

Nevin, Owen and Gilbert, Barrie K. (2005) Should the relationship between population viability and habitat quality prompt a paradigm shift in carnivore conservation: a case study with bears. In: 16th International Conference on Bear Research and Management, 27 September - 1 October 2005, Riva del Garda, Trentino, Italy. (Unpublished)

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SEPT. 27<sup>th</sup> - OCT. 1<sup>st</sup> 2005  
RIVA DEL GARDA - TRENINO - ITALY

**16<sup>th</sup> INTERNATIONAL CONFERENCE  
ON BEAR RESEARCH AND MANAGEMENT  
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**ABSTRACTS**

update Sept. 15, 2005

consequently the use of fleshy fruit crops is limited. Although, the spectacled bear eats a few species and colors of fleshy fruits in relation to their availability, the abundance of the family Ericaceae and grape fruits governs the bear's fleshy fruit diet. A high flexibility was observed in the *T. ornatus* fruit habits due to his low specificity in the consumption for a particular kind of fruits. Despite of that, during "dry" season a directional feeding to *G. anastomosans* was observed as a result of its great availability in the paramo and a preferential feeding of *Miconia plethorica* was observed during the rainy season. For last, the fleshy fruits probably aren't a govern vector in *T. ornatus* movement behavior, so his fruit habits described the typical behavior of an opportunistic frugivore because of it doesn't depends on any particular crop, while the fleshy fruit feeding is a complement for the spectacled bear diet in the Mamapacha highlands.

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#### SHOULD THE RELATIONSHIP BETWEEN POPULATION VIABILITY AND HABITAT QUALITY PROMPT A PARADIGM SHIFT IN CARNIVORE CONSERVATION – A CASE STUDY WITH BEARS

Nevin OT<sup>1</sup>, Gilbert BK<sup>2</sup>

<sup>1</sup>University of Central Lancashire, England, [onevin@uclan.ac.uk](mailto:onevin@uclan.ac.uk), <sup>2</sup>Utah State University, USA

For many species, reliable evaluation of foraging habitat requires measurement of a multitude of variables. Bears, however, provide a unique opportunity to integrate all these variables into a single measure: salmon consumption. As with Van Horne's measure of habitat quality (Qj), consumption of salmon affects fecundity, age at first reproduction and survival probability. Our analysis revealed a highly significant ( $p=0.005$ ) negative relationship between minimum viable population and food availability/habitat quality lending empirical support to the conceptual form of this relationship proposed by Van Horne. Understanding the relationship between habitat quality and minimum viable population has important implications for conservation area design and the dominant paradigm of carnivore conservation, which emphasizes large areas with little or no human access, may in fact be a poor model for conservation efforts.

The historic emphasis on the need for large areas has led to the protection of low productivity sites. This study shows that changes in habitat quality have the greatest impact on the viability of populations in poor or marginal habitat. We therefore suggest that pursuit of the current paradigm through the preservation of large, low productivity areas will be insufficient to ensure the long-term viability of populations of large carnivores.