Wild pangolins test negative for Covid-19

Study finds the endangered species in Malaysia pose no threat to human health and do not carry the dreaded virus. *> See report by RAZAK AHMAD on page 12*

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Wild pangolins pose no harm

Study shows the critically endangered mammal is not a threat to humans

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PETALING JAYA: Malaysia's critically endangered wild pangolins have tested negative for Covid-19, indicating that they pose no threat to human health amid reports that they are possible carriers of the virus.

This is the key finding of a recently published study which further underscores the importance of protecting one of the most trafficked mammals in the world.

Researchers from the PREDICT programme that was set up to look for novel zoonotic viruses in wildlife before they become human epidemics have tested thousands of animals including 334 wild, rescued and seized illegally trafficked pangolins in Malaysia.

The pangolin samples were collected from animals before or just after they entered the illegal wildlife trade.

All tested negative for viruses that could potentially threaten humans including SARS-CoV-2, which causes Covid-19.

"These findings suggest that wild pangolins pose no threat to human health.

"It also highlights the importance of carefully ending the trade of wildlife and improving biosecurity at wet markets to avoid having wild animals co-mingling with farmed animals and humans," said Tom Hughes, EcoHealth Alliance project coordinator in Malaysia and director of Conservation Medicine.

EcoHealth Alliance is a global conservation and pandemic-prevention non-governmental group, which managed the PREDICT project in Malaysia.

PREDICT was funded by United States Agency for International Development's (USAID) Emerging Pandemic Threats programme.

As Covid-19 started to spread throughout the world early this year, reports began to emerge linking the disease to pangolins with some suggesting that they are a potential host for the virus.

Scientists have also detected SARS-CoV-2 in captive pangolins confiscated from the wildlife trade in China though no one knew if wild pangolins carried the virus.

"We concluded that the detections of SARS-CoV-2-related viruses in pangolins are most likely a result of their exposure to infected people, wildlife, or other animals after they entered the illegal wildlife trade," said Jimmy Lee, EcoHealth Alliance's field manager in Malaysia.

Lee and Hughes are among the authors of the research paper titled, "No Evidence Of Coronaviruses Or Other Potentially Zoonotic Viruses In Sunda Pangolins (*Manis Javanica*) Entering The Wildlife Trade Via Malaysia," which was published on Nov 23 in the *EcoHealth* journal.

The paper can be viewed online at *http://link.springer.com/article/10.1007/s10393-020-01503-x*

Malaysia is a hotspot for the pangolin trade, and in just one case in February last year, close to 30,000kg of pangolins were seized in Sabah alone.

Pangolin scales are used in traditional Chinese medicines, while its meat is deemed an expensive delicacy.

Lee said the research findings contrasted with the findings in China due to the point in the supply chain at which samples were taken.

"The wildlife trade transports pangolins from Malaysia up through South-East Asia where animals are often housed together in groups from different geographic regions, and often with other species, creating plenty of opportunity for viral transmission among and within species," Lee noted.

In Malaysia, PREDICT – which was set up in 2009 – has been carried out as part of a long-term collaboration between EcoHealth Alliance and Conservation Medicine, the Department of Wildlife and National Parks, the Health Ministry, the Department of Veterinary Services, Sabah Wildlife Department, Sabah State Health Department, Danau Girang Field Center, Universiti Malaysia Sabah and Universiti Putra Malaysia.

This ongoing collaboration has also helped to develop personnel and laboratory capacity in Malaysia and establish sustainable disease surveillance systems for wildlife, and livestock and people with high levels of exposure to wildlife.

The Sabah Wildlife Department and Universiti Malaysia Sabah, which are among the local partners involved in PREDICT, noted the importance of the collaboration.

"Sabah Wildlife Department's collaborative efforts with EcoHealth Alliance through the PREDICT Project and other programmes have netted some interesting results, identifying novel viruses within Sabah's wildlife, and improving our understanding of zoonotic viruses in general.

"Further collaborative efforts with EcoHealth Alliance and other local stakeholders help enhance Sabah's readiness to respond to disease emergence events and build capacity for disease surveillance of novel viruses," said Dr Sen Nathan, assistant director of the Sabah Wildlife Department.

Prof Helen Lasimbang, Director of Hospital Universiti Malaysia Sabah, said the pangolin study was an important effort involving partners from different countries.

"UMS is pleased to be actively involved in this global effort, working together with local and international researchers' augurs well for the high-impact research that is much needed in this area.

"The smuggling of this species needs to stop," she said.

Prof Vijay Kumar, a molecular geneticist at Universiti Malaysia Sabah's Biotechnology Research Institute said it was pertinent to better understand the viruses that some wildlife may host.

"It is important that we identify potential zoonotic pathogenic viruses in wildlife species such as pangolins and bats before they become pandemics," he said.

EcoHealth Alliance president Dr Peter Daszak said the pangolin study shows that collaboration between scientists and government agencies can add real value to law enforcement operations to curb wildlife smuggling.

"By testing seized pangolins for viruses, we've been able to expand our understanding of the origins of the most significant pandemic of this century, and also we hope to benefit pangolin conservation," said Daszak.