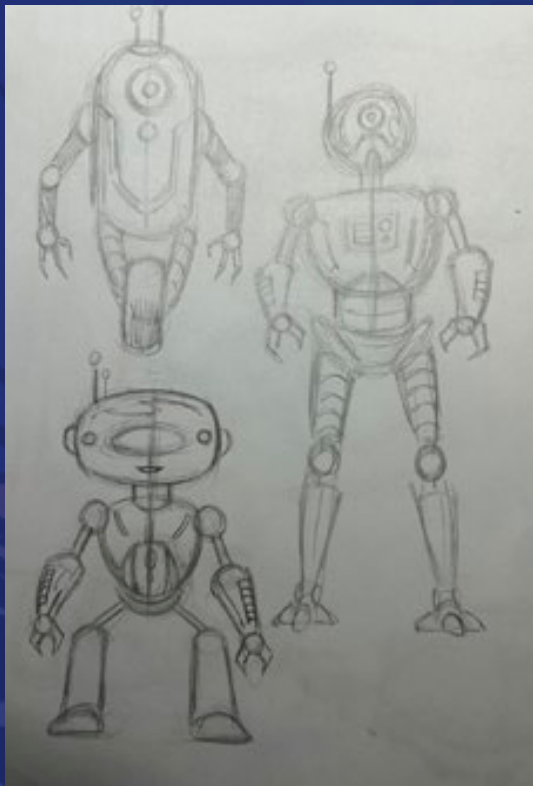
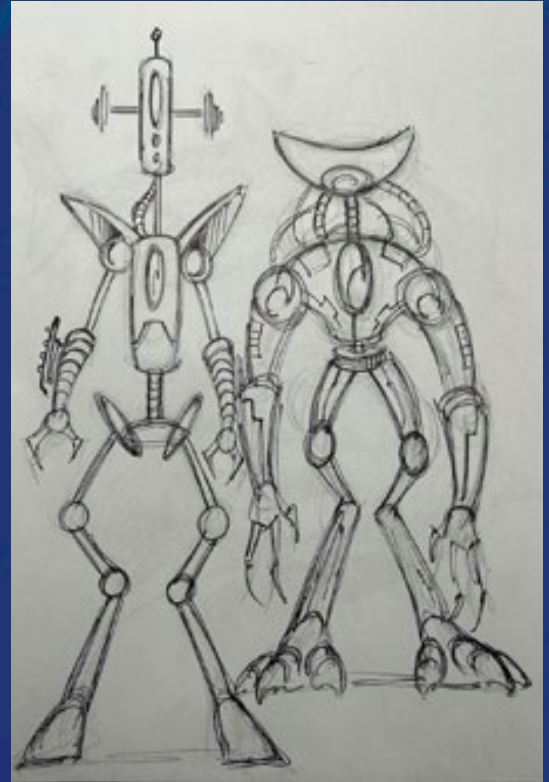
operation Shorks  
operation: Discover Shork  
Shork Adventures

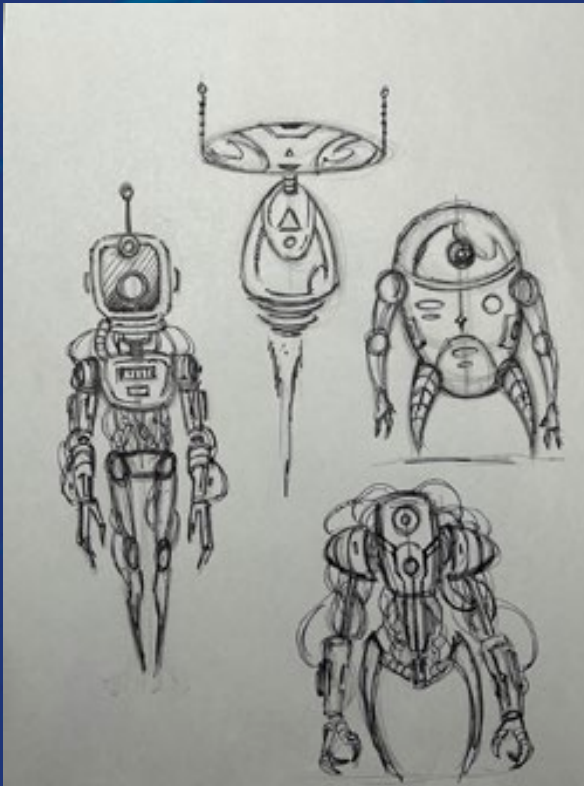
### Story idea

2 Aliens come to Earth in search of the most deadly creature. Through intercepting communications on earth they discover that Shorks are one of the most feared creatures. They study Shorks and through their studies find out about Shorks and discover that their preconceptions were misled.



Now that I had the story idea, it was time to work on the character designs for this comic book. I began by creating rough sketch ideas using pen and pencil on paper. I wanted these characters to be memorable and fun. I sketched many different designs for the robot and alien character featured in this story.



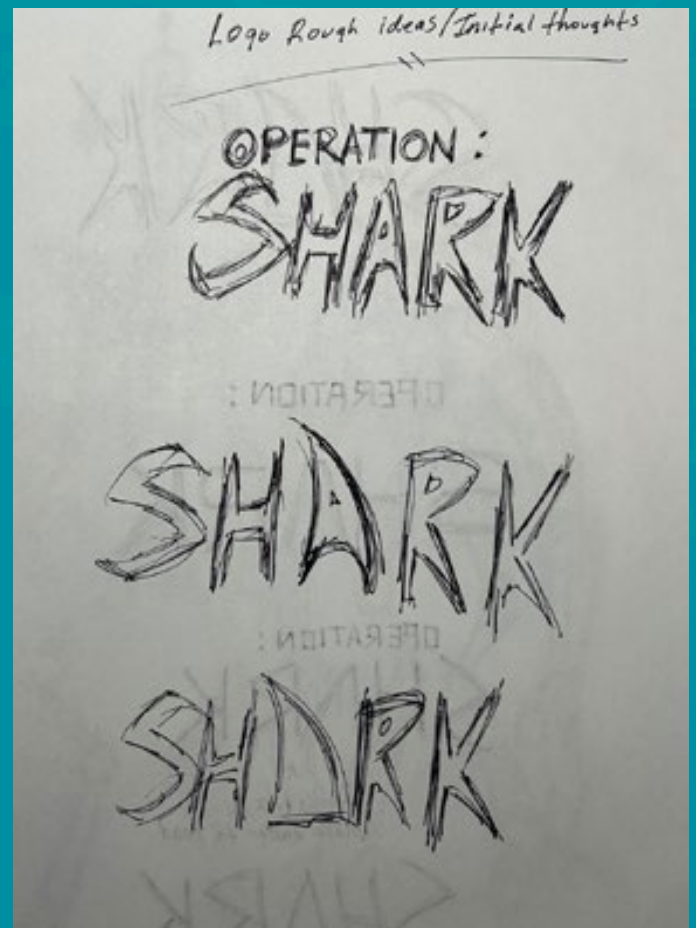
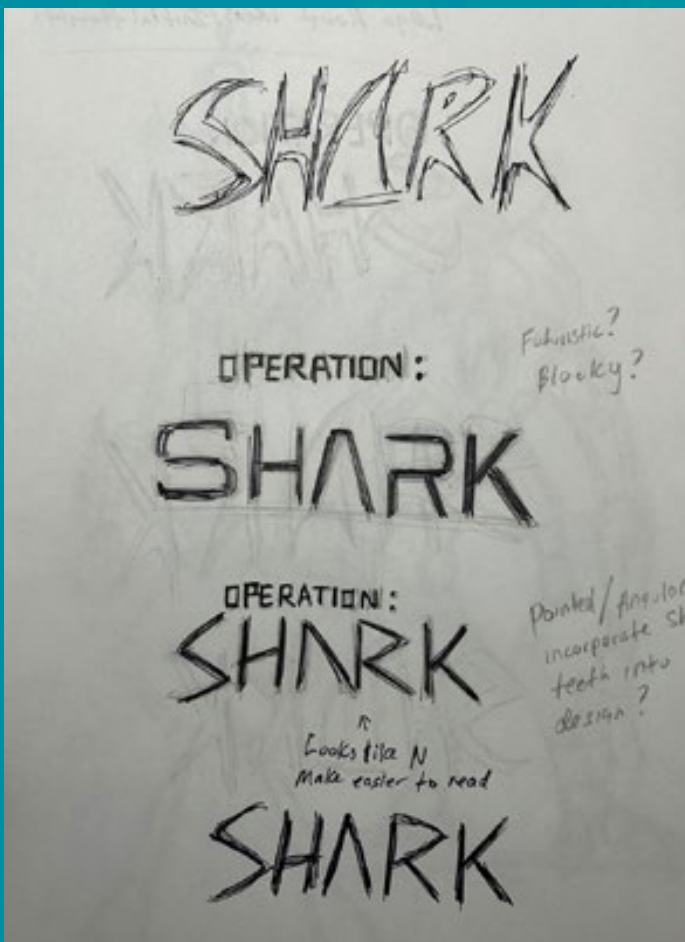


