

Deadly virus threatens endangered elephants

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Dr Supaphen Sripiboon with a young elephant.

(Phys.org) —Researchers are racing the clock to better understand a deadly virus which has the potential to intensify population declines in the endangered Asian elephant.

[Elephant Endotheliotropic Herpesvirus \(EEHV\)](#) mostly affects elephants under ten years old, killing them before they have the chance to breed.

Murdoch University PhD candidate and veterinarian, Dr Supaphen Sripiboon will head to Thailand in July to find out how widespread the virus is among captive elephants. She is undertaking her studies in the School of Veterinary and Life Sciences' Conservation [Medicine Program](#).

"The [Asian elephant](#) is a big drawcard for tourists and is an important

part of Thai culture," she said.

Over the past 20 years, the virus has resulted in the death of almost a quarter of Asian elephant calves born in North America and Europe, hindering breeding programs and [conservation efforts](#).

"These young elephants die a horrific death. We believe the virus attacks blood vessels, leading to haemorrhaging and failure of the major organs," Dr Sripiboon said.

"It acts very quickly. Once the symptoms start to show, the elephants typically die within 24 to 48 hours."

The race to find a cure has hit a major stumbling block, with researchers so far unable to cultivate the virus in a laboratory.

"We don't know which cells host EEHV, making early diagnosis and [vaccine development](#) very difficult," Ms Sripiboon said.

One theory suggests that some adult elephants carry the virus, but their strong immune systems prevent it from doing any harm.

"Elephants are very [social creatures](#) and there is a lot of contact between adults and juveniles. It's possible that the adult elephants pass the virus on to the young elephants, whose bodies aren't able to fight it off."

Dr Kristin Warren, Academic Chair of Postgraduate Studies in Conservation Medicine, said it is hoped the study will shed further light on how the disease is transmitted between elephants.

"This is the first time that a large scale surveillance study will be undertaken in Thailand, and we hope that Dr Sripiboon's study will help determine how much of a threat it poses to Asian elephants in Thailand."

Provided by Murdoch University

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