Biocultural interactions in past and present Amazonian agroecosystems: Environments and organisms co-constructed by humans and nature

When: 14th of September 2010 at 6pm

Where: House of France, Embassy of France in Washington DC

Description: Free conference in English followed by a wine reception

Synopsis:

In a world increasingly dominated by humans, a major challenge confronting ecology is to effectively integrate humans into ecosystems, by analyzing the reciprocal interactions between ecological and social/cultural processes. The talk will examine these interactions, focusing on two cases.

First, Prof. McKey will explore biocultural coevolution between humans and a major tropical crop, manioc (also known as cassava). Cultural practices and natural selection have combined to produce surprising adaptations in this crop plant domesticated in Amazonia, and cultural variation has led to a spectacular polymorphism in the plant's major chemical defense against herbivores and pathogens.

Then, Prof. McKey will show how contemporary ecological processes and the past actions of pre-Columbian farmers have combined to construct unique ecosystems, in which the engineering activities of organisms produce self-organized mechanisms that maintain a landscape initially created, then abandoned, by humans. Both examples suggest surprising sources of ecological resilience in human-transformed systems, with lessons for the conservation of biological diversity in our increasingly 'gardenified' biosphere.

Registration: send an email to stagiaire.cnrs[at]ambafrance-us.org