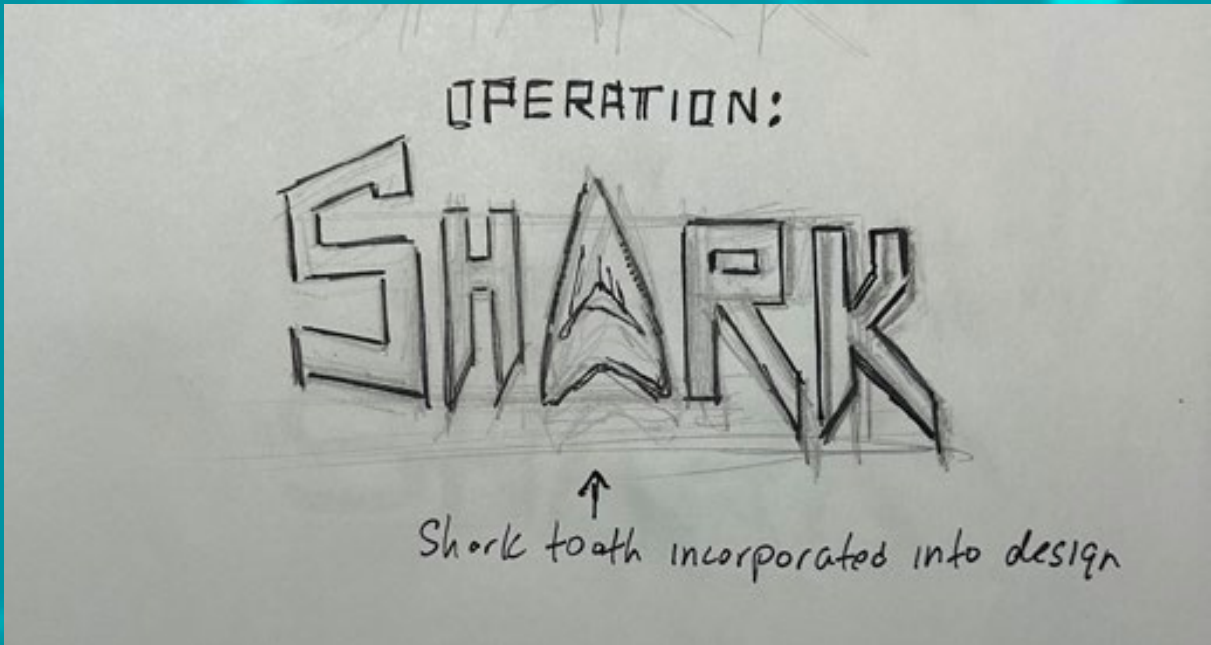
In addition, I also practiced drawing sharks in preparation for this comic book project. Sharks are not something I draw very often so I wanted to get familiar with drawing them before working on this comic. I created sketches of sharks from different angles and worked on learning how to draw their body structure.



## Logo Design

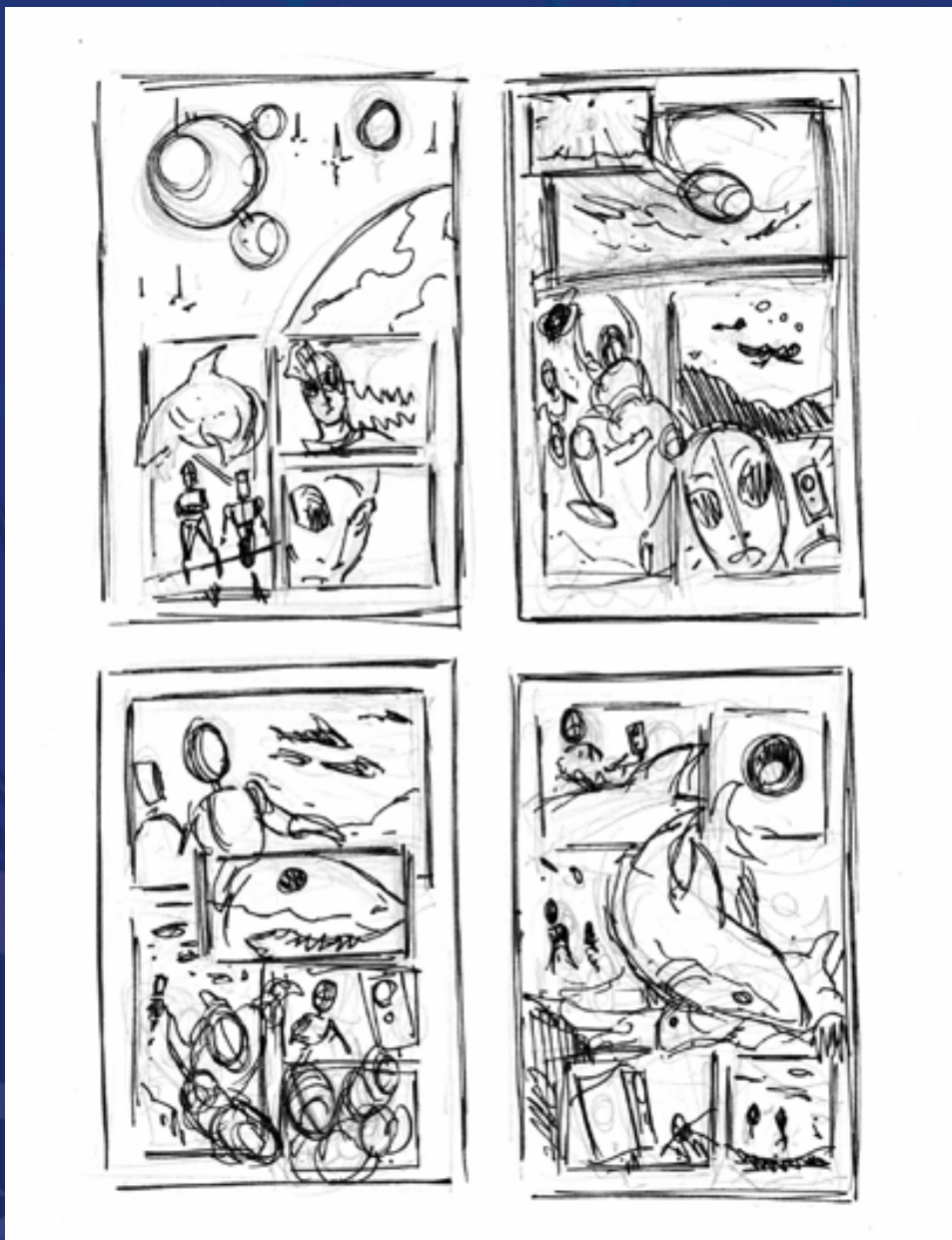
In addition to creating character sketches I also worked on creating sketches for a logo design. I thought of perhaps giving this logo a futuristic look to reflect the science fiction nature of this comic book. I wanted the word “shark” to be bold and catch the readers attention. I decided to utilize blocky, angular text for “shark”, while using a more simple sans serif font for “operation”.

