Abstract
Most field ecology is conceived and financed by scientists from urban areas but is actually carried out in rural areas. Field staff can either be imported from urban areas or recruited from local residents. We evaluated the advantages and disadvantages of involving rural residents as local technicians over a 25-year period at an active field research site in Costa Rica. We defined “local technicians” as local residents with no university education who acquired significant experience in field data collection, data management and/or laboratory work. We analyzed the experiences of incorporating these technicians into field research in developing countries from the points of view of scientist and of the local technicians themselves. Primary data were written responses from a standardized survey of 19 senior scientists and Ph.D. students, and results from standardized personal interviews with 22 local technicians. Researchers highlighted the advantages of highly-skilled technicians with minimal staff turnover, as well as the technicians knowledge of local ecological conditions. Local technicians considered the primary advantages of their jobs to be opportunities for continuing education training in science as well as cultural enrichment through interactions with people of different cultures. The main challenges identified by researchers were the lack of long-term funding for projects and extended training required for local technicians. Local technicians can be of great benefit to research projects by providing high-quality data collection at reasonable costs with low staff turnover. Over the last 25 years the research model at the field station we studied has evolved to the point that most long-term projects now depend heavily on local technicians. This model of involving local technicians in long-term research has multiple benefits for the researchers, the technicians and the local community, and could be adapted to a variety of settings in rural areas of developing countries.

Keywords
Local technicians, long-term tropical research, Costa Rica, La Selva Biological Station, local training.