

Abstract

Tropical regions are amongst the most diverse ecosystems on Earth. The significant species richness of these ecosystems is evident in the number of vertebrate species due to their distribution along altitudinal gradients. The distribution of vertebrates throughout altitudinal gradients is a natural phenomenon by which vertebrates respond to diverse abiotic conditions. Together with the geographic distribution of mountains, biotic influences, thermal physiology of individual vertebrate groups or climatic changes, these abiotic conditions create specific conditions for vertebrates. All of these factors may contribute to the spread of vertebrates to lower or higher altitudes. They may also influence altitudinal migration, depending on the adaptation of individual vertebrate species.

In this thesis I focused on how individual abiotic determinants such as temperature, precipitation and air humidity, as well as climatic changes, can positively or negatively influence the distribution ranges of four vertebrate groups along elevational gradients of tropical mountains.

Keywords: temperature, precipitation, cloudiness, tropics, elevation, geographical distribution, species richness