

# **The phenomenology of shark diving tourism experiences.**

Case: Sint Maarten, West Indies.

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Thesis submitted to the  
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## **Abstract**

Tourism is continuously changing and growing on a larger scale, creating the need for different and unique types of tourism products. Wildlife Ecotourism, such as shark diving, is becoming an increasingly popular industry due to its ability to contribute to local economies, as well as the growing demand for tourists to observe endangered or rare species in the wild. Tourism industries are slowly recognizing the value that wild animals possess in connection with visitor's demand, increasing the necessity to try and conserve these species to be able to profit from them. Environmental interpretation programs can be used in wildlife Ecotourism to provide free choice-learning settings for visitors, making the experience enjoyable as well as educational. By educating and raising awareness amongst tourists about environmental issues, Environmental interpretation programs are believed to hold the potential to contribute to conservation efforts globally. Using a qualitative phenomenological research design, this research examined the environmental interpretation programs of shark diving Ecotourism operators in Sint Maarten, Antilles, from the perspective of tourists. Findings indicated that while tourists did not initially choose to participate in shark diving tours to learn more about the species, many participants became slightly more informed about the species of sharks that they encountered and the surrounding environment after their experience. It was also found that most participants experienced nervousness or fear before entering the water with the sharks, but felt an emotional connection and appreciation for the animal after the dive, causing a shift towards pro-conservation attitudes.

*Keywords:* tourism, Ecotourism, wildlife tourism, shark diving, conservation, environmental interpretation, qualitative research, phenomenology.

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## Chapter 1: Introduction

Tourism has become one of the largest industries in the world, and it is still growing and changing each day. Tourism is promoted as a means of economic development for many countries and communities who have lost their traditional industries, as well as those who simply hope to improve their general economic condition (Reid, 2003). Traditionally, tourism has been considered mainly from an economic perspective. Large companies and smaller entrepreneurs have provided the force for tourism development worldwide, thus making it the main focus for other industries as well. Tourism does not only have an effect on those who choose to acknowledge it but must also be seen in the larger context of the world economy because it affects so many other industries in its wake (Brown, 1998).

Tourism is hard to define because there is no consensus among scholars on what the exact definition should be. Weaver provides a general definition based on some of the fundamental principles which represent the most consensus among researchers in the field. He states:

*“Tourism is the sum of the phenomena and relationships arising from the interaction among tourists, business suppliers, host governments, host communities, origin governments, universities, community colleges and non-governmental organizations, in the process of attracting, transporting, hosting and managing these tourists and other visitors.” (Weaver, 2000).*

Of course, there are many ways to define tourism, and as stated before, there is still no consensus on the exact definition of tourism. Tourism has many positive attributes, but it also has many implications for the environment. On the one hand, hard-core environmentalists blame tourism to be the cause of detrimental pollution, and the depletion of natural resources

in countries (Reid, 2003). These environmentalists argue that international travel uses an enormous amount of fuel in hauling tourists to destinations, while the destination itself is not equipped to handle a large amount of human waste produced by the tourists visiting. However, when managed well, tourism can be one of the most sustainable and benign uses of the natural environment, compared to competing uses such as mining or forestry (Wilson, 2002). Because it is impossible to stop the growth of the tourism industry, many environmental organizations are now advocating certain forms of tourism as a means to conserve the natural environment of a destination. Tourism can be viewed as a vehicle through which sustainable development and environmental issues are addressed, instead of being a subject for development, the subject is the environment, and tourism becomes the mechanism for conservation efforts (Reid, 2003). In defining tourism in this way, it takes on a role of support for sustainable development and environmental protection, because it relies on these recourses to keep itself afloat.

Ecotourism is an environmentally friendly form of tourism in which the tourist engages in activities that protect the environment, appreciate the environment or teach something about the environment they are viewing or interacting with. Ecotourism has been defined as an ‘environmentally responsible, enlightening travel to a relatively undisturbed or natural area to enjoy and appreciate nature’ (Ceballos-Lascuráin, 1996). Bangy and Wood define Ecotourism as “responsible travel to natural areas that conserves the environment and sustains the well-being of local people.” (Blangy & Wood, 1993).

In some circumstances, Ecotourism can be a sustainable activity and can contribute to the sustainable development of a certain place. However, Ecotourism and sustainable tourism are not one in the same. Ecotourism is mainly focused on ecological conservation and education of travelers on local environments and natural surroundings, whereas sustainable



tourism seeks to inspire tourists to perform behaviors that enhance the environment on site and at home. Sustainable tourism focuses on travel that has minimal impact on the environment and on the local communities that live in that environment (Wall, 1997).

In eco-friendly and sustainable wildlife tourism, certain iconic species, such as sharks, are used to attract attention for conservation initiatives. Protected areas on land as well as on oceans rely on these “most wanted” species to attract visitation and awareness. The aim of Ecotourism businesses would be to raise concern and stimulate pro-conservation behaviors (Skibins, Powell, & Hallo, 2016). Ecotourism is a form of tourism, or a category of vacation similar to beach, adventure, health, or cultural, while the concept of sustainability can be applied to all types of tourism (Wall, 1997).

Wild animals in their natural habitats and environments support a number of different recreational activities and aesthetic interests, for example, activities such as hiking, diving, fishing, snorkeling, photography, climbing, and trekking (Gallagher & Hammerschlag, 2011). Because people often travel to partake in these activities related to interacting with wild life in their natural environments, they are often placed in connection to Ecotourism. Ecotourism, widely known as nature-based tourism, has become and is becoming increasingly more popular in recent decades and is described as one of the fastest growing sectors of the tourism industry today (Scheyvens, 1999; Wearing & Neil, 2009).

Wildlife Ecotourism, such as shark diving, is becoming a well-established industry due to its ability to contribute to local economies, as well as the growing demand for tourists to observe endangered or rare species in the wild. Tourism industries are slowly recognizing the value that wild animals possess in connection with visitor’s demand, increasing the necessity to try and conserve these species to be able to profit from them. Another attribute of wildlife Ecotourism is that it is able to provide free choice-learning experiences for tourists, through

the use of environmental interpretation programs before or during the shark diving activities. This practical and on-hand learning experience can inform and change tourists perceptions of the image that sharks hold in society today (Skibins et al., 2016).

Shark diving tourism is a growing niche activity in the global tourism industry. There is a strong perception that sharks can be economically more beneficial alive than dead, which has now become one of the leading arguments for the conservation of the species. The Perception of sharks in the media has always been one of danger and fear, mostly thanks to movies and television shows which have villainized these creatures. There is no doubt that sharks can be unpredictable and dangerous at times and there still exists concern that many aspects of shark diving tourism pose a threat to humans by associating people with food, which can be heightened because of chumming activities. Chumming with fish bait is a type of provisioning to attract sharks to snorkelers or scuba divers and is one such activity that has already proven both popular and controversial (Johnson & Kock, 2006; Meyer, Dale, Papastamatiou, Whitney, & Holland, 2009). Furthermore, there is also concern that shark diving may alter natural behaviors and foraging areas of sharks and tourists could pose threats on these creatures in their habitat (Skibins et al., 2016).

Ecotourism is often championed for its potential to promote pro-environmental attitudes and behaviors amongst visitors; however, it has been argued that the industry may often appeal to individuals already possessing these beliefs and therefore; the industry may not be as beneficial as hoped (Beaumont, 2015). Of course, there are implications that make for controversial opinions on the subject at hand. Shark diving, like other wildlife tourism activities, still have impacts on the environment, the natural habitat and the behaviors of the species, no matter how “eco-friendly” these practices might be. The industry can contribute to local, regional, and national economies while simultaneously bringing awareness to

environmental issues, conservation efforts and by providing an alternative to wildlife consumption or exploitation (Gallagher & Hammerschlag, 2011; Vianna, Meekan, Pannell, Marsh, & Meeuwig, 2012). Shark diving can potentially change negative perspectives of the species and encourage positive environmental actions in tourists (Christensen, Rowe, & Needham, 2007; Smith, Scarr, & Scarpaci, 2010). In contrast to the positive roles that this activity can play for environmental issues, it can also have negative impacts on the environment under protection, as well as have an impact on the target species through modification of behaviors associated with feeding, resting, and reproduction (Gallagher et al., 2015). The non-consumptive value of nature associated with tourism has become increasingly important as humans continue to exploit natural resources, driving species populations into decline and creating a loss of biodiversity (Davies, 1990; Gallagher et al., 2015). This non-consumptive method of trying to conserve the natural environment is also impacting it, alterations connected to these practices may cause physical injuries, nutritional deficiencies, and even loss of young. Shark diving not only affects the sharks but also the environment in which they live. Repeated disturbance of habitats may lead to short or long term avoidance of these habitats or if baiting is used, this may alter patterns and behaviors. The Rapid growing demand for interactions with sharks in the wild for tourism purposes constitutes a challenge to management. Short-term animal behavior changes can have long-term biological consequences for individual animals and populations (Higham, Bejder, & Lusseau, 2008).

A new development in protecting wildlife has developed in the media, as the world famous website TripAdvisor has now placed a ban on animal-cruel activities. The Website will stop selling tickets to certain attractions, and the ticket sales of others will end by early 2017 when the education portal will be launched (Bale, 2017). Specific tourist experiences that will no longer be bookable on TripAdvisor are those where travelers come into direct contact with captive wild animals or endangered species. This means activities such as tiger

selfies, the petting of lion cubs and swimming with dolphins. There has been no indication if this will also include shark diving experiences, as of now the website still sells tickets to these activities.

Shark diving, such as many wildlife tourism practices, is a controversial topic. Studying visitors participating in these activities can be beneficial to understanding how to create best practices. Research in this field can benefit from collaborations between researchers and industry representatives, although these projects should also uncover the potential threats that operators impose on the species and its environment (Gallagher et al., 2015). This study will focus on the participants of shark diving tourism on the Island of Sint Maarten and will research if these tourists have pre-existing knowledge of shark biology or a desire to conserve populations, or if they are instead motivated by a fascination of the species, a desire for adventure, or because they recognized the experience as a 'bucket list' item, that is to say, as something exciting and novel to accomplish as part of one's lived experience.

This study seeks to gain insight into what type of tourists partake in shark diving tourism and the motivation of tourists to participate in this activity, as well as gaining insight into the environmental interpretation programs of this industry in Sint Maarten.

Why is it important to research the motivation and experiences that tourists have when participating in shark dives on Sint Maarten? Most research about sharks and their conservation is related to the economic benefits of shark diving and the impacts that humans have on their habitats, but little to no research has been done on the experience of the tourist engaging in this activity. Shark diving tours should adhere to rules and regulations (a code-of-conduct if you will) and should educate the people who engage in this activity. This study

will research if shark diving tours in Sint Maarten (and if possible surrounding islands) have influences on the mind-sets of the tourists who participate in them. The research will uncover if these shark dives educate and create an understanding of the species, as well as creating an understanding of why conservation efforts are needed to keep them from becoming extinct. Wildlife Ecotourism experiences, such as shark diving tourism, possess the capacity to “inspire, educate, and influence a large number of visitors” (R. Ballantyne, Packer, & Sutherland, 2011). Focus groups, surveys, or interviews are often carried out at an interpretive site (in this case the dive site) in order to evaluate and understand these programs and to determine what tourists/visitors learned from the experience (Jacobson, 2009)

This research would assess the effectiveness of the shark diving interpretation programs in Sint Maarten and identify the different ways to increase visitor’s understanding of conservation efforts and prompt more environmentally sustainable behavior. Understanding the perspective of the tourists who engage in these shark diving activities can be beneficial for tour operators who offer them because it provides them with a better insight into tourist experiences, which may allow for the improvement and development of their services to align with visitor expectations. It will also highlight the gaps in the program, allowing for growth and improvement of the interpretation programs. Education through experience is one of the best ways to create understanding of a subject, that is why shark diving is an important tool to teach people about the importance of the species in connection to the ecosystem and the environment, therefore, it is important to assess interpretation programs in order to understand the impact of such communication on the beliefs of tourists and upon their future behaviour in regards to conservation. Shark Ecotourism clearly has a place as a local niche activity, and indeed are economically very important for some select communities, but the global demand for these Ecotourism activities is vastly outstripped by global demand for shark fins. Also, some species of sharks are being heavily impacted by

non-targeted fisheries (i.e. sharks are inadvertently bycaught in large numbers) (Meyer, 2016). More than ever it is important to create awareness of the declining shark populations and the danger this holds to the environment. Studying the experiences of people who engage in shark diving Ecotourism can provide insight on how to improve these practices and create a better learning experience for the participants.

### **Research Questions.**

This research is structured to gain insight into the experiences and attitudes of tourists who choose to participate in the environmental interpretation programs of the shark diving tourism industry in Sint Maarten, Antilles. A central research question, followed by 6 sub questions are the center of this study.

#### **Central Research Question.**

- What type of visitors are attracted by shark diving tourism and what is the motivation behind why they engage in this activity?

#### **Sub questions:**

- What is the impact of shark interpretation programs on tourists' perspectives?
- How can shark diving tours improve their interpretation programs in order to fully educate and inform tourists about the importance of shark conservation efforts?
- How do the shark diving interpretation programs on Sint Maarten hold the potential to contribute to conservation efforts of the species?

- Are there ongoing conservation efforts for sharks on Sint Maarten and how does shark diving play a part?
- How do tourists perceive the risks involved in diving with sharks in their natural habitat?
- Do tourists acquire species and environmental based knowledge during shark diving tourism activities?

**Interview Questions:**

1. How did you learn about the shark diving activities in Sint Maarten?
2. Have you been on a shark dive prior to this one?
3. How did you learn about the shark diving tour operator you chose?
4. What were your expectations for this experience?
5. What motivated you to take part in shark diving in Sint Maarten?
6. Did you have knowledge about sharks or diving before participating in this activity?
7. Prior to your participation, did you have any concerns with engaging in activities that would bring you in close vicinity with sharks?
8. What kinds of information did you receive from your tour guide regarding safety, the species, conservation and the environment?
9. Do you feel that your tour guild provided an accurate depiction of the natural environment and species you encountered?
10. Were you familiar with the threats facing shark species prior to your diving experience? After?

11. What did you enjoy most about your experience?
12. What did you enjoy least about your experience?
13. Would and have you recommended shark tourism activities to others?
14. Would you participate in shark-based tourism again? Why or why not?
15. If you could change something about the experience that would make it a better learning experience, what would it be?

### **The Structure of the Thesis.**

This thesis has been divided into seven chapters, namely (1) Introduction, (2) Literature Review, (3) Propositions, (4) Presentation of the case/destination/company/population, (5) Methodology, (6) Findings and Analysis, and (7) Conclusion.

Chapter 1: Introduction – This chapter introduces the subject of the research, it explains and describes the current landscape of the global tourism industry that is branching out to growing niche market segments. The introduction particularly describes wildlife Ecotourism and why this industry has become increasingly popular in the tourism industry. In connection to wildlife tourism, this chapter also delves into the shark diving tourism industry and introduces the region under study, and the potential of these activities to provide not only enjoyment but education to tourists on environmental issues. The study's purpose, theoretical framework, methodology, and research questions are also outlined in this chapter. A brief overview and description of the current state of shark populations, as well as common public perceptions of the species, are outlined in this chapter, as well as the rationale for the study.



Chapter 2: Literature Review – This chapter highlights the most important key words used in the study, using academic literature to gain a better understanding of the subjects at hand. The key concepts discussed are tourism, niche tourism, Ecotourism, sustainable tourism, wildlife tourism, scuba diving, shark diving, environmental interpretation programs, and the Sint Maarten tourism industry.

Chapter 3: Propositions – This chapter describes and explains how the research relates to key academic ideas and theories, how the research question is deduced from them, and where applicable, introduces a relevant conceptual model and/or propositions or hypothesis related to the research question(s) and the literature from which it is deduced.

Chapter 4: Presentation of the case/destination/company/population – This chapter presents the case study used for the research, the destination, the company and the population. It outlines why Sint Maarten was chosen as a destination for the study, why the company Oceans Explorers was sought out for the base of the interviews, and how the sampling of participants took place.

Chapter 5: Methodology – This chapter describes and outlines the hermeneutic phenomenological research design used for this study. It provides a brief rationale behind the selection of Sint Maarten, The Antilles as the case study chosen for the evaluation of shark diving experiences as well as describing the data selection, collection, and analysis processes for the study. The role of the researcher and the trustworthiness and ethics of the study are also briefly explained in this chapter.

Chapter 6: Findings and Analysis – This Chapter presents the findings of the study by

first providing a contextual description of Sint Maarten, the selected tourism region, which is then followed by a detailed description of the accounts provided by the participants. The findings are organized under the study's main research question and 5 sub questions and are then grouped by thematic categories.

Chapter 7: Conclusion – This Chapter summarizes the key findings of the study and comments on their significance and contribution, as well as recognizing the limitations of the study. The Chapter also provides recommendations for future research in the area of shark diving tourism and environmental education programs.

## Chapter 2: Literature Review

### Tourism

Tourism is an increasingly growing concept within our ever globalizing society consisting of many different types of niche branches. Tourism is a complex phenomenon to define, definitions proposed by scholars are often criticized and are constantly under pressure to be improved upon. There is still no unanimous definition among researchers and professionals of tourism, even the definition created by the UNWTO: World Tourism Organization (Tribe, 2009) doesn't have a unanimous consensus from everyone. Even though tourism is hard to define, there are still many ways of describing this phenomenon to try and get an understanding of what tourism encompasses. According to the World Tourism Organization (2011), tourism can be defined as “a social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment for personal or business/professional purposes”. Tourism in a simple sense of the word involves a spatial separation between ‘home’ and ‘away’ and the travel between these two spaces. Yet this seemingly simple concept becomes complicated by the added requirements and consequences, in terms of the services required to meet the needs of tourists and the impacts tourists have on the places they travel to (Holden, 2004). We have to think of tourism as a system, it revolves around the entire journey that a tourist takes before, during and after their movement from ‘home’ to ‘away’. Simply said tourism is “the temporary movement to destinations outside the normal home and workplace, the activities undertaken during the stay, and the facilities created to cater for the needs of the tourist (Mathieson & Wall, 1982).

This definition sums up the number of sub activities that come with the concept of

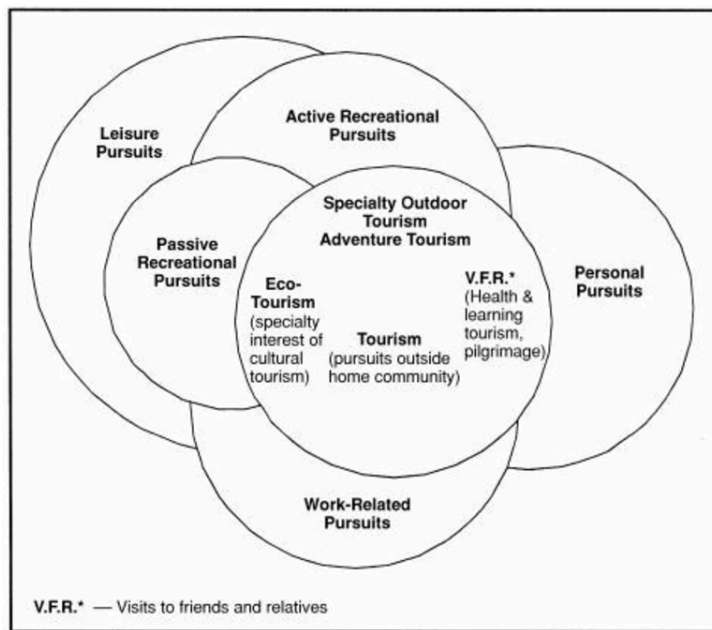
tourism, such as travel, hospitality and recreation, which is all part of the experience. (Tribe, *The Indiscipline of tourism*, 1997). A similar definition of tourism to that of Mathieson & Wall is that tourism is “a study of the demand for and supply of accommodation and supportive services for those staying away from home, and the resultant patterns of expenditure, income creation, and employment (Ryan, 1991). This Definition has the same concept as the latter, emphasizing the economic and business aspects of tourism. Describing tourism by monetary flows is a common way of defining the phenomena. These monetary flows include business income, consumer spending, expenditure and profit, as well as the effects on the regional and national economies of the tourism generating country and the host country (Tribe, *Philosophical issues in tourism* , 2009). Even though most descriptions of tourism include monetary flows, it clearly encompasses so much more than what is measurable in these flows. Not only is the economy an important element of tourism, but the social, the cultural, and the psychological aspects are important additions as well (Przeclawski, 1993). These definitions do not yet encompass the grandiose meaning of tourism. Tourism in a more rounded sense of the word could be “the sum of the phenomena and relationships arising from the interaction of tourists, business suppliers, host governments, and host communities in the process of attracting and hosting these tourists and other visitors” (McIntosh & Goeldner, 1995). Ultimately, the phenomenon of tourism is simply just whatever is linked with the act of tourism (Tribe, *The Indiscipline of tourism*, 1997). Of course it is always hard to define such a broad word, especially when there are numerous definitions created by researchers from an array of disciplines. All of the above definitions so reveal the key dimensions within tourism. First there are the dimensions that are related to the business, such as organization, marketing, hospitality, recreation, transport, corporate planning, and more. Then there are the dimensions that are related to the tourist, such as the motivation for travel, the choice (of destination, activities, etc.), the satisfaction,

and the interaction. There are also the dimensions that relate to the generating country, such as the economic impacts, the environmental impacts, and the cultural impacts that tourism has on them. As well as the dimensions related to the host environment, such as the ecological impacts or the dimensions to the host government, such as the policies that need to be put in place, the planning that goes into such a huge system and the measurement of tourism that needs to be done (Tribe, *The Indiscipline of tourism*, 1997).

Tourism can be defined purely from an *economic* standpoint by host countries and by entrepreneurs. For the host-country, tourism is defined by issues of employment and economic growth because these are of most concern, especially in the developing world (Reid, 2003). In this way, tourism is defined according to consumption patterns, and by loss and profit. From the economic and entrepreneurial point of view, issues of supply and demand play a key role in defining tourism. When the demand for tourism or for tourism product fluctuates, many types of businesses can either easily be created or just as easily be destroyed.

The *social-psychological* approach to defining tourism takes on the perspective of the tourist in formulating a definition of tourism. This perspective argues that tourism is rooted in the psyche of all individuals, especially those who live in modern societies. In this way, tourism is seen as a complex social and psychological relationship between society and the individual (Urry, 1990).

*Sociologists* take on a different perspective, they traditionally concentrate on two areas of tourism: travel as a means of escape and the benefits as a means of self-development. A holistic model integrating leisure, recreation, and tourism is provided to create a greater understanding of the categories of tourism activities.



**Figure 1:** Categories of Tourism Activities; **Source:** Reid, Fuller, Haywood & Bryden, 1993.

In this model there are suggestions of ‘serious’ leisure and ‘casual’ leisure, the distinction between the two is important for understanding what tourism is. Sociologists continue to strive to find a primary theory to explain what tourism is and what a tourist is within this explanation but the elusiveness of the subject provides issues for this development. “on the one hand there has been an emphasis on tourism as a means of escape from the every day, even if such escape is temporary. On the other hand, travel has been constructed as a means of self-development, a way to broaden the mind, experience the new and different and to come away in some way enriched.” (Wearing & Neil, 2000).

Tourism can be defined from the perspective of *communities*. In Communities, priorities move to those of supply, because the community is usually the supplier of the attraction, whether it is human-made or natural. Tourism is part of the entire eco-system in a community when it is the dominating source of income. Communities can develop a tourism industry based on their heritage, each with a unique pull factor for visitors. By commodifying

their history and traditions, tourism can help communities economically as well as help conserve and preserve a portion of their way of life (Reid, 2003).

Tourism can also be defined in *ecological* terms because it has many implications for the environment in which it takes place. Tourism can have both negative and positive effects on the environment, it can be a major cause of depletion of natural resources and pollution, as well as being an incentive for communities to conserve it. When managed well, tourism can be worth more to the environment than to which it would otherwise be used for, because to attract tourists the environment has to be conserved in its natural beauty (Wilson, 2002). This form of tourism is called Ecotourism and can be defined as:

“A scientific, aesthetic or philosophical approach, although the ecological tourist is not required to be a professional scientist, artist or philosopher. The main point is that the person who practices Ecotourism has the opportunity of immersing him or herself in nature in a way most people cannot enjoy in their routine, urban existence. This person will eventually acquire a consciousness that will convert him/her into somebody keenly involved in conservation issues.” (Ziffer, 1989).

As mentioned before, tourism is hard to define and it is even harder to restrict the meaning of tourism because it is such a wide concept. Within the definition of tourism, there are more well defined “types” of tourism, some of which needs to be explained more in depth to be able to understand the research that will be discussed later on.

