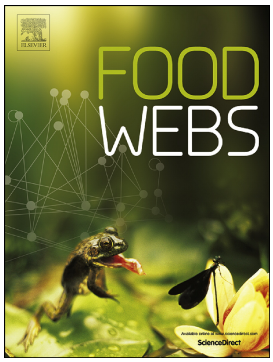

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Tiger and Leopard Diets in Western Thailand: Evidence for Overlap and Potential Consequences

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Abstract

Interference competition by tigers, *Panthera tigris*, is widely reported to reduce leopard, *Panthera pardus*, density or cause its shift to more a marginal habitat. In Southeast Asia, lack of a medium sized prey, spotted deer (*Axis axis),* and increased consumption of sambar *(Rusa unicolor)* by leopards amplifies dietary overlap between these two large felids. In our study area in western Thailand, leopard density was 2.4 times that of tigers. Using scat analysis we estimated prey biomass in the diet of each species to examine resource competition between these species. Tigers had a 0.89 spatial overlap with leopards and leopards a 0.92 overlap with tigers. Larger prey in this system (>100 kg) composed 89.8 (Ackerman's coefficient, ACF, and 79.3% Chakrabati's coefficient, CCF of the biomass in tiger diet and 47.0% (ACF) and 45.3% (CCF) of the biomass in leopard diet. Dietary overlap of prey >100 kg versus smaller prey (≤ 37 kg) between these felids was 74.4% (ACF) and 81.2% (CCF). Dense cover at our site may reduce interference