

Captive breeding's role in **securing a future** for Sumatran rhinos

There are only around 200 Sumatran rhinos left in the wild. This troublingly small number is made up of two subspecies: *Dicerorhinus sumatrensis sumatrensis* found in Sumatra and *Dicerorhinus sumatrensis harrissoni* found in Sabah, Malaysia. With so few left, **a multi-faceted approach to Sumatran rhino conservation is vital**: protecting wild populations through the Rhino Protection Units, public awareness and education, and running a breeding programme at the Sumatran Rhino Sanctuary (SRS) within a semi-natural environment in Way Kambas National Park, Sumatra Indonesia. **But what does the captive breeding programme hope to have achieved by 2020 and what are the various scenarios to get there?**



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The long-term aim is to develop a scientifically managed and viable captive population that provides a key piece of the integrated conservation management strategy for Sumatran rhinos. The SRS has been home to five animals since the 2007 arrival of captive-born Andalas. Andalas is sexually mature and has now begun mating with one of the other two rescued, young, healthy females. Sumatran rhinos have been very difficult to breed, but in recent years, the Cincinnati Zoo has been highly successful in breeding the species, and is working very closely with the SRS by offering in-kind technical support.

As we reported in the last issue of *The Horn* (Spring 2010), Ratu (one of the young females) became pregnant – the first pregnancy at the SRS! Unfortunately she later miscarried the pregnancy, which is not unusual. This pregnancy was still considered a major milestone and the SRS is utilising methods developed in Cincinnati to help ensure that Ratu can retain her next pregnancy.

But what are the long-term hopes for the programme? One important benefit that the SRS provides is invaluable opportunities to study basic Sumatran rhino biology, as the species is almost impossible to study in the wild. By 2020, SRS hopes to have produced a number of offspring. Experts are now working on a population analysis to determine how best to rapidly expand

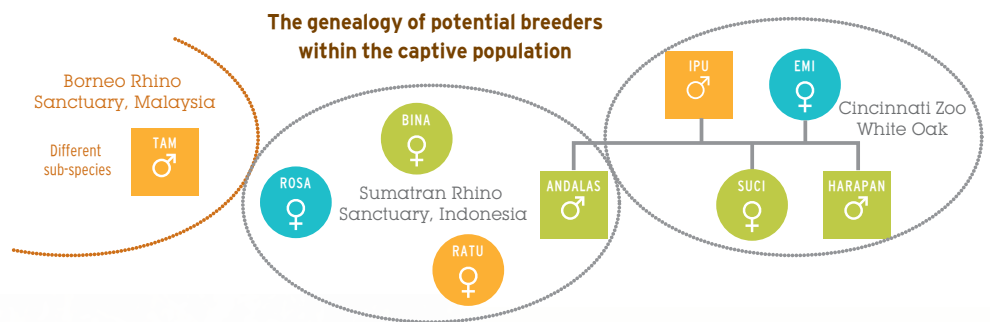
So what are the various scenarios to achieve this and corresponding implications?

- **Mate purely within current captive population and keep subspecies separate.** This would require some movement of rhinos/germplasm (genetic resources) between Indonesia and the US and vice-versa.
- **Bring in a wild breeding male to add genetic diversity and breeding options.** (Current viable males are father/son.) Adding two new males and one new female could substantially improve the breeding options for the captive population but require wild capture and holding them in either short- or long-term captivity.
- **Treat the Sumatran subspecies as one single global population so that individual animals and their germplasm may be exchanged between participating countries for breeding purposes.** This requires a clear understanding of the long-term genetic implications of mixing the subspecies.
- **Short-term wild release (temporarily releasing SRS animals into the wild for natural breeding while being radio-tracked).** This would put animals who are very habituated to humans at risk of wandering into villages and getting into mischief.

the captive population and the benefits and risks of different options. The project wants to ensure that the captive population contributes to the wild population.

Whichever one or mixture of the above scenarios is acted upon, each will require

continuing and strengthening of existing partnerships with interested stakeholders and experts. The Sumatran Rhino Sanctuary staff continue to do an excellent job and for the moment all eyes are on Andalas and Ratu, with high hopes for another pregnancy.



Thanks

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