New Tools for Understanding and Mitigating Rockfall Hazards in Yosemite National Park

Greg Stock, Park Geologist Yosemite National Park

Yosemite Valley has more documented rock falls than any other comparable-sized area. These events represent an important geomorphic process, but they also represent significant hazards to park visitors and employees. New tools such as LiDAR, high resolution photography, seismic monitoring, rock-fall runout simulations, and cosmogenic dating have recently been implemented as part of Yosemite National Park's rock fall research program. This talk will briefly summarize the history of Yosemite Valley and describe how these new tools are being used to improve our understanding and mitigation of rock-fall hazards.

Biography: Greg Stock is the first-ever Park Geologist at Yosemite National Park. He has B.S. and Ph.D. (U.C. Santa Cruz) degrees in geology and earth science, and was a researcher at the University of Michigan prior to accepting the job at Yosemite in 2006. Greg's research interests are primarily in geomorphology, and include glacial erosion, river dynamics, and hillslope processes such as rock falls and debris flows.