

# CAMERON COSGROVE

Conservation and Data Scientist

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I am an early career ecologist who wants to help conserve wildlife and ecosystems, particularly in the UK. I have strong data science skills and conservation knowledge that can be used to support evidence based environmental management. I am a published author with peer-reviewed papers on a range of Scottish conservation issues. I have also recently finished my undergraduate dissertation in which I mapped and quantified the extent of deforestation across red panda (*Ailurus fulgens*) habitat in the Himalayas. I am passionate about young people being involved in decision making for issues that affect them. Please check out my [website](https://cameroncosgrove.github.io) for more information and links to my research.

Key skills:



Excellent ecological and conservation knowledge



Data handling, visualisation, and statistical analysis in R, GIS and geospatial analysis



Science communication and community engagement

## EDUCATION

**2015 – 2019** | University of Edinburgh: BSc Ecological and Environmental Sciences, **First Class**

- Studies focused on conservation, ecological theory, and using data to inform environmental management.
- My dissertation “Evaluating Forest Loss in Red Panda Habitat between 2000 & 2018” was awarded the R. Stewart McDougall Prize for best bioscience or animal science dissertation in the School of Geosciences.
- Member of the Arctic Research Group [Team Shrub](#).
- I was awarded with The University of Edinburgh Barson Bequest (£1800) to conduct field work in The Yukon, Canada.

**2017- 2018** | The University of British Columbia: Study abroad programme, **A average**

- Courses included, Advanced Ecology, Biomathematics, Biostatistics, Remote Sensing for Ecological Management.

## EMPLOYMENT

**2014 – 2019** | Alba Ecology: Summer fieldworker

- Conducted a range of surveys including; freshwater pearl mussel surveys, upland and woodland bird surveys, butterfly transects, and protected mammal surveys. Most surveys conducted solo in remote upland environments.
- Led on a write up of a 28-page commissioned report for Forestry Commission Scotland.

**2018 -2019** | Coding Club: Mentor

- [Coding Club](#) is a weekly peer-based workshop where I helped undergraduates, graduates, and faculty develop their R coding skills in a friendly and non-intimidating environment.
- I helped to deliver the overview lecture on a range of topics, and supported attendees in completing and understanding the weeks tutorials.
- I taught tutorial topics including; basic R skills, advanced R skills, data visualisation using ggplot2, data manipulation, and statistical modelling.

## VOLUNTEERING

**2017** | Field assistant for Team Shrub in The Yukon, Canada.

- I helped conduct various bird, vegetation, and plant phenology surveys in the boreal forest and tundra, including a four-day expedition to collect plant trait data at the remote Pika Camp.

- I helped organise and run a logistically complex field expedition. This involved planning food provisions for the team, purchasing and assigning field equipment, data collection rotas, and organising travel plans - all within time and budget.

### **2013-2016 | EUROPARC Youth+ Council member.**

- With the help of other youth representatives, I led the creation of The Aiguestortes Declaration (<https://tinyurl.com/AigueDec>) which is the foundation for the recently launched EUROPARC Youth Manifesto.
- I helped run a meet up in Latvia of young people from national parks across Europe. This involved creating activity programmes, idea sharing sessions, and facilitating youth advocacy training.
- I worked with many young people, professionals, and stakeholders during my time on the Council to promote the voice of young people across European national parks.
- I wrote press releases and helped produce promotional resources for Youth+ (e.g. short films and blog posts).

### **2013 – 2014 | Chairperson of The Highland Youth Parliament.**

- Helped organise and run two conferences for >100 people a year, to promote youth engagement in politics and youth consultation.
- Engaged with a range of stakeholders to bring about positive change for young people in the Highlands. The issues I worked on included; mental health provisions, LGBT+ inclusion, employment and education opportunities for young Highlanders, and youth led environmental advocacy.

### RELEVANT SKILLS

#### Coding, Data, and GIS:

- I am experienced R user and can competently manipulate and clean large datasets using the Tidyverse. I can also create appropriate statistical models up to the complexity of linear mixed models with a hierarchical structure. I am comfortable using Rmarkdown, RStudio, ggplot2, and lme4 + MCMCglmm for statistical analysis.
- I work with Github for version control, collaborative coding, and for practicing open science.
- I have a comprehensive understanding how remote sensing and GIS can be used for conservation and environmental management. I can run a range of geospatial analyses in the Google Earth Engine using JavaScript and have experience with ENVI conducting classifications and georeferencing raw imagery.

#### Fieldwork Skills

- I can identify all British birds and terrestrial mammals and have significant experience wildlife watching in the UK and overseas.
- I am a competent navigator and an experience hillwalker.

### PUBLICATIONS

1. Cosgrove P, Watt J, Hastie L, Sime I, Shields D, **Cosgrove C**, et al. The status of the freshwater pearl mussel *Margaritifera margaritifera* in Scotland: extent of change since 1990s, threats and management implications. *Biodiversity and Conservation*. 2016;25(11):2093–112.
2. Peter Cosgrove, Kenny Kortland, Donald Shields, Robert Potter, Julie Murray, **Cameron Cosgrove**. Response of incubating Golden and White-tailed Eagles to forest road traffic: results of a pilot study. *Scottish Birds*. 2017;37(1):14–25.
3. Cosgrove P, McInnes N, Dolby S, Gunn D, Shields D, **Cosgrove C**, et al. Forest management and freshwater pearl mussels. *Scottish Forestry*. 2017; 71(1): 14-21.
4. Cosgrove P, Shields D, **Cosgrove C**, Farquhar J, Jarrett D, Jancke S, et al. Population size, structure and distribution of an unexploited freshwater pearl mussel *Margaritifera margaritifera* (L.) population in Scotland. *J Conchol*. 2014;41:541–52.

References are available upon request