

RELIGION AND FISHERIES MANAGEMENT IN COASTAL NORTH CAROLINA

by

Stuart Brown

Dr. Michael K. Orbach, Advisor

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## **ABSTRACT**

### **I. INTRODUCTION**

### **II. RELIGION AND NATURAL RESOURCE MANAGEMENT**

- a. Why Study religion in the context of natural resource management?
- b. Why don't we study religion in the context of natural resource management?
- c. Religion and Natural Resources

### **III. NORTH CAROLINA'S FISHERIES**

- a. Religion and fisheries management
- b. Why study religion in North Carolina's fisheries?

### **IV. MY STUDY**

- a. Methods
- b. Findings
  - i. *The Natural Order*
  - ii. *God's Fish*
  - iii. *Sincere Beliefs or Self-Preservation.*
  - iv. *Religion in Management*
  - v. *Stewardship*

### **V. CONCLUSIONS**

### **WORKS CITED**

### **APPENDIX A – Project Description**

## **ABSTRACT**

Many fishermen and fisheries managers in Eastern North Carolina hold strong Christian beliefs which influence their attitudes toward the fishery, and therefore affect how the fishery is managed. In public meetings on fisheries management, scientific and economic discussions frequently turn into religiously charged arguments. Science-minded managers often withdraw from or dismiss these arguments, thus shutting off communication with a large portion of the stakeholders. Understanding the religious basis for many of the opinions held by fishermen and other stakeholders could help facilitate productive discussions of religion in fisheries management, and could facilitate the management process.

I conducted interviews with fishermen, fisheries managers, and religious leaders in coastal North Carolina, to gain a better understanding of the religious roots of fishermen's attitudes toward fisheries and fisheries management. I found that in many cases, fishermen's opposition to management is based on powerful and sincerely held religious beliefs. Many Christian fishermen believe that God provides fish for the sole purpose of being harvested by humans. Just as common among fishermen is a belief that fishermen serve as stewards of the water and its resources.

In a broader context, understanding how religion influences people's values and behavior is very important for environmental conservation in general. Over the past decade there has been a movement among religious groups to take on environmental issues. Marine conservation could benefit greatly from engaging religious organizations. Many coastal fishing communities, like those in coastal North Carolina, Louisiana, and on the Chesapeake Bay, have large Christian populations. Appealing to Christian organizations, by framing marine conservation as a moral and ethical issue as well as an ecological or economic issue, could help mobilize many people and greatly help the cause.

## **I. INTRODUCTION**

Recounting past public meetings, a veteran member of the North Carolina Division of Fisheries Management, told me, "I have been called the Antichrist. I have had someone tell me that he should hang a millstone around my neck and throw me overboard. More often however people tell me, 'the fish are God's resource. Man has no authority over them. Man does not have the knowledge to manage them. God will take care of the resources in the long run.'" (interview, 2/20/2008). Stories like this first made me consider the importance that people's religious beliefs have in how North Carolina's fisheries are managed.

Anthropologists commonly study how religion influences natural resource management among indigenous tribes, and historians study how religion might have affected resource management in past centuries and millennia, but there has been relatively little research on the influence that religion might have on natural resource management in contemporary society (Collet, 2002). There are a number of possible reasons for this, but they all lead to a reluctance to incorporate religion into the field of natural resource management. Certainly, there are many cases where studying religion is inappropriate or irrelevant in the context of natural resource management, but even in contemporary society there are a number of situations in which religion is very relevant to the management of a natural resource. One such case is North Carolina's fisheries.

It is no secret that fishermen and fisheries managers often disagree about how certain fisheries should be managed. Managers often interpret fishermen's opposition to regulations as fishermen just trying to protect their own economic interests. It is in the interest of managers to make this assumption because it is much easier to manage a fishery when the stakeholder's interests can be easily set to a dollar value. If money is the only concern, then fisheries management simply becomes a negotiation. When the fishermen's values cannot be easily quantified and fit into quantitative models, the process becomes far more complicated. In many cases, fishermen's opposition to regulations is based on a fundamentally different understanding of how fisheries work, how they should be managed, and the role of the fishermen in the fishery (Paolisso, 2002). These understandings are often based on powerful and sincerely held religious beliefs. Understanding the religious basis for how many fishermen value the fishery and fisheries management can help facilitate the management process.

In a broader context, understanding how religion influences people's values and behavior could be very important for environmental conservation. All major religions have at least some influence on the way that their practitioners value the environment and natural resources. Over the past decade there has been a movement among religious groups to take on environmental issues (Biodiversity Project, 2002). The basis of the movement is so obvious that it is amazing that it took so long. Religious organizations are groups of ethically motivated people, environmental organizations are groups of ethically motivated people, and environmental issues are inherently ethical issues. The very act of identifying a set of circumstances as a "problem" requires a moral judgment of right and wrong, or at least better and worse. Daly and Townsend (1993) wrote, "The only arguments against [liquidating the world's natural resources] are religious and ethical: the obligation of stewardship for God's creation, the extension of brotherhood to future generations, and of some lesser degree of brotherhood to the non-human world." In recent years environmental movements to stop biodiversity loss and climate change have benefited greatly from religious organizations joining their cause. Working with religious groups on issues of marine conservation could be a valuable way to further the cause.

