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Where, oh where, are the rhinos of Bukit Barisan Selatan?

Are the park's Sumatran rhinos getting better at hiding from humans or have they simply disappeared? BY [JEREMY HANCE](#) ON 8 NOVEMBER 2017

Mongabay Series: [Asian Rhinos](#)

- *Some claim a small but viable population of about a dozen rhinos persists deep within the forests of Bukit Barisan Selatan National Park on Sumatra's southwestern coast.*
- *Camera traps haven't captured a single rhino there since 2014, spurring doubts there are any rhinos remaining at all.*
- *The disputed numbers lead to questions about what should happen to any rhinos that might remain in the park — and to the rangers assigned to protect them.*

This is the second article in our four-part series "Is Anyone Going to Save the Sumatran Rhino?" Read [Part One](#), a look at how many rhinos remain in the wild [here](#).

LAMPUNG, Indonesia — Dripping with sweat, breathing heavily, I followed several members of the Rhino Protection Unit (RPU) down a steep, forested slope characteristic of Sumatra's Bukit Barisan Selatan National Park. I was thankful whenever we paused: to look at a spot where a deer had rubbed against a tree, or examine the cabbage-like giant *Rafflesia* flower that we'd just missed blooming. Near the bottom of the slope we stopped long enough to take a drink over a large indentation in the ground.

"This is Rosa's wallow," said Marsum, the field coordinator of the RPUs at Bukit Barisan Selatan, on the southwestern coast of the island of Sumatra.

"Rosa? Wait — the rhino Rosa?"

"Yes, she used to wallow here," explained Marsum, who, like many Indonesians, goes by one name.

We were within 20 minutes' walk of the road and the RPU camp, a cluster of buildings on the slopes of cloud forest. A Sumatran rhino (*Dicerorhinus sumatrensis*), here?



Rosa at her home at the Sumatran Rhino Sanctuary. Photo by Willem v Strien via [Flickr](#).

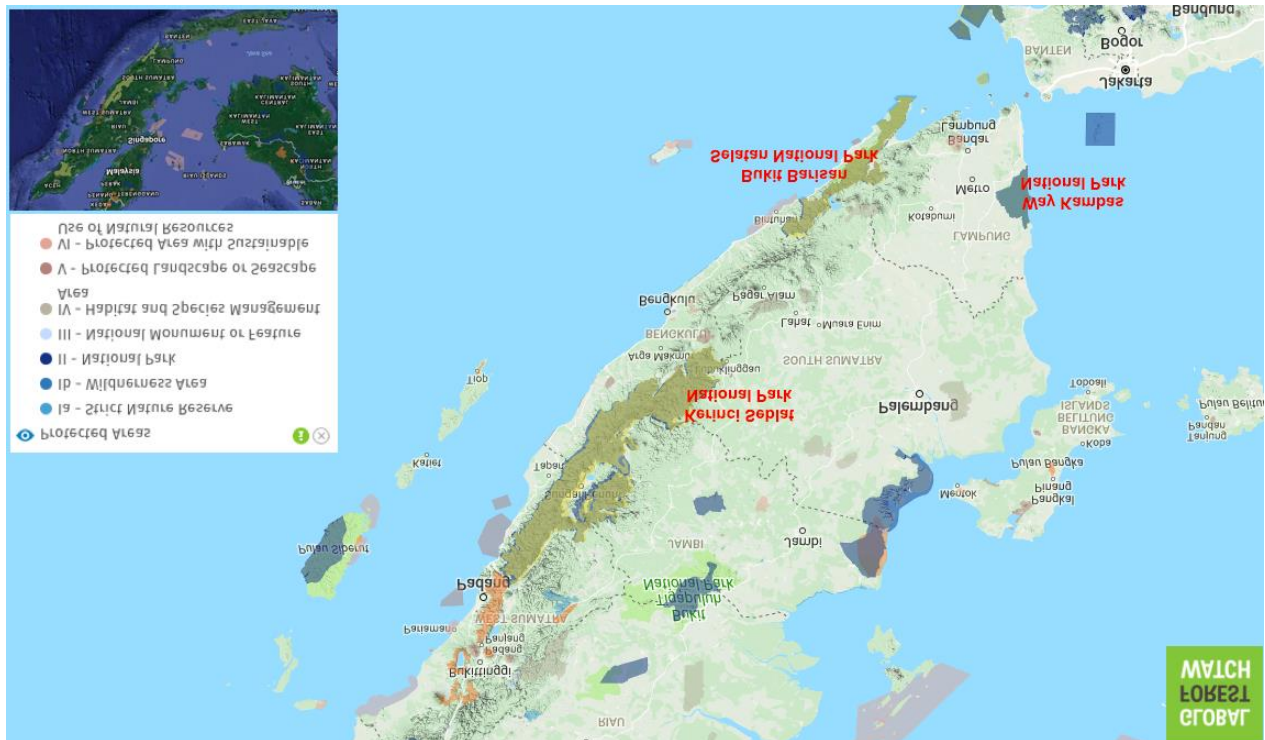
Today, Rosa lives in the Sumatran Rhino Sanctuary (SRS), just inside Way Kambas National Park on Sumatra's east coast, where she was moved in 2005 for her safety. Unlike most of her kind, Rosa had become unafraid of people, even eating out of their gardens. The last straw came when she was found in a local market, followed by hundreds of villagers. Zulfi Arsan, the head veterinarian at the SRS, describes her behavior as "kind of disturbed".

