Abstract

The ocelot Leopardus pardalis is of particular significance in terrestrial communities due to its ecological role within the group of small-sized felids and as a mesopredator. However, despite the reduction of ocelot habitat in Southeast Mexico, there are still very few ecological studies. This research aimed to contribute with some ecological aspects of the species in this region. For this, 29 camera trap stations were established in a rain forest in Los Chimalapas (an area of 22km²) during a two years period (March 2011-June, 2013), in Oaxaca state, Southeast Mexico. Data allowed the estimation of the population density, activity pattern, sex ratio, residence time, and spatial distribution. Population density was calculated using Capture-Recapture Models for demographically open populations; besides, circular techniques were used to determine if nocturnal and diurnal activity varied significantly over the seasons, and Multiple Discriminant Analysis was used to determine which of the selected environmental variables best explained ocelot abundance in the region. A total of 103 ocelot records were obtained, with a total sampling effort of 8 529 trap-days. Density of 22-38 individuals/100km² was estimated. Ocelot population had a high proportion of transient individuals in the zone (55%), and the sex ratio was statistically equal to 1:1. Ocelot activity was more frequent at night (1:00-6:00h), but it also exhibited diurnal activity throughout the study period. Ocelot spatial distribution was positively affected by the proximity to the village as well as by the amount of prey. The ocelot population here appears to be stable, with a density similar to other regions in Central and South America, which could be attributed to the diversity of prey species and a low degree of disturbance in Los Chimalapas. Rev. Biol. Trop. 62 (4): 1421-1432. Epub 2014 December 01.

Keywords

Camera-trapping, capture-recapture, Los Chimalapas, CJS Model.