



**Costantini D., C. Ferrari, C. Pasquaretta, E. Cavallone, C. Carere, A. von Hardenberg, D. Réale. (2012) Coping styles are accompanied by different baseline and stressor-induced plasma oxidative statuses in wild marmots (*Marmota marmota*). *The Journal of Experimental Biology*, 215 :374-383**

Variation in how individuals cope behaviourally and physiologically with stressors is widespread and can have a significant impact on life-history traits and fitness. Individual coping styles are characterised by differential behavioural and adrenocortical reactivity to various challenges. As stress hormones can affect the production of reactive chemical species and the antioxidant status, individuals with different coping styles may differ also in oxidative status. Field studies on wild mammalian populations are few in number and none so far has simultaneously tested the relationship between coping style, adrenocortical reactivity and oxidative status in the same individuals. We measured individual variation in coping styles along a proactive–reactive continuum together with variation in baseline and stress-induced plasma oxidative damage, plasma non-enzymatic antioxidant capacity and cortisol in wild alpine marmots, *Marmota marmota*. Confirmatory path analysis revealed that different coping styles are accompanied by different baseline and stress-induced plasma oxidative statuses. Our findings also highlight the potential role of cortisol as a mediator of such differences.

<http://www.ncbi.nlm.nih.gov/pubmed/22189781>