Around the time of Rosa's escapades, experts estimated that Bukit Barisan Selatan was home to 60 to 80 rhinos. But Rosa may have been one of the final rhinos of Bukit Barisan Selatan, representing a last gasp for this population, and a warning of imminent extinction of her species — the oldest, smallest, hairiest and most vocal of the rhinos.

There are two narratives about the rhinos in Bukit Barisan Selatan. One claims that a small but potentially viable and still breeding population of about a dozen individuals persists deep within the forest. The other is that the rhinos are all but gone; maybe a few individuals survive or maybe the last one died in recent years, leaving Bukit Barisan Selatan bereft of the Sumatran rhino, like so many other sites in Asia today.

The story of Bukit Barisan Selatan's rhinos, and whether Rosa was one of the last, raises the central question of Sumatran rhinos today: should we capture the rest of the rhinos for captive breeding, or can any population still survive in the wild? But there is another, lesser discussed, question here. What happens to the brave men

and women who today protect the rhinos of Bukit Barisan Selatan? What happens to the Rhino Protection Units if there are no more rhinos to protect?



Bukit Barisan Selatan National Park lies at the southwestern tip of Sumatra Island. Way Kambas, another rhino habitat is to the east, and Kerinci Seblat, once home to the species, to the north.

Rhino signs?

In an effort to better count Bukit Barisan Selatan's rhinos, Rhino Protection Units collected 62 samples of rhino dung in 2012 and 2013. But when genetic testing was performed, the results surprised everyone: over 60 percent of the samples were not rhino, but tapir.

As experts watched rhinos disappear from other sites like Kerinci Seblat National Park, further north along the Bukit Barisan mountain range, and Sabah in Malaysian Borneo, a discomfiting realization overtook them: we'd been [overestimating Sumatran rhino populations for decades](#). Was the same thing happening in Bukit Barisan Selatan? Were we confusing signs of tapir, and other large animals, for rhinos? Were we victims of wishful thinking?

The RPU, which is funded largely by the International Rhino Foundation (IRF), has four tasks: protection, surveying, habitat restoration, and investigation of poachers and the illegal wildlife trade.

But after the tapir dung incident, many began to question whether the RPUs had the expertise necessary to accurately estimate rhino populations. Were they, as had happened so many times before, finding “rhinos” where there weren’t any?

Currently the RPUs monitor rhinos via “signs”: footprints, dung, wallows, twisted branches. But there are problems with each of these signs. One can mistake a tapir footprint for that of a rhino, [especially if the footprint is old or degraded](#). Dung, as shown by the genetic study, has also proven problematic. Wild pig wallows and rhino wallows look practically the same. And while rhinos are the only animals in the area that twist branches as they eat, it’s still possible to mistake a twisted branch for the existence of a rhino.



A rhino wallows in the mud at the Sumatran Rhino Sanctuary — a behavior also shared by other local species. Photo by Rhett A. Butler/Mongabay.

None of this is to say that the RPUs aren’t doing their jobs well; few people have more day-to-day, on-the-ground expertise with rhinos than RPU staff. Some of them have been protecting rhinos since the late 1990s, putting their lives on the line for a species they almost never see in the flesh.

“It’s easy to distinguish rhino and tapir [footprints] and I believe our team ... know how to distinguish [them],” said Inov Sectionov, the Indonesia program coordinator for the IRF.

Still, humans make mistakes. And errors may become more common when monitoring a species that is barely there anymore.

For example, what happened with the rhino dung that turned out to be tapir? Arief Rubianto, the manager of the RPUs in Sumatra, said rain during the collection period made it more difficult to tell the dung apart. “This is not the fault of the RPUs,” he said, noting that the team collected as much dung as they could in the hope of getting as many samples of rhino DNA as possible.

Arief said RPUs are finding fewer rhino “signs” in Bukit Barisan, but he contends this doesn’t mean the rhino population has decreased, because RPUs have not found any signs of dead rhinos in recent years. Instead, he argues, encroachment, fires and other human activities have driven rhinos deeper into the park’s steep slopes — hardly prime habitat for a species that many believe probably preferred lowland forests and grasslands before humans wiped them out from those areas. He added the government has “not successfully handled” illegal activities in the parks.

