

## Oral presentation

### Local knowledge of the biodiversity of three land management regions surrounding Boumba, Niger

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**Introduction.** As the need to preserve cultural and biological diversity is intensified, researchers are looking for reliable tools for assessing patterns of diversity and predictors of future trends(1). The use of traditional ecological knowledge (TEK) for rapid biodiversity assessment tools has been motivated not only by this need but also the want to include local communities in such research and to preserve cultural diversity(2). The village, Boumba, is located on the edge of Park "W," a tri-national park created in 1926 as a wildlife habitat. This area is a site of current conservation intervention as since the creation of the park there has been little monitoring or management and lands outside of the park have been left for want and locals are entirely distanced from the process of conservation. This study contributes to these efforts by employing a participatory research model to examine the region's biodiversity patterns while also testing the application of TEK as a rapid appraisal method for such conservation initiatives.

**Objectives.** This study examines the role of TEK in conservation through an ethnobotanical analysis of TEK combined with a comparative study of local plant diversity surrounding the village, Boumba, bordering Park "W," Niger.

**Methods.** Participatory fieldwork conducted in Niger periodically since July 2005, employed key-informant interviews, participant observation and group interview techniques to evaluate local knowledge of diversity. Beginning in July 2006 researchers alongside local participants used ecological techniques to survey the vascular plant diversity.

**Results.** Villagers accurately predicted local phytotype (3)richness and vegetation form between the regions habitat types. These predictions closely approximated an index of diversity using species richness. However, local predictions of diversity did not correlate tightly with various diversity indices.

**Conclusion.** These results demonstrate the ability and limitations of local TEK to predict phytodiversity patterns in the southwest region of Niger. Additionally they indicate that conservation priorities based on diversity indices are not locally understood, and could inhibit community participation in conservation activities.

Keywords: TEK, Ethnobotany, Phytodiversity indicators, Africa

#### Selected References

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2. Oliver I and Beattie AJ. 1993. A possible method for the rapid assessment of biodiversity. Conservation Biology 7: 562-568
3. Pretty J. 1995. Participatory learning for sustainable agriculture. World Development 23(8): 1247-1263
4. I use phytotype to refer to a species or group of species that have a single local language identification.

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