In this paper I will begin by discussing the importance of studying religion in the context of natural resource management and why studying religion is particularly important in the context of North Carolina's fisheries management. Then I will discuss a number of themes that I encountered while interviewing fishermen, fisheries managers, and religious leaders in coastal North Carolina. Finally, I will discuss how this

understanding of people's religious motivations, can be applied in both fisheries management and marine conservation.

## **II. RELIGION AND NATURAL RESOURCE MANAGEMENT**

### Why study religion in the context of natural resource management?

Until recently natural resource management was a field dominated by the natural sciences (ecology, biology, etc.). Over the past several decades managers have had to accept a fundamental truth about natural resource management: natural resource problems are not environmental problems; they are human problems (Ludwig et al. 1993). We do not manage climate change or deforestation; we manage the human behaviors that contribute to those problems.

When you are managing human behavior, it is important to understand why people make the decisions that they do. As a result, the field of natural resource management has begun to incorporate some of the social sciences. Primarily, managers rely on economics to explain and predict people's behavior. In many situations, economic models do an excellent job of predicting people's behavior; however, there are also many cases in which people have made decision based on values that can not easily be incorporated into economic models. These values are shaped by a wide range of social and cultural influences and they vary widely from person to person. Among many people, in many communities, the most significant of these cultural influences is religion.

Historically, religious ideals have been at the root of many major environmental and social shifts, for better and for worse. Historians often point to the Christian ideal of man's dominion over nature as being responsible for much of the environmental

degradation that has occurred since the beginning of the industrial revolution (White, 1967). Some might argue that, in contemporary American society, economic considerations trump most religious or ethical ideals, and therefore studying religion is irrelevant to natural resource management. However, the 2000 presidential election is a clear example of the influence that religion has on people's decision making. George W. Bush brought religion to the forefront of his campaign and—to the surprise of his democratic opponent—an unprecedented number of religious democrats crossed the party line to help elect Bush (Himmelfarb, 2001). Since the election, the change in political climate has allowed religion to become a conspicuous influence on many environmental policies (Moyer, 2004).

Religion undoubtedly plays a role in shaping people's values and influencing their decisions. When trying to manage a natural resource, it is important to try to figure out how and to what degree religion influences people's actions. In many situations, where religious beliefs are widely varied, or peoples religious beliefs have little sway over their decisions, attempting to understand how religion influences people's actions might be pointless. However, in some situations, even in contemporary society, studying religion can be extremely valuable to natural resource management.

#### Why don't we study religion in the context of natural resource management?

If studying religion can improve our ability to effectively manage fisheries, why has there been so little research on the subject? There are a number of barriers to the incorporation of religion in fisheries management. First, religion is simply a difficult subject to study, especially for people trained in the natural sciences, as most natural resource managers are. Religious factors are difficult to quantify, and while it is easy to

categorize people by their religious texts and mythologies—as one might do in a high school comparative religions class—it is far more difficult to categorize the way individuals understand religion, and how this understanding influences their behavior. Furthermore, religious beliefs are often difficult for people to articulate, which can cause a communication problem.

Another reason that religion is rarely studied in the context of natural resource managers is that religious beliefs are very diverse. In the United States, over seventy-five percent of people identify themselves as Christians, as do nearly ninety percent in North Carolina (Kosmin et al. 2001). However, within Christianity beliefs vary greatly. Different denominations, different churches within a denomination, and even different individuals within a church can have wildly different understandings of religion. Therefore is difficult to draw broad conclusions based on a study done on a specific group of people.

One barrier to the incorporation of religion in fisheries management is the general lack of will by management institutions to incorporate any social sciences other than economics. Until recently fisheries management, like most natural resource management, was a field based almost entirely in the natural sciences. Over the past several decades fisheries management has evolved to incorporate economics, but other social sciences, such as sociology or anthropology, still play a minimal role in the process. While management institutions usually profess to value the social sciences, they tend to reveal their true values in the way they allocate their funding (Michael Orbach, personal communication, 2007). In their proposed budget for 2008, the National Marine Fisheries Service has allocated only 1.5% of their total funding to “Economics and Social Sciences

Research” (NMFS, 2007). Most people working for NMFS are trained in natural sciences, so the institution generally reflects those values. While most would agree that the social sciences are a valuable part of fisheries management, the institutions seem slow to evolve.

The fundamental and historical division between science and religion is (or is at least perceived to be) the most significant barrier to the incorporation of religion in fisheries management. Science and religion promote distinctly different ways of understanding the world. Science is the belief that everything can be explained through systematic observation and hypothesis testing. Religion, on the other hand, is the belief that there is a reality that can not be explained by science. The differences in these world views create a gap in understanding, and can cause two people looking at the same situation to reach entirely different conclusions.

