

Longman Structural Readers: Non-Fiction
Stage 5

Animals Dangerous to Man

Richard Musman

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Longman

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Introduction

One day, a child asked his teacher: 'Which animal does most harm in the world?' The teacher gave him a picture of a man. 'This one,' he replied. For that teacher, men are the most dangerous animals. They are dangerous to themselves, and they are dangerous to other animals too.

Since the earliest times, men have killed. They have killed animals to get food and clothes. They have killed to protect their crops, their farm animals, their land and themselves. They have killed other animals and they have killed other men.

Every species, from elephants to insects, or from trees to the smallest plants, has its own special place in nature. This is called the *balance* of nature. But wherever men have made their homes, they have changed this balance. By their farming, hunting and building, they have changed nature.

For example, men have exterminated, or nearly exterminated, some species of animals. This may have helped other species to multiply too quickly. These species may do great harm to men, or to men's food supply. Men refuse to accept this, so they call these animals 'pests'. They try to exterminate them. Other species harm men in other ways. Rats and flies carry disease, for example. They too are called 'pests'. Which animals can be called pests? And should they be exterminated? We cannot easily answer these questions. We are now beginning to understand the problems that these questions raise. If men destroy a pest, they change the balance of nature. This causes new and unexpected problems. These new problems are perhaps more dangerous than the pest. People are now very worried about the ways we control pests. If chemicals are used, will they harm only the pest? Or will they also harm other kinds of life, and men too? Will they do more harm than the pest did?

This book deals with four species that are usually called pests. The first are sharks, which take a lot of fish from the sea. Next are locusts, which destroy men's food supply. Third are rats, which spread disease and cause damage. Last are mosquitoes, which spread malaria. What are these animals like? Are they really dangerous pests? How do they live? How much damage do they do? How is man trying to fight them? A journalist called Jack Simon asks scientists these questions, and others. Is man, in fact, his own worst enemy?

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Chapter 1

SHARKS

An unusual fish

Jack Simon was a journalist. He wanted to write about animals that are dangerous to man. So he decided to visit some scientists and ask them questions.

'Journalists like you talk too much about shark attacks,' said the scientist. 'They're not really a great danger. The sea round here is full of man-eating sharks. But many more people are drowned than those who are eaten by sharks.'

'We don't say too much about the horror of shark attacks,' Jack Simon replied. 'Sharks are probably the most feared animals in the world. Don't you agree?'

Jack and the scientist were looking down into a salt-water tank. In it, two large lemon sharks were feeding. They were yellow in colour, like the lemon fruit. They were tearing a large piece of meat into small pieces. The water was red with blood.

The tank belonged to a laboratory that was studying the habits of sharks. The calm Caribbean lay beyond. These lemon sharks had been fished from it a few months before.

'The fear is largely in the mind,' the scientist said. 'Of course sharks attack and kill men. But ask yourself this question. Are sharks' teeth a more terrible instrument of death than the steel parts of a car? We don't think that a car is an enemy. This is because we made it, and it's useful to us. But we're afraid of sharks. We think that they're terrible because, in the sea, they're stronger than us. You know, Pacific islanders once accepted sharks as gods. It isn't surprising.'

Jack turned away from the blood-filled tank.

'I think you quite like sharks,' he said.

'Well,' the scientist replied, 'I certainly respect them.'

'Can you tell me the difference between sharks and whales, please?' Jack asked. 'I'm not quite clear about this. Sharks and

'Sharks are probably the most feared animals in the world.'

whales are different; I know that. But some whales seem very like sharks, and some sharks seem very like whales. Killer whales look and behave like sharks, but whale sharks look and behave like whales. Isn't that true?

'Yes, it is,' said the scientist. 'Most people don't know that. They think that all sharks are dangerous, and all whales are big and gentle. This isn't true. The killer whale is as fierce as any shark. It has great sharp teeth that can tear the largest fish into pieces. It will attack a man. And you're right about the whale shark. It's bigger than most whales. In fact, it's so big that you could almost play football on its back! And it might let you do that, because it's very gentle. Besides, the whale shark feeds like most whales. It eats only plankton, which are the smallest living things in the sea.'

