# Statement of Support to LD 1817 An Act to Support Outdoor Education by Establishing the Outdoor School for All Maine Students Program May 10, 2023

Senator Ingwersen, Representative Pluecker, and members of the distinguished Committee on Agriculture, Conservation and Forestry My name is Dr Anica Miller-Rushing I live in the town of Mount Desert and I am submitting testimony in support of LD 1817

Twenty-five years ago when I started my career in education I started as an environmental educator I was deeply affected by those days of watching children learn about science, nature, and ecology, while actually surrounded by it What I saw most profoundly is that when you connect the curricular lessons to the social and emotional lessons inherent and explicit in learning experiences like this, the learner then has the rare opportunity to process that learning in a more tangible and thus life-long way

But, the question I ask myself now a lot is, "How do I know this? How do I know the immersive, overnight, place-based, and nature-based lessons were richer learning experiences?"

Today, I have the honor of trying to answer questions like those as a Doctor of STEM education I am now a science education researcher and the coordinator for the current Maine Outdoor Schools for All Provider Network And although more is needed, numerous studies from all over the world sing the praises of outdoor learning, "we know enough to act" (Dr Howard Frumkin, Dean of the School of Public Health at the University of Washington) I have cited the research I will be mentioning in the testimony document I have provided

## Immersive outdoor education helps make the classroom more relevant

When youth can apply what they learned in a classroom to real world scenarios they can better retain information and showed academic gains across social studies, language arts, math and science Naturally (given the connection to the environment) science scores saw the biggest lift (by over 26%) (Parrish et al , 2005)

#### Immersive outdoor education promotes better emotional health

Participation in outdoor school was associated with higher ratings of conflict resolution skills and cooperation, noting that 75-93% of children reported that an outdoor setting calms them down when they are angry (Beyer et al , 2015) When thoughts are calm and collected, kids better engage, interact and learn from one another Other social benefits include improvements in self-esteem, leadership, motivation to learn, cooperation, conflict resolution, problem solving, and peer-to-peer relationship building (Parrish, et al, 2005)

When young people who participated in a three-day outdoor adventure program were analyzed they found that several areas of self-perception profiles, such as social acceptance and behavior conduct increased immediately after the program, and that some behavior impacts may have remained four months after the trip Based on the data they think the findings are due to the novelty of the program experience and its duration (Gaist et al., 2001)

In conclusion, the designers of this bill understand the importance of evaluation and research, - and have undergirded it as part of the programming that will be made available to youth Because how will we know if our educational efforts, provided through this funding, is effective if we don't take the time and effort to consider the metrics we use to measure those learning outcomes from the start? This bill provides such evalative measures!

For these reasons, and more, I would ask you to support LD 1817 and vote to pass this bill Thank you to the sponsor for bringing forward this bill and thank you to the committee members for your work on this Committee

### Additional citations not read as in-person testimony:

#### Immersive outdoor education counters nature deficit disorder

Part of the students' resiliency we hope to build through this work is to counter Nature Deficit Disorder (Louv, 2005), a phrase coined by Dr Richard Louv in 2005 to serve as a description of the human costs of alienation from nature Social and technological changes in the past three decades have accelerated the human disconnect from the natural world There is an expanding body of scientific evidence that suggests that nature-deficit disorder contributes to a diminished use of the senses, attention difficulties, conditions of obesity (Dyment & Bell 2008), and higher rates of emotional and physical illnesses Research also suggests that the nature-deficit weakens ecological literacy and stewardship of the natural world Louv and many subsequent researchers are now focusing their studies on what is gained through more exposure to natural settings, including nearby nature in urban places (Children and Nature Network, 2023) exposure that is provided in the type of programming outlined in this bill

## Immersive outdoor education is important for teachers too

Evidence shows that engaging students with STEM educational experiences related to locally-relevant outdoor heritage provides teachers with critical 21<sup>st</sup> century skill-building skills such as communication, problem solving, team work, and critical thinking Skills that are valuable tools for their students (NRC, 2011, 2012)

#### References

Beyer, K, Bizub, J, Szabo, A, Heller, B, Kistner, A, Shawgo, E, & Zetts, C (2015) Development and validation of the attitudes toward outdoor play scales for children *Social science & medicine*, 133, 253-260

Children and Nature Network (n d) Research Libiary Retrieved May 8, 2023, from https://research.childrenandnature.org/

Dyment, J E, & Bell, A C (2008) Grounds for movement green school grounds as sites for promoting physical activity *Health education research*, 23(6), 952-962

Faber Taylor A., & Kuo, F E (2011) Could exposure to everyday green spaces help treat ADHD? Evidence from children's play settings *Applied Psychology Health and Well-Being*, 3(3) 281-303

Gaist B, Scheider, I, & Baker, D (2001) Outdoor adventure program participation

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impacts on adolescent self-perception Journal of Experiential Education, 24(1), 41-49

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Louv, R (2008) Last child in the woods Saving our children from nature-deficit disorder Algonquin books

National Research Council (2011) Assessing 21st Century Skills Summary of a Workshop Retrieved from http://www.nap.edu/catalog.php?record\_id=13215

Parrish, D, Phillips, G, Levine, R, Hikawa, H, Gaertner, M, Agosta, N, & Doyal, D (2005) Effects of outdoor education programs for children in California *American Institute For Research* 

Smith, J G, DuBois, B, & Krasny, M E (2016) Fiaming for resilience through social learning impacts of environmental stewardship on youth in post-disturbance communities *Sustainability Science*, *11*(3), 441-453

Wells, N M (2000) At home with nature Effects of "greenness" on children's cognitive functioning *Environment and behavior*, *32*(6), 775-795

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