

## Conflict of human–wildlife coexistence

Carter et al. (1) used data on spatial overlap of tigers and people to conclude that human–tiger coexistence is possible at fine spatial scales. The question then is whether spatial overlap suggests that human–tiger coexistence is in fact a viable strategy for their mutual well-being in the long run. Coexistence, or rather its absence between large carnivores and humans, is an oft-repeated theme in conservation biology. The results presented by Carter et al. (1) support this recognition; tigers were detected less frequently near human populations and the probability of their detection increased with distance from human settlement. Although this finding is indicative of a scenario where tigers are being pushed into areas of low human activity, the authors argue that it is a mechanism by which tigers coexist with people. We contend that the same result could just as easily be interpreted as increasing anthropogenic pressures hemming in a tiger population that is deprived of alternative habitats.

Human-wildlife conflict is recognized as an important driver of large carnivore population declines (2). However, this aspect is entirely ignored in the study, despite growing evidence that human–tiger conflict exists both within and adjacent to Chitwan National Park (3). In addition, the study (1) implicitly recognized that human land-uses are unsuitable for tigers by not sampling in such areas. As a result, the authors provided an inaccurate picture of the real extent and nature of spatial overlap—or the lack thereof—in human and tiger activity. Interestingly, Carter et al. (1) failed to report that their estimate of tiger density in these “forests of coexistence” is only half that of other ecologically similar parks in the Terai landscape (4). Unlike much of the tiger’s geographical range, Chitwan represents a controlled environment where military presence limits the prevalence and impact of poaching and livestock pressures (1). The failure of the authors to place their inferences in context (1, 3, 4) falsifies the representation of Chitwan as a park that sustains high tiger densities but lacks conflict with humans.

Carter et al. (1) documented behavioral adaptations of tigers to different types and levels of human activity. The real merit of this study could have been to discuss possible reasons behind these adaptations. For example, there is a growing body of

science, which suggests that even nonlethal human activities constitute a predation risk, affecting the fecundity and behavior of animals (5). In addition, nuanced discussions on ecosystem effects, for example prey species that selectively occurred in the core area, could further our understanding of the underlying factors that drive tiger population viability in human-dominated landscapes.

Claims made by Carter et al. (1) have serious, real-world implications for management and policy. The issue these authors address is extremely sensitive to the conservation of an endangered species and the well-being of thousands of people living in close proximity to these large carnivores. Minor misinterpretation of results, and inferences drawn beyond the realm of a study, can have disastrous consequences for humans and tigers alike.

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Author contributions: V.R.G., D.V., D.K., Y.C.K., M.K., M.P., T.N., A.A., S.S., and I.S. performed research and wrote the paper.

The authors declare no conflict of interest.

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