Arief claims there are at least 12 rhinos left in Bukit Barisan Selatan, including two calves this year, based on footprints. The population, he says, is “stable” but “very low.” If true, it may be enough to make up a viable population, assuming they are all capable of breeding (a 2015 report estimated a minimum of 15 rhinos would be needed for a viable population).

But Arief’s estimate was the most optimistic I heard.

Camera trap tales

The overall consensus among other experts is that there are considerably fewer rhinos in Bukit Barisan Selatan. Susie Ellis, the head of the IRF, said she believed there are only a “handful” left.

Camera trap data is bearing this out. A 2014 survey only photographed one or two rhinos, and none have been photographed since – though the RPUs reported that they sighted an individual in 2015.

Wulan Pusparini, a researcher with the Wildlife Conservation Society, said her group’s Smart Patrols are finding fewer and fewer elephants every year in Bukit Barisan Selatan — and, unlike the RPUs, have found zero signs of rhinos. She said the RPUs are simply finding “false positives”.

“It’s quite understandable, you’re a rhino protection unit: your sole existence is based on the rhino. You see Bigfoot when you want it,” she said.

Still, in a bid to find the rhinos of Bukit Barisan Selatan, WCS is employing more camera traps, hoping to confirm Arief's hidden population.

"In Bukit Barisan you put 20 cameras and it's not enough; you put 50 and it's not enough ... They plan to put 200 cameras out," Wulan said. "It will never be enough."

Yet Arief has a ready response to why camera traps are not catching rhinos any more: he says Sumatran rhinos have learned to avoid anything to do with humans, including camera traps.

Wulan is highly skeptical of this claim. She pointed to Gunung Leuser National Park, in northern Sumatra, where the WCS has employed just 25 camera traps and confirmed a population of at least 12 animals.

"If there's a rhino, we will capture [it]," she said.

John Payne, head of the Borneo Rhino Alliance, said that when researchers found the female rhino, Iman, in Malaysian Borneo's Danum Valley, WWF was able to get dozens of pictures of her.

"They're such easy animals to find, really, if they're there," Payne said. "This thing about their being shy is ... nonsense. Like any wild animal, if they're spooked, they'll run away; but if they don't hear you, you'll see them."

Payne said RPUs should be seeing rhinos regularly if they are there in the numbers claimed. But Arief argues that patrolling has, itself, begun disturbing rhinos. "Every NGO... has [a] patrol unit in the same place," he said, an issue that, according to him, has further pushed rhinos off well-worn trails and deeper into the bush.

Wulan contends the "burden of proof" is on those who think the rhino population is still viable, and not on those who believe that the rhinos may be gone — or, at best, reduced to a handful. "You have to prove the rhino is there," she said.

And to date, no one can.

This debate has had real-world consequences: conservation groups are no longer using RPU monitoring data to estimate rhino numbers. In a sense, the RPUs have been sidelined, though they are still seen as essential by all stakeholders for protection and other efforts, including removing snares and catching poachers.

Rhino dilemma

Can we ever know if there are rhinos left? Ellis says to look to the methods used to observe Javan rhinos in Ujung Kulon National Park. Not long ago, no one had great

data on Javan rhino numbers. Then, the IRF and WWF covered the whole park with camera traps. Now the numbers are irrefutable.

“Suddenly we have the best data we’ve ever had in hand,” Ellis said. “It shouldn’t be that difficult to do in the other parks.”

Yet Payne argues that counting Sumatran rhinos is a waste of time and resources. Instead, he says, they should simply be caught.

And this raises the question: if there are any rhinos left in Bukit Barisan Selatan, what should we do about them?

“Even if it is 10, it’s not a very viable population. The government needs to think through some proactive steps,” said Bibhad Talukdar, chair of the IUCN SSC Asian Rhino Specialist Group. Talukdar added that he’d like to see a “very rapid survey” to find out how many are left, and that “if [the] male-female ratio is encouraging, maybe you ... just need very active protection.”

However, an expert meeting May in Jakarta reached a consensus that recommended all rhinos in Bukit Barisan – if there are any – should be captured and brought into sanctuaries in order to boost the small captive breeding population. Most of the experts I spoke with took this line.

“Any rhino out of Bukit Barisan [Selatan] should be caught and put into SRS or Way Kambas, it doesn’t matter,” Widodo Ramono the executive director of local NGO YABI, told me.

Widodo’s views hold particular clout as he is a member of the Joint Rhino Conservation Secretariat of Indonesia that is advising the government on what to do. However, it’s not yet clear if the government is convinced – to date no traps have been set to catch rhinos in Bukit Barisan.

