

Lecture about Antarctic ice regions

Flying under the Big Ice: Robotic submarines under Antarctic ice is a presentation by Alexander Forrest at UC Davis Tahoe Environmental Research Center in Incline Village.

Forrest will have just returned from a research excursion using robotic submarines under the Erebus ice-tongue in McMurdo Sound, Antarctica.

Learn about the unique physical characteristics of seawater under this ice shelf, the influence on the formation and growth of sea ice within the sound, and the affect on marine biology. By deploying a robotic submersible, known as an Autonomous Underwater Vehicle (AUV), the international research team will map under-ice structure and ice thickness; document three dimensional convective and mixing processes; measure phytoplankton distribution; and, model the effect of ice-ocean coupling on water mass evolution, sea ice formation, and biological processes.

This AUV deployment embodies the use of a pioneering technology to make advances in Polar exploration that would not be possible otherwise.

Charting these processes is critical because our Polar Regions are rapidly losing ice cover. International collaboration by scientists and engineers in the fields of physics, chemistry and biology will help us to better understand these processes before the opportunity disappears all together.

Forrest is a postdoctoral scholar with the UC Davis Tahoe Environmental Research Center. He focuses on questions in physical limnology and works on under-ice applications of AUV technologies in a diversity of environments. He has extensive AUV survey experience from the Caribbean to the Caspian Sea.

Details:

Date: Dec. 8

Time: 5:30pm no-host bar. Program begins at 6pm.

Cost: \$5 donation requested

Location: Tahoe Center for Environmental Sciences, 291 Country Club Drive, Incline Village.