

June 13, 2012

NEWS FEED COMMENTS



Home BORA in action About BORA The Bornean rhino Rhinos at Risk Contact Us

ARTICLES FEATURED NEWSROOM PHOTO GALLERIES RESOURCES

## A comment on 'Sex and the Single Rhinoceros' by Henry Nicholls

JUNE 10, 2012 BY ADMIN



Borneo Sumatran rhino Puntung in her temporary enclosure in the Tabin forest.

By Junaidi Payne (executive director) & Abdul Hamid Ahmad (chairman) BORA, 10 June 2012

The fine article entitled *Sex and the single rhinoceros* by Henry Nicholls (*Nature*, Volume 485:566-569, 31 May 2012) provides just the sort of debate that is needed on the pros and cons of trying to save species that are on the brink of extinction. And too much of the debate that has occurred was printed (not spoken) in academic journals, far from and never seen by those working on the ground.

[Read the article in Nature: International Weekly Journal of Science](#)

The founders of WWF saw the need in 1961 : supporting a very small number of dedicated people to do whatever necessary to promote breeding amongst very small populations of animals where the death rate had become higher than the birth rate (i.e. the Allee effect), in situations where governments were unable or unwilling to act. The original WWF vision meant that (a) the passionate people have to be found and helped with money and freedom to act, and (b) usually, at least some animals would need to be removed from the wild.

From the ground, it seems that a few subsequent decades of conservation genetics and philosophy has almost put paid to that sort of thinking. The classic cases of bison and African rhinos at end of the 19th century, and those of the Arabian oryx and Hawaiian goose in the mid-20th century are barely mentioned nowadays. Government agencies and non-governmental organisations (NGOs) can get together for meetings to defer difficult decisions. Decades of time and money are wasted. The inevitable happens. The species goes extinct, but (usually) no-one can prove when the last animal dies, so no announcement is made. No-one need take responsibility for wrong decisions or failure.

We all know that habitats are being lost and will be lost, and that removing the factors causing species to become extinct need to be addressed. Those universal issues are not the ones that need to be addressed in the case of species like the Sumatran rhino, for which such concerns are too generic to be of use.

We still see statements that the Sumatran rhino is endangered by habitat loss, forest fragmentation and poaching. That is not true. The Sumatran rhino is endangered because there are hardly any of these rhinos left alive; many, probably most, remaining rhinos are infertile or too old to breed; fertile rhinos are so sparsely distributed that they no longer even meet; and at any one location, there is almost certainly inbreeding and skewed sex ratio. Those are the challenges to be either addressed or regarded as too difficult to tackle.

The question before us, therefore, is : If there are committed individuals and organisations that feel compelled to do what they can to save the Sumatran

rhino from extinction, should they be encouraged to try, or to give up?

Only four elements are required to launch and sustain a programme to try to save a species on the brink of extinction. Firstly, there has to be a small group of dedicated people who get together, putting aside their egos, and decide to do whatever it takes. They have to formulate themselves as an NGO, in order to provide a legal entity with which governments and donors can interact. For the Sumatran rhinoceros, this has already happened in Malaysia (Borneo Rhino Alliance, BORA) and Indonesia (Yayasan Badak Indonesia, YABI). Secondly, one or a few big funders have to be secured, so the small group of dedicated people can work on the animal and human issues, and do not have to spend half their time worrying about how to raise funds. In the case of Malaysia, this role has been taken up by Sime Darby Foundation. In Indonesia, most funds for Sumatran rhinos are raised outside Indonesia via a US based NGO. Thirdly, the relevant government(s) have to provide support for the small group of people. That support can best be given just in terms of removing obstacles, and it has to be consistently whole-hearted from all parts of government that have some involvement in the programme. Fourthly, the local NGO and government need to obtain the best possible additional technical help that exists anywhere in the world and that might make a difference to the outcome of the programme. In the case of Sumatran rhino in Malaysia, the current big external help is from Leibniz Institute for Zoo and Wildlife Research, and this element of the rhino programme in Sabah (a State in the federation of Malaysia) was the one high-lighted in Nicholls' article.