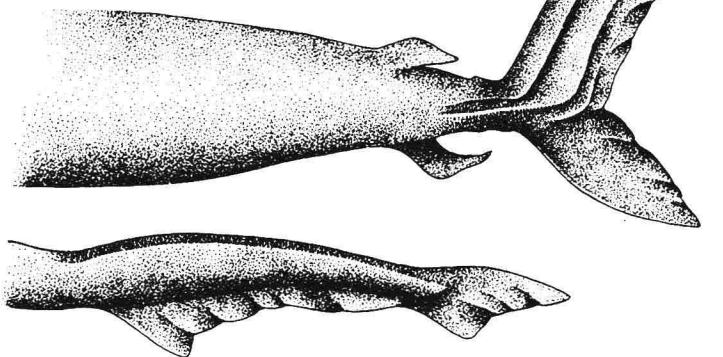
'So what is the difference between whales and sharks?' asked Jack again.

'Oh, there's a very important difference,' said the scientist. 'Sharks are fish, but whales are mammals. That is, whales have

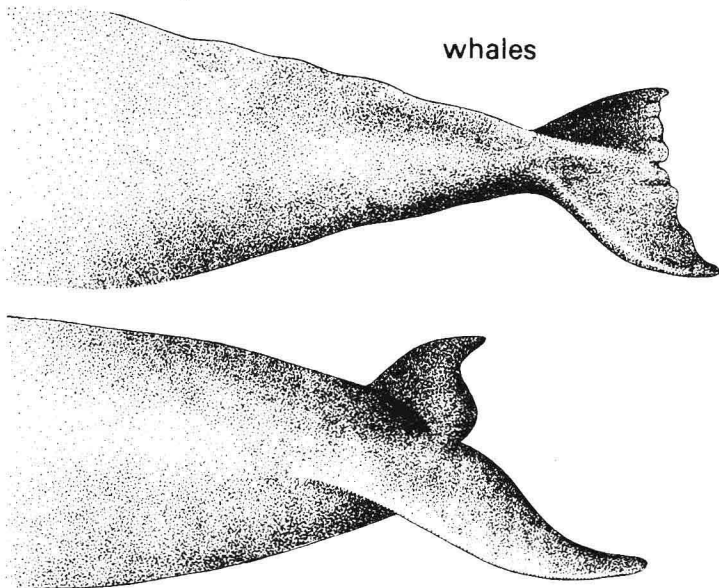


'The killer whale is as fierce as any shark.'

sharks



whales



Sharks have tails like other fish. The first whales lived on land like other mammals. When they began to live in water the changes in their bodies made their tails different.

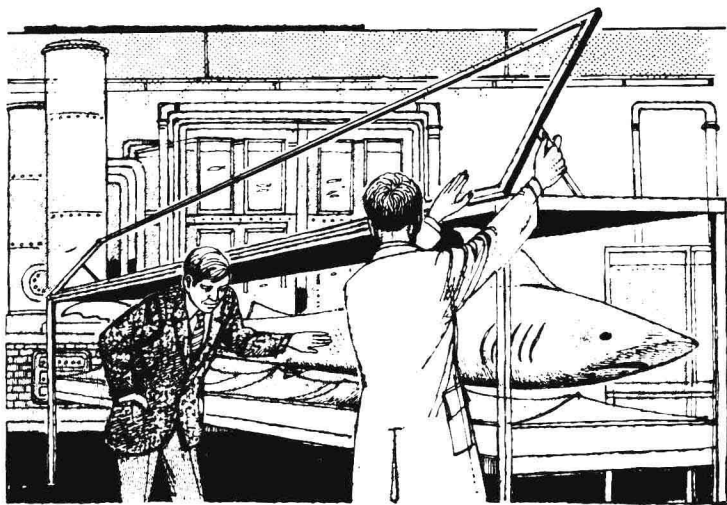
warm blood. Young whales are born alive, and they feed on their mother's milk. Whales have been on earth for a very long time. They once lived on the land. Now they live in the sea and they have lost their legs. But they still breathe air. On the other hand, sharks are fish. They have cold blood. They do not feed their young, and they breathe water. They die if they stay in air.'

'How many species of shark will eat men?' asked Jack.

'Very few,' replied the scientist. 'In fact, only about fifteen. And there are more than two hundred species of shark. The seas around your British coasts are full of sharks. Some of them are very large, but they aren't man-eaters. You know, *shark* and *whale* are family names. Cats and lions belong to the same family, but they're very different. So are the different species of shark or whale. Some species of shark are very small. You could keep them in a glass tank in your house.'

'No, thank you!' said Jack firmly.

