Stable isotopes as a tool for ecologists and archaeologists
Course for PhD students, 20 - 24 April 2026

This is a course for those who want to receive an overview and a more profound knowledge of how stable isotopes can be used in modern ecological research and in archaeological applications. The focus is primarily on research questions and practical applications, but the underlying theoretical aspects are also covered. Examples of the content are: geological distribution and fractionation, ecological applications, archaeological and paleozoological applications. We will also present some of the software used to analyse and model stable isotope variation at various levels. An individual practical project is included, in which the students are encouraged to work with their own data if available. We will admit a maximum number of 15 PhD students for this course.

Location: Stockholm University, Frescati campus.
Dates: 20 - 24 April
For application and more information, contact: Fredrik Dalerum fredrik.dalerum@zoologi.su.se

Teachers

Simon Belle (SB), Department of Aquatic Sciences and Assessment, Swedish University of Agricultural Sciences
Fredrik Dalerum (FD), Department of Zoology, Stockholm University
Biodiversity Research Institute (CSIC, Univ. Oviedo, Princ. Asturias)
Gunilla Eriksson (GE), Department of Archaeology and Classical Studies, Stockholm University
Elena Gorokhova (EG), Department of Environmental Science, Stockholm University
Grant Hall (GH), Mammal Research Institute, University of Pretoria
Agnes Karlsson (AK), Department of Ecology, Environment and Plant Sciences, Stockholm University
Kerstin Lidén (KL), Department of Archaeology and Classical Studies, Stockholm University
Magnus Mörth (MM), Department of Geological Sciences, Stockholm University

Preliminary schedule

Week 17:				
Mon	20/4	08.30-09.00	Introduction + project designation	FD
		09.00-10.00	Stable isotopes – a brief overview	FD
		10.00-12.00	Stable isotopes – geological distribution and fractionation	MM
		13.00-15.00	Stable isotopes – ecological applications	FD
		15.15-16.00	Visit at the geochemistry stable isotope laboratory	MM
Tues	21/4	08.30-10.30	Stable isotopes – archaeological and paleozoological applications	KL
		10.30-12.30	Practical applications of stable isotopes in a Southern African context	GH
		13.30-15.30	Laboratory visit, Archaeology	GE
Wen	22/4	08.30-10.30	The use of stable isotopes in aquatic (paleo)ecology	SB
		10.30-12.30	Tracing trophic interactions with stable isotopes	EG
		13.30-16.00	Compound specific isotope analyses	AK
Thur	23/4	08.30-10.30	Analytical tools for stable isotopes in ecology	FD
		10.00-12.00	Datalab - exercises	FD
		13.00-16.00	Work on individual projects	
Fri	24/4	10.00-12.00	Oral presentations of projects	FD/AK