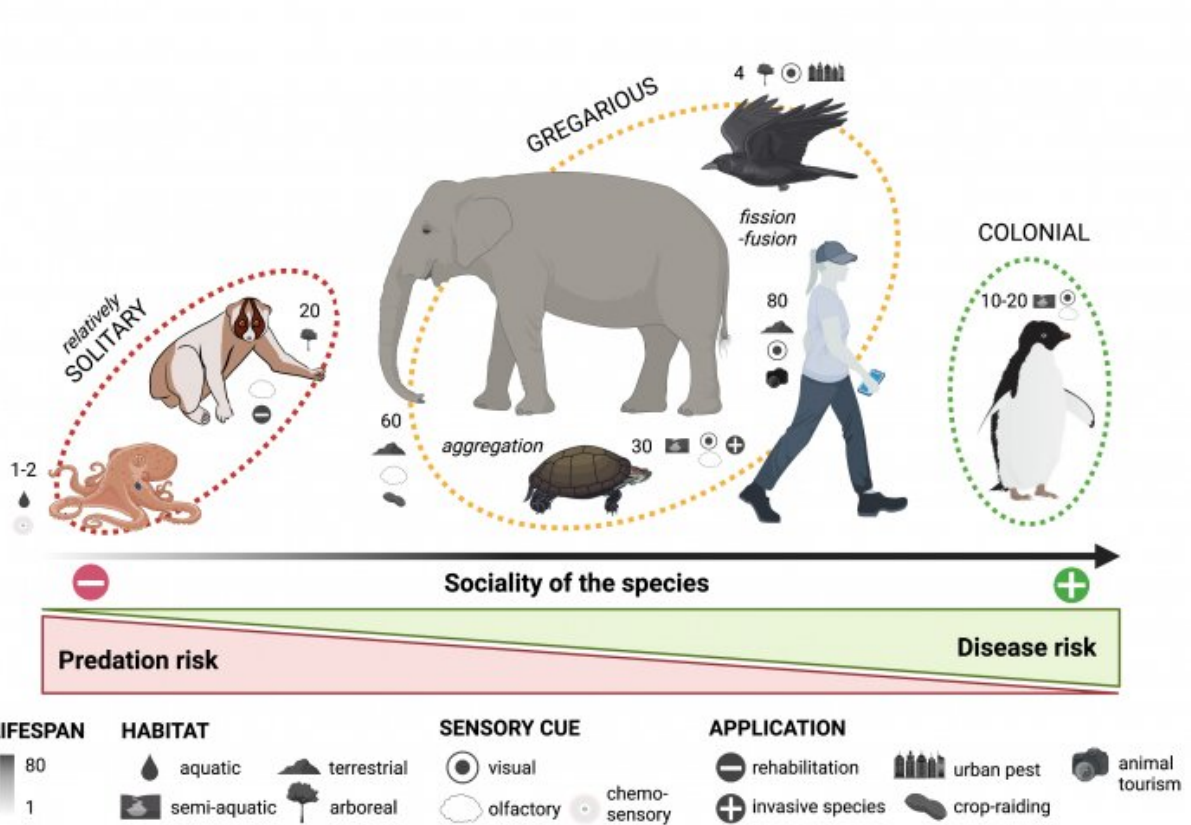


# How disgust-related avoidance behaviors help animals survive

March 14 2023



Overlooked species in risk perception research and how disease avoidance and disgust may be used in different contexts of conservation and wildlife management. Credit: Dr Cecile Sarabian

Animals risk getting sick every day, just like humans, but how do they

deal with that risk? An international team led by Dr. Cecile Sarabian from the University of Hong Kong (HKU) examines the use of disgust-related avoidance behaviors amongst animals and their role in survival strategy.

The feeling of disgust is an important protective mechanism that has evolved to protect us from diseases risks. Triggered by sensory cues, we feel disgust surrounding things such as the sight of infected wounds. This releases a set of behavioral, cognitive and/or physiological responses that enable animals to avoid pathogens and toxins.

An international team, led by Dr. Cecile Sarabian from the University of Hong Kong, has turned their attention to the emotion's role in animal [disease](#) avoidance—an area of study typically neglected. The team developed a framework to test disgust and its associated disease avoidance behaviors across [species](#), [social systems](#) and habitats.

Characteristics such as whether a species lives in groups or alone are important when analyzing their response to disease. The paper, published in *Journal of Animal Ecology*, highlights the positives and negatives of experiencing disgust to avoid disease.

Over 30 species use disease avoidance strategies in the wild, according to previous reports, however the authors provided predictions for seven additional species that were previously overlooked. These include the common octopus, a species native to Hong Kong, and the red eared slider—an [invasive species](#).

## **How does disgust inform survival strategies?**

Species exhibit varying levels of disease avoidance behavior depending on their social systems and ecological niches. Solitary species can be less vulnerable to socially transmitted diseases, and thus less adapted to

recognize and avoid that risk. But a group-living species are more prone, but also more likely to recognize and avoid sick animals.

However, species living in colonies like rabbits or penguins may be more likely to tolerate infected mates. As the species depend on each other to survive, collective immunity can be less costly than having to isolate. This model could also apply to human diseases, for instance, the COVID-19 pandemic.

Furthermore, the authors suggest five practical applications of disgust-related avoidance behaviors in wildlife management and conservation. These include endangered species rehabilitation, [crop damage](#) and urban pests. For example, modulating the space use and food consumption of crop-damaging species, [disgust](#)-related behaviors could be useful. This could involve creating an environment that is unappealing to pests.

"Given the escalation of conflicts between humans and wildlife, the translation of such knowledge on disease risk perception and avoidance into relevant conservation and wildlife management strategies is urgent," says Dr. Sarabian.

**More information:** Cécile Sarabian et al, Disgust in animals and the application of disease avoidance to wildlife management and conservation, *Journal of Animal Ecology* (2023). [DOI: 10.1111/1365-2656.13903](#)

Provided by British Ecological Society

Citation: How disgust-related avoidance behaviors help animals survive (2023, March 14) retrieved 2 May 2024 from <https://phys.org/news/2023-03-disgust-related-behaviors-animals-survive.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.