



QUANTITATIVE & SYSTEMS BIOLOGY COLLOQUIUM: Isotopes, Ancient DNA, and Marine Mammals – Using the past to plan for the future

Date:

9/9/2022

Time:

2:30 PM-3:45 PM

Location:

COB2 140

Paul Koch

Professor, Earth & Planetary Sciences
UC Santa Cruz

About The Speaker:

Paul Koch is a distinguished professor of Earth and Planetary Sciences at UC Santa Cruz, where he has been on the faculty since 1996. In his research, he uses biogeochemical and other types of analysis of animals, plants, and soils (ancient and modern) to answer questions about ecology, extinction, and evolution. The greenhouse world of the early Cenozoic and the icehouse world of the Plio-Pleistocene have been particular areas of focus, but over the last 15 years, he has turned his attention more and more to Holocene and extant organisms and ecosystems. Since 2011, he has served as dean of the Division of Physical and Biological Sciences at UC Santa Cruz. He earned his PhD from the University of Michigan and held postdoctoral positions at the Smithsonian Institution and Carnegie Institution of Science.

Isotopes, Ancient DNA, and Marine Mammals

Using the past to plan for the future

Paul Koch, UC Santa Cruz



Abstract:

The fossil record of living species provides an often untapped source of information on the sensitivity and adaptive capacity of species to environmental change. Mummified and skeletal remains of southern elephant seals, crabeater seals, and Weddell seals occur along coast of the Ross Sea, Antarctica, with ages spanning the last 6000 years. In this seminar, I explore how ancient DNA and stable isotope information recovered from Antarctic seal remains is illuminating their potential flexibility (or lack thereof) in the face of future warming.

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