PART III
Cod

The story of cod is dramatically different from that of sardines and anchovies because physical oceanographic signals are weak and overfishing apparent at every stage. This story is also related differently than others in this book. The following chapters on cod differ in length, in structure, and in the way evidence is presented because the principle authors are historians, not scientists. They take great pains to explain historical epistemology, which they would not have done in a text written for colleagues in their own field. Often, the different disciplines ascribe similar concepts with radically different meanings. These chapters help to clarify the differences between historical and scientific perspectives, in hope of developing a common understanding.

Unlike the cumulative body of sardine-anchovy research, now half a century old, the work communicated by Jeff Bolster, Karen Alexander, and Bill Leavenworth is relatively new. The estimate of cod biomass on the Scotian Shelf in 1852 was first presented at the Scripps conference in 2003. Like the sardine-anchovy research, it involved intense collaboration, but investigators expanded the interdisciplinary paradigm well beyond science. The historians discovered, extracted, analyzed, assembled, and linked data sets in formats that marine scientists could then employ in population models. More than a recapitulation of previous work, this chapter provides
the rationale for historical analysis. It reintegrates scientific results and his-
torical analysis. Thus, the biomass estimate derives relevance and power
from the testimony of long-dead fishermen.

The Scotian Shelf study refutes long-held myths about the limitless
abundance of the oceans and the inability of traditional fishers to harm re-
gional fish populations. It proves that reliable historical data sets may be
modeled, and that numerical results thus obtained can agree reasonably well
with estimates based on pure science. Furthermore, the estimate helped
confirm a consistent decline of more than 90 percent from historical levels
of abundance for almost all heavily fished marine species and ecosystems
examined so far, a stunning finding with global implications. Similar stud-
ies are now rapidly expanding our historical reach for other species and fish-
eries around the world.

MacCall and Bolster, Alexander, and Leavenworth celebrate achieve-
ments, while Field and colleagues and Daniel Vickers emphasize the limi-
tations of understanding in terms that are surprisingly similar. Biological
and physical unknowns and unknowables, historical contingency, attenua-
tion and lacunae, and the staggering entanglement of ecological and social
processes confound the predictive ability of scientific models. Moreover,
change takes place so rapidly today that the adaptive powers of individual
species, ecosystems, and human cultures may now be outstripped.

Vickers’s chapter presents a disquisition on historical thought, context,
and uncertainty that is at once magisterial and profoundly personal. As a
history professor at Memorial University, he saw the Newfoundland cod
fishery collapse firsthand. His chapter begins with his own memories and
reflections about that crisis and ends with deliberations on its political and
cultural underpinnings. Like Bolster, Alexander, and Leavenworth, he dis-
tinguishes between the uses of the past based on accumulated evidence and
the uses of history, which is the story of humanity ever filtered and inter-
preted through our own sense of ourselves. He cautions that cultural values
are historical—they cannot be ignored with impunity in scientific models
or in policymaking—and that people who are separated from their liveli-
hood by historical contingency as much as by institutional folly and per-
sonal choice deserve compassion.