Geographic variation in body mass of rock ptarmigan *Lagopus mutus* in the Alps and the Pyrenees

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We compared the body mass of adult rock ptarmigan *Lagopus mutus* shot in autumn in the French Pyrenees (Ariège), the French Alps (Hautes-Alpes) and the Italian Alps (Province of Verbania). Mean body mass of adults was greater in the Ariège than in the Hautes-Alpes both for cocks (466 vs 433 g) and hens (429 vs 406 g), with the body mass of Italian birds being intermediate (cocks 448 g, hens 418 g). The relatively large mass of rock ptarmigan in the Pyrenees contrasts with the geographic trends found in capercaillie *Tetrao urogallus* and grey partridge *Perdix perdix* in France. For the last two species, birds in the Pyrenees are smaller than those further north. The site differences that we observed in body mass of rock ptarmigan may be related to differences in availability of high quality foods, particularly ericaceous shrubs. However, at the continental scale within Europe, the body mass of rock ptarmigan appears to be greatest in northern latitudes.

Key words: autumn, body mass, France, geographic variation, Italy, *Lagopus mutus*, rock ptarmigan

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