This is why studying religion could be valuable for managing fisheries. For example, when scientists observed that blue crab populations in the Chesapeake were substantially lower than in previous years they concluded that the crab population was approaching a critical minimum level and stricter harvest regulations were needed. When devoutly religious watermen saw the same low crab populations, they reached a different conclusion. The watermen’s faith told them that God managed the crabs, and their experiences told them that crab populations have always fluctuated from year to year, so they saw no need for alarm (Paolisso, 2002). While the managers are still mandated to meet certain ecological criteria, it could have facilitated the management process, if the managers understood the basis for why the fishermen opposed the regulations.

The historical division between science and religion is well documented. There are the famous examples, such as Galileo who was imprisoned by the Catholic Church for suggesting that the earth revolved around the sun, the Scopes trial, and now the controversy surrounding stem cell research. The division, and the distrust of the opposing side, has become engrained in the minds of many on both sides of the debate. The actual division between science and religion may not be as great as historical examples might imply. Many people have been able to reconcile science and religion within their own lives. As with many public issues, I believe this is an example of the two extreme point-of-views controlling the debate. The vast majority of both scientists and religious people are far more moderate, in fact many scientists have very strong religious convictions, and many religious people agree with most commonly accepted science.

### Christianity and Natural Resources

All major religions have at least some influence over the way that their practitioners value the environment and natural resources. Some religions have well defined environmental ethics, while others are open to interpretation. Because my project is on coastal North Carolina, I will focus on the predominant religion, Christianity. Christianity has a rather dubious environmental record. Many historians attribute much of the environmental degradation of the past millennium to the Christian attitude of dominion over nature (White, 1967). While other historians and theologians may argue the finer points of White's claim, most agree that this Christian environmental ethic allowed and even condoned much of the environmental degradation that followed the industrial revolution (Coward et al., 2000).

The Christian attitude of dominance over nature comes from a single line in the Judeo-Christian creation story. After God created humans He said to them, “Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.” (Genesis 1:28). Analytically, the significance of the line is questionable. The common interpretation of this line depends on just two words: subdue and dominion. Even if you believe the creation story to be true, it takes a great deal of faith to believe that the integrity of this line was maintained through 4,500 years of oral tradition, and another 1,000 years of translations and duplications. The line gains its power from the belief, common at the time, that the Bible was the literal word of God. It may seem that religion is no longer as influential as it was in eighteenth and nineteenth centuries, but there are still many Christians who believe that the Bible is literally true. Religion still significantly influences many people’s ethics regarding the environment and natural resources.

In contemporary American society there seem to be two main environmental ethics that are derived from Christianity. The first is a stewardship ethic. In a religious context, stewardship is broadly defined as, “the responsible use (including conservation) of natural resources in a way that takes full and balanced account of the interests of society, future generations, and other species, as well as of private needs, and accepts significant answerability to society... and ultimately to God.” (Worrell and Appleby, 2000). Christians believe that the earth and everything on it are part of God’s creation and it is man’s responsibility to take care of it (Coward et al. 2000), and not taking care of it could result in God’s punishment (Biodiversity Project, 2002). This sort of

environmental ethic has become far more popular in recent years, especially regarding the issues of biodiversity and climate change (Biodiversity Project, 2002).

The second Christian environmental ethic that is common in contemporary society is a belief that “God will provide.” People who adopt this type of ethic generally believe that resources do not need to be managed because either God will not let them run out, or God will provide an alternative. These ethics tend to worry environmentalists and resource managers, as they promote irresponsible consumption. This “God will provide” ethic is sometimes associated with a belief in the rapture. People who believe in the rapture believe that Jesus is going to return to earth for the Day of Judgment and take all of the true believers to heaven. Most Christians believe in a second coming of Christ, but the rapture is a unique interpretation of Christ’s return that started as a movement in the eighteenth century and has experienced cycles of popularity ever since. People who believe in the rapture also believe that in order for Jesus to return a series of events, including plagues, wars, and environmental disasters must first occur. Environmentalists and natural resource managers view this belief as particularly dangerous because it not only allows environmental destruction, but rewards it (Moyer, 2005).

It is difficult to estimate how many people actually believe in the rapture, or how many people that have adopted the stewardship ethic. Judging by the success of the rapture-based best-selling book series “Left Behind,” and by the number of Christian organizations coming out against global warming, it is safe to say that there are a fair number of people on both sides. Certainly these are not the only two environmental ethics derived from Christianity—I doubt that most Christians are actively trying to save

or destroy the environment—but they show the opposing ethics that can be derived from one religion.

### **III. RELIGION AND NORTH CAROLINA’S FISHERIES**

#### Religion and Fisheries Management

Fishermen and fisheries managers are regularly confronted with many ethical issues such as preserving biodiversity, allocating fish among fishermen, and controlling the ecosystem impacts of fishing practices. Many fishermen and managers are guided by their personal religious convictions when approaching these complex issues. When dealing with a limited resource, allocation issues are bound to be common. Equity is in the eye of the beholder, and stakeholders almost always think that they bear too many of the costs and receive too few of the benefits (Ludwig et al. 2001). In a fishery, allocating fishing rights between sectors, communities, and between individual fishermen can be an ethical dilemma (Cadigan, 2001). To further complicate the issue, fishermen and managers must consider intergenerational equity. Harvesting more at the present time could mean lower catches in the future, whether that is in five years or thirty years.

