Prologue

The Sanjō Guest House, where I spent the summer of 2013, is located in the middle of the Hongō campus of Tokyo University. It stands near a garden, the Ikutokuen, which was built in the 1630s in what was then the Edo residence of the powerful Maeda Toshitsune, domainal lord (*daimyō*) of one of the wealthiest regions of Tokugawa Japan, Kaga.[1] The garden expands around a pond shaped like the character 心, or *kokoro* ("heart-mind"), today known by most as "Sanshirō's pond" (Sanshirōike) from the name of the protagonist of Natsume Sōseki's novel.[2] The vegetation around the pond is so exuberant that one cannot help but perceive a sense of disordered and disquieting wilderness. At least, that is what I usually felt when I walked the narrow and uneven paths around the lake. It is populated by a variety of birds: crows, cuckoos, thrushes, woodpeckers, ibises, kingfishers, bushwarblers, rufous turtledoves, and a bevy of green parrots. One night I even met a Japanese raccoon dog (*Nyctereutes procyonoides viverrinus*), or *tanuki*, as it is called here, protagonists of a mass of folktales that describe them as creatures endowed with supernatural powers—mischievous tricksters, masters of disguise, often portrayed with portentously huge testicles.

At a closer look, however, the disordered luxuriance of the garden is far from being a sign of its wilderness. In the trunk of many trees and among short herbs, in fact, one can spot plastic labels with the names of many of the plants growing there. These tags catalog the vegetation of the garden in a precise inventory of its natural riches. They represent an odd contrast with the first impression of wilderness it gives. They suggest design, planning, artifice, and, most important, dominion over nature. If you visit the parks of Tokyo in search of an improbable relief from the sultriness of Japanese summer, you will have the same odd experience: a sense of disordered wilderness that vanquishes as soon as you notice labels bearing the name of trees and herbs, sometimes with even the Latin scientific name attached.

Knowledge of the natural world is as old as human beings. Information on the nutritional, curative, and venomous properties of plants constituted a matter of life or death for early *Homo sapiens*. Even today, biologists routinely use the "botanical" knowledge of tribes of hunter-gatherers in Southeast Asia, Africa, and South America to explore the remotest recesses of the last surviving rainforests. But the kind of knowledge natural sciences like botany and zoology produce

is distinct. It parcels an ecosystem in discrete elements, which are isolated, decontextualized, analyzed, sectioned, objectified as pictorial, dried, or embalmed samples, experimented upon, manipulated, transformed, copyrighted, and often reproduced and commercialized in mass quantities.

Although in the last decades a variety of "green" thinkers and movements have underlined the inseparability and imbrication of human societies and the environment, we are still largely confident of the modern paradigm that sees human beings as distinctly separated from the natural world. In the age of the Anthropocene, the disavowal of our embeddedness with nature prevails. We see ourselves as destined to exercise our dominion over nature. And in spite of concrete evidences of the catastrophic impact we have on the environment, today "the fully enlightened earth radiates disaster triumphant."[3]

Historians of science locates the origin of this modern paradigm in the Renaissance period, part of that long and complex ensemble of social and intellectual processes clumped together in the rubric of the Scientific Revolution. Natural philosophers of early modern Europe increasingly isolated species from their ecosystems, objectified them in atlases and breeding experiments, and commodified them as resources for culinary consumption, pharmacology, agriculture, industry, and entertainment. According to this canonical view, with the expansion of European power during the age of empires this paradigm globalized as traditional (meaning "backward") cultures like, for example, Japan and China embraced the Western sciences as integral part of their modernizing efforts in the late nineteenth century. As a result, whether to glorify or denounce the revolutionary effects of scientific modernity in the last two centuries, the "enlightening" of the world is always and indisputably a *Western* and, in particular, European undertaking.

This book aims to correct this assumption. It demonstrates that well before the modern age, during the Tokugawa period (1600–1868), Japan began a process of desacralization of the natural environment in the form of a systematic study of natural objects that was surprisingly similar to European natural history without being directly influenced by it. This process was carried out by scholars invading pristine regions to survey the vegetal and animal species living in Japan and classify them as discrete entries of dictionaries and encyclopedias or as objects to collect, analyze, exchange, exhibit, or consume as cognitive, aesthetic, or entertaining commodities. Originally framed as *honzōgaku*—a field of study of Chinese origins ancillary to medicine, devoted to the pharmacological properties of minerals, plants, and animals—this discipline evolved into a very eclectic field encompassing vast arrays of practices, theories, conceptualizations, and

goals. Its evolution, I here argue, derived from its internal development as much as from the deep transformations of Tokugawa society and of the socioprofessional trajectories of scholars in that society. Many of the practices, institutions, and knowledges of *honzōgaku* were not lost or abandoned when the Western sciences were introduced in the Meiji period (1868–1912) to sustain the modernization of Japan but would be rather translated, adapted, and incorporated in the language and forms of the new disciplines of botany, zoology, and biology.

When the Maeda compound in Hongō was turned into public land and given to the Ministry of Education to edify the new facilities of the Tokyo Igakkō and the Tokyo Kaisei Gakkō—soon to be fused in 1877 as the University of Tokyo—the Ikutokuen was a wasteland. It would be progressively reduced to its actual size and the maintenance of its vegetation put under the guidance of the center for botanical research of the university along with the Koishikawa garden in Hakusan. In all probability, the tags domesticating the wilderness of its trees and plants were placed then. However, the Maeda were domainal lords who in the Tokugawa period also practiced as amateur scholars of *honzōgaku*. Who knows if they tagged the vegetation around the heart-shaped pond too?