

Tools for Southern Ocean spatial analysis and modelling course 2-6 september 2019 Brussels, Belgium



Course Scope

The Scientific Committee on Antarctic Research (www.scar.org) is pleased to partner with the rOpenSci project and the Antarctic Biodiversity Portal (www.biodiversity.aq) in organising a short course on tools for Southern Ocean spatial analysis and modelling using R. This course will teach participants how to retrieve, model and interpret species occurrence data from the Southern Ocean using R-tools developed through the Antarctic R community. In hands-on sessions, participants will learn how to find, download and clean data using R packages and how to display these data on Antarctic (polar projection) maps. The course will introduce various ways of analyzing the data including Species Distribution Modelling (SDM).

Course Objectives

Our aim is that by the end of the course students will be equipped to:

- Set up a workflow for the retrieval, cleaning and analysis of Southern Ocean biological data
- Learn which R packages can be used to do this
- Learn about species distribution models and how to develop them
- Apply these new insights to their own data.



Course length

The first part of the course (3 days) will focus on introducing various R packages and overall workflows. The second part of the course (2 days) will be a hands-on opportunity for participants to work on their own data with the assistance of the course instructors. You can choose to only register for the first part of the course if you prefer.

The course is targeting Polar Early Career scientists, but is open to any other research students or scientists that require these skills for their work. There is space for a maximum of 20 participants.

Requirements

Some experience in the computer language R is desirable, and experience with GIS is helpful. All participants must bring their own personal laptop. If you are not sure if your experience in R is sufficient, you should follow the one of the free online courses below:

<https://swcarpentry.github.io/r-novice-gapminder/01-rstudio-intro/>

<https://obis.org/manual/intror/>



Language

English

Code of Conduct

To ensure a safe, enjoyable, and friendly experience for everyone who participates, we have a strict [code of conduct](#) that all participants are expected to follow.

Fees and Funding

There is a 75 euro registration fee for the course. The fee include full participation in the course, and digital copies of the course material, as well as coffee breaks and a small lunch. Participants will need to arrange their own travel and accommodation, but limited travel support will be available in collaboration with the SCAR Ant-Eco research program.

Registration

Deadline for applications is Friday June 15th. After this date you will be notified of the offer of a place and sent an invoice for the course fee. The deadline for payment is Friday 7th July 2018. Failure to pay will lead to your place being offered to someone else.

You can register using this [form](#)

If you have questions or suggestions you can create an issue on the [github page](#). Alternatively you can contact datascience.biodiversity.aq (at) gmail.com

About rOpenSci

rOpenSci is a non-profit initiative founded in 2011 to make scientific data retrieval reproducible, and fosters a culture that values open and reproducible research using shared data and reusable software. rOpenSci maintains a number of widely used R packages, creates social infrastructure through a welcoming and diverse community, builds capacity and advocates for a culture of data sharing and reusable software

About SCAR - EG-ABI

The Expert Group on Antarctic Biodiversity Informatics aims to foster the application and development of biodiversity informatics (computationally-driven biodiversity science and information processing) in the SCAR community.

About Antarctic Biodiversity Portal Antarctic Lifewatch

The Antarctic Biodiversity Portal offers access to Antarctic Biodiversity Data. It is one of the federal belgian contributions to LifeWatch-ERIC is a European Infrastructure Consortium providing e-Science research facilities to scientists seeking to increase our knowledge and deepen our understanding of Biodiversity organisation and Ecosystem functions and services.

Addition infortmation and updates will be avaiable on

<https://github.com/SCAR/EGABlcourse19>

