

Bornean Orangutans are now officially Critically Endangered :

WHAT DOES THAT MEAN TO THE ORANGUTANS?

Orangutans are now one step closer to extinction. Based on an assessment led by Borneo Futures, scientists from the International Union for Conservation of Nature (IUCN) have officially downgraded the status of the orangutans living in Borneo to “Critically Endangered”, the last step before reaching the dreadful status of “Extinct into the Wild”¹. Scientists have proven that the number of orangutans will decline by about 80% between 1950 and 2025 (given current development plans by the governments of Indonesia and Malaysia).

These numbers are hard to fathom. To put them in perspective, a 80% decline is equivalent to losing four out of five people we know; it is equivalent to the disappearance of a staggering six billion of the current global human population in 75 years with no new births.

Actually, many populations of orangutans have already disappeared in Borneo. Some of them because of climate changes over the past millennia, most of them because of human activities; some of them because of forest destruction and conversion to agriculture, most of them because of hunting and killing. What is clear is that at this current rate, many more populations are going to follow this path of oblivion in a near future.

But this doesn't necessarily mean that the species is going to go extinct anytime soon. Indeed, drastic changes about the management of the orangutan habitat could be made to save the species from extinction.

However, we need to first recognize what is orangutan habitat...

Orang-utans are great apes and are our closest living relatives. This means that they are clever and highly adaptable. Despite early claims that orangutans could only survive in pristine habitats, in Borneo, orangutans are learning how to survive in deeply modified landscapes where the original forests have been replaced with oil palm or acacia plantations. For example, they are learning how to feed or to build their nests in man-made forests planted with exotic species; they feed on new plant species introduced by humans². They are also changing their behavior as a response to human disturbance: they engage in crop-raiding activities at night, when people are sleeping, although they are naturally active in the daytime³.

But there is something that the orangutan species cannot adapt to and cannot sustain: hunting. These great apes are extremely low breeders with a young being

¹ <http://www.iucnredlist.org/details/17975/0>

² Ancrenaz et al., 2015. <http://dx.doi.org/10.1017/S0030605313001270>

³ Hockings et al., 2015. <http://www.borneofutures.org/articlespapers.html>

produced once every six to eight years on average. Hunting for meat, to mitigate conflicts (e.g. to stop crops from being raided by orangutan) or for any other reason has always been and remains till today the major driving force of orangutan decline in Borneo⁴.

Are orangutans doomed in Borneo? This does not have to be the case as orangutans are now recognized to survive in man-made as well as natural degraded landscapes. We need first to identify ways for people and orangutans to cohabit peacefully in non-protected forests. Conservation needs also to happen OUTSIDE of the network of protected forests. Establishing and maintaining patches and corridors of forests across a landscape transformed by man would go a long way to support orangutans and many other animal species. This downgrade in status is an urgent call to reconcile people and wildlife and to reinvent ways for people and orangutans to share the same environment.

All of us need to adhere to a new vision of our world, where people and animals share rather than compete for the same ecosystems and natural resources. This is possible, this is our choice. If we fail, orangutans may follow the ever-growing list of species “Extinct Species in the Wild”.

⁴ Abram et al., 2015. <http://onlinelibrary.wiley.com/doi/10.1111/ddi.12286/abstract>

Bornean Orangutans are now officially Critically Endangered:

WHAT DOES THAT MEAN TO ME?

The orangutans are Critically Endangered. In other words, they are facing a higher risk of extinction today than at any other point of time of their long history on Earth. And this is mostly because of our recent impact on Nature.

In itself, this is a pretty sad and disheartening piece of news. But why should we be concerned by the extinction of a species when Evolution has been littered with the extinction of a countless number of species? Why should we care about what is happening to the orangutans? Is it not just an unfortunate but necessary victim to our current modern development?

First I think that we need to recognize the intrinsic value of species like orangutans in the make up of the cultural identity of some of the native groups living in Borneo, like kangaroos are for the Aborigines' tribes of Australia, lions for the Masai of East Africa, and eagles for Native Americans (the list here could be endless).

Most of us are quick to accept that global economic development clashes with the persistence of local traditions and cultures; and that symbols of identity must be sacrificed to pave the way for progress. Our view of the world is highly polarized. We see development and conservation as incompatible bad fellows, convincing ourselves that development requires sacrifices and that species extinction is a collateral damage to modernization⁵.