The scientist laughed. He took Jack to a room in his laboratory. There were pictures of sharks on the wall. There was



Jack rubbed his hand along the shark's side. He felt a sharp pain.

also a large glass case. It contained the body of a white shark. This is the largest and most dangerous man-eating species. Jack went to the case, and the scientist opened it.

‘It’s an unusual fish,’ said Jack. He put his hand into the case and rubbed it along the shark’s side. He felt a sharp pain, and he looked at his hand. There was blood on it.

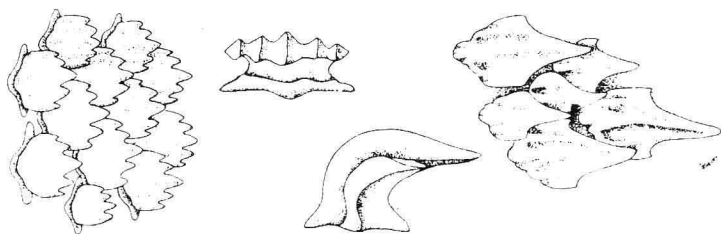
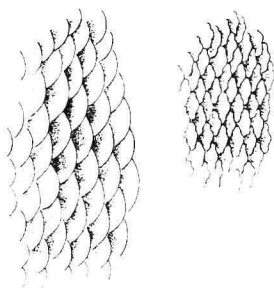
‘I’m sorry,’ the scientist said. ‘I shouldn’t have let you touch it. I ought to have warned you. A shark doesn’t always need its teeth to kill. It can tear the skin off a man with its own skin. Fish are covered with thousands of scales. With most fish, the scales are thinner and softer than leaves. But the shark’s scales are very rough indeed.’

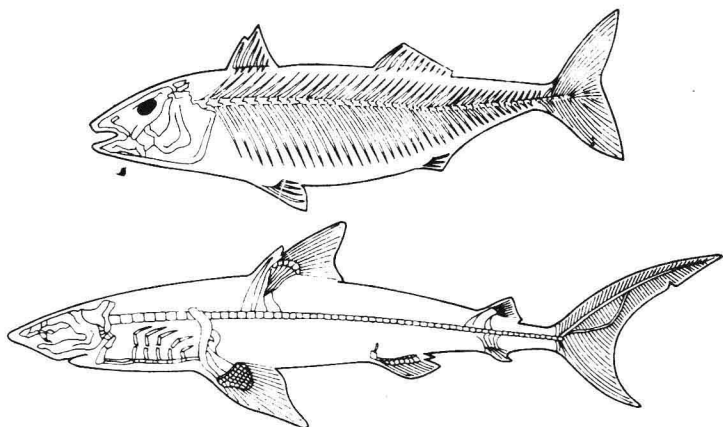
‘Yes,’ said Jack. ‘I agree with that!’

‘Have you ever seen those shark-skin bags that some women buy?’ asked the scientist. ‘A shark’s skin is not like the skin of any other fish. Here, let me show you some other differences.’

They went to a drawing that was hanging on a wall. Jack immediately saw another important difference between sharks and other fish. Most fish have a large backbone, and other bones

Most fish are covered with thousands of scales like these. The scales are soft and thin and the fish is soft to touch. But the shark’s scales are very rough indeed. These pictures show why they can tear the skin off a man.





Most fish have a large backbone and other bones are joined to this. But the shark has no real bones at all.

are joined to this. But the shark has no bones at all. 'The shark is a very old kind of fish,' said the scientist. 'It appeared on earth a long time ago. Later fish have bones, but the shark can manage quite well without them.'

The scientist explained more differences. 'Most fish,' he said, 'lay eggs. They lay thousands of them, sometimes millions. But most female sharks seldom produce more than eighty-five young. They lay eggs, but the eggs hatch inside the shark and the young are born alive. You see, the shark is a fish, but it's a very special fish.'

'I see,' said Jack. 'Now you say that you're doing experiments. What are they?'

'Sharks are mysterious animals,' said the scientist. 'There are still a lot of things we don't know about them. For example, divers talk about man-eating sharks. Some divers say that they are cowardly animals. They say that they've hit sharks on the nose, and the sharks have swum away immediately. Other divers in the same seas haven't been so lucky! What makes a shark attack its victim? Why does it attack on one day, but not on another? We're trying to answer these questions, and many others. Come back to the tank with me.'

