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Smithsonian Library, Washington, D.C.; and the G. Blunt-White Library, Mystic Seaport Museum, Mystic, Connecticut, also house fisheries records, and some documents are scattered among local historical societies, museums, libraries, and private collections. Because manuscripts are cataloged differently in different archives, citations below are idiosyncratic. Archivists who know the collection are indispensable and should be consulted from the first. A full archival citation will be given for fishing logs quoted herein.

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**Epilogue**

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Karen E. Alexander is a historical fisheries scientist at the University of New Hampshire. She has coordinated the Gulf of Maine Cod Project since 2002, using her degrees in mathematics and history to facilitate communications between the project’s scientists and historians. Co-editor of *Journal of a Cruise* by Captain David Porter, she also served as an advisor on a US Supreme Court case as well as on several documentary films, and currently writes on maritime history and fisheries science.

W. Jeffrey Bolster is an associate professor of history at the University of New Hampshire, best known for his prize-winning *Black Jacks: African American Seamen in the Age of Sail*. A maritime historian increasingly fascinated by changes in the sea, his research has shifted to marine environmental history. Bolster is part of the interdisciplinary Gulf of Maine Cod Project, and has contributed to their papers in *Frontiers in Ecology and the Environment* and *Fish and Fisheries*, among other journals. His solely authored papers have appeared in *Environmental History* and *The American Historical Review*. He is currently writing a book on the environmental history of the northwest Atlantic in the age of sail.

Francisco Chavez is a biological oceanographer with interests in how climate variability and change regulate ocean ecosystems on local and basic scales. He was born and raised in Peru, has a BS from Humboldt State and a PhD from Duke University. He was one of the first members of the Monterey Bay Aquarium Research Institute (MBARI) where he pioneered time series research and the development of new instruments and systems to make this type of research sustainable. Chavez has authored or co-authored more than a hundred peer reviewed papers, with ten in *Nature* and *Science*. He is a past member of the National Science Foundation Geosciences Advisory Committee, has been heavily involved in the development of the US Integrated Ocean Observing System (IOOS), and is a member of the governing board of the Central and Northern California Coastal Ocean
Observing System (CeNCOOS) and the Science Advisory Team for the California Ocean Protection Council. Chavez is a Fellow of the American Association for the Advancement of the Sciences, honored for distinguished research on the impact of climate variability on oceanic ecosystems and global carbon cycling. He was named Doctor Honoris Causa by the Universidad Pedro Ruiz Gallo in Peru in recognition of his distinguished scientific career and for contributing to elevate academic and cultural levels of university communities in particular and society in general.

Jamie M. Cournane, a postdoctoral research fellow at the University of New Hampshire and Environmental Defense Fund, currently serves on the Atlantic Herring Plan Development Team of the New England Fishery Management Council. She has worked most recently on mapping hot spots of river herring bycatch by trawlers and seiners that target Atlantic herring. For her doctoral work, she assessed spatial patterns of groundfish biodiversity in the Gulf of Maine and Georges Bank over the past hundred years and emphasized that historical perspectives provide baselines to measure success in the current spatial management of fisheries.

Jon M. Erlandson is an archaeologist, professor of anthropology, and Knight Professor of Arts and Sciences at the University of Oregon (UO), where he directs the Museum of Natural and Cultural History. He earned his PhD from the University of California, Santa Barbara in 1988, and taught at the University of Alaska–Fairbanks before joining the UO faculty in 1990. With sixteen books and more than two hundred scholarly articles published, Erlandson’s research focuses on the origins and development of maritime societies, human migrations, the peopling of the Americas, and the historical ecology of marine fisheries and coastal ecosystems.

