
Session 1: Ecosystem Services and the Value of Biodiversity

Biodiversity and Human Evolution

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Biodiversity has been very important for people's life since the dawn of human evolution, but people have not been aware of it until recently. We, humans, have evolved with surrounding biodiversity, depended on it for all the aspects of life: food, tools, shelter, medicine, etc., because we are omnivores and we have material cultures.

For nearly 100 % of the 2 million years of the evolution of the Genus *Homo*, and about 99 % of the 200 thousand years of the evolution of *Homo sapiens*, we have lived as hunter-gatherers. However, with the invention of agriculture and animal husbandry, people started to discriminate species on the earth according to its immediate profitability. Weeds should be plucked out from the field, some animals should be killed as pests, and the forests should be converted into fields or pastures. But still people more or less understood the importance of biodiversity.

Then came the monetary economy. This system changed everything about human life: subsistence ecology, social systems, the ideas about human ability, the ideas about human-nature relationships and so on. During this history, human population increased with incredible speed. Economic development, pursuit of material satisfaction, values calculated by price in the market: those are the ideas invented during the age of expansion of human population.

Now, the human population exceeds 6.7 billion and humans are using up the energy which is equivalent to the energy sent by the Sun on 1.2 earths. This is not sustainable. We have to change our way of life, our ideas, and our value systems. We live in the very critical period. In this talk, I would like to give you a brief description of human-nature relationships during human evolution and to suggest how we should change the current situation.



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Academic Degrees

1983 DSc., The Doctoral course in Anthropology, Faculty of Science,
The University of Tokyo, Japan

1976 M.A., Dept. of Anthropology, Faculty of Science, the University of Tokyo, Japan

Field of Study

Behavioral ecology, evolutionary psychology,
especially on sexual selection and life history strategies