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Nature and health

A psychological perspective

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Carina
nebula

Image
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Photo by Terry Hartig



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A psychological perspective

We study people as they perceive, evaluate, assign meaning to and act with regard to events and conditions in the environment.

We acknowledge that responses to some environmental conditions may be biologically prepared (e.g., echoes of habitat preferences).

We also recognize that people's perceptions, evaluations, meanings and actions reflect on the particular sociocultural context.

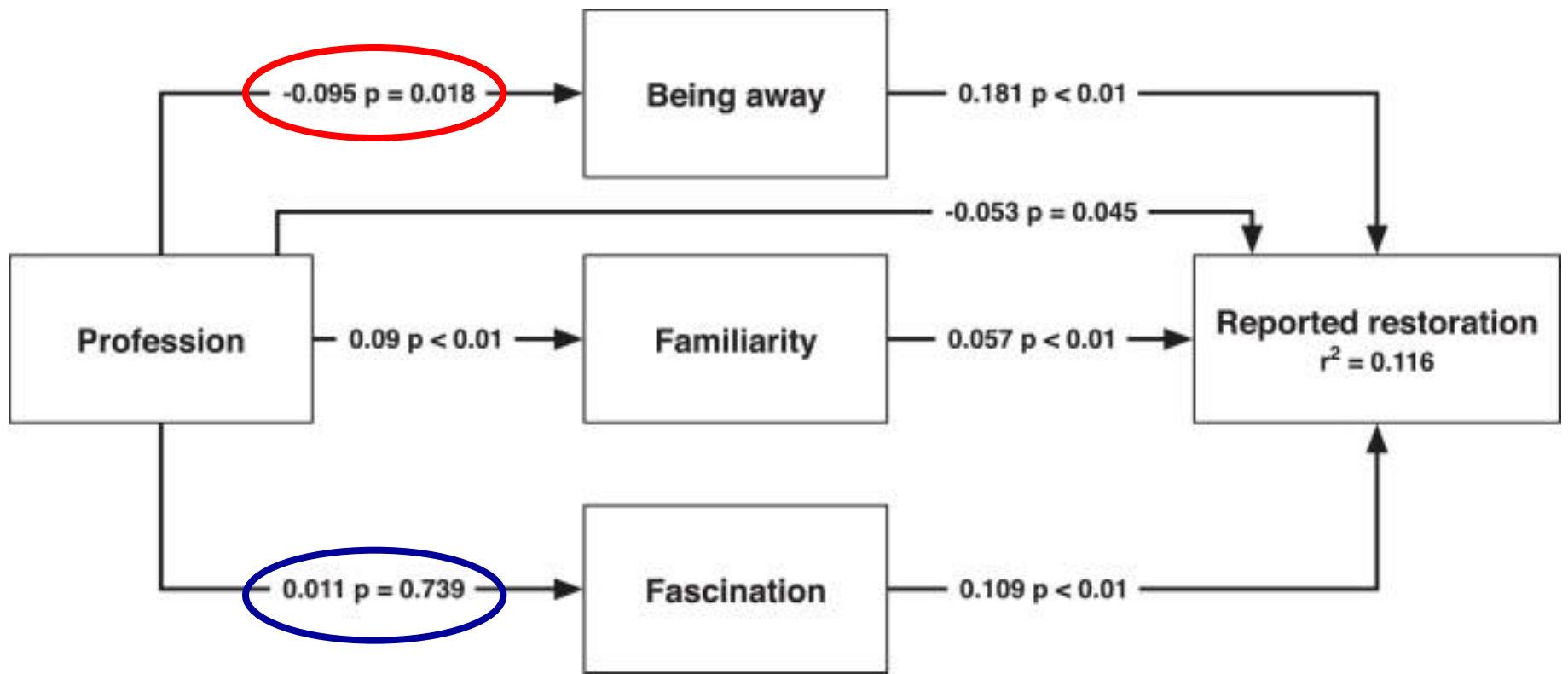
Restoration and restorative environments

Restoration: the process of renewing resources or capacities that have become depleted in meeting the demands of everyday life.

Restorative environment: an environment that promotes (not merely permits) restoration.

Environmental conditions as stressors versus constraints on restoration

Environmental conditions may undermine health not only by taxing a person's adaptive resources but also by hindering restoration of resources depleted in efforts to meet other demands.



