**Adapting to Climate Change**

Not only for our own survival. As within the earth's biosphere, all our human choices affect billions of species and almost every ecosystem.

Biologist Rob Dunn writes in *A Natural History of the Future*, “In the next twenty years, climatic conditions will emerge unlike any humans have ever been exposed to before.” In fifty years “hundreds of millions of species will need to migrate to new regions and even new continents in order to survive.”

As insects, fungi, bacteria, and other microbes with short life spans evolve more rapidly than humans, infectious species from the South and Central America tropical climates will migrate into warming areas of the United States. And from tropical areas of Africa and Asia into European countries.

As we have learned that we must adapt to the mutating COVID-19 virus, we must also learn to live with (and learn from!) the biodiversity of insects and microbes from the earth’s warmest climates. As these organisms will be moving into our warming cities.

Trying simply to “get rid of” insect and microbial species that may harm us will kill billions of organisms but will also enable species to mutate and develop resistance to our poisons. Moreover, relying on pesticides will kill insects that protect our crops and sustain our ecosystems, as well as many of the micro-organisms that keep our bodies healthy.

To survive the ecological crisis we have created, Dunn tells us, we must learn to “value the rest of life and the insights that arise from an understanding of that life.” We must understand the evolving nature of the earth’s biosphere and the healthy biodiversity of our bodies, homes, yards, parks, rivers, seas, and even the water we drink and the air we breathe.

To give one striking example, termites are not simply a threat to the wood in our buildings. Termites have much to teach us. They survive among us by caring for and passing on to their next generation the micro-organisms they require to digest the cellulose they eat for nourishment.

We, too, require micro-organisms to maintain our immune systems, digest our food, resist invading parasites, and likely for many other benefits we have yet to identify. Which is why in a healthy human body, there are as more microbial cells than oar own cells. Each person is literally a community of life, an ecosystem within the earth’s biosphere.

**We cannot prevent global warming nor can we win a war against bugs and microbes. We will only survive as a species by learning from and adapting to nature’s evolving biodiversity.**

*A Natural History of the Future: What the Laws of Biology Tell Us about the Destiny of the Human Species* (Basic Books, 2021).