Mongabay Series: Asian Rhinos

Love triangle complicates efforts to breed Sumatran rhinos

by Basten Gokkon on 27 December 2019

- Efforts to breed the critically endangered Sumatran rhino in captivity have faced myriad challenges ranging from mysterious deaths and reproductive health problems to bureaucratic hurdles.
- Now, a sanctuary in Indonesia that has previously witnessed the birth of two healthy calves is facing a new, unexpected obstacle: relationship problems.
- One pair of rhinos, Andalas and Ratu, have successfully produced two calves. But after keepers attempted to mate Andalas with a second female, his previous mate now rejects him.
- Producing as many calves from the captive rhinos is a top priority in efforts to conserve the species, whose wild population is fewer than 80 individuals.

EAST LAMPUNG, Indonesia — Efforts to breed the critically endangered Sumatran rhinoceros (*Dicerorhinus sumatrensis*) in captivity have faced numerous challenges. Breeding programs have been plagued by mysterious deaths, reproductive health problems and bureaucratic hurdles. Now, a sanctuary in Indonesia that has previously witnessed the birth of two healthy calves is facing a new, unexpected obstacle: relationship drama.

Since the 1970s, Indonesian biologist Widodo Ramono has devoted his work to the conservation of wildlife in the country, especially the iconic Sumatran rhinos. While experts like Widodo have learned plenty about the species, much remains mysterious. They are always learning more about what makes the animal tick.

The latest surprising development has been a complicated love triangle among three rhinos at the Sumatran Rhino Sanctuary (SRS) in Indonesia's Way Kambas National Park, Widodo told Mongabay during a recent visit to the facility. The three animals involved are Andalas, Ratu, and Rosa — likely the most reproductively viable captive rhinos.



Zulfi Arsan, head veterinarian at the Sumatran Rhino Sanctuary, hand feeds Andalas. Image by Jeremy Hance for Mongabay.

Conservation work on the Sumatran rhinoceros is largely focused on efforts to produce as many calves as possible from captive animals. The wild population of the species is believed to number no more than 80 individuals, scattered across a several habitats in Sumatra and Borneo. These remaining populations are so small and fragmented that experts fear they cannot support a birth rate that exceeds the natural death rate. Without a robust captive breeding program, the population could simply dwindle to extinction.

Over the years, captive breeding attempts have yielded both successes and failures. Beginning in the 1980s, 40 wild rhinos were captured and brought to zoos and breeding facilities in Indonesia, Malaysia, the U.K. and the U.S. Almost all died without offspring; the first successful captive birth came in 2001, at the Cincinnati Zoo in the U.S.

That calf, named Andalas, was later transferred to the Way Kambas sanctuary where he has successfully fathered two calves with a female named Ratu who was born in the wild near Way Kambas. The pair's first calf, Andatu, was born in 2012. His sister, Delilah, followed in 2016.

In 2016, hoping to have more females producing calves, Widodo and his team decided to try mating Andalas with a second female held at the SRS. The female, Rosa, is possibly the last rhino from Bukit Barisan Selatan National Park, a once-thriving rhino habitat that stretches the western coast of Lampung province.

Sumatran rhinos can get rough when they mate: they ram and bite each other, and males sometimes even lift up the females. It can be life-threatening for the animals. According to Widodo, though, Andalas was "kind" to Rosa during the mating process.

"He liked her. We were excited that he mated with Rosa and she didn't get severely injured," Widodo said.

Although the pair successfully mated, Andalas and Rosa did not produce any calves. Rosa would get pregnant, but the embryos were not viable. According to Widodo, Rosa lost seven pregnancies due to blighted ova.



Rosa, who was born in the wild in Sumatra, now lives at the Sumatran Rhino Sanctuary in Way Kambas National Park. Image courtesy of Terri Roth.

In 2018, Widodo's team tried to mate Andalas with his previous mate Ratu, hoping for another successful birth. "But, she refused. We don't know why," Widodo said. His assumption is that Ratu refused to mate with Andalas because she could smell a trace of Rosa on his body.

"Right now, her [Ratu's] keepers are putting in a lot of effort so that she wants to mate with Andalas again," Widodo said. In the process, they are learning about how

to persuade a rhino to mate. "This is difficult. Being a matchmaker for rhinos isn't easy."

Incidents like the affair between Andalas, Ratu and Rosa have prompted Widodo to call on wildlife experts to learn more about the psychology of the species. Widodo says this knowledge could be key in producing more baby rhinos. "That's the strategic way to save this species —in fact this genus — of the Sumatran rhino," he said.



Ratu and Andatu in 2012. Photo by Susie Ellis courtesy of IRF.

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