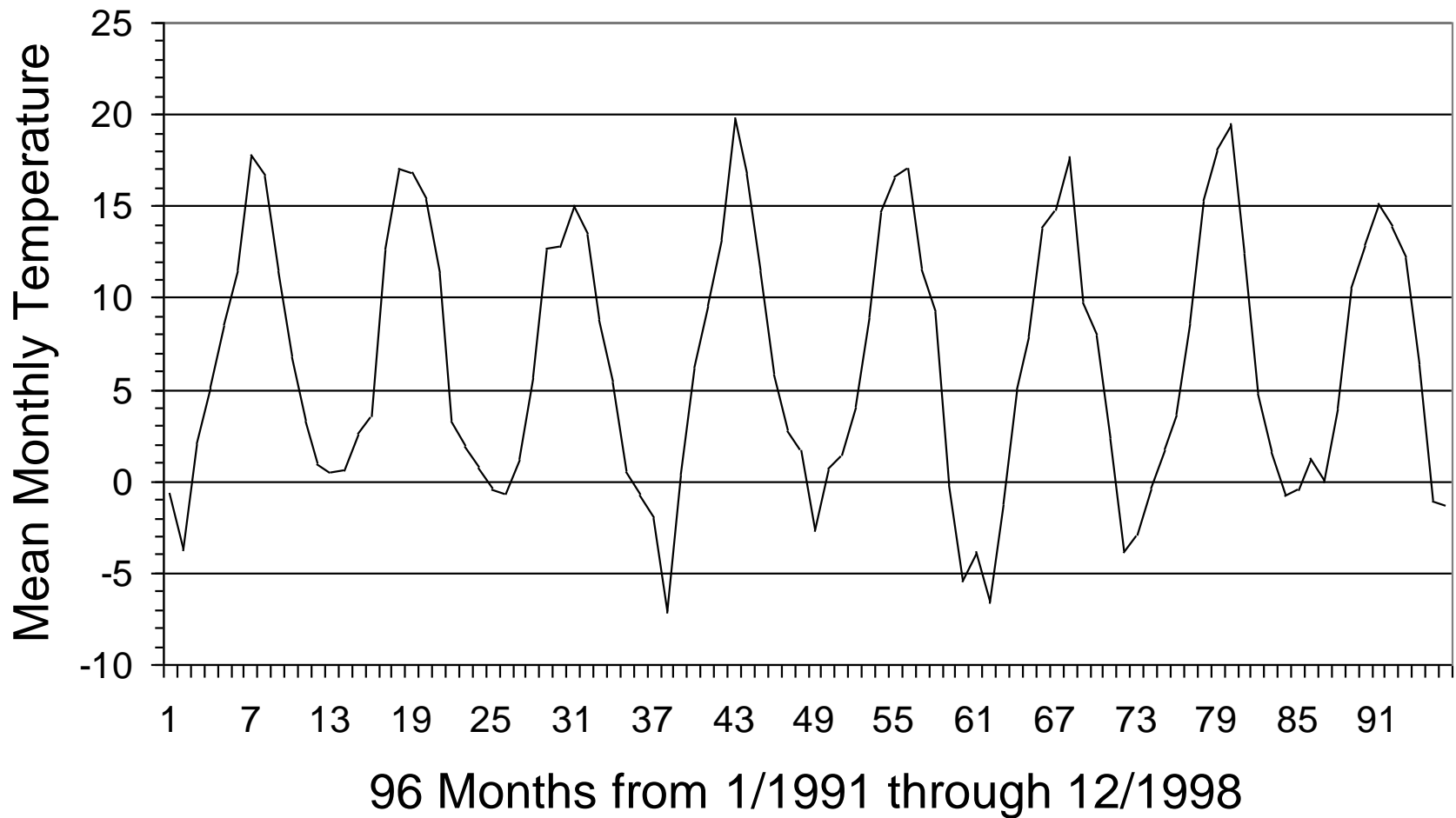
Familiarity with forests and a sense of being away (a quality of restorative experience) appear to mediate the relationship between having a forest-related profession and realizing less restoration with forest visits during leisure time (N = 1 678).

From von Lindern, Bauer, Frick, Hunziker, & Hartig (2013)

