

# Two new embryos created in race against time to prevent the extinction of the northern white rhinoceros

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Oocyte collection in January 2022 in Kenya. Credit: BioRescue/Jan Zwilling

In two sets of procedures between October 2021 and February 2022 the BioRescue consortium created two new northern white embryos,

bringing the total to 14. Oocytes (egg cells) were collected from northern white rhino Fatu in October and January at Ol Pejeta Conservancy, Kenya, and were matured and inseminated at Avantea laboratory, Italy. The developed embryos were cryopreserved in November 2021 and February 2022, and await transfer to southern white rhino female surrogates in the foreseeable future.

The procedures in October 2021 and January 2022 at Ol Pejeta mark the seventh and eighth successful oocyte collection conducted by the team of scientists and conservationists of Leibniz Institute for Zoo and Wildlife Research (Leibniz-IZW), Safari Park Dvůr Králové, Kenya Wildlife Service, Wildlife Research and Training Institute, Avantea, University of Padua and Ol Pejeta Conservancy. In the eight procedures since 2019, the team retrieved a total of 119 oocytes from Fatu and her mother Nájín—resulting in 14 embryos. Since these embryos exclusively originate from Fatu's oocytes, BioRescue decided to cease egg harvesting on Najin following an ethical risk assessment in 2021. Following the recent oocyte collections, the eggs were airlifted to Avantea laboratory in Cremona, Italy, for maturation, fertilization, embryo development and cryopreservation. Both recent embryos were produced using semen from northern white rhino bull Angalifu. In total, there are now 11 embryos from Fatu and northern white rhino bull Suni and three embryos from Fatu and Angalifu stored in liquid nitrogen for future embryo transfers.

A greater number of [embryos](#) increases the chances of eventually producing a northern white rhino calf. The consortium aims to repeat [oocyte](#) collection from Fatu and embryo development on a regular basis, as long as it is feasible and responsible considering Fatu's welfare and the chances of success. This will be determined by regular ethical risk assessments that are conducted before every BioRescue procedure under the guidance of the Ethics Laboratory for Veterinary Medicine, Conservation and Animal Welfare at Padua University.



Oocyte retrieval in January 2022 in Kenya. Credit: BioRescue/Jan Zwilling

Provided by Forschungsverbund Berlin e.V. (FVB)

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