

Climate to widen sleeping sickness risk to southern Africa

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Sleeping sickness could threaten tens of millions more people as the tsetse fly which transmits the disease spreads to southern Africa as a result of global warming, a study published on Wednesday says.

By 2090, an additional 40 to 77 million people could be at risk of exposure to the disease, the study concludes. Currently 75 million people live within its range.

The scientists base the estimate on how the tsetse and the Trypanosoma parasite it carries are likely to respond to rising temperatures in coming decades.

At present, 70,000 cases of sleeping sickness, also called trypanosomiasis, occur each year in eastern, central and western Africa, according to the [World Health Organisation](#) (WHO).

The parasite is transmitted from cattle to humans by the tsetse when it takes a blood meal. It is fatal without treatment, causing convulsions and serious sleep disturbance that lead to coma and death.

Scientists led by Sean Moore of the US Centers for Disease Control and Prevention (CDC) carried out a computer simulation in line with two scenarios laid out by UN climatologists in 2007, predicting warming of 1.1-5.4 degrees Celsius (2.0-9.7 degrees Fahrenheit) depending on [carbon emissions](#).

The team looked at the strain of parasite that is prevalent in East Africa and the two tsetse species which carry it.

Outbreaks of the disease can occur when mean temperatures are between 20.7 C to 26.1 C (69.25 F to 79 F), they found.

Some parts of eastern Africa will become too hot for tsetse larvae to survive. But other areas in this region, as well as in southern Africa, that were previously too cool will become a potential home for it.

The study, appearing in the Journal of the Royal Society Interface, adds to previous research into the link between disease and [climate shift](#).

In 2008, the US [Wildlife Conservation Society](#) identified a "deadly dozen" of diseases that could spread into more temperate areas through mosquitoes, parasites or pathogen-laden water.

They include malaria, cholera and yellow fever as well as sleeping sickness.

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