Today, people in Borneo are increasingly recognizing the value of the forests and the services that they provide and that were previously taken for granted by all. In places where forests are gone, many communities complain of high temperatures and dry weather, water pollution and loss of fisheries, increased floods and overall decline in their quality of life⁶. Protecting or restoring the forest then becomes one of their concerns: the orangutan is often perceived as a symbolic icon that illustrates this situation. More globally, the role of forest in maintaining the climate is also currently widely established. So preserving the forest goes far beyond protecting a species like the orangutan.

Some may argue that we could maintain orangutans in captivity if they don't have enough forests to live in. However preserving animals in captivity and in their natural state pursue different goals. For example, nature tourism in Malaysian Borneo is an essential draw for local and international visitors because of the wealth of natural resources that tourists come to admire and enjoy. Orangutan is a major icon and is

⁵Meijaard et al., 2010. <http://onlinelibrary.wiley.com/doi/10.1111/j.1744-7429.2010.00687.x/abstract>

⁶Meijaard et al., 2014. <http://dx.doi.org/10.1371/journal.pone.0073008>

attracting a large number of tourists to Malaysia and Indonesia. Losing out this species and its forest habitat would be hugely detrimental to local economies.

We can also expect that orangutan extinction would tarnish considerably the international image of both range countries, and would trigger global criticism against industries, practices and parties who are perceived as being responsible for it.

On a global scale, we have to admit that every single living species has a function and a role to play in maintaining healthy and functional ecosystems that all species need to survive and prosper. Everything is interrelated, and nothing exists in isolation. For example, orangutans eat fruits and by doing so, they disperse their seeds. They play an important role in forest regeneration. Healthy forests in turn fix carbon and release oxygen in the atmosphere; they are the lungs for the entire planet. Some people will argue that many other species have disappeared in the past and that the forests are still breathing. It is true that many other species can also disperse seeds and could replace the orangutan's dispersal function. But everything is a matter of threshold: species could disappear without noticeable consequences on the ecosystem functions we depend on to survive. But no one knows how many and what species can be lost before a massive collapse of ecosystem functionality takes place.

One can compare a complex forest ecosystem to a multifunctional and highly diversified organism like the human body. Cells and organs are all connected and interrelated in a healthy human body. Every cell has its function, its role and importance. We now know that many individual cells or organs can be damaged or even destroyed without jeopardizing the overall life of the body. But there is a threshold of how many cells can be damaged or destroyed before an organ stops functioning, and the entire system starts to collapse. Maybe the extinction of a species like the orangutan will not have a dramatic impact on forest ecosystem health, but this will definitely show that the entire system is increasingly degraded and is suffering.

Animal species are indicators of the global health of our environment. Extinction is the symptom of a disease where the natural world is deteriorating on a large scale. The more species disappear, the more difficult will be for us, the human species, to survive in an increasingly dysfunctional world. Saving the orangutan from extinction is synonymous to saving our own selves from extinction. We will not be far from being added to the list of extinction the day the orangutan will disappear forever.

Mother Earth doesn't need Humanity to save it, but Humankind needs Mother Earth to survive.

The Orangutan is now “Critically Endangered”:

WHO IS TO BLAME?

It was long expected but it is now official, the Bornean orangutan is officially “Critically Endangered”, a step closer to extinction.

Many reports blame forest conversion and in particular oil palm development to be the major driver of orangutan extinction. Over the past 40 years, a total of 17.7 million ha of forest has been destroyed in Borneo: an area about the size of the American state of Florida⁷. Half of these forests used to be prime orangutan habitat. The conversion of these forests to agriculture and other types of land-uses has decimated tens of thousands of these animals. Rather than slowing down, deforestation is accelerating and we predict that a further 15 million ha of forests will be cleared and converted to plantations between 2010 and 2025 in Borneo. However a fine spatial analysis reveals that this deforestation will take place in less than half of the orangutan range⁸. But orang-utan populations are declining throughout their entire range across Borneo, not only where deforestation happens. **So obviously other reasons than forest conversion to agriculture explain the drastic decline of the species.**

The overall landscape of Borneo is changing fast. Climate changes, increased droughts and fires, agriculture and mining, roads and other human infrastructures, deeper penetration of people within the forest are responsible for accelerated degradation and fragmentation of the remaining orangutan habitats. Habitat fragmentation splits large populations in smaller disconnected and isolated sub-populations. Small isolated populations become more sensitive to genetic abnormalities and other random events (disease outbreaks, fires, forest destruction or hunting) than larger populations. Extinction probability increases with habitat fragmentation.

