

Mongabay Series: Asian Rhinos

For elusive Javan rhinos, camera traps are a benevolent Big Brother

by Nuswantoro on 3 December 2018 | Adapted by Basten Gokkon



- *Camera traps in an Indonesian park have recorded the first ever video of Javan rhinos mating in the wild.*
- *The critically endangered species, with an estimated population of just 68 individuals, is notoriously elusive, evading even the conservationists and rangers responsible for studying and protecting it.*

- *The network of 120 camera traps, introduced in 2010, has given researchers and park officials valuable insights into the rhinos' biology and behavior, and helped inform conservation strategies for the species.*

YOGYAKARTA, Indonesia — “This is the world's first ever video of a wild Javan rhino couple mating,” Mamat Rahmat declared in a presentation to veterinary undergrads in the Indonesian city of Yogyakarta on Oct. 20. The 10-minute clip was captured on Nov. 5, 2017, from one of the many camera traps set up in Indonesia's Ujung Kulon National Park, the last place on Earth where critically endangered Javan rhinos (*Rhinoceros sondaicus*) are found.

In it, a male rhino known as Pajero mounts a female known as Palasari in a mud wallow frequented by the park's rhinos. Palasari, who already has an offspring, is now pregnant again, according to Mamat, the head of the park. (Javan rhinos have a gestation period of 16 to 19 months, so if the birth is successful, the new baby should be born in the first half of 2019.)



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A female Javan rhino named Puri and her calf are caught on camera. Image courtesy of Ujung Kulon National Park Agency.

The clip is one of the many gems in the growing treasure trove of video and photos from Ujung Kulon, a collection painstakingly set up, monitored and sifted through by conservationists working with park officials and the local community.

There are only an estimated 68 Javan rhinos (<https://news.mongabay.com/2018/04/two-newborn-javan-rhinos-spotted-on-camera-in-indonesian-park/>) left on Earth, all concentrated in Ujung Kulon, an area smaller than the capital, Jakarta, on the western tip of Indonesia's Java Island. The species is known to be solitary and faces a litany of threats (<https://news.mongabay.com/2018/11/for-javan-rhinos-the-last-holdout-may-also-be-a-deadly-disease-hotspot/>), so any sign of the animal mating is good news for its survival.

Javan rhinos are also notoriously elusive (<https://news.mongabay.com/2018/11/jaw-dropping-footage-conservationists-catch-javan-rhino-in-mud-wallow/>), to the extent that many

of the conservationists and even rangers (<https://news.mongabay.com/2018/08/in-protecting-the-javan-rhino-locals-gain-a-more-meaningful-life/>) who have dedicated years to the study and protection of the species have seldom encountered one in the wild. Rhino censuses in Ujung Kulon were for decades carried out not by sighting individual rhinos, but based on their footprints.

That changed in 2010, when the agency that manages the park began setting up a network of camera traps provided by NGOs including WWF and the International Rhino Foundation (IRF). Within a year, conservationists were able to visually distinguish 35 adult rhinos (13 females and 22 males) and five calves through physical characteristics such as the shapes of their ears and horns, the folds of their skin, even any physical defects. These identified individuals have all been given names.

Since then, the videos and images taken by the camera traps have revealed, among others, a trio of typically solitary rhinos frolicking together in the same mud wallow; mating attempts; a lone male appearing to masturbate ("An extraordinary finding that we need to study," Mamat said); and even a live birth, although the moment the calf emerges isn't captured, Mamat said.

These discoveries have given conservationists priceless insights into the lives and behaviors of these fleetingly rare animals, and are helping inform conservation strategies for the species.

"Knowing that they are mating gives hope for the survival of Javan rhinos," Mamat said.

"Ujung Kulon is still a good habitat for the rhinos because they continue to feel safe to mate."



A camera trap records a female Javan rhino with her calf. Image courtesy of Ujung Kulon National Park Agency.

There are now camera traps installed in 120 spots across the rhinos' range. Members of the local community participated in setting them up, part of a transfer of knowledge that park officials hope will boost the community's sense of ownership of the conservation program.

"It's their house, with all their valuable belongings in it, and so it's up to them to protect it," Mamat said. "The local community is now a key aspect of the conservation management."

The latest rhino census, in 2017, put the estimated population at 67 individuals: 30 females and 37 males. The number has held steady in recent years, but cataclysmic threats still hang over the species.

Squeezed into just a single habitat, the rhinos are particularly vulnerable to threats from human activity, disease and natural disasters. Just off the coast of Ujung Kulon sits Anak Krakatau, a highly active volcano born from

the legendary eruption of 1883 that killed more than 36,000 people. The Krakatau eruption also generated tsunami waves more than 30 meters (100 feet) high; recent research suggests a large tsunami could effectively wipe out all Javan rhinos

(<https://news.mongabay.com/2017/09/can-the-javan-rhino-be-saved-before-disaster-strikes/>).

These threats have pushed conservationists and officials to try to find a second site where part of the rhino population can be relocated, to establish a new population center. The current shortlist includes locations in western Java, but experts have also suggested sites in Sumatra, which is already home to the Sumatran rhino (*Dicerorhinus sumatrensis*), also critically endangered.

For now though, Ujung Kulon is the only home the rhinos have. And as long as they can continue to breed there, overlooked by a network of cameras, Mamat is happy: "That's all we hope for."

Image banner of a wallowing Javan rhinoceros in Ujung Kulon National Park by Robin Moore/Global Wildlife Conservation.

The story was reported by Mongabay's Indonesia team and was first published (<http://www.mongabay.co.id/2018/11/01/kisah-romantis-perilaku-kawin-badak-jawa/>) on our Indonesian site (<http://www.mongabay.co.id/>) on Nov. 1, 2018.