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POSTER

Habitat use and ranging behaviour of GPS-tracked Golden Eagles in northern Sweden

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There is a need for developing methods for reliable environmental impact assessment of wind farms in Sweden, and to facilitate the establishment of 'eagle friendly' wind farms. During 2010 and 2011, 43 adult and juvenile Golden Eagles *Aquila chrysaetos* in northern Sweden were marked with GPS transmitters, to provide information on the species' home-range, habitat selection and ranging behaviour.

Breeding Eagles had home-ranges of 60–605 km², and some wandered long distances after breeding. Generalized, circular buffer zones centred on the nest, from which wind farm establishment is excluded, are inadequate and should ideally be specifically adapted to each territory.

Eagles preferred clearcuts and avoided dense forest habitats. Eagles could be encouraged away from wind farms by minimizing clearfelled areas whilst encouraging dense forest within the wind farm.

Steep slopes and cliffs were particularly favoured by Eagles, and wind turbines should not be placed at these locations. High, forested plateaus could be exploited, as long as turbines are sited away from steep slopes.

Adult Golden Eagles occasionally undertook long-distance movements during both summer and winter. Juveniles migrated south and spent their first winter in southern and central Sweden, and migrated north the following spring to the Scandinavian mountain region. Thus, conservation management measures may need to be directed towards wintering sites and migration routes as well as breeding season home-ranges.