



ALPHA 2021 Resolution 2021-03

Human Health and the Protection of Nature

WHEREAS, in the midst of a climate crisis, the impacts of ecosystem and biodiversity loss continue to mount while the inadequacy of current responses becomes more apparent;ⁱ

WHEREAS, the public health community, which has long taken a systems-based approach to disease prevention and management, is increasingly focused on “one health”ⁱⁱ and “planetary health”ⁱⁱⁱ approaches to human and environmental wellbeing;

WHEREAS, natural systems, landscapes, and biodiversity provide vital ecosystem services that positively contribute to human health through, among other ways, clean water for drinking and sanitation, clean air, soil quality, and pollination;^{iv}

WHEREAS, Alaska’s Indigenous peoples have always recognized the inseparable connections between the earth’s systems and physical, mental, and spiritual health and wellness;

WHEREAS, traditional and modern medicines are derived from nature;^v

WHEREAS, biodiversity plays an important role in biomedical research;^{vi}

WHEREAS, imperiled groups of organisms, including polar bears, are valuable to medicine and biomedical research;^{vii}

WHEREAS, healthy ecosystems, and their associated biodiversity, contribute to significant wild food production and food security throughout Alaska;^{viii}

WHEREAS, traditional Alaska Native foodways, largely originating from wild sources, have been shown to improve health and reduce chronic disease;^{ix}

WHEREAS, healthy ecosystems, and their associated biodiversity, enable traditional sociocultural practices, particularly for Alaska Native peoples, that support strong social networks and mental health;^x

WHEREAS, time spent in natural settings has been proven to be both therapeutic and preventative in treating stress, chronic disease, and mental illness;^{xi}

WHEREAS, nature plays an important role in children’s physical and emotional development;^{xii}

WHEREAS, climate change is causing widespread ecosystem disruption across Alaska and impacting public health;^{xiii}

WHEREAS, ecosystem disturbance, biodiversity loss, and climate change can increase the risk of infectious diseases;^{xiv}



WHEREAS, nature-based solutions are a meaningful way to mitigate the worst impacts of climate change, sequester carbon, and help solve the climate crisis;^{xv}

WHEREAS, the American Public Health Association believes that the public health community plays a critical role in offering climate change strategies and interventions that protect people's health and declared 2017 the Year of Climate Change and Health;^{xvi}

WHEREAS, the protection of large, unaltered, connected landscapes offers the best hope for ecosystem adaptation and resilience in a warmer and climatically uncertain future;^{xvii}

WHEREAS, developing and fostering economic opportunity and prosperity need not come at the expense of Alaska's natural environment the public health benefits it provides;

NOW THEREFORE BE IT RESOLVED that the Alaska Public Health Association believes that the protection and stewardship of nature is a public health issue;

BE IT FURTHER RESOLVED that the Alaska Public Health Association expresses support for the protection and stewardship of Alaska's ecosystems and biodiversity due to their critical contribution to public health;

BE IT FURTHER RESOLVED that the Alaska Public Health Association believes that nature is part of the solution to the climate crisis and its associated health effects;

BE IT FURTHER RESOLVED that this resolution shall be the position of the Alaska Public Health Association until it is withdrawn or modified by a subsequent resolution.

FISCAL IMPACT ON ALPHA: This action will result in minor costs associated with sending this resolution and accompanying cover letter to Alaska legislators and other government officials.

PUBLIC HEALTH IMPACT: Alaska's residents and Native people rely on nature for their health and wellbeing. Protecting and stewarding the region's ecosystems is a preventive intervention that will ensure the continuation of numerous public health benefits. Moreover, protecting nature will help mitigate risks to public health and the impacts of climate change. Such feedbacks will improve health outcomes and reduce demands on public health infrastructure and medical delivery, thus reducing health care costs.

ⁱ Cardinale, B., Duffy, J., Gonzalez, A. et al. (2012) Biodiversity loss and its impact on humanity. *Nature* 486: 59–67.

ⁱⁱ U.S. Centers for Disease Control and Prevention, <https://www.cdc.gov/onehealth/index.html>.

ⁱⁱⁱ Seldenrich N. (2018) Down to Earth: The Emerging Field of Planetary Health [published correction appears in *Environ Health Perspect*. 2018 Oct;126(10):109001] *Environ Health Perspect* 126(7):072001.

^{iv} Spence P.L., Floyd MF, Howard J, Simmons C. (2016) Ecosystem Service and Environmental Health. *Environ Health Insights* 9(2):35-38.

^v Yuan, H., Ma, Q., Ye, L., Piao, G. (2016) Traditional Medicine and Modern Medicine from Natural Products. *Molecules* 21(5):559.

^{vi} Perera, A.S. & Copen,s M.O. (2019) Re-designing materials for biomedical applications: from biomimicry to nature-inspired chemical engineering. *Philos Trans A Math Phys Eng Sci*. 377(2138):20180268.

^{vii} Chivian, E. & Bernstein, A. (2008). Threatened Groups of Organisms Valuable to Medicine. In *Sustaining life: How human health depends on biodiversity* (pp. 227-231). New York, NY: Oxford University Press.

^{viii} Amanda Walch, Andrea Bersamin, Philip Loring, Rhonda Johnson & Melissa Tholl (2018) A scoping review of traditional food security in Alaska, *International Journal of Circumpolar Health*, 77(1): DOI: 10.1080/22423982.2017.1419678

^{ix} Redwood, D.G., Day, G.M., Beans, J.A., et al. (2019) Alaska Native Traditional Food and Harvesting Activity Patterns over 10 Years of Follow-Up. *Current Developments in Nutrition*. 3(11): 114.

^x Loring, P. & Gerlach, C. (2009). Food, culture, and human health in Alaska: An integrative health approach to food security. *Environmental Science & Policy*. 12. 466-478.

^{xi} Song, C., Ikei, H., & Miyazaki, Y. (2016). Physiological Effects of Nature Therapy: A Review of the Research in Japan. *International Journal of Environmental Research and Public Health*, 13(8): 781.

^{xii} Louv, R. (2008). *Last Child in the Woods*. Chapel Hill, North Carolina: Algonquin Books.

^{xiii} Brubaker, M., Berner, J., Chavan, R., & Warren, J. (2011). Climate change and health effects in Northwest Alaska. *Global Health Action*, 4, 10.3402/gha.v4i0.8445. <https://doi.org/10.3402/gha.v4i0.8445>.

^{xiv} Keesing, F., Belden, L., Daszak, P. et al. (2010) Impacts of biodiversity on the emergence and transmission of infectious diseases. *Nature*, 468, 647–652.

^{xv} Fargione, J. E., Bassett, S., Boucher, T., Bridgham, S. D., Conant, R. T., Cook-Patton, S. C., Ellis, P. W., Falcucci, A., Fourqurean, J. W., Gopalakrishna, T., Gu, H., Henderson, B., Hurteau, M. D., Kroeger, K. D., Kroeger, T., Lark, T. J., Leavitt, S. M., Lomax, G., McDonald, R. I., Meconigal, J. P., ... Griscom, B. W. (2018). Natural climate solutions for the United States. *Science Advances*, 4(11), eaat1869. <https://doi.org/10.1126/sciadv.aat1869>

^{xvi} American Public Health Association, <https://www.apha.org/topics-and-issues/climate-change>.

^{xvii} Mawdsley J.R., O'Malley R., Ojima D.S. (2009) A review of climate-change adaptation strategies for wildlife management and biodiversity conservation. *Conserv Biol*. 23(5):1080-9.