

Could we trust traditional ecological knowledge to establish a sampling strategy? Study of taro's diversity (*Colocasia esculenta* (L.) Schott) at a village and an archipelago's scale in Vanuatu. (Oral Presentation)

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Introduction

Since cultural diversity has been officially integrated into the concept of Biodiversity, traditional ecological knowledge (TEK) is more and more exposed as show windows.

Objectives

The objective of this paper is to question the value of these TEK when biologists establish their sampling strategy to inventory morphological and genetic diversity in an insular context.

Methods

Such a question appeals a multidisciplinary and a comparative approach. We have used tools and concepts from anthropology (interviews), agronomic sciences (31 morpho-agronomic standardized descriptors) and genetics (AFLP with 8 primer pairs). Results collected in the village of Vetuboso from Vanua Lava's island (north Vanuatu) were confronted to those of 3 other islands (Banks group) where languages are inter-understandable.

Results

In Vanuatu, taro's diversity is characterised by a narrow base and the absence of any geographical structure. It could mean that few clones were introduced by first migrants and that farmers unflaggingly exchange them between islands. 1. But where does this incredible morphological's diversity come from? Farmers take care of a clonal / sexual mixed system. For example in Vetuboso, from the 96 cultivars, 15% correspond to "changing taros" or "mutant taros". They could be identified by their names (the mother-plant name added with a determinant indicating the modification), or by their genetic fingerprints (high similarity between mutant couples). TEK translate the structure of morphological and genetic diversity in the village.

2. How travel people, plants, names and history of origin? On Gaua, Ureparapara and Mota, we inventoried local names, morphotypes and their correspondence with those from Vetuboso thanks to the same knowledgeable farmer. All occurrences could be found. When cultivars are popular, farmers always appropriate them saying they come from their island. Identity and history of origin of introduced cultivars has to be cautiously taken.

Conclusion

When biologists want to establish a sampling strategy, they could not always trust TEK. As specialists from the local, farmers are the best informants of their plants. Knowledge is unfortunately often limited to the island boundary.

Key-words: AFLP, agrobiodiversity, Banks group, inter-island exchange, morphotype, mutations genotype, named type, Vanua Lava, vegetative propagation,

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