

PARTING SHOT

A weekly snapshot from The Daily Astorian and Chinook Observer photographers



A long exposure photograph shows the South Jetty at night in November.

Joshua Bessex/The Daily Astorian

ODDITY



Puppies born by in vitro fertilization at the Baker Institute for Animal Health in Ithaca, N.Y., could open the door for conserving endangered species of canids and for eradicating heritable diseases in dogs.

Test-tube puppies? Woof

Half-pound mutts from surrogate hound are the first conceived in a test tube

By SUE MANNING
Associated Press

LOS ANGELES — A team of veterinarians, scientists and lab workers gathered around a surrogate hound and watched her give birth to seven half-pound puppies, the first dogs ever conceived in a test tube.

“We each took a puppy and rubbed it with a little towel and when it started to squiggle and cry, we knew we had success,” said Dr. Alexander Travis, who runs the lab at the Baker Institute for Animal Health at Cornell University’s College of Veterinary Medicine in Ithaca, New York.

“Their eyes were closed. They were just adorable, cute, with smooshed-in faces. We checked them to make

sure they looked normal and were all breathing,” he said.

The puppies born July 10 are a mix of beagle, Labrador and cocker spaniel and are now healthy 5-month-olds, Travis said. All but one female were adopted. She’s being kept by the lab to have her own litter.

The lab kept track of the puppies by painting their nails with different color polish. Travis adopted two, still known by their nail polish names, Red and Green.

Previous attempts failed

In vitro fertilization, the process of fertilizing an egg with sperm outside the body, is widely used to assist human reproduction these days. The first human birth from IVF took place in 1978.

But IVF efforts with dogs repeatedly failed until now, according to Dr. Pierre Comizzoli, a reproductive physiologist for the Smithsonian Conservation Biology Institute in Front Royal, Virginia, which works with Cornell.

“The biology of the dog is really, really different than humans,” Comizzoli said. Dog pregnancies last only two months and females go into heat just once or twice a year, releasing immature eggs instead of mature eggs needed for IVF.

An earlier experiment at Cornell helped pave the way. In 2013 at Cornell, Klondike became the first puppy born from a frozen embryo. Klondike’s beagle mother was fertilized using artificial insemination. Her embryos

were collected, frozen and implanted in Klondike’s surrogate mother.

‘A huge breakthrough’

Comizzoli described the birth of the seven puppies “as a huge breakthrough.”

A paper describing the Cornell litter as “the first live births from in vitro fertilized embryos in the dog” appeared Tuesday in the PLOS ONE journal. The lead author, Smithsonian Conservation Biology Institute doctoral fellow Jennifer Nagashima, said IVF technology in dogs could prove useful in everything from conserving endangered species to removing “deleterious traits from breeds,” with research potentially applicable to “models for human disease” as well.