What Is Biodiversity?

It is hard to find a word that is more vague in biology than “biodiversity.” In fact, it is not really a biological term, in a technical sense. The term was invented for public relations purposes, possibly by E. O. Wilson, for the National Forum on BioDiversity held in Washington, D.C. in September, 1986. For public relations, it has worked admirably. This forum brought the world’s attention to the plight of living things on Earth, and the importance of living things to our survival. Biodiversity is the common household word that covers what ecologists and systematists (biologists who study the classification of living things and their evolutionary relationships) have been referring to for years with a variety of more technical terms. Ecologists have been studying and theorizing about ecological diversity for many decades before the National Forum appropriated the concept. Many biologists disdain the word biodiversity because it is simply old wines blended together in a new bottle, for mass consumption. Conservationists are careful to explain that biodiversity comprises three “levels”: genetic diversity within species, species or taxonomic diversity, and at the highest level, ecosystem diversity. But we don’t need such an all encompassing term. It simply refers to all life on Earth (and in outer space?). The word has become a bandwagon, and scientists have only scorn for bandwagons.

The biodiversity bandwagon, however, has brought tremendous good tidings and joy to biology. It has brought a Santa’s sleigh full of new programs and research grants. It has given our arcane studies and normally reclusive scientific lives new meaning and public recognition. It has gotten the attention of politicians and government officials. It has resulted in a dozen or more new scientific and environmental journals with the word “biodiversity” in the title (and no one bothers to ask what it means). These journals seek to apply the research of ecologists and evolutionary biologists to solving some of the world’s most pressing problems.

What caused this new awareness and concern within the space of one decade is hard to explain, but it was a combination of growing evidence of Earth’s human-caused maladies and some persuasive biologists coming at the right time. The influential National Academy of Sciences (U.S) and the Smithsonian Institution, which supported the National Forum, also decided that it was time to do more to support life on earth.

The sudden blossoming of awareness of the value of biodiversity has been repeated in Thailand, as well as in many other countries. The support of biodiversity studies by the National Science and Technology Development Agency and the Thailand Research Fund, and the creation of the Thailand Biodiversity Center, are evidence of this. What is urgently needed, however, is greater resolve in trying to stop the destruction of biodiversity in the first place. This is a much bigger battle, and we are still losing it.

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