

## Sedimentation Cruise

by Andrew Cohen

The Lake Tanganyika Biodiversity Project sponsored a sedimentation research cruise on board the R/V Tanganyika Explorer in January, 1998. This cruise was directed by the University of Arizona, under contract to LTBP. The purpose of the cruise was to collect bathymetric data, sediment cores and water samples as part of an investigation of the long term changes in sedimentation rates resulting from watershed deforestation and subsequent soil erosion, and the effects those changes may have had on the ecology of Lake Tanganyika. The cruise targeted both pristine and heavily impacted catchments. Cruise operations were divided into 3 legs of varying duration, working in both Tanzanian and Burundian waters of the lake. It was a truly international expedition, with participants from all four riparian nations, Malawi, UK, USA, and France. The dates and participant lists for each leg are listed below.

### Cruise Team Members

#### Leg 1 (6-16 Jan, 1998)

Andrew Cohen - University of Arizona  
Manuel Palacios Fest - University of Arizona  
Jeffrey Houser - University of Wisconsin  
James McGill - Embangweni Hospital, Malawi  
Emma Msaky - Tanzania Petroleum Development Corporation  
Catherine O'Reilly - University of Arizona  
Graeme Patterson - LTBP sediment study co-ordinator  
Robert Sinyinza - Zambia Dept. of Fisheries  
Peter Swarzenski - U.S. Geological Survey  
Mutanga Syampila - Zambia Dept. of Fisheries  
Dirk Verschuren - University of Ghent



Our team putting in a gravity corer.



Extracting a core for processing and shipment

#### Leg 2 (19-24 Jan, 1998)

Andrew Cohen - University of Arizona  
Manuel Palacios Fest - University of Arizona  
David Dettman - University of Arizona  
Jeffrey Houser - University of Wisconsin  
Kiram Lezzar - Univ. of West Brittany  
James McGill - Embangweni Hospital, Malawi  
Catherine O'Reilly - University of Arizona  
Robert Sinyinza - Zambia Dept. of Fisheries  
Mutanga Syampila - Zambia Dept. of Fisheries

#### Leg 3 (24-28 Jan, 1998)

Manuel Palacios Fest - University of Arizona  
Gaspard Bikwemu - University of Burundi  
David Dettman - University of Arizona  
Jeffrey Houser - University of Wisconsin  
Bombi Kakagozo - CRH/Uvira, DR Congo  
Kiram Lezzar - Univ. of West Brittany  
Louis Nahimana - Univ. of Burundi  
Gerard Ntungumburanye - IGEBU, Burundi  
Catherine O'Reilly - University of Arizona  
Tharcisse Songori - GEOMINES, Burundi  
Kelly West - LTBP Scientific Liaison Officer

Cruise operations, logistics and scientific activities all ran extremely smoothly on this cruise, thanks to the hard work of the many team members involved as well as the excellent crew. The productivity of the cruise can be judged by the fact that our original coring plan was vastly exceeded - successful and timely completion of the planned coring targets during all legs of the cruise allowed us to obtain cores from two additional deltas (the Luiche and Gatorongoro) which were not originally planned for study. Also the number of cores obtained significantly exceeded our expectations. A full cruise report has been completed.

*Andrew Cohen is a professor at the University of Arizona. He is contracted by LTBP to supervise the collection and analysis of cores from Lake Tanganyika for the Sedimentation Special Study.*