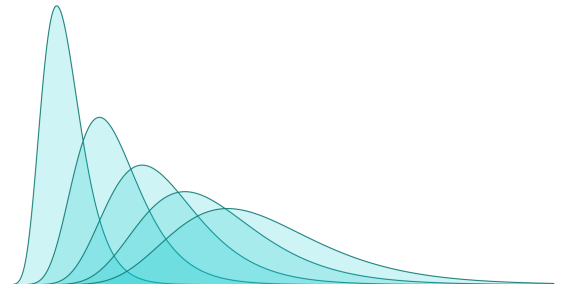*An Introduction to Generalized Linear Models for Ecologists and Environmental Scientists*

Cóilín Minto, Olga Lyashevska, Deirdre Brophy
Marine and Freshwater Research Centre, ATU-Galway

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Biological response data come in a great variety of distributional types, including: binary, discrete and continuous forms. The goal of many experimental and observational studies is to investigate the effect of explanatory variables on the response. While traditional approaches transform response variables to approach normality, Generalized Linear Models (GLMs) allow distributions that naturally reflect the form of the response. As a result, GLMs occupy a central role in biological inference. This workshop, which is tailored for ecologists and environmental scientists, will provide an introduction with application of this powerful class of models.

Schedule

Time	Session
9.00–9.10	Welcome and introductions
9.10–9.40	Three data types: coin flips, counts, continuous (presentation)
9.40–10.30	GLM fundamentals: a gentle theory of the three pillars of: response, link and linear predictor (presentation)
10.30–11.00	Break
11.00–11.30	Fitting GLMs in R: general structure (live coding)
11.30–12.30	Binomial GLMs with practical
12.30–13.30	Lunch
13.30–14.30	Poisson GLMs with practical
14.30–15.30	Gamma GLMs with practical
15.30–15.45	Break
15.45–16.15	A brief overview of model selection and validation

Where? In-person (spaces limited, room to be arranged) and virtual (feedback limited)

Prerequisites Working knowledge of R/RStudio, familiarity with linear models, interest in GLMs

To attend Students and staff welcome. To register, email coilin.minto@gmit.ie by June 30th (first-come, first-served basis in case of oversubscription). If registering for multiple people, send their email addresses.

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