### **Niche Tourism**

For the enhancement of sustainable tourism development, it is crucial to turn toward

more specialized, unique, adequate and flexible patterns of tourism development and to discover new emerging markets within an already growing market segment (Ursache, 2015). Niche segments, through image creation, allow destinations to differentiate their tourism products, which gives them the possibility of competing with an increasingly competitive market. By creating new niche products, destinations increase the attractiveness and competitiveness within the tourism industry. Mara Urschel describes the contemporary tourism market as being “characterized by a big number of definitions linked to a diverse set of recreational activities, demand for alternative locations, entertainment and attractions, and thus, new tourism segments are rousing.” (2015). She goes on to define niche tourism by a myriad of factors that interrelate and react to ever-changing market trends and tourism requests, as can be seen in figure 2.

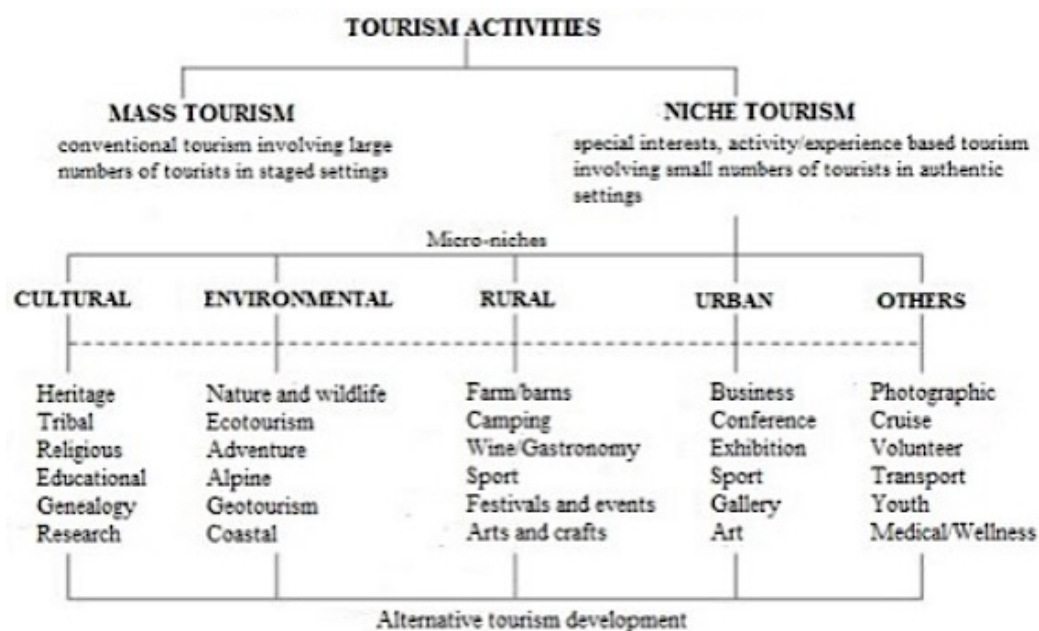


figure 2: Niche Tourism Segments; Source: (Ursache, 2015)

As seen in the figure above, the tourism sector is characterized by a broad spectrum of niche tourism segments. When we talk about niche tourism, it usually points to a specific product that is created for a specific market segment (Acorn Consulting Partnership Ltd,



2008). The term 'Niche Tourism' is largely borrowed from the term 'Niche Marketing' which refers to how a specific product can be tailored to meet the needs of a particular audience or market segment (Novelli, 2005). In the Caribbean, there are a number of different types of niche tourism markets, with diving being one of them and shark diving being a segment of that market in itself. Niche does not always mean that the market is small, often niche markets attract large numbers of tourists. In addition to this, niche markets are often seen as expensive or exclusive but this is not always the case. Creating a niche market for a touristic destination is a good way of diversifying products that are already available, which can minimize the effects of seasonality, which then in turn can reduce the pressure on extremely overcrowded tourist attractions and divide the attention to the lesser-visited places in the area (Acorn Consulting Partnership Ltd, 2008). At one level niche tourism can be defined as breaking down tourism into still relatively large homogeneous market sectors – 'macro niches' i.e. cultural tourism and event tourism – each then capable of further segmentation – 'micro niches' which in this case is (shark) diving tourism (Novelli, 2005).

### **Ecotourism**

Ecotourism or nature-based tourism has become the fastest growing sector of the tourism industry, growing 3 times faster than the industry as a whole (Huybers & Bennet, 2002). Nature based tourism and Ecotourism have been growing steadily since the 1980's. These natural attractions are visited by a diverse range of tourists, not only by the environmentally conscious but by many different types of tourists as well (Neil & Wearing, 2013). It is clear that the increasing trend of travel as a form of escape to nature is connected to environmental concerns for the same areas to which these tourists are escaping to. Urban living creates a pressure on people which in turn encourages them to seek solitude with

nature, therefore increasing the number of visitors to nature-based tourism destinations such as national parks and other protected areas (Ceballos-Lascurain, 1991a).

The term Ecotourism was coined by Hector Ceballos-Lascurain in 1981, he used this term to identify the primary strategy for maintaining rainforest areas in the Mexican state of Chiapas (Neil & Wearing, 2013). Neil & Wearing defined Ecotourism as “low key, minimal impact; interpretive tourism where conservation, understanding, and appreciation of the environment and cultures visited are sought” (2013). Ecotourism is not only meant to conserve a natural area or take place in that natural area, but it must also be ecologically sustainable and provide people with environmental education and interpretation (Beaumont, 2001). Ecotourism must, therefore, spread awareness and instill pro-environmental attitudes into the minds of tourists next to contributing economically to the sustainable management of the host area.

Ecotourism is an environmentally friendly form of tourism in which the tourist engages in activities that protect the environment, appreciate the environment or teach something about the environment they are viewing or interacting with. Ecotourism has been defined as an ‘environmentally responsible, enlightening travel to a relatively undisturbed or natural area to enjoy and appreciate nature’ (Ceballos-Lascuráin, 1996). Blangy and Wood define Ecotourism as “responsible travel to natural areas that conserves the environment and sustains the well-being of local people.” (Blangy & Wood, 1993). In some circumstances, Ecotourism can be a sustainable activity and can contribute to the sustainable development of a certain place. However, Ecotourism and sustainable tourism are not one in the same.

Ecotourism is mainly focused on ecological conservation and education of travelers on local environments and natural surroundings, whereas sustainable tourism seeks to inspire tourists to perform behaviors that enhance the environment on site and at home. In most cases

Ecotourism is built on these Four key Characteristics: (1) maximum economic benefits for the host community, (2) minimal impact on the host culture, (3) minimal impact on the environment/natural habitat, and (4) maximum satisfaction for tourists/visitors (Conway & Cawle, 2012). Ecotourism can also be categorized into hard and soft Ecotourism based on two distinctions: specialized (hard) or generalized (soft), and a high (hard) or low (soft) degree of physical effort (Wight, 1993). Most wildlife Ecotourism can be categorized as soft tourism experiences because they require minimal effort, the tourists are brought with cars or boats to see the animals, and they usually involve large groups of people that are there just to observe the animals (Walter, 2013). Before diving with Sharks would be considered a hard tourism experience because it required a lot of skill to be able to dive and it was a dangerous activity to take part in, but with recent technological developments, these activities have become soft activities that the larger general public can enjoy.

By designing and providing special tours and interpretation programs that can educate and influence tourists' attitudes and behaviors towards conservation efforts, Ecotourism can be used or promoted as a communicative and informative tool (Powell & Ham, 2008).

### **Sustainable tourism**

The natural environment is of main concern to Ecotourism which has a focus on physical and biological features. The conservation of natural areas as well as the sustainable resource management in the destination is therefore essential for the development, planning, and management of ecotourism (Wearing & Neil, 2009). Environmentally sustainable tourism is defined below as:

“Tourism which is developed and maintained in an area (community, environment) in such a manner and at such a scale that it remains viable over an infinite period and does not degrade or alter the environment (human and physical) in which it exists to such a degree that it prohibits the successful development and wellbeing of other activities and processes. (Butler, 1991)

According to The World Tourism Organization (WTO, 2004) sustainable tourism should:

1. Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity.
2. Respect the socio-cultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance.
3. Ensure viable, long-term economic operations, providing socio- economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.

The term “sustainable development” has strong meaning to many people, but not all view it the same way. Rio+20 officially defines sustainable development as “composed of three dimensions that must be pursued simultaneously: economic, social, and environmental”. In the past, and even now, the economic factor plays the biggest role in most industries, including the tourism industry. As of late, greater attention is starting to be paid to the social and environmental factors that are of great importance to the industry and keeping it afloat.

Industry professionals are realizing that without sustaining the social and environmental factors, the economic factor will start to fail as well (Andersson & Lundberg, 2013).

Through a range of resource consumption, waste generation processes, and infrastructure development, tourism, just like most other industries, stresses natural environments. Tourism uses the most naturally beautiful and ecologically fragile locations on the planet as core resources to sell as products to people wanting to escape city life or the suburban world.

Because of this reason, tourism requires that the ecological integrity and the abundance of natural resources stay sustained and protected in order to market it to its consumers (Williams & Ponsford, 2009). The Unprecedented reporting of the severity, persistence, and frequency of natural disasters; climate change; adverse weather conditions; disease outbreaks; and various forms of air-, water- and vegetation-borne environmental pollution in destination regions, are all connected to tourism. Tourism relies on the natural environment of destinations to be beautiful, inviting, unique, and safe to visit. These natural occurrences that are happening more frequently signal the importance of why tourism stakeholders should become more proactive in creating sustainable forms of tourism (Williams & Ponsford, 2009).

Sustainable tourism focuses on travel that has minimal impact on the environment and on the local communities that live in that environment (Wall, 1997). In eco-friendly and sustainable wildlife tourism, certain iconic species, such as sharks, are used to attract attention for conservation initiatives. Protected areas on land as well as on oceans rely on these “most wanted” species to attract visitation and awareness. The aim of Ecotourism businesses would be to raise concern and stimulate pro-conservation behaviors (Skibins et al., 2016). Ecotourism is a form of tourism, or a category of vacation similar to beach, adventure, health, or cultural, while the concept of sustainability can be applied to all types of tourism (Wall, 1997). Changes in the destructive patterns of behavior adopted by the public need to

be made in order for a more sustainable lifestyle to become viable. Because the tourism industry relies so much on natural habitats staying “natural” it is increasingly important for this industry to work towards a more sustainable way of doing business (Miller, Rathouse, Scarles, Holmes, & Tribe, 2010).

### **Wildlife tourism**

Wildlife tourism on a global scale is being considered one of the fastest growing sectors of the tourism industry (Sheyvens, 1999). In Several Countries tourism based on Wildlife has become the leading foreign exchange earner (Reynolds & Braithwaite, 2001). Of course, this is not always the case for each country, in some places, wild-life tourism is more of a niche tourism addition to an already heavily tourism based economy. One of the key arguments for continuing the development of wildlife tourism is that it will help secure long-term management and promote conservation of wildlife around the world (Higginbottom & Tribe, Contributions of Wildlife tourism to conservation. , 2004), by influencing the attitudes, behaviours, and conservation knowledge of tourists (Ballantyne R. , Packer, Hughes, & Dierking, 2007). Wildlife-related visitors are defined as being tourists who travel to a certain destination to observe, experience, encounter or interact with wildlife (Fillion, Foley, & Jaquemot, 1992). Wildlife tourism is also defined as “tourism based on encounters with non-domesticated (non-human) animals. [that] can occur in either the animals’ natural environment or in captivity” (Higginbottom, 2004). Wildlife tourism has become increasingly popular over the years because it offers unique opportunities for people to experience and reconnect with nature in a potentially life-changing way. There are numerous possibilities to be able to encounter wildlife through tourism, such as wildlife parks for exotic animals (think

of lions, giraffes, rhinos, etc.), bird watching, whale and dolphin watching, shark diving, and so much more (Ballantyne, Packer, & Sutterland, 2011).

Tour operators in various destinations exploit unique, interesting, indigenous, and iconic species in their marketing and product development campaigns. This type of tourism is not only for smaller tourist groups but is designed for the mass tourism market as well. An array of choices is up for grabs for tourists to engage with free-roaming wildlife while on their holiday (S. Curtin & Kragh, 2014). Wildlife tourism is becoming increasingly popular with tourists, the thrill of seeing a wild animal in its natural habitat is something unique and exciting for visitors coming from places where these animals only exist in zoos. People go on vacation to escape a certain type of reality and to experience something they have only been able to imagine in real life. Tourists want to feel what it is like to be in the same space as a lion or in the case of this research, a shark, something that they would normally not come in contact with when at home (S. Curtin & Kragh, 2014). Wildlife tourism is something that usually occurs in a natural, aesthetically pleasing environment, with the potential to connect people with a more natural world than they are used to. This type of interaction can reawaken an understanding of how beautiful the natural world is and why it is important to protect it. This being said, wildlife tourism is also a great risk to the natural environment and can potentially have negative impacts on biodiversity (Croall, 1995). On the one hand, wildlife tourism creates a certain type of awareness and an incentive to protect natural habitats and endangered species from becoming extinct, but on the other hand this type of tourism is disturbing the natural order in which these species live, causing a disturbance in their environment (Green & Higginbottom, 2001). Research shows that there are both positive and negative effects of wildlife tourism on wildlife and their natural habitat (Holden A. , 2008). Wildlife tourism can be considered a threat to wildlife and the ecosystems in which they live (Duffus & Deardon, 1990; Shackley, 1996). Documented research on short-term impacts are

the changes in behavior (e.g. breeding, foraging, evasion, and vigilance) or physiology (e.g. heart rate, stress hormone secretion, or temperature) of marine animals. The documented long-term effects are those such as increased or reduced mortality rates and breeding success (Green & Gies, 2004) (Green & Higginbottom, 2001) (Orams M. , 2002). For potentially dangerous animals, such as sharks, the conservation benefits of wildlife tourism are possibly greater, because of the negative public image they suffer from in the media (Driscoll, 1995).

The most effective and least harmful way of interacting with wildlife is when wildlife tourism is conducted in small groups with a certified wildlife guide. In these cases, proper environmental interpretation programs are key to fully immerse a tourist in the experience. When done right, interpretation programs can elicit feelings of empathy, awe, engagement, and wonderment, thereby embedding lasting impressions on the people who are experiencing these feelings (Curtin, 2009). Tourists can bring home memories that are one of a kind, which could possibly impact other wildlife experiences they will have in the future, or impact the way they think about certain types of wildlife after the experience (Hughes, Packer, & Ballantyne, 2011).

The purpose of this study is to see if there is a positive change in the connection to seeing wildlife in its natural habitat and how tourists may change their perspectives on how important it is to protect these species. One study suggested that “The combination of emotional affinity with a reflective, cognitive response appears to have the most powerful impact on visitors, leading to a concern and respect not only for the specific individuals encountered in the wildlife tourism experience but the species as a whole. In this way, the wildlife experience made environmental issues more personal and relevant to them.” (Ballantyne, Packer, & Sutherland, Visitors' memories of Wildlife tourism: Implications for the design of powerful interpretive experiences., 2011).



There are a few ways of capturing the essence of quality and the richness of a wildlife encounter for the person experiencing it, these quality factors can be divided into 6 different parts. Some of these quality factors don't only apply to Wildlife tourism but can also be applied to other types of tourism experiences as well (S. Curtin & Kragh, 2014). Intensity, Authenticity, Uniqueness, Status, Popularity, and Duration are the six factors that indicate how high the quality of the wildlife experience will be (Reynolds & Braithwaite, 2001).

The first factor is how *intense* the experience is (*intensity*), this refers to the excitement and the feeling of anticipation that is generated by an experience. Adrenalin is a strong motivator for many visitors to see wildlife, specifically if this wildlife is also fairly dangerous and could put the viewer in some kind of risk by going out to see it. Sharks are one example of a wildlife experience that could evoke a certain sense of enthrallment or spike someone's adrenalin (Braithwaite, Reynolds, & Pongracz, 1996).

The second factor is *authenticity*, tourists want to experience something that feels "real" and that gives them a sense of how the species they are admiring lives on a daily basis. The degree to which wildlife behaves naturally in its environment is important for the entirety of the experience if the wildlife experience feels contrived the lack of authenticity can possibly ruin the encounter (MacCannell, 1973).

The third Factor is how *unique* the experience is. If the experience is something out of the ordinary or special in a specific way, then the participant will feel as though they are getting something that is exclusive.

The fourth factor is the *popularity* of the species that is being viewed, this can be because of its size, pleasing aesthetics, how dangerous it is, and current trends revolving around the specific species in question. If a species is shown abundantly in public/social

media for a longer period of time, then this species will become more popular and visits to see this species should increase.

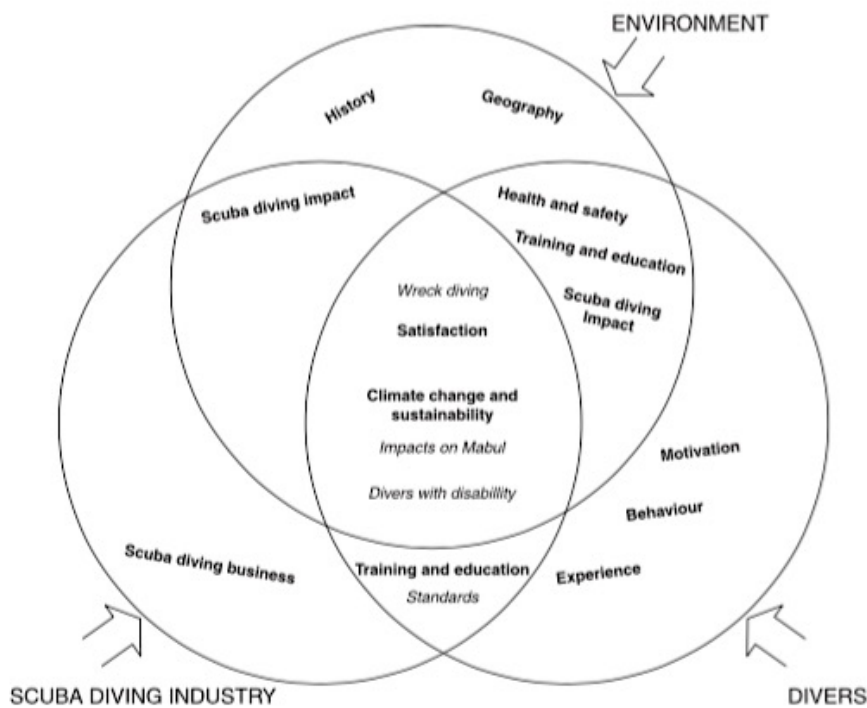
The fifth factor indicating quality is the *status* of the species, this closely links to popularity but has more to do with how rare the animal is and not necessarily how it looks or how dangerous it is. When species are put on the endangered list because there are so little left in the world, people become curious to see the few remaining of their kind because they might not be able to do so in the future.

The sixth and last factor is the duration of the experience, how much and how long will the visitor be able to view the wildlife they came to see. There is a certain rush in seeing wildlife but up to a certain point of time the experience is at its peak and becomes saturated if this particular point goes on for too long (Braithwaite, Reynolds, & Pongracz, 1996).

There are other variables and factors that come in to play when working with wildlife in their natural habitat, such as the environment itself. If the environment is unbearable or uncomfortable then the experience might be less enjoyable to some visitors. These natural factors are hard to control and cannot be managed easily, but there are a few standard variables that are manageable for the companies providing the wildlife experience. The quality of the service provided can be managed by ensuring that the guide is well prepared and skilled in the languages that visitors can understand, or the degree of comfort during the tour/stay. Even the design of the facilities can impact the quality and value of the experience for visitors. All of these different variables add up to how valuable the “product” is and how much people will be willing to pay for such an experience (Duffus & Deardon, 1993).

## Scuba Diving

In the field of tourism, scuba diving is a relatively recent development. Even though this development is relatively recent it has grown very rapidly over time and now attracts millions of people around the world to this activity. Scuba diving can be done in the ocean, lakes, and rivers, opening up an entirely new world under the surface. Humans could only spend limited amounts of time under the water because of the lack of oxygen for them to breathe, but because of scuba diving gear, humans can now dive below the surface for longer periods of time and explore what lies beneath (Dimmock & Musa, 2013). Scuba Diving has developed into a giant industry and is now a big part of the tourism industry as well, becoming a major contributor to the economy of certain countries. The growth of the scuba diving industry has led to significant investments in various products connected to the activity. Products such as retail for education and dives, scuba diving equipment shops, scuba diving schools, and of course scuba diving charter businesses (which include services etc.) (Dimmock, Cummins, & Musa, 2013). Like all tourism industries, scuba diving is put under scrutiny by making sure it follows the three pillars of sustainability, social, environmental and economic (Lucrezi, et al., 2017). Sustainability is important for scuba diving because of how quickly it is growing as an industry (Mota & Frausto, 2014). The scuba diving industry has an enormous potential to carry out and encourage conservation, generate revenue, attract tourism, promote community pride, and improve peoples' quality of life (De Groot & Bush, 2010) (Wongthong & Harvey, 2014)



**Figure 3:** Scuba Diving Tourism System; **source:** (Dimmock & Musa, 2013)

Dimmock & Musa have created a Scuba diving tourism system (SDTS) as a holistic framework for better understanding of the industry. Figure 1 shows this framework in visual form, within this figure, there are three main elements: Environment, Divers and the scuba diving industry. The Environment is the first element of this framework and in this element the history and geography of scuba diving are represented. These are two basic factors which are necessary for the understanding of scuba diving and which attract individuals to scuba diving as a leisure activity made for tourism. If there is a beautiful environment, amazing animals to see, or if the history of the dive site is unique, this can attract tourists to scuba dive in a certain location. Of course, there is also the element of the divers themselves, the motivation, the behavior, and the experience that lead tourists/divers to do such activities. The crucial part of this element is the satisfaction of the diver when scuba diving in a certain location, this has a serious impact on the tourism flows to the destination.

Then, of course, there is the last element, which is the scuba diving industry itself. When a person wants to go scuba diving they need to learn how to before they can go into the ocean, education, and training is part of what the scuba diving industry provides. Divers should acquire a certain set of skills to be able to delve beneath the surface, especially because the ocean remains a hostile marine environment and there is always a risk when engaging in such activities. Another reason for education and training is so that divers do not harm the natural environment in which they are “trespassing”.

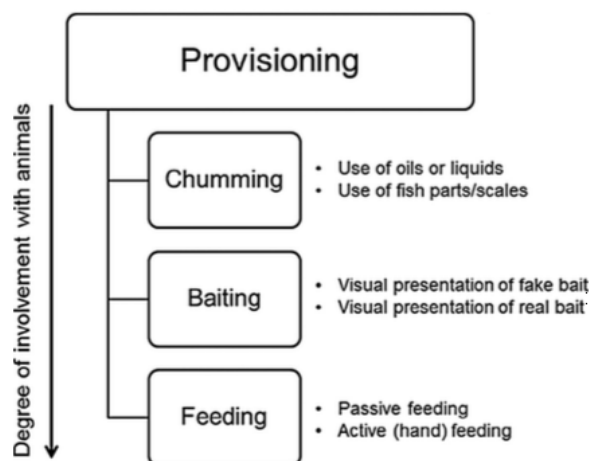
All of these elements are connected and it is important that the people working and participating in this industry follow the rules and regulations that go along with it (Dimmock & Musa, 2013). Scuba diving is categorized as a hard adventure activity that shares common characteristics with kayaking, mountain biking, rock climbing, white-water rafting, skydiving, and snowboarding. The activity possesses elements of uncertainty, risk, and danger during the interaction of divers with the marine environment (Travel Industry Association of America, 1998). Even though scuba diving is categorized as a possibly ‘dangerous’ activity, divers travel from all over the world to distant places to experience the beauty and diversity of marine environments and marine life (Tabata, 1992). Largely thanks to technological advances, scuba diving has become a successful soft adventure tourism product instead of a hard one, still having risks but being more accessible to the bigger tourism market (Dimmock K. , 2009). Because of these technological advances, scuba diving now has a range of equipment and other related products readily available. These products together with related services allow divers to experience different levels of contact with marine environments and marine animals (Trauer, 2006).

## **Shark Diving**

In this study tourists' experiences with shark diving in Sint Maarten were evaluated to come to an understanding of what motivated them to participate in this activity. The study further researches if the environmental interpretation had any impact on their perceptions of sharks and if the participants learned about sustaining the ecosystem and conserving the species along with its natural habitat. Historically sharks are portrayed in many cultures as being dangerous killing machines, this negative media portrayal has instilled a fear of sharks in people that can be difficult to overcome (Neff & Heuter, 2013). In reality, sharks rarely attack or kill humans and researcher observations indicate that sharks demonstrate a lack of interest in humans when in close proximity (West, 2011). Shark Ecotourism is a term that is incredibly wide, an umbrella term that covers a wide spectrum of activities engaging with sharks. These activities range from simply passively observing sharks at locations where sharks are naturally abundant to contrived "fake" situations or events in which sharks are lured to a specific area with bait, chum or other attraction mechanisms (Burgess, 1998) (Topelko & Deardon, 2005) (Laroche, Kock, Dill, & Oosthuizen, 2007).