They went back, and the scientist called to an assistant. The assistant placed some raw meat at the far end of a tank. The scientist then opened a gate, and let a shark swim in from another tank. The shark swam straight to the meat, and ate it.

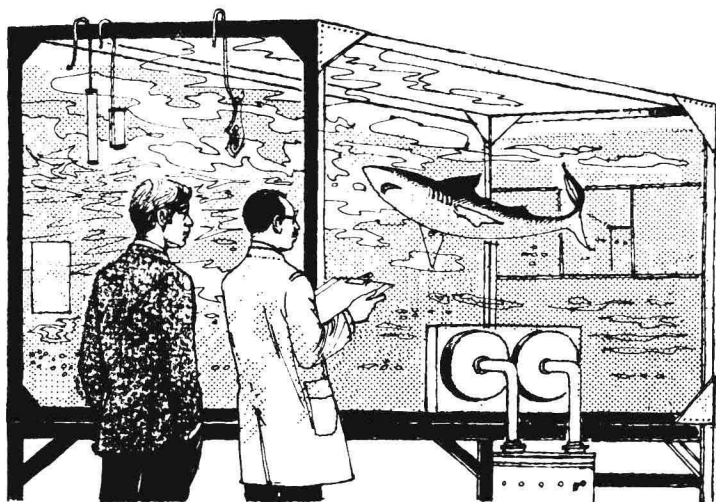
'You see,' said the scientist. 'It found its food at once. It smelled the blood. The shark has been called the "swimming nose". It's a good name. A shark can smell food 400 metres away. And it can smell blood most easily.'

'So it doesn't use its eyes?' said Jack.

'I didn't say that,' said the scientist. 'Watch this experiment.'

The scientist and his assistant caught a smaller shark. They covered its eyes so that it could not see. Then they placed another piece of meat in the tank, and let the shark swim in. It swam straight towards the meat. But when it was only a few metres away, it stopped. Clearly, it did not know which way to go. The assistant moved the meat first to the left, then to the right. The shark could not find it.

'There's your proof,' said the scientist. 'Sharks have good



Sharks need their eyes. When their eyes are covered they cannot find the meat so easily.

noses, but that's not enough. They need their eyes. In fact, sharks can tell the difference between colours. They seem to like bright colours most of all.'

Jack remembered a strange story that he had once read. An American army plane had landed in the Caribbean. The airmen had had to jump into the sea. Sharks appeared at once, but they attacked only the airmen in orange suits. They did not touch the men who were dressed in green. Jack repeated the story to the scientist.

'Can this be true, then?' he asked.

'Oh yes,' said the scientist. 'In fact, your girl friends shouldn't wear bright swim-suits, when there are sharks about. Tell them that!'

'What about sharks' hearing? Do they hear well?' asked Jack. 'If I fell into that tank, should I keep very quiet? Or should I shout, and make a noise? Are sharks frightened by noise?'

The scientist did not answer. He took another piece of meat and threw it into the water. Then he took a stick and began to hit the water with it. As soon as the shark smelled the meat, it swam straight to it. It knocked the stick out of the scientist's hand. Then it took the meat and ate it.

The scientist went to the other end of the tank and hit the water again. This time he did not throw in any meat. But the shark immediately swam to the place.

'You see,' said the scientist. 'Swimmers are often given bad advice. It sometimes has terrible results. Sharks have a strong sense of smell, but they often use all their senses to find their food. They probably wouldn't steal so many fish from fishermen if they didn't hear the noise. Noise doesn't always make them go away.'

Jack learned many other facts about the strange life of sharks and how they behave. For example, male sharks do not eat when they are searching for a mate. And female sharks do not feed where they are looking after their young.

'There's a reason for this,' the scientist said. 'It protects the young from attacks by their own species. Sharks sometimes attack and eat other sharks of their own species, you know. But,

as I've said, we still can't explain all shark behaviour. Why do sharks of the same species behave differently on different days? We still don't know for certain. Why are they sometimes very dangerous, and at other times quite harmless?'

'You said that there are sharks in every ocean of the world. There are sharks even in the cold waters of the North Atlantic,' said Jack. 'But man-eating sharks seem to be found only in tropical seas.'

'That's not quite true,' replied the scientist. 'Sharks have killed swimmers off the New England coast. That's a long way north of New York. And someone was once killed a few hundred metres from the beach in Monte Carlo. With shark attacks, it isn't the place that's important. It's the temperature of the water. Let me give you an example. Cape Town, in South Africa, has beaches on the Atlantic Ocean and on the Indian Ocean. You can almost draw a line where the warm Indian Ocean meets the cold Atlantic. The man-eating sharks seldom cross that line. Now come with me. I want to show you something interesting.'