Cool summer weather as a constraint on restoration

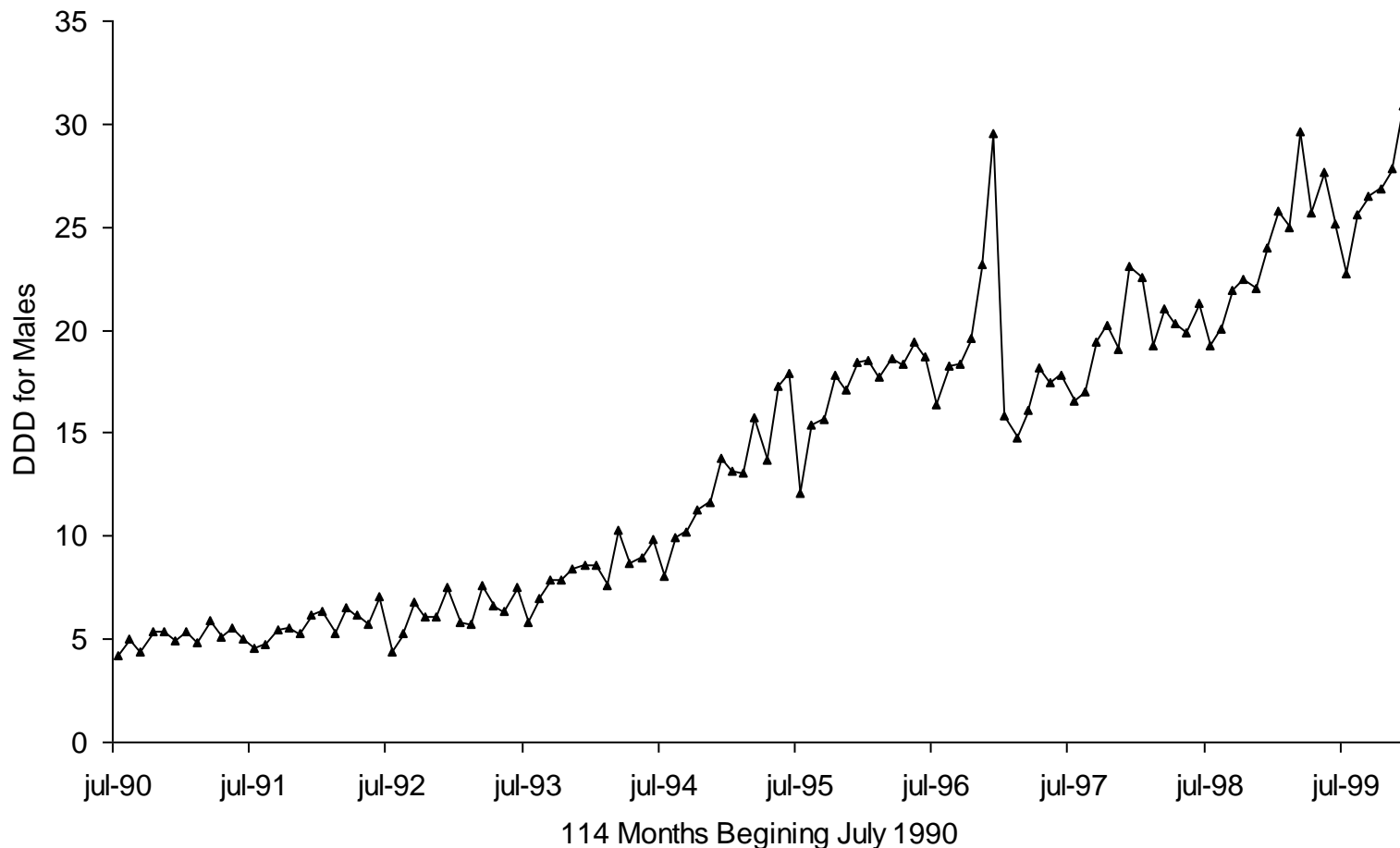
Unseasonably cool summer weather is not ordinarily a stressor of itself, as people can easily cope by remaining indoors. This may however entail reduced involvement in outdoor activities that are relatively restorative.

Restriction of restorative outdoor activities due to cold summer weather can contribute to outcomes in which chronic stress is thought to have an etiological role.



