

# science & TECHNOLOGY

## What would NOAH do?

By STEVEN PIWONKA  
*The Battalion*

There is a story, which is thousands of years old, about a man named Noah who conducted a preservation project of epic proportions, saving every species of animal known to man.

Recently, the College of Veterinary Medicine began to spin its own tale of preservation with a project that would have made Noah proud and with technology Noah would have liked to have.

Named "Project Noah's Ark," its goal is to prevent endangered species from vanishing.

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— Dr. Duane Kraemer  
Director of Project Noah's Ark

Unlike the first ark, however, the lab will not use hundreds of stables and pens to house live animals: this lab only collects their genes.

Dr. Duane Kraemer, director of the project and a researcher in the College of Veterinary Medicine, said the lab is a 28-foot-long trailer that contains "a complete genetics lab on wheels."

The truck-pulled trailer houses a surgery room, an examining room, a recovery area, and the latest reproductive biotechnology medical equipment. It requires no outside resources to complete its goals.

"This new lab is a dream we've had for about 15 years," Kraemer said. "With it, we are able to go directly to the animal's environment. It's a state-of-the-art lab that can go just about anywhere there's a road."

The lab cost \$120,000 and was funded by a matching grant from the Trans Pecos Desert Bighorn Sheep Restoration Society, which is headed by Clayton Williams Jr., a former student of A&M. Dodgen Industries of Humboldt, Iowa, which makes mobile medical and dental facilities, built the trailer.

The finished product, called the Mobile Reproductive Genetics Lab, took a year to design and three months to build.

"It's like no other we've made," said Bill Ryan, director of Dodgen's veterinary division. "It's bigger than most, and it's got the very best equipment."

The first mission for the lab is to honor the project's benefactors by collecting samples and performing experiments on the bighorn sheep of West Texas.

The sheep, which once numbered in the thousands, are now a threatened species in Texas.

"As well as collecting DNA from skin samples for possible cloning, we also engaged in embryo transfer and in vitro fertilization of the sheep," Kraemer said. "A long-term goal of ours is to spread favorable characteristics from one group of sheep to another that does not show those characteristics."

Kraemer said that some populations of bighorn sheep are more resistant to diseases and parasites than others. Therefore, researchers cross-fertilized members of different populations in an attempt to spread the desired genes to places they would not reach without

human intervention.

Kraemer said that the bighorn sheep are not reproducing fast enough and it is necessary to implant fertilized eggs in other species to help them along.

Once a recipient is found, the lab is fully equipped to fertilize eggs and implant them inside a host on site.

"The Armenian type sheep as well as other local sheep with relation to the bighorn are the best candidates for carrying an implanted bighorn embryo to term," he said.

Kraemer said that there are no future plans set in stone for the mobile facility, but the best guess would be a journey to collect samples from addax antelopes, another endangered species.

Project Noah's Ark's lab is housed at the Reproductive Sciences Lab at 500 University Drive West.



PHOTO ILLUSTRATION BY STUART VILLANUEVA AND RUBEN DELUNA/THE BATTALION

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