INTRODUCTION

One major barrier to habitat fragmentation is the increasing and expanding road network worldwide (Peres & Ascenço 1997), which has led to a number of serious problems for many vertebrate and invertebrate species. Two of the most remarkable problems are those related to roadkill and habitat destruction (Kroll & Parmenter 2009). Roadkill and habitat destruction (e.g. Philcox et al. 1996, Peres & Ascenço 1997, Peres et al. 1997, Peres 2000, Peres et al. 2000) are often considered as the major causes of terrestrial vertebrate extinctions (Hanski 1999, IUCN 2000). Roadkill and habitat destruction are also among the most important causes of biodiversity loss (Hanski & Ojanen 2002).

METHODS

We identified road sections with high roadkill rates, as vertebrate mortality hotspots (VMH), by eliminating clusters of road kills identified previously by other authors (Ascenço et al. 2000). The probability of a road section having a high roadkill rate was estimated using logistic regression analysis (Zar 1999) and the maximum likelihood method (see Zar 1999 for details).

RESULTS

We present all the necessary information to calculate the probability of a road section having a high roadkill rate. The probability of a road section having a high roadkill rate was estimated using logistic regression analysis (Zar 1999) and the maximum likelihood method (see Zar 1999 for details).

DISCUSSION

As a result, the road network in Portugal is highly fragmented, with a total area of 150,000 km². This fragmentation has led to a decrease in the number of species occurring in Portugal. The decrease in species richness is likely due to the decrease in the number of suitable habitats for species in Portugal. The decrease in species richness is likely due to the decrease in the number of suitable habitats for species in Portugal.