

How BFR is Saving Indonesian Rhinos

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Photo courtesy of Stephen Belcher

The International Rhino Foundation has been proud to partner with the American Association of Zoo Keepers for many years. AAZK's Bowling for Rhinos program supports vital work to conserve two of the most critically endangered rhino species on the planet: the Javan and Sumatran rhinos. 2014 was an eventful year for conservation initiatives for both of these species.

AAZK supports seven four-man Rhino Protection Units (RPUs), who conduct daily patrols and surveys of Indonesia's Bukit Barisan Selatan National Park (BBS), which covers approximately 875,000 acres. Five RPUs do the same in Way Kambas National Park (WKNP), which spans just over 320,000 acres. IRF's Indonesian partner, Yayasan

Badak Indonesia (YABI or the Rhino Foundation of Indonesia) manages the program. The RPU program will celebrate its 20th anniversary in 2015 – and we're proud to say that the AAZK has been part of this work for 18 of those 20 years!

The RPUs patrol and survey several thousand kilometers per year in each national park, both on foot and by boat, all the while monitoring rhino, tiger, elephant and tapir populations through direct sightings, footprints, feces, wallows, and evidence of feeding. The RPUs also gather evidence of illegal activities, including encroachment to build hunting camps and plant cash crops, setting snares for large and small mammals, laying traps for birds, illegal fishing, logging, the collection of

non-timber forest products, and setting fires to burn off old vegetation and create fresh browse for game animals such as sambar deer. Despite these activities, poaching remains a threat to several megavertebrate species in the parks.

Bukit Barisan Selatan National Park

In 2014, while there was no rhino poaching, unfortunately, several elephants were killed by poachers in BBS (Figure 1). It's believed that the occasional killing of elephants and tigers may be retaliatory in nature, the result of human-wildlife conflict. Tigers prey on local livestock, while elephants raid agricultural fields and even destroy people's homes. In addition to patrolling, RPUs often assist with

Figure 1. RPU points to bullet hole in the skull of a poached elephant



Figure 2. More than 95 illegal settlement camps have recently been broken down and removed from the park





Figure 3. BBS RPU's documenting footprint of young rhinos.

elephant-human conflict, driving elephant herds out of villages and back into the forest.

The BBS rhino population tends to cluster in the center of the park because of roads and human encroachment. IRF and Indonesian partners are working with the Indonesian government to establish an Intensive Management or Protection Zone within the park, ideally with a 'no-go' mandate, within BBS. The actual demarcation of the area will be jointly proposed by YABI and WCS, based on the most recent survey data.

In addition to patrolling, RPU's have recently spent significant time assisting the National Park authority in removing illegal encroachment camps from the park. More than 95 illegal settlement camps have recently been broken down and removed from the park (Figure 2).

Way Kambas National Park

Most people are not aware that Way Kambas National Park was a logging concession as recently as the early 1970s; it was declared a game reserve in 1982, and finally became a national park in 1986. At the time the park was established, the presence of rhinos had not really been documented. In 1987, a group of students from the United Kingdom, carrying out an elephant study, actually saw a rhino on a riverbank. The Sumatran Tiger Project, at that time run by the Minnesota Zoo, captured 12 photos of rhinos using camera traps set for tigers in 1995. Rhino Protection Units were immediately mobilized, and the first census estimated the population to be about 24 animals. Way Kambas RPU's now protect about 35 rhinos; this population is the only one that appears to be growing. In 2013, seven footprints of rhino calves were found in seven different locations (Figure 3), an encouraging sign!

Although there has been no rhino poaching in the park since 2006, it looms as a threat. In the past few years, RPU's have more frequently discovered and destroyed heavy-cable snares that are routinely set for large mammals, including tigers (Figure 4). The southwestern portion of the park has been cleared of encroachers, and is being re-forested with rhino

food plants in the hopes of making more area available to the rhinos.