In fisheries without formal governmental management, individual fishermen can make their own decisions about how many fish they should extract or what type of gear they should use. In some cases these decisions can be heavily influenced by peer-pressure, for example, in the Gulf of Maine lobster fishery, fishermen limit the number of traps they use because they do not want to be seen as “greedy” and looked down upon by other fishermen (Acheson, 1988). While, under certain circumstances, social pressure may reinforce many “acceptable practices” among fishermen, there are many situations in

which fishermen have to make decisions that are not monitored by peers or management institutions. One example is high-grading. “High-grading” occurs when fishermen, fishing under a quota, discard less valuable fish in order to maximize the economic value of fish they bring to port. This practice is wasteful, as far more fish are killed than are brought back to market. Without onboard observers, fishermen can easily discard low-value catch without anyone knowing. Another example might be if a sea turtle gets caught in a fisherman’s net. Does the fisherman cut the net or cut the turtle? These fishermen have to make a decision based on their personal values, which are very much influenced by their religious beliefs. Therefore understanding religious beliefs can be valuable for enforcement, and for understanding whether or not certain regulations will be followed.

Why is studying religion particularly important in the context of North Carolina’s fisheries?

As I mentioned earlier, studying religion is not always appropriate or beneficial when trying to manage a natural resource. There are two primary reasons why North Carolina’s coastal fisheries are one of the cases in which understanding religion is important component in managing the resource. The first reason is that coastal North Carolina is an overwhelmingly Christian area. In North Carolina 88% of people identify themselves as Christians (Kosmin et al. 2001). In Crystal Coast area of North Carolina, where I conducted my research, there are no mosques, one synagogue, but roughly 420 Christian churches. In addition to the high proportion of Christians, you need only speak with a few residents at the hardware store or fish house to realize what an important role religion plays in the lives of these people. Because the area is so overwhelmingly

Christian, and religion is such a central part of these people's lives, the issue of widely varying beliefs is greatly reduced.

The second reason that understanding fishermen's religious convictions is valuable is that it matters what fishermen think and do. From a management or a conservation perspective, it matters what fishermen think and do more so than people working in other extractive industries. Most fishermen in Coastal North Carolina are self-employed, which means that they, as individuals, can make decisions that affect both the fishery and the ecosystem. This is not the case for most other extractive industries. If you look at mining, for example, miners work for companies that are parts of corporations which are obligated to maximize profits for their shareholders. While a coal mining town in Kentucky might have a very similar religious demographic to coastal North Carolina, the working coal miners are not the ones making the decisions that affect the resource or the environment – it is the companies and their managers. On the other hand, fishermen, because they are self-employed and in the case of Eastern North Carolina generally small-scale, have the ability to make decisions about their own practices that affect the environment and the fishery. Furthermore, in the collaborative fisheries management process that we have in North Carolina, independent fishermen are often left to represent themselves in the policy arena. This makes it important for people trying to manage fisheries to understand the factors that influence the decisions that fishermen make and the opinions that they hold.

#### **IV. MY STUDY**

##### Methods

In this study I conducted informal interviews with fishermen, professional fisheries managers, and religious leaders in coastal North Carolina. These interviews lasted anywhere from 30 minutes to two-hours. The topics covered in each interview varied depending on the subject's occupation. Generally, we covered topics such as, the state of fisheries, the role of fisheries management, Christian ethics, man's relation to nature, and the role of fishermen and managers as stewards of the water (See Appendix A for a more complete list of topics).

Because of the nature of this issue, random sampling would not have been appropriate. I selected a few key informants from each of the three professions: managers, fishermen and religious leaders. Subjects were selected primarily through the recommendations of other members of the community. Subjects were usually recommended because they were known to hold certain beliefs or had specific experience dealing with relevant topics. All of my interviews but one were conducted in person. The interviews were not recorded, in order to make the subjects more comfortable.

### Findings

As I expected, I found that there are fundamental differences in the way that fishermen and managers understand how the fishery works, the role of the fishermen, and how the fishery should be managed. Through the course of interviewing fishermen, it became clear that Christian ethics play a significant role in shaping fishermen's attitudes toward the fishery and fishery managers. Throughout the course of the interviews I found a number of reoccurring themes which I will discuss in this section.

#### *The Natural Order*

The natural order is a fundamental understanding of how people, animals, and things relate to one and other. This belief is so fundamental that it affects the way that an individual sees and understands everything. Religion heavily influences people's concept of the natural order. Most of the Christian fishermen that I interviewed had a notably Christian idea of natural order, which is simply that man is superior to all other creatures. The basis for this is found in Genesis 1:26, "Then God said, 'let us make humankind in our image, in our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all of the wild animals of the earth and over every creeping thing that creeps upon the earth.'" It is their right and duty to "have dominion" over the fish of the sea.

