

# Energy and Resources Group Spring 2008 Colloquium Series (ER295)

## April 1, 2009



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**56 Billion Years from Now: The problem of perpetuity and the persistence of long-lived entities within short-lived cultures**

**110 Barrows Hall / 4:00 p.m.**

Humans are currently removing species from the biosphere at rates commensurate with that of past mass extinctions, and global change only promises to exacerbate this biological pauperization. Although evolution will eventually replace lost biodiversity, recover from similar extinction events in the past required at least 10 million years. In light of the short time course of human history, we are effectively losing biodiversity forever. Biological conservation seeks to reduce the rate of loss by protecting potentially long-lived entities (i.e., species), but conservation must be understood in the context of dynamic, unstable societies which operate over much faster time scales. In this presentation I will discuss the problem of preserving potentially long-lived, valuable entities given the potential that human society has for comparatively fast and irreversible change. This discussion will focus on biological diversity but will be illustrated by examples of attempts to pass to the far future biological and non-biological entities that we deem valuable. I will explore reasons for preservation, methods societies have used and could use to preserve long-lived entities, and prospects for preserving that which humanity deems valuable enough to last “forever.”