

## Study finds California condors can have 'virgin births'

October 29 2021



In this June 21, 2017, file photo, a California condor takes flight in the Ventana Wilderness east of Big Sur, Calif. Endangered California condors can have "'virgin births," according to a study released Thursday, Oct. 28, 2021. Researchers with the San Diego Zoo Wildlife Alliance said genetic testing confirmed that two male chicks hatched in 2001 and 2009 from unfertilized eggs were related to their mothers. Neither was related to a male.Credit: AP Photo/Marcio Jose Sanchez, File



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The study was published Thursday in the the *Journal of Heredity*. It's the first report of <u>asexual reproduction</u> in California condors, although parthenogenesis can occur in other species ranging from sharks to honey bees to Komodo dragons.

But in birds, it usually only occurs when females don't have access to males. In this case, each mother condor had previously bred with males, producing 34 chicks, and each was housed with a fertile male at the time they produced the eggs through parthenogenesis.

The researchers said they believe it is the first case of asexual reproduction in any <u>avian species</u> where the female had access to a mate.

"These findings now raise questions about whether this might occur undetected in other species," said Oliver Ryder, the study's co-author and director of conservation genetics for the San Diego Zoo Wildlife Alliance.

The non-profit alliance runs the San Diego Zoo and Safari Park and has been involved in a California <u>condor</u> breeding program that helped bring the giant vultures back from near-extinction.

With 10-foot (3-meter) wingspans, California condors are the largest flying birds in North America. They once ranged throughout the West Coast. But only 22 survived in the 1980s when the U.S. government



captured them and placed them in zoos for captive breeding. About 160 were bred 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 some years ago during widespread testing of genetic material collected over decades from condors, both living and dead, in breeding programs and in the wild.

"Among 467 male California condors tested in the parentage analysis, no male qualified as a potential sire" of the two birds, the study said.

California condors can live up to 60 years, but both males were sickly. One was less than 2 years old when he died, and the other lived less than eight years.

**More information:** OUP accepted manuscript, *Journal Of Heredity* (2021). DOI: 10.1093/jhered/esab052

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Citation: Study finds California condors can have 'virgin births' (2021, October 29) retrieved 26 April 2024 from <a href="https://phys.org/news/2021-10-california-condors-virgin-births.html">https://phys.org/news/2021-10-california-condors-virgin-births.html</a>

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