Fishermen who view the natural order as humans above all else, see any type of fisheries management as an offense to the natural order. When fish are being protected, and people are not allowed to catch and eat them or profit off of them, this is seen as putting fish above humans, and thus a disruption to the natural order. This concept is partially responsible for the belief among some fishermen that fisheries management is responsible for the collapse of many fisheries. "When you ignore natural laws, nature has a way of answering" one fishermen told me. He continued with an example, "In 1989 there was a freeze that killed all of the [bay] scallops, but the next year there were plenty. Then they closed the fishery to dredging and the fishery collapsed." (interview, 3/11/2008). He also noted that when "kicking clams" (the process of churning up the bottom with the propellers on your boat, which would "kick" the buried clams up into a trailing dredge) was made illegal, the clam stocks subsequently collapsed.

This sort of cause-and-effect logic seems pretty irrational to many people, but when the observations are made through the lens of that particular understanding of the natural order they make perfect sense. Ecologists and biologists whose concept of ‘natural order’ is based on the interconnectedness of animals and their environments, clearly would interpret these observations entirely differently.

Sociologist Barbara Garrity-Blake, who was also a member of the North Carolina Marine Fisheries Commission, observed this dominion concept of the natural order during a high profile fisheries management issue. The much publicized conflict between shrimp fishermen and fisheries managers over the use of turtle extractor devices (TEDs) had a significant religious undertone in Down East North Carolina. The fishermen and their wives who protested the mandatory TEDs believed that the regulations disrupted the natural order by ranking animals – in this case marine turtles—above humans (Garrity-Blake, unpublished).

I spoke to one fisherman, a Unitarian Universalist, whose religious beliefs instilled in him a different type of natural order. Unitarian Universalism is a creedless religion, and whether people choose to incorporate Christian, Jewish, Muslim, or any other religions into their own spiritual growth is a personal choice. Unitarian Universalists do, however, have what they call Principles and Purposes, which are a list of commonly held values. One of these is “respect for the interdependent web of all existence which we are all a part.” This religious value is reflected in his view of the natural order which is a more ecological understanding of how ecosystems function, but it gives the ecosystem an existence value.

*God's Fish*

Perhaps the most common theme I found in my interviews with Christian fishermen was a belief that God provides the fish to support humans. As it is God that controls the resource, it is ridiculous—even blasphemous—for managers to claim to be able to manage fisheries. The fishermen that hold this belief admit that it is not as simple as God simply providing fish for them to harvest every year. One might assume that a loving and all-powerful God would provide for fishermen, but their years of experience teach them otherwise. Drawing on his nearly 70 year fishing career one older fisherman told me, “Everything in the water goes in cycles. Managers don’t take that into consideration.” He then showed a photograph of his boat almost being pushed underwater by a comically large pile of fish on the deck and said, “This was taken in 1997. While people in the state legislature were going on about how few fish there were, I was pulling 10,000 pounds in one set.” On the other end of the spectrum there were also hard times, when there were very few fish. One thing that most of the fishermen agreed on was that the good years are not the result of management, and the bad years are not a reason for management. As another fisherman put it, “Managers can’t manage fish. There either are gonna be fish or there aren’t. That’s God’s doing.” (interview, 2/28/2008).

While most fishermen agreed that God or nature control the fish, and management is not beneficial, their attitude should not be confused with a “God will provide” attitude toward natural resources that many Christians have adopted. The fluctuations in fish stocks that they have observed have shown them that God will not provide fish every year, and so they do not expect consistent catches from year to year. “When life gets tough, you get tough with it” one fisherman said. Many fishermen have

been making a living for decades despite the bad years, by shifting to other fisheries or working other jobs to make it through.

As for the mechanism behind the cycles and the unpredictability of the fishery, fishermen are more ambiguous. While they claim that God provides the fish, they are less willing to claim that God controls the annual abundance of fish. This is because to say that God is deciding how many fish there will be each year, implies that God is rewarding or punishing the fishermen for something. To admit to this would be to say that God is vengeful, and that the fishermen are deserving of punishment, neither of which they believe. One fisherman articulated God's role in the dynamic nature of the fishery by saying, "[the fishery] is doing exactly what God intended." As though God set things in motion, but does not manage it.

#### *Sincere Beliefs or Self-Preservation*

The fact that many of the beliefs that fishermen derive from Christianity coincide with the fishermen's economic interests raises a number of interesting questions. The most obvious is: Are the fishermen expressing sincerely held beliefs or are they just using religion as a way of justifying positions they already held? If the fishermen are just using religious arguments to promote their economic interests, then it is easy for managers to dismiss these religious arguments. In preliminary interviews with a few people who work in fisheries management, there was some feeling that fishermen were just hiding their economic interests behind religious language. I myself was somewhat skeptical of the fishermen's sincerity, but in speaking with fishermen it became clear that these are very sincere beliefs. Fishermen have nothing to gain from making religious arguments. They know that scientists and managers laugh at them or dismiss them when they make

religiously-based arguments at public meetings. One fisherman told me “You don’t bring up God at meetings.... If you bring up God in a meeting, [the managers] will just stare at the ground until you finish.”