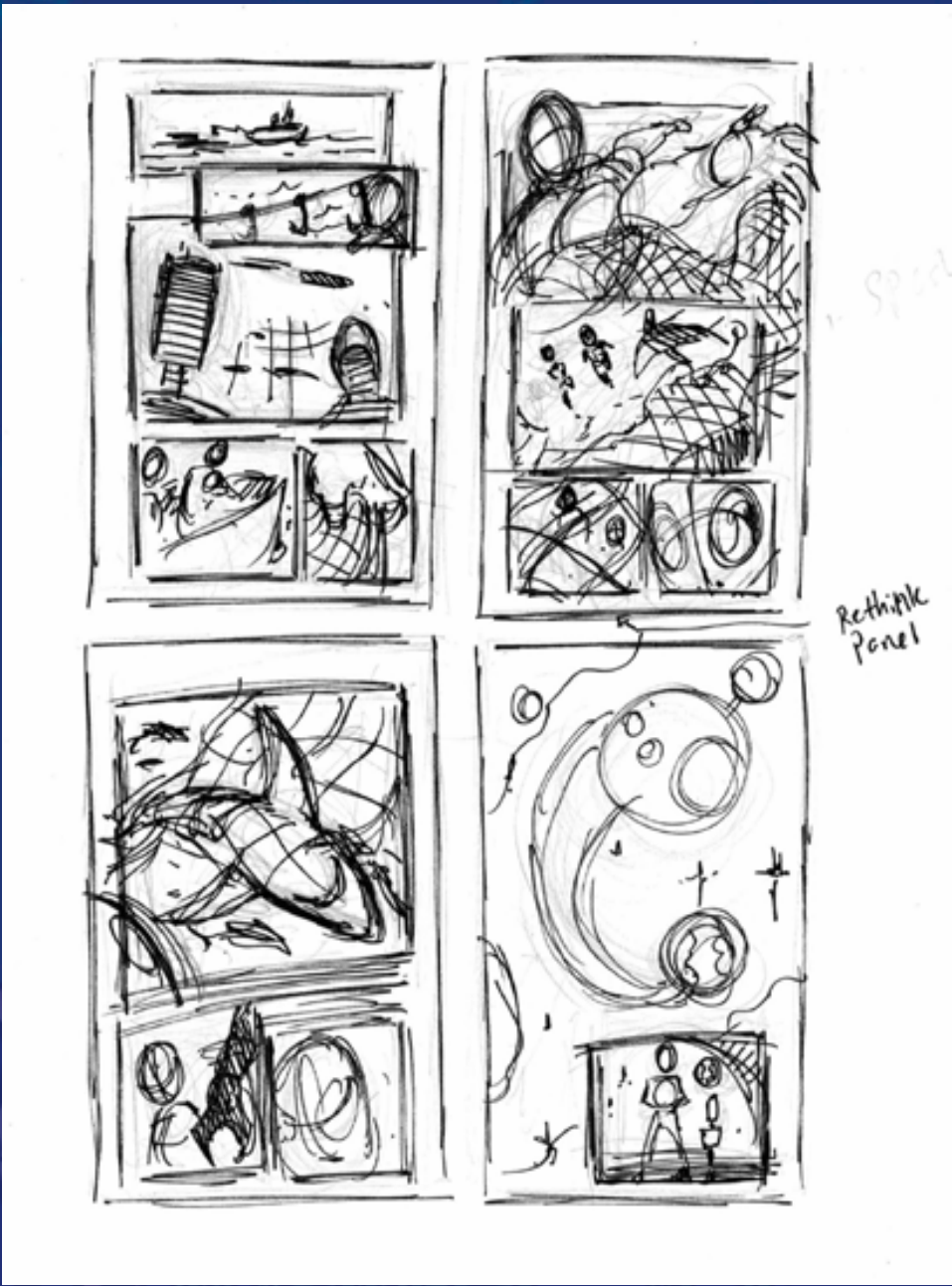




## The Comic Begins

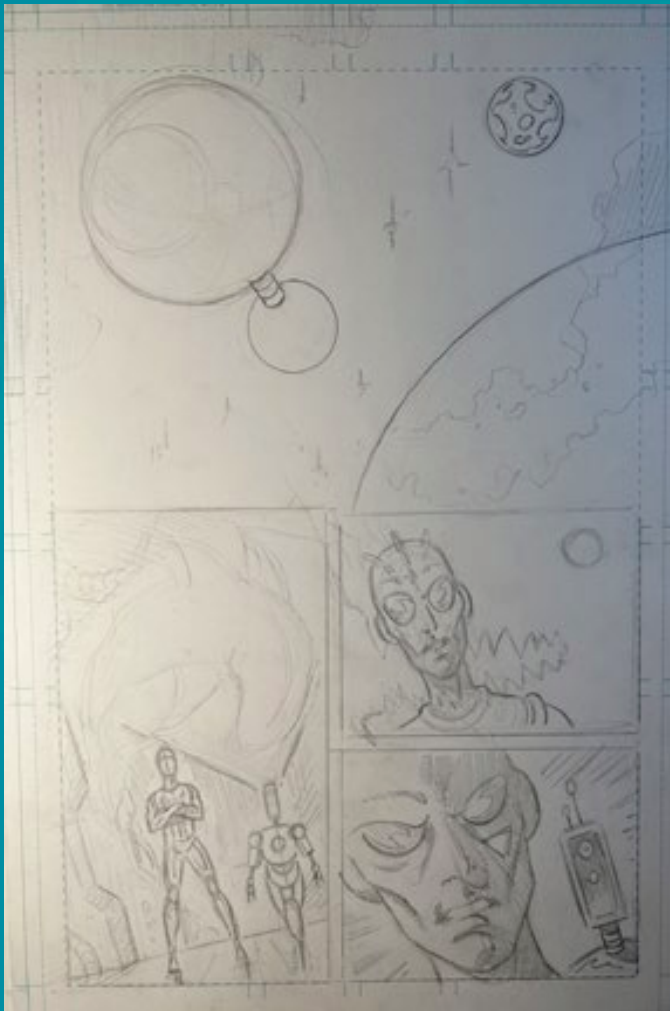
After creating character sketches and logo ideas, I worked on creating the thumbnail sketches for my comic book. This will be an eight page comic book. My focus with these thumbnail sketches was to figure out the storytelling and make it easy to follow. I worked on designing each page to lead the viewer's eye to the next panel and to the following page. I also worked on creating a variety of panel designs and camera angles in my story.