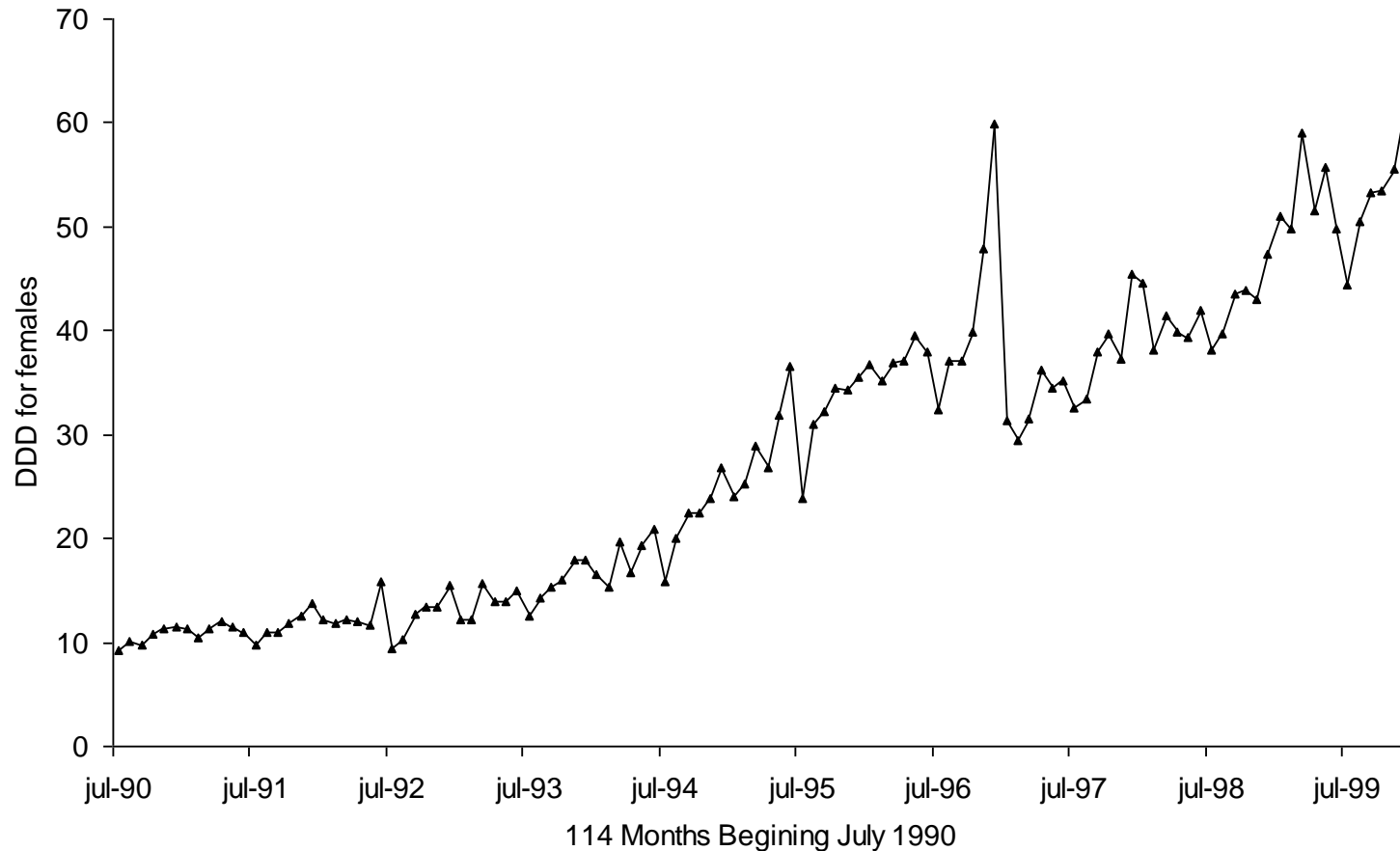
Mean monthly temperature in Sweden in Celsius, 1991-98 (N = 96 months).

Defined daily doses (DDD) per 1000 men of antidepressants (SSRIs) dispensed monthly by the Swedish state pharmacy system during 114 months beginning July, 1990.



From Hartig, Catalano, & Ong (2007)

DDD per 1000 women of SSRIs dispensed monthly by the Swedish state pharmacy system during 114 months beginning July, 1990.



