

To: Committee on Health and Human Services  
From: David Gibson  
Date: January 31, 2021  
Re: Testimony in support of LD 1582: **An Act To Enact the Maine Psilocybin Services Act**

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Senator Claxton, Representative Meyer, and members of the Committee on Health and Human Services: my name is David Gibson, and I am a resident of Morrill. I am offering this testimony in support for: *LD 1582 An Act To Enact the Maine Psilocybin Services Act*.

I am a college professor, have studied permaculture design, and manage an organic/regenerative homestead with my wife. I am generally supportive of this bill, but struggle with the overly complex regulatory system that is being developed to control access to a set of over 216 species of fungi that are endemic to Maine and ecosystems around the globe. I would encourage you to simplify this legislation and simply decriminalize the cultivation, possession and use of psilocybin mushrooms by any adult age 21 or older, as we have done with marijuana.

I can't think of any greater hubris than politicians creating laws to regulate nature. Richard Nixon launched the 'war on drugs' more than a decade before I was born, and the last 50 years have proved it a complete and utter failure. Many of the same lies propagated by the Nixon administration are prevalent today, exaggerating the risks and potential harm of psychedelics. While people have certainly had 'bad trips' or unpleasant experiences, studies have shown that psilocybin mushrooms are very safe, with only 0.2% of (unsupervised, recreational) users reporting to emergency medical facilities (<https://www.theguardian.com/society/2017/may/23/study-hallucinogenic-mushrooms-safest-recreational-drug-ld>). Rather than creating a complex regulatory structure to only allow a few privileged businesses to profit from this 'industry', Maine should allow any adult to participate in the cultivation, possession and use of psilocybin mushrooms.

If the committee insists on continuing with the arcane regulatory structure, I would ask that you amend Section 2031 (page 12) of the bill to add licensing for Academic Research Institutions. Nixon's 'war on drugs' was successful in stifling academic research into the benefits of psilocybin mushrooms, and Maine could take a leading role in supporting future research. I would

specifically ask that Academic Research Institutions be allowed to grow psilocybin mushrooms both in a lab setting and outside in an ecosystem setting. With multiple species of psilocybin mushrooms native to Maine, it is important for us to better understand their role in the ecosystem.

Stephen Harrod Buhner's book 'Plant Intelligence and the Imaginal Realm' goes into detail about the role and importance of psilocybin mushrooms in the ecosystem:

"The *Psilocybe* genus has an ancient coevolutionary relationship with many grass species, a relationship that has existed at least since the Cretaceous some 140 million years ago. The mycelia of the organisms spread throughout the soil of grassland ecozones where they attach to the root systems of grasses, forming a very large interconnected network, a mycorrhizal fungal mat. In this instance, it is what is called an *endomycorrhizal* (as opposed to *ectomycorrhizal*) association since the hyphae, that is, single strands of the mycelial network, attach to the roots of grasses and then *insert* themselves (*endo-*) into both the intercellular spaces between the root cortical cells and intracellularly. They, in essence, intertwine themselves with the root cellular tissues, penetrating the cells and cellular spaces. The specific zone of the root, where the plant and the fungal hyphae meet, is the cortex. The apex, or part of the root considered to be the main neural structure, is not touched. A sheath or collar forms around the hyphae where it touches the living tissues of the root. This acts as a metabolic zone of interaction between the two where a constant exchange of chemical compounds occurs.

"The serotonergic alkaloids (psilocin) in the fungal hyphae stimulate, as they do in all organisms, the development of new neurons, the formation of new neural networks, and the maturation of the cells in the plant root/brain system...

"By attaching its hyphae to the sloughing grass roots and stimulating biodegradation, the fungi enhance the fertility and health of the rhizosphere surrounding the grasses' root systems as well as the entire grassland ecozone. Most grassland systems are, in fact, dependent on the presence of psilocybe species for their health.

"The symbiotic/saprophytic relationship between the grasses and the fungi gives the fungi the growth nutrients it needs while the grasses gain, as most plants do from symbiotic fungal relationships, a number of benefits. The rhizosphere, and thus the ecorange, is kept healthy stimulating plant growth and spread. The

indole alkaloids accelerate the growth and development of the grass neurons, enhancing root development and spread. They also stimulate root/brain development and neural network shape innovations, enabling the grasses to respond more effectively to environmental perturbations. Other compounds provide anti-inflammatory, immune stimulating, cellular normalizing, analgesic, antibacterial, and antifungal functions.”

Surely we would want to have additional research into the ecosystem benefits, and potential for restoring and regenerating Maine’s grassland and pasture ecosystems utilizing psilocybin mushrooms. I hope that you will modify the bill to specifically add provisions for Academic Research.

I also want to encourage everyone on the committee to watch the documentary ‘Fantastic Fungi’, available on Netflix. This provides a lot of context and highlights some of the benefits of psilocybin (and many other non-psychedelic) species of mushrooms.

Thank you Senator Bailey for bringing this legislation forward.

I ask the committee to vote LD 1582 Ought to Pass.