Marine Wildlife tourism, along with scuba diving tourism has experienced an enormous growth in recent years and this growth does not seem to be slowing down anytime soon (Orams, 1996). "The Demand for opportunities in which humans can interact with and observe free-ranging wildlife is increasing and the variety of nature-based activities available for tourists is vast." (Smith, Scarr, & Scarpaci, 2010). Shark diving has now grown into an important component of the international tourism market, attracting millions of divers globally (Dicken & Hosking, 2009). Diving to view and observe sharks as a tourist attraction, also known as shark diving, is an extremely controversial topic in the world of sustainability. Over 40% of the 267 globally-distributed shark diving sites use some form of attraction

methods, namely chum, decoys or bait, which is used to increase the number of shark's visitors will encounter (Carwardine & Watterson, 2002). Another issue is that there is a growing demand for shark related products, principally for shark fin soup, threatening the future of the shark diving industry (Clarke, Milner Gulland, & Bjorndal, 2007). Sharks have a conservative life-history of slow growth, low rates of reproduction and they mature late in their age to be able to reproduce. Because of all of these factors, shark populations cannot withstand high rates of exploitation and when they are killed off, it often takes many years to be able to recover the species in a certain area (Field, Meekan, Buckworth, & Bradshaw, 2009). For the shark diving industry this is detrimental, fishing for sharks as a target species or even as bycatch when fishing for other species has severely reduced shark populations worldwide (Field, Meekan, Buckworth, & Bradshaw, 2009) (Vianna, Meekan, Pannell, Marsch, & Meeuwig, 2012).



**Figure 4:** Multi-level hierarchy defining the various types of provisioning used in most shark diving tourism operations and their relative degree of involvement with the animals (moving from low [top] to high [bottom]).

**Source:** (Gallagher, et al., 2015)

Provisioning is something that is done many times in the shark diving industry.

Provisioning can be defined as activities where some type of bait, attractant, or food reward is offered to sharks to aggregate or positively reinforce them and to neutralize their aversion to

humans, as well as attracting them to specific diving locations (Orams M. B., 2002; Knight, 2009). In this figure above you can see different types of provisioning methods used for shark diving tourism (Gallagher, et al., 2015). The growth of the shark diving industry as an Ecotourism activity presents participants with a unique opportunity to interact, observe, and photograph these marine animals, which in return demonstrates the huge economic value of sharks as a “non-consumptive” species (Gallagher & Hammerschlag, 2011). Globally (DCNA, 2015) Sharks are largely an endangered species due to activities such as shark finning and shark-bycatch. It is widely thought that shark diving tourism is worth more to a country economically than a shark who is dead, this could point out that shark diving tourism can be used as a viable tool to conserve the species (Bervoets, 2017).

### **Environmental interpretation programs**

Interpretation can be defined as “an educational activity which aims to reveal meanings and relationships through the use of original objects, by first-hand experiences, and by illustrative media, rather than simply to communicate factual information.” (Tilden, 1977). A major tool for improving the experience of a tourist’s visit to a destination is through environmental interpretation programs (Xu, Cui, Ballantyne, & Packer, 2013). Not only can environmental interpretation programs improve the experience for the tourist, but it can also help manage the negative impacts of tourism development by increasing the awareness of inappropriate behavior and activities that tourists should try to avoid. (Orams, 1996) (Kuo, 2002). Interpretation can be used by park administrators or tour companies to inform tourists/visitors about management, regulations, policies and other information. Interpretation can also include safety regulations, the description of the location they are visiting and how to interact with the natural environment and the species that inhabit it, without harming it or



themselves. Good interpretation programs can create a positive attitude towards conservation of the environment that is being viewed or observed (Van Dijk & Weiler, 2009). In addition to that, interpretation plays an important communication role between visitors, administrators and the local citizens that live in the area where the programs take place (Machlis, 1986). Approaches to interpretations from a western perspective usually combine elements of understanding, persuasion, appreciation, and information to describe and explain the environment that they are “selling” (Xu, Cui, Ballantyne, & Packer, 2013). Interpretation plays a key role in the development of tourists’ appreciation of the natural environment that they are visiting as well as facilitating a new interest to adopt pro-environmental attitudes and environmentally responsible actions in protected areas (Ballantyne, Packer, & Sutterland, Visitors' memories of Wildlife tourism: Implications for the design of powerful interpretive experiences., 2011) (Chen, Hwang, & Lee, 2006). The aim of interpretation is not to just to instruct but to provoke, it should both be “intellectually challenging” and “emotionally stimulating” to the participant (Markwell & Weiler, 1998). The aim of interpretation programs in tourism is to communicate a specific message in order to teach visitors’ something and hopefully, this creates an attitude change in that person. Interpretation is meant to increase visitors’ knowledge and understanding, and by doing this it can potentially prompt more environmentally friendly and responsible behavior, this is the key aim of environmental interpretation and educational programs of destinations (Lee & Balchin, 1995).

Interpretation programs should be created in a way that the subject under question is relatable for the visitor. People from or with different backgrounds, cultures, personalities, and races, appreciate environments and species in their own ways. Thus, having knowledge of different cultures and ways to interpret the environment for specific groups of people can add to the experience of the visitor (Xu, Cui, Ballantyne, & Packer, 2013). Effective

interpretation programs must have “both an entertainment and a pedagogic role” (Moscardo & Pearce, 1986). Moreover, environmental interpretation must stimulate enthusiasm and emotion while also providing an educational experience.

## Chapter 3: Propositions

### Theoretical framework

The main theoretical framework that will be used in this study is the “environmental interpretation framework theory”, which is a form of educational communication. Tourists are a non-captive audience, which means they are not motivated to learn through tangible rewards such as grades or certificates. Tourists are motivated by intangible rewards, such as experiences, self-enrichment, satisfaction, and excitement (Ham & Weiler, 2002). It is therefore important for the learning experience to be entertaining and enjoyable for the visitors so that they pay attention to the goal behind the activity. Interpretation programs are important and designing an effective education strategy within these programs can be difficult. Therefore, this study aims to understand the underlying motivation behind why tourists choose to go on shark diving experiences and will evaluate the process of free-choice learning. Free choice learning is a type of education where the choice of learning is under the control of the learner (R. R. Ballantyne & Packer, 1996).

Free-choice learning occurs under the control and choice of the learner, instead of taking place in formal education settings. An example of free-choice learning would be that of environmental and conservational learning within tourism experiences (Ballantyne, Packer, & Sutterland, 2011). It is of utmost importance to make visitors feel connected with the natural environment to create affective free-choice learning experiences. Tourism and leisure settings can be tools through which people can learn, develop new ideas, and construct views and visions about a destination and/or environment for themselves and their society (Falk, Ballantyne, Packer, & Benckendorff, 2012). Past research has shown that free-choice

learning can influence visitors' knowledge, beliefs, intentions, and attitudes about wildlife, the environment, and conservation efforts (Ham & Weiler, 2002; Powell & Ham, 2008).

The concept of interpretation was originally intended to be a form of educational communication that is aimed to reveal meanings and relationships to people about the places they visit and the things they see and do when they are there (Ham & Weiler, 2002).

In order to discover whether shark diving tourism holds the potential to educate tourists on the importance of conserving the species, this study aims to understand and describe the experiences of participants who engage in this activity. Research suggests that Ecotourism can be used as a communicative and interactive tool for conservation efforts, both the design of the tour and the interpretation program can help educate and influence tourists' perspectives and attitudes by providing them with pro-conservation knowledge of the habitat or the species in question (Powell & Ham, 2008). Simply put, through the tourists' participation in shark diving Ecotourism experiences, these tourists can learn first-hand about the issues that the host habitat or species is facing, which can, in turn, influence them to be supportive of the conservation efforts. Interpretation is a way of communicating the importance of a natural area site or a species to stimulate a positive concern for that environment or species (Hughes H. , 2011).

In most cases, wildlife Ecotourism experiences are accompanied by interpretation programs that are conservation driven. This conservation-themed interpretation aims to educate visitors/tourists on issues facing the species and ecosystems they encounter while on their tour, as well as help develop their appreciation for the natural habitats and the wildlife that they interact with (Ballantyne, Packer, & Hughes, 2009). The roots and stems behind the theory of reasoned action (Fishbein & Ajzen, 1975) and the theory of planned behavior (Ajzen, 1991) are based on strategic interpretive planning strategies. Both of these theories

claim that a lot of human behavior and behavioral intent is connected to our attitudes and that these attitudes are connected to our beliefs (Ham & Weiler, 2002). Therefore, if visitors take information back with them when they return to their homes, these interpretation programs must be designed to enhance pro-conservation knowledge and attitudes that change their beliefs and behaviors so they can influence those who did not come along with them. This study conducted thirty interviews with individuals who went on a shark diving tour in order to collect and analyze these tourists' experiences and to explore the effects of the experience on the awareness and support of conservation efforts towards the species amongst these participants.

Effective education strategies are difficult to design because of various factors, including different group sizes, demographics, and the fact that tourists are often non-captive audiences. Captive audiences are motivated by tangible rewards, such as grades or certificates and noncaptive audiences are initially motivated by intrinsic rewards, such as satisfaction or self-enrichment (Ham, 1992). Non-captive audiences can ignore information without consequences or loss of reward because they are engaging in activities on a voluntary basis and not because they have to. If the information that tourists' receive is not interesting or appealing, they will lose interest and they will not pay attention. This is why it is important to hold their attention, and in order to do that interpretive approaches must be enjoyable, organized, relevant (meaningful and personal), and themed (Ham, 1992). Not only do interpretation programs need to be designed in this way but they also need to be flexible in order to change depending on the type of audience they are targeting. Environmental interpretation must stimulate enthusiasm and emotion while simultaneously providing an educational experience.

The original theory of cognitive dissonance was formulated by Gestinger in the mid-

1950's. He theorized that when an individual holds two or more elements of knowledge that are relevant or connected to each other but inconsistent with one another, a state of discomfort is created within that individual. The theory claims that people are motivated by the unpleasant state of dissonance to reduce the inconsistency between cognitions by engaging in psychological work (Festinger & Carlsmith, 1959). Through environmental interpretation programs, tourists gain new knowledge on conservation and how to improve environmental quality, which can often challenge their existing beliefs. Cognitive dissonance alone can not always motivate tourists to take action, this is why it is also important to connect with them on an emotional level (Iozzi, 1989).

Interpretation programs need to interact with tourists' affective domain, such as feelings, emotions, attitudes, and values. These elements can then be used to evoke empathy for marine life and marine ecosystems (Iozzi, 1989). Appealing to the affective domain is effective in teaching positive values and attitudes, therefore it is important to incorporate this into environmental interpretation programs. This claim stems from a learning model that claims a person's response to the environment or to a situation is affected by cognitive, affective, and behavioral domains (Eiss & Harbeck, 1969). A combination of cognitive and affective approaches is necessary for creating effective environmental learning experiences in free-choice settings such as shark diving tours (Zeppel & Muloin, 2008).

Orams (1996) created a model based on Forestell and Kaufman's model for successful environmental interpretation programs, which will be used for the purposes of this study. Forestell and Kaufman (1990) developed a model by studying whale-watching tours in Hawaii and by reviewing literature on cognitive psychological theory in order to determine the types of knowledge they gained from the interpretive speeches (Forestell & Kaufman, 1990). Tours should be both guided and direct in order to be most effective. Moreover, tours

should be accompanied by a knowledgeable guide, as well as involving real-life situations, such as directly observing wildlife, in order to have a full and direct experience (Luck, 2003). An effective interpretation program should instill curiosity and excitement in tourists, and provide the necessary information in an interesting and interactive manner. By creating a perceived need for information in the tourist, motivation to learn is heightened (Orams M. , 1996). Forestell and Kaufman also recommend follow-up activities following contact with wildlife, such as making information available to participants and calls for signing petitions. These actions can solidify the environmental information they encountered during the tour and increase the chances of behavioral change (Luck, 2003).

Orams (1996) built on this model to develop a framework that fits environmental education programs by not only focusing on theories of cognitive dissonance or the resolution of competing information but the affective domain as well (Luck, 2003). The Orams model is based on 5 vital steps: (1) instilling curiosity or a desire to learn, (2) appealing to the affective domain, (3) creating the motivation to act, (4) providing opportunities, and (5) receiving evaluation and feedback (Orams, 1996). Participants must have their emotions aroused in order to stimulate feelings of empathy or care; be presented with information that challenges their already existing knowledge and peaks their curiosity, and they should be given a chance to act on these newfound outlooks and beliefs in order to reaffirm them.

This study applied Oram's model and indicators of attitude, knowledge, enjoyment, and intentions to change behavior in order to understand tourists' experiences. The study also used Orams' framework to comment on the design of the environmental interpretation programs of Sint Maartsn's shark diving tours, as described by participants of the tour. This study focused on understanding the experiences and motivations of participants who engaged in shark diving activities. The study's focus was solely on the affective and cognitive domains of the visitors and did not explore the behavioral changes or actions that tourists

took after the participation in shark diving tourism, as these actions would have taken place outside the scope of the research area.

Environmental education is still a fairly young and emerging practice, thus, research conducted in this field is valuable (Iozzi, 1989). The purpose of this research is to understand and describe the motivations and experiences of tourists who participated in Sint Maarten's shark diving industry in order to comment and build on the environmental interpretation programs of these tours and the educational models they use. The objective of this study is to investigate if Sint Maarten's shark diving tourism industry contributes to building environmental knowledge and promote pro-conservation attitudes amongst tourists. Adding to this, the study also researches the motivations behind why tourists choose to participate in shark diving activities in Sint Maarten and what type of tourist chooses to do so. As a result, this study's main research question and its sub questions were all designed to contribute to an understanding of the phenomenon of shark diving tourism experiences and to explore the effectiveness of environmental interpretation programs in regards to conservation efforts.

By researching the effectiveness of environmental interpretation programs there is a potential to increase visitor understanding and enjoyment, as well as encourage more environmentally sustainable behavior (Orams M. , 1996). In addition to this, the findings of this study can provide the shark diving tour operators in Sint Maarten with insight into the tourists' experiences, which can allow for the development and improvement of their interpretation programs and services. Very few studies exist that are based on the experiences of participants that go on shark diving tours, thus it is still a fairly new addition to research on sharks tourism. Therefore, studying the shark diving tourism industry in Sint Maarten from the perspective of tourists is a relevant and contemporary area that needs to be explored.



## **Chapter 4: Presentation of the case/destination/company/population**

In the latest statistics on Tourism in Sint Maarten between the year 2014 and 2015, there were 2 million cruise arrivals on the island, this indicates a growth of 12.1 percent when compared to the year 2013. In this same period, there were near 500.000 Stay-over arrivals, which means this increased with 7.1 percent. (EVT, 2015)

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The Case study for this research will be held in Sint Maarten (West Indies) and will focus on tourists visiting the Island and participating in Shark Diving expeditions. The study will be held on the Island of Sint Maarten, which is home to a large and diverse mix of shark species. Around Sint Maarten and the other Caribbean Islands, there are 22 different species of sharks that have been recorded in the area (DCNA, 2015). This same research suggests that there could be up to 33 species of sharks but there is not enough data to support this claim. The most common sharks found in the oceans surrounding Sint Maarten are Caribbean reef sharks, nurse sharks, blacktip sharks and tiger sharks.

Name		IUCN Red List Status
Common name	Scientific name	
Whale shark	<i>Rhincodon typus</i>	Endangered
Nurse shark	<i>Ginglymostoma cirratum</i>	Near Threatened
Caribbean reef shark	<i>Carcharhinus perezi</i>	Near Threatened
Blacktip shark	<i>Carcharhinus limbatus</i>	Near Threatened
Lemon shark	<i>Negaprion brevirostris</i>	Near Threatened
Bull Shark	<i>Carcharhinus leucas</i>	Near Threatened
Tiger Shark	<i>Galeocerdo cuvier</i>	Near Threatened
Oceanic white-tip shark	<i>Carcharhinus longimanus</i>	Vulnerable
Silky shark	<i>Carcharhinus falciiformis</i>	Vulnerable
Blue shark	<i>Prionace glauca</i>	Near Threatened
Sandbar shark	<i>Carcharhinus plumbeus</i>	Vulnerable
Smooth hammerhead	<i>Sphyrna zygaena</i>	Vulnerable
Scalloped hammerhead	<i>Sphyrna lewini</i>	Endangered
Great hammerhead	<i>Sphyrna mokarran</i>	Endangered
Bonnethead shark	<i>Sphyrna tiburo</i>	Least concern
Basking shark	<i>Cetorhinus maximus</i>	Vulnerable
Shortfin mako	<i>Isurus paucus</i>	Vulnerable
Thresher shark	<i>Alopias vulpinus</i>	Vulnerable
Bigeye thresher	<i>Alopias superciliosus</i>	Endangered
Big-eyed sixgill shark	<i>Hexanchus nakamurai</i>	Data deficient
Bluntnose sixgill shark	<i>Hexanchus griseus</i>	Near Threatened
Smalltooth sawfish	<i>Pristis pectinata</i>	Critically endangered

**Figure 5:** List of Shark species recorded in Sint Maarten & surrounding Islands

**Source:** (DCNA, 2015).

Shark diving is a relatively new activity on the island of Sint Maarten and there is little to no research concerning the effects of tourism on the species or the perspective of tourists who participate in these activities. While there have been several studies published in the last 20 years that have provided basic descriptions of the marine animals of the

southeastern Caribbean leeward Dutch waters, practically no new information has been published about the marine mammals of the northeastern Caribbean windward Dutch waters, and no overview of available information has yet been made (Debrot, Esteban, Bervoets, Hoetjes, & Scheidat, 2013). Research shows many of the species of sharks surrounding Sint Maarten and other windward islands are threatened, vulnerable or endangered (see list above) (DCNA, 2015). Because Sint Maarten & it's surrounding islands have such a diverse species of sharks that are in danger of declining, it is important to direct research efforts towards conservation of the species in these areas. Understanding motivations for tourists to interact with sharks can lead to a better understanding of how to create a valuable learning experience and understanding of the species. There are still many misconceptions about sharks in media, many people fear sharks for being dangerous and uncontrollable (Eovaldi, Thompson, Eovaldi, & Eovaldi, 2016). This fear can contribute to a lack of caring in regards to conservation of the species, which can lead to their endangerment or extinction. Shark populations have been quickly decreasing globally over the past 100 years, this is largely due to the growing shark fin trade and shark by-catches associated with commercial fishing. "Because many species of sharks are threatened or endangered and their populations have been found to be slow to respond to conservation efforts, there is growing concern that policies aimed to support shark populations should be given higher priority" (Myers & Worm, 2003).

### **Role of the Researcher**

Because the researcher is the primary instrument for gathering and analyzing data, the researcher plays a large role in the qualitative research (Merriam, 1988). In addition to this, the researcher also plays an interpretive role in the study, as the "criteria of representation

ultimately are decided by the researcher” (Stake, 1994). Usually, in qualitative research, the topic of study, the data collection, the formulation of its key research questions, and the analysis are often influenced by the researcher’s biases, personal views, and background. Nevertheless, due to this study’s phenomenological approach, the researcher focused on information received from experts, previous research on the subject, and the description of experiences according to the depictions provided by participants, and less on her own interpretations (Creswell, 2003). In most cases, Phenomenological research approaches in tourism studies attempt to leave out the researcher’s perception of the phenomena under study in order to present objective findings or truths (Pernecky & Jamal, 2010). The researcher sought to interpret and understand the experiences of participants of shark diving activities in Sint Maarten while searching for meaning by negotiating through both theory and data, and thus, the researcher is guided by hermeneutic phenomenology (Pernecky & Jamal, 2010). In accordance with the hermeneutic phenomenological framework of this study, the role of the researcher was not minimized, as the construction of experiences is not one-sided, since understanding and interpretation are bound together (Pernecky & Jamal, 2010). The researcher has not participated in the specific shark diving tourism activities being studied, nor is she involved in the planning, promotion, or development of the shark tourism industry in Sint Maarten or globally. However, the researcher is embedded in the world of tourism, as both a tourist and resident, and is also a native of the country which is being researched, therefore is unable to completely separate herself from the phenomenon under study. Additionally, the researcher has preexisting knowledge and interest in global shark conservation; therefore, her perception of the species may have played a role in the interpretation of the phenomenon.

## Chapter 5: Methodology

In this study a qualitative hermeneutic phenomenological case study research design will be used (Laverty, 2003). The purpose of this phenomenological approach is to illuminate the specific aspects of the subject and to identify phenomena through how they are perceived by the tourists that are participating in shark diving tourism on Sint Maarten. In other terms, this translates into gathering ‘deep’ information and perceptions through inductive, qualitative methods such as interviews, discussions and participant observation, and representing it from the perspective of the research participants (Lester, 1999).

Phenomenology is a research method which has been recommended by several authors (S. C. Curtin, 2006; DeMares & Krycka, 1998; Suvantola, 2002). as being the most appropriate approach for gaining a deeper understanding of lived tourist experiences. This approach needs to be handled carefully, one of the main issues in taking a phenomenological (or any qualitative) approach in a commercial or organizational setting is that people do not understand what it is, and they expect similar parameters to apply to this type of research as it does for quantitative research. The sample size is a good example of this because it can be hard to explain to people that a single-figure sample can be valid, as well as the fact that there can be confusion between methods such as theoretical sampling (Glaser & Strauss, 1967). It is also important to address that phenomenological approaches in tourism studies can often “misleadingly insist on a subjective-objective” in that they attempt to bracket out the researcher’s perception of the phenomena under study (Pernecky & Jamal, 2010). This study will focus on interpreting and understanding the experiences of the participants by using a hermeneutic phenomenological approach. Hermeneutics is the theory and methodology of interpretation; this theory was designed to achieve an understanding of texts and bible verses,

but modern hermeneutics are used to achieve an understanding of a much broader spectrum (Forster, 1996).

In phenomenologically-based research a variety of research methods can be used, including interviews, conversations, participant observation, action research, focus meetings, questionnaires and analysis of personal texts (Lester, 1999). The collection of data will be handled via Qualitative methods, using questionnaires to be handed out to participants on location of the shark diving tour and past participants online via TripAdvisor using the website's 'private message' feature. There are 3 main tour operators that specifically offer Shark diving tours on Sint Maarten, with a possibility that more are operating these activities without online or direct advertisement.

These in-depth questionnaires will be handed out to tourists/participants after their shark diving experiences. These Questionnaires will ask the participant questions about their knowledge on sharks, their motivations for participating in these activities, the participant's attitude towards sharks and their conservation before and after the experience and if they feel like they have learned something about the species and if they will share this knowledge with others (friends, family, etc.). The research question is trying to uncover the motive behind why tourists who visit Sint Maarten choose to go on shark diving tours and what type of tourists these are; therefore, the sample selection will be any tourist that participates in shark diving tours on Sint Maarten. The sampling will not be gender, age, nationality or race specific. It is important to mention that a lot of tourists visiting Sint Maarten tend to be from the United States, especially during the high season months from December until May. However, this does not suggest that the majority of tourists participating in these shark dives will be from the United States as well. The study will document which nationalities, genders, and ages these participants are in order to assess what type of tourist is attracted to these

activities and to see if the experience is different depending on these factors. The sample size for this study will range between 20-40 participants because the questionnaire will be in-depth it is more important to have a small amount of quality data than it is to have a large amount of unusable data.

The results will be reviewed and analyzed by collecting the results of the questionnaires and by creating connections between the answers of the different participants who engaged in the shark diving tours. The in-depth interview results will help create a deeper understanding of the experiences that the tourists have during the dive and the motivation behind why they chose to participate in this activity. In accordance with the hermeneutic phenomenological framework of this study, the role of the researcher was not minimized, as the construction of experiences is not one-sided, since understanding and interpretation are bound together (Pernecky & Jamal, 2010). Additionally, the researcher has participated in shark diving tourism before and will participate in shark diving tourism on Sint Maarten to increase her own knowledge of the activity.

