

Ethnobiology

Meredith Welch-Devine
Anne Sourdril
Brian J. Burke *Editors*

Changing Climate, Changing Worlds

Local Knowledge and the Challenges
of Social and Ecological Change

 Springer

Chapter 7

Climate Change in a Floodplain of the Brazilian Amazon: Scientific Observation and Local Knowledge



Esther Katz, Annamária Lammel, and Marie-Paule Bonnet

Abstract In the Lago Grande de Curuaí, a floodplain of the Amazon River, located close to the city of Santarem (Brazil), the inhabitants have always adapted their activities (centered on agriculture, fishing, cattle raising) to the seasonal fluctuations of the water level. Historically, strong floods occurred about every 20 years, but recently, they have occurred more frequently, every 2 or 3 years, reaching water levels previously unrecorded. In recent years, dry seasons have also been drier. Scientists mainly attribute these changes to global climate change, which can be observed and measured at the scale of the Amazon basin. This chapter compares the scientific data with the observations, knowledge, and interpretations of the inhabitants of the Lago Grande. Local people do not connect directly floods, drought, and climate change, because at the scale of the floodplain the water level is little impacted by local rainfall. Environmental change cannot be dissociated from social, economic, and political changes. It is generating uncertainty, but floodplain dwellers are more able to adapt to it than other societies.

Keywords Brazilian Amazon · Floodplain · Climate change · Local knowledge · Interdisciplinarity

E. Katz (✉)

IRD (Institut de Recherche pour le Développement) – UMR 208 PALOC IRD/MNHN,
Paris, France

e-mail: Esther.Katz@ird.fr

A. Lammel

Université Paris 8-Vincennes-Saint-Denis – Laboratoire Paragraphe, Saint-Denis, France

M.-P. Bonnet

IRD (Institut de Recherche pour le Développement) – UMR 228 ESPACE-DEV,
Montpellier, France

© Springer Nature Switzerland AG 2020

M. Welch-Devine et al. (eds.), *Changing Climate, Changing Worlds*,
Ethnobiology, https://doi.org/10.1007/978-3-030-37312-2_7

123