

MEDIA FINALLY REPORTS SHARK ATTACKED BY MAN!

By Hal Flynn

Is a predator at the top of the food chain not a creature to be feared by all animals? This question is one that man has struggled with for much of time when entering the ocean. Media reports using sensationalized headlines such as the recent “Shark victim’s headless body recovered” (Associated Press) do nothing to clarify the question, and instead serve to vilify animals in their natural environment whether or not they warrant the reputation. The fact that sharks are one of the apex predators of the ocean does not mean that man is anymore threatened by them than the myriad other dangers man faces in daily life and gives nary a second thought. In fact, in spite of sharks being apex predators of the ocean, being cast as demons by the media, and being perceived with primal fear by humanity, evidence suggests that man is a greater threat to shark than shark a threat to man.

When people think of sharks, they often conjure up a popular image of one particular shark. This image is more often than not that of the shark as interpreted by Steven Spielberg (*Jaws*). However, their age on Earth and broad habitat makes sharks are more varied in size, color, and even diet than is generally realized. Sharks inhabit all oceans of the world in climates from the tropical to the arctic (Parker and Parker 38-39). According to Allen, sharks “have been swimming in the seas of Earth for at least 400 million years” (5). This period of existence has led to sharks being greatly varied in size, with some species “... which can fit in the palm of the hand ...” and others “... fifty or more feet long” (Allen 11). Debate exists about the number of species resulting from 400 million years of life on Earth, but it is generally accepted that the number of species is anywhere “... from under 400 to well over 450, according to the classification schemes of different experts,” as stated by Parker and Parker (22).

The variation in size and structure has come from the purpose of the shark and its place in the ecosystem. Sharks have long been the “apex predators” of the ocean, a term that means predators at the top of the food chain. Parker and Parker have stated that “Most sharks are carnivorous,” and as a result nearly every species of fish and other marine life has been the meal of a hungry shark at some point (34). The majority of shark species are hunters, seeking prey one animal at a time. Popular species that engage in this type of feeding are the Great White, Bull, and Tiger Sharks. Other sharks are filter-feeders, which collect their prey by filtering water through their mouths and consuming the remaining plant and animal bits. This diet may consist of carrion matter, phytoplankton, and zooplankton. Popular species that feed this way are the Whale and Basking Sharks. The hunter sharks serve a key role in maintaining the health of the ocean by opportunistic feeding habits. The diet of the shark that hunts typically consists of the least fit of fish, seal, and squid, leaving the best specimens of the ocean to live and produce future generations. The filter-feeding species also serve a role in helping keep the ocean clean by consuming the waste matter from the dead. These two feeding methods are not dissimilar to that of whales; the key difference is that whales are mammals, whereas sharks are fish.

It is the continuous hunting by singular-prey feeding sharks for the least fit of the ocean that leads to human encounters with sharks. When an encounter occurs, knowing how to handle the situation may decrease the probability of injury. In California, The Department of Fish and Game indicates that since the 1950s, there have been a total of 92 encounters with Great White Sharks (White Shark Information Home Page “Summary of

Shark Encounters in California”). Eighty-three percent of these encounters have resulted in injury or fatality. Sixteen percent of the encounters have resulted in no incident to humans, with no data available for one percent. Is it possible that sixteen percent of people knew what to do when faced with a shark encounter? The answer to this question may never be known, but being equipped with the knowledge necessary to handle a shark encounter may be helpful in not becoming a member of the majority group. According to the International Shark Attack File, the following steps are important when handling a shark encounter: 1. Stay calm; 2. Release any catch if one has been fishing; 3. Leave the water if possible; 4. Stay with a “school” of divers; 5. Back up to a structure to limit the angles at which a shark may attack, or drop to the bottom, if the shark becomes aggressive; 6. Use any available object to repel the approach of the shark; 7. If the shark is able to get one into its mouth, fight aggressively by clawing at the shark’s eyes and gills (Burgess “Advice to Divers Encountering a Shark”).

A question that must be pondered is, “do we fear sharks because they are predators, or do we fear sharks because when there is an incident, the media sensationalizes it and demonizes sharks?” Sharks and their attacks have been a favorite topic of horror movies since the adaptation of Peter Benchley’s novel “Jaws” by famous director Steven Spielberg (Jaws). In this movie, a Great White Shark makes the fictional location of Amity Island a proverbial human smorgasbord, then goes on to perform feats such as sinking a several ton fishing boat and other amazingly ludicrous acts. As a species concerned with conservation of our planet and its inhabitants, humans can only hope actual Great White Sharks never learn of the plot and storyline of this movie, lest they all become extinct by way of death from laughter. Another example is the movie “Open Water,” a wildly-imaginative partially true story about a couple that get lost at sea, only to be killed and devoured by sharks (Kentis). The story is partially true in that the couple was indeed lost at sea by an irresponsible dive boat operator; the story speculates that they were killed and eaten by sharks at sea, though their bodies were never recovered and their death assumed (Wirt). Both of these movies go a long way in creating a malicious undertone and negative image for sharks, further ingraining an overt phobia of these creatures that do nothing more than behave naturally in their habitat.

