

African Swine Fever is wreaking havoc in Borneo's forests and among its people

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Sunda bearded pig. Credit: Graham Usher

A highly contagious and virulent virus is sweeping through domestic and wild swine populations across the world, decimating those in Asia, Europe, and Africa. The near-100% fatality rate threatens food security, ecosystems and the lives and traditions of millions. African Swine Fever (ASF) is probably the most devastating viral disease you have never heard of.

Cultural practices centuries-old are at risk of extinction. Diets are dramatically shifting, placing an unsustainable burden on an already strained socio-ecological environment. Low- and lower-middle-income countries are bearing the brunt of this catastrophic pandemic, but few seem to care beyond the protection of domestic pork production. Would it be the same if experts were to predict that not a single American household would celebrate Thanksgiving with a turkey in 2024?

A recent letter in the journal [Science](#) warns that this socio-ecological disaster is currently overlooked and receiving insufficient attention.

Professor Erik Meijaard, the letter's lead author and former chair of the IUCN Wild Pigs Specialist Group, a global pig conservation group, commented that "ASF has devastated pig populations in Asia since 2018, but the impacts are especially significant on the island of Borneo. ASF has led to local population crashes of bearded pigs, once the most numerous large mammal species on the island, of up to 100%." Meijaard thinks that this decline may render the species Critically Endangered, an international conservation status verging on extinction.



Pig hunt. Credit: David Hisser

Bearded pigs play an essential role in ecosystem maintenance and socio-cultural practices. As a major seed predator, the once numerous pigs played an important role in steering ecological processes in Borneo's tropical forest.

Local hunting studies indicate that bearded pigs constituted up to 81% of hunted wildlife weight in some villages, while Malaysian Sarawak once harvested up to a million bearded pigs each year. How can the loss of such an integral species be overlooked? Especially when there is no evidence indicating that wild pig populations in Borneo, or other Southeast Asian islands can fully recover.

The current letter calls for urgent research and interventions, with the participation of rural communities, focusing on preventing the spread of African swine fever to other regions where people fundamentally depend on pigs, such as the island of New Guinea, where the loss of pigs could mean social collapse. The indigenous people of these lands have such close ties to pigs, that tribeswomen have been known to nurse piglets as their own.

Ongoing [clinical trials](#) for the development of an effective vaccine against ASF are showing positive results. Professor Benoit Goossens of Cardiff University, one of the co-authors, however, pointed out that this is mostly relevant for domestic pigs. "Vaccinating wild pigs would require a whole different setup, such as oral vaccination with baits, which is far from being ready. Also, baiting wild pigs across Borneo would be logistically hugely complex and expensive to implement," he said.



Man with pig. Credit: David Hisser



Man carrying pig. Credit: David Hisser

Something needs to be done urgently. Failing to acknowledge the socio-economic significance of the virus in low-income demographics, such as the indigenous tribes of Borneo, could result in the irreversible loss of species and the ecosystems, cultures, livelihoods, and communities they support.

Raising the profile of neglected tropical diseases is a longstanding priority of global health governing bodies. However, the continued pressure that we exert on the natural world threatens [human lives](#) in ways that go beyond zoonotic transmission of disease.

Recognizing that a virus that cannot infect humans, in its present state,

could have catastrophic consequences for millions of people, especially those whose relationship with nature is profound and all-encompassing, necessitates a fundamental shift in global priorities.

While such a change requires a massive overhaul of existing systems, it could all begin with acknowledging ASF and providing the virus and the communities it impacts with the attention it deserves.

More information: Erik Meijaard et al, Pig virus imperils food security in Borneo, *Science* (2024). DOI: [10.1126/science.adn3857](https://doi.org/10.1126/science.adn3857).
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