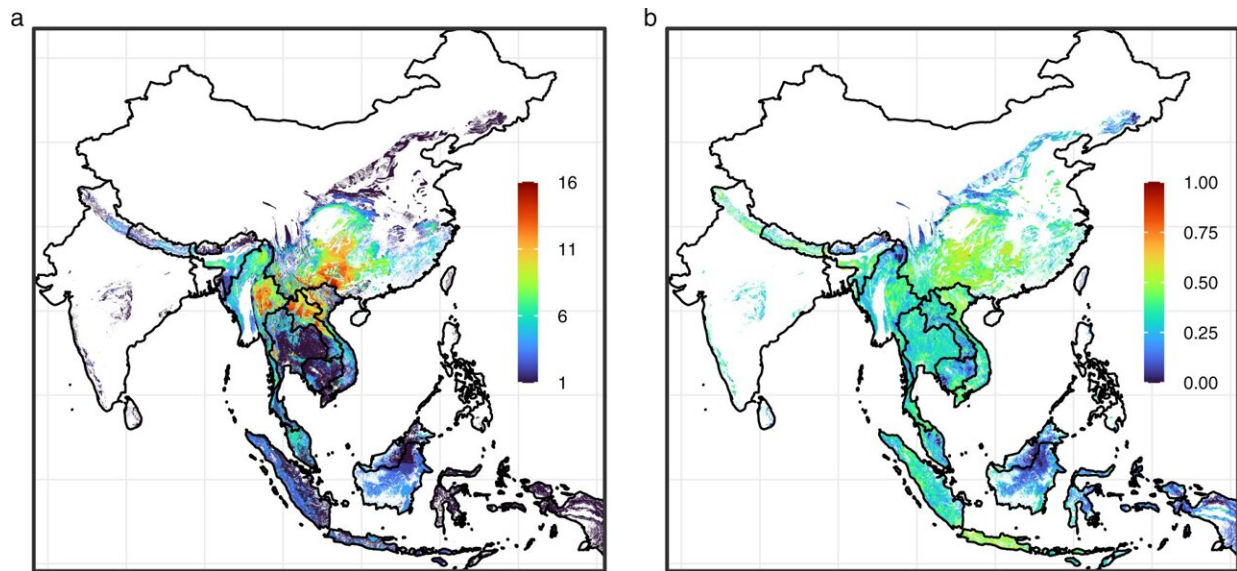


Estimating the risk of SARS-related coronaviruses from bats in Southeast Asia

August 10 2022



Hotspots of SARSr-CoV bat host species richness and human overlap in Southeast Asia. a Species richness of SARSr-CoV bat host species in Southeast Asia, created by overlaying area of habitat maps for all 26 SARSr-CoV bat host species known for this region. b Relative bat-human overlap: bat host species richness multiplied by human population count. Values were $\ln(x + 1)$ transformed and then normalized to a 0–1 scale. For both panels, redder colors indicate larger values and bluer colors indicate smaller values. Credit: *Nature Communications* (2022). DOI: 10.1038/s41467-022-31860-w

An approach to estimate and map the risk of potential SARS-related coronaviruses spreading from bats to humans in Southeast Asia is

presented in a paper in *Nature Communications* this week. The study could aid the design of surveillance and prevention programs in regions where these disease spillover events may be more likely to occur.

Bats are known to host coronaviruses that may be transmitted to people, including SARS-related coronaviruses. Some studies have suggested that transmission of these viruses to humans may be relatively common in certain regions.

Cecilia Sánchez, Peter Daszak and colleagues devised a strategy to assess the distribution and frequency of bat SARS-related coronavirus spillover risk in Southeast Asia. The authors built distribution models for 26 bat species known to host SARS-related coronaviruses in the region, which allowed them to map where [human populations](#) overlap with these bats. The researchers then used epidemiological data and probabilistic risk assessments to estimate the number of people infected with SARS-related coronaviruses of bat origin in Southeast Asia every year.

They estimated a median number of around 66,000 annual cases, many of which may be undetected due to limited surveillance, or because they might resemble other illnesses. However, the authors caution that more data are needed to validate these [estimates](#).

Sánchez, Daszak and co-authors propose that their spillover risk assessment strategy could be used as a tool for improving preparedness for emerging diseases of bat origin.

More information: Cecilia A. Sánchez et al, A strategy to assess spillover risk of bat SARS-related coronaviruses in Southeast Asia, *Nature Communications* (2022). [DOI: 10.1038/s41467-022-31860-w](https://doi.org/10.1038/s41467-022-31860-w)

Provided by Nature Publishing Group

Citation: Estimating the risk of SARS-related coronaviruses from bats in Southeast Asia (2022, August 10) retrieved 27 April 2024 from <https://medicalxpress.com/news/2022-08-sars-related-coronaviruses-southeast-asia.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.