While many of the fishermen’s religious beliefs coincide with their economic interests, some do not. One example is that prior to the 1980’s very few fishermen would fish on Sundays, primarily for religious reasons. In the 1980’s, fisheries managers instituted regulations that closed the shrimp fishery on Fridays and Saturday nights, in an attempt to reduce fishing effort. Friday and Saturday were chosen because shrimp fishermen usually go out at night, and by choosing weekend days, they would limit the number of part-time fishermen in the fishery. As a result many of the fishermen began to go out on Sunday nights. As one fisherman told me, “after not being fished for two days the bottoms settle and the shrimp aggregated, and guys would make a killing on Sundays.” (interview, 3/11/2008). He said that some people made so much on Sundays that they wouldn’t have to go out for the rest of the week. Many however, including himself, still refused to go out on Sundays. He estimated that he lost half of his income by not going out on Sundays.

To say that fishermen’s beliefs are sincere is not to say that fishermen are not also, in many cases, interested in economic benefits (or avoiding economic losses). Where these two motivations overlap it is important to recognize the depth of the fishermen’s convictions. People tend to be more passionate and emotional when their opinions are grounded in religion.

*Religion in the Management process*

Fisheries management in North Carolina is a collaborative process. Citizens have a number of opportunities to participate in the process, and make their voices heard. When management plans are proposed the public is able to voice their opinions through public comments and at public scoping meetings. Managers are mandated to implement management strategies to achieve sustainability for a fishery, which often means lowering catch limits or limiting access. Most fishermen are opposed to such limits for a variety of reasons, and many of them use public scoping meetings to voice their disagreement. As one fishermen said, “it’s my way of life, I have to say something.” Many times these public meetings become contentious and emotional. In an area where Christianity is such a powerful influence on people’s lives, it is not surprising fishermen often bring up their religious convictions in their arguments.

Recounting past public scoping meetings, a veteran member of the North Carolina Division of Fisheries Management, told me, “I have been called the Antichrist. I have had someone tell me that he should hang a millstone around my neck and throw me overboard (referencing Matthew 18:6). More often however people tell me, ‘the fish are God’s resources. Man has no authority over them. Man does not have the knowledge to manage them. God will take care of the resources in the long run.’” Arguments such as these are usually brought up, during particularly emotional debates.

Because fisheries management is a scientific field, and managers are obligated to meet certain scientific criteria, it would seem that such comments would only make the process of reaching an agreement more difficult. Public meetings are certainly not the right forum for theological debate, but in talking with both fishermen and managers, I believe that the reaction from managers is more detrimental to the process of fisheries

management than the initial comments. One fisherman told me “[The managers] don’t want to hear about God or anything. If you bring up God in a meeting, they will just stare at the ground until you finish.” A fisheries manager told me that the response can actually be more destructive than simply ignoring the fishermen. He told me that non-religious members of the fisheries council will often make fun of the fishermen’s religious comments, and dismiss the fishermen who make the comments as uneducated. He said, “[The non-religious managers] often become callous. A lot of times they become angry and hold it against the person, and they have trouble working with the person in the future.”

By dismissing and ignoring religiously based comments by fishermen as well as other Commission members, the managers undermine the collaborative fisheries management process. If the true goal of public meetings is to engage the stakeholders in the process, then alienating members from the process because they express certain beliefs or because they are seen as uneducated is extremely counterproductive. It is not just the one or two stakeholders who voice their religious beliefs that become alienated. In a public meeting, it is very likely that a large portion of the stakeholders share similar beliefs, and would withdraw from the process when they see people expressing religious beliefs publicly dismissed or ignored.

How then should managers respond when fishermen stand up in public meetings and say, that managers can’t manage fish, only God manages fish? This is a difficult question, and there is no formulaic response. It depends on the situation and who the managers are. The most important thing is to show respect for the fishermen’s religious beliefs. Whether or not managers agree or disagree with the fishermen’s beliefs does not

matter. Because the beliefs are sincerely and strongly held, they warrant some attention and respect. One manager I spoke with said that he responds to such arguments by saying “Yes, God does have the ultimate power to manage a resource, but God has given humans the incredible ability to manage resources.” And if the fishermen do not believe that humans can fish species to extinction, he gives examples of where humans have hunted many animals to extinction. It is important to note that this manager has a strong Christian faith, so he can honestly engage the fishermen in a religious conversation and is not trying to manipulate the fishermen.

This brings us to another aspect to religion in the management process. While the conflict between fishermen and managers may seem to be one of science versus religion, the truth is that many fishermen have a good understanding of science, and some managers have strong religious convictions. The decisions that managers make can also be influenced by their faith. One fisheries management committee begins each of its meetings with a prayer. One member of the committee told me, “I asked the head of the committee—I didn’t know if he was a person of faith or not—if we could start the meeting with a prayer, and he said it was alright. We were going to have a vote on it and it would have passed until the ACLU or someone came and stopped us. We pray for guidance, and that God helps us make the right decisions.” (interview, 2/20/2008).