Removing the population may be the best long-term hope for the species. But what about the men and women of the RPU’s?



RPU staff examine a tree rubbed against by a deer. From left to right: Yuliane Afterya, assistant manager of education in Sumatra for the RPUs; Marsum, the field coordinator of the RPUs at Bukit Barisan Selatan; and Bahara, a senior member of the RPU. Photo by Jeremy Hance for Mongabay.

In the RPUs' corner

My second night, the RPUs took us on a hike to find tarsiers. The tarsiers were a no-show, but we found plenty of leeches. We also found some spectacular toads, lizards and a newly bloomed *Rafflesia*. The RPUs didn't speak English and I don't speak a word of Indonesian, but I was immensely impressed with their skills — wandering through bamboo forests at night, flicking leeches off my neck, and finding things I couldn't have seen in broad daylight. I spent 36 hours with the RPUs in Bukit Barisan Selatan and left deeply impressed by their dedication, their skills, their hospitality, their toughness and their humor.

After lunch on the second day, I sat down for a chat with Marsum and Bahara, a senior member of the RPU. Yuliane Afterya, assistant manager of education in Sumatra for the RPUs, translated for us. They told me the last time RPUs had directly seen a rhino was in 2015, but that their team had seen calf footprints along with footprints of a larger rhino, presumably its mother, as recently as this June.

Like Arief, they said the rhinos have moved deep into the slopes of the park to avoid human disturbances, and they have begun finding rhino signs this year in this new

home range. While the population is scattered, the RPU believe they can still meet for breeding in the dry season.

Should these rhinos be removed from the park? “It is not our decision; this is a government decision,” they said. “The RPU are only here to help the government.”

What they really needed, they told me, was official government support, including a permanent forest guard, empowered to make arrests, who could patrol with the RPU.

Still, the RPU have seen a decrease in poaching and snaring. Encroachment remains the largest threat: the RPU recently stopped villagers from cutting down the forest by going in-person to explain the situation. No one was arrested and the villagers moved to a different area.



A baby Sumatran elephant in Bukit Barisan Selatan National Park. Rhinos are not the only endangered species who benefit from the presence of RPU. Photo by Rhett A. Butler/Mongabay.

The key here is that while RPU may be focused on rhinos, their work is instrumental to all the species of Bukit Barisan Selatan. As if to underscore this, a recent study by the WCS and Panthera found that the Sumatran tiger (*Panthera tigris sumatrae*) population is on the rise in Bukit Barisan Selatan, a hopeful sign for another one of the island’s critically endangered species.

“If you don’t have the RPU, all will be unprotected,” said Widodo, pointing to the fact that the government doesn’t have a regular ranger presence in Bukit Barisan Selatan. Widodo said he would like to see RPUs stay on even if the rhinos are removed from the park.

“If you don’t have a Rhino Protection Unit, why don’t you have a Wildlife Protection Unit?” he posited. “If [funders] support us to do that, we can continue.”

Without the RPUs, Bukit Barisan Selatan, a sanctuary since 1935, would be bereft of a vital conservation team. Listed as an [“in danger” UNESCO World Heritage Site](#), Bukit Barisan Selatan needs all the friends it can get. While the park may soon be without rhinos, it is still home to tigers, Sumatran elephants (*Elephas maximus sumatranus*), and the Sumatran ground cuckoo (*Carpococcyx viridis*) — all considered critically endangered. It also home to the Sumatran striped rabbit (*Nesolagus netscheri*), six species of primates and six of hornbill, as well as thousands of other species, big and small. Tropical Asia is facing a biodiversity crisis unparalleled anywhere else in the world in terms of species threatened and forest lost. Amidst this, Bukit Barisan Selatan remains a jewel.

“We have a dedicated army,” Widodo said of his RPUs. “You will not find many people who work like that.”

I know I haven’t. If Bukit Barisan Selatan loses the RPUs, this already deeply vulnerable wilderness — one of the last sites of primary lowland rainforest in Sumatra — will become that much more threatened.

[Continue to Part Three](#) of this series, which looks at the debate over captive breeding versus protecting rhinos in the wild.



A rainforest creek in Bukit Barisan Selatan National Park. Photo by Rhett A. Butler/Mongabay.

MAP DATA:

- UCN and UNEP-WCMC, The World Database on Protected Areas (WDPA) [On-line], September, Cambridge, UK: UNEP-WCMC. Available at: www.protectedplanet.net. Accessed through Global Forest Watch in November 2017. www.globalforestwatch.org

Correction: this article was updated Nov. 13 to reflect that fact that WCS, not WWF, is employing more camera traps in the park.

Banner image: A Sumatran rhino calf, photographed in 2016 at the Sumatran Rhino Sanctuary. Photo by Rhett A. Butler/Mongabay.