06 August 2012 | **MP3** at voaspecialenglish.com

Bonobos Threatened With Extinction

FAITH LAPIDUS: This is SCIENCE IN THE NEWS, in VOA Special English. I'm Faith Lapidus.

CHRISTOPHER CRUISE: And I'm Christopher Cruise. Today we tell about an African ape, the bonobo. Bonobos were the last ape to be discovered. They might also be the first to become extinct, disappearing forever.

(MUSIC)

FAITH LAPIDUS: A new genetic map of the bonobo shows just how close these endangered creatures are to human beings. The map also shows how genetically close both bonobos and humans are to chimpanzees.

Chimpanzees and bonobos share almost ninety-nine percent of our DNA or deoxyribonucleic acid. Chimpanzees, bonobos and humans share a common ancestor. Scientists say ancestors of modern humans split away from the two ape species four point five to seven million years ago.

Chimpanzees and bonobos are very different from each other. Chimps are generally more aggressive than bonobos. We will tell more about their differences later in this report.

CHRISTOPHER CRUISE: The new genetic map, or genome, may help scientists learn more about how bonobos, chimpanzees and humans developed. The Los Angeles Times newspaper reported that the completion of the bonobo genome now "gives scientists a complete catalog of the DNA of all of the…great apes."

Scientists already have completed genomes for humans, chimpanzees, gorillas and orangutans. Researchers plan to map the genomes of many more individual ape species.

FAITH LAPIDUS: Kay Prufer is with the Max Planck Institute for Evolutionary Anthropology in Leipzig, Germany. She was one of the researchers who mapped the bonobo genome. They used DNA from an eighteen-year-old female bonobo named Ulindi, who lives at the Leipzig zoo.

KAY PRUFER: "Bonobos and chimpanzees are both our closest living relatives and that is something that you can clearly see in the genome."

CHRISTOPHER CRUISE: The researchers found that in three percent of the shared genes, humans are more closely related to bonobos and chimpanzees than the two apes are to each other. The genome showed that bonobos share about ninety-eight point seven percent of their genes with people and ninety-nine point six percent with chimps. That means they are almost as closely-related to humans as they are to chimpanzees.

The genome maps of bonobos and chimpanzees also show that humans are more closely-related to the two great apes than scientists once thought. Here again is researcher Kay Prufer.

KAY PRUFER: "So I think the most interesting thing that I saw in the genome is really this one point five percent of the genome where bonobos are closer to us, and the one point five percent of the genome where chimpanzees are closer to us."

FAITH LAPIDUS: Bonobos may look like small chimpanzees, but they are, in fact, a completely different species. Kay Prufer says the genetic differences between bonobos and chimpanzees may be explained by where the animals live. In the wild, the peace-loving bonobos can only be found in one place – the Democratic Republic of Congo.

KAY PRUFER: "The formation of the Congo River -- which is about two million years ago -- probably it divided up the ancestor in two different parts; the one below the Congo River, which are the bonobos, and the chimpanzees, which live north of the Congo River; this geological event essentially divided up this ancestor and formed these two different species."

CHRISTOPHER CRUISE: Bonobos have lived for millions of years in a place where food is plentiful. To the north of the river, chimpanzees and gorillas often live close to one another. They compete fiercely for food in a place where there is much less of it. Researchers believe this may explain why chimpanzees are so aggressive and bonobos are not. Researchers say the bonobo genome shows that after the Congo River was formed, the chimps and bonobos did not mate.

Richard Ruggiero is chief of the Asia and Africa branch at the United States Fish and Wildlife Service. He says the mapping of the bonobo genome is an important development. He believes these findings could be of great help to the bonobos - the world's most-endangered primates.

RICHARD RUGGIERO: "In the near term, it will raise interest, and that's very

important because awareness is the first step in conservation. And developing the will to do something about it is the second step in conservation. And the third step is understanding what to do about it in order to act on that greater will and awareness."

Richard Ruggiero says the new research makes him feel better about the future of bonobos.

