

RED LIGHT TO STARBOARD: RECALLING THE EXXON VALDEZ DISASTER. By ANGELA DAY. Pullman: Washington State University Press, 2014. ISBN 978-0-87422-318-7. xii + 266 p., map, b&w illus., notes, bib., index. Softbound. U.S.\$19.95.

Strongly operative in this book's title is the active verb, "recalling." A quick survey of about 100 books on my shelves suggests that using verbs in titles is rare, except among gifted storytellers whose narratives work well when read aloud: John McPhee (*Coming into the Country*, 1976; *Looking for a Ship*, 1990); Patrick McManus (*They Shoot Canoes, Don't They?*, 1981); Farley Mowat (*Never Cry Wolf*, 1963); Seth Kantner (*Shopping for Porcupine*, 2008); Karen Brewster (*The Whales They Give Themselves*, 2004); and Richard Feynman (*Surely You're Joking, Mr. Feynman*, 1985). Second, "recalling" focuses upon combined research and storytelling that this author undertook in stages (Preface, p. ix–xii). Third, "recalling" underscores our tendency to observe certain anniversaries. Both 25th and 50th anniversaries predictably stimulate people to review what wisdom has survived, even ripened, from events or discoveries one and two human generations earlier.

This book's publication coincided with the 25th anniversary of the night that the supertanker *Exxon Valdez* ran aground on Bligh Reef on Good Friday, 24 March 1989. An estimated 11 million gallons (42 million litres) of Arctic crude oil escaped through the gash in the tanker's hull, then spread southwestward through Prince William Sound (PWS), and on past the Kenai Peninsula toward Kodiak Island. Just three days after this 25th anniversary, many Alaska residents and geologists worldwide observed the 50th anniversary of Alaska's Good Friday Earthquake of 27 March 1964, which was triggered by rock fractures directly beneath northwestern PWS.

Readers who don't already know will learn that *Red Light's* physical setting is as compelling as its narrative. PWS in southcentral Alaska is geologically, geographically, biologically, and culturally a special place. Perched on the Pacific "Ring of Fire," the Chesapeake Bay-dimensioned Sound has for millions of years been a focus of crustal tectonic movements, by which the dense marine Pacific Plate dives relentlessly beneath one edge of the more buoyant continental crust of the North American Plate. The Chugach Mountains are thrust upward by this crustal subduction, forming the peaks surrounding most of the Sound. Before the Last Glacial Maximum began to relax its grip on Earth some 18 000 years ago, much of PWS was covered by coalescing streams of freshwater glacial ice derived from snow falling on higher elevations in the Chugach Mountains. Now as then, PWS and the Chugach Range sharply demarcate humid northern Pacific marine climates from drier interior terrestrial climates to the north. About 13–15 000 years ago (130–150 centuries before present) recession of ice shelves and tidewater glaciers permitted human pioneers from Asia and Beringia to live year round in PWS from its marine and coastal resources. Upon the

arrival of Eurasian explorers, Russian fur exploiters, and written history in the 18th century CE, PWS entered a two-century series of rushes to exploit first one, then another, of its local renewable and non-renewable resources. These stampedes were punctuated by dramatic, often ephemeral, uses of anchorages, ports, drainages, and mountain passes as gateways to longer routes north of coastal mountains, which linked the Pacific Ocean to subarctic and Arctic mineral resources.

Measured in scales of drama, costs, and engineering challenge, all the earlier routes taken by trails, roads, railroads, and airplanes between the northern Pacific coast and the Interior/Arctic were dwarfed by the Trans-Alaska Pipeline System (TAPS), which the U.S. Congress authorized by the margin of a single vote in 1973 (p. 77–78). TAPS began delivering Arctic crude oil to its marine terminal across the bay from the post-earthquake townsite of Valdez in 1977. Large and very large crude carriers load at the terminal, and are piloted and escorted through PWS to the Gulf of Alaska (map, p. xii). For 11 years and 8 months the pipeline and tanker transport system functioned almost flawlessly, without catastrophic failures feared by critics of the system.

Red Light to Starboard shows readers in detail how the spill and its aftermath changed the lives of people who depended on renewable resources in PWS, notably fishermen organized as the Cordova District Fishermen United (CDFU). From the time when the industry first disclosed its proposed strategy, CDFU questioned the wisdom of transferring crude oil from the TAPS pipeline to tankers for transport through the ecologically sensitive PWS to the open Pacific Ocean. Many fishermen's preferred alternative was an all-overland pipeline route through Canada to markets in the central or eastern United States (p. 76). The catastrophic spill feared by the CDFU almost occurred on another tanker in crisis in 1980 (p. 130). Instead, the relaxation of safeguards continued for eight more years before *Exxon Valdez* ripped a hole in her hull.