Sumatran Rhino Sanctuary

Andatu, the male calf born in June 2012, continues to grow, both in size and independence from his mother, Ratu. He has now been separated from Ratu and moved into a new adjacent pen. Ratu is being introduced to Andalas again, and we are crossing our fingers for another pregnancy! Both Bina and Rosa also continue to be introduced to Andalas; no matings have occurred, although Bina shows great interest and Rosa is tolerating mounting (Figure 5). The latter represents significant progress from the time she used to become frightened and run under the fence when Andalas approached her. The decision has been made to move Harapan (Andalas' brother) from the Cincinnati Zoo to the SRS; the USFWS and Indonesian authorities are reviewing permits.

All the SRS animals have been in good health, with only occasional small issues. The most significant issue was an eye injury that Andalas suffered in February 2014. After a great deal of trans-oceanic consultation, and thanks to connections provided by the Los Angeles Zoo, we were able to fly in Dr. Allison Hoffman, a prominent veterinary ophthalmological surgeon who had treated his eye when he lived



Figure 4. RPU's have more frequently discovered and destroyed heavy-cable snares that are routinely set for large mammals, including tigers and young rhinos.

at the Los Angeles Zoo. She diagnosed an intrastomal abscess and a corneal perforation. Dr. Hoffman worked pro bono for expenses only, and performed surgery on Andalas' eye, and worked closely with the SRS veterinary team during Andalas' recovery. Figure 6 shows the eye pre-surgery and Figure 7 shows it in October 2014. It has healed nicely.

Debt-for-Nature Swap

In late 2014, the US government approved an additional \$ 11.2 million for conservation in Sumatra, to be administered through the Tropical Forest Conservation Act (TFCA) debt-for-nature swap mechanism. The objectives of this new funding are to continue and enhance the conservation of tropical forests, focusing

Figure 5. Rosa tolerating mounting





Figures 6 and 7. Andala pre and post-surgical



Figure 10. Javan rhino footprints from UKNP



Figure 8. A Javan rhino in Ujung Kulon National Park.



Figure 9. Patrol boat for RPUs working on the Ujung Kulon peninsula.

on key areas for Sumatran rhinos, tigers, and orangutans. Matching funds totaling \$560,000 had to be raised by 30 September 2014 to secure this U.S. government funding, representing roughly a 1:20 return on match investments. Through the Asian Rhino Project, the Cincinnati Zoo & Botanical Gardens, and a private donor, the IRF raised \$150,000 of this match.

A debt-for-nature swap is an agreement

between a developing nation in debt and one or more of its creditors that agree to forgive the developing nation's debts in return for the promise of environmental protection. Debt-for-nature swaps were established in the 1980s to try to minimize the negative effect debt has on developing nations and to minimize the environmental destruction that development frequently causes. There are two TFCA agreements in place in Indonesia to-date; this one, the first, was signed in 2009,

setting aside US \$29.6 million for Sumatra. It is administered through Conservation International and is in effect for 8-10 years.

Because of Indonesia's ongoing eligible debt, the U.S. government approved the additional funding as an addendum to the first agreement. This funding will protect other threatened species such as elephants and orangutans that share rhino and tiger habitat. Key NGO partners working with the US government to secure these funds have been Conservation International, the IRF, and the World Wildlife Fund.

The only remaining viable populations of Sumatran rhino in the world are in three national parks - Way Kambas, Bukit Barisan Selatan and Gunung Leuser. These three parks also contain Sumatran tigers, elephants, and in the case of Leuser, orangutans. The additional funding will be used to support strengthening institutions responsible for national park management and forest conservation, improved management and governance of key protected areas, including engaging all key stakeholders, protection and management of Sumatran rhinos and tigers along with other threatened species, and increasing the awareness of local people and governments.

