



Stable Isotopes in Biosphere Systems 2014

A practical and theoretical course on stable isotopes in biosphere systems

Sunday 2 - Sunday 9, February 2014

Research School of Biology, The Australian National University



Scope and Approach

Stable isotope examination of processes in the biosphere is expanding rapidly as methods and new equipment become available. No worker in this area can afford to be unfamiliar with what stable isotopes have to offer, how to set up experiments to use them, or how to interpret the results. This course will be taught by leading scientists and there will be plenty of opportunities to learn from them during classes or present your questions to them during the free periods.

The workshop will consist of theoretical classes, hands-on equipment use, and student-led projects. We will concentrate on stable isotopes of biological interest – C, N, O and H in plants, soil, precipitation and the atmosphere, with the emphasis on interactions between them. As we start at a general level and then go into greater depth, students at most levels of learning from undergraduate honours to postdoctoral fellows will benefit from the course.

Instrumentation

A wide range of isotopic equipment will be available for the students to become familiar with and use in their projects, including:

- Tunable Diode Laser Absorption Spectrometer (CO_2)
- Picarro Cavity Ring-Down Spectrometer (water – $\delta^2\text{H}$ and $\delta^{18}\text{O}$)
- Dual-Inlet Stable Isotope Mass Spectrometer (Isoprime - C and O in CO_2)
- Continuous-Flow Stable Isotope Ratio Mass Spectrometer (Isochrom – $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$).

Accommodation and tuition

The workshop will take place at the Research School of Biology in the Australian National University in Canberra. Accommodation will be provided on campus close to the School and is included in the \$1200 price. Some scholarships are available.

Leaders

Amongst others, Murray Badger, Margaret Barbour, Michael Bird, Susanne von Caemmerer, Yolima Carillo, Lucas Cernusak, Feike Dijkstra, John Evans, Graham Farquhar, Claudia Keitel, Andrew Merchant, Kevin Simonin, Hilary Stuart-Williams, Nerea Ubierna Lopez. A full list of speakers will be published on our website.

Application deadline

The deadline for application to attend is **22 November 2013**. Please see the website for details at <http://sibs.anu.edu.au> (under development). Please contact us for further information and application details.