DATA SCIENCE
FOR ECOLOGISTS AND ENVIRONMENTAL SCIENTISTS

This is to certify that **Edwin David Yánez Orquera** has successfully completed the following modules:

Stats from Scratch		Wiz of Data Viz		Mastering Modelling	
Getting started with R	2025–01–28	Beautiful and informative data visualisation	2025–02–28	Efficient data manipulation	2025–02–28
Troubleshooting in R	2025–02–13	Efficient data manipulation	2025–02–28	Loops and functions	2025–03–15
Coding etiquette	2025–02–14	Data visualisation 2	2025–03–02	Intro to model design	2025–03–20
Basic data manipulation	2025–02–14	Spatial analysis	2025–03–05	Ordination	2025–04–20
From distributions to linear models	2025–02–20	Getting started with Markdown reports	2025–03–05	Mixed effects models	2025–04–27
Beautiful and informative data visualisation	2025–02–28	Getting started with Shiny interactive web apps	2025–03–06	Meta analysis and mixed models with MCMCglmm	2025–05–13
				Generalised linear models in Stan	2025–05–18

Stats from Scratch is our introduction to R course stream. It teaches good coding practice, and users will have gained confidence in importing and manipulating data. They can use linear regression techniques and present statistical results professionally.

Wiz of Data Viz is a course stream dedicated to data visualisation. The user should be able to communicate findings in a visually engaging and informative manner, perhaps including communication tools such as Markdown reports and interactive apps.

Mastering Modelling is our most advanced course stream, focusing on developing statistical models based on sound research questions and hypotheses. The user will have been exposed to a variety of data types and modelling techniques, with an introduction to the Bayesian framework.

Challenges

The course also offers three case-study challenges in which the user must work independently with a range of open data to answer research questions. Edwin David Yánez Orquera completed:

- Temporal changes in red squirrel abundance: a data manipulation and analysis challenge on population data
- Native woodlands in Scottish nature reserves: a challenge on spatial data manipulation and visualisation
- Analysing seabird breeding success: an advanced data analysis challenge

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A fun and supportive place to learn statistics and programming