



## SCIENCE & TECHNOLOGY

# Study Finds Female California Condors Can Reproduce without a Male

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A new study suggests that female California condor birds can reproduce without a male.

Researchers with the San Diego Zoo Wildlife Alliance said genetic tests confirmed the findings. The group said that two baby males, called chicks, that **hatched** in 2001 and 2009 from unfertilized eggs, were related to their mothers. But neither chick was related to a male.

The study was published last week in the Journal of Heredity. It is the first report of **asexual** reproduction in California condors.

Reproduction from an unfertilized egg can happen in other animals such as sharks and bees.

But in birds, it usually only takes place when females are not around males. In this case, each mother condor had bred with males before. The two mothers involved in the research had produced 34 chicks. Each was with a fertile male condor at the zoo when they produced the eggs without male help.

The researchers said they believe it is the first case of asexual reproduction in any bird species where the female had **access** to a mate.

Olivia Ryder leads genetics work for the San Diego Zoo Wildlife Alliance. She is also the study's co-writer. She said the findings raise questions about whether this kind of reproduction is happening in other species.

The non-profit Wildlife Alliance runs the San Diego Zoo and Safari Park. It has been involved in a California condor reproduction program that helped save the huge birds from disappearing.

California condors are the largest flying birds in North America. They used to be found throughout the West Coast. But only 22 remained in the 1980s when the U.S. government captured condors and placed them in zoos to increase their numbers. About 160 were raised at the San Diego Zoo and Safari Park.

There are now more than 500 California condors, including more than 300 that have been released into the wild in California, Arizona, Utah and Mexico.

The asexual reproduction was discovered a number of years ago. Testing of genetic material collected from condors, both living and dead, in reproduction programs and in the wild appeared to confirm the results.

The study tested 467 male California condors to find out if they were related to the two birds in question. None of them were found to have a genetic connection.

California condors can live up to 60 years. But the two male birds that hatched in 2001 and 2009 were not healthy. One was less than 2 years old when he died. The other lived less than eight years.

I'm Ashley Thompson.

*The Associated Press reported this story Ashley Thompson adapted it for VOA Learning English. Mario Ritter, Jr. was the editor.*

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## Words in This Story

**hatch** -v. to be born by coming out of an egg

**asexual** -adj. (*scientific*) of or relating to a kind of reproduction that does not involve the combining of male and female cells

**access** -*n.* the ability to get something, enter a place or meet someone

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