

THE DEPT OF FORESTRY & NATURAL RESOURCES PRESENTS

FALL 2025 SEMINAR SERIES

MONDAY, NOVEMBER 10TH
WSLR 116 3:30 PM - 4:30 PM

JOIN US FOR A LECTURE AND CONVERSATION WITH

DR. KIMBERLY NOVICK

Addressing a Potentially Widespread Underestimation of Forest Carbon Uptake in Undisturbed Forests



Kim Novick studies how different measurement methods shape our understanding of forest carbon removal and its role in climate solutions.

This series aims to stimulate discussion and create opportunities for collaborations. Everyone is welcome to attend.

While forest-based climate solutions are widely viewed as the most promising natural carbon removal pathways, at scales ranging from individual sites to the entire globe, estimates of forest carbon removal vary widely. Globally, this results in petagram-scale uncertainty that stymies efforts to conduct accurate greenhouse gas inventories and robustly evaluate the potential of forest-based climate solutions. Much of this uncertainty can be traced to the measurement methods used to quantify forest carbon uptake and storage with large biases observed between stock- and flux-based quantification methods. Here, using a range of ground and spaceborne measurements from a range of scales, I show that flux-based estimates are substantially (e.g. 50-100%) higher than traditionally allometric approaches. I will then discuss the mechanistic underpinnings and implications of this result and address potential steps forward to reconcile this bias generate more accurate and policy-relevant information on local to global forest carbon removals.

LOCATED AT 170 S UNIVERSITY STREET, WEST LAFAYETTE, IN 47907

FOR MEETING REQUESTS, CONTACT DRS. MIKE JENKINS OR MIKE SAUNDERS
(JENKINS@PURDUE.EDU; SAUNDERS@PURDUE.EDU)