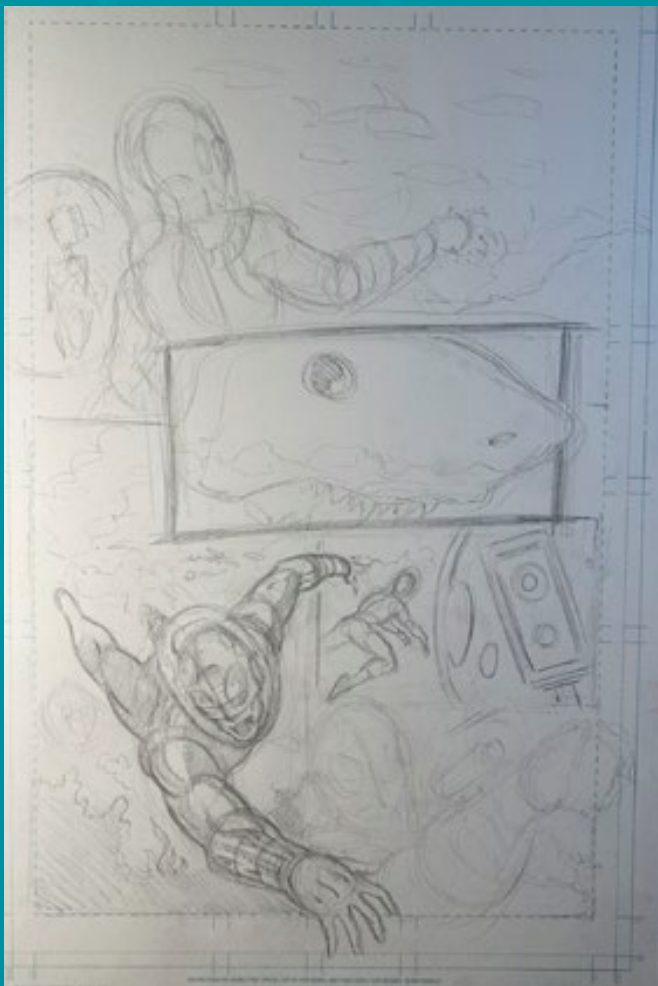
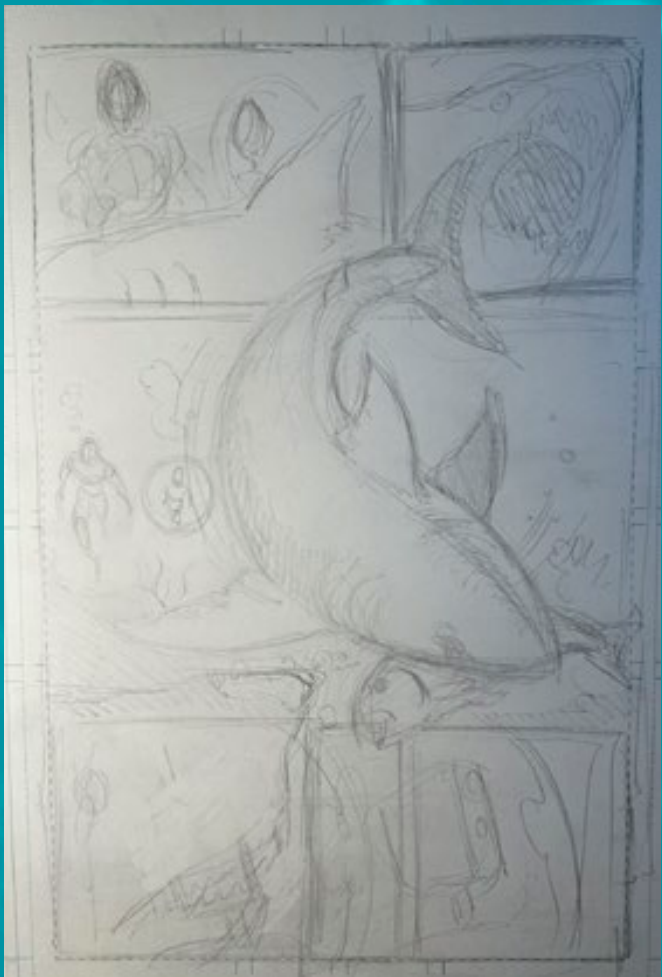




## Penciling

After finishing the thumbnail sketches for my comic book pages I began to redraw them in pencil on 11 by 17 inch bristol board. As I worked on penciling these pages, I worked to try to maintain the energy that was in my thumbnail sketches. When working on the penciling I made small changes to the compositions of the panels as well.







## Inking

After finishing the penciling for the pages I worked on inking them. For the inking of these pages I used a variety of inking tools. These include

- Pentel pocket brush pen
- Prismacolor Premier Fine Line Illustration Markers
- Tombow Fudenosuke Brush Pen





## Final Inks

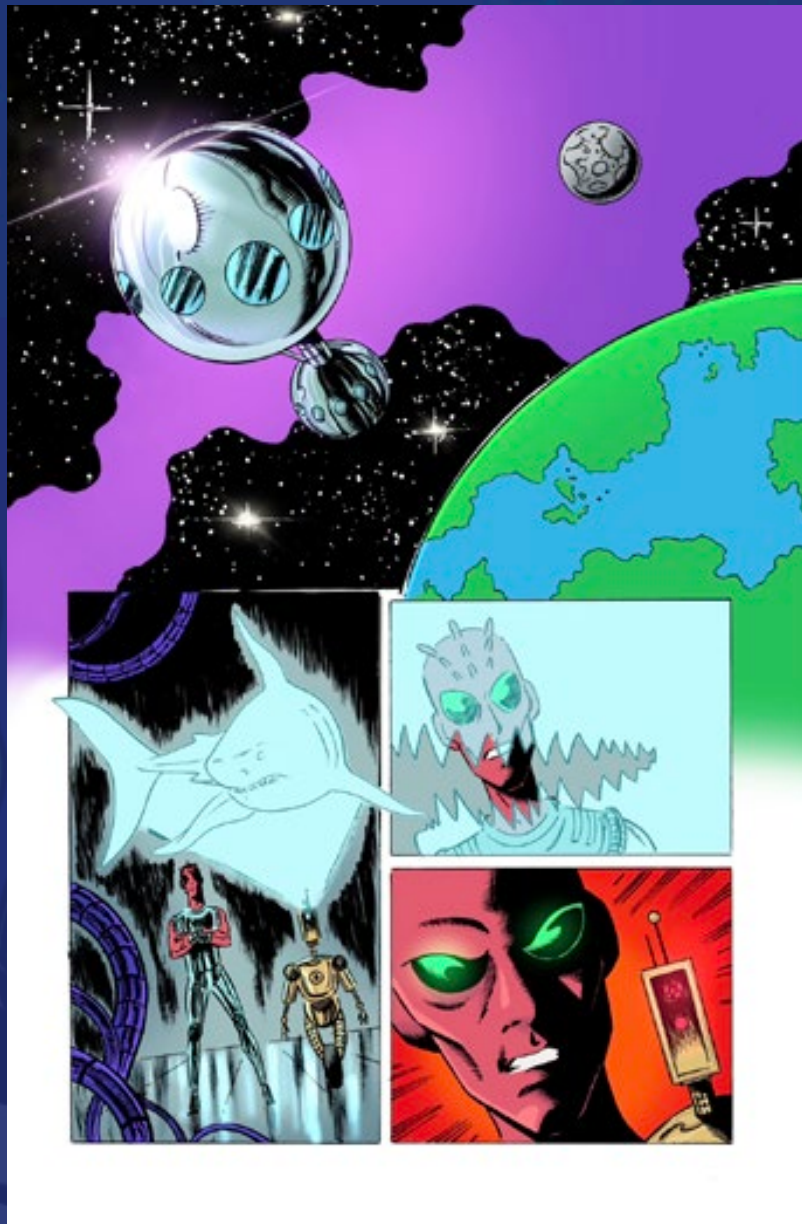
After finishing inking the pages for my comic, I worked on coloring them. I scanned the pages into my computer with a flatbed scanner and did small finishing touches to the inks such as cleaning up the pages as well adding white highlights. I did these finishing touches in Adobe Photoshop.