Like all animals that are predatory and capable of devouring man as a meal, sharks are feared by people. This natural instinct of self-preservation was developed by humans many thousands of years ago when hunting and fighting with the beasts of the land, and has led us to hunt other species that posed a threat similar to that of sharks to the verge of extinction. According to Taylor, Taylor, and Goadby, of many different words such as “... rape, death, murder, sex, love, snake, and poison ...” the word “shark” was one that evoked the greatest response amongst Australians in the 1970s (ix). The instinctive fear of sharks is further confounded by the sensationalism and propaganda of horror movies and shark-related incidents. However, the probability of such an incident ever occurring is so minute that most humans will never know a person that has been involved in a shark-related incident, and most will never even see a shark in the wild. The International Shark Attack File indicates that in the year of 2003, 100 alleged incidents involving sharks were reported of which 55 were confirmed as unprovoked shark attacks (Burgess “2003 Worldwide Shark Attack Summary”). The report goes on to say that for the entire decade of the 1990s, unprovoked shark attacks totaled 514, an average of 51.4 unprovoked attacks per year worldwide. The numbers alone indicate that shark-related incidents are rare, especially when considered with the global population

statistics. In consideration of the general anxiety of shark attack, the numbers become less unsettling when contextually compared against other almost daily occurrences.

One such example of a danger greater than sharks is atmospheric events. These events occur so frequently that most people are desensitized to them, and even fail to notice them in the news. A person is more likely to die from a natural atmospheric event than shark attack. One event, the tornado, occurs during only a specific period of months each year. But in this small period of time, tornados annually cause several millions of dollars in property damage across the United States. Burgess cites statistics in the State of Florida where starting in 1985 and ending in 1999, a total of 1036 tornados were recorded (“The Relative Risk of Shark Attacks to Humans”). Of these tornados, the human toll was 69 lives, or a cumulative percentage of 6.6 fatalities. In comparison, shark attacks for the same period in Florida were 213, of which the human cost was 2 lives, or a cumulative of less than one percent. Fatal lightning strike statistics, a number by which lottery winning odds are often compared, were gathered in states bordering on an ocean for comparison against shark attacks. In the range of years from 1959 to 2003, a total of 1,857 fatal lightning strikes occurred in coastal states, an average of 41.5 per year. By comparison, 740 shark attacks were recorded in the same states for the same period, averaging 16.4 per year, and resulting in 22 fatalities, an average of 0.4 per annum. Does this mean that being attacked by a shark is like winning the lottery? The answer is no, though it could be argued that a person is more likely to win the lottery in a lifetime than be attacked by a shark.

Amphibious creatures like the alligator, which differ from atmospheric events in that the creatures are organisms, are another hazard greater to man than that of sharks. Consideration must be given to the lack of wide distribution of alligators due to habitat constraints. Alligators in the United States are found only in Florida, Texas, Louisiana, North Carolina, South Carolina, Alabama, and Georgia (National Parks Conservation Assoc.). American Alligators were on the verge of extinction a little over forty years ago, and were listed as endangered species in the United States though their number is now greater than one million. But in comparison to shark population, their number is still extremely small. For the sake of numbers, Benchley estimates in “Shark Trouble” that for every human killed by a shark, ten million sharks are killed, which would mean that based on a yearly average of 0.4 human fatalities caused by sharks, four million sharks are killed annually. This number is four times the estimated American Alligator population of the entire country (xii)! In spite of their small number and regional restriction, alligators have caused more human fatalities than sharks since collection of alligator attack statistics began. In 1948 the State of Florida began collecting data, followed roughly 28 years later by the States of Alabama, Florida, Georgia, Louisiana, South Carolina, and Texas. From this recorded data, it was determined across these states that a total of 365 alligator attacks had occurred (Burgess “The Relative Risk of Shark Attack to Humans”). This number is less than the 503 shark attacks recorded for the same region. But even with a great number of attacks by sharks, attacks by alligators resulted in more deaths; 13 alligator fatalities, versus 8 shark fatalities. It is not clear whether the greater number of alligator attacks occurred on land or in water. It is clear however that for a species of a smaller number, the American Alligator is responsible for a cost in human life greater than that of the shark.

