

Hi-tech conservationists fight Indonesian wildlife crime

Harry Pearl

JAKARTA – From cutting-edge DNA barcoding to smartphone apps that can identify illegal wildlife sales, conservationists are turning to hi-tech tools in their battle against Indonesia's animal traffickers.

Spread across more than 17,000 islands, the Southeast Asian nation's dense tropical rainforests boast some of the highest levels of biodiversity in the world, from scaly pangolins to the endangered orangutan.

But that enormous array of flora and fauna means Indonesia is also on the frontline of an illicit global trade estimated to be worth as much as US\$23 billion a year – a shadowy operation bringing some species to the brink of extinction.

To tackle the problem, conservationists have begun using a slew of new gadgets to protect the archipelago's rare and threatened wildlife.

"Without a doubt [technology] is probably one of the largest resources that will help the good guys get the bad guys," Matthew Pritchett, from anti-trafficking group Freeland Foundation, told AFP.

"The criminals that are behind the illegal wildlife trade are large organised syndicates that are extremely sophisticated."

To keep pace with these vast trafficking groups, activists are now deploying the kind of technology once reserved for combating drug cartels and crime lords.

For instance, the Wildlife Conservation Society (WCS), which works with Indonesian authorities to halt wildlife crime, uses similar computer software to map criminal networks and extract data from seized electronic devices.

Conservation group International Animal Rescue Indonesia (IAR) is examining crime scene evidence with the help of DNA barcoding – a taxonomic method that relies on short genetic sequences to identify species.

Tissue samples from confiscated animals can be cross-referenced with a database of stored genetic codes, helping to unambiguously differentiate between species and sub-species – not all of which may be endangered.

For instance, IAR is building a



This handout picture taken in October 2016 and released by International Animal Rescue Indonesia shows a veterinarian drawing blood from a rescued slow loris, a cute-looking but venomous primate which are being hunted to extinction for traditional Chinese medicine, at the centre in Bogor.

– AFP

barcode database for different species of slow loris, a cute but venomous primate being hunted to extinction for use in traditional Chinese medicine.

"If we have animals with a known origin and we have animals that appear, for example, in Jakarta, we can then compare the genetic samples," Christine Rattel, IAR programme advisor, told AFP.

"We can then track down the hunting hotspots and what the trading routes are."

Despite a raft of laws aimed at protecting Indonesia's wildlife, forest rangers and police are under-resourced and lack specialised scientific knowledge, experts say.

Detection is often left to NGOs that scan wildlife markets and social media for threatened species, carry out investigations in the field and then notify police.

"What a lot of people don't realise is that law enforcement officers are not biologists," Pritchett said.

"There might be some of them that specialise, but when it comes down to it we are talking about something like 25,000 to 30,000 species across the world that are protected from international trade."

This is a gap that the Freeland Foundation wanted to plug when it developed its smartphone identification app WildScan.

Law enforcement officials and members of the public can swipe and click through questions and photos to determine whether they have a protected species in front of them.

If it turns out they do, they can then photograph and report it to authorities across Southeast Asia using the app.

Pritchett said reports generated through the app – which has a database of some 700 species and 2,000 photos – have already resulted in authorities taking action in Indonesia and Thailand.

Still, despite the best efforts of conservationists and huge advances in technology, many experts believe the battle is being lost.

Outdated laws, scarce enforcement resources and low prosecution rates remain key challenges in halting the trade, according to a 2015 report by development agency USAID.

Above all, there is a lack of political will to tackle the lucrative black market, said Ian Singleton, director of the Sumatran Orangutan Conservation Programme (SOCP), which uses drones to keep track of orangutans and illegal forest clearing that threatens their habitat.

"Without government will, no amount of technology will ever change anything," he said.

– AFP

Sumatran tiger kills Indonesian man

JAKARTA – A Indonesian man has been mauled to death by a Sumatran tiger in a remote village, authorities said yesterday, the second deadly attack this year.

Yusri Effendi, 34, was found with fatal wounds to his neck by workmates and local villagers in Riau province on Sumatra island on Saturday evening, the local conservation agency said.

The victim was working on a building to lure the edible-nest swiftlet in Tanjung Simpang village when the tiger began lurking around the construction site.

Several hours after first seeing

the big cat, Effendi and his three workmates – thinking the coast was clear – made a dash for safety, only to come face-to-face with the animal a short distance away.

Effendi's colleagues, who all survived the incident, told authorities they scattered to evade the animal, but the victim was not so lucky.

A search party found the victim unconscious at the edge of a river a short time later, authorities said.

"[When] they opened his clothes they saw a gaping wound on his neck," the Riau conservation agency said in a statement.

Human-animal conflicts are

common across the vast Indonesian archipelago, especially in areas where the clearing of rainforest to make way for palm oil plantations is destroying animals' habitats and bringing them into closer contact with people.

Earlier this month, locals from Hatupangan village in North Sumatra disemboweled a Sumatran tiger and then hung the big cat from a ceiling after it attacked a pair of villagers.

