

10. Is local weather a consistent determinant in ungulates dynamics?

Ana Bento

Understanding complex temporal dynamics in natural populations is difficult to achieve when trying to show an intuitive picture of change. Knowing which factors contribute the most to variation in the dynamics of a population is therefore critical, in order to forecast change in population abundance in a changing world

Weather influences population dynamics directly via the energetic costs of thermoregulation and indirectly through changes in the distribution, quantity and quality of the vegetation.

The effect of local climatic variables on natural population fluctuations was evaluated by looking at the timing of their influence on two Hebridean populations: red deer and Soay sheep. The aim was to investigate the relative importance of climatic variables in the different age and sex categories, illustrating the disparity in dynamics between the two ungulate populations. Eventually, we intend to accurately predict changes in population size.