Land-based animals present a hazard of fatal incident greater than that of sharks or amphibious creatures. Man spends the greatest majority of his time on land surrounded by creatures which are often taken for granted, contrasting visits to bodies of a fractional

frequency and duration where sharks are continuously feared. Two creatures frequently encountered on land by man are dog and deer, one thought of as “mans best friend,” and the other a docile game animal. These creatures often result in a large number of human fatalities. According to the International Shark Attack File, the number of annual fatalities resulting from automobile collisions with deer average 130, in contrast to the previously mentioned 0.4 fatalities per annum from sharks (Burgess “The Relative Risk of Shark Attacks to Humans”). Attacks from “mans best friend” result in a yearly average of 15 fatalities, a multiple of more than 37 times the annual shark fatality rate.

The irony of shark phobia is that the fear of sharks is often greater than that of the most dangerous creature. Human fatalities caused by other humans annually dwarf statistics of fatalities caused by any other factor, natural disaster or animal related. Three categories of human fatalities caused by other humans worthy of mention are bicycle fatalities, crime, and war. According to statistics maintained by the International Shark Attack File, fatalities occurring as the result of bicycle accidents between the years of 1990 and 2001 numbered 9,361, averaging 851 per year, or more than two per day for eleven years (Burgess “The Relative Risk of Shark Attacks to Humans”)! Criminal activity resulting in murders in the United States totaled 16,037 for the year of 2001, and 16,204 for the year of 2002 (FBI). The human deaths as a result of murder during these two years alone are almost twenty-one times greater than the 1540 recorded human deaths caused by sharks through the entire 20th Century! The odds of being killed in the conflict in Iraq between January of 2003 and September of 2004 were only 65 percent of being killed by a shark for the period of 1900 to 1999. It is easy to see from these figures that we daily pass individuals more dangerous and malicious than sharks. The fact that sharks are creatures that lack the facilities to be evil or malicious in the way that humans can be further emphasizes what animal is most dangerous to man (Martin).

A decline in shark populations is creating an imbalance in the world’s oceans that is quickly progressing with the potential for an environmental catastrophe. The problem is mainly the fault of man, and stems from a combination of slow maturation in shark species, an economic boom in Asia, and man’s tendency to over-fish. These factors have caused many species of sharks to decline significantly in numbers, with many entering threatened or endangered status. Musick and McMillian describe shark reproduction and maturation in The Shark Chronicles as a “time-demanding pattern” that cannot compensate for the aggressive harvesting in today’s human-dominated world (97-98). A female Great White Shark, for example, does not reach sexual maturity until roughly the age of fourteen years. Upon becoming pregnant, she will carry the pregnancy for a term of eighteen months. The Frilled Shark, an inhabitant of colder waters whose age of maturity remains a mystery, carries pregnancy for a term greater than three years! A shift in the economic climate of the world to move many of the industrial jobs to China does not directly affect shark species. However, with the growing fortune of many families in China and the fact that nearly one sixth of the population of the planet is of Chinese origin, a Chinese cultural icon of affluence is beginning to create a threat to all shark species. Shark fin, an Asian delicacy, has been in record demand in China concurrent with the economic boom (Reuters). When combined with the fact that no management or controls of shark harvests exists in most countries, and 75 percent of the world’s oceans are experiencing some sort of strain from seafood harvests, one can see how the future of the species is uncertain (Reuters). No actual number for annual shark harvests is known, though most estimates place annual shark harvests in the range of millions, possibly eclipsing Peter Benchley’s previous estimate of four million annually. As a result of the

current trend, the ocean could inevitably experience a boom in species preyed upon by sharks, ultimately upsetting the ecological balance, causing fish stocks to become further depleted, and resulting in the loss of the ocean as a reliable source of food.

The word “shark” evokes a strong emotional response from man, often inciting primal fear towards the apex predator of the ocean. After 400 million years of existence on this planet, the more than 400 species of shark remain as misunderstood now as they likely did when man first encountered them. The media has illogically demonized sharks and sensationalized shark attacks in spite of the minute danger of attack by shark, and greater and more frequent danger posed by natural disaster, land-dwelling animal, and human. For whatever reason, the failure worldwide to manage shark populations is creating an imbalance in the oceans that has the potential to result in an ecological disaster, as millions of sharks are harvested without oversight, and the food chain becomes depleted of top-level predators. Uncertainty exists for the future of all shark species, and until it is acknowledged by the world that man presents a greater threat to shark than shark to man, possibly the only two real certainties the future holds is extinction for the shark, and the loss of the ocean as a food source for man.

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