Summary.—Do disturbances in surrounding areas affect a core population of Cantabrian Capercaillie Tetrao urogallus cantabricus? The case of the Natural Reserve of Muniellos (Asturias, NW Spain).

Aims: The Cantabrian Capercaillie is an endemic subspecies which is declining over much of its range in the Cantabrian Mountains. The main aim of this paper is to test whether human disturbances in areas surrounding mature woodland patches affect more than habitat structure and composition a core population of this species in southwestern Asturias.

Locality: The Natural Reserve of Muniellos (Asturias, NW Spain).

Methods: In order to characterize currently occupied leks vs. random points and abandoned vs. occupied leks, we ran univariate (U-test) and multivariate (generalised additive models GAM) analyses, evaluating habitat features and human disturbances independently.

Results and Conclusions: GAM models based on disturbances were more discriminative than habitat pattern-composition models; similarly, models based on random points classified better the data than occupied vs. abandoned models. In all cases, models were highly accurate and relatively complex. Places selected by males as display areas were located at the core of larger patches of woodland exhibiting a higher relative richness of woodland types, at higher altitude and further from rivers than random points. These suitable areas supported less human disturbances, as they were sited farther from roads, paths, houses and recurrently burned areas than random points. Capercaillie disappeared from leks situated in rolling hills, at lower altitude, nearer to «pre-woodlands», under shrubs and pine forests. These sites were closer to houses, hunting sites and repeatedly burnt areas than occupied leks.

Key words: Breeding habitat selection, Cantabrian Mountains, Capercaillie, conservation, display areas, ecological modelling, fire, GAM, large scale.

Resumen.—¿Afectan al Urogallo Cantábrico Tetrao urogallus cantabricus las molestias producidas por el hombre en el entorno de un núcleo bien conservado? El caso de la Reserva Natural de Muniellos (Asturias, NO España).

Objetivos: El Urogallo Cantábrico es una subespecie endémica que está sufriendo una disminución en su área de distribución en las Montañas Cantábricas. El principal objetivo de este estudio era comprobar si las molestias producidas por el hombre en los alrededores de zonas de bosque maduro afectan por encima de la estructura del hábitat en la composición de un núcleo de esta subespecie en el suroeste asturiano.

Localidad: La Reserva Natural de Muniellos (Asturias, NO España).

Métodos: Para caracterizar los cantaderos (leks) ocupados por la especie vs. puntos al azar y los cantaderos abandonados vs. los ocupados, se realizaron análisis univariantes (prueba de la U) y multivariantes (GAM, modelos aditivos generalizados), evaluando las características del hábitat y de las molestias humanas de forma independiente.