Humans have always been embedded in coupled human and natural systems (CHANS), and never more so than now when human actions dominate many, perhaps most, of earth’s ecosystems. The complexity of coupled systems is formidable, with multiple dynamic interactions across space and over time. Perhaps one of the most effective ways to illustrate the dynamics of such CHANS is to immerse oneself fully into one. In this main body of the book, we delve into telling the story of our model CHANS: the Wolong Nature Reserve for giant pandas in southwestern China. We tell the story from multiple perspectives, drawing on diverse disciplines and approaches. Our goal is to take the reader to Wolong’s vibrant and dynamic world, providing a glimpse into this remote and majestic place. We seek to weave a tapestry depicting how and why human–nature interactions unfold as a series of intricate patterns and processes related to the long-term sustainability of this globally important system.

In Chapter 3, Hull et al. provide an overview of Wolong Nature Reserve, including a historical and geographic context for understanding Wolong’s place in China and the world. They describe the unique geomorphology that has given rise to the complex topography of this reserve, the result of its placement in a hotbed of tectonic activity. They also introduce Wolong as a global biodiversity hotspot, with high species richness across numerous taxa. The chapter then highlights the importance of Wolong for panda conservation, containing a far larger number of wild pandas than any other reserve. They also provide background information on the vibrant human community in the reserve, including the human history, cultural underpinnings, and use of and impact on natural resources. They close the chapter with a discussion of the history of management of human–nature interactions in Wolong and an overview of methods used by our research team for understanding such complex interactions.

In Chapter 4, Hull et al. laid the foundation built in the earlier chapters to investigate an important yet understudied theme in coupled human and natural systems research—interactions between humans and wildlife. Here, they integrate diverse sources of data to analyze patterns of coexistence and competition between pandas and people in Wolong. They bring to light factors that have contributed to long-term coexistence between people and pandas. Examples include the panda’s natural avoidance of direct interactions with people and its need for a relatively small amount of space. Zoning regulations in the reserve further encourage spatial segregation between pandas and people. Hull et al. highlight the mechanisms and consequences of competition between people and pandas that result from activities such as timber harvesting, fuelwood collection, and livestock grazing. They also offer recommendations for policy to promote coexistence between people and pandas, such as promoting natural forest recovery and improving
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