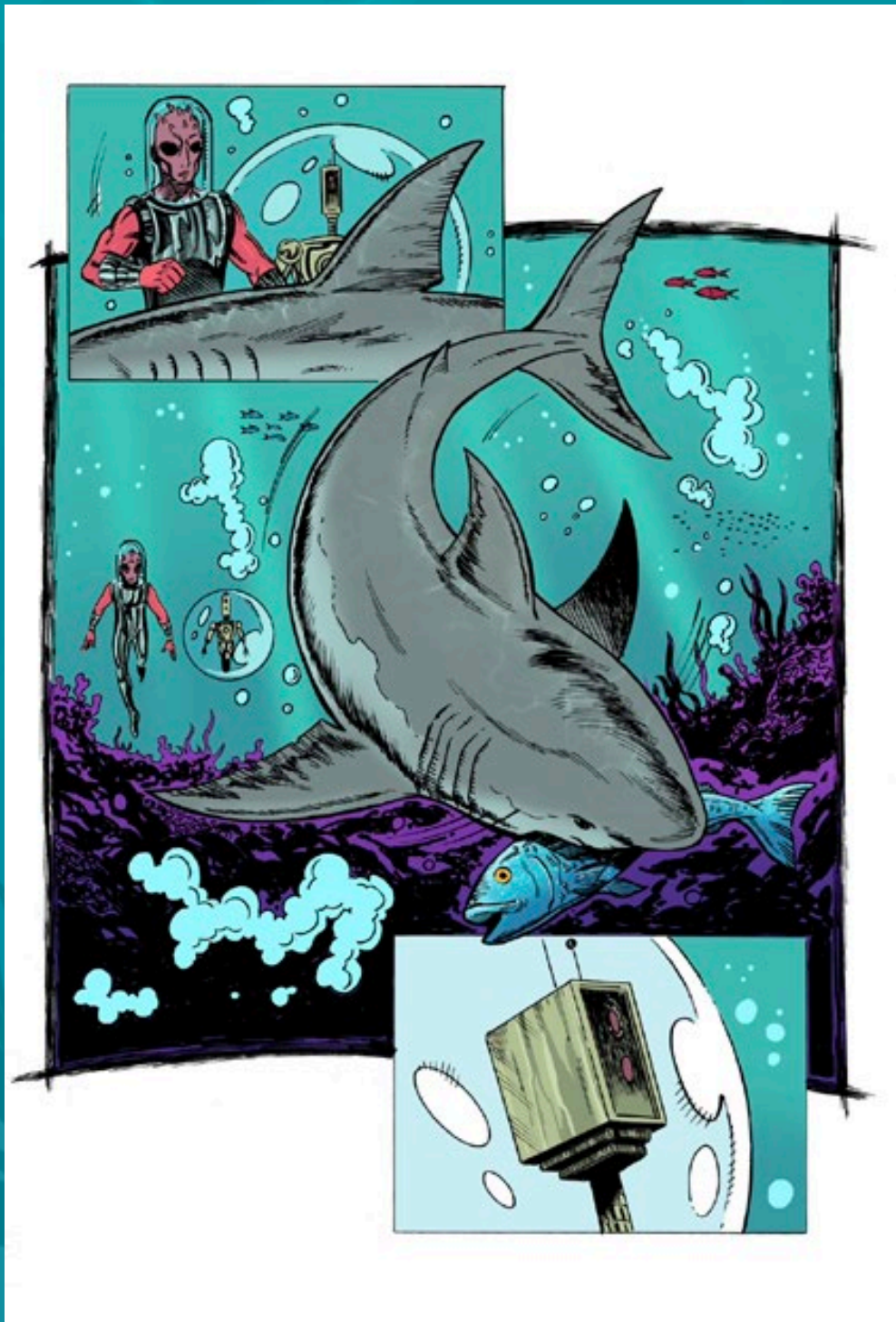


## Coloring

After finishing the inking the pages for my comic I worked on coloring them. I scanned the pages into my computer and colored the pages in Procreate on the iPad. I worked by applying the flat colors first and then building upon them with light and shadow.











## Lettering

After finishing the colors for the pages in Procreate I worked on lettering them in Adobe Photoshop. For the dialogue font I used a font called “back issues” which I downloaded from blambot.com.



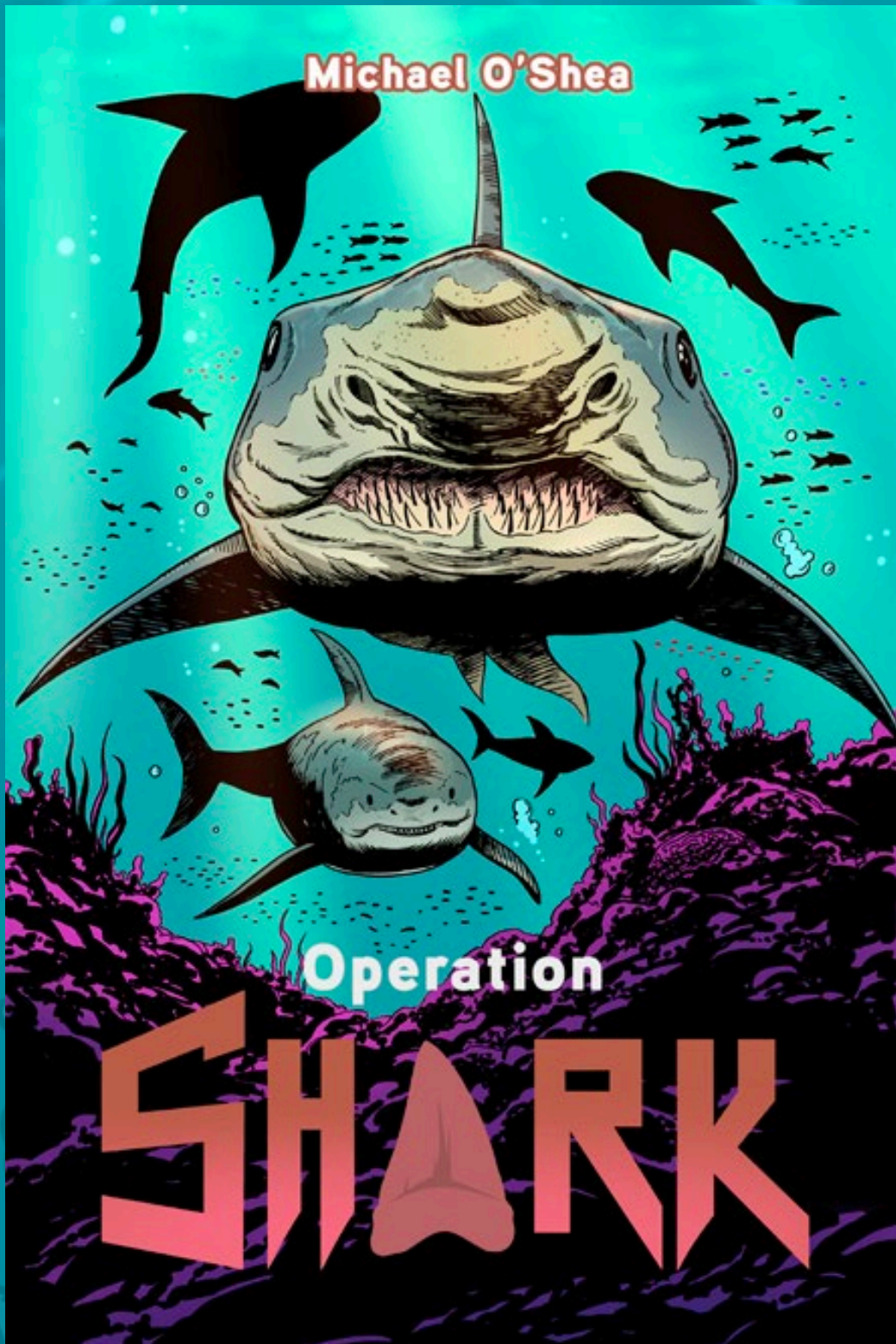


## Constructing a Cover

I began to work on sketches for a cover design. I knew I wanted the cover to be immediately eye catching as stand out if it were on a comic book shelf. After doing rough sketches I decided to create a cover that shows sharks swimming towards the viewer.



