

Cultivated plants in the Kaxinawá Indigenous Land of Nova Olinda, Acre, Brazil.

Authors: Lanza, Tomaz Ribeiro [1], Ming, Lin Chau [2], Haverroth, Moacir [3], Ferreira, Almecina Balbino [2].

The great diversity of plants currently known and used by man is a result of the coevolution that occurred during millennia between the native populations and the different ways in which they used it. In this long period the vegetable species supplied the alimentary, industrial, artistic, medical or even ritualistic needs of different peoples. In the midst of this dynamic interrelation, man learned to cure his illnesses and to make his food richer and more diversified. Research suggests that the traditional native orchards materialize a highly complex productive system, which requires a wide input of local agricultural knowledge and practices for its maintenance. In addition, many plant resources depend directly on human management in these agroecosystems to persist. In this sense, this study has as main objective to provide the valorization and the preservation of this knowledge on the forms of use and management of the plants that have been, over time, accumulated, selected and used by countless generations. The research is being carried out in the IT Kaxinawa of Nova Olinda (TIKNO), located in the Amazon Biome, municipality of Feijo, Acre. Brazil. Kaxinawa agriculture is an important mechanism for ensuring the supply of food to the community, and is based mainly on the management of capoeiras and fallow. These practices are closely associated with the wordview and local belief system, which aid decision-making and agricultural management practices. The survey of cultivated plants was carried out in 2016 through semi-structured interviews and on the spot visits in the productive areas. Four types of productive areas were identified, such as: scrubland, agroforestry yards, banana and temporary beach crops. A total of 30 agricultural crops were identified in 21 botanical families, with 111 varieties, with emphasis on cassava (Manihot esculenta Crantz) with 21 varieties, banana (Musa paradisiaca L.) with 18 varieties, maize (Zea mays L.) with 12 varieties and (Arachis hypogeae L.) with 8 varieties. The high agrobiodiversity observed in TIKNO shows the genetic and cultural richness of these traditional populations, and it is necessary to continue the studies that value the knowledge associated with this wealth.

Keywords: Agrobiodiversity, Amazon, Indigenous.

Affiliation:

1 - UNESP - São Paulo State University, Department of Horticulture - Faculty of Agronomic Sciences, Rua José Barbosa de Barros, nº 1780 - Fazenda Lageado, Botucatu, SP, 18610-307, Brazil; 2 - UNESP - São Paulo State University, Department of Horticulture - Faculty of Agronomic Sciences, Rua José Barbosa de Barros, nº 1780, Botucatu, SP, 18610-307, Brazil; 3 - Embrapa, Rodovia BR 364, Km 14, Zona Rural, Rio Branco, AC, 69900-970, Brazil

Remembering Mauka: biocultural diversity conservation and the case of the 'lost' Andean crop *Mirabilis expansa* (Ruíz & Pav.) Standl.

Authors: Gendall, Harriet [1], Sørensen, Marten [1], Theilade, Ida [2], Seminario Cunya,

Juan [3], Chalampuente Flores, Doris [4].

The so-called 'lost crop' "mauka" (Mirabilis expansa [Ruíz & Pav.] Standl.) is a highly endangered and chronically understudied species of root vegetable native to the Andes This in-depth ethnobotanical case study, carried out in collaboration with the International Potato Center (CIP) and the National Institute for Agricultural Innovation (INIA) in Peru, is the first to assess both reasons for the decline of the crop and approaches to effective conservation efforts. Emphasis is placed on farmers' perspectives, which were distilled from 40 interviews conducted with Andean farmers (26 actively cultivating mauka and 14 who were familiar with or had given up cultivating the crop). Mauka was found in Ancash, Huánuco and Puno - three regions of Peru that had previously been under-explored in terms of mapping the crop's distribution-and a total of 21 germplasm accessions were collected for ex-situ conservation; several of which constitute morphotypes new to scientific research. The 'lost crop' case study was framed by a broader discussion addressing processes inherent in biocultural diversity generation and loss, particularly with relation to agriculture; which found 'cultural memory' and 'situatedness' to be important considerations for the design of effective conservation projects. It is argued that despite suffering from severe genetic erosion and loss of associated ethnobotanical knowledge. mauka is worth conserving, and has greater potential than originally thought; specifically in a gastronomic context. As part of the study, mauka was introduced to chefs at Central Restaurant (Lima, Peru) - No. 4 of the World's 50 Best Restaurants in 2016 - who carried out gastronomic experiments with it and have now begun working with local farmers to 'revalue' this ancient crop and incorporate it into their Peruvian ecosystem-inspired menu.

Keywords: *Mirabilis expansa*, Mauka, Biocultural diversity, Lost crop, Crop conservation, Ethnobotanical knowledge, Cultural memory, Gastronomy, Novoandina.

Affiliation:

1 - University of Copenhagen, Department of Plant and Environmental Sciences, Thorvaldsensvej 40, Frederiksberg C, Copenhagen, DK-1871, Denmark; 2 - University of Copenhagen, IFRO, Rolighedsvej 25, Frederiksberg C, 1958, Denmark; 3 - Universidad Nacional de Cajamarca, Facultad de Ciencias Agrarias, Av. Atahualpa 1050, Cajamarca, Cajamarca, Peru; 4 - Universidad Técnica del Norte, Centro Agronómico Tropical de Investigación y Enseñanza, Universidad Técnica del Norte, Ibarra, Imbabura, Ecuador