

Large carnivores with large geographic ranges better-studied

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Scientists tend to study larger carnivores with larger geographic ranges than those with greater adaptability and broader diets, according to results published April 2, 2014, in the open access journal *PLOS ONE* by Zoe Brooke and colleagues from Zoological Society of London.

Scientists need to evaluate research efforts and their effectiveness in order to meet the conservation needs of a wider range of species which may be threatened due to habitat loss, exploitation, and climate change. The characteristics of the species themselves may influence how much we study them, possibly creating a bias in our understanding of this diverse group of animals. In an effort to better identify patterns and causes in carnivore research, the authors combined bibliometric information they obtained from ~16,500 published papers on the Order Carnivora-a well-known group of 286 species-with information on the species' life history and ecological traits.

The researchers identified a wide variation in intensity of research effort for carnivores, with some of the least-studied species being those that are predicted to become increasingly threatened. Better-studied species tended to be large-bodied and have a large geographic range, but omnivores were less-studied overall. The IUCN threat status did not show a strong relationship with research effort, which suggests that the actual conservation needs of individual species are not major drivers of research interest. Instead, the researchers suggest that there may be a complex role of human perspective in the planning of research agendas. The authors hope that these results could be combined with other



conservation resources to prioritize and co-ordinate future research effort.

Zoe Brooke added, "Out of the top 20 most studied species, most are larger species with large geographic ranges, like black bear and brown bear. There also is a strong geographic bias, with 16 residing in North America and Europe - the exceptions include large charismatic species like lions, tigers and cheetah."

More information: Brooke ZM, Bielby J, Nambiar K, Carbone C (2014) Correlates of Research Effort in Carnivores: Body Size, Range Size and Diet Matter. *PLoS ONE* 9(4): e93195. <u>DOI:</u> 10.1371/journal.pone.0093195

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