Fisheries managers are regularly confronted with many ethical issues, such as preserving biodiversity, allocating fish among fishermen, and controlling the ecosystem impacts of fishing practices. Weighing ecological consequences against fishermen’s jobs is a very difficult job and allocating fishing rights between sectors, communities, and between individual fishermen can be an ethical dilemma. As one manager put it, “They

use a lot of stochastic models these days, and there are debates over f-values and the accuracy of the data being put in, but the models don't make decisions about who has to stop fishing." This manager said that his faith provides the moral compass that helps him make these difficult decisions. He points specifically to how the lessons of Solomon give him direction in the way that he conducted his daily business. In the book of Proverbs, Solomon writes of the importance of being both knowledgeable and wise, and the importance of always learning and accepting advice from others. This is an example of how religion can influence the process in a very positive way.

### *Stewardship*

I have given a number of examples of where people have interpreted Christianity to allow or promote actions that can be destructive to the environment. I also found a strong belief, among fishermen and managers, that their Christian faith requires them to be stewards of the water and its resources. Nearly all of the fishermen that I spoke with considered themselves a good steward of the water. Even many of the fishermen who thoroughly disagreed with management, conservation, and science considered themselves stewards of the water, and often brought up the importance of addressing issues such as wetland degradation and pollution. I also found that nearly everyone I spoke with, including fishermen, managers, Christians, and atheists agreed that a belief in Christianity promotes a stewardship ethic. One fisherman explained that a strong Christian faith leads to a lack of greed, and greed is what prevents people from being good stewards of the environment.

While most people that I interviewed agreed that Christianity leads to a stewardship ethic, it is unclear to what extent the stewardship displayed by fishermen is a

result of their Christian faith. A number of people that I spoke with, including sociologist Barbara Garrity-Blake, noted that fishermen's stewardship ethics may be the result of a spiritual connection with the water that they fish. Some fishermen and managers commented that this relationship is lost on some of the younger fishermen, who never had to fish in primitive boats using primitive gear.

The relationship between fishermen and the water, or nature, is interesting because of the way that it fits into their Christian theology. Sometimes, fishermen use the word's "nature" and "God" almost interchangeably, but other times nature, or "the water," is referred to something separate from God, but still godlike. This raises a number of theological questions that are beyond the scope of this study, but what is important is that fishermen's spiritual lives are shaped by both the church and by their experiences as fishermen.

## **V. CONCLUSIONS**

One fisheries manager I spoke with noted that incidences of fishermen making religious arguments in public meetings have decreased in recent years. He attributes this decline to a better, more transparent, process in which citizens are involved throughout the process, rather than managers making regulations in a dark room then releasing them to the public. An alternative hypothesis might be that some of the older, more religious, fishermen are retiring from the fishery. Though I did not find this in my limited sample, a number of fishermen noted that many of younger fishermen are either not as religious or not as outspoken about religion as the older fishermen.

The decrease in religious arguments during public meetings may also hint at another trend. Most religious individuals I spoke with, whether they were managers,

fishermen, or religious leaders, noted that Christians were moving toward a more stewardship-based understanding of their relationship with the environment. A young minister I spoke with talked passionately about the importance of being good stewards of God's creation, and a fisheries manager told me how we was called by God to be a steward of God's resources. These are just small examples, of a much larger movement.

In recent years, religious organizations begun to address environmental issues as ethical issues. Over the past decade there has been a large multi-faith movement to preserve biodiversity (Biodiversity Project, 2002). And over just the last two years, a number of evangelical Christian organizations which once funded research to disprove global warming have adopted climate change as an important moral issue (Goodstien, 2006). For groups interested in conservation there is a very important lesson here. Religious groups in America are large and powerful, but most importantly they are morally motivated. Environmentalists are also morally motivated. When religious groups and environmental groups are able to overcome the perceived divisions between the two, the outcome is extremely positive. While environmental issues certainly contain ecological and economic issues, they are also moral issues. By addressing environmental problems as moral and ethical issues, environmental groups are able to mobilize thousands—if not millions—of well organized, ethically motivated individuals.

Marine conservation could benefit greatly from engaging religious organizations. Many coastal fishing communities, like those in Coastal North Carolina, Louisiana, and on the Chesapeake Bay, have large Christian populations. Both the Pew Ocean Commission (2003) and the Final Report of the U.S. Commission on Ocean Policy (2004) emphasize the need for a new “stewardship ethic” for our oceans. Engaging

religious organizations, and explaining the moral issues involved in the degradation of ocean ecosystems, could be an important step in reaching this new stewardship ethic. As Jane Elder wrote, “most lasting social change is anchored in a deep moral imperative.” (Biodiversity Project, 2002).

