

Five Mechanisms of Human-Nature Connection:

Adapted from Ives et al. (2018) and Meis-Harris et al. (2021)

1. **Material/Consumptive:** Consumption of goods and materials from nature; resource extraction and use.
 - Forests are valuable mostly because they produce wood products, jobs and income for people.
 - Meeting the needs of people requires sacrificing some natural areas.
 - In order to provide us with the goods and services we need we can't avoid nature being degraded.
2. **Experiential:** Direct interaction with natural environments; recreational activities within the environment.
 - I enjoy spending time in nature.
 - I like to get outdoors whenever I get the chance.
 - Being in nature allows me to do the things I like doing most.
 - Getting away on an overnight trip in nature is something I do as often as I can.
3. **Cognitive/Identity:** Knowledge, beliefs, attitudes and awareness of the environment and attitudes/values towards nature; a sense of self that is defined in relation to the natural environment.
 - I think of myself as an 'environmentalist'.
 - I think of myself as someone who is very concerned about taking care of nature.
 - Protecting nature is an important part of who I am.
 - My relationship to nature is a big part of how I think about myself.
4. **Emotional/Attachment:** Feelings of attachment to or empathy towards nature; positive or negative feelings and affective responses towards nature.
 - I feel uneasy if I am away from nature for too long.
 - I feel right at home when I am in nature.
 - Feeling connected to nature helps me deal with everyday stress.
 - I feel a strong emotional connection to nature.
5. **Spiritual/Philosophical:** Perspective or world view on what nature is, why it matters, and how humans ought to interact with it; being at one with nature through the belief that all things in nature, including humans, are connected.
 - My connection to nature is something I would describe as "spiritual".
 - Everything in nature is connected (e.g. animals, plants, humans, water, air, land, fire, etc.).
 - Human beings and nature are connected by the same 'energy' or 'life-force'.
 - Human wellbeing depends upon living in harmony with nature.

References:

- Ives, C. D., Abson, D. J., von Wehrden, H., Dorninger, C., Klanięcki, K., & Fischer, J. (2018). Reconnecting with nature for sustainability. *Sustainability Science*, 13(5), 1389–1397. <https://doi.org/10.1007/s11625-018-0542-9>
- Meis-Harris, J., Borg, K., & Jorgensen, B. S. (2021). The construct validity of the multidimensional AIMES connection to nature scale: Measuring human relationships with nature. *Journal of Environmental Management*, 280, 111695. <https://doi.org/10.1016/j.jenvman.2020.111695>