In qualitative research, sampling strategies are purposeful rather than random (Rossman & Ralis, 2003). Purposeful sampling entails that the researcher has “reasons for selecting specific participants, events, or processes” (Rossman & Ralis, 2003, p.137). In this study, Sint Maarten was chosen as the case study for the emerging nature of its shark diving industry and the lack of research on tourism experiences with sharks in the area. Sint Maarten has only recently started offering Shark diving tourism and has had issues with safety and environmental protection during the few years of its development. In the latest statistics on Tourism in Sint Maarten between the year 2014 and 2015, there were 2 million cruise arrivals on the island, this indicates a growth of 12.1 percent when compared to the year 2013. In this same period, there were near 500.000 Stay-over arrivals, which means this increased with 7.1

percent (EVT, 2015). Because of the growing amount of tourists visiting the island, there is also a growing pressure to have an increased amount of activities that are new and exciting.

Shark diving fills a gap in the market for thrill-seekers, nature enthusiasts, and divers.

The sampling is focused on anyone who participates in a shark dive with the company

Oceans Explorers because it is the only company that offers specific shark dives on the Island of Sint Maarten. The sampling is not biased on race, age or gender, anyone who participates in the shark dive is eligible for the research process.

### **Trustworthiness**

All research, be that quantitative or qualitative, is concerned with reliability. In qualitative research, reliability can be thought of as the trustworthiness of the procedures taken and the data that was generated from these procedures (Stiles, 1993). The researcher must ensure that all the data has been properly collected and analyzed so that the conclusions accurately reflect and represent what happened or was said in the real world (Yin, 2011).

Validity is defined as the credibility of an interpretation, account, conclusion, or description (Maxwell, 1996). Qualitative content analysis is a particularly reliable approach to handling data. Specific codes are created to describe the data, such as statements from interview transcripts, and can be confirmed by revisiting previously coded data periodically to check for stability over time (Roberts, 1999). For the purpose of this study, all answers for each question were put together and reoccurring themes and similarities between answers were coded and analyzed. Another method to increase reliability and validity is to ensure that there is technical accuracy in the recording and transcribing process. Some research suggests that tape-recorded interviews and interview transcripts help improve reliability, but it is possible that some important non-verbal aspects of communication are then omitted from transcripts



(Perakyla, 1997). The study uses tape-recorded audio to conduct the interviews, which means there could be missing indications that were non-verbal. The audio recording was clear and it is still possible to understand the answers to the questions clearly, even without body language, the voices and the reactions were recorded properly. “Intensive engagement with the data – moving forward and backward between the data and the interpretation of it – and making firm links between our interpretations and the data by, for example, using verbatim examples of participants’ comments in written accounts of the findings, can all increase reliability and validity.” (Roberts & Priest, 2006). However, it is important that the researcher does not introduce bias by picking the most vivid examples from the research, but reflect a range of responses that are generated by the research.

In qualitative research, a potential issue in achieving validity is researcher bias, arising out of the selective collection and recording of data, or the way the data is interpreted based on personal perspectives (Johnson R. , 1997). Although the researcher has no direct involvement or stake in the phenomenon being studied, she is part of the tourism industry as both a tourist and resident and is also passionate about the conservation of shark species and environmental education of tourists. Therefore, this study will be focussed on both the rich description of experiences, as described by the participants of the study, and the interpretation of the researcher through the theoretical lens of environmental interpretation programs and free-choice learning in Wildlife settings. In order to ensure that the population under study is accurately and consistently represented, the researcher checked the interview transcripts and the recorded interviews to ensure that no obvious mistakes were made during the transcription process (Creswell, 2009). The researcher constantly compared the data with emerging codes through the writing of memos about the different codes and their definitions, in doing this the researcher tried to tie together the definition of the codes without letting them drift.

## **Ethics**

To protect their research participants, develop trust, and promote the integrity of the research, it is important for researchers to anticipate any and all ethical issues that may arise during the course of their research (Creswell, 2009). Ethical considerations were given importance throughout the qualitative process of this research. The interviews conducted were all on a voluntary basis, none of the participants were coerced into being a part of the interviews. A detailed consent form was orally read to the participants, who were in return required to provide the researcher with a verbal consent prior to engaging in the interview. The participants were aware of the fact that they were being recorded and consented to this verbally before the recording started. The consent form consisted of the details of the interview participation, the purpose of the study, and it informed the participants that they were able to stop or withdraw from the interview or study at any time without suffering negative consequences in the aftermath. The participants were given a choice to be able to review the transcribed interviews for accuracy, although none of the participants asked the researcher to do so.

The participants had a choice of anonymity if they did not want their personal details to become public knowledge, but none of the participants refrained from disclosing their names, ages, genders, and countries of origin. The participants willingly gave their personal information to the researcher and had a choice not to do so if they felt uncomfortable with sharing them. The shark diving tour operator gave permission to use their name in the research and did not ask for anonymity during the research process or for the publication of the research. Participants volunteered their perceptions, knowledge, opinions, personal information, and experiences with shark diving tourism. The benefits of this study for participants outweighed the risks as the participants felt no risk and/or discomforts associated

with the study. Participants were able to reflect on their shark diving tourism experiences and were able to feel as though they were helping with furthering education on environmental interpretation programs. They were able to contribute to investigating a model of successful environmental education within the wildlife tourism industry. The results of this study also hold the potential to improve the shark diving interpretation programs on Sint Maarten, and possibly in other places as well. In addition, the results of this research can also contribute to the improvement of the dissemination of environmental and pro-conservation knowledge.

### **Limitations**

There were a few limitations and pre-dispositions connected to this study. The area of sampling was based on convenience sampling, which was connected to where the researcher was located and the proximity to the research site. Shark diving is relatively new on the island of Sint Maarten, when it started there were three companies offering the dives, thus there were more places to collect samples from. two years ago an incident with one of the dive centers made shark diving illegal on the Island, and only recently have shark dives been allowed to proceed again (de Lima, 2017). The only dive company on the island allowed to conduct these shark dives now is Oceans Explorers on Kimsha Beach. Because there is only one company offering the shark dives this limits the number of participants as well as limiting the diversity of what different types of shark dives on the Island. Another limitation is that of the tourist type participating in the shark dives. On the island of Sint Maarten, the largest number of tourists visiting the island are originating from the United States (EVT, 2015). This means that there are not many cultural differences between the types of participants engaging in shark diving activities. The chance is that a Large number of participants will be from the United States and this limits different views.

The study's focus was solely on the affective and cognitive domains of the visitors, and did not explore the behavioral changes or actions that tourists took after the participation in shark diving tourism, as these actions would have taken place outside the scope of the research area. This creates a limitation because it does not further study the effects that the experiences of shark diving had on the actions of the tourists who participated. The interview questions are designed to know if the participants learn something about pro-conservation efforts and if they gain new knowledge on the environment and the species, but it does not check with these participants to see if they actually use this knowledge to bring awareness to others. The interviews conducted were all on a voluntary basis, this limited the study in a way that not all participants of the shark diving tours on Sint Maarten participated in the interview process. Many of the participants were cruise-ship passengers, only visiting Sint Maarten for the day, thus many of these types of tourists did not have enough time to stay for the interview process after the shark dive. This mostly limited the data collection to longer-term visitors and not day-trippers.

## Chapter 6: Analysis

### (results and discussion)

#### *Contextual description*

Qualitative research is the “Development of concepts which help us to understand social phenomena in natural (rather than experimental) settings, giving due emphasis to the meanings, experiences, and views of the participants” (Pope & Mays, 1995). Thirty interviews were conducted with participants who went shark diving with the company Oceans Explorers in Sint Maarten. The results of these interviews give insight into the motivation behind why tourists choose to go on a shark dive and what the psychological impact is on their image of sharks. The research also studies the effectiveness of the interpretation program that the tour guides run during the shark diving experience.

#### *Participant Accounts*

##### **Type of Visitor & Tourist Motivation**

The main & first research question for this thesis was to answer the question: “*What type of visitor is attracted by shark diving tourism and what is the motivation behind why they engage in this activity?*” This research question is designed to collect data which will aid in gaining an understanding of the attraction that shark diving tourism activities have for visitors and what type of visitor is attracted to these activities.

#### *Type of tourist*

Before we get into the motivation behind why tourists choose to participate in

shark diving activities in Sint Maarten, the type of tourist that engages in these activities will be discussed. The Study Conducted noted the age, the country of origin, and gender of the participants that took part in the shark diving activities at Oceans Explorers in Sint Maarten. The results of this test were limited by the number of participants interviewed and the results could differ if more interviews were to be conducted. Out of the 30 participants, 70% originated from the United States of America, 10% originated from Canada, 6.5% from The Netherlands, 6.5% from Brazil, 3.5% from Sint Maarten, and 3.5% from England. In the limitations, it was discussed that Sint Maarten's main tourist base comes from The United States of America and so it is not surprising that the majority of participants diving with sharks are originated from the US.

When looking at age groups of participants we can divide them into ages 1-10, 10-20, 20-30, 30-40, 40-50, 50-60 & 60-70 years old. The most frequent age group was ages 40-50 with 36.5% of participants between these ages, followed along by ages 50-60 with 30% of participants. 16.5% of participants were ages 10-20 and 13.5% of participants were between the ages of 20-30. Only a mere 3.5% of participants were between the ages of 30-40. The study reflects that participants between the ages of 40-50 and 50-60 are still strong and young enough to participate in these activities and usually have the time and significant funding to be able to engage in such activities. Participants between the ages of 10-20 and 20-30 are mostly family members/children of those participants between the ages of 40-60, therefore having more time and having someone to pay for the experience for them. Three participants stated, "Our dad bought us this shark dive" (Interviewee 1,2 & 3), These participants were between the ages of 20-30. The participants between the ages of 30-40 are most likely too old to have someone pay for them and have too little time to engage in such leisure activities as well. Not to mention that the shark dives conducted by the company

Oceans Explorers mostly runs during the week days when participants ages 30-40 would most likely be at work.

65% of participants were male, while 35% of participants were female.

The most common participant for shark diving activities is male, with an average age between 40 to 60 years old and from the United States of America.

### ***Motivation of the tourist***

Predominantly speaking, tourists decide to travel because they are being pushed by internal factors and/or pulled by a set of destination traits that enhance their aspirations to visit a certain place or participate in certain activities (Correia & Pimpao, 2008; Correia, Kozak, & Ferradeira, 2013; Crompton, 1979). According to Yoon and Uysal, push motivations for tourists are related to their emotional and internal desires such as leisure, rest, self-actualization or social interaction. Contrary to this, pull tourists' pull motivations are related with external and cognitive factors such as climate, landscape, facilities or hospitality. Previous research shows that tourists' push and pull motivations are connected to each other (Correia & Pimpao, 2008; Yoon & Uysal, 2005). Therefore, motivations trigger any assessment that tourists could make about a destination or a tourism product.

The motivation of the participants is studied and recorded, giving four reoccurring categories that emerged from the interviews within the theme of motivation for participation. Some tourists felt multiple motivations for participating in the shark dive, creating a kind of overlapping structure to these categories. These four categories will be presented in order of prevalence, with the most popular reoccurring category presented first, and the least popular reoccurring category presented last.

**Fascination & Curiosity.** A large number of participants were driven by their natural

curious nature and their preexisting fascination for sharks and the habitat in which they live. The common theme among the participants was that they had this fascination with the species before going on the shark dive. When describing what their motivation was one participant said “I think the ocean is a different world, it's what I've tried to tell my wife and three daughters. So there's there's nothing to me like sharks, which are the most powerful creatures in the ocean, to be in their habitat. Just sit there and be in a completely different world, I just thought it was kind of cool.” (Interviewee 24, 2017). You can tell by the participants detailed description that they are fascinated by different aspects of the dive, the strength and beauty of the species, the habitat in which the species lives, and the experience of being in a completely different environment than they are used to. Interviewee 27 (2017) claimed that the motivation for going on the dive was because of pure fascination, and interviewee 28 (2017) mentioned an admiration for the species as a motivation to participate in the dive.

For many of the participants, this was their first time diving on a specific shark dive and for some the fascination was linked with the lingering question of how dangerous sharks really are, for example, two participants stated that they wanted “to see if they're really scary or not.” (Interviewee 11, 2017 & interviewee 12, 2017). Even some participants who had already seen sharks on previous diving experiences were still driven by their fascination for the species, one participant noted: “I think They are spectacular creatures. And I've only ever seen two and I wanted to see some more.” (interviewee 15, 2017). Interviewee 8 (2017) commented that he has always had a fascination for sharks and for diving, and that is the reason why he wanted to do both simultaneously.

People's perceptions of wildlife are likely to be influenced by the values they place on particular species. So their perceptions, and values, are likely to influence the type of interactions they seek (Burns, 2006). The image that people perceive from media about different types of species, including sharks have influences on the motivation behind why



people want to interact with these species. Many of the participants referred to television shows for creating their curiosity of sharks, such as informative television programs premiering in shark week and recreational movies like *Jaws*. These participants referred to these movies when describing the amount of knowledge gained of the species. One Participant who mentioned *Jaws* also stated that their “Knowledge was limited, but I live in California now so pretty much you just hear stories of...that somebody got bit on that beach or whatever, so it’s kind of like more fear based than anything else I think”.

The negative portrayal of sharks in the media, such as on news channels, in movies and on television shows play not only create a fear for the species but also play into tourists’ fascination and desire to learn more about the species. One participant even mentioned that *Jaws* did not impact him negatively at all, the participant stated that “I saw *Jaws* when I was Leo's age and I didn't believe a bit of it. I grew up far away from an ocean and couldn't wait to get to one. And once, once we started scuba diving. It's always been just a pleasure to be in the ocean and not feel afraid to be there.” (Participant 10). Some studies suggest that hearing or seeing shark attacks occur force humans to wonder whether oceans are safe for recreational purposes, and thus it fuels their curiosity with these creatures who have a fearsome reputation. Humans find sharks to be alluring due to their curious nature, fascination and desire to learn more about a predator they don’t have much knowledge of (Slovic, 1987).

Other research supports this hypothesis by studying the human fascination with species that possess negative or unattractive attributes. Species that portray “scary” or even “revolting” qualities are found to be fascinating by visitors who come to see them. Ugliness or unattractiveness will cause people feelings of unease, dislike, fear, but also fascination (Brady, 2011). This Phenomenon is even more noticeable when species are conducting acts

of predation, such as when a shark hunts fish. The action is scary and dangerous to watch, as well as a natural and beautiful part of nature. Therefore, even though shark attacks have a negative and unattractive attribute to them, these attacks paradoxically also contribute to the attractiveness of the species by making them interesting and fascinating. Their strength, grace, and mystery is what both scares and attracts visitors at the same time

**Overcoming a fear.** Another reoccurring factor Many of the participants admitted to having “fear concurring” reasons behind why they wanted to participate in the shark dive at Oceans Explorers in Sint Maarten. As mentioned before, the portrayal of sharks in the media is predominantly negative, showing mostly the dangerous element that coming in contact with sharks has. Television shows, movies, and news stories mostly deliver a message to individuals about the dangers sharks pose to humans and usually only show the scarier side to the species, without really giving accurate information on their normal living circumstances. Brady (2011) described that fear also drives people towards fascination of the species, making them wonder if these creatures are really that dangerous. Many of the participants who were motivated by fascination and admiration, were simultaneously motivated by their desire to overcome a fear of the species. some participants the impact of the dive was a heightened level of excitement and exhilaration during the experience, as well as a feeling of overcoming their fears when faced with a “dangerous” animal in an environment where they had less control over what happened. There were some participants that felt they had overcome a fear they had for the ocean and for sharks that they did not understand:

“conquering my fear, that was like, I mean, I was before this really really scared of sharks and at first I was super uneasy especially when you know... the big ones came

along and I could fit my head in there, it was like OH god but no, afterward it was just great, just the whole experience was awesome” (Interviewee 1, 2017)

“I wanted to overcome a fear too, this was one of my biggest fears” (interviewee 4, 2017)

“and also for me, I wanted to overcome a fear, I was always scared of sharks. It’s rewarding personally.” (Interviewee 5)

One participant only fully realized the thrill of the dive after he had already participated in it, learning that Caribbean reef sharks are the top 20 most dangerous sharks in the world, he stated: “I didn’t know that beforehand so that was something. I was like what? It made it real and I understood what happened. When we were down there they looked just like dogs, sort of playing with the dive instructor” (Interviewee 1). Interviewee 2 (2017) commented that it was hard to quantify in words, but his fear of sharks had gone down significantly after the experience that day.

**Thrill Seeking/adventure.** Just like participants who were motivated by overcoming a fear, participants who were seeking a sort of thrill or excitement were also interested in the elements of danger. Diving with sharks was viewed as being both an exciting and daring opportunity. Interviewee 22 (2017) explained it in his own way, stating that he was motivated “Just because it would be a different experience and things that seem a little riskier are kind of the essence of life.” Interviewees 23,24,25 and 26 (2017) all agreed with Interviewee 22 (2017), they all felt that the risk involved and the adventure to be had were the best reasons for joining the shark dive that day. There were participants who felt as though the experience

would be safe but they still had a feeling of enthrallment, “Even though you know that they aren't going to bite you there's still a genuine thrill, especially when they're coming straight at you. the thrill is what motivated me to participate in the dive.” (Interviewee 30). Most of the participants seem to consistently associate an element of risk and danger with the shark diving tourism industry. Research shows that individuals like to have a sense of risk when embarking on an adventure. Cater's (2006) research on adventure tourism confirms that, his findings claim that “on entering an adventure, participants play with their fears” (Cater, 2006). Shark tourism gives individuals the opportunity to have close encounters with apex predators, which may appeal to tourists who are seeking wildlife adventure. Sharks are often perceived as threatening animals (Davey et al, 1998) and therefore, shark diving can generally be considered a high-risk behavior. Therefore, shark diving tourism does not only attract those who already possess pro-environmental values, but also those who are just looking for a thrilling experience (Lapinsky et al, 2013). “I think there's this there's this aura of sharks or it's you know we're defying death that we went down there and we dove with them today and we lived to tell about it. So I think there's just that essence of like he said a little bit just kind of living life on the edge just a little bit and you know I did that. That's cool.” (interviewee 24, 2017).

**peer-pressure.** Peer pressure is generally defined in academic literature as the social influence of peers (family, friends, colleagues, etc.) on an individual to conform to a particular way of thinking or acting. This “peer pressure” has long been understood as a causative agent in people's engagements in various “risky” behaviors (Lashbrook, 2000; Prinstein & Dodge, 2008).

Interestingly enough, a few participants felt that they were coaxed into the activity by

family members or friends who gently coerced them to participate in the shark dive. Interviewee 1, 2, and 3 (2017) all admitted that their father had bought them this activity and they “didn’t want to be a wimp” (Interviewee 1). Other participants shared similar experiences in which their family or friends had not only recommended them to participate in the dive but had even gone so far in telling them they had to do it. A few of these participants were guilted into going on the shark dive by having it bought for them in advance, giving them a feeling of obligation to go on the dive. Even though these participants felt an obligation to go on the dive, all of them agreed that the experience was worth it and that they were happy they participated.

### **Impact of Interpretation programs**

The second research question and first sub question for this thesis is as follows: ***What is the impact of shark interpretation programs on tourists’ perspectives?*** This research question is designed to analyze the impact of interpretation programs on how tourists perceive sharks, if this is a negative or a positive change in perspective or if there is no change at all. There were three categories that emerged and stood out in the interviews: Appreciation & Admiration, desire to support conservation efforts, Excitement and exhilaration / overcoming fears.

**Gained Appreciation/Admiration.** Study participants who engaged in shark diving activities expressed feelings of admiration and appreciation after getting up close and personal with the oceans in the waters of Sint Maarten. The Majority, if not all, of the participants who went on the shark dive, came back with a greater appreciation of sharks and a lessened fear of the creatures of the deep. Some participants put it plainly by stating:

“the longer I was down there the greater my you know comfort was and fascination.”

(Interviewee 23)

“I mean I didn't expect them to be as like active with you, like as interactive. But they really were they came like right up to you. But weren't really scary, more like playful.” (interviewee 25, 2017)

Participants gained understanding, knowledge, a new perspective, and many of them felt a sort connection the species during and after the dive. Interviewee 29 (2017) claimed that she felt connected to the species when diving with them and that this, in turn, created a stronger admiration for them as well. People's perceptions of wildlife are likely to be influenced by the values they place on particular species (Burns, 2006). After the shark diving experience, many participants felt a gained appreciation for the species, changing their attitudes from fear to appreciation.

**The Desire to support conservation efforts.** Along with the appreciation and admiration of the species, some participants felt a stronger need to conserve the species and protect them from becoming extinct, as illustrated through the participant statements below:

“I am aware that these are endangered species. So, that they need to be protected. So, I think that's important for divers. So, for as many people to dive with sharks, that is a good way to protect them because the people will realize, hey these are not dangerous animals” (Interviewee 13, 2017)

“I have a sort of admiration. As well to bring awareness and to tell people and being able to show them the pictures and to tell them it's not what people think, it's just amazing.” (Interviewee 28, 2017)

Some participants were even surprised when they learned how many sharks were endangered and how many were being killed by humans each year. “I didn’t really know that there are a lot more endangered and stuff like that. I guess I kind of hear that, that a lot of sharks are being killed for their fins and you know stuff like that. It’s like I didn’t know the magnitude.” (interviewee 1, 2017). These statements demonstrate that after learning about and observing sharks in their natural habitat, participants challenged their existing attitudes towards the species by recognizing that just because sharks are apex predators, their populations are still vulnerable to endangered, which should not be forgotten or looked over just because of the negative image the species has. Many of the participant’s preexisting perceptions changed, realizing that sharks are not immune to population threats just because they can be a threat to humans. The participants who challenged these preexisting ideas experienced cognitive dissonance, resulting in the change of attitudes and creating a better understanding and appreciation of the animal. In a study on visitor’s free-choice learning in diverse tourism settings such as zoo’s, aquariums and national parks, Packer (2004) found that many participants questioned and reformed their attitudes in relation to environmental and conservation issues. For most interpretation programs to be successful, they must be designed to challenge visitors’ perceptions and conceptions in order to help “help visitors become aware of within and consequences of their conceptions, as well as the relative merits of other conceptions” (Ballantyne & Packer, 2006). This, in turn, allows visitors to increase their intrinsic motivation to explore and learn because they have a greater control over their own learning experience (Csikszentmihalyi & Hermanson, 1995).

A few participants were very passionate about conservation efforts towards sharks and bringing awareness to other people that might have the wrong perceptions of the species. One participant stated that “It's so important to bring awareness to people because it shows them that they are not the scary or dangerous animals like they seem to be on television. This awareness could help with conservation efforts which are really needed. People don't realize how safe and beautiful these animals are.” (interviewee 29, 2017). Although many participants felt the need for spreading knowledge and awareness on conservation efforts regarding shark species, there were also interviewee's who did not show much interest in doing so. Some of the participants agreed that sharks needed to be protected but did not make notions that they would be spreading knowledge or awareness after the experience. Some of the participants attributed their change in attitude to the tour guides, whose genuine passion to protect and strengthen shark populations inspired them to care more as well.

It is important to note that while many of the participants in this study claimed to have shifts in their attitudes towards environmental awareness and conservation, it is difficult to measure participants' attitudes, due to what Orams (1996) asserts as the influence of ‘social desirability’. Environmental issues and conservation efforts have been widely discussed over the past few decades and are now becoming more familiar to many, therefore it is increasingly difficult to determine whether participants' responses are given solely because they are seen as socially or politically correct in our society (Orams M. , 1996). In order to avoid the influence of social desirability as much as possible, the researcher did not directly ask participants if their attitudes towards the species had changed after the dive, but instead only asked participants for further explanation if they voluntarily mentioned experiencing an attitudinal change. The responses of the participants quoted above are part of the general descriptions these participants gave about the diving experience, therefore, it is believed that



these statements reflect what participants genuinely took away from their shark diving experiences. Interviewee 2 (2017) mentioned that it would be beneficial for the dive company to give information on where to donate because he would be interested in this if it was easily accessible.

**Lowered risk perception / Overcoming fears.** For some participants, the impact of the dive was a heightened level of excitement and exhilaration during the experience, as well as a feeling of overcoming their fears when faced with a “dangerous” animal in an environment less known for people. One participant worded it like this:

“conquering my fear, that was like, I mean, I was before this really really scared of sharks and at first I was super uneasy especially when you know... the big ones came along and I could fit my head in there, it was like OH god but no, afterward it was just great, just the whole experience was awesome” (Interviewee 1, 2017)

It seemed that for many it was largely thanks to the tour guide that they felt so at ease with the sharks. The guide made them feel at ease before going into the water and made sure to carry out safety procedures correctly, though this is not what made everyone fall in love with the sharks. The guide seemingly “played” with the sharks as if they were his pets, making them feel relatable for the tourists on the dive. Many participants had similar opinions about what they enjoyed the most about the dive, a few examples of this are:

“For me it was just how absolutely magnificent how they look up front, they’re not as scary as you would think, you see their eyes roll around, when they were getting pet

and they...you feel a little more connected to them instead of scared of them”

(Interviewee 4, 2017).

