



Spiderweb

“The hallmark of life is this: a struggle among an immense variety of organisms weighing next to nothing for a vanishingly small amount of energy. Life operates on only 10 percent of the sun’s energy reaching earth’s surface, that portion fixed by the photosynthesis of green plants. The free energy is then sharply discounted as it passes through the food webs from one organism to the next: very roughly 10 percent passes to the caterpillars and other herbivores that eat the plants and bacteria, 10 percent of that (or 1 percent of the

original) to the spiders and other low-level carnivores that eat the herbivores, 10 percent of the residue to the warblers and other middle-level carnivores that eat the low-level carnivores, and so on upward to the top carnivores, which are consumed by no one except parasites and scavengers. Top carnivores, including eagles, tigers, and great white sharks, are predestined by their perch at the apex of the food



Butterfly on Mustard

web to be big in size and sparse in numbers. They live on such a small portion of life’s available energy as always to skirt the edge of extinction, and they are the first to suffer when the ecosystem around them



Heron holding Vole



Lark



Alligator Lizard

starts to erode.”

The Fundamental Unit,
E.O. Wilson-The Diversity of Life