

**Faculty:** Benjamin Davies, Lecturer, School of Arts & Sciences

**Project Locations:** Ileret, Kenya and Medford, MA

**Dates:** Early June -late August

**Project Title:** Understanding the contributions of mobile pastoralism in shaping rangeland ecosystem futures

**Project Details:**

According to the FAO, over 200 million people worldwide sustain themselves through pastoralism: a subsistence practice involved the keeping of livestock herds. Historically, pastoralists and their herds have been viewed as an ecosystem threat in arid and semi-arid regions of East Africa, with cycles of overgrazing during drought periods exacerbating erosion and transforming grassy environments into unproductive shrublands. More recently, though, perceptions of pastoralism role have become more nuanced with growing understanding of Indigenous management practices and of modification

This project will be part of a wider study that examines how pastoralism has shaped the environments of East Turkana in northern Kenya, where it has been practiced for over 5 millennia. Part of this study explores how the regular construction and abandonment of cattle enclosures (bomas) holds back woody encroachment and creates hotspots of herbaceous plant growth, generating potential benefits for local wildlife and herders in the future. Ultimately, this and other impacts have implications for the continuation of pastoralist lifeways under changing environmental conditions.

The student research assistant will participate in the planning and execution of field data collection in the vicinity of Ileret, a community of Daasanach herders on the eastern shore of Lake Turkana. Fieldwork will involve recording boma sites and vegetation condition, collecting samples and data from the soil, mapping sites using field GIS and global positioning, and interviewing herders about mobility and pasture condition. The student will be encouraged to take on a component of this work to manage and analyze under their own direction with guidance from the PI.

**Tasks and Responsibilities of Research Assistant:**

Students will work with PI, project team, and community members to assess rangeland condition in former livestock enclosure sites (bomas) and offsite areas to assess short and long-term consequences of pastoral activities. This will involve:

- Mapping bomas using RTK GNSS system and field GIS
- Conducting transect sampling of vegetation condition (line-point intercept technique)
- Sample soils to assess nutrient content and microbotanical analysis
- Conduct ethnographic interviews with herders with assistance from community translators

Students will also participate in meetings with local community representatives. Student research will benefit the project by advancing data collection objectives and completing analyses and enabling additional pilot research that could form the basis for future funding.

**Qualifications:**

- Interest in food systems, sustainability, and cultural studies
- Interest in collecting and analyzing field data in the natural and social sciences

- Willingness to work in challenging field conditions (remoteness/rugged terrain/high temperatures)
- Openness to working with people from different cultural backgrounds

**Description of Field Site:**

Fieldwork will involve extended periods working outdoors in hot, dry conditions. Sturdy shoes and appropriate clothing are highly recommended. Biting insects are also a hazard; insect repellent is also strongly recommended. Applicants should be aware that the Kenyan government has strict laws regarding homosexuality, and students who identify as LGBTQI+ should evaluate risks as per the US State Department.

**Housing in Kenya:** The student will stay in trusted accommodations with which the project staff have long histories of business. Each location is a gated facility with a guard posted at all hours. Living quarters will be shared with other project staff; efforts to provide single sleeping quarters will be made but any shared sleeping quarters will be gender specific. SIM cards will be available for purchase in Nairobi. In Ileret, Safaricom has historically been the most reliable provider, although service can be intermittent.

**Important Note about Travel to Kenya:** Student travel to areas with a [U.S. State Department Travel Advisory Level 3 or 4](#) are subject to International Travel Review Committee review and approval. This includes areas of Turkana County where this project is based. No action is required on the part of the student, but please be advised that if approval is not granted, the Global Research Assistantship will be rescinded. If you have any questions about the travel review process, please contact [internationalsafety@tufts.edu](mailto:internationalsafety@tufts.edu).