Inked cover for *Operation Shark*



Final cover for *Operation Shark*

## Creating Advertisements

After completing the comic book I worked on creating advertisements for this comic book. For my thesis project one web banner will be created along with three social media advertisements. First I created the drafts for these advertisements.









## **Chapter 4: Final Solution**



## Introduction

For my final solution I created an 8-page full color comic book with a front cover. I also created a logo which I applied to this cover. This comic book project is titled *Operation Shark*. In addition, I created one web banner, and three social media advertisements for this comic book project. I penciled, inked, colored, and lettered this comic book. The research I conducted suggests that sharks play a vital role in marine ecosystems and have a negative portrayal surrounding them which is heightened and exaggerated by various forms of media. This skews people's perceptions as sharks as mindless killing machines. The research I conducted also suggests that proper education plays a vital role in people's fear of sharks.

## Comic Book

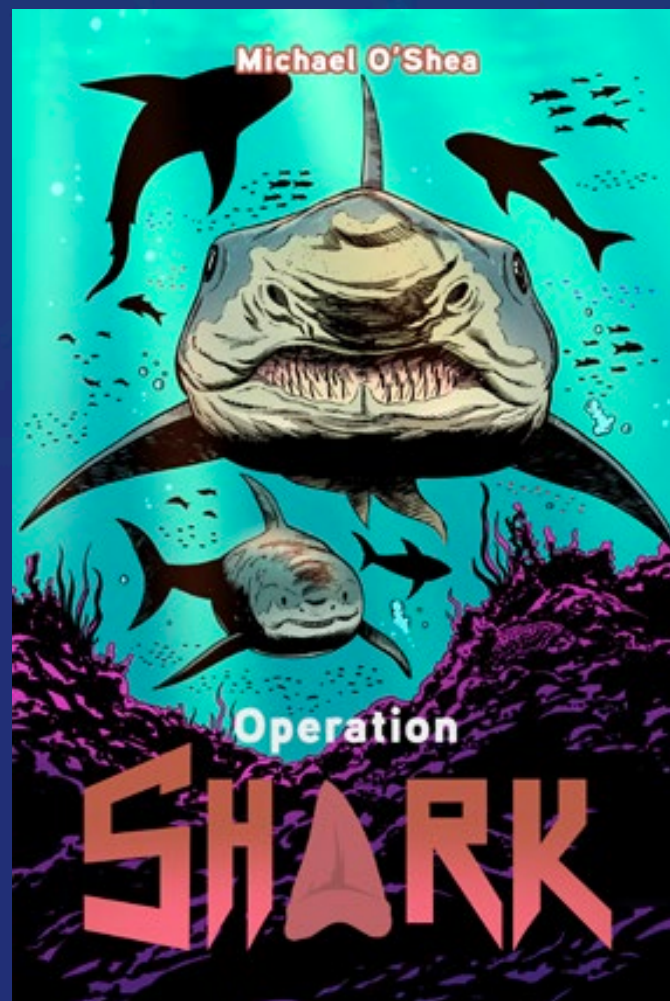
The target audience for this *Operation Shark* is all ages. This book is aimed to be a fun, exciting, and educational comic that anyone can enjoy. My research helped inform the final solution for my thesis project. My research highlighted the importance of education in regard to people's perception of sharks. I thought a comic book would be the perfect medium to create a story that educates as well as entertains. Through my research I also discovered that first-hand experience with sharks decreased people's fear of them. This sparked my idea to create characters who have a preconceived notion about sharks but through first-hand experience are proven wrong.

Another reason I chose to create a comic book for my project is because ever since I was very young, I always had a love for comic books and comic book artwork. Drawing comic books is a passion of mine and something I enjoy immensely.

## A Unique Solution

My comic book *Operation Shark* differs from other comics related to this topic in a few key ways. One of the ways it differs is that the story is told from the perspective of an alien and robot who have misconceptions about sharks. These are two characters that the reader can relate to as they discover that sharks may not be what they expected. The comic book reader may discover that they have the same preconceived notions about sharks as the characters in *Operation Shark*.

Though educational, *Operation Shark* features intense action and suspense, much like you would expect from an action packed superhero comic. I created this comic book to grab the reader's attention and take them on an exciting journey.



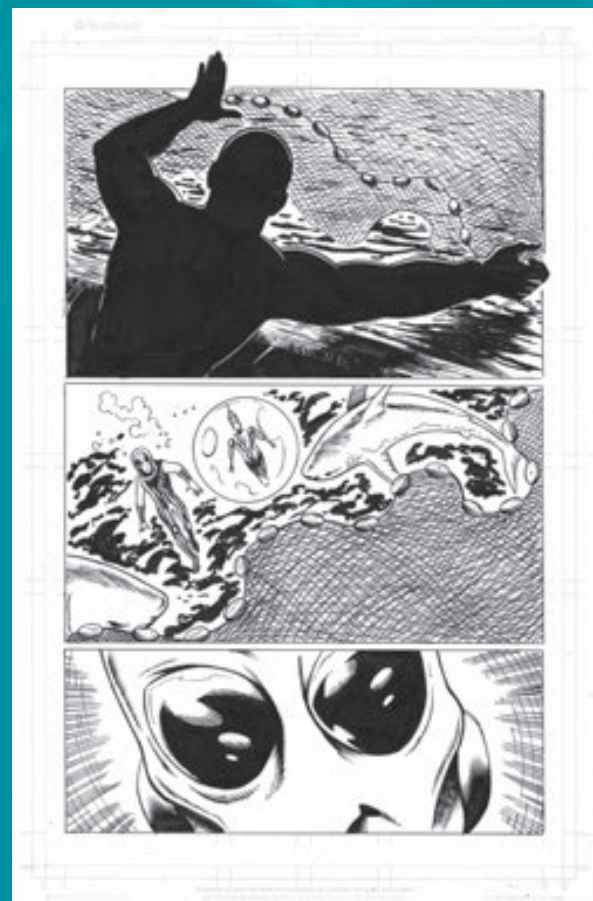
## Story

As I worked on this project, I wanted to make sure that I created a story with fun, memorable characters to capture the reader's attention and keep them invested. I created an alien and robot character who travel the universe studying the most dangerous creatures on different planets. This extraterrestrial duo travels to earth. Their goal is to study sharks, which they believe are the most dangerous animal on planet earth. In this story, I wanted to show that sharks may not be the mindless monsters that readers expect them to be.



## Artwork

For my comic book project, I aimed to illustrate this book in a fun, graphic style. I did not use heavy hatching/cross hatching but rather used solid black for much of my shadow work. I utilized various fine liners and brush pens to illustrate this comic book and kept the line work fairly simple. While working on this comic book I first and foremost wanted to make sure that the visual storytelling was clear and easy to follow, leading the viewer's eye naturally from one panel to another. Since this comic is meant to be suitable for all ages, I also made sure not to include gore or intense violence in this comic book.

