



# Environmental Science Graduate Program Seminar Series

Teeny tiny canaries in a very squishy coal mine: why I study the microbes in thawing permafrost landscapes

**Dr. Virginia Rich, PhD**

**February 4<sup>th</sup>, 2021 | 2:00-3:00 PM**

Join Zoom Meeting:

<https://osu.zoom.us/j/96661183671?pwd=MmpHaThWU1ZMTVhocndRSE4vUCtaZz09> (Links to an external site.)

Meeting ID: 966 6118 3671

Password: 373528



## Abstract

Just like coal miners looked to canaries for early warning of bad air in mines, ecologists look to our rapidly warming polar systems for how ecosystems respond to climate change. As a microbial ecologist, I look to polar microbes living in permafrost peatlands. There, warming is turning ancient carbon sinks into sources, potentially further accelerating change - with microbes playing a central role. In this talk, I'll introduce you to an Arctic peatland 'model ecosystem' with a decade-long paired characterization of carbon gas isofluxes and microbial meta-omics and share some highlights of what a team of over 90 scientists across 15 institutions has been learning there. I'll also introduce you to the OSU-led, NSF-funded EMERGE Biology Integration Institute that these scientists form.