**Rachel Carson Forum hosts innovative mycologist, Paul Stamets**

“MUSHROOMS CAN SAVE THE WORLD” was the proclamation of this year’s Rachel Carson Forum, hosted at Evergreen on April 14th by the MES student organization, MESA. A renowned mycologist and Evergreen graduate, Paul Stamets, fascinated a packed audience of over 400 as he presented his discoveries and ongoing work.

Stamets’ multimedia presentation showed the connections between fungus and the Earth’s evolution, as it was explained that fungi initiated the re-colonization of life after each mass-extinction. He contends that mycelium, fungi’s intricate root structure, is akin to the neurological network of the Earth, whereby it *intelligently* responds to its environment. With up to eight miles of mycelial strands per square inch of soil, it has the ability to filter contaminants from its surroundings (mycoremediation). Furthering this natural process, Stamets states, will be essential if we are to avoid a sixth great extinction on our planet.

Stamets has collaborated with numerous government agencies and laboratories and is currently overseeing lab work being conducted by Evergreen students who are testing the ability of fungus to remove fecal coliform bacteria (FCB) from water (mycofiltration). This natural biotechnology, if proven effective, could be used to clean campus runoff, protect the Puget Sound, our nation’s drinking water and applied worldwide in environmental remediation efforts. To date, ongoing lab work at Evergreen has demonstrated an 87% filtration capacity of FCB with a strain of the Oyster mushroom (*Pleurotus ostreatus*).

Stamets’ lecture covered a great array of other fascinating aspects displayed by specific mushroom species, such as the ability to hyper-accumulate Cesium 137 (consuming gamma radiation as a fuel source), grow in virtual darkness and high temperatures (climate change applications), act as a natural pesticide and effectively boost the human immune system. This last discovery was illustrated in a personal story Stamets told of helping his mother overcome breast cancer with the use of the Turkey Tail mushroom. This and other mushroom extracts, are sold by Stamets’ local business, Fungi Perfecti.

In concluding his lecture, Stamets offered advice in approaching the sciences, and life in general. He advocates that we should all dare to be different, dare to be wrong, dare to explore and dare to challenge conventional wisdom… as that is what monumental discoveries are founded upon. It will be hard to match such an inspirational presentation for next year’s Rachel Carson Forum but indeed we will, as these are exciting and revolutionary times for the sciences and innovators are emerging from the woodwork!

Thank you to MESA Members that volunteered during the day of the event and helping to make the Rachel Carson Forum a success. A special thanks to the following MESA members who went above and beyond to help plan the event: Tim Benedict, Stephanie Blumhagen, Debbie Dozier, Nahal Ghohagie, Chris Holcomb, Melanie Kincaid, Don Loft, Amanda Lucus, and Allision Smith. This event was made possible through funding by the Student Activities Board. MESA would also like to thank our adviser Andy Corn, the MES faculty and staff for helping with and promoting this event, and Dusty Yao for coordinating Paul to come to campus.

-Tim Benedict – 1st year MES student and member of MESA (Master of Environmental Studies Association)