

Human activity decreases survival rates of injured or displaced wildlife, meta-analysis finds

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Five factors, including human activity such as road accidents, affect the survival of injured or displaced wildlife, a comprehensive review finds.

Human activity is one of several factors that reduce [survival rates](#) of injured or displaced wildlife, finds the first global, comprehensive study on wildlife rehabilitation.

The University of Sydney researchers found that incidents such as motor vehicle collisions and domestic animal attacks account for nearly half of the reported causes of wildlife death and injury, either pre-rescue or after release.

They also found that mammals and birds are equally likely to survive all stages of rehabilitation, but survival rates varied between locations. For example, on average in Australia, just 55% of mammals and birds survived in the short-term, after release. For koalas, the one-year survival rate was around 50%.

The research, based on data from 112 published studies, is published in *PLOS ONE* and identifies five factors associated with survival outcomes:

1. The event, such as an oil spill or fire.
2. Individual animal factors, such as whether they are nocturnal or diurnal animals or where they reside in the food chain.
3. Intervention performed.
4. Release environment, such as the quality of food or nesting resources available.
5. The human-wildlife interface, such as whether there are [domestic animals](#) or automobiles near the release area.

The authors said the results highlight the need to mitigate human threats for wildlife survival.

"Natural disasters and [extreme weather events](#) are escalating, and urbanization is expanding, so there will be more and more animals needing rescue and rehabilitation," said co-lead author Dr. Holly Cope,

from the Sydney School of Veterinary Science.

They add that wildlife caregivers and researchers should continue to work together to improve animal care protocols.

"Wildlife personnel need to be aware of [research data](#) so they can improve animal care. Conversely, if they keep accurate records, this can help researchers with further studies," Dr. Cope said.

For example, data gathered from two [oil spills](#) that occurred five years apart in Australia showed a reduction in little penguin death rates during rehabilitation, from 61% to 5%. This highlights the importance of evaluating outcomes to refine care protocols.

More information: Holly R. Cope et al, A systematic review of factors affecting wildlife survival during rehabilitation and release, *PLOS ONE* (2022). [DOI: 10.1371/journal.pone.0265514](https://doi.org/10.1371/journal.pone.0265514)

Provided by University of Sydney

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