

Our Bodies, Our Planet: A Parasite's View of Human History

Marcus Hall

My book project at the Carson Center explores the role of parasites in human history. Human parasites, ecto- and endo-, micro- and macro-, come in all forms and sizes, including single-cellular protozoa as well as multi-cellular worms and arthropods, many of which are hardly visible to the naked eye. Today eleven million Germans host roundworms, forty million Americans feed pinworms, ten million East Asians carry intestinal flukes. Ninety-seven percent of us play host to *Demodex*, a genus of tiny mites that snuggle in hair follicles around our eyes. A well-trained parasitologist can find at least fifty different kinds of common parasites in a single person, with our varied diets and multiple habitats meaning that *Homo sapiens* can carry more parasites than any other creature. We are instinctually repulsed by these little free-loaders, but what collateral effects to they have on our lives and lifestyles, culture, politics, and dreams?

The book's premise is that over the long run, creatures living in and on us have been altering and even improving *our* lives in their efforts to improve *their* lives. *Our Bodies, Our Planet* opens with the enigma of amazing human longevity on the island of Sardinia, coupled with the fact that most of today's oldest Sardinians suffered inordinately as children from various infectious diseases, malaria being one the most serious. Could the microbes and parasites confronted by Sardinians be responsible for promoting their greater fitness and longer life? A parasite, after all, would seem to thrive if its host thrives, with successful parasites ultimately promoting healthy hosts. Although disease organisms have been widely identified as crucial factors in the human past, there has been little acknowledgment or exploration of the role that symbiosis—groups of co-dependent organisms—plays in human affairs. My chapters address with case studies the history of parasitology, the history of parasitized humans, the aftermath of attempting to eradicate parasites, and the history of humans acting like parasites—all with implications for our own health and that of our planet. Scientific laboratories are just now uncovering an amazing microbial universe that exists in our soils, oceans, atmospheres, and bodies, and I hope to show how such insights can enrich our human story while providing new perspectives on health, conservation, and global studies.