David B. Field is currently an assistant professor in marine sciences at Hawaii Pacific University. He has worked extensively in reconstructing past changes in climate and marine populations from laminated marine sediments as well as calibrating and determining the fidelity of the fossil records with historical records and plankton tows. He has used planktonic foraminifera from the Santa Barbara Basin to distinguish the warming trend from natural variability in the California Current. Investigations with fish debris have been used to infer past variations in fish populations. Field has also lived and worked in Peru as part of an international group of investigators (Paleopeces) reconstructing climate and ecosystem change in the Peru-Chile Current.
Marah J. Hardt, founder of OceanInk, is a research scientist, writer, and consultant. A coral reef ecologist by training, she keeps one foot wet in the field, while the other roams the worlds of creative storytelling and problem-solving, with a focus on ocean conservation and climate change issues. Her interdisciplinary background and effective communication skills allow her to work with diverse thought leaders, from scientists to social entrepreneurs, to create innovative solutions to pressing conservation problems. Her articles have appeared in academic and popular media, such as *The American Prospect*, *Ecology Letters*, and *Scientific American*.

Jeremy B. C. Jackson is the Ritter Professor of Oceanography and Director of the Center for Marine Biodiversity and Conservation at the Scripps Institution of Oceanography in La Jolla, California, and Senior Scientist Emeritus at the Smithsonian Tropical Research Institute in the Republic of Panama. Previously he was Professor of Ecology at Johns Hopkins University. He is the author of more than 150 scientific publications and author or editor of seven books. His research includes human impacts on the oceans and the ecology and paleoecology of tropical and subtropical marine ecosystems. Dr. Jackson is a Fellow of the American Academy of Arts and Sciences and the American Association for the Advancement of Science and recipient of numerous international prizes and awards. His work on overfishing was chosen by *Discover* magazine as the outstanding scientific achievement of 2001.

Carina B. Lange was born and raised in Buenos Aires, Argentina. She received her undergraduate degree in biology from the University of Buenos Aires, followed by a doctorate in marine biology at the same university. She left Argentina in 1984 with a UNESCO scholarship for the Scripps Institution of Oceanography in California. There, her main research focused on laminated Quaternary sedimentary records as well as phytoplankton time-series studies from off California. Lange is the author of numerous scientific articles on diatom ecology and taxonomy, diatom fluxes to the seafloor and preservation in the sediments, as well as paleoreconstructions from sedimentary archives worldwide. Since September 2001 Lange has been a professor of oceanography at the University of Concepción, Chile, where she is involved in graduate teaching, scientific research, and academic administration. She is also the director of the Center for Oceanographic Research in the eastern South Pacific (COPAS), hosted at the University of Concepción, and the leader of the project Oceanographic Applications for the Sustainable Economic Development of the Southern Region of Chile. In
addition, Lange holds a position as research associate at Scripps. Currently, one of her main lines of research focuses on paleoceanographic and paleoclimate changes of the Late Quaternary and the Holocene in the eastern South Pacific.

**William B. Leavenworth** is a marine environmental historian for the Gulf of Maine Cod Project at the University of New Hampshire, and a professional sailor. In 1976 he shipped on the tall ship *Gazela Primeiro*, and stayed in the sailing profession for twelve years. Later he obtained a doctorate in history from the University of New Hampshire, with a dissertation in colonial New England maritime environmental history. His firsthand knowledge of the sea has been key to interpreting historical fisheries records, and he has been with the Gulf of Maine Cod Project since 2001. In addition to scholarly articles concerning historic cod fisheries in the Northwest Atlantic, he has published short stories and poetry.

**Heike K. Lotze** is an assistant professor in marine biology at Dalhousie University in Halifax, Canada, and holds the Canada Research Chair in Marine Renewable Resources. Trained in marine ecology and biological oceanography, she has a strong interest in how human activities alter marine populations and ocean ecosystems. In her research, she tries to reconstruct the long-term history of human-induced changes in the ocean and analyze the consequences on the structure and functioning of marine ecosystems and the services they provide for human well-being. Lotze received a masters in biology in 1994 and a doctorate in biological oceanography in 1998 from Kiel University in Germany. She has worked as a postdoctoral fellow and research associate at Dalhousie University in Halifax, Canada, and the Alfred-Wegner Institute for Polar and Marine Research in Bremerhaven, Germany, and has participated in several working groups at the National Center for Ecological Analysis and Synthesis in Santa Barbara, California.

