

Reintroducing carrying capacity to Arabian hyper-arid rangelands; the role of language to defend an inexact science

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Open-access deserts of the Arabian Gulf States continue to be heavily impacted by camels, a species that has high cultural but little economic value. In protected areas that exclude camels, the problem is frequently replaced by other ungulates, such as the Arabian Oryx. This presentation will examine the difficulty of providing scientific evidence of environmental degradation in this hyper-arid habitat and the sociocultural context affecting land use policy, with examples from two emirates of the United Arab Emirates. Reestablishing a natural, historical balance in protected areas is unrealistic due to habitat fragmentation and land-use expectations. We argue that although the controversial term 'carrying capacity' encourages a focus on single species rather than habitats, it remains the most explicit way to communicate sustainable land use policy. We propose that terrestrial ecologists adopt a twofold approach; firstly that a generic maximum of 100 kg large herbivore per km² be chosen, and secondly that protected areas provide carrying capacity estimates for the wild and semi-wild fauna of public interest. The authors believe this will improve community awareness of rangeland health, and support calls to fund future monitoring.