

German scientists to harvest sole surviving sumatran rhino's eggs

DE 30-4-2019 3
SANDAKAN: Scientists from Leibniz Institute for Zoo and Wildlife Research (IZW), Germany will be making an effort to harvest the eggs from Malaysia's sole surviving Sumatran rhino, a female affectionately known as Iman, at the Tabin Wildlife Reserve in Lahad Datu.

Borneo Rhino Alliance (Bora) Executive Director, Datuk Dr Junaidi Payne said Prof Thomas Hildebrandt, Dr Robert Hermes and Dr Frank Goeritz would be travelling to the Borneo Rhino Sanctuary at the wildlife reserve today and begin to harvest eggs from Iman under general anaesthesia tomorrow.

"Hopefully, they (scientists) can get the eggs out, and then those eggs will be taken to the newly established advanced reproductive technology (ART) laboratory at the Faculty of Sustainable Agriculture, Universiti Malaysia Sabah (UMS), here.

"Normally, when you harvest an egg from a female, you have to mature it for half a day up to three days...Prof Arief Boediono of Bogor Agriculture University, Indonesia will thaw frozen semen taken from the demised Tam (a male Sumatran rhino that died in May), pick out a sperm and inject it into the egg (in vitro fertilisation or IVF)."

Payne said this when met by Bernama on the sidelines of a seminar on the application of ART to endangered wildlife species in Southeast Asia, co-organised by the Sabah Wildlife Department, Bora and UMS, here Sunday.

He said, hopefully, the effort could boost the number of Sumatran rhinos that were near extinction.

"If it does work, there will be an embryo, which will be put in liquid nitrogen at about 90 degrees Celsius and it (embryo) can stay there forever.

"In order for the embryo to develop, it requires a surrogate mother, which Malaysia now relies on Indonesia as the neighbouring country has four female Sumatran rhinos in captivity.

"Iman is not fit to get pregnant, but has a normal menstrual cycle producing one or two eggs every month," he explained.

Malaysia and Indonesia are expected to sign a memorandum of understanding on Sumatran rhino conservation soon.

According to Payne, Iman, now in her 20's, has suffered a tumour in her uterus, which makes it difficult for a pregnancy to develop and therefore, artificial insemination on Iman would be futile.

On the application of ART to boost the birth rate of Sumatran rhinos in Malaysia, he said a new method was being tested on cells from Puntung, a female Sumatran rhino suffering from cancer that had to be euthanised in 2017 at the Tabin Wildlife Reserve.

"This is something for the future. Many people don't know that it's possible since a few years ago, to make sperm and eggs from other cells.

"If you want to think of the future, if you want to boost the number of living genomes, say, when an animal has died, you can actually preserve its biology in cell culture," he said.

Payne said immediately after Puntung's euthanasiation, tissues from various parts of her organs were taken and sent to the International Islamic University Malaysia, Kuantan campus.

"The general trajectory is more towards that it will be possible to make sperm and eggs out of the preserved cells of animals that have died...those genomes will contribute to the future," he said.