“He treats them like they're puppies you know, from the standpoint of the way they are obviously comfortable and they come around which that to me was fascinating. I loved watching them.” (Interviewee 19)

“I liked when he was like playing with the shark, it just kind of showed me that a shark is just kind of like a dog, I don't know. It's just like so friendly and so... It's not as wild as I thought, so it was just like cool seeing that and realizing that in person.” (Interviewee 25, 2017).

By showing that these seemingly dangerous creatures have personalities and giving them associations with animals such as dogs which are non-threatening, the tour guide has created a positive image of sharks in the minds of the people who participated in the dives. Many participants shared this opinion, Interviewee 3 (2017) agrees that seeing the tour guide “play” with the sharks changed their perception and that if the tour guide had been more hesitant it would have been different but because the guide was so sure it made him feel completely comfortable. The Participants all still understood the dangers of the shark dive and were not lulled into a false sense of security when under the water with the species. Interviewee 3 (2017) went on by commenting that they understand it is still dangerous but that is a lot safer than expected. The dive shop/dive operator makes divers go on a mandatory regular dive in the ocean before participating in the shark dive, to ensure that the participants get comfortable under water before they engage in a more stressful situation. One of the participants commented on this by stating that “after that experience, I was more

relaxed going on the actual shark dive.” (Interviewee 3, 2017). Interviewee 30 (2017) described that the experience of seeing the sharks in this setting, being playful and having their own personalities, made the sharks seem more human and easier to relate to.

### **Conservation & Improvement of Interpretation programs**

In this part, we will focus on the second, third and fourth research questions because they are related to each other and the answers to these research questions complement each other. These are the research questions that will be discussed here: *“How can shark diving tours on Sint Maarten improve their interpretation programs in order to fully educate and inform tourists about the importance of shark conservation efforts?”*; *“How do the shark diving interpretation programs on Sint Maarten hold the potential to contribute to conservation efforts of the species?”*; and *“Are there ongoing conservation efforts for sharks on Sint Maarten and how does shark diving play a part?”* These research questions focus on what kinds of and/or if there are conservation efforts currently being put into place on Sint Maarten and how/and/or if the shark diving industry on the island can play a role in these efforts. These research questions are aimed to uncover if there are current rules and regulations that protect and conserve shark species, as well as if shark diving is promoting the conservation of sharks on Sint Maarten or if these activities are actually harming the progression of these efforts. In Sint Maarten, the primary advocate for pro-conservation and pro-environmental laws is the Sint Maarten Nature Foundation.

**The St. Maarten Nature Foundation** is a non-governmental/non-profit organization that works to promote the protection and conservation of Sint Maarten’s environment. The foundation was founded in 1997 as an Island Government initiative and is guided by the laws

of the Netherlands Antilles. The Foundation works on shark conservation through the “Save Our Sharks project” from the Dutch Caribbean Nature Alliance, the project aims to create safe havens for sharks in Dutch Caribbean waters (Sint Maarten Nature Foundation, 2017). The Foundation focuses on the protection of the St. Maarten shark populations by performing scientific research, communicating with politicians and fishermen and educating the public about sharks. Research shows that as recently as ten years ago, sharks were abundant in the Caribbean coastal waters, such as in Sint Maarten. However, over the past several years’ shark encounters while fishing, snorkeling, and scuba diving have become increasingly less, making it a rare occurrence to see the species. The rapid depletion of the species is not just unique to Sint Maarten or the Caribbean. Globally, shark populations are depleting due to over exploitation, threatening the health of open ocean ecosystems and coral reefs which they maintain (Bervoets, Saving the Caribbean's Sharks, 2017). The practice of intentionally harming and fishing of sharks has been forbidden in Sint Maarten since October 12<sup>th</sup>, 2011, when the Ministry of Economic Affairs banned the practice of intentionally poaching sharks in the territorial waters of St. Maarten. The law states that “the act of trying to catch by tracking, stalking, baiting, chasing, trapping, hooking, netting, shooting or otherwise hunting sharks is prohibited and therefore the animals may not be wounded or killed” (Sint Maarten Nature Foundation, 2017). A limitation to this ban is the fact that the island of Sint Maarten has two governments, the Dutch government has banned the poaching of sharks, but on the French side these rules do not apply, making it possible for fishermen to fish sharks across the border on French waters (Sint Maarten Nature Foundation, 2017). The St. Maarten Nature Foundation is also the managing authority of the Man of War Shoal Marine Park, the island’s first national park and all of St. Maarten dive sites.

During the Shark Conservation Symposium on the 15th of June 2016, The St. Maarten

Government announced that a shark sanctuary would be established in their exclusive economic zones (EEZs). Because of this sanctuary, sharks are now protected long-term on St. Maarten, which is a great step forward towards shark and nature conservation and eco-tourism (Sint Maarten Nature Foundation, 2017). Sharks are among some of the top species that attract scuba divers to Sint Maarten and around the world, making their presence important to the tourism industry. Moreover, sharks strengthen the marine ecosystem, including coral reefs and commercial fish stocks, which in turn creates more attractive environments for divers. Therefore, shark species also help strengthen industries that depend on a healthy ocean (The Pew charitable Trusts, 2015). Tourists come to St. Maarten for healthy reefs, diverse marine life and sharks, in turn, this generates income for everybody living on this island and those involved in the tourism industry on the island. Tadzio (2017) mentions that it is very likely to be able to see sharks when scuba diving on St. Maarten and most of the shark species are sighted in the Man of War Shoal Marine Park. You will mainly see Caribbean Reef Sharks and Nurse Sharks, and occasionally Hammerhead sharks and tiger sharks are sighted as well.

The Sint Maarten Nature Foundation has an ongoing “Save Our Sharks” project in which they conduct scientific research on shark species in the waters of Sint Maarten as well as many other things to promote pro-conservation efforts. According to the Sint Maarten Nature Foundation (2017), a very relevant part of the Save our Sharks project is education, communication, and awareness, to show the importance of sharks for the reefs, the Island and tourism. The foundation stresses out the importance of shark species for Sint Maarten’s economy by creating awareness about their rapid decline through shark related activities, events, school visits and outreach programs (Sint Maarten Nature Foundation, 2017). The Sint Maarten Nature Foundation is working on a way to protect and conserve the shark

species in Sint Maarten. The foundation is working together with fishermen, local communities and scientists to learn as much as they can about sharks. Building on that knowledge they want to create new ways for islanders to benefit from the presence of sharks in the waters of Sint Maarten for example as an attraction for tourists. The Nature Foundation has been conducting a Shark Conservation Project on St. Maarten which, based on surveys of dive operators and tourist divers, has shown that a single live shark is worth up to USD \$884,000 to the economy of the island, as is opposed to an average of \$50 dead (Bervoets, *Saving the Caribbean's Sharks*, 2017).

In February of this year, the Sint Maarten Nature Foundation tested several food products on Sint Maarten for shark DNA, items such as sword fish, boneless salt fish, fish and chips, and sea food soup tested positive for shark, especially sharks which are considered endangered species (The Daily Herald, 2017). Nature Foundation Projects Officer Melanie Meijer zu Slochteren (2017) noted that the products sold that contained shark DNA were not harvested locally, but imported into the island thought to come mainly from Asia as a waste product from the shark finning industry. Several of the shark species found in the fish products are listed under Appendix II of the Convention on the International Trade in Endangered Species (CITES) such as silky shark, hammerhead sharks, and thresher sharks. This means that the trade of these sharks must be controlled on Sint Maarten to avoid utilization incompatible with their survival, and export permits are required by law worldwide. “This is quite a serious issue for the island and for the region. Sint Maarten is an important hub in the tourism industry, and large quantities of fish are sold in restaurants, especially during high season. Not only do the results of this study show that shark is being sold as other fish, it shows that there is a significant mislabeling, whether deliberate or not, of fish products being sold to the consumer. Instead of being served a swordfish, for example, clients are now being served an endangered species that is regulated by law, and which may

have harmful effects on the health of the consumer. We have been in contact with the authorities, stores, wholesalers, and restaurateurs in order to find a way to curb this situation,” said Nature Foundation Manager Tadzio Bervoets (2017).

In 2010 the commissioner of tourism along with the Sint Maarten Nature Foundation and EPIC created a code of conduct for tourists and locals who visit Sint Maarten Beaches. The code of conduct carry warnings such as (1) Do not touch living marine wildlife, such as coral, animals, etc., (2) Do not collect souvenirs, (3) Do not stand or rest on coral reefs, (4) Never harass aquatic animals for your amusement, (5), Always be aware of your position in the water and that of your dive gear, in relation to marine animals and the coral reef, and (6) Do not feed marine animals (SMN news, 2010). In addition to this, the Man of War Shoal Marine Park regulations states that “It is not permitted to touch, damage or remove any marine life” (Sint Maarten Nature Foundation, 2017). The regulations also prohibit the feeding of animals, any type of fishing, harassing of marine life and removing dead animals or plants.

**Provisioning.** In the literature review, provisioning was explained as activities where some type of bait, attractant, or food reward is offered to sharks to aggregate or positively reinforce them and to neutralize their aversion to humans, as well as attracting them to specific diving locations (Orams M. B., 2002; Knight, 2009). According to Interviewee 19, the fact that Oceans Explorers on Sint Maarten did not use provisioning to attract sharks was a positive thing. He felt that there was more interaction and personality within the sharks because they were there willingly, playing along like “puppies” with the tour guide. He then went on to say that the sharks seemed to be more comfortable and natural in this environment (Interviewee 6, 2017). Interviewee 6 (2017) was also pleasantly surprised at the large amount

of sharks that he was able to see on the dive without having to provision. She knew that the divers would not be able to control where the sharks would go and how many would come but even with this there were still plenty of sharks to be seen. “I think I probably expected to see at least a couple of them but I think we got better than what I expected.” (Interviewee 7, 2017). Interviewee 23 commented: “I expected them to be feeding sharks, which they did not, that was a pleasant surprise.” In the Code of conduct and regulations discussed earlier, it is prohibited to feed sharks, and according to the participants’ accounts, these regulations are being adhered to. Interviewee 7 (2017) stated “we were just they're not messing with anything and they were interacting with us as if that was what they wanted to do. It didn't feel like I was forcing it which was cool”, referring to the fact that the guides did not interfere with the natural habitat or species.

**Participants’ reviews and recommendations.** There was a majority consensus that the dive shop/tour operator running the shark dive tours is doing this in a positive manner and that there is not much they need to change to try and make it a better learning experience. None of the participants had a negative experience with the tour, other than becoming a little bit sick on the boat, all of the participants agreed that the experience had no bad qualities. Interviewee 21 stated that “Jeff does a good job of giving education in addition to you enjoying the dive.” When asked about the interpretation programs and if there could be anything to improve them there were a few participants who felt that there could have been more information given at the end of the tour, either in verbal or written form. Some of the participants commented that getting pamphlets, links to educational sites or other forms of extra information would be a nice addition to the entire experience. Interviewee 2 (2017) suggested a take-home pamphlet with information about the types of species seen on the dive, as well as information about the conservation efforts towards these species and how



participants can help with this. Interviewee 3 (2017) felt that the first step to conservation was education, and agreed that there could be more information on the conservation of the species.

A few of the participants noted that they could offer extra information, but only to those who would want to gain deeper knowledge on sharks and their ecology. Interviewee 6 (2017) suggested that they could provide extra information sessions at the beginning or end of the tour for participants who were interested in this, but also mentioned that they felt as though there was already a decent amount of information for the regular tourist to be able to obtain in one day. Interviewee 30 (2017) claimed that the information given was more than enough for one day and that if there would be more information given it would most likely be too much. Most participants agreed with this statement and simply replied that there was nothing they needed to add to the information that was already given.

“I think maybe a little shark knowledge before we went rather than all afterward. I would have liked to have had some knowledge to be thinking as I was seeing the sharks in their element. Some of the facts that they told us after were very sympathetic to them and their situation. I wasn't thinking any of that when we went down. I just liked that they weren't eating me.” (Interviewee 24, 2017). As mentioned before, Interviewee 2 (2017) commented that it would be beneficial for them to bring some literature home, as well as give information on where to donate towards conservation efforts.

### **Risk Perception**

The next sub question is aimed at the risk factor related to shark diving activities and asks: ***“How do tourists perceive the risks involved in diving with sharks in their natural habitat?”*** This research question is designed to gain insight into how tourists associate risks

with species and how these associations contribute to the thrill of the dive. This research question is also aimed to see whether the tourists' risk perception of the species prevents them from supporting the conservation of the species. The participants were asked if they had any concerns prior to the dive with engaging in activities that would bring them in close vicinity with sharks and their answers were split into two reoccurring themes. Half of the participants had concerns going into the water with sharks, while the other half felt there was no risk but they were aware they needed to stay cautious. Perceptions of wildlife risks shape the public's views, beliefs, and attitudes towards certain species, and ultimately, these perceptions can impact the amount of support received for conservation and wildlife management (Muter, Gore, & Riley, 2009). Examining participants' risk perceptions associated with sharks is important in order to understand if the benefits of going on the shark dive outweigh the risk for the participants. Moreover, to help improve and plan environmental interpretation programs, and in order to construct messaging aimed at dispelling negative views, it is important to acknowledge existing risk perceptions held by tourists.

***Medium/high-risk perception of the species/experience.*** Public's attitudes and beliefs toward certain species can be shaped by perceptions of wildlife risk, ultimately impacting the amount of support received for conservation efforts (Muter, Gore, & Riley, 2009). Human-wildlife conflict can occur when wildlife poses a perceived risk to human safety or wellbeing, agriculture, personal property, or other species viewed to hold value to the individual (Muter, Gore, & Riley, 2009). It can be of value for conservation efforts to study participants' risk perceptions associated with sharks in order to understand what influence these perceptions could have on the willingness to protect and conserve the species. Additionally,

understanding risk perceptions of tourists could help with constructing and planning environmental interpretation programs that dispel these views.

The Participants that felt there was a more serious risk involved with the shark diving activity were also participants that had little to no knowledge of shark species before going on the dive. The study showed that there was an obvious connection to the lack of knowledge and the perception of risk related to shark diving. Even though these participants felt a certain level of risk involved in the activity, they still decided to participate, showing that the level of risk was not high enough for them to decide to refrain from going on the dive. Most of the participants felt that the risk involved was low enough for them to feel comfortable that they would not suffer fatal injuries on the experience. Interviewee 3 (2017) commented that he thought there would be a chance that someone could get bitten but that a minor bite would be the worst outcome possible, which he felt was not risk enough to stop him from joining the dive. A couple of the participants had a heightened fear of sharks, admitting that they felt very nervous prior to going on the dive but that they wanted to conquer their fears. Interviewee 1 (2017) & interviewee 29 (2017) both admitted to being so afraid that they reacted by laughing or giggling before entering the water because of being nervous before the dive. During the dive, the divers encountered Caribbean reef shark & nurse shark, two species known to be less aggressive and less dangerous than other shark species. The fact that the divers were not diving with great white sharks or hammerhead sharks made the risk perception lower for some of the participants.

***Low-risk perception of the species/experience.*** The other half of the participants claimed they felt completely comfortable going on the shark dive and that they did not feel there was a lot of risks involved. The participants had different reasons why they felt comfortable going on the dive. Some of the participants had been diving with sharks prior to

this experience and felt comfortable with being around the species, while others had complete trust in the dive company and their abilities to keep them safe from harm. One participant stated: “The briefing was good and I was confident in Jeff’s abilities because I saw him talking and thought I’m fine, I’ll go.” (interviewee 14, 2017). Even though many of the participants felt there was a low risk connected to the activity, they still admitted that they were aware they needed to be cautious. Some of the participants commented that they felt safe but that when the guide instructed them to keep their hands to themselves when under the water with the species, they felt a little more nervous knowing there was a little bit of risk involved.

### **Education**

Education is one of the main goals of environmental interpretation programs, the next sub question aims to answer: “*Do tourists acquire species and environmental based knowledge during shark diving tourism activities?*” The participants of the study were interviewed and asked if they had gained any new knowledge on the species, the environment, and the conservation efforts

#### ***Knowledge pre-shark dive***

To see if participants already had previous knowledge of shark species, their environment or conservation efforts, the researcher questioned them on the subjects at hand. Out of the interview, 3 key themes in their answers came to the surface, (1) little or no knowledge of sharks, (2) basic/moderate amount of knowledge, and an (3) abundant knowledge of sharks. These themes will be explored from the most relevant (frequent) answers to the least relevant (frequent) answers.

**Little to no knowledge.** Most of the participants interviewed felt that they had either no knowledge of sharks or very limited knowledge of sharks before going on the tour. Many of the participants admitted that they only knew a little bit of information because of television shows during “shark week”, which is a week of television programming where sharks are the sole subject of each broadcasting. In addition, most of the participants admitted they only knew about sharks from movies such as *Jaws*, which are fictional depictions of sharks and their behavior. Interviewee 2 (2017) commented that his knowledge was limited, his only knowledge of sharks is that of shark attack stories on the beach near where he resides, which in turn instilled a fear of sharks within him. Interviewee 1 (2017) and interviewee 3 (2017) both commented that they had little knowledge of sharks prior to the dive and that the only knowledge they obtained beforehand was via television shows such as shark week and movies such as *Jaws*.

**Basic/moderate amount of knowledge.** Some of the participants claimed they knew a fair amount of things about sharks and their habitat, their knowledge was obtained by not only watching television programming but by reading magazines and by first-hand experience. One participant said: “actually last week I was just explaining, there was somebody here from the Bahamas who was doing research on sharks and there was a little class that they did for kids, so I know a little bit.” (Interviewee 5, 2017). Other participants noted that they read into diving magazines and that these magazines provided information on shark species and their habitat. In addition, participants that had been diving before gained knowledge of sharks on previous dives because these experiences had also peaked their interest of the species.

**Abundant knowledge.** A few of the participants claimed to have extensive knowledge on shark species and their habitat. The few participants who did claim to have more knowledge of sharks than other participants stated that this was because they had been diving for years and they have had a fascination with the species for a longer period of time. These participants claimed to have read magazines, articles and browsed websites on the subject. One participant stated:

“I would say pretty extensive knowledge I mean having probably dove for maybe 25 30 years and they are sort of the apex predator. There is a lot of fascination with them. But I've probably seen more shows and read more articles than certainly your more average customer” (Interviewee 23, 2017).

The participants that already have extensive knowledge on sharks were also the least worried about entering the water with the species because they understood the minimal danger they posed to them. Interviewee 13 explained that he even played online games to identify what types of sharks there are in the ocean and always tests himself when going on dives to see if he can recognize what sharks he sees and how many.

### ***Knowledge post-shark dive***

Often in the case of wildlife tourism in marine areas, interpretive activities involve “talks by tour guides, interpreters, and rangers’ onboard boats” but they can also include “visitor centers, displays, signs and brochures” aimed at delivering information to tourists about the species they will encounter as well as the general ecology of the area (Zeppel & Muloin, 2008). In this study the participants claimed that they received two briefings during the experience, one briefing prior to the dive, which contained mostly information about

safety and how to conduct themselves during the dive, and one briefing after the experience, which contained information about the species they encountered, the environment they visited, the current status of the species, and the conservation efforts towards the species and their environment.

The Interviewees were not only asked about their knowledge of sharks prior to the dive but they were questioned about how much they felt they had learned during the experience as well. There were four main categories that kept resurfacing during the interviews, (1) new knowledge gained about the species and the environment, (2) new knowledge gained about the status of the species and conservation efforts, (3) new knowledge gained about the risks involved with shark diving, and (4) little to no new knowledge gained during the experience.

**New knowledge gained about the species and the environment.** One of the things the participants claimed to have learned from their experience was new knowledge and more understanding of the species and the environment which they visited. A vast majority of the participants commented that they gained new knowledge on the species and the environment in which they were diving. Interviewee 4 (2017) explained that the tour guides gave them an overview of what and how sharks eat, what their tendencies are and how to behave around them, their nature and what types of sharks they would see, as well as the environment in which they would encounter the sharks. The participants also stated that the tour guides provided them with a lot of interesting statistics related to sharks, especially those related to how dangerous sharks are to humans and how dangerous humans are to sharks. Participants recalled that the tour guides explained the history of shark evolution and gave background information on the apex predator. In addition, the tour guides provided the participants with ample background information about the species, including which species they would most likely see and how these species ranked from dangerous to non-threatening.

**New knowledge gained about the status of the species and conservation efforts.**

Another reoccurring theme that came up during the interviews was that participants gained new knowledge on what the status of the species is and the conservation efforts in connection to the species and their natural habitat. Many of the participants commented that they knew from word of mouth or television shows that sharks were being killed in certain countries but they did not realize the full extent of it until they had participated in the shark dive. One participant said: “I don't think I really was aware until after we were done, that he enlightened us about it.” (Interviewee 24, 2017), while another participant also stated that “I guess I didn't really know the magnitude of it” (interviewee 1, 2017). In some cases understanding the magnitude of the issue surrounding the endangerment of the species and experiencing first-hand that these creatures are not as dangerous as they seem helped them appreciate conservation efforts more. Interviewee 2 (2017) commented that he knew there were issues but that you don't hear much about it because of the fear surrounding the species, but that after his experience on the shark dive it resonated more with him.

“after the experience today it means a little something more, some sort of relationship I have with the sharks and you can just quit being afraid of them” (interviewee 2, 2017).

Participants also agreed that they knew more about species such as dolphins and whales being in danger, they believe this is because those species are more popular with people because they are less threatening. Interviewee 14 (2017) mentioned that the tour guides also gave them demographics on how many sharks kill humans per year, which was less than 10, and how many humans kill sharks per year, which was over 100 million sharks. Participant 19 (2017) commented: “I didn't know it was reef sharks so much, but I know there are bigger sharks in other parts of the world that are in danger”. This answer indicated that it



is possible that larger and “more famous” shark species are widely known and gain more media attention than less popular shark species.

**New knowledge gained about the risks involved with shark diving.** The shark diving tour guides conducted two separate briefings, one prior to the dive and the other after the dive had already taken place. Participants commented that on the briefing prior to the dive they were given safety instructions, warnings and general information on the procedures during the dive. These safety instructions also included possible risks associated with diving in the ocean and coming in contact with shark species. One participant noted that “in the beginning what he explained is what does provoke sharks, anything like stress in the fish, in the area, or something just gets in front of their face, so just keep your hands out of the path of their mouths and you’ll probably be fine. Kind of understanding what motivates them” (Interviewee 2, 2017). Other participant shared the same experience as Interviewee 2, wherein they explained how the tour guide instructed them how to act and how not to act around the sharks and that they gave general information regarding how the dive would go and what type of species they would encounter. All of the participants felt a lowered feeling of risk after the shark dive and felt more comfortable being around the species than before.

**Little to no new knowledge gained from the experience.** A few of the participant’s felt that they gained little or no new knowledge on the species or their habitat, these participants were mostly those who had already been on shark dives prior to this experience or those who had already learned about sharks on their own accord. Interviewee 19 (2017) felt that he already understood all the briefings that the guides gave him, stating: “I didn’t get any specific new information that I didn’t know before”. Interviewee 20 and 21 (2017) both felt as though they did not really learn anything new either because they already had

extensive knowledge on sharks before the dive. The divers who had already had experience with sharks before were the only ones who felt they did not learn anything new from the experience.

## Chapter 7: Conclusion

### Summary of findings

Predominantly speaking, tourists decide to travel because they are being pushed by internal factors and/or pulled by a set of destination traits that enhance their aspirations to visit a certain place or participate in certain activities (Correia & Pimpao, 2008; Correia, Kozak, & Ferradeira, 2013; Crompton, 1979). Wildlife Ecotourism, specifically shark diving tourism is a growing market segment in which increasingly more tourists are becoming interested. Ecotourism is known to be advocated because researchers believe it has the potential to promote pro-environmental and pro-conservation behaviors and attitudes; however, there are researchers who argue that this specific industry may mostly appeal to tourists who already possess pro-conservation and pro-environmental beliefs and therefore; the industry may not be as beneficial as hoped (Beaumont, 2001; Hatch, 1998; Saleh & Karwacki, 1996). In contrast to these claims, this study found that the majority of participants of shark diving tourism in Sint Maarten did not claim to have preexisting knowledge of sharks or the desire to conserve populations, but were instead motivated by a curiosity and fascination of the species, overcoming their fears, “peer pressure” from family or friends, and a desire for adventure/danger.