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## Appendix A

### Request for a Screening for Exemption for the Use of Human Subjects in Non-Medical Research: Research Description

#### 1) Research Design

The purpose of this study is to look at how Christianity and Christian ethics influence how fishermen and fisheries managers view ocean resources, and thus how fisheries are managed. Until recently fisheries management, like most natural resource management, was a field dominated by the natural sciences (ecology, biology, etc.). Over the past several decades managers have had to accept a fundamental truth about natural resource management: natural resource problems are not environmental problems; they are human problems (Ludwig et al. 1993). We do not manage the fish stocks; we manage the human behaviors that affect the fish stocks. People's behavior and the decisions that they make are based on values that are shaped by a wide range of social and cultural influences and they vary widely from person to person. Arguably the most significant, but least studied, of these cultural influences is religion.

I will be conducting informal interviews with a number of fishermen, professional fisheries managers, and religious leaders (none under the age of 18). The topics covered in the informal interviews will vary depending on the subject's professions.

#### *Topics for fishermen:*

##### Background information:

- What they fish.
- How long they have been fishing.
- How they got into the fishing industry.
- What is their religious background.

##### Religion and fisheries management:

- Their feelings about certain management issues related to their fishery, the management of the fishery, and the managing agency.
- How do they interpret the Christian ideal of God's dominion over nature?
- Do they believe that fishermen are stewards of the water? Do they consider themselves stewards of the water?
- How do Christian beliefs and ethics relate to this idea of stewardship?
- Do they believe that God and Nature are the best managers of natural resources?
- Do they find that Christian ethics play a role in their job? In the decisions they make? In the way they view the fishery?
- Has religion ever been brought up in public meetings on fisheries policy? How is it received?

#### *Topics for managers:*

##### Background:

- Job. Title. Educational background.
- What fisheries management plans or processes have they been involved in?
- Their religious background.

Religion and fisheries:

- Do they believe that Christianity/Christian ethics influence fishermen's view of the fishery
- Are God and Nature the best managers of natural resources?
- Do Christian ethics play a role in their job? In their decisions? In the way they view fisheries?
- Have religious beliefs been raised in the management process, either in planning meetings or in public scoping meetings. By fishermen? By managers?
- What is the response when fishermen bring up religion in public meetings?
- Does this cause a division between scientific professionals and the mostly religious fishermen.
- Are fishermen good stewards of the ocean?
- Do they think that a belief in God promotes a stewardship of nature?

*Topics for religious leaders:*

Background:

- Denomination?
- How long they have been in this area?
- What proportion of your congregation is involved in some way in the fishing industry?

Religion and fisheries:

- Stewardship ethics.
- The biblical order: the dominion of man over nature.
- The purpose of natural resources. to serve humans or do they have other value?
- How they perceive the division between religion and science.

I will not collect identifiable data. Interview notes will be identified by a number and unless the subject specifically allows me to use their name, they will not be identified in the final paper.

## **2) Subject Selection**

Because of time constraints and the nature of this issue, random sampling would not be appropriate. I am going to select a few key informants from each of the three professions: managers, fishermen and religious leaders. Subjects will be selected primarily through the recommendations of other members of the community. Subjects are usually recommended because they are known to hold strong Christian beliefs or have specific experience dealing with relevant topics. I hope to identify Christian fishermen. For the interviews with the managers, I would be interested in interviewing both Christians and non-Christians. I have had a number of subjects recommended to me by my advisor as well as some fishermen I have spoken with. Any additional subjects will probably be recommended by the people I interview. If one of the subjects that was recommended is not Christian I would still be interested in knowing if they have observed Christianity influencing fisheries management, but I wouldn't ask them about how Christianity affects their decisions. I will initially contact the subjects over the

phone or email. I will explain my project, as I do in the informed consent section of this form, then I will ask if they would agree to be interviewed. If they agree we would schedule a meeting time and place that is convenient for them.

### **3) Informed Consent**

In keeping with the informal nature of my interviews, I believe that an oral consent process would be more appropriate. I have written a statement that I will read to my subjects before the interview. After reading the statement, I will ask them if they are still willing to participate in the study. I will also carry with me sheets of paper with my contact information on them, to give to each participant.

#### *Statement:*

My name is Stuart Brown and I am a masters student, studying coastal environmental management at Duke University. I am conducting a study that looks at the influence Christianity and Christian ethics on how fishermen and managers view ocean resources, and thus how fisheries are managed. I will be conducting a number of informal interviews with fishermen, managers, and religious leaders.

This is going to be an informal interview, in which we will talk about how your beliefs and your experiences relate to the topic of religion and fisheries management. Your participation in this interview is completely voluntary. It will probably take between thirty and sixty minutes, but you're allowed to stop the interview at any time.

The information that I gather in this interview will be used in my master's thesis which will be written this spring. Unless you specifically give consent to use your name in the thesis, your name (or the names of any affiliations, that may identify you) will not be used. Once it is completed, the thesis will be available at the Duke University library. The notes from the interviews will also remain anonymous, and will not be made public.

If you would like to contact me I will give you my contact information.