Once those elements are in place, there is no need for more stakeholder consultation or detailed action plans. When just a few animals are left, challenges and opportunities change by the month. Half the work is seat of pants.

Responding to the concern that there needs to be a long-term strategy for reversing the environmental pressures that are killing them off, and that captive breeding alone can never restore the wild population, we would argue that this is a matter of personal philosophy. When we first conducted surveys for rhinos in Sabah (J Payne in the early 1980s, Abdul Hamid in the early 1990s), the species was already critically endangered, and we estimated a total of about thirty rhinos in existence in Sabah at that time. The single major reason that accounts for the very small size of the remaining rhino population was a history of hunting for the horns, used in traditional Chinese medicine, over the past thousand years or so. By 1984, Government of Sabah had already agreed to the establishment of Tabin Wildlife Reserve (1,200 sq km) and Danum Valley Conservation Area (430 sq km), both previously unprotected forests that held the last remaining breeding rhinos. Since then, rhino numbers have declined still further. There have been hardly any signs of breeding, while targeted rhino poaching has been minor. As biologists, one can question whether the Sumatran rhino is well-adapted to closed canopy evergreen rainforest. Possibly it is a remnant taxon from the Pleistocene. (We do not want to enter here the debate as to whether, if that is true, there is ethical justification for trying to save a species that "should" be allowed to go extinct.) A combination of decreasing quality of the Sumatran rhino diet (mature leaves of woody plants – the lowest quality diet of any mammal species in South-east Asia) in the forest after the end of the Pleistocene and increasing temperature has forced this animal to evolve to a body size that is about as small as is possible for a rhinoceros. We can imagine that Sumatran rhinos are barely able to obtain enough nutrition to produce milk and fetuses and bear young from the sparse, fibrous leaves available in the under-storey of closed canopy forests. A combination of lower temperatures, fertile soils and extensive successional stage forests that might be needed to build up and sustain wild Sumatran rhino populations ceased to exist hundreds of years ago and may never exist again.

For the reasons outlined above, plus our fear that there may be even fewer rhinos left than the official figures, plus the likelihood that most are infertile or too old to breed, we no longer believe that the Sumatran rhino will survive in the wild, even with the complete cessation of poaching. We do not say this lightly. We have spent over 25,000 hours living inside tropical rainforests in Malaysia and Indonesia, conducting wildlife and vegetation surveys, starting in 1975, and arguing for the establishment of more rainforest conservation areas. Nicholls alludes to the disastrous 1984-94 period when 40 Sumatran rhinos were captured from forests then being converted to plantations, for a global captive breeding programme, based on an IUCN-brokered agreement. There are many factors which led to only one pair of those rhinos (in Cincinnati Zoo) breeding and producing three offspring, but the over-riding major one was inadequate genuine collaboration between the many players.

The triage argumentation for choosing species to be saved is of impeccable logic and replete with common sense. But decisions made in one part of the world cannot necessarily be implemented by decree in other countries. The success or failure of a programme to try to prevent the extinction of a species will depend on the particular circumstances in the country concerned, especially the motivations and stamina of the people involved during the critical two or three decades when intense sustained effort will be needed. If the response then is "we have factored that point into the triage decision on Sumatran rhinoceros", our response is "the potential for success still boils down to the specific place, time and availability of willing people where the animal occurs."

Regarding the question "should the money spent on trying to save a seriously endangered species be spent instead on another, more promising conservation project?" The answer is "no" because the question is predicated on an over-simplification of how money flows and is spent. The amounts spent on any conservation project are absolutely miniscule when compared to the daily flow of money around the world, the income of governments, and the wealth of the richest people anywhere in the world, including the wealthiest in Malaysia and Indonesia. One cannot argue that there is a small pot of money for which different conservation organisations compete – except in the narrow context of many NGOs applying for the same money from a few well-known conservation funds. Apart from the necessary commitments of governments for social welfare spending, whether one can obtain money for a particular venture from any potential source – whether aimed at profit-making or not – depends on a combination the people involved, marketing of the project, and luck.