The scientist took Jack to a small tank. A lemon shark was swimming lazily. There were several large fish in the same tank. They were alive and unharmed. They had been sharing the tank with the shark for the last two months.

'The water in this tank is 20° Centigrade,' said the scientist. 'Now I'll show you another tank.'

In this tank two lemon sharks were swimming. They were more excited than the first shark. The scientist took a piece of dead fish and threw it to them. They both rushed towards it at once. The larger shark ate it before his companion had a chance.

'Until a few weeks ago, the temperature in this tank was also 20°C,' the scientist said. 'Like the first shark, these two refused to eat. We then raised the temperature by only one degree to 21°C. Very soon they began to feed again. Now, as you can see, they're very hungry. That one degree made all the difference.'

'So the danger of shark attacks depends on the temperature of the water?'

'Very largely, yes. In tropical seas there's danger at all times

of the year. This is because the water temperature never falls below 21°C. North and south of the tropics, there are large rises and falls of temperature. In those places there's danger only in the summer months. Take New South Wales, in Australia, for example. New South Wales has more shark attacks than any other place in the world. But it isn't in the tropics. And nearly all the attacks happen in the summer. That's between the end of October and the beginning of March. During the winter the water temperature seldom rises above 20° Centigrade.'

'Do sharks move to warmer seas during the autumn?' Jack asked.

'Yes, they do. We've discovered this by catching sharks and marking them. Then we put them back into the sea. Some of the sharks that we'd marked have been caught later hundreds of kilometres away. Others, belonging to the same species, have been caught only two or three kilometres away. This is a mystery that we still don't fully understand. One common species of shark behaves strangely in the Caribbean. The sharks in the Gulf of Mexico do move to warmer seas. But those around Trinidad always stay in the same waters. Why? We don't know. The water temperature in both places is almost the same. There seems to be nothing regular about sharks' behaviour.'

The danger of sharks

There was one true shark story that Jack could never forget. It happened during the Second World War. A British ship, called the *Nova Scotia*, was going from the Red Sea to Durban in South Africa. It was carrying more than a thousand South African soldiers and Italian prisoners of war. There was no protecting warship, because the danger of enemy attack seemed small. It was a long way from Europe. But a German submarine had reached the Indian Ocean. It was waiting outside Durban when the *Nova Scotia* appeared.

The submarine sent the *Nova Scotia* to the bottom of the sea. The ship went down in six minutes. Many men were killed at

once. Many others were badly hurt, and they died minutes. But hundreds were alive. They were not worried. The sea was calm and warm. They thought: 'A ship will find us in the morning. We'll soon be rescued.' A ship did find them, but it rescued only 183 men. There were no others. The sharks had taken the rest.

Thirty-five years later, Jack spoke to one of these men.

'I was on a raft,' the man said. 'There were men all round me in the water. They were swimming, or holding on to pieces of wood. Suddenly I heard a shout. It came from a man who was a few hundred metres away from me. He threw his arms in the air. Then he disappeared beneath the water. He never came up again. That was the beginning. The sharks had smelled the blood of the dead and dying men. There seemed to be hundreds of them. Man after man gave a terrible shout and then disappeared. I even saw sharks attack men on the rafts. They jumped right out of the water.'

This was the most terrible shark attack that the Indian Ocean had ever seen. The survivors said that the sharks had attacked them in groups – as wolves do. This was not true. In fact, sharks never attack in groups. They have no leader. They hunt and kill their victims for themselves. But, of course, several sharks may sometimes attack the same victim at the same time.

Jack talked to many people who had escaped from shark attacks. Their experiences were often strangely different. The men from the *Nova Scotia* said that the sharks had not touched dead bodies. They had attacked and eaten only living men. An American pilot told Jack a very different story.

'Once I had to land right in the middle of the Caribbean,' the pilot said. 'The plane was badly damaged. I was all right, but my companion was badly hurt. I pulled him into the sea before the plane went down. But he was already dead. When the sharks arrived, they took my friend and ate him at once. They didn't touch me. They swam round and round me. They were waiting for me to die!'

When shark attacks are reported, the species is seldom named. Usually no one knows which species of shark made the attacks.