

# TIGER TALES

THE SUMATRAN TIGER IS TEETERING ON THE BRINK OF EXTINCTION, BUT A DISEASE SURVEILLANCE PROGRAMME IS ON ITS WAY, AND IT MAY BE ABLE TO HALT THE TIDE

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## The sight of a Sumatran tiger prowling

through the jungle, sleek and powerful with its heavy black stripes and distinctive orange coat, is quite something to behold. But it's a scene that is becoming increasingly rare. Today, the last of Indonesia's tigers – now estimated to number fewer than 400 – are clinging to survival in the remaining patches of forests on Sumatra island.

Deforestation and poaching have taken their toll on the jungle princes. If something doesn't change, the Sumatran tiger will soon join the ranks of the extinct – like its Javan and Balinese relatives. Despite increased efforts in tiger conservation, including legal protection and steep fines, the demand across Asia for tiger parts and products continues to fuel the poaching trade. Put the issues of decreasing habitat and man-shaped predators aside, and another problem rears its ugly head: as the population fragments, the tigers become increasingly vulnerable to the effects of a disease outbreak. It's this issue that Wildlife Vets International (WVI) is tackling in a project that could help save tigers the world over. But that's not where it started.

As populations encroach on their natural territory, tigers and humans are increasingly in conflict. This is a relatively frequent occurrence in Sumatra and is a source of research information – conflict tigers that have been rescued, radio-collared and released provide important data that can help researchers understand the issues. But this has proved problematic. The collars often fail within a year, leaving long-term data on habitat usage missing in action. This is where WVI step in.

WVI is at the forefront of wildlife and conservation medicine, funding specialist wildlife veterinary surgeons to deliver on-site skills, training and field management to organisations battling to save endangered wildlife worldwide. Teaming-up with the Zoological Society of London (ZSL) and Taman Safari Indonesia (TSI), WVI co-founder and big



CLOCKWISE FROM LEFT TO RIGHT: Sumatran tigers are becoming increasingly rare as their habitats disappear; wild tiger behaviour in Sumatra suggests Canine Distemper Virus (CDV) may be widespread; a disease surveillance programme is vital in predicting the impact of CDV on big cats.

states. "No tiger range state has an effective disease surveillance programme that can accurately map and predict the impact of CDV on tigers and other big cats yet," explains Lewis. "We are hoping that WVI's work with vets and conservation agencies on Sumatra might establish a model to do exactly that, and having understood more about the disease, we may be able to plan preventive measures to protect the tigers."

Lewis has already drawn up an agenda and proposed surveillance framework to be rolled out throughout Sumatra. September will see Indonesian vets working with Sumatran wildlife specialists with support from the Indonesian Veterinary Medical Association, leading to the development of a disease surveillance programme. The plan is for data to be collected and analysed both in-country and internationally to provide a local and international overview. The hope is not only to mitigate against extinction from disease before outbreaks occur, but also to develop a system that tackles outbreaks quickly and effectively, limiting the potential damage.

Understanding what is going on is the only way to stop the transmission of disease to the tigers. And a successful programme could become a model for tiger range states everywhere. "It has to be said that this is an ambitious plan, but what works in Sumatra may work in other countries, so its impact could be very wide-ranging," concludes Lewis. 🐾

cat anaesthesia expert John Lewis headed to Sumatra earlier this year to train project staff in using box traps so that the wildlife authorities could fit longer-life collars that use GPS technology. The data would enable researchers to examine the natural behaviour of non-conflict tigers. The hard part would be catching a tiger. And so it proved.

The tigers eluded capture, despite Lewis' best efforts in the initial trapping and collaring mission, but something more important became evident. Adding to the tiger's woes, there have been reports of strange behaviour from conflict tigers. Healthy-seeming animals are losing their fear of people and straying into villages. This is consistent with infection with Canine Distemper Virus (CDV), which can be fatal in large cats and could swiftly decimate the dwindling Sumatran tiger population.

"As the populations of tigers decrease, they become ever more vulnerable to disease," explains Lewis. "Large populations of animals that get hit by epidemics of infectious disease may lose a percentage of their numbers, but there will be sufficient animals left that are resistant and can repopulate to former levels rapidly. When a small population gets impacted by lethal infectious diseases, there simply may not be enough survivors to restart."

This alone makes CDV a serious threat. "In Sumatra, it is conceivable that habitat issues and poaching could be addressed if enough effort is expended," Lewis says, "...but if we ignore the possible impact of disease, there may not be enough tigers left to benefit from this greater protection when and if it comes." The odd side effect of tigers seeming to lose their fear of man, increases the potential for human-tiger conflict and leaves them even more at the mercy of poachers.

Lewis has seen the writing on the wall, and it's written in big red letters. The reports from

vets on Sumatra suggest that CDV may be common across the island. "This virus has evolved in recent decades with the result that it is now not only a disease that affects dogs, but many other species including the big cats, as has been seen in Russia," says Lewis. "It could be the final straw that makes extinction inevitable. Tigers whose behaviour is altered become easy prey to poachers, and even if they aren't poached, CDV is capable of killing them anyway."

Feeding into the negative outlook for the tigers is the lack of available information about the impact of the disease on wild tigers, and how to protect them from the inherent risks. And while no relevant veterinary testing has been conducted in Sumatra yet, there are strong parallels with the behaviour of tigers in the Russian Far East where CDV infection has been confirmed.

The first step in Sumatra is to establish a comprehensive disease surveillance programme and Lewis' veterinary expertise means he'll be a key player in developing structured disease monitoring in tiger range



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