

Shell Beds of the Northern Luiche Platform: Spatial Extent and Faunal Composition

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My interest in this year's Nyanza Project was two-fold. As an undergraduate participant in Nyanza 2005 I was eager to pursue some of the questions raised by the 2005 study in the subsequent 2006 field season. I was also looking forward to taking part as a TA for Nyanza 2006. Serving in this capacity I expected to not only gain a better understanding of how the project functions as a whole, but also I would get to directly mentor undergraduates myself.

This summer's research built heavily upon the work done by Mike McGlue and myself in 2005. Lake Tanganyika is home to very extensive shell beds covering much of the littoral zone. The mode of formation of these beds is still very poorly understood, as is the ecology of the organisms that form the shells in the deposits. The bulk of the work done by this year's "Shell Team" was carried out on the gently sloping Northern Luiche Platform just North of Ujiji.

During the course of our work we were able to better constrain the spatial extent of these beds as well as qualitatively describe the communities that assemble around them. It has proven problematic to definitively state a mode of formation, though data we collected has rejected some hypotheses and helped focus questions for future work. Also, while we were not able to conduct a rigorous ecological study of the living animals whose shells form the beds due to extreme scarcity or absence near the shell beds, we were able to juxtapose this apparent absence of living specimens near the beds with the surprising presence of a seemingly healthy, dense population 30km to the north, off the shore of Gombe Forest Preserve). A more thorough treatment of this project can be found in the paper by Christine O'Connell and Oceana Casteneda in this volume.

For me, this project was especially fruitful because I not only got to deal with the sedimentology of the deposit, but also consider the unique ecosystem of (non-shell producing) organisms on these shell beds such as the specialized shell-dwelling cichlid fish and crabs. As a geologist it was a great opportunity for me to truly cross disciplines and understand natural science in a broader sense. I was able to learn quite a lot from the undergraduates that I mentored as we developed our methods. I not only learned how to teach, but how to tailor individual research projects to the interests of the students. This summer I not only became a better researcher, but a better teacher and mentor as well.