Sumatran tigers are considered critically endangered by protection group the International Union for Conservation of Nature, with 400 to 500 remaining in the wild. – AFP

Freedom on a leash: Dogs give new life to disabled owners

Antoine Pollez

BIRMINGHAM – Alongside well-groomed canines taking part in beauty contests this week at Britain's Crufts dog show, specially trained labradors, poodles and cocker spaniels showed off a different set of skills that can save the lives of their disabled owners.

These four-legged helpers are trained not just to help the blind or partially sighted but also to recognise a variety of sounds for the deaf or detect the signs of an impending epileptic fit.

Some of the dogs can recognise the sound of an alarm clock, a knock on the door or a fire alarm – and transmit the information by moving their paws or adopting certain positions.

Veronica Pearce, a spokeswoman for the association Hearing Dogs For Deaf People, which was taking part in the display at Crufts, the world's biggest dog show, said the aim of the charity was to give disabled people their independence back.

"We have got lots of people who before might be relying on their parents or their parents wouldn't be able to leave them, but are now living on their own," Pearce said.

Since it was created in 1985, the organisation has helped more than 2,000 people.

"If someone requests a certain sound at application stage, we will make sure that the dog is trained ready for that," said Janine Hovey, a 27-year-old trainer.

One example is training dogs to react to baby monitors.

"If they've got a child, and they want to be able to hear the baby monitor, we can train the dog for that specific sound," she said.

For the past three years, John Morris, a former warehouse worker based in Leeds in northern

England, has had Theo, a cocker spaniel given to him by the association.

"I have now got my freedom back. Without him, I could not go out," said Morris, who lost his hearing 15 years ago because of his job and now works as a volunteer for the association.

For Morris, it is about more than having a dog who can hear for him.

Walking around with Theo and the curiosity that the dog arouses has given Morris his confidence back.

"I now talk to people, whereas I didn't before. I couldn't look at people in the face," he said.

"It gives me a new life".

In total, more than 7,000 people in Britain are helped by a dog, including around 5,000 for the blind or partially sighted.

Diagnosed with epilepsy in 1998, Lynn Radcliffe lost her driving licence and her job and had to give up going to football games.

"It was really dangerous to go out on my own. Just simple things like crossing the road were dangerous – I could have gone into a seizure without warning, so I had to have someone with me."

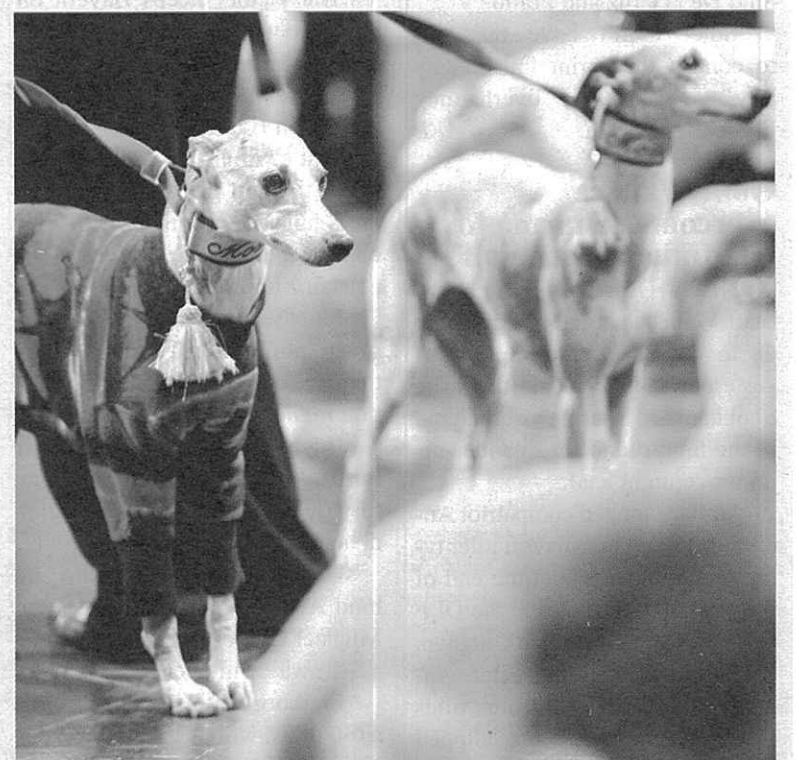
The arrival of Simba, a labrador trained by the association Support Dogs, has changed things.

"There are very subtle signals that we wouldn't see, but dogs are very good at picking these signals up," said Rita Howson, the director of the association, which also helps adults with physical handicaps and autistic children.

"They can warn the person between 15 or 50 minutes prior to that seizure happening."

While a warning bark fails to prevent an epileptic seizure it does give time for people to prepare for it.

"It makes life safer in the house," said Radcliffe. – AFP



Greyhounds wait to be judged on the second day of the Crufts dog show at the National Exhibition Centre in Birmingham, central England, last week. – AFP