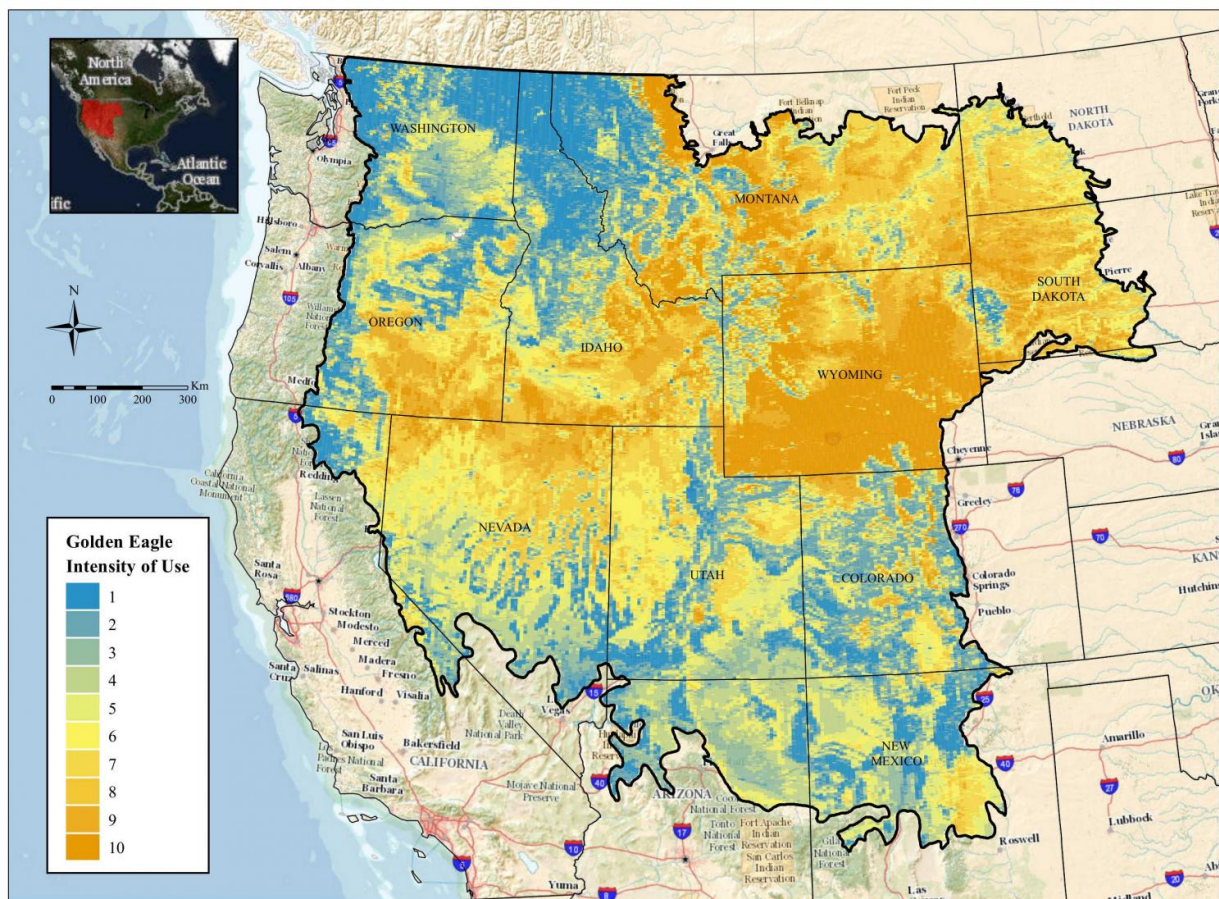


Golden eagles may be more abundant in undeveloped, elevated landscapes

August 24 2016



Predicted intensity of use by golden eagles in the western United States during late-summer. Image background is from The National Map (United States Geological Survey). Credit: Nielson et al. (2016)

Golden eagles may be more abundant in elevated, undeveloped landscapes with high wind speeds, according to a study published August 24, 2016 in the open-access journal *PLOS ONE* by Ryan Nielson from Western EcoSystems Technology, Inc., USA, and colleagues.

Better understanding of golden eagle (*Aquila chrysaetos*) abundance and distribution across the developing western United States is needed to help identify and conserve their habitats in the face of anthropogenic threats. The authors of the present study monitored golden eagle abundance across four major Bird Conservation Regions, comprising ~2 million-km², in the western United States. They used existing data from aerial surveys and distance sampling during late summer in 2006-2013. The authors then modelled counts of golden eagle observations based on land cover and other environmental factors.

The authors' model revealed the [golden eagles](#) were less abundant in developed and forested areas and more abundant in open, elevated areas with high [wind speeds](#). They used this model to construct a map of predicted land use by golden eagles during late summer across the study area.

The authors speculate that golden eagles preferred elevated, open [landscapes](#) with [high wind](#) speeds since these factors may help them hunt for prey and fly more efficiently, whereas more developed and forested landscapes provided fewer foraging opportunities. While the golden eagles' habitat preferences may differ in other regions and seasons, the authors suggest that their map could help prioritize landscapes for conservation efforts and identify regions for additional research and monitoring.

More information: Nielson RM, Murphy RK, Millsap BA, Howe WH, Gardner G (2016) Modeling Late-Summer Distribution of Golden Eagles (*Aquila chrysaetos*) in the Western United States. *PLoS ONE*

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