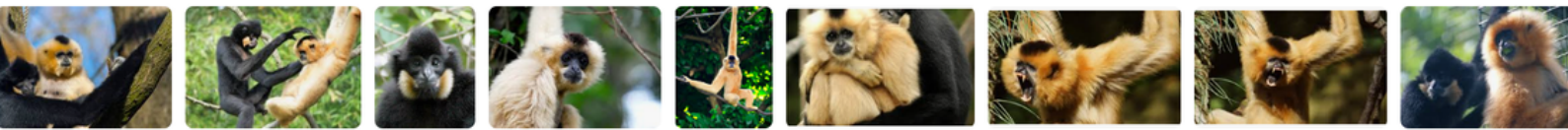
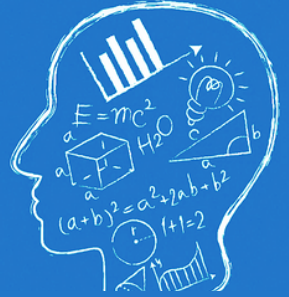


# WORKSHOP

## AN INTRODUCTION TO SPATIAL CAPTURE-RECAPTURE MODELS OF ANIMAL DENSITY WITH ACRE

13 MAY 2024  
14H00 - 17H30

CIÊNCIAS - ULISBOA C6  
ROOM 6.4.35



## AN INTRODUCTION TO SPATIAL CAPTURE-RECAPTURE MODELS OF ANIMAL DENSITY WITH ACRE

BY BEN STEVENSON

Have you ever dreamt of being responsible for the conservation of a gibbon population in a wildlife sanctuary in Cambodia? No? Well here's your chance anyway! In this workshop you will take on the role of lead investigator, responsible for carrying out an acoustic survey of the southern yellow-cheeked crested gibbon (*Nomascus gabriellae*) in Phnom Prich Wildlife Sanctuary. You will have to design the survey, "collect" the data (by simulation), and fit models to estimate population density and distribution using acre.

This workshop will provide an introduction to spatial capture-recapture models and the R package acre, which provides functions to fit spatial capture-recapture models to data collected on acoustic surveys.

### Additional context:

Ben Stevenson is a statistician based at the University of Auckland and is visiting CEAUL until the 15th of May on a sabbatical. Spatial-capture recapture (SCR) is a technique that is only 20 years old but which is now widely applied worldwide to estimate density of wildlife. Ben has been working on various aspects of SCR for several years on a range of different methods developments and applications. While Ben's seminar focus is on acoustic data, SCR methods are widely used also under different settings for which animals, or something they might produce like sounds, might be detected at multiple "traps". Come and learn more about it if you are interested on the methods from either a practical or a methodological perspective. If you are interested in SCR, you will be interested in knowing that Ben will also deliver a SCR related CEAUL seminar on Wednesday 8th of May under the title "Penalised regression splines for spatial capture-recapture".

Registration, until 12 May 2024. More information, [here](#).



Ben Stevenson is a Senior Lecturer in the Department of Statistics at the University of Auckland, New Zealand. An alumnus of the same institution, earned both a BSc (Hons) and an MSc before pursuing a PhD at the University of St Andrews, United Kingdom, graduating in 2016. Joined the University of Auckland's faculty in January 2017.

His research primarily focuses on developing statistical methods and software aimed at estimating ecological parameters, often concerning animal abundance or density. His expertise also extends to spatial statistics, statistical computing, and applied statistics, with a strong emphasis on ecological applications. His interdisciplinary research interests have also led to contributions in medicine and veterinary sciences.