Regarding the US\$250,000 spent on the capture of the rhino Puntung. This is indeed our best estimate, given that it is difficult to separate all the costs that were directly linked to the capture from those linked to looking after two other rhinos already in captivity, and to running an NGO. Costs can normally be reduced significantly if obstacles beyond the control of the donor and NGO can be removed. The biggest part of that amount was sustaining half the full complement of staff over twenty months from placement of the first trap until removal of the rhino from the sixth trap, just two days after the trap had been completed.


We want to say something on the main corporate contributor to Sumatran rhino conservation in Sabah, and put that in the context of the article's statements on Sime Darby as well as those of commentators on the article. Firstly, the Sumatran rhino was already endangered long before the expansion of oil palm plantations. We have said this many times to many people but there is a recurring tendency to attribute all endangered wildlife problems to recent forest loss, and forest loss in Malaysia and Indonesia to oil palm. Secondly, the spread of oil palm has occurred because oil palm yields the most profit per hectare per year on lowland soils in Malaysia and Indonesia when compared to any other land use outside urban centres. Malaysia (and Indonesia) are now in the last stages of the "land race" period in history, when the once widespread natural forests have been logged out or gone, and corporations, governments and poor people alike want to secure rights over specific land areas. Primarily, they want to secure the land for profit-making or speculation or subsistence. If crops other than oil palm yielded greater profits per hectare per year, then most land owners and claimants would switch to that other crop. But for the time being there is no such crop.

One of the most ground-breaking ventures relating to both oil palm and nature conservation is the formation of the Roundtable on Sustainable Palm Oil (RSPO; [www.rspo.org](http://www.rspo.org)), a global not-for-profit association that includes stakeholders from seven sectors of the palm oil industry. RSPO is a voluntary, market-driven venture, currently with over 700 members globally, with a vision to "transform markets to make sustainable palm oil the norm." Sime Darby, Malaysia's largest palm oil producer, has to date produced about 30% of the global total amount of palm oil independently certified as sustainable according to the principles and criteria of RSPO. Sime Darby Foundation, operated independently of the palm oil producing arm of the company, has emerged over the past two years as one of the major financiers of wildlife projects in Malaysia, including the "Borneo Rhino Sanctuary" programme in Sabah. This mechanism of providing funds for conservation programme has merit over extra taxation by government, not least because of governmental inefficiencies and the fact that any extra tax might not necessarily go towards priority conservation programmes, and because palm oil producers feel that they are already over-taxed. Allocation of funds by Sime Darby Foundation is made on a competitive basis. The recipient of the funds (in the case of BORA, a not-for-profit company) is audited both by the donor and an audit firm.

We want to re-iterate the theme that conservation programme success depends on the specific people involved in the specific programme, by paying tribute to the dream team that is BORA. Apart from ourselves (a biologist and conservation biology professor from the local university) BORA has on a full-time basis Malaysia's most experienced wildlife veterinarian (and arguably the world's most experienced Sumatran rhino vet); a Malaysian entrepreneur, fundraiser and social activist who always has a non-scientist's eye view of things; a French biologist resident in Sabah who has managed many projects involving and training people from rural communities; a dedicated workaholic administrator; and more than twenty Sabahan natives who perform many jobs, some tedious, for 25 days every month and far from home.

In final summary, collective commitment and agreement is needed not to stand idly by and instead to do all that is possible to facilitate recovery of the species.



 FILED UNDER: ARTICLES, FEATURED

[Top of Page](#)

Copyright © 2012 Borneo Rhino Alliance · [Log in](#)