**Alec D. MacCall** has worked on fish population dynamics for more than forty years. He has focused on assessment and management of California’s coastal pelagics and long-lived groundfish, and has contributed to the successful rebuilding of several depleted stocks (California sardines, Pacific mackerel, and bocaccio rockfish). He has written extensively, and has contributed to assessment methodologies, ecological modeling, effects of interdecadal climate variability, and development of adaptive harvest control policies. His current work focuses on developing data-limited stock assess-
ment methodologies. He received a doctorate in oceanography from the University of California’s Scripps Institution of Oceanography in 1983. He joined the National Marine Fisheries Service’s Southwest Fisheries Science Center (NMFS-SWFSC) in 1982, after working twelve years for the California Department of Fish and Game. From 1988 to 1997 he was director of the NMFS-SWFSC Tiburon Laboratory. He currently holds the position of Senior Scientist at the NMFS-SWFSC Laboratory in Santa Cruz, California.

Loren McClenachan is a NSF International Postdoctoral Fellow at Simon Fraser University. She received her doctorate in marine biology from the Scripps Institution of Oceanography, where she researched historical changes in tropical marine ecosystems. Her current work addresses issues in historical ecology and marine conservation.

Richard D. Norris works on the evolutionary dynamics of ocean plankton using the marine microfossil record preserved in deep ocean sediments. These studies focus both on mechanisms of extinction and speciation as well as on biological responses to past periods of “extreme climate” and mass extinctions. In addition, he studies historical records of human impacts on modern marine ecosystems. Norris was an undergraduate in Earth Sciences at UC Santa Cruz, obtained a master of science at University of Arizona, Tucson, and a doctorate in geology at Harvard University. In between these academic programs he worked on the Condor Recovery Project for the State of California and served as director of the NRS Granite Mountain Reserve for the University of California. Following graduate training, he was a research scientist at Woods Hole Oceanographic Institution, on Cape Cod, Massachusetts, until he moved in 2002 to UC San Diego as a full professor at Scripps Institution of Oceanography.

Randy Olson earned his PhD at Harvard University and became a professor of marine biology before moving to Hollywood for his second career as a filmmaker. Since obtaining an MFA from the University of Southern California School of Cinema, he has written and directed the critically acclaimed films *Flock of Dodos: The Evolution-Intelligent Design Circus* (Tribeca 2006, Showtime) and *Sizzle: A Global Warming Comedy* (Outfest 2008), and co-founded the Shifting Baselines Ocean Media Project, a partnership between scientists and Hollywood to communicate the crisis facing the ocean. He is the author of *Don’t Be Such a Scientist: Talking Substance in an Age of Style*. 
Daniel Pauly is a French citizen who completed his high school and university studies in Germany; his doctorate (1979) is in fisheries biology, from the University of Kiel. After many years at the International Center for Living Aquatic Resources Management (ICLARM), in Manila, Philippines, Pauly became in 1994 a professor at the Fisheries Centre of the University of British Columbia, of which he was the director from 2003 to 2008. Since 1999, he has also been Principal Investigator of the Sea Around Us Project, funded by the Pew Charitable Trusts, and devoted to studying and documenting the impact of fisheries on the world’s marine ecosystems (www.seaaroundus.org). The concepts, methods, and software he codeveloped, documented in more than five hundred publications, are used throughout the world, following multiple courses and workshops given in four languages on all five continents. This applies especially to the Ecopath modeling approach and software (www.ecopath.org) and FishBase, the online encyclopedia of fishes (www.fishbase.org). This work is recognized in various profiles, notably *Science* (April 2002), *Nature* (January 2003), *New York Times* (January 2003), and by numerous awards, notably the International Cosmos Prize, Japan (2005), the Volvo Environmental Prize, Sweden (2006), and the Excellence in Ecology Prize, Germany (2007).

Stephen R. Palumbi is director of the Hopkins Marine Station and the Jane and Marshall Steele Jr. Professor of Marine Science at Stanford University. He has lectured extensively on human-induced evolutionary change, has used genetic detective work to identify whales for sale in retail markets, and is working on new methods to help design marine parks for conservation. His latest book is an unusual environmental success story called *The Death and Life of Monterey Bay: A Story of Revival*. Palumbi holds a doctorate from the University of Washington and a B.A. from Johns Hopkins University. He has received numerous awards for research and conservation, including a Pew Fellowship in Marine Conservation. He lives in Pacific Grove, California, and is based at Stanford’s Hopkins Marine Station.