Most of the participants who claimed to have feelings of curiosity, fascination or admiration towards sharks and their environment did not appear to have a deep understanding for or strong scientific background of the species, but instead, their fascination originated from an attraction or captivation with them. Just like this “positive” fascination, some participants claimed that the “negative” portrayal of sharks in media played to their curiosity

and had a thrill seeking nature to their motivations. Participants reported that they were motivated by the risks, or in other words, the sense of adventure associated with the coming in close proximity to the apex predator. These Participants found this experience to be an opportunity to overcome their fears for the species and to be able to tell others that they were able to do so as well (Cater, 2006). Some participants reported that they only participated in the shark dive because their family members or friends coersed them into it. This phenomenon is called peer pressure, and even though these participants did not inherently choose to go on the dive themselves, they all felt satisfied with the experience afterward. Lastly, there were participants who reported that their main motivation for participating in the shark dive was because the activity gave them a feeling of excitement and danger, as well as creating a sense of enthrallment. In summary, it is clear from the findings that the participants were not initially motivated by a desire to learn about the species or the environment, nor did they participate in the shark dive in order to support conservation efforts. Therefore, the shark diving experience holds the potential to teach these tourists and visitors new information on the conservation of the species and the environment, as well as changing their perspectives and attitudes on pro-environmental and pro-conservation efforts.

Participants were asked to provide the researcher with information about their age, country of origin, and gender in order to evaluate what type of tourist is most likely to partake in shark diving tourism. In this study, the most common participant for shark diving activities is male, with an average age between 40 to 60 years old and from the United States of America. The results showed that people between the ages of 40-60 were the most common age-group to participate in shark diving tourism, a few factors could play into this fact, such as the probability that these participants have less work, more money, and are still in good enough of a condition to go diving. The second largest age group was between 10-30 years old, this most likely due to families bringing their children with them on the experience,

meaning these participants have the dives paid for them and most likely also have more free time and stronger physical abilities. These findings are limited by the number of participants interviewed, leaving room for error in statistics.

A combination of cognitive and affective approaches is necessary for creating effective environmental learning experiences in free-choice settings such as shark diving tours (Zeppel & Muloin, 2008). Moreover, environmental interpretation programs must stimulate enthusiasm and emotion while also providing an educational experience for the individual participating in the activity. It was uncovered that many of the participants that were interviewed were often able to recall limited amount of specific information relating to shark biology and the environment of Sint Maarten, demonstrating that the environmental communication and learning was not as succesful as it could have been. Nevertheless, there were still participants who recalled learning about the types of species, their habits, and the habitat in which they live. Moreover, participant accounts of their experiences did illustrate that most of them were able to recall information given regarding the threats facing the species as well as the ongoing conservation efforts. This information along with their experiences in the ocean with the species caused participants to significantly alter their perception of sharks. Visitors felt impacted in different ways by the interpretation programs by gaining a new appreciation and admiration for the species, gaining knowledge of the conservation efforts and by a decreased fear and lowered perception of risk associated with the species. The study uncovered that the interpretation program was succesful in changing attitudes within the tourist's perceptions of the species by creating a stronger admiration and fascination with them. Furthermore, because of these new found feelings of admiration and fascination participants felt more obliged to help with conservation efforts towards the species. The Interpretation program used for the dive gave abundant information on population decrease, environmental issues, and highlighted the fact that humans kill an

enormous amount of sharks per year in contrast to the few humans that sharks kill per year (Sint Maarten Nature Foundation, 2017). Moreover, while participants may not have gained a tremendous amount of new expertise about shark species or the environment, the participants did, in fact, develop a stronger emotional connection with the species while observing them in their natural habitat. These findings reinforce the framework created by (Orams M. , 1996) for managing marine tourism experiences because the information and the experience that the tour guides provided was strengthened by the emotional connections that the participants experienced by directly engaging with the shark species in their natural habitat. Many participants felt increasingly more comfortable with sharks and expressed that their outlook on the species was altered after seeing them be “playful” and resembling less threatening species such as dogs and cats. Their perception of the risks involved with shark diving became lowered during the diving experience. The tour guides created an atmosphere in which these seemingly dangerous animals become humanized and the participants were able to emotionally connect with them because of this.

The perception of risk according to visitor’s accounts was mixed, while some participants felt nervous or fearful in anticipation of their dive, others felt completely safe before entering the water with the species. The participants who reported feeling nervous or fearful in anticipation of their shark dive did not feel fearful during the dive, but instead, they felt a sensation of increased comfort and relaxation around the species. The participants described feelings of fascination, admiration, and becoming emotionally connected to the species while diving with them in their natural habitat. Perceptions of wildlife risks shape the public’s views, beliefs, and attitudes towards certain species, and ultimately, these perceptions can impact the amount of support received for conservation and wildlife management (Muter, Gore, & Riley, 2009). Participants did not have pro-environmental or pro-conservation motives before entering the dive, but because of their lowered risk

perception and overcoming their fears by learning more about the species, these participants became more aware of conservation efforts. Even though participants admitted to feeling nervous or fearful, they still chose to participate in the shark diving tourism experience, and after having participated did not describe the activity as being a risky or unsafe environment.

Sint Maarten attracts tourists by providing them with beautiful oceans, diverse marine life, healthy reefs and sharks, thus, in turn, this generates income for the locals of Sint Maarten and those involved in the tourism industry on the island (Bervoets, 2017). The Sint Maarten Nature Foundation creates awareness about the importance of shark species for Sint Maarten's economy by teaching locals and tourists about their rapid decline through shark related activities, events, school visits, outreach programs, and the environmental interpretation programs at dive spots (Sint Maarten Nature Foundation, 2017). A code of conduct exists for tourists and locals who visit Sint Maarten's Beaches and oceans. In addition to this, the Man of War Shoal Marine Park regulations states that "It is not permitted to touch, damage or remove any marine life" (Sint Maarten Nature Foundation, 2017). Many Participants commented that they enjoyed the experience and especially liked the fact that the tour guide did not use any provisioning to attract the sharks to the dive site because it made the experience feel more natural. The participants felt that because there was no provisioning, the sharks were able to swim around more calmly and the visitors were just there to observe the species and enjoy them in their natural habitat.

Many Participants felt as though they had gained new knowledge during the experience about the risks (or lack of risks) involved, the environment and the species, and the conservation efforts towards the species and their environment. A combination of cognitive and affective approaches is necessary for creating effective environmental learning experiences in free-choice settings such as shark diving tours (Zeppel & Muloin, Conservation Benefits of Interpretation on Marine Wildlife tours, 2008). Some participants

had a few remarks as to how the dive company on Sint Maarten could improve their environmental interpretation programs. Some participants mentioned that it would be helpful if more information was provided after the dive in the form of take-home pamphlets or links to websites on which they could find more information. In addition to this, participants felt it would be helpful if the dive company would provide them with information on where to donate or where to help with conservation efforts towards shark species. These suggestions could help improve the follow through actions of tourists for pro-environmental and pro-conservation efforts. The interpretation programs of Sint Maarten's shark diving experiences were largely effective in communicating environmental information regarding pro-conservation issues and efforts, as well as eliciting empathy from the participants for shark species and their rapid population decline. Therefore, pro-environmental and pro-conservation efforts could benefit from collaborations between professionals in the field of shark diving as well as researchers to develop even more efficient and effective environmental interpretation programs.

### **Reflection on limitations**

As discussed previously, this study contained certain limitations and predispositions connected to this study. The Sampling area was based on convenience sampling, which was connected to where the researcher was located and the proximity to the research site. On the island of Sint Maarten, the largest number of tourists visiting the island are originating from the United States (EVT, 2015). This means that there are not many cultural differences between the types of participants engaging in shark diving activities. The methodological approach of this study was also limited by both time and resource constraints, and the study's scope of work was restricted from the beginning. As a result of this, the researcher was



limited on how many sources of literature could be reviewed and was only able to focus on one geographical Ecotourism site as opposed to multiple regions. In order to ensure that data could be collected, transcribed, and then analyzed in accordance with timelines, the researcher was also limited to the number of participants of the shark dive that could be interviewed. As mentioned before, the selection of participants poses limitations, as participants were solicited on a voluntary basis. As a result, participants may not be a completely accurate representative sample of tourist experiences because of the absence of individuals who were not willing to share their opinions. However, it is important to note that the researcher did not pick and choose the participants but simply asked every person which participated in the shark dive if they would want to be part of her research.

Another limitation is that it is difficult to determine whether participants are giving socially and politically correct answers or if they truly gained positive attitudes towards pro-environmental and pro-conservation efforts (Orams, 1996). The ability to generalize the study's findings to fit within the wildlife Ecotourism industry, or more specifically, the global shark Ecotourism industry, is limited due to the small sampling size and the specific case study. Shark diving tourism is a global industry and is available in many other geographical locations, and due to the finite amount of participants being interviewed, the sample cannot be fully representative of shark diving tourism participants, given that not all viewpoints will be accounted for. The study's focus was solely on the affective and cognitive domains of the visitors and did not explore the behavioral changes or actions that tourists took after the participation in shark diving tourism, as these actions would have taken place outside the scope of the research area. This creates a limitation because it does not further study the effects that the experiences of shark diving had on the actions of the tourists who participated. The interview questions are designed to know if the participants learn something about pro-conservation efforts and if they gain new knowledge on the environment and the species, but

it does not check with these participants to see if they actually use this knowledge to bring awareness to others. These limitations were mostly due to the time and resource constraints of the researcher.

### **Suggestions for further research**

For future research, it would be important to study other areas within the Caribbean and globally to make links and connections to the outcomes of this studies. Currently, there is very little research on shark diving from the perspectives of the tourist, so further research in this area would benefit both the reliability and validity of this study as well as being insightful for research in this field. A suggestion for further research in this area would be to try and study different shark diving companies in different countries to see if culture plays an important impact on the experiences of participants in the shark dive.

The study's focus was solely on the affective and cognitive domains of the visitors, and did not explore the behavioral changes or actions that tourists took after the participation in shark diving tourism, as these actions would have taken place outside the scope of the research area. In future research this could be an interesting topic to review, following through with interviews and conducting research to see if participants actually bring awareness back home or become more involved in pro-conservation efforts.

This study researched the environmental interpretation programs presented in free-choice learning environments of shark diving Ecotourism activities in Sint Maarten, Antilles, from the perspectives of tourists. To add to this and enrich the study's findings, future research in this area could explore the perspectives of individuals in the industry, in order to understand the planning and thought behind the development of environmental interpretation programs. Combining both perspectives of the participants and industry professionals could

help with the improvement of environmental education programs and provide a bridge between those with little knowledge of sharks and those who are experts on the topic.

This study was based on a qualitative research approach in order to understand the Perspectives, motivations and the experiences that participants had with shark diving activities in Sint Maarten. Future research could add to this by developing a quantitative approach to this research. Close-ended questionnaires or surveys are forms of quantitative research that evaluate participants' knowledge and attitudes towards wildlife both before and after Ecotourism experiences (Ballantyne, 2011). These quantitative approaches allow for researchers to make clear comparisons on the environmental and conservation knowledge participants possessed before and after their experience, thus measuring the effectiveness of environmental interpretation programs and their ability to facilitate a free-choice learning environment amongst participants.

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## **Appendix A: Interview Guide**

Please see below for a list of questions that will guide the semi-structured interviews with shark tourism participants:

Participant's name:

Participant's email:

Participant's country of origin:

Name of the Shark Tourism Operator that hosted the experience:

Date of participation in the shark tourism activity:

Interview Date:

Age:

Gender:

### Interview Questions:

1. How did you learn about the shark diving activities in Saint Martin?
2. Have you been on a shark dive prior to this one?
3. How did you learn about the shark diving tour operator you chose?
4. What were your expectations for this experience?
5. What motivated you to take part in shark diving in Saint Martin?
6. Did you have knowledge about sharks or diving before participating in this activity?
7. Prior to your participation, did you have any concerns with engaging in activities that would bring you in close vicinity with sharks?
8. What kinds of information did you receive from your tour guide regarding safety, the species, conservation and the environment?

9. Do you feel that your tour guide provided an accurate depiction of the natural environment and species you encountered?
10. Were you familiar with the threats facing shark species prior to your diving experience? After?
11. What did you enjoy most about your experience?
12. What did you enjoy least about your experience?
13. Would and have you recommended shark tourism activities to others?
14. Would you participate in shark-based tourism again? Why or why not?
15. If you could change something about the experience that would make it a better learning experience, what would it be?

## **Apendix B: Transcripts**

Please see below the transcribed interviews in order of date.

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**Date: 15 March 2017**

Interviewer: Nina Bijnsdorp

Interviewee 1: Jake Wikstrom, United States, 24, Male

Interviewee 2: Wylie Wikstrom, United States, 29, Male

Interviewee 3: James Wikstrom, United States, 29, Male

### Interview:

Interviewer: How did you learn about the shark diving activities in Saint Martin?

Interviewee 1: My dad Bought us this shark dive

Interviewee 2: From my Father-in-law

Interviewee 3: From my dad

Interviewer: Have you been on a shark dive prior to this one?

Interviewee 1: No

Interviewee 2: No

Interviewee 3: Nope.

Interviewer: How did you learn about the shark diving tour operator you chose?

Interviewee 1: My dad bought us the shark dive for Christmas so now we had to do it

Interviewee 2: My father-in-law chose it

Interviewee 3: My dad bought it

Interviewer: What were your expectations for this experience?

Interviewee 1: To be scared shitless pretty much

Interviewee 2: Yeah I guess same, to be scared, didn't really know what to expect

Interviewee 3: Yeah I didn't know what to expect either, no expectations

Interviewer: What motivated you to take part in shark diving in Saint Martin?

Interviewee 1: My dad bought us a shark dive for Christmas and I didn't want to be a wimp

Interviewee 2: My father in law got it for me, but I would have wanted to do it anyway.

Interviewee 3: Yeah I mean it is something that I would want to do anyway but we got is as a gift.

Interviewer: Did you have knowledge about sharks or diving before participating in this activity?

Interviewee 1: Not really, just from like shark week and jaws and stuff like that but not really no

Interviewee 2: Yeah I have limited knowledge as well, I mean, maybe learning from them from some nature TV shows, or shark week too

Interviewee 3: Knowledge was limited, but I live in California now so pretty much you just hear stories of...that somebody got bit on that beach or whatever, so it's kind of like more fear based than anything else I think

Interviewer: Prior to your participation, did you have any concerns with engaging in activities that would bring you in close vicinity with sharks?

Interviewee 1: I guess yea, I'm super afraid of sharks, it's kind of like one of my biggest fears, I conquered a fear today, I was giggly when I got out of the water so that was awesome yea

Interviewee 2: Yeah I was definitely, I think it's like what you were saying before, being on the surface, the thing was getting under water. Yeah I guess I felt like there was some risk, I don't know what it was but yea



Interviewee 3: Yeah I felt like if there was a risk it was just going to be you would get bit and you would have to go to the hospital, but I didn't think there was going to be anything more than just a bad bite.

Interviewer: What kinds of information did you receive from your tour guide regarding safety, the species, conservation and the environment?

Interviewee 1: So like before we went out, they were saying you know, don't stick your hand in front of the shark, yea don't wave your hands around, uh kind of just the whole procedure, to stay at the bottom and stuff like that. Uh and afterwards they told us all about, uh types of species of sharks, and um how many are killed each year, and how many actual shark attacks are a year. Compared to deaths of other sorts, so it just really helps. It's s really negligible even so it's kind of cool to learn all that I guess, because more people die from vending machines falling on them then shark attacks so that's kind of interesting.

Interviewee 2: Yeah in the beginning what he explained is what does provoke sharks, anything like stress in the fish in the area or something just gets in front of their face, so just keep your hands out of the path of their mouths and you'll probably be fine, kind of understanding what motivates them, and obviously for me I'd use a little bit. There was good information at the end. Honestly my fear of sharks today has like I don't know, it's hard to quantify but it's gone down significantly.

Interviewee 3: Yeah I mean they accurately told you what we were told (his friends) but um I just ...also it was interested what they said, we learned afterwards that reef sharks are in the top 20 most dangerous sharks towards humans and I didn't know that beforehand so that was

something I was like what? It made it real and I understood what happened. When we were down there they looked just like dogs, sort of playing with the dive instructor, um so yeah.

Interviewer: Do you feel that your tour guide provided an accurate depiction of the natural environment and species you encountered?

Interviewee 1: Yes.

Interviewee 2: Yea I do.

Interviewee 3: yea

Interviewer: Were you familiar with the threats facing shark species prior to your diving experience? After?

Interviewee 1: I guess I didn't know really the magnitude of it and like they had they said 100 million shark killed or some crazy number like that are killed each year, and that was kind of surprising to me and I didn't really know that there are a lot more endangered and stuff like that. I guess I kind of hear that, that a lot of sharks are being killed for their fins and you know stuff like that. It's like I didn't know the magnitude.

Interviewee 2: Same, I definitely knew there was a problem, but its something you don't hear or think about too much but uh honestly after the experience today it means a little something

more, some sort of relationship I have with the sharks and you can just quit being afraid of them

Interviewee 3: Yeah I didn't know how bad it was, we learned that within 50 years they could be extinct, or the species could be extinct, didn't know that...umm and yeah you always hear about stuff like whales or dolphins being killed or over fished um but you don't really hear about it as much with the sharks, probably because they're not as popularly sympathetic. And I've heard about by-catch with dolphins but I haven't heard that with sharks probably because sharks aren't as sympathetic of characters in the popular opinion

Interviewer: What did you enjoy most about your experience?

Interviewee 1: I just, conquering my fear, that was like, I mean I was before this really really scared of sharks and at first I was super uneasy especially when you know the big ones came along and I could fit my head in there, it was like OH god but no afterwards it was just great, just the whole experience was awesome.

Interviewee 2: Uh seeing Jeff play with the shark like a Labrador puppy at the bottom was just kind of...yeah that was...it totally changed my perception

Interviewee 3: Yeah seeing him play with the sharks was really cool and that um really changed my perception, if he had been kind of hesitant to touch them then I might have still been a little apprehensive about it but he was just rubbing their noses and stuff. So yeah it made me think it was more safe, I understand it's still dangerous but it's safer than I thought. We also went on two dives today, the second one was a shark dive, the first one we went into

a wreck and there was a shark that appeared, I little bit of a smaller one um so our first exposure to sharks today or ever I guess was on that first dive which was not an intentional shark dive. Which was cool and it swam out of nowhere. It was inquisitive and it got close to us and it was the first time it came within a foot of me so um after that experience I was more relaxed going on the actual shark dive.

Interviewer: What did you enjoy least about your experience?

Interviewee 1: Nothing

Interviewee 2: Nothing

Interviewee 3: Nothing

Interviewer: Would and have you recommended shark tourism activities to others?

Interviewee 1: Yes

Interviewee 2: Yes

Interviewee 3: Yes

Interviewer: Would you participate in shark-based tourism again? Why or why not?

Interviewee 1: Yes

Interviewee 2: Yes

Interviewee 3: Yes

Interviewer: If you could change something about the experience that would make it a better learning experience, what would it be?

Interviewee 1: For me a chainmail arm so I could play around with them, no I don't know I think it would be cool to learn a little more about each species you know on the way out just a little more about you know which ones are specifically endangered or threatened.

Interviewee 2: I think like a take home pamphlet for the road, like you know my interest is spiked at this moment and now I am curious, like yeah I'll probably go google stuff when I get home but if I just had some literature. maybe even where to donate. That would be kind of cool

Interviewee 3: Maybe something more about the conservation efforts. Like we heard it's you know.. they're getting killed off and it's bad and don't eat shark fin soup but other than that it's not really like what do you do. Step one is education and so forth.

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**Date: 23 March 2017**

Interviewer: Nina Bijnsdorp

Interviewee 4: Leah Mirra, Sint Maarten, 39, Female

Interviewee 5: Suzanne Roth, United States, 47, Female

Interview:

Interviewer: How did you learn about the shark diving activities in Saint Martin?

Interviewee 4: From the scuba shop

Interviewee 5: From the scuba shop

Interviewer: Have you been on a shark dive prior to this one?

Interviewee 4: No

Interviewee 5: No

Interviewer: How did you learn about the shark diving tour operator you chose?

Interviewee 4: We stumbled onto it, they found them first and I followed them (they = friends)

Interviewee 5: Stumbled onto them

Interviewer: What were your expectations for this experience?

Interviewee 4: To not get eaten

Interviewee 5: Come back home, that was our goal, to come back with all limbs.

Interviewer: What motivated you to take part in shark diving in Saint Martin?

Interviewee 4: We just dive as often as we can, I wanted to overcome a fear too, this was one of my biggest fears so yes.

Interviewee 5: Yeah, dive as often as we can, and also for me I wanted to overcome a fear, I was always scared of sharks. It's rewarding personally.

Interviewer: Did you have knowledge about sharks or diving before participating in this activity?

Interviewee 4: Yes, I think so a little bit. They talk about it here and they give you whatever information you are wanting to actually know about, without probing too much. When I was first here I wanted to know a little bit but don't tell me too much.

Interviewee 5: Yes, actually last week I was just explaining, there was somebody here from the Bahamas who was doing research on sharks and there was a little class that they did for kids, so I know a little bit.

Interviewer: Prior to your participation, did you have any concerns with engaging in activities that would bring you in close vicinity with sharks?

Interviewee 4: Sure, yes

Interviewee 5: Yes

Interviewer: What kinds of information did you receive from your tour guide regarding safety, the species, conservation and the environment?

Interviewee 4: I think Jeff gave us pretty good overview of how sharks tend to eat, their tendencies and so how to behave around them so he explained their nature um the environment in which they are, the types of sharks we were going to be diving with and um he gave a lot of information, he gave more information as far as what kind of species they were after the dive, so it was kind of. We got little bits and pieces, he definitely told us as far as statistics and stuff like that...what did he say...it's like you get more domestic animal accidents 40 to 1. It's very interesting the numbers.

Interviewee 5: Same answer as Leah Mirra

Interviewer: Do you feel that your tour guide provided an accurate depiction of the natural environment and species you encountered?

Interviewee 4: yes



Interviewee 5: Yes

Interviewer: Were you familiar with the threats facing shark species prior to your diving experience? After?

Interviewee 4: Before not so much, but yes after the dive. They were talking about how many sharks were killed and its shocking actually.

Interviewee 5: He just filled us in on a few of them. They are alarming actually. I wasn't familiar with them before.

Interviewer: What did you enjoy most about your experience?

Interviewee 4: For me it was just how absolutely magnificent they look up front, they're not as scary as you would think, you see their eyes roll around, when they were getting pet and they...you feel a little more connected to them instead of scared of them...for me.

Interviewee 5: For me, I've been diving now in this location for quite some time and they dive with us every dive they're there but they're far enough away, having them up close and personal makes it not so scary. So that was pretty cool. They are pretty cool. To watch jeff be able to rub on them and they close their eyes and it looks like you know they're like "rub me more, rub me more" that was pretty cool.

Interviewer: What did you enjoy least about your experience?

Interviewee 4: No the dive was perfect.

Interviewee 5: The dive was good, somebody got sick and somebody got hurt but other than that it was great.

Interviewer: Would and have you recommended shark tourism activities to others?

Interviewee 4: Absolutely! I would do it again. Its very friendly for the tourists and its also very friendly for the sharks as well.

Interviewee 5: YES!

Interviewer: Would you participate in shark-based tourism again? Why or why not?

Interviewee 4: We would!

Interviewee 5: Yes of course!

Interviewer: If you could change something about the experience that would make it a better learning experience, what would it be?

Interviewee 4: I guess, well for me because I've never done it before I think it was a great experience, I don't have a lot to reference to make it any better, I think it was good.

Interviewee 5: I wouldn't change anything. I think it was all great.

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**Date: 4 April 2017**

Interviewer: Nina Bijnsdorp

Interviewee 6: Michelle Kish, United States, 42, Female

Interview:

Interviewer: So how did you learn about the shark diving activities here Sint Maarten?

Interviewee 6: the internet. I was looking for a dive shop to do. I didn't want to do it through the ship. So when I looked I looked I found them and they had good ratings and I saw their page that the shark that was one of the things when I first contact them it wasn't available. But we got it. so I was psyched

Interviewee 6: I did a shark cage thing it wasn't a dive so much it was going to be a snorkel but we had like three to five foot seas. We didn't do anything but hold our breath. It was in Hawaii like Galapagos sharks. it was cool but this was better.

Interviewer: So how did you learn about the shark dive operator so you said you found it online?

Interviewee 6: Yeah just from an online just when I was looking for a dive shop and then I found that out also. So yeah.

Interviewer: What were your expectations for this experience.

Interviewee 6: I guess you know from the pictures it looks like they got pretty close but it certainly met or exceeded expectations trying to think of like. I guess I also understand that they can't control because they are not chumming which is good. They can't control what does show up. So I wasn't I wasn't sure if we'd get a light day or an awesome day. And I think I probably expected to see at least a couple of them but I think we got better than what I expected. That's good.

Interviewer: And what motivated you to do the shark dive today.

