UCAM Field visit March 2026

UCAM Staffing: EB - Eustace Barnes, JF – John Forrest, ML - Miguel Lezama, JP - Julia Porturas.

Fieldwork plans for visiting research staff.

General Objectives.

1. Evaluate ongoing biodiversity data collection efforts, ensuring consistency and methodological accuracy across sampling sites. The visit will include field verification of species records, refinement of survey protocols, and mentoring of students involved in ecological monitoring activities.
2. Conclude biodiversity data collection from dry forest field study working groups.
3. Strengthen the application of remote sensing and GIS techniques for analysing vegetation dynamics and seasonal patterns across the study areas, and assisting students with related interests.
4. Conduct comprehensive water quality and sample collection campaigns, covering key sites within the monitoring network to update our data on physicochemical parameters, sediment characteristics, and related environmental indicators. Assist students with specific interests in hydrological studies.
5. Evaluate the transitionary handover phase, establishing clear frameworks for data management, local capacity building, and continuity of monitoring and research activities under UNAH leadership.

The following colours have been adopted for sections of text related to specific project components.

Green = Biodiversity/Bioacoustics.

Orange = Dry Forest.

Blue = Water & sediments.

Red = arrivals/departures.

Group 1: Biodiversity. EB, ML.

Objective: to survey biodiversity and assess the unique species composition and ecological dynamics within isolated and understudied ecosystems. Due to their complex topography and climatic variation, inter-Andean valleys often harbour high levels of endemism and distinct biotic communities. Conducting field surveys in these areas helps identify conservation priorities, detect potential new or range-restricted species, and understand biogeographic patterns critical for informing sustainable land management and biodiversity protection strategies.

1. **Biodiversity survey design and sampling in dry forests**, focusing on standard methods for quantifying plant and animal diversity. Students will learn how to establish transects and plots, apply standardized sampling protocols for flora and fauna, and manage field data collection to ensure comparability and scientific rigor.

2. **Species identification and ecological monitoring**, emphasizing key taxonomic groups characteristic of dry forest ecosystems. Participants will practice identifying indicator species, assessing habitat condition, and using field guides and digital tools for biodiversity recording and database entry.
3. **Conservation assessment and ecosystem evaluation**, integrating ecological data to understand habitat health, anthropogenic pressures, and conservation priorities. Students will discuss drivers of degradation, analyse spatial data, and explore management approaches for the sustainable protection of Peru's threatened dry forest ecosystems.

We intend to follow the "Cambridge visit" format, where we run morning or afternoon sessions at preselected study sites with small groups of interested students. This will be followed by students working individually or in groups, while we are present to help out.

13th March. Arrive Huanta. EB. Nt **Huanta.**

14th March. Planning working with UNAH staff & students. EB. Nt **Huanta.**

15th March. Meetings with UNAH staff & students. EB. Nt **Huanta.** ML to Huanta.

16th March. Biodiversity (securing specimens). Site visit: La Vega. EB, ML. Nt **Huanta.**

17th March. Meetings with UNAH staff (WCA) & thesis students.. EB, ML. Nt **Huanta.**

18th March. Biodiversity. Site visit: La Vega. EB, ML. Nt **Huanta.**

19th March. Biodiversity. Site visit: La Quinua. EB, ML. Nt **Huanta.**

20th March. Biodiversity. Ayacucho area. Fly Lima (17.00 flight). EB.

Group 2: Hydrology

Objective: to collect water quality related data and samples from across the water study site network plus sediment samples where appropriate to complement those already collected. To train UNAH staff and students in field and laboratory techniques accordingly.

1. **Water quality assessment and sampling techniques**, focusing on standardized methods for measuring physical and chemical parameters (e.g., pH, conductivity, dissolved oxygen, turbidity, nutrients). Students will learn how to design sampling strategies, handle equipment, and ensure sample integrity for subsequent laboratory processing and analyses.
2. **Sediment sampling for environmental characterization**, emphasizing the collection of representative samples to evaluate contaminant levels, grain size, and organic matter content. Participants will gain experience in sampling, preservation, and georeferencing procedures to complement existing datasets within the network.
3. **Integrated field training in hydrological monitoring**, combining data collection with in situ observations of land use, vegetation cover, and hydro-morphological features. Students and staff will develop practical competencies in environmental data recording, quality control, and field safety, enhancing their capacity for multidisciplinary watershed research.

We will follow the "Cambridge visit" field format, where we run morning or afternoon sessions for small groups of interested students. This then to be followed by groups assisting in the laboratory with processing samples and data under our instruction.

13th March. Arrive Huanta. JF. Night Huanta.

14th March. In Laboratory (JOSACO) - calibration of equipment & preparation for fieldwork. JF + UNAH staff & students.

15th March. Water & sediment sample sites (RC01 & IC01). JF + UNAH staff & students.

16th March. Water & sediment sample sites (Q1.1). JF + UNAH staff & students.

17th March. Water sample sites (Q1.2N. & Q1.2S). JF + UNAH staff & students.

18th March. Water & sediment sample sites (Q3.1 & RC02). JF + UNAH staff & students.

19th March. Water sample sites (Q3.2). JF + UNAH staff & students.

20th March. Water & sediment sample sites (Q2.1). JF + UNAH staff & students.

21st March. Walk 1 (Rio Opanccay - Q1.2N to Q1.1). JF + UNAH staff & students.

22nd March. Walk 2 (Rio Opanccay - Q1.2S to Q1.1). JF + UNAH staff & students.

23rd March. Water sample sites (Q2.2 & MAN04). JF + UNAH staff & students.

24th March. Walk 3 (Rio Huanta - Q2.2 to Q2.1). JF + UNAH staff & students.

25th March. Walk 4 (Rio Chihua - Q3.2 to Q3.1). JF + UNAH staff & students.

26th March. Sample preparation. Equipment maintenance & storage. Stock check. JF + UNAH staff & students.

27th March. Fly Lima (12.30). SGS lab. visit - water samples drop off. JF + JP.