

C. Ferrari, G. Bogliani, A. von Hardenberg. (2009) Alpine marmots (Marmota marmota) adjust vigilance behaviour according to environmental characteristics of their surrounding Ethology Ecology and Evolution, Vol 21, 355-364

Predation risk can strongly affect behaviour of preys, and natural selection should have favoured the evolution of behavioural plasticity in the strategies used to avoid predation. The level of predation risk can be affected by environmental characteristics and we expect individuals to adjust vigilance behaviour to the level of risk. In this study we investigate if Alpine marmots (Marmota marmota) living in an area delimited by the forest and with scarce visibility (Closed Site) differ in their vigilance behaviour from marmots inhabiting an open meadow further away from the forest edge and with greater visibility (Open Site). The rate of vigilance and the time spent vigilant in the Closed Site were higher than in the Open Site, while the mean duration of each vigilance bout did not differ between the two sites. Our results suggest that Alpine marmots adjust vigilance behaviour according to the environmental characteristics of their surroundings while there appears to exist an optimal duration of scan bouts which is independent of relative predation risk.

http://www.tandfonline.com/doi/abs/10.1080/08927014.2009.9522490