Andrew A. Rosenberg is Senior Vice President for Science and Knowledge at Conservation International and a professor in the Institute for the Study of Earth, Oceans, and Space at the University of New Hampshire where, prior to April 2004, he was dean of the College of Life Sciences and Agriculture. From 2001 to 2004, he was a member of the US Commission on Ocean Policy and continues to work with the US Joint Ocean Commis-
Rosenberg was the deputy director of NOAA’s National Marine Fisheries Service from 1998 to 2000, the senior career position in the agency, and prior to that he was the NMFS Northeast Regional Administrator. Rosenberg’s scientific work is in the field of population dynamics, resource assessment, and resource management policy. He holds a bachelor of science in fisheries biology from the University of Massachusetts, a master of science in oceanography from Oregon State University, and a doctorate in biology from Dalhousie University.

**Kaustuv Roy** is a professor at the University of California, San Diego. His research focuses on macroecology, macroevolution, and conservation biology.

**Carl Safina** writes about how the ocean is changing. A MacArthur fellow, Pew fellow, and Guggenheim fellow, he is adjunct professor at Stony Brook University and president of Blue Ocean Institute. His books include *Song for the Blue Ocean* and *The View from Lazy Point: A Natural Year in an Unnatural World*.

**Enric Sala** obtained his doctorate from the University of Aix-Marseille, France. After an early career at the Scripps Institution of Oceanography in San Diego, California, he returned to Spain to sit on the Spanish National Council for Scientific Research (CSIC). Now based in Washington, DC, as the head of National Geographic’s global marine conservation initiative, Sala dives all over the world to explore marine ecosystems and promote their conservation.

**Paul E. Smith**, now retired, served as Supervisory Fisheries Biologist at NOAA and was adjunct professor of biological oceanography at the Scripps Institution of Oceanography.

**Tim D. Smith** is a fishery biologist turned environmental historian, interested in the effects of harvesting on long-lived species, including fish and seals, and especially cetaceans. He is retired from NOAA and has been active in the History of Marine Animal Populations project, part of the Census of Marine Life.

**U. Rashid Sumaila** is director of the Fisheries Centre at the University of British Columbia. He specializes in bioeconomics, marine ecosystem valuation, and the analysis of global issues such as fisheries subsidies; illegal,
unreported, and unregulated fishing; and the economics of high and deep seas fisheries. He has published articles in several journals, including Science, Nature, and the Environmental Economics and Management. Sumaila has received invitations to give talks at the United Nations, the White House, the Canadian parliament, and the British House of Lords. His work has been cited by, among others, the Economist, Boston Globe, International Herald Tribune, Financial Times, and Globe and Mail.

Daniel Vickers works in the fields of Early American, Atlantic, and maritime history. He taught at the Memorial University of Newfoundland for fifteen years before moving to the University of California, San Diego in 1999 and to the University of British Columbia in 2006, where he served as head of the department until 2011. His first book, Farmers and Fishermen: Two Centuries of Work in Essex County, Massachusetts, 1630–1850, won the Dunning Prize of the American Historical Association, and he has recently published a second, Young Men and the Sea: Yankee Seafarers in the Age of Sail. He is also the editor of the Blackwell Companion to Colonial American History and The Autobiography of Ashley Bowen.

Christine R. Whitcraft is an assistant professor in the Biological Sciences Department at California State University, Long Beach (CSULB). She earned a bachelor of art at Williams College, a doctorate at Scripps Institution of Oceanography, and was a CALFED Bay-Delta Program postdoctoral fellow with the San Francisco Bay National Estuarine Research Reserve before coming to CSULB in 2008. As a biological oceanographer and wetlands ecologist, she teaches a variety of ecology classes and researches the impacts of human activities on coastal ecosystems.
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