

Bat Recovery Group guidance for projects involving bat handling, to prevent human-bat transmission of SARS-CoV-2

July 2022

NZ Bat Recovery Group in consultation with K McInnes (DOC vet)

Context

The Bat RG is concerned about the risk of human-bat transmission of the SARS-CoV-2 virus.

The US Center for Disease Control (<https://www.cdc.gov/coronavirus/2019-ncov/daily-life-coping/animals.html>) lists animals infected by SARS-CoV-2 after contact with people with COVID-19.

This list includes:

- Companion animals, including pet cats, dogs, and ferrets
- Animals in zoos and sanctuaries, including several types of big cats, otters, non-human primates, a binturong, a coatimundi, a fishing cat, and hyenas.
- Mink on mink farms.
- Wild white-tailed deer in several U.S. states.
- Hamsters, hippopotamuses, manatees, mule deer, black-tailed marmoset and a giant anteater.

The IUCN bat specialist group recognises a low but credible risk of human-to-bat transmission of SARS-CoV-2.

The consequences of infecting bats with SARS-CoV-2 is unknown. An assessment in Australia (<https://pubmed.ncbi.nlm.nih.gov/33969168/>) considered it unlikely that SARS-CoV-2 would cause disease in bats when the prevalence in humans is low, but the likely human reaction to bats if SARS-CoV-2 established in a bat population could have a catastrophic impact on bat populations.

Bat fieldwork

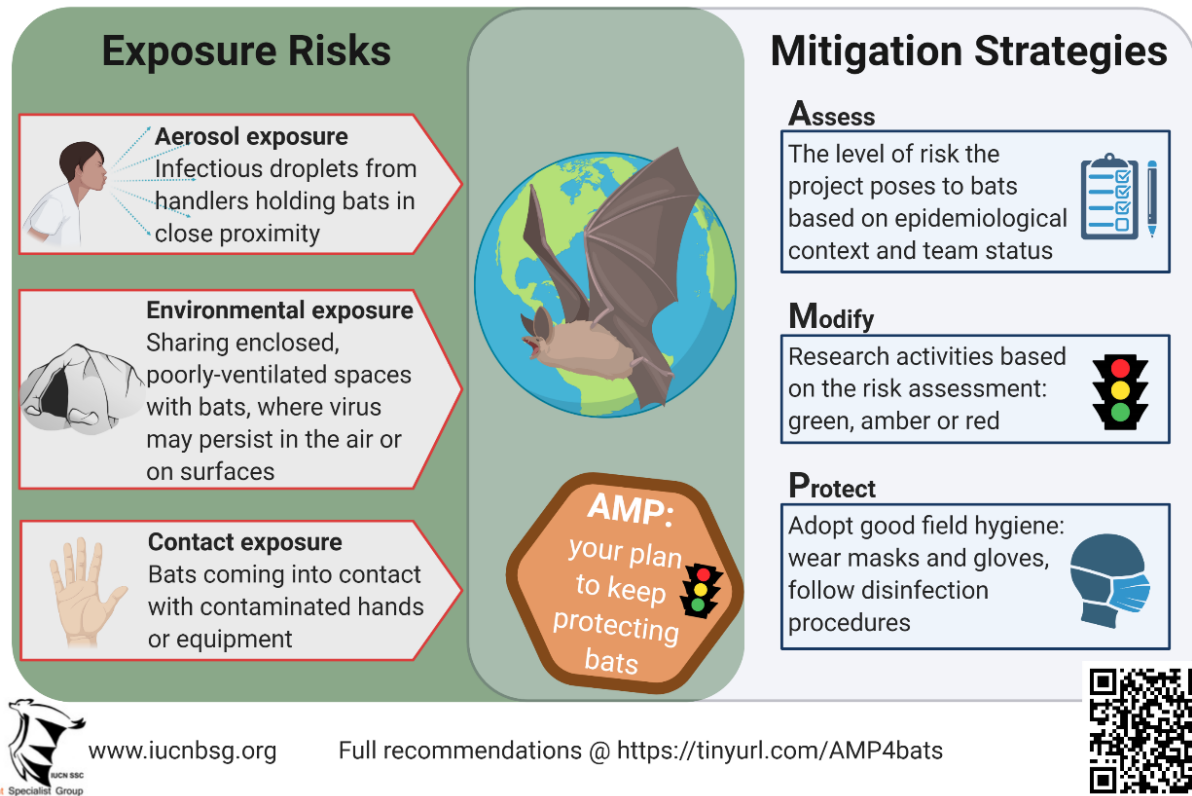
Bat fieldwork should follow the approach recommended by the IUCN bat specialist group (<https://www.iucnbsg.org/bsg-publications.html>) by reducing exposure risk and incorporating mitigation strategies into field work. This includes:

- A risk assessment of the level of risk that the project poses to bats
- Modification of fieldwork activities based on that risk assessment
- Protecting bats by adopting good field hygiene practices.

Because the COVID situation is so dynamic each project must undertake a risk assessment before each field work session begins, and continually re-evaluate if conditions change. Risk assessment considers incidence rates of COVID in the community and may result in field work not proceeding. See

https://www.iucnbsg.org/uploads/6/5/0/9/6509077/amp_recommendations_for_researchers_final.pdf for the risk assessment method recommended by the IUCN bat specialist group in July 2021.

Preventing human-to-bat transmission of SARS-CoV-2



Strategies to mitigate risk must be followed, including:

- Minimise the number of people at the field site
- Negative COVID test before each fieldwork session begins
- Anyone with any symptoms of COVID-19 or any other illness where bats may be infected is not to undertake work
- Anyone who is a close contact of a person infected by SARS-CoV-2 is not to undertake work where bats may be infected.

Good field hygiene practices must be followed, including:

- Work in the open air
- Minimise bat handling time eg: reduce measuring and weighing to what is necessary
- Wear a face covering when handling bats or in close proximity (<2m) to bats
- Use well-fitting surgical masks in preference to cloth masks (double masking with two types of masks can improve mask fit and prevent air leaks, e.g., cloth mask over surgical mask; N95 and KN95 masks have been recommended (<https://www.stuff.co.nz/national/explained/300496126/covid19-which-face-masks-are-available-in-nz-and-which-are-the-most-effective>))
- Do not blow on bats (use alternatives, such as blunt-ended dissecting scissors to part fur, or wash bottles with a fine nozzle to blow air)
- Wash and disinfect hands regularly, including at the start and end of work
- Use nitrile or latex gloves when handling bats or equipment that will come into contact with bats. Where glove wearing is impractical (due to difficulty of handling bats with gloved hands), hands must be disinfected/sanitized regularly. Avoid touching your face or mask.