Interviewee 6: Well there were divers so we love. I mean it's only so funny like to even see a shark on a dive like we saw a shark. This was just like. wow yeah mother load.

I mean I love sharks and I love being able to get interact with any kind of creature animal sea or otherwise but without feeling like I'm messing with it. And that's kind of the thing that worries me about some of the ones in the Bahamas I don't know. I've heard mixed reviews.

Do I want to do that like, the shark rodeo or is that so unnatural to what they would normally be doing? You know I wasn't sure about that so that this would be better.

I liked that they talked about the conservation and on the Web site. So I was like I felt better about it.

Interviewer: So did you know anything about sharks before you went on this dive?

Interviewee 6: Now we have, we were both instructors and so a lot of our good friends are or have been in the industry for a long time and have had big pushes about shark conservation. So I mean even if I hadn't learned it from other things our friends are always you know one of my good friends is very involved in Cayman Islands tourism and so there he was down a little Cayman for years and they just they just pushed all that good stuff. He fills me with information on all kinds of different species and things all the time so.

Interviewer: Did you have any concerns about the sharks. I think you were you scared a little bit.

Interviewee 6: No I wasn't. I was a little bit. They're so close they got so close and they just kind of whipping you with their tail sometimes so you were like don't dislodge my mask. OK. I it's like I was just having trouble with my mask here anyways. And no not with the sharks actually. It was a great.

Interviewer: What kind of formation did you get regarding safety, species, conservation, these kind of things.

Interviewee 6: OH um what was his name. He was awesome. He gave us a really good briefing beforehand about what were and experience and a little bit about how sharks behave but then at the end he filled us in with the stuff that I really I hate to hear but I know about the shark finning and stuff. I was kind of trying to ignore it because I was like I don't want I can't like it he'll keep me up at night if I think about what they do. But he did it he did a good job. He told us all about it. I hope that there were people that maybe didn't know as much that you know.

Interviewer: So they also explain how chumming is bad?

Interviewee: I don't know if he talks about chumming. Like I said I tuned out in a few minutes just because I was trying to avoid thinking about the shark finning but I don't really I don't recall if he talked about chumming this time.

Interviewer: Did you feel that your tour guide did you have enough information?

Interviewee 6: Oh Yeah. He was great you know.

Interviewer: Were you familiar with threats facing sharks before.

Interviewee 6: Yeah yeah yeah.

Interviewer: What you most enjoy the experience.

Interviewee: I think how close they got and did it on their own accord and you know they were there when we first dropped in and they came up to us like hey whats up.

So we were just they're not messing with anything and they were interacting with us as if that was what they wanted to do. It didn't feel like I was forcing it which was cool.

Interviewer: Was there anything that you didn't enjoy about the experience.

Interviewee: I was a little cold. I was like I got chilled after the first dive and then once I got my body shaken like that when I got under and you aren't moving either you're just like body is trembling. I'm like I'm trying. I think he got scared I was like I'm really not scared I'm just

cold. sometimes you just once that chill hits you. Your body is shot and you're like I can't do it.

Interviewer: Would you recommend these activities to anyone else?

Interviewee 6: Absolutely, Yeah definitely. Yeah and like I said, I do love, and I love that you are doing this, I love They're educating while they're doing it. I mean that's what we have to do. Yeah.

Interviewer: That's what I'm trying to get out is if people are really learning something about sharks.

Interviewee 6: Everybody seemed to be paying attention and I don't know if they already knew as well if people who are in the scuba industry or even industry just just are avid divers maybe we already haven't an innate care for what we see. Maybe we already know more than the average person. But I mean can they do this on snorkelling excursions?

Can they do this on something else just to like you know some more general population that might not understand. You know what I mean we may know more than most people because we're divers.

Interviewer: And would you change something about the experience like would you say there's something that they could add to make it more of a learning experience or that make it more understandable for people who haven't done dives before?

Interviewee 6: I mean are we good. No I think it was perfect because I think it's like at the end he said that they do the shark certification and that the money goes to the conservation because I think that you don't want to. You don't want to jam it down people's throats too much if people are like oh I get it you know maybe give them a chance to digest that and then think about it and do research later I guess unless they wanted to make it blatantly advertise it as this is a shark education experience as a tourist saying I think they did a great job of mixing it. So I mean if I would sign up for the both but if they but if they offered like a heavier education I feel like they would just need to tell people that that's also what it is. So people wouldn't come and go I didn't need a lecture you know what I mean because I think you made it pretty natural.

Interviewer: Ok cool. Perfect. That was all I really needed.

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**Date: 4 April 2017**

Interviewer: Nina Bijnsdorp

Interviewee 7: Steven Rivera, United States, 41, Male

Interview:

Interviewer: So what was your motivation to go on a shark dive today?

Interviewee 7: We were here previously, January 26 on the cruise boat and looked this place up and found they had a shark dive and wanted to do it again, it was fun last time.



Interviewer: OK. And did you get enough information about the shark conservation, about the safety, and about the species themselves.

Interviewee 7: Yes, Jeff was very informative at the end of the dive.

Yeah he told us about it and It was a paddy certification I think. yeah very informative, I don't know if we had time to look for more information about it but.

Interviewer: Did you Know about the threats facing shark species before going on the dive?

Interviewee 7: I'm a big fan of shark week. So I watch it every year, and they usually have one or two shows about that, about the sharks and their safety.

Interviewer: How did you find out about this specific shark dive: We were here last time. We looked it up. We've been interested in other shark dives because we had a chance to dive with lemon sharks before. they were really big fish. this one. I was very nervous the first time. this time I was a lot more at ease. they were coming at you from all directions but it was very nice.

Interviewer: Would you recommend the dives to anyone else?

Interviewee 7: Oh definitely, we would probably do this again, we've enjoyed this cruise boat so we will keep coming to this company.

Interviewer: Before going on the dive were you concerned about your safety?

Interviewee 7: A little bit but we did it last time and it was more comfortable this time.

Interviewer: what was your favorite thing about the shark dive?

Interviewee 7: Um, the first dive was fun, there were large lobsters, but the sharks were the highlights.

Interviewer: Is there anything you would improve or recommend?

Interviewee 7: no i think they did a perfect job.

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**Date: 5 April 2017**

Interviewer: Nina Bijnsdorp

Interviewee 8: Blaise Ausmus, United States, 16, Male

Interviewee 9: Leopold Ausmus, United States, 12, Male

Interviewee 10: Ricci Ausmus, United States, 58, Male

Interview:

Interviewer: So how did you learn about the shark diving here in Sint Maarten

Interviewee 8: we found it through the Internet.

Interviewer: OK. So same for all you guys?

Interviewee 8, 9, 10: Yes.

Interviewer: Have you ever been on the shark dive prior to this one?

Interviewee 8: Oh we've been on dives where there were sharks but I wouldn't say it was particularly just for sharks.

Interviewee 9: Yeah, What he said

Interviewee 10: No first time.

Interviewer: And how did you learn about the shark diving operator the ocean's explorers.

Interviewee 8, 9, 10 Through the internet.

Interviewer: And what were your expectations for this experience?

Interviewee 8: Oh we saw a few videos before going into it and it was pretty much as I expected it you sit down and the sharks come. they Come around and you see the sharks.

Interviewee 9: I didn't know were going to get that close. I thought we wouldn't touch the shark. I thought you'd Just see the shark and they'd throw food and you'd see them eat it. and I didn't know we'd lay down. I didn't know anything.

Interviewee 10: We were advised not to reach up to touch, to just be observers. and yet the sharks didn't follow the same rules. We got smacked by the tail a few times which was great.

Interviewer: I've heard that a lot of people say they like to smack people with tails. That's kind of funny actually. Maybe they're just trying to annoy you guys a little bit to see what happens. What motivated you take the shark in Sint Maarten?

Interviewee 8: I've always had a fascination for sharks and scuba diving. I've always loved it. so I put the two together

Interviewee 9: Sharks are probably like Up there and I also just wanted to tell my friends and have a story to tell, and I also love scuba diving.

Interviewee 10: I saw Jaws when I was Leo's age and I didn't believe a bit of it. I grew up far away from an ocean and couldn't wait to get to one. And once, once we started scuba diving. It's always been just a pleasure to be in the ocean and not feel afraid to be there

Interviewer: Jaws is also funny, I heard from someone else they're scared of sharks because of Jaws but I always thought it was really funny those movies. So did you have knowledge about sharks before going on the dive?

Interviewee 8: Oh a little bit yeah like I knew I knew that sharks are going to become endangered they are hunted a lot and they are also used for medical research.

Interviewee 9: Yeah I didn't know. I do watch some videos about show. I try. Yeah. We.

Interviewee 10: I think the worst news that we've heard is that shark soup is so prevalent in parts of the world and that we lose a lot of sharks just for that purpose.

Interviewer: So that's a problem because that's something that we can't do a lot about. we can try and advocate for it because a lot of tourists know about the problems with shark finning. It's not tourists that are eating them. It's people who live in those countries that are eating them and they don't care. So that's that's a problem. so it's changing The culture and that's really hard to do. So prior to your participation did you have any concerns in engaging with sharks?

Interviewee 8: NO I thought it was going to be fine, because we have dived with sharks before. But even when we have dived with sharks and the sharks is feared it's like I don't feel threatened or anything like that.

Interviewee 9: I felt safe. But there are some points were I was scared. they told us not to Cut off a shark or else they might bite us and I was about to do that and that's when my heart dropped but otherwise I felt safe. that was my only concern.

Interviewee 10: This is play ground rules apply. your Courteous, you show space. you don't try to cut in front of them. And they were not trying to do that. they were very interested in us. The pattern has been developed where when they see us they come to and wonder about us to see if they are going to receive anything or if we're going to disturb something that they might be interested in. Our experiences prior to this dive have been just that that. The Sharks trail us to see is going to cause a fish to come out of the coral. that they're interested in it but they're not interested in us.

Interviewer: So what information did you receive from your tour guide regarding the safety of the species, about Conservation, these kind of things.

Interviewee 8: So safety. Yes. Going into the dive you know they told us what not to do around the sharks because sharks are sharks and they can bite. Yeah it was really clear on what to do and what not to do. There was also some background information that we got on the boat We talked about like how shark fin soup and all that and how sharks are being killed. we talked about what kind of sharks we saw and where they are on the most aggressive list and all that.

Interviewee 9: Yeah we just learned about the shark, about the background information.

Interviewee 10: If I recall the number they've not evolved beyond what they have been for the last 200 million years. And they're so efficient at what they do that there's been no need for adaptation through generations. From the fossil records A shark is a shark.

Interviewer: The only thing is that they don't reproduce quick enough. That's the only problem. And it takes them a long time to get mature. So that's why the shark finning is such a problem because the shark finning happens when they're not mature yet. And so that's why a lot of sharks can't even reproduce before they get killed. So they're just being killed off and then they don't have any time to even get babies and make more. Yeah that's why that's a problem. So do you feel that your tour guide provided you an accurate depiction of the natural environment and the species.

Interviewee 8,9: Yeah.

Interviewee 10: Yeah. It brought about an awareness of how how to behave when a shark is near and what their interest is. and we saw our instructor was able to call the sharks by making kind of a sharp noise in the water which would get their attention. So and if that sound is given off and then movement if we're trashing around in the water we're inviting the fish to be more interested in us than they would normally be. So learning how to behave as a human not just by not promoting shark skin or shark anything and then to be in their own environment and see again how to not provoke respect for theirs space and not be there as an invader.

Interviewee: I think you guys kind of answer this with the last question but were you familiar with the threats facing sharks before going on this dive?

Interviewee 8: Yes, it was pretty obvious that the sharks were in danger.

Interviewee 9: Yeah I didn't know it's going to be this bad like how I thought it was going to be a few like 10.000 a year and not millions.

Interviewee 10. That doesn't even compare. World War 2 doesn't even compare to what we do to the sharks.

Interviewer: That's really bad. What did you most enjoy about the experience.

Interviewee 8: Oh be really up close to the sharks. I don't think you can get any closer to a shark than you can get on this dive.

Interviewee 9: getting hit in the face by the shark that was probably my favorite because. The only shark I really touched was a nursing shark. and I was like, I didn't feel as cool I guess because they don't have teeth. That doesn't mean I was disappointed. No I was just stunned.

Interviewee 10: This is our seventh year in the Caribbean. And we haven't visited the same place twice, There's no reason to. there's plenty more adventurers for us here. so this is the new chapter for us because we've all felt this, we're drawn to animals. Land animals, we've chased lizards, we've watched the birds. but to be in the ocean it's out of our element and in their element. we were guests.

Interviewer: That's nice. Did you enjoy anything least about the experience and something that you didn't enjoy?

Interviewee 8 & 9: No.

Interviewee 10: Even the bumpy boat ride was worth it. It was worth it just to get to where we got.

Interviewer: like two weeks ago it was horrible I think three weeks you couldn't go on dives for two weeks because it was so bad outside that you can see under the water anymore. It looks like nice weather but you never know the ocean. So i have 3 more questions. so would you recommend the shark dive to anyone else.

Interviewee 8: Yeah I would.



Interviewee 9: I would Recommend it to people who don't have a phobia of sharks.

Interviewer: Well wouldn't you recommend it to someone who does have a phobia of sharks to try to get over it as well.

Interviewee 9: Actually. That would make more sense, then they could understand there is no threat.

Interviewee 10: Yeah. I'm. Thinking the same thread that you are there should be. We should recommend this to anyone who's interest to get over that fear if they have a fear.

Interviewer: Would you participate in shark diving tourism

again? Interviewee 8: Yeah definitely.

Interviewee 9: I wouldn't say tours I'd probably want to work.

Interviewee 10: Yes.

Interviewer: And if you could change something about the experience that would make it a better learning experience for you guys. What would you do?

Interviewee 8: I don't think there's much you can do. i mean from. I mean I learned a lot from this dive and its yeah i don't think there's much you can change.

Interviewee 9: Everything. Like most things were on spot. but I'd like to know more about the shark then like the slaying but that doesn't mean they should just take out the slaying but I think we should even it out.

Interviewee 10: Yeah I think this has our curiosity peaked. now there's maybe a little more web searches we can do and see what's happening around the globe. we're seeing one ocean but there's a lot of territory. this is a water planet and the Sharks have this huge domain. and yet they're them out of the ocean. having that awareness and passing it on is important. It's not that we can all go out there and do something about it, but being aware and making donations can help those who are able to. and I think that's what we can do as advocates.

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**Date: 5 April 2017**

Interviewer: Nina Bijnsdorp

Interviewee 11: Tania Altmann Strajenski, Brazil, 43, Female

Interviewee 12: Eros Roberto Da Sily, Brazil, 42, Male

Interview:

Interviewer: So how did you learn about the shark diving activities here in Sint Maarten?

Interviewee 11: He discovered.

Interviewee 12: Si, Yes I did.

Interviewee 11: From our dive operator in Brazil

Interviewer: And have you have you been on a shark dive before this?

Interviewee 11: No.

Interviewee 12: No.

Interviewer: OK. And how did you learn about this specific tour operator.

Interviewee 11: Same place.

Interviewee 12: yes same place.

Interviewer: What were your expectations for the experience?

Interviewee 11 & 12: We were a bit scared at first, but now we are just in love with the sharks.

Interviewer: And what motivated you to come on a shark dive?

Interviewee 11 & 12: To see if they're (sharks) really scary or not. Interviewer.

Interviewer: And did you have knowledge about sharks before going on this dive?

Interviewee 11: a bit

Interviewee 12: yes

Interviewer: Prior to that participation were you concerned about your safety when you were going to dive.

Interviewee 11: Not really. he was a bit

Interviewee 12: i was a bit but not much. before.

Interviewer: What kind of information did you receive regarding the safety, the environment and the conservation of the sharks.

Interviewee 11: I mean that they are not aggressive. Yeah, and we just have to behave and be safe and not to move a lot. If they stay in the ground. Nice and calm.

Interviewee 12: Yeah exactly.

Interviewer: And out about the conservation?

Interviewee 11: Yeah they told us in the end that we are just killing too much and nobody is dying. We don't have to kill them for as much as they kill us.

Interviewer: Did your tour guide provide an accurate depiction of the sharks and of the environment that you were in so that they can tell you enough about what you are seeing.

Interviewee 11 & 12: No.

Interviewer: OK. Were you familiar with the threats facing sharks that they're going to be extinct before you went on the site.

Interviewee 11 & 12: No.

Interviewer: And afterwards?

Interviewee 11 & 12: Yeah.

Interviewer: What did you enjoy the most about the experience?

Interviewee 11: To see them so close and so calm. They are so beautiful.

Interviewee 12: To be close was the best part.

Interviewer: What did you enjoy the least experience?

Interviewee 11 & 12: nothing.

Interviewer: Would you recommend the shark diving for anyone else. Interviewee 11: Yeah. Absolutely.

Interviewee 12: yea.

Interviewer: Would you participate again in shark diving tours and if you have the chance.

Interviewee 11 & 12: Yeah. Yeah.

Interviewer: And if you can change something about the experience that would make it more of a learning experience for you. What would you say. That they could add to it?

Interviewee 12: No, it was fine, everything was good.

Interviewee 11: Was pretty good. Yeah.

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**Date: 7 April 2017**

Interviewer: Nina Bijnsdorp

Interviewee 13: Paul Leemay, Canada, 56, Male

Interviewee 14: Lucie Hamelin, Canada, 58, Female

Interviewee 15: Doug Neilson, Canada, 57, Male

Interview:

Interviewer: So how did you learn about the shark dive here in Sint Maarten

Interviewee 13: We learned when we arrived because we didn't know there was a specific shark dive. So when we got to know about it we were interested in going. OK

Interviewer: Ok so Same for you of course.

Interviewee 14: Yes.

Interviewer: And you?

Interviewee 15: Just from mentioning it, I was just asking for sloths and they said that friday afternoon is the shark dive and I hadn't thought to do a shark dive.

Interviewer: But then you were interested afterwards?

Interviewee 15: Yes yes.

Interviewer: And Have you been on a shark dive prior to this one?

Interviewee 13: I've been diving with the sharks but not specifically called. I wouldn't call it I guess a shark dive. I dove in Thailand and Indonesia. And so there were a lot of sharks in these waters.

Interviewee 14: My first time I see so much sharks at the same time before I have seen one nurse shark at the bottom just a little one in bonaire.

Interviewer: So this is your first real shark dive?

Interviewee 14: Yes

Interviewee 15: My first real shark but only ever seen two sharks before in 60 dives or around that. There aren't that many around.

Interviewer: What were your expectations for this experience?

Interviewee 13: I didn't have much expectations. I guess I was expecting to see sharks around me. And so it was a worthwhile

Interviewee 14: first on Tuesday. I was quite afraid and I was not sure if I would be able to do it. because I'm afraid they'd bite. I know they're not dangerous but they look like they're dangerous. So but on Tuesday on the dive there was three shark just turning around and I said, OK. no danger. So it allows me to do the shark dive today, because I would have been too much afraid.

Interviewer: If you did not do that before. OK that's good. What were your expectations for this dive.

Interviewee 15: Just to see some sharks, I thought I would see them in the distance and they would swim by.

Interviewer: So you were surprised when they got so close?



Interviewee 15: I had no idea it would be anything like that. to have them around your face. It was absolutely mind blowing. It's just spectacular.

Interviewer: OK that's good. So what motivated you to come on the shark dive. Why did you want to go shark dive?

Interviewee 13: Well I like sharks. So I Guess that's for me, I've always like sharks and I'm not afraid of sharks compared to people just because... we're... I am aware that these are endangered species. So that they need to be protected. So I think that's important for divers. So for as many people to dive with sharks, that it's a good way to protect them because the people will realize, hey these are not dangerous animals Yeah. So I like sharks. That's basically my motivation.

Interviewee 14: My Motivation is I love it!, I want to be with them, but it was curiosity. And explore.

Interviewee 13: An Achievement.

Interviewee 14: Yes. My sons will think I'm very brave, very courageous, and they always said to me, be cautious, don't do nothing dangerous!

Interviewer: Show them the pictures and maybe take them next time too! what motivated you to go on the shark dive?

Interviewee 15: I think They are spectacular creatures. And I've only ever seen two and I wanted to see some more.

Interviewer: Yeah that's a good motivation. Did you have knowledge about sharks before going on this dive?

Interviewee 13: Yes yes. Because as I told you I was with sharks before and their behavior, I guess I'm interested in their behavior to know how to react. Because I remember one day I went up to see the Greenland sharks, and the Greenland shark are in very very deep water for reasons scientists can't explain and I guess they go up the coast of Canada so they are reachable for divers. But we got to know the behaviour because I think they are quite unpredictable. So that's the...So each time there is something on sharks I'm interested. I'm interested in...Studying them and that is as I told you, you were not aware of divers, alert for them. So we have issues with that at some time in the magazines or articles also, I guess on sharks. And even even on their Web site there was a question. So they will show the pictures of sharks. And then you need to identify those, So you got a whole bunch of sharks in this case. So the White tip, black tip that's pretty easy. Bush shark also with the white shark but some others like i guess is difficult. are pretty difficult. And so when you get the.. SO when you know that when you go into the water you see the shark, ah ok these are some these type of sharks. So it's a general interest.

Interviewer: So did you have knowledge on sharks before going on this dive?

Interviewee 14: No, I prefer manta ray, they have no teeth, I prefer little fish, colorful little fish but I think it is an interesting creature.

Interviewee 15: Yes, They're fascinating creatures.

Interviewer: Yeah they are. So did you have any concerns about getting hurt during this trip?

Interviewee 13: Absolutely not. I guess my fear was really low, especially with reef sharks, reef sharks are really not dangerous, so they are not like the big ones so I felt comfortable.

Interviewee 14: The briefing was good and I was confident in Jeff's abilities, because I saw him talking and thought I'm fine, I'll go.

Interviewee 15: Well in the briefing when they told us not to hold our hands out I got increasingly nervous. but that just made it all the more of a good experience for me.

Interviewer: What kind of information did you receive from your tour guide regarding the safety, the conservation and about the sustainability of the program?

Interviewee 13: As she said (interviewee 14) I think jeff did an excellent job at explaining the dive, explaining what to expect. So I guess it was of no surprise. We did exactly what we were told we would be doing. so it was perfect.

Interviewee 14: the other dive master was good, They did a debriefing after, he told us about how 10 people are killed by sharks a year, and more sharks are killed by men. The balance is wrong. I think it was interesting to hear.

Interviewer: So what kind of information did you receive regarding safety, conservation, and information about the species?

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Interviewee 15: I knew all, i mean the shark finning and all that sort of stuff i've heard all about and it horrifies me.

Interviewer: So, did they talk more about the threats facing sharks or did they also talk about what kinds of sharks you saw and information about the shark ecology?

Interviewee 13: Everything, a little more detail on how they fit in with the reef and what they eat and how they eat. Whether they're nocturnal. I thought there would be more sharks. I thought that they came in from deeper water as dusk and dawn, but I'm not sure if that's the case. More detail in their lifestyles would have been nice.

Interviewer: OK good to know. Let's see. Were you familiar with the threats facing sharks?

Interviewee 15: One last comment, years and years and years ago when I started diving I got a book on shark attacks and I listed every known shark attack on a human, and then I went out to Australia and new Zealand and I was out and speaking to a surgeon who had been out in Vanu Atu for a couple of years, and he'd been out there six months or so and had compiled a library just at his direct personal experience of shark attack injuries. and it seems you've got to be quite a tourist before it makes any records of shark attacks. because the native fishermen who are spear fishing at night on the reef using some rebar and then put the fish bleeding on their waists on a bit of string, they're attacked on a weekly basis. I think there are a very many more shark attacks on people than us european tourists know.

Sharks scare the hell out of me though, and I've tried body surfing and when the visibility is low and you're in murky water and you know the sharks are in you get scared. but when you're underwater, clear water, you're on par with them and you're smarter.

Interviewer: Yeah it is always scarier on the surface where you can't see them.

Interviewer 13: I've heard that there are way more people killed by mosquitos. I've killed more mosquitos than i've killed sharks.

Interviewer: What was the thing you most enjoyed from the experience?

To see them so close, it was really the first time, they were really passing by within inches, so that was very very cool and very fun.

Interviewee 14: Same.

Interviewee 15: They didn't pass me by, they clobbered me sometimes, and clipped me in my head with their fins haha.

Is there anything you didn't like about the experience.

Interviewee 13: I enjoyed every minute of it

Interviewee 14: NO it was great.

Interviewee 15: No, wouldn't change it.

Interviewer: So you would recommend the shark diving experience to someone else?

Interviewee 13: It's really the key in Sint Maarten I would say. because the reef dive, the reef is not that great here, but for the shark dive it's really something.

Interviewee 14: Yes yes!

Interviewee 15: Yes! The wrecks as well were nice.

Interviewer: And would you participate in shark tourism again, would you go on a shark dive again?

