

How do we save the pangolin?

By Louise Fletcher, Save Vietnam's Wildlife

The plight of the pangolin is complex and contains components we don't yet fully understand. Its conservation is a global issue requiring a multi-faceted approach and tackling it should be done sensitively.



Sunda pangolin at Save Vietnam's Wildlife rehabilitation centre, Vietnam. ©E & C Jacquet

The extent of the network involved in pangolin trafficking extends from the opportunistic poacher living near the forest, to the kingpins reaping the benefits of this lucrative business via several middle men and confiscations happen at all stages.



49 live pangolins seized in Vietnam in 2013 © Talk Vietnam

For example as both a source, transit and consumer country, confiscations in Vietnam vary between individuals found at restaurants or markets, to numerous live individuals hidden in vehicles, reaching hundreds of frozen carcasses uncovered at ports.

In order to 'scale up pangolin conservation' the IUCN has produced an action plan to build on the activities already under development. It is broadly separated into four groups: conservation research, pangolin strongholds, demand reduction and policy recommendations. The activities have one of two aims: either preserving numbers or boosting them.

But how many pangolins are there?

Population figures are hard to obtain. Having spent a year and a half living at a field site and more days and nights in the forest than I can count, I have seen a wild pangolin only once.



A wild Sunda pangolin hiding in the branches of a tree. © Louise Fletcher, Carnivore and Pangolin Conservation Program.

Developing a methodology to achieve this involves accessing long term, large scale camera trap data sets to develop an index useful to track population fluctuations. However, at sites where this isn't already established, camera trapping does not provide the required information in an adequate time frame.



Camera trap photograph of a Sunda pangolin. © Carnivore and Pangolin Conservation Program, Vietnam

For those species that sleep in modified burrows or dig their own (Chinese and ground pangolin), burrow counts and occupancy offer a method of estimating abundance. However, many species are arboreal or leave little evidence of presence.

More immediately, range size could be used as a method of predicting densities, but this is only suitable in pristine forest, undisturbed by human encroachment like those found in Hong Kong, Brunei and other forests across the island of Southeast Asia.

So how do we preserve them?

Habitat loss and indiscriminate poaching are problems facing the preservation of numerous species globally. Efforts to reduce this with alternative livelihood programs and encouraging ownership and pride among local people towards the biodiversity on their doorstep should be and are standard, and often successful, strategies for organisations working on the preservation of any wildlife at a particular site.

Deforestation exposes pangolins who are usually able to move elusively through the undergrowth; draws in neighboring individuals with an initial peak in food accessibility and facilitates access for hunters with dogs and traps. The millions of hectares that plantations operate over provide a platform on which to make a positive impact in saving these species. Urging palm oil companies to commit to creating a corporate policy specifically for the conservation of pangolins are imperative in preserving numbers.

When a 2kg animal sells for 700USD providing a monetary alternative to poaching pangolin is nonsensical, every new plantation creates thousands of poachers alongside it, driving populations down but prices up. Protection and enforcement is the most productive way forward. On a global scale this is taking steps to push all eight species to Appendix 1 of CITES and at regional levels this is working with authorities to uphold the law, close loopholes, prosecute criminals and then let the fear spread.

Now, what drives the price? Demand.

This is the same for rhino horn, ivory and shark fin. There are numerous examples of demand reduction strategies at local, national and international levels-they just don't include pangolin. Engagement of opinion holders and other organisations with the pangolin is a huge step in rapidly changing behavior.

Right, let's boost those numbers.

The plight of the pangolin represents a rare example where demand exists for every part of the animal-meat and scales-for different uses, putting it on a completely different platform to other trafficked animals. There is a huge sense of urgency that needs to be highlighted regarding this species, but this should not lead to rash decisions. The demand is unsustainable and as a species that does not thrive in captivity. The most effective way of boosting numbers is through rescue, reintroduction and reinforcement of wild populations.



Released trade confiscated Sunda pangolin. © Louise Fletcher, Carnivore and Pangolin Conservation Program, Vietnam

Here the key is attention to detail.

In my experience over 18 months, we have released five individuals. With strategic planning of release locations, considering sex ratios and range overlap, the foundations are laid for nature to take its course and the population to grow. It is these specifics that mean that every action will have a measurable impact, yet there are aspects that are often overlooked.



Getting them from the condition they arrive in when rescued from the trade to one suitable to survive in the wild is not an easy task. Pangolins can arrive nutritionally stressed and dehydrated often with injuries from traps. They can deteriorate very quickly, within hours.



Two pangolin hang on the left as bush meat. ©African Pangolin Working Group

Those that are confiscated in transit and in large numbers will have been kept in close proximity for a prolonged period of time causing social anxiety for a territorial and solitary species. At wildlife markets contact within and between species may encourage the transmission of diseases, this has led to a strict quarantine procedure in Vietnam that may not be applicable in other range countries where often animals are taken directly from the hands of the poachers swiftly after the animals have been taken from the forest.

The individuals I have experience with were kept in captivity for many years. When released they favored sleeping sites at ground level often re-using the sleeping site for two-three nights in a row. This could represent conditioning from captivity where they slept in the same underground bed box or reminiscent of their natural behaviours-perhaps this preference for sleeping at ground level and staying in the same sleeping site made them easier to catch by poachers. Either way, this knowledge can feed back into refining and modifying the whole process.

In order for implementation to work, select your sites well.

To highlight this, I would like to use the case study of the work done in Vietnam over the past 5 years. After years of developing environmental enrichments, diets and health checks that were suitable for the animals and brought them back from the brink of death after confiscation, five individuals were released in in a selected protected area.

The area is known as one of the best protected areas in Vietnam, housing other important species such as the Asian elephant, yellow cheeked gibbon and gaur. We recorded information on where individuals slept and moved to increase our ecological understanding of them. We released them where there was a chance of male, female overlap, but to avoid confrontation with males.



Forest Protection Department staff gaining training in pangolin rehabilitation. ©Louise Fletcher, Carnivore and Pangolin Conservation Program Vietnam

Through the entirety of the project we worked Forest Protection Staff and local people (to collect food for the animals and build release enclosures) we began to build a sense of ownership and pride and gave them a reason to continue to protect the forest. I remember when we finally managed to persuade the villager who collected food for our animals to come and actually see the animal he was helping-he couldn't believe what it looked like! We trained the rangers to care for the animals and how to track them after release. We went to schools in the local

village and at local universities to talk about the work. I firmly believe if you give them a reason to care and an achievement to be proud of and they will flourish.

But don't be naive-the reason might be money, the achievement might be a status symbol. That's human nature, but by channeling it in the right way can have a positive impact and over time attitudes can change.

Over time.

What is imperative is the sense of longevity with this plan. People forget. People move on. Old habits return. The pangolin cannot withstand that. We need to build the momentum of what has already begun. Scaling it up is not about big gestures or one off statements, it's about commitment, dedication and the sharing of ideas and information on a global scale.