

Abstract

Altitudinal gradients represent useful tool for investigating diversity patterns and processes affecting species richness and turnover along steep gradient of conditions at relatively small scale. The aim of my study was to compile a complete checklist of birds for elevational gradient of Mt. Cameroon rainforests (300 – 2300 m a.s.l.) and to analyse distribution of species diversity, species turnover, elevational ranges and relationships between elevational distribution of species and their range size, body weight or diet type. Species richness on the elevational gradient of Mt. Cameroon decline monotonically with some plateau at 600 – 1000 m a.s.l. Changes of community composition along the gradient are caused mainly by species turnover at low elevations, which contrast to pattern above 1200 m a.s.l. where the betadiversity is influenced mainly by continual species loss (nestedness). Species elevational ranges increase with increasing elevation, which is in agreement with elevational Rapoport's rule. Species breeding at higher elevations have smaller geographical ranges, restricted to isolated islands of montane rainforests. Numbers of insectivorous species are rapidly decreasing with increasing elevation, proportion of nectarivorous species is rather invariable and number of granivorous species slightly increases towards higher elevations. Elevational ranges are not different between diet groups. Bergmann's rule for bird species of Mt. Cameroon was not confirmed.

Key words: altitudinal gradient, diversity patterns, species turnover, elevational range, Mt. Cameroon