RICHARD RUGGIERO: "I think this paper brings some of the intuitions we've had full circle, and puts numbers and more concrete scientific information on something that is quite obvious to those of us who've been closer to them. And so this paper is a wonderful step forward, not only in science but in that important first step of awareness about the plight of this species and what we as humans need to do to ensure that our own activities don't wipe them out."

FAITH LAPIDUS: Environmental and wildlife groups are working with local communities in the Congo to create protected areas for bonobos. And a large bonobo sanctuary near Kinshasa is helping orphaned bonobos return to the wild.

A report on the bonobo genome was published in June in the science journal "Nature." We have placed a link to the report on our website.

(MUSIC)

CHRISTOPHER CRUISE: Bonobos were the last ape to be discovered, in the nineteen twenties. And they may be the first to die out. Researchers believe fewer than seven thousand bonobos now live in the wild. Scientists and wildlife experts say these great apes provide important information about how humans developed.

As we noted earlier, bonobos look like chimpanzees, but they are a completely different species of primates. They are smaller than chimps, but what is really different about them is their behavior.

Chimps can be aggressive. They kill monkeys, and sometimes each other. But bonobos are peaceful. And they sometimes use sex to settle conflicts. Bonobos can have sex for reasons other than producing young. One researcher said bonobos use sex almost like humans use a handshake.

FAITH LAPIDUS: Male bonobos do not compete with each other and do not fight. And bonobos share food with one another throughout their lives. Chimpanzees usually stop doing that when they become adults.

Sally Coxe is the president of the Bonobo Conservation Initiative in Washington,

DC. She says there are other differences between bonobos and chimps.

SALLY COXE: "Chimpanzees have a male-dominated society, whereas bonobos are matriarchal. The females are in charge. They have a more egalitarian and cooperative society than chimpanzees, and they are the only primate other than humans that has sex not just for procreation. So that's earned them the moniker as the 'make love not war' apes, or the 'hippie chimps' as it were."

CHRISTOPHER CRUISE: Filmmaker Irene Magafan recently completed a documentary called "The Bonobo Connection." Her film tells about a family of bonobos at the zoo in Columbus, Ohio.

Bonobos are the rarest apes in captivity. There are fewer than two hundred of the animals kept in zoos in the United States and Europe. And they are the least-studied of all the great apes. Irene Magafan says bonobos are the most endangered African ape.

IRENE MAGAFAN: "Biggest threat to bonobos is by far the bush meat trade. People are hunting bonobos; they're killing these animals, and they're taking them back to market to sell them."

FAITH LAPIDUS: The Bonobo Conservation Initiative has worked with the government and local communities to create two protected nature areas, including one that is larger than the nation of Belgium. Lola Ya Bonobo is the only bonobo sanctuary in the world. It is near Kinshasa, the capital of the DRC. Orphaned bonobos are nursed back to health there. If possible, they are returned to the wild.

Filmmaker Irene Magafan says that, in making sure there is a protected area for bonobos to return to, we are also helping ourselves. She says the animals live in the second-largest rainforest in the world after the Amazon rainforest. She calls these rainforests the "lungs of the earth." She says, "this is how our earth breathes. The Congo rainforest is where we get a lot of our medicines, and it is where the earth gets a lot of its oxygen, so imagine us losing that!"

You can see a discussion with Sally Coxe and Irene Magafan, and part of her film, on our website, voaspecialenglish.com.

CHRISTOPHER CRUISE: Sally Coxe of the Bonobo Conservation Initiative gives high praise to the animals.

SALLY COXE: "Bonobos are so highly intelligent; they are so naturally compassionate, naturally peaceful, insightful beings that getting to know them personally as I have, they're like people, and in some ways better than people.

We really have so much more to learn about bonobos that we have barely scratched the surface."

Both she and Ms. Magafan say that by understanding bonobos and how they live, we can learn how to live more peaceful lives ourselves.

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FAITH LAPIDUS: This SCIENCE IN THE NEWS was reported by VOA's Julie Taboh and adapted into Special English by Christopher Cruise. Our producer was June Simms. I'm Faith Lapidus.

CHRISTOPHER CRUISE: And I'm Christopher Cruise. Join us again next week for more news about science in Special English on the Voice of America.