Conservation's Double-Edged Sword: When Threatened Mammals Thrive as Aliens

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"Two titles of nobility given by Humans are not easy for anyone living on this Earth to obtain.

[...]

Any bird species that meets both of the above conditions will be listed as one facing a very high risk of complete extinction and should be included in the IUCN Red List."

In "Titles of Nobility"; Wild Wise Weird [1]

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In a globalized world, mammals once confined to specific native habitats are increasingly found in foreign ecosystems. While many introduced species are labeled as invasive, a paradox arises when some of these species are themselves threatened with extinction in their native range [2,3]. A recent global study addresses this conservation dilemma by analyzing 36 mammal species that are both threatened in their native habitats and established as alien populations elsewhere [4].

These species—ranging from deer to macaques—were primarily introduced for hunting, farming, or as exotic pets. Intracontinental introductions, especially within Asia and from Asia to Oceania, were particularly common. Today, alien populations are most prevalent in eastern Australia and insular Southeast Asia, while native populations continue to decline due to threats such as overexploitation and habitat conversion.

The study identifies biological resource use as the most prevalent threat, followed by agriculture and competition from invasive species. These pressures mirror the reasons for their initial introduction, particularly hunting. In response, conservation strategies predominantly focus on species management and habitat protection within native ranges.

A key insight of the study is the effect of including alien populations in IUCN Red List assessments. When alien populations were factored into global evaluations, the extinction risk category decreased for 22% of the species studied. For example, the European rabbit (*Oryctolagus cuniculus*) shifted from "Endangered" to "Least Concern" due to thriving populations outside its native range [5].

This raises important conservation and ethical questions. While alien populations may act as backup populations—serving as genetic reservoirs or sources for future reintroductions—they also pose potential ecological risks to native biodiversity. As such, the authors advocate for cautious, case-by-case evaluations that weigh both the conservation value and ecological costs of alien populations.

This study underscores the intricate relationship between human activity and nature. The translocation of species, driven by human intent or oversight, has the potential to both erode and safeguard biodiversity. Balancing these outcomes requires nuanced, adaptive conservation strategies informed by ecological, ethical, and economic considerations [6,7].

References

- [1] Vuong QH. (2024). Wild Wise Weird. https://www.amazon.com/dp/B0BG2NNHY6/
- [2] Cassinello J. (2018). Misconception and mismanagement of invasive species: The paradoxical case of an alien ungulate in Spain. *Conservation Letters*, 11, 1-5. https://doi.org/10.1111/conl.12440
- [3] Garzón-Machado V, et al. (2012). Threat or threatened species? A paradox in conservation biology. *Journal for Nature Conservation*, 20, 228-230. https://doi.org/10.1016/j.jnc.2012.03.001
- [4] Tedeschi L, et al. (2024). Threatened mammals with alien populations: Distribution, causes, and conservation. *Conservation Letters*, 18, e13069. https://doi.org/10.1111/conl.13069
- [5] Lees AC, Bell DJ. (2008). A conservation paradox for the 21st Century: The European wild rabbit *Oryctolagus Cuniculus*, an invasive alien and an endangered native species. *Mammal Review*, 38, 304-320. https://doi.org/10.1111/conl.13069
- [6] Vuong QH. (2018). The (ir)rational consideration of the cost of science in transition economies. *Nature Human Behaviour*, 2, 5. https://www.nature.com/articles/s41562-017-0281-4
- [7] Nguyen MH. (2024). How can satirical fables offer us a vision for sustainability? *Visions for Sustainability*. https://ojs.unito.it/index.php/visions/article/view/11267