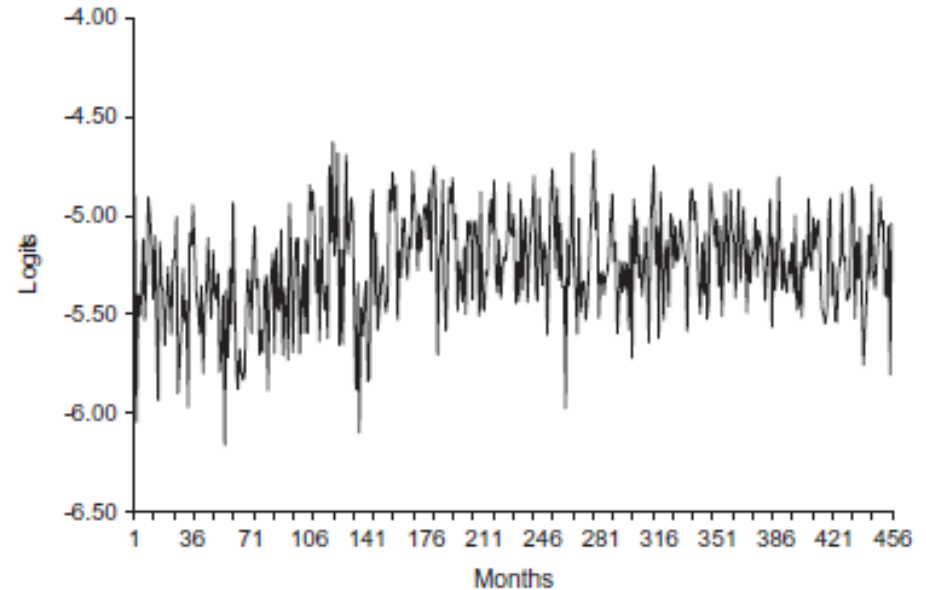
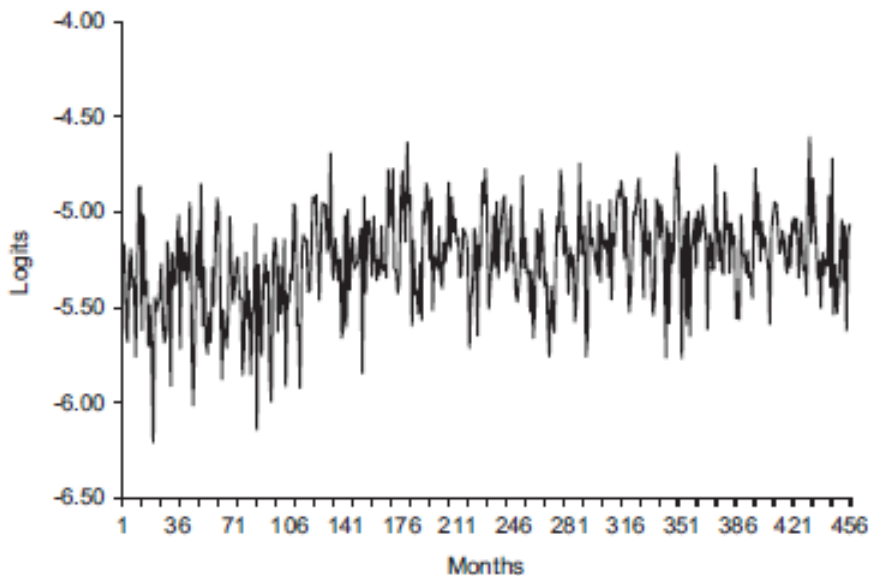
From Hartig, Catalano, & Ong (2007)

Estimated parameters for monthly dispensed defined daily doses of selective serotonin re-uptake inhibitors per 1000 persons to men and women in Sweden, 1991–98.

	June	July	August
Test month temperature (men)	-.0524 (.0465)	-.0747* (.0325)	.0475 (.0433)
Test month temperature (women)	-.1317 (.1116)	-.2159** (.0717)	.1212 (.1174)

Note. Standard errors in parentheses. * $p < .05$, one-tailed. ** $p < .01$, one-tailed.

From Hartig, Catalano, & Ong (2007)



Natural logarithm of the monthly odds of very low weight birth (< 1500 g) for infants in Sweden during the 38 years 1973-2010 (males left panel, females right panel).

Estimated parameters for the log odds of very low weight birth (< 1500 g) for male and female infants in Sweden, 1973-2010.

	June	July	August
Test month temperature (males)	-.0593** (.0282)	-.0289 (.0259)	-.0453* (.0271)
Test month temperature (females)	-.0357 (.0301)	.0394 (.0252)	-.0146 (.0308)

Note. Standard errors in parentheses. *p < .05, one-tailed. **p < .01, one-tailed.

From Hartig & Catalano (2013)

Closing Remarks

A psychological perspective can help us identify as-yet neglected pathways through which nature and health become related.

Constraint of restoration is a pathway through which both loss of biodiversity and climate change can work to undermine health, denying access to (outdoor) opportunities for restoration and reducing the restorative quality of the natural settings available for restoration.

Thank you. Questions?

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References

- Hartig, T., & Catalano, R. (2013). Cold summer weather, constrained restoration, and very low birthweight in Sweden. *Health & Place*, 22, 68-74.
- Hartig, T., Catalano, R., & Ong, M. (2007). Cold summer weather, constrained restoration, and the use of anti-depressants in Sweden. *Journal of Environmental Psychology*, 27, 107-116.
- Von Lindern, E., Bauer, N., Frick, J., Hunziker, M., & Hartig, T. (2013). Occupational engagement as a constraint on restoration during leisure time in natural environments. *Landscape and Urban Planning*, 118, 90-97.