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TITLE=SCIENCE IN THE NEWS #2138 - Digest  
BYLINE=Staff

VOICE ONE:

This is Bob Doughty.

VOICE TWO:

And this is Sarah Long with Science in the News, a VOA Special English program about recent developments in science. Today, we tell about how doctors re-attached the arm of a boy after a shark attack. We tell about ancient cave drawings in France. We tell about a product to treat wood. And we tell about a new project to fight malaria.

((THEME))

VOICE ONE:

Last month, doctors at Baptist Hospital in Pensacola, Florida, re-attached the right arm of an eight-year-old boy named Jessie Arbogast. A bull shark attacked Jessie and bit off his arm as he played in the ocean at the Gulf Islands National Seashore in Florida. The shark was more than two meters long and weighed about ninety kilograms. The sharp teeth of the shark made a clean cut in Jessie's arm between the elbow and the shoulder. This made it easier for doctors to re-attach the arm. Doctors say the re-attached arm probably will not be fully normal. But it will be able to move.

VOICE TWO:

During the operation doctors treated the wound. They also slightly shortened the arm. This permitted them to place a device to hold the arm where it belongs. The doctors lined up the muscles, blood vessels and nerves in the arm with those in Jessie's body. They reconnected the muscles that permit the arm to move. The doctors repaired nerves, arteries and veins. And, they placed metal screws to hold the arm in place. The blood in the arm began to flow again. Finally, the doctors repaired Jessie's skin.

VOICE ONE:

Jessie was playing in the water near the shore late in the day when the shark bit him. A family member seized the shark and pulled it out of the water. A park service officer shot the shark. Rescuers recovered the arm and sent it to the hospital. Jesse also suffered a severe bite on one leg, kidney damage and intestinal bleeding. The

shark attack had caused him to lose almost all his blood and stop breathing. Family members and other people worked for twenty minutes to re-start his breathing before a helicopter flew him to the hospital.

Doctors say Jessie's general condition has improved. For a while, the boy was completely unable to react to his surroundings. In late July he began reacting to changes in sound and light. He returned home earlier this month.

VOICE TWO:

Jessie is one of about seventy people bitten by sharks in the United States and Puerto Rico in the past year. Last year, there were thirty-four such attacks in Florida. Experts say the bull shark is the most aggressive and fearless of all sharks. The bull shark searches for food close to shore. Experts believe it attacks people when it mistakes them for fish. This often happens when it begins to get dark.

((MUSIC BRIDGE))

VOICE ONE:

Experts say drawings found in caves in western France may have been made thirty-thousand years ago. The Cussac cave art has been called a major discovery. A man exploring the caves in the village of Cussac found the ancient drawings by accident last September. French officials did not make the news public until last month.

The Cussac cave drawings are of animals such as bison, horses, rhinoceroses and birds. The drawings also show people and include sexual pictures. The drawings were cut into the rock walls of the caves. French ministry officials say these caves are special because the art is still in very good condition. And the drawings have a lot of details.

VOICE TWO:

Dany Barraud works for the cultural agency of the French government. He told reporters that more than one-hundred drawings have been found so far in the Cussac caves. Officials think there are many more pictures. The ones found cover a cave nine-hundred meters long, about fifteen meters wide and more than ten meters high. One drawing of a bison is four meters long. It is the largest single prehistoric drawing cut in stone that has been discovered. Another picture includes forty animals.

VOICE ONE:

Experts are testing the drawings to find out their exact age. But they do not consider them to be the oldest drawings cut in stone that have been found. Drawings as old as thirty-four-thousand years were discovered in a cave in the Ardeche area of France in Nineteen-Ninety-Four. However, scientists believe the Cussac discoveries are older than the well-known cave paintings of Lascaux, also in western France. Researchers believe the Lascaux paintings are eighteen-thousand years old.

VOICE TWO:

Another difference with this discovery is that human remains were found with the cave art. Seven burial places with human bones were found in the Cussac caves. Scientists are testing the human remains to find out their age. It is not known if the art is the same age as the remains.

Mister Barraud says the caves will not be open to the public. He says the cave floors are made of weak clay and the limestone walls break easily. Temperature changes would destroy the ancient art. However, the French scientist says a copy of the drawings may be made in a nearby cave for visitors to see.

An expert of prehistoric rock art, Jean Clottes, says the Cussac drawings are special and different from any others. This art teaches us about the people who lived long before history was recorded. They too, like us, found value in art.

((MUSIC BRIDGE))

VOICE ONE:

American officials have approved a plan to inform people about a chemical mixture added to some wood products that are used outdoors. The government will require that wood treated with chromated copper arsenate carry warning signs. Chromated copper arsenate is a chemical mixture approved for protecting wood. It protects wood from insects, bacteria and other organisms that can cause damage.

Treated wood lasts at least five times longer than untreated wood. In the United States, the chemical mixture is most commonly added to wood used in playground equipment for children. It also is found in wood structures added to houses, fences and outdoor tables.

VOICE TWO:

Chromated copper arsenate is a product of the chemicals arsenic, chromium and copper. Arsenic is a substance found in nature and produced by industry. It is known to cause cancer in humans.

During the Nineteen-Eighties, the Environmental Protection Agency studied the use of the chemicals to treat wood. At the time, E-P-A officials ruled that wood treated with the chemicals did not cause unreasonable risks to most people. However, they were concerned about the health effects on people who work daily with such products. The agency later required protective measures for workers who treated the wood. It also ordered restrictions on the use of treated wood.

Recently, E-P-A officials asked the wood protection industry to strengthen the program to inform Americans about the dangers of the chemicals. The American Wood Preservers Institute developed the new plan. The program also will tell the public about safe ways to use the treated wood.

((MUSIC BRIDGE))

VOICE ONE:

Johns Hopkins University in Baltimore, Maryland has received one-hundred-million dollars to develop new medicines to prevent and treat the disease malaria. The identity of the person who gave the money to Johns Hopkins is a secret. The money will establish the Johns Hopkins Malaria Institute.

Alfred Sommer heads the Bloomberg School of Public Health at the university. Doctor Sommer says many experts in medicine, genetics and human populations will be working at the new Malaria Institute. There will be at least one-hundred people involved in the project.

VOICE TWO:

Mosquito insects spread malaria to people by biting them. The disease attacks the liver and destroys red blood cells. The World Health Organization says the disease infects as many as five-hundred-million people every year. It kills more than one-million people each year. The W-H-O says most cases are in developing countries in very warm areas of the world.

Doctor Sommer says he does not expect the Johns Hopkins Malaria Institute to completely end the disease in the next ten years. But he says the goal is to develop a vaccine or drug to prevent or treat the disease. He says this would be a huge step forward in the struggle against malaria.

((THEME))

VOICE ONE:

This SCIENCE IN THE NEWS program was written by Jerilyn Watson, Doreen Baingana, George Grow and Jill Moss. It was produced by Cynthia Kirk. This is Bob Doughty.

VOICE TWO:

And this is Sarah Long. Join us again next week for more news about science in Special English on the Voice of America.

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