Interviewee 14: Yes.

Interviewee 13: I wouldn't do a specific trip for it but if I go to a place and there are shark dives then definitely.

Interviewee 15: Yeah.

Interviewer: And if there's something that you would change about the experience that you have today to improve it as a learning experience what would you say they could change?

Interviewee 13: I thought it was good.

Interviewee 14: You know when we came to make reservations on Monday and the lady wasn't very well organized. we wanted to book for a few days and she said on Friday the second dive is a shark dive but she didn't explain, so I asked, Is it dangerous? And she said: "everything in life is dangerous". You can cross the street and get struck, but that doesn't make you feel better. But if Jeff would have been there and said, you know shark helps keep the reef clean and if you follow the rules there is no danger, so maybe more information before booking. Maybe like when we went to Hawaii, went on a manta ray dive, and we had that very very nice briefing, very interesting briefing, i think it was a 30 minute briefing about manta ray. because they have same problems like with sharks and their fins.

Interviewee 14: Well they called it the gall, So now they're starting cutting them off for no reason.

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**Date: 4 May 2017**

*Interviewer: Nina Bijnsdorp*

*Interviewee 16: Martin Van Noort, The Netherlands, 54, Male*

*Interviewee 17: Luc van Noort, The Netherlands, 16, Male*

*Interview:*

Interviewer: So have you been on a shark dive prior to this one?

Interviewee 16: No.

Interviewee 17: No.

Interviewer: OK. What were your expectations for the dive?

Interviewee 16: to see sharks.

Interviewee 17: uh yeah the same.

Interviewer: Did you have anything specific that you were hoping to see or that you were hoping to experience?

Interviewee 16: no not really, apart from seeing the sharks.

Interviewee 17: Yeah exactly.

Interviewer: What motivated you to take part in the shark dive in Sint Maarten?

Interviewee 16: Same answer as before, just wanted to see sharks. Because we we've been diving before in the Caribbean area. Seen a lot of reef, but never dived with sharks before. so this is an opportunity and that's why we took the opportunity.

Interviewee 17: Just wanted to see sharks yes.

Interviewer: Did You have knowledge about sharks before going on this dive?

Interviewee 17: No.



Interviewee 16: No not in particular. General knowledge about sharks. Knowing that they are or can be dangerous.

Interviewer: So prior to your participation did you have any concerns about engaging in an activity which would make you close to sharks, were you a little bit afraid were you worried?

Interviewee 16: I was a bit more nervous than for a regular dive.

Interviewee 17: Not per se, I thought if it's something people do it's probably not too dangerous.

Interviewee: So what kinds of information did you've receive before going on the dive, from your dive instructor.

Interviewee 17: stay calm.

Interviewee 16: Yeah he gave some information about what to do and especially about what not to do when you're in the water.

Interviewer: Anything specific that stuck to you that he was fairly certain that he told you you couldn't do?

Interviewee 16: Well you know the most important thing he said was keep your arms to yourself.

Interviewer: OK. Did they say anything about the environment or about the species before going on the dive?

Interviewee 17: No.

Interviewee 16: No not really I think.

Interviewer: did they give you information after the dive. Did they talk about the environment or about what's kind of sharks are there? If they're endangered?

Interviewee 16: Yeah after the dive he told us about. In general, about the situation that sharks are in that people are hunting them for their meat and for their fins especially. And that in 50 years there will be no sharks or even no fish left in the ocean.

Interviewee 17: Yeah we got more information after.

Interviewer: Did you feel that this guy gave you an accurate depiction of the environment and some of the sharks? did you think there was enough information?

Interviewee 16: Yes, I think so.

Interviewee 17: yeah.

Interviewer: OK. Were you familiar with the threats facing sharks before going on the dive, did you know that they were in danger before.

Interviewee 16: No actually no not really.

Interviewee 17: I read it once but it never really stuck to me. I don't know.

Interviewer: What did you enjoy most about the experience?

Interviewee 16: I enjoyed most. Diving with son and being so close to sharks.

Interviewee 17: So that was really impressive how they were so close to you. They hit us sometimes in the face.

Interviewer: Is there something that you enjoyed the least about the experience that could have been improved?

Interviewee 16: Not as far as the organization is concerned. For me it was my I was a bit nervous in the beginning so I had some trouble getting my. To regulate my breathing.

Interviewee 17: No not really, I loved it.

Interviewer: Would you recommend shark diving activities to other people.

Interviewee 16: Yes, sure.

Interviewee 17 Yeah.

Interviewer: Would you participate in shark based tourism again yourself.

Interviewer 17: Maybe not per se, it's something nice to see once but after that you've seen it already.

Interviewee 16: Maybe.

Interviewer: And is there something that you could change about the experience that would make it more of a learning experience. Would there be something that they could add?

Interviewee 16: I have think about it. No not really.

Interviewee 17: No not really.

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**Date: 4 May 2017**

Interviewer: Nina Bijnsdorp

Interviewee 18: James Jones, United States, 47, Male

Interviewee 19: Kent Ladymoon, United States, 52, Male

Interviewee 20: Susan Ladymoon, United States, 46, Female

Interviewee 21: Ronette Jones, United States, 45, Female

Interview:

Interviewer: So have you ever been on a shark dive prior to this on today?

Interviewees: Yes.

Interviewer: And what were your expectations for this experience here.

Interviewee 18: Just to see the sharks close up, watch their behaviors.

Interviewee 19: To see as many different varieties of sharks as I can, I hoped.

Interviewee 20: to feel comfortable around the sharks.

Interviewee 21: And to see again behavior, to see as many as possible.

Interviewer: how did you guys hear about a shark diving here on St. Martin? How did you find this place to do this place?

Interviewee 18: We did this dive Five years ago.

Interviewees: Same.

Interviewer: And what motivated you to take part in this dive again?

Interviewee 18: I just wanted another attempt.

Interviewee 19: We've done the shark once before and we found it enjoyable so we wanted to try it once more.

Interviewee 20: We have not dove a shark dive on this island but our friends have that we are here with and they recommended it.

Interviewee 21: We enjoyed it the last time it was great. And I had made a comment to them that Jeff does a good job of giving education in addition to you enjoying the dive.

Interviewer: And so that you have knowledge about the sharks and their endangerment before going on this dive?

Interviewee 18: Limited.

Interviewee 19: I do, from reading diving magazines and just general awareness.

Interviewee 20: Small amount

Interviewee 21: I knew it from reading different things.

Interviewer: And prior to your participation were you a little bit worried about the interaction you would have with the sharks coming so close to them.

Interviewee 18: No, not really, I wasn't nervous.

Interviewee 19: No. not at all.

Interviewee 20: Since I already have done a shark dive, I was comfortable. But knowing that we would be a little bit closer. I was actually pretty comfortable.

Interviewee 21: I was very comfortable.

Interviewer: And what kind of information did you get prior to going on your dive about the safety, about the environment, about the sharks.

Interviewee 18: Not that I didn't get any specific new information that I didn't know before. We've done this particular dive before, the pre dive and the after dive talk were the same. There was education and these kind of things.

Interviewee 19: I think we had an informative dive prep going into it, telling us how to act around them, how to keep our hands to ourselves.

Interviewee 20: Yeah I agree with that.

Interviewee 21: Yeah agreed.

Interviewer: Did you feel so then you feel that they gave you enough information and that it was an accurate description of the environment and the sharks that you were seeing.

Interviewee 18: yes.

Interviewee 19: yep.

Interviewer 20: yes.

Interviewee 21: yea.

Interviewer: And were you familiar with the threats facing sharks

Interviewee 18,20, 21: Yea.

Interviewee 19: I didn't know it was reef sharks so much, but I know there are bigger sharks in other parts of the world that are in danger.

Interviewer: What did you enjoy most about the experience?

Interviewee 18. The Close Encounters.

Interviewee 19: I actually didn't think I would like not chumming the water. but I like it not being chummed because it stayed Clear and I think we're going to get better Photographs and Videos from it.

Interviewee 20: I Got up close and personal with one. I'm very skeptical of sharks, each time I do one I get more comfortable.

Interviewee 19: Yeah I thought it was. I like the fact again, we've done one where they chum the water or used to big boxes before and I like this better because you saw you definitely saw more almost personality and interaction with the way, he you know like we all we all



came off of it saying he treats them like they're puppies you know from the standpoint of the way they are obviously comfortable and they come around which that to me was fascinating. I loved watching them.

Interviewee 20: Yeah it was good

Interviewer: Anything that you did not enjoy about the experience that you think that they could have maybe done better?

Interviewees: No, all good

Interviewer: So you would recommend this dive to other people?

Interviewees: Absolutely.

Interviewer: Would participate in another shark dive yourself as well?

Interviewees: Yes, absolutely.

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***Date: 14 June 2017***

*Interviewer: Nina Bijnsdorp*

*Interviewee 22: Connor Hogan, United States, 15, Male*

*Interviewee 23: Matt Hogan, United States, 55, Male*

*Interviewee 24: Mark Packer, United States, 48, Male*

*Interviewee 25: Kassie Hogan, United States, 18, Female*

*Interviewee 26: Mary Kay Hogan, United States, 46, Female*

Interview:

Interviewer: So how did you learn about the shark diving activities in Sint Maarten?

Interviewee 22: The internet.

Interviewee 23: And with this specific place just just drove by and stopped in.

Interviewee 24, 25 & 26: Internet.

Interviewer: And have you been in a short time prior to this?

Interviewee 22: I have Not.

Interviewee 23: No.

Interviewee 24: Yes.

Interviewee 25 & 26: Nope.

Interviewer: So what were your expectations for the experience?

Interviewee 22: I kind of thought the Sharks would be bigger. But I was pleased.

Interviewee 23: I expected them to be feeding sharks, which they did not, that was a pleasant surprise.

Interviewee 24: When I when I dove with the sharks in Tahiti there were about 100 sharks and we were more free to go everywhere. This one I kind of enjoyed more because we were stationary and we were really able to concentrate on the sharks. So I think I really like this one better.

Interviewee 25: I mean I didn't expect them to be as like active with you, like as inter active. But they really were they came like right up to you. But weren't really scary, more like playful.

Interviewee 26: I expected that you may not be able To see many at all.

Interviewee 24: really you were surprised we saw sharks?

Interviewee 26: Right. I thought it was more like a hit or miss.

Interviewer 24: Oh you thought it was more like a safari. Like a dolphin cruise out on the ocean where you may not see a dolphin.

Interviewer: So what motivated you to take part in the shark dive?

Interviewee 22: Just because it would be a different experience and things that seem a little riskier are kind of the essence of life.

Interviewer 23, 24,25,26: What he said! Ditto! \*laughs.

Interviewer 23: You know I think I've been diving for quite a few years and I have dived with sharks but this was going to be kind of an opportunity to focus on them on the dive.

But it was it was better, I sort of expected it to be like kind of touristy and hokey and just like feeding and it was a much more natural and organic experience. You know.

Interviewee 24: I think the ocean is a different world, it's what I've tried to tell my wife and three daughters. So there's there's nothing to me like sharks which are the most powerful creatures in the ocean to be in their habitat. Sit there and be in a completely different world. i just thought it was kind of cool.

Interviewee 25: I actually really like sharks a lot. They're really interesting to me. kind of like what he was saying it was like really cool to be able to experience that.

Interviewee 26: I would share the same thing. I just wanted to get out and see the creatures.

Interviewer: Did you have knowledge on sharks prior to the dive?

Interviewee 22: Only from Shark Week.

Interviewee 23: I would say pretty extensive knowledge I mean having probably dove for maybe 25 30 years and they are sort of the apex predator. There is a lot of fascination with them. But I've probably seen more shows, read more articles than certainly your more average customer, not as much as you but you know.

Interviewee 24: I thought our dive master put it in perspective when he said that you know seven people a year are killed by sharks and more people died by getting hit in the head by a coconut. Than people who get killed annually by sharks. I think there's this there's this aura of sharks or it's you know we're defying death that we went down there and we dove with them today and we lived to tell about it. So I think there's just that essence of like he said a little bit just kind of living life on the edge just a little bit and you know I did that. That's cool.

Interviewer: And you knew this before they were ready or was this something that you learnt?

Interviewee 24: no no, he told us that stat when we were coming in afterwards. He scared the crap out of us for when we went down and said don't move our hands So we were like this \*puts hands close to body\*. And then we come back and the only seven people die a year from sharks. Like crap, i could have done what I wanted.

Interviewee 25: I know a pretty good amount about sharks. I like researching them a lot. we talk about them in marine ecology all the time.

Interviewee 26: And we've read quite a lot of articles and books but not fiction but non-fiction books about different dives and things like that that are very interesting.

Interviewer: And Prior to the participation did you have concerns about engaging in activities that would bring you in close vicinity with the sharks? where you kind of worried about this situation?

Interviewee 22: Yeah I was pretty worried but once I got down there I saw there wasn't a ton to worry about.

Interviewee 23: I am. I was. I mean having to deal with them a lot. Typically when I have dove, you want to get into the water first because the sharks will take off. And here they were much more, not aggressive at all, but much more nonplussed by our presence. which sort of Threw me a little bit in the beginning. And I think as Connor said the longer I was down there the greater my you know comfort was and fascination.

Interviewee 24: I think there's that initial if I get in the water you see it on the news that a shark can attack you, but when you get down there and the dive masters are so in control. And they're even playing with the sharks you know when you see him over there rubbing the shark on the snout and the shark is closing its eyes and it's just I mean he has complete control. I was a Full ease once I got down there and they were in complete control. Then we were able to enjoy it.

Interviewee 25: I wasn't really scared until he was telling us not to move our hands and then I was little bit scared just because I didn't think about the risk very much before that. but yeah, once I got in the water and like the first time I saw a shark coming towards me and it was kind of like freaked because I was in the water with a shark right now. But after it like passed me I like wasn't scared at all.

Interviewee 26: I didn't have any fear of it at first because I thought we were just heading into an area that may be more likely to see reef sharks so seems like a safe island. Yeah.

Interviewer: What kind of information did you receive from your tour guide regarding the safety and the environment that you're going to engage in?

Interviewee 22: Yeah he gave a very detailed talk before on the boat about the risks of moving your arms. Examples in which sharks will bite and why they bite. But overall he told us you know generally that there wasn't too much risk.

Interviewee 23: I mean I think he struck exactly the right tone. Is this something like you know if you're some tourist Yahoo you know you just think you can do anything. You got to think about this a bit more. And I think it for all of us. I mean it gave us a little bit of a sense of, you know, we need to be focused in doing exactly what they tell us to do but as long as we do that i think we sort of felt safe.

Interviewee 24: And after he went through the whole thing. I went back to the boat and I said OK so after all of that, how many times have you had an issue where a shark has bit someone on an excursion, and he said in seven years. Never. Yeah. OK I'm cool.

Interviewee 25: Yeah I think like the main point I got from him was like kind of respect the sharks because like that's where we are like down in their area and not be an idiot and stick anything in their face because like they will bite you, but I think at the end of the data it was basically respect that you're They're in their space and be an idiot.

Interviewee 26: Yeah I would agree. It's a very appropriate briefing.

Interviewer: Did you feel that the tour guide gave you an accurate depiction of the situation that sharks are in the environment that they live in and how to kind of do your part to be safe.

Interviewee 22: Yes, I definitely felt like there was a good information given.

Interviewee 23: Yeah I think he did a very nice job.

Interviewee 24: Yeah I think there's that anxiety of when you first get in because everyone's is excited about the sharks and all. But once we got down and you saw the rope and it was exactly like they had described. follow this rope to hear the dive masters leading you we're going to go down to here. everything when it starts going according to plan of how they told you. That's when your mind gets totally at ease.

Interviewee 25: I thought he described it pretty well. Like I didn't feel like anything was a big surprise.

Interviewee 26: I agree, it was pretty cut and dry.

Interviewer: And where are you familiar with threats facing the shark species before you went on this dive?

Interviewee 22: In a general sense. But I learned a lot more after the talk that he gave at the end.



Interviewee 23: I think I probably just about everything he had said and certainly had an appreciation for it. Seems like a message you can't hear too often.

Interviewee 24: You know I would probably say not really you know even though I saw shark week you know just like we all have in the United States of course around the world. But I didn't sit there and watch shark week and listen to all the stats. So I don't think I really was aware until after we were done, that he enlightened us about it.

Interviewee 25: I've seen a lot of documentaries about sharks that kind of explain the same things he was talking about. So I was pretty aware of the situation.

Interviewee 26: I would agree me too, but afterwards it seemed to drive it home a little more.

Interviewer: And what did you enjoy most about the experience?

Interviewee 22: I thought the dive masters were really in control and they really were the highlight of my dive.

Interviewee 23: For me it was this is only maybe the second or third time I guess as a family we'd all dove together. And again doing something where you're on edge and I think being the paternal figure your sort of going alright I'm going to have to throw myself in front of a shark for you. If this turns out to be bad and then the fact that it just all played out according to plan. It was just fantastic I mean this is a day I'll remember until my last day.

Interviewee 24: For me it's, I'd call this the greatest escape from reality. We have jobs we have families we have stresses we have everything in our lives and to me when you go down there is it's totally different. just an escape from reality.

Interviewee 25: I just thought like just being that close. like I liked when he was like playing with the shark it just kind of showed me that like a shark is just kind of like a dog, like i don't know. It's just like so friendly and so. It's not as wild as I thought. so it was just like cool seeing that and realizing that in person.

Interviewee 26: I Had so much fun watching the kids watch the shark as I had watching the sharks, it was awesome.

Interviewer: And is there anything that you enjoyed the least about your experience?

Interviewee 23: Were all going to do the same thing.

Interviewee 22: Yeah, no i can't think of anything.

Interviewee 24: The boat ride over just about killed me.

Interviewee 23: I'd say that one thing that got me a little worried was when we were going down there there's one shark that had a big old hook hanging out of his mouth and as close as they were coming I was thinking it wasn't so much worried about the shark biting me as it was on a close path. Getting hooked by the hook, because it was a it was a big thing.

Interviewee 24: And I was kind of sad really. It has to live the rest of its life with this hook hanging out of its mouth. Yeah.

Interviewer: OK. And would you have recommended this shark diving activity to anyone else.

Interviewee 22: Yeah for sure. definitely a once in a life time opportunity.

Interviewee 23: Very impressed. Very safe. absolutely.

Interviewee 25: I would recommend to anyone that was not too scared to do it. I would push I would try to convince people that it wasn't as scary as they think it was.

Interviewee 26: Absolutely. With these guys, or with the shop, it's competent and respectful.

Interviewer: And would you yourself participate in a shark diving activity at some point?

Interviewee 22: Yeah. I hope they do.

Interviewee 23: Yes.

Interviewee 24: Absolutely.

Interviewee 25: Any day.

Interviewee 26: Yes.

Interviewer: last one, is if you could change something about this experience that would make it a better learning experience. Do you think that there could be something added.

Interviewee 22: I think they've done a very good job. I think. I mean maybe. It didn't seem like we could of maybe been down there for a longer period of time than we were. But, Other than that it was pretty good.

Interviewee 23: Yeah. I mean that comes to mind. I mean I think they. I mean they could certainly inform you much more on the way there but that would maybe detract from the part of what made it so fun was this sense of discovery. I mean they did a very nice job of laying out all the details and everything else. But to some degree part of the joy is discovering it on your own

Interviewee 24: I think maybe a little little shark knowledge before we went rather than all afterwards. I would have liked to have had some knowledge to be thinking as I was seeing the sharks in their element. Some of the the facts that they told us after were very sympathetic to them and their situation. I wasn't thinking any of that when we went down. I just liked that they weren't eating me.

Interviewee 25: I can't think of anything else.

Interviewee 26: I thought it was great.

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**Date: 20 July 2017**

Interviewer: Nina Bijnsdorp

Interviewee 27: Bob Houle, United States, 53, Male

Interviewee 28: Benedicte Thihiage, United States, 53, Female

Interviewee 29: Carina Miller, United States, 42, Female

Interviewee 30: Sebastian Tyne, England, 27, Male

Interview:

Interviewer: How did you learn about the shark diving on Sint Maarten?

Interviewee 27: My first trip here...gosh 13 years ago, I did a shark dive when I was here.

Interviewee 28: From my husband

Interviewee 29: I did some research online and found out this company does it.

Interviewee 30: I learnt to dive here about 10 years ago, so I already knew about it.

Interviewer: What were your expectations for the dive.

Interviewee 27: To see sharks.

Interviewee 28: Yea, to see sharks. I'm always amazed at how curious and playful they are

Interviewee 29: To have a good time, to see the sharks up close. I like to see them in their natural environment and see how playful they can be

Interviewee 30: To interact with them and see them in their natural environment.

Interviewer: What motivated you to go on the shark dive today?

Interviewee 27: To enjoy them, I am fascinated by them. I mean it's nice because here you see them during the normal dives too but usually only one. It's nice to see them in a group like that, the big, the small, it makes it a lot more fun and a good photoshoot.

Interviewee 28: I have a sort of admiration. As well to bring awareness and to tell people and being able to show them the pictures and to tell them it's not what people think, it's just amazing.

Interviewee 29: It's so important to bring awareness to people because it shows them that they are not the scary or dangerous animals like they seem to be on tv. This awareness could help with conservation efforts which are really needed. People don't realise how safe and beautiful these animals are.

Interviewee 30: Even though you know that they aren't going to bite you there's still a genuine thrill, especially when they're coming straight at you. the thrill is what motivated me to participate in the dive.

Interviewer: Prior to your participation in the dive did you have any concerns about your safety with being in such close proximity to the sharks?

Interviewee 27: No. Not at all.

Interviewee 28: No. Maybe with another company but I trust this one. I wouldn't want to do it with just any dive company but this one does such a great job.

Interviewee 29: Well, I was laughing hysterically because I was a little nervous but also because the sharks reminded me of underwater cats, playing around on the bottom of the ocean.

Interviewee 30: A little bit.

Interviewer: Did you have knowledge about sharks before going on this dive?

Interviewee 27: Yes.

Interviewee 28: Yes.

Interviewee 29: Yes, but limited

Interviewee 30: Yes.

Interviewer: Have you guys been on dives where they chum the water? Where they throw large amounts of fish guts in the water to attract more sharks? What are your thoughts on that?

Interviewee 27: Yes, In South Africa, there were a lot of sharks but I think because the water becomes murky it's not so great when they use provisioning, I think the way they do it here is a lot better.

Interviewee 28: I think provisioning unfortunately gives the wrong ideas because it creates such a frenzy and then people could get scared because it looks intense. What we did today it was a lot more calm, natural and playful and I enjoyed that more.

Interviewee 29: In the bahamas, but didn't think it added anything to the dive.

Interviewee 30: It's a bit annoying, because when you create such a frenzy with the chumming, the general population would get scared because they don't understand what they see.

Interviewer: What kind of Information did you receive regarding safety, the species, the habitat and what you were about to see?

Interviewee 27: General things, how to keep your hands in so they don't bite, a little information about what we were about to do.



Interviewee 28: yeah a good briefing. We learned something new, they really told us a lot. I really appreciate that

Interviewee 29: I missed the briefing because i was in the bathroom.

Interviewee 30: Yeah they told us about how to act around the sharks and not to provoke them and things like that.

Interviewer: Did you feel that the tour guide provided you with an accurate depiction of what you were going to see, the species, the habitat and the environment?

Interviewee 27: Oh yeah.

Interviewee 28: Yes, definitely.

Interviewee 29: Yes, it was very clear.

Interviewee 30: yep.

Interviewer: What did you enjoy the most about the experience?

Interviewee 27: Everything!

Interviewee 28: all of it! The excitement before going in, under, the information, all of it!

Interviewee 29: I loved watching the guide play with the sharks as if they were dogs, it made them seem like harmless puppies. It made me feel connected to the sharks and I admire them so much now.

Interviewee 30: Yeah it was great seeing how the guide played with the sharks, it made them seem a lot less dangerous and it looked like they had personalities, humanizing them in a way.

Interviewer: Was there anything that you enjoyed the least?

Interviewee 27: Just the boat ride which was a little bumpy.

Interviewee 28: Yea but those things can't be controlled.

Interviewee 29: Everything was great.

Interviewee 30: No it was all good.

Interviewer: Would you recommend the shark dive to anyone else?

Interviewee 27, 28, 29, 30: Yes!

Interviewer: Would you participate in a shark dive again?

Interviewee 27, 28, 29, 30: Yes!

Interviewer: If there's something you could change about the experience to make it more of a learning experience for you what would it be?

Interviewee 27: Maybe give us more information about what species of shark are down there with us.

Interviewee 28: No, I think they give you a good amount of information, especially in the amount of time you have. you don't want to be too overwhelmed with a bunch of information all at once.

Interviewee 30: NO, I think it was good.

Interviewee 29: No, it's fine