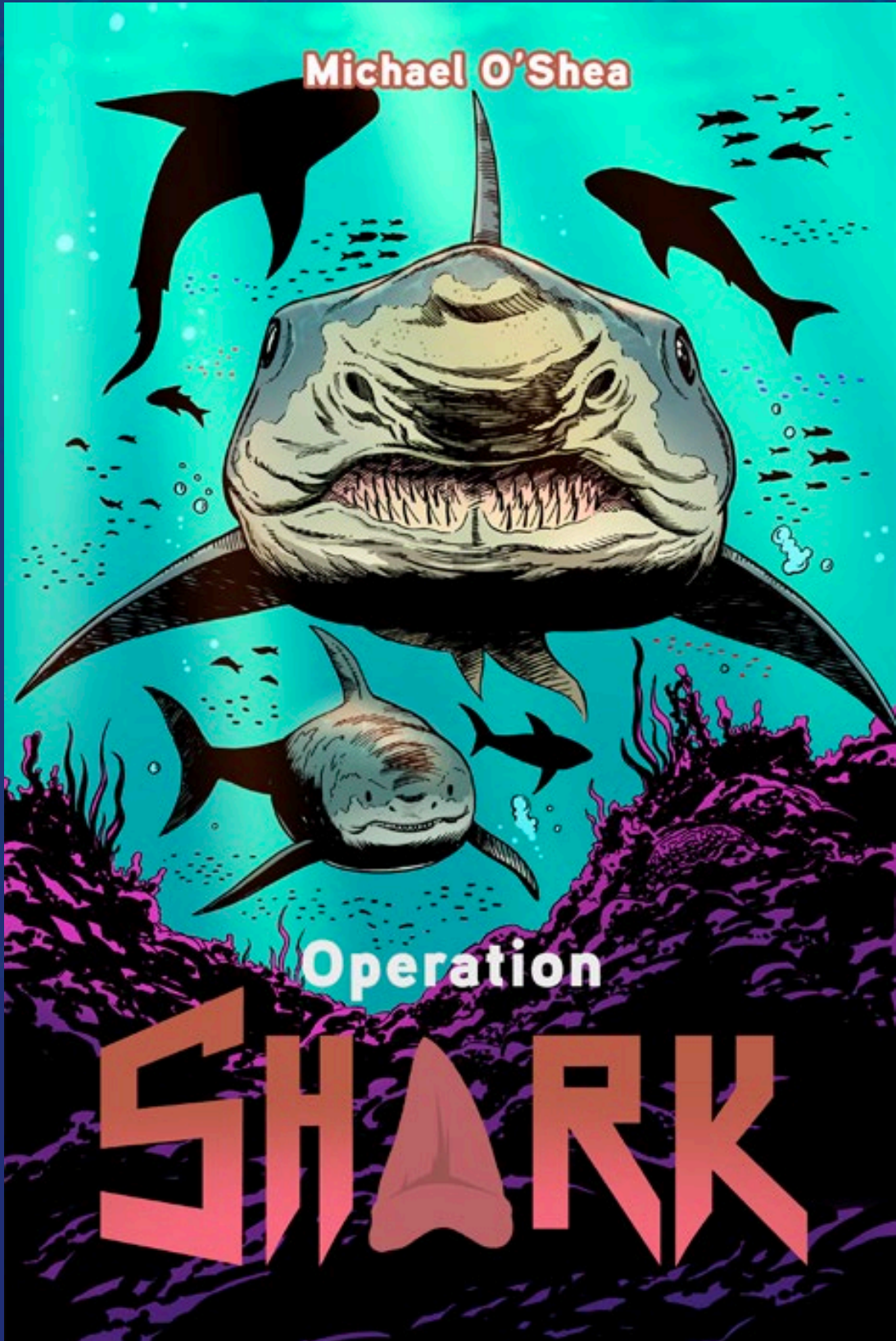


## Color Choices

I colored this comic book digitally in the Procreate app on the iPad. When working on the coloring for this book I knew that I wanted to utilize bright, vibrant colors that capture the reader's attention and fit the artwork well. In *Operation Shark* I utilized shades of pinks, red, and teals prominently throughout.



**Michael O'Shea**



**Operation**

**SHARK**



















I DON'T UNDERSTAND SPARK. THOSE SHARKS WERE SUPPOSED TO BE MONSTERS.

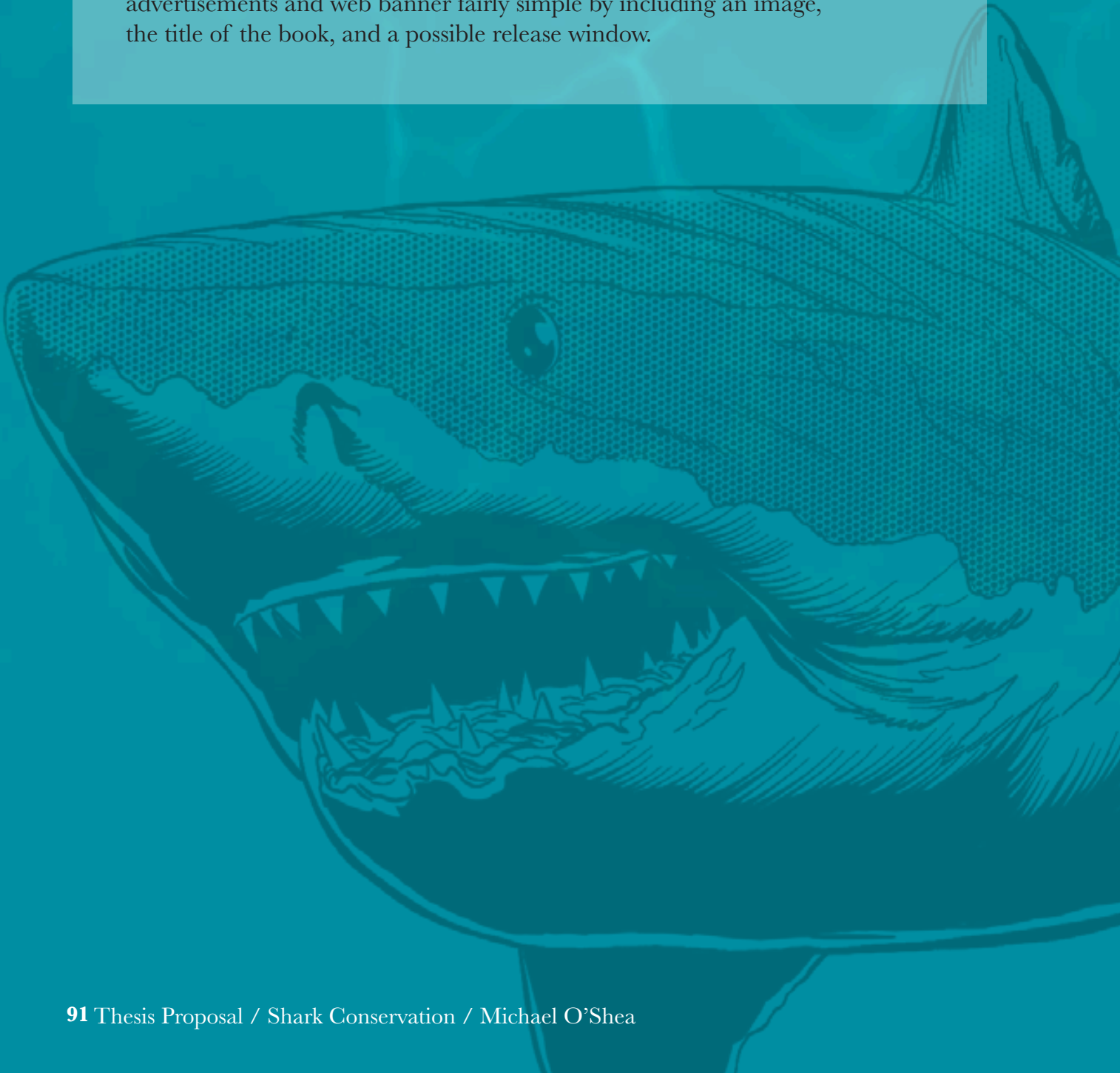
BUT THEY WERE COMPLETELY IGNORING US.