The funds will be managed by the TFCA Oversight Committee, comprised of a representative from Conservation International, KEHATI (the Indonesian Biodiversity Foundation), the Government of Indonesia and the US Agency for International Development. In collaboration with the Government of Indonesia, a Sumatran Rhino Consortium, including the Leuser International Foundation, Yayasan Badak Indonesia (YABI), the Wildlife Conservation Society, WWF, and other partners, is preparing a Strategic Plan that will outline conservation priorities for each area to be addressed by the TFCA funds.

Javan Rhino Rhino Protection Units

Four RPUs patrol Indonesia's Ujung Kulon National Park (UKNP), the final stronghold



Figures 11 and 12. 8-km perimeter fence



Figure 13. New RPU base camp

for the critically endangered Javan rhino. In 2011, analysis of video camera-trap images led to an estimate of 35-44 Javan rhinos remaining in Ujung Kulon. In 2013, IRF and WWF donated 140 additional camera traps to the park, which were deployed and led to an estimate of more than 50 individuals (33 males and 25 females). The UKNP camera trap data were validated by an independent group from the IUCN Asian Rhino Specialist Group in early 2014; this group agreed that there are between 58 and 61 animals in the park – good news from previous estimates based only on partial camera coverage (38 in 2011).

As in BBS, RPUs have helped government authorities stop or prevent encroachment; in late 2014, RPUs helped evacuate 48 illegal immigrants who had been shipwrecked on the Ujung Kulon peninsula.

There has been no rhino poaching in UKNP since the RPU program began, however, bird poaching and illegal fishing is increasing significantly in the park. It's a touchy subject – many local people feel entitled to utilize the

park for resources, and because these are rather small-scale crimes, local police often are reluctant to prosecute cases. Members of one local community recently became highly agitated when the park management recently sent a poaching suspect to jail; Ministry of Environment and Forestry intervention will be needed to deal with this problem. Reliable boat transportation is critical to the Ujung Kulon RPU program. In 2014, with funding from WWF-Indonesia, YABI was able to construct a new patrol boat (Figure 9), used primarily to carry RPUs to patrol disembarkation points on the Ujung Kulon peninsula.


Javan Rhino Study and Conservation Area (JRSCA)

The 5,000-ha JRSCA lies along the eastern boundary of UKNP at the base of Gunung Honje and has been developed to expand the usable habitat for rhinos within the park. When construction of the JRSCA began in 2010, only two individuals were utilizing this area on the eastern portion of UKNP. The clearance of 80 hectares of invasive Arenga palm, replaced by natural regeneration of native species, appears to have

increased the number of rhinos visiting JRSCA to ten (plaster casts of footprints of nine of the ten rhinos, including at least one calf, are shown in Figure 10). One dozen native plant species predominate in the regenerating forest plots, 11 of which are Javan rhino food plants.

Within JRSCA, several hundred local citizens have now been employed in the removal of invasive palms, the erection of an 8-km perimeter fence (Figures 11 and 12), and construction of the new RPU base camp (Figure 13).

The International Rhino Foundation is profoundly grateful for generous, long-term support from the American Association of Zoo Keepers, which is helping to conserve these two critically endangered rhinos through the activities described in this report. Thank you so much for all you do for rhinos!

Photos courtesy of Yayasan Badak Indonesia (YABI) unless otherwise noted. 

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Check out the Rarest Rhino!

World-famous wildlife photographer Stephen Belcher raised \$60,591 through a Kick starter campaign to launch an expedition to Ujung Kulon to photograph Javan rhinos in the wild. If you haven't had a chance to see these incredible photos, please visit <http://www.earthtouchnews.com/in-the-field/in-the-field/these-incredibly-rare-photos-might-be-your-last-chance-to-see-a-javan-rhino>.

A video about the expedition can be seen at <http://www.earthtouchnews.com/videos/little-adventures-big-planet/extraordinary-journey-to-photograph-the-rarest-rhino-on-earth/>. The IRF and YABI helped Mr. Belcher to set up much of his trip and he is generously allowing us to use a number of the photos.