Although the designation of “Critically Endangered” is based on the assessment of a 75 years’ period, in truth, the decline started during the Pleistocene era, at least 30,000 years ago. This was primarily due to environmental factors triggered by changes in climate, but more importantly to the arrival of a super-predator: humans. The fate of many large mammal species in Asia was sealed with people’s arrival in the region. Archeological deposits are packed with countless orangutan remains throughout SE Asia, showing that hunting of orangutans has been widespread for the past 30,000 years at least. Orangutans are extremely sensitive to hunting because they are relatively easy targets to kill and because they are extremely slow breeders, producing on average one baby every six to eight years. The annual killing of 2 to 3% of individuals within any given population will lead to its extinction in a few decades.

⁷ Gaveau et al., 2014. <http://dx.doi.org/10.1371/journal.pone.0101654>

⁸ Wich et al., 2012. <http://dx.doi.org/10.1371/journal.pone.0049142>

Today, hunting remains the major threat to orangutan's survival in Borneo. Between 2,000 and 3,000 orangutans are killed every year in Borneo⁹. Most of the animals are killed by local hunters for non-conflict reasons: for their meat, their traditional medicinal value or the pet trade. Orangutans are also killed when they destroy people's crops, but these "conflict" killings explain less than half of the current direct killing across the island. Bornean orangutans cannot sustain such heavy hunting, and many populations will be wiped out soon, unless better law enforcement and awareness start to address and to reduce this major threat.

⁹Meijjard et al., 2011. <http://dx.doi.org/10.1371/journal.pone.0027491>

The Orangutan is now Critically Endangered:

WHO CAN FIX THIS?

Two major strategies exist to save the orangutans from extinction: protecting the individuals or protecting their forest habitat. These strategies are both complex, but everyone can contribute to make a difference.

Hunting is the major reason for orangutan decline in Borneo. This threat must be stopped. People who are killing orangutans must be informed that this is illegal; they must be punished for their crime. The law must be enforced, and people need to become aware about the protected status of the species. The main responsibility here lies with enforcement authorities of Malaysia and Indonesia, and with groups that are fighting wildlife trade or are raising awareness about orangutan in Borneo.

Less than a third of orangutans are currently living within protected forests in Borneo (the percentage is higher for Malaysian Borneo – about 70% - than Indonesian Borneo – less than 25%). Increasing the size of protected forests is an obvious option to ensure the long-term survival of the species. Ideally, forests with the largest populations should be identified and set aside for protection. Unfortunately, protecting all forests containing orangutans is highly unlikely, and in addition, many protected areas are in crisis today because of the chronic lack of resources allocated for their management. As a result many “protected” populations are still declining across the island. Improving the protection of protected areas is thus necessary but is not sufficient if we aim at securing the future of the orangutan in Borneo.

Orangutan is one of our closest living relatives, and as such, it appears to be a very adaptable species; animals may be able to survive in highly transformed mosaic habitats where forests and non-forest habitats are well organized and properly managed. Identifying methods for people and land-users to better accept cohabitation with the “man of the forest” is an emergency to ensure the survival of orangutans and of many other species in the “antropocene” era, a time where everything is deeply transformed by human activities.

Industries responsible for orangutan decline (such as timber; oil palm or mining) must become more responsible and adhere to sustainable management practices. Creating forest corridors to link populations that are isolated following the fragmentation of their habitat will provide a way for the animals to move across highly transformed landscapes. Setting aside forest corridors along major water bodies would also protect freshwater ecosystems and fisheries from pollution and intense degradation; retaining forests on hilltops and slopes would also buffer erosion, landslides and floods; forest patches of sufficient size would offer refuge and step stones for many species that would then be able to move across the landscape. Such a living landscape will also benefit people by providing healthier ecosystems and services.

A positive note is that recent progress in technology and science provide the necessary tools to design optimal landscapes where economic and conservation interests can be reconciled. Their implementation requires better-informed decision-making and more transparent land-use decisions. Human societies need to shift from a “Business-As-Usual” approach to a more holistic vision where long-term profits for the majority are favored over short-term profits for a few.

Many recommendations have already been included in broader guidelines for certification, such as “Roundtable on Sustainable Palm Oil”, “Forest Stewardship Council” and others. However they need now to be implemented.

Governments and industries alike will embrace more sustainable practices only when the “market” will require so. This is where our daily choices as consumers will contribute to make a difference. By selecting certified products (tropical timber certified by FSC; palm oil certified by RSPO for example) we are sending strong signals to growers, producers and retailers that we care for the orangutan, we care for the environment, we care for tomorrow.

We will save the orangutan only when people will start to pay attention and to care enough about the natural wonders that are around us, wherever we live on Earth.