IT SEEMS LIKE THESE SHARKS ARE **NOT** THE MOST DANGEROUS CREATURES ON THIS PLANET.



## Advertisements

For my thesis project I also created three social media advertisements. The web banner features three vertical boxes that show snippets from *Operation Shark*. The three social media advertisements prominently feature the cover of *Operation Shark*. I wanted to keep the advertisements and web banner fairly simple by including an image, the title of the book, and a possible release window.



# OPERATION SHARK

2024

A thrilling tale about  
one of the most  
misunderstood animals  
on our planet.







# OPERATION SHARK

A thrilling new science  
fiction comic book about the  
titans of the deep!

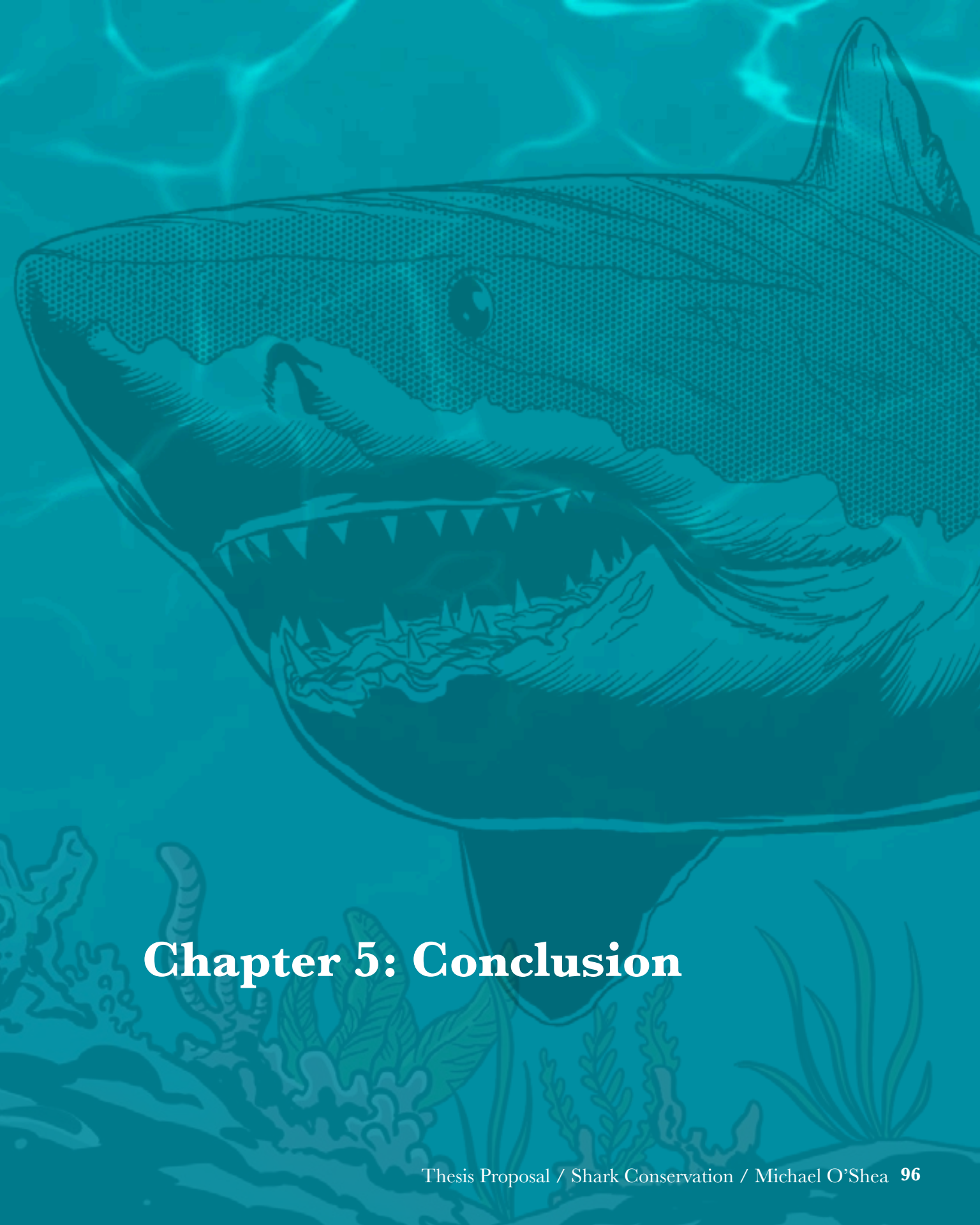
COMING  
SOON



## Web Banner

In addition to creating three advertisements for social media I also created a web banner.





## **Chapter 5: Conclusion**

## Overview


Sharks are one of the misunderstood animals on our planet. Many species of shark such as the common thresher shark, great white shark, dusky shark, and whale shark are endangered. The depiction of sharks in the media as well as the portrayal of sharks in various forms of entertainment has negatively influenced people's perception of sharks. In conclusion, my comic book *Operation Shark* addressed the issue of people's preconceived notions about sharks and portrayed sharks in a different light. For this thesis project a full color comic book as well as a web banner and three social media advertisements were created. The goal of this project was to address the negative perception of sharks and educate the reader about sharks through a fun and educational comic book. This comic has memorable characters, a vibrant color palette, and eye catching artwork. With more time I would like to create a longer comic book that addresses the negative portrayal of sharks. This longer form comic would delve into specific details about shark conservation. I may also create a comic book series with each issue highlighting a specific endangered animal.

With more time and resources, I would like to get this comic in people's hands through school book sales and perhaps museum events related to sharks or shark conservation. I would contact local schools and museums to see if this would be possible.

## Social Media Strategies

In addition to getting this book in people's hands through museums and schools, I also plan to promote this book on social media. I would specifically target groups on social media that are related to shark conservation and marine biology.

Social media can take over a narrative. Therefore, it is important to think of ways to manage the narrative. I believe one key way to achieve this is by maintaining an active presence on social media. This would enable me to engage with my audience in real time, answering any questions they may have about my book and keeping them in the loop with any updates. Having an active presence on social media also allows me to keep an eye



on conversations about my comic so I can promptly address any issues that may arise. As I work on promoting this comic book, focus groups and surveys would be beneficial in learning about people's reception of *Operation Shark*. This feedback will be informative and will enable me to make edits based on people's reception. It is also important to produce high quality content on social media that accurately conveys my intended message. This content may include graphics, text, videos, and infographics.

A few groups I may be able to partner with include Shark Stewards, Shark Allies, The Shark Trust, and The American Shark Conservancy. These groups could help give my comic book exposure.

### **Good News Doesn't Sell**

One potential challenge with creating a comic book highlighting the misconceptions around sharks is the idea that good news doesn't sell. I overcame this issue in my thesis by creating a story that was exciting and dramatic while having a positive message. This drama and conflict within *Operation Shark* keeps the reader excited and engaged.