

## Master Module: *Microbiomes in Conservation Genomics*

🐾 Ever wondered what your pet's gut can tell us about evolution, ecology, and conservation?

**Whether you're a dog lover, bird enthusiast, or reptile fan, your animal's microbiome has a story to tell.** Discover how microbes connect species, influence health, and play a hidden role in biodiversity and conservation. Join our **Master course in Conservation Genomics**, where we'll explore the invisible world of microbiomes - using real samples from your pets or favorite animals!

This module explores the fascinating intersection of microbiomes, evolution, ecology, and conservation. Centered around the OneHealth concept, students will investigate the microbial communities that inhabit animals—ranging from household pets to wildlife—and discover their hidden roles in biodiversity, health, and evolutionary history. The course introduces cutting-edge methods in evolutionary genetics and conservation genomics, with a focus on their application in wildlife health and conservation projects.

### What You'll Do:

Through a combination lectures, practicals (hands-on lab work, bioinformatics, ecological data analysis) and seminars, students will:

- **Collect microbiome samples** from animals of their choice
- **Analyze microbial diversity** using advanced genomic techniques
- **Investigate the impact of diet, phylogeny, and environment** on microbial communities
- **Gain practical experience** in bioinformatics and ecological data analysis
- **Sharpen essential soft skills**, such as scientific writing, creating effective PowerPoint presentations, and presenting findings clearly
- **Debate ethical considerations** related to genomic research in wildlife conservation

The course is designed for all students with an interest in biology, genetics, or conservation. No prior bioinformatics experience is required.

### Course assessment:

- An **oral presentation**
- A **bioinformatics task** (no prior knowledge necessary)
- A **written exam**

### Course Dates & Schedule:

- **Module Dates:** 3rd – 28th November 2025 (with flexibility for smaller groups to complete wet lab work earlier)
- **Lectures:** Mondays, Tuesdays, and Fridays, 8:00–10:00 AM; Thursdays, 10:00–12:00 AM
- **Practicals & Seminars:** Scheduled in the afternoon
- **Location for lectures:** N24/201

### More information:

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