The book follows the courtroom proceedings by which compensatory and punitive damages were reduced and waived. PWS fishermen who could not financially weather the closed or shortened fishing seasons after 1989 sold their boats and limited entry permits for fractions of their earlier value. Some found alternative ways to make a living. Many left the Sound and Alaska in the mid-1990s. Either way, the spill's legacy impoverished both ecosystems and ecological wisdom that had sustained living and lifestyles dependent on renewable resources in PWS.

The author balances storytelling and academic scholarship. Day's scholarship complements her storytelling, putting her on course to earn a doctoral degree in Political Science at the University of Washington. Readers who value documentation will appreciate her endnotes (p. 245–253). Those who acquire books that develop an index to give their content longevity as references will rejoice in this index (p. 259–265). Finally, any readers motivated to strike up a conversation with the author will find it useful first to consult Day's bibliography (p. 255–257).

This reviewer's collection includes dozens of books on Prince William Sound. But the indispensable category has only three: Lethcoe and Lethcoe (2001); Wohlforth (2010); and now Day's own account. Marking the 25th anniversary of the *Exxon Valdez* spill, this book makes a contribution comparable to John Nance's (1988) distillation of the wisdom gained by seismologists and geophysicists by the 25th anniversary of the Great Alaska Earthquake of 1964.

REFERENCES

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UNDERSTANDING EARTH'S POLAR CHALLENGES: INTERNATIONAL POLAR YEAR 2007–2008, SUMMARY BY THE IPY JOINT COMMITTEE. Edited by I. KRUPNIK, I. ALLISON, R. BELL, P. CUTLER, D. HIK, J. LÓPEZ-MARTINEZ, V. RACHOLD, E. SARUKHANIAN and C. SUMMERHAYES. Rovaniemi, Finland: University of the Arctic; Edmonton, Alberta: CCI Press, 2011. ISBN 978-1-896445-55-7. 695 p., maps, colour illus. Hardbound. Cdn\$250.00 + shipping. Also available online in PDF file format.

“Extraordinary” accurately characterizes this book. Its nine editors (plus 242 contributing authors and 52 reviewers) have crafted a mosaic that details the processes in polar scholarship preceding, during, and immediately following the fourth (most recent) International Polar Year of 2007–2008 (IPY 2007–08). The assumption motivating this massive compilation is that a fifth IPY will be conducted in 2057–58. By analyzing precedents from the first four IPYs (IPY 1, 1882–83; IPY 2, 1932–33; International Geophysical Year, 1957–58; IPY [4] 2007–08) this volume suggests that the “six to seven years” (p. 631) of intensive work by informed research planners required to launch the fifth IPY should begin in 2050–51. Thus, almost half the book's most avid readers have yet to be born, and well over half cannot have completed bachelor's degrees yet.

The compendium's analysis, in other words, makes it a leading candidate to serve as the definitive guide to how “an estimated 50 000” (p. xviii) participants in IPY 2007–08 advanced and integrated the state of polar and global understanding in the 21st century's first decade. As a

reference, its value should increase with time (unlike short publications, evaluated in academic meritocracies by how many citations, readers, or “hits” they attract shortly after their appearance).

Shortcomings of scholarly forecasts generally, not of this one specifically, form the subject of this and several subsequent paragraphs. The work's life expectancy, though it may excuse the four-year delay between its publication and the appearance of this review, does not make it an immediate “must-read” selection. Its encyclopaedic treatment of historic roots, planning, organizing, communicating, executing, archiving data from, enfranchising new stakeholders to, and predicting legacies of IPY 2007–08 denies this information-rich reference work easy “cover-to-cover” readability.

Inclusive processes of inquiry, to which participants with dissimilar backgrounds and perspectives are attracted, are in vogue at present as the most promising strategies for addressing complex global problems. Accordingly, this publication chronicles the widening circle of people involved in all phases of IPY, from planning through post-IPY curation and syntheses of information: women, whose representation increased especially between IGY 1957–58 and IPY 2007–08; social scientists, even in the “no people” continent of Antarctica (Ch. 2.10 and 5.1); early-career scientists, also termed the “next generation of polar scientists” (Ch. 4.3); educators, formal and informal, and the general public (Ch. 4.1); Indigenous peoples (Ch. 2.10); and Arctic residents and local communities (Ch. 5.4).

Has this general inclusiveness missed any would-be stakeholders or investigative processes from disciplines outside the traditional core areas of natural and social sciences? Not surprisingly, there is little evidence that independent scholars, “lone wolves” or investigators not thoroughly supported by institutional, agency, or non-governmental organizations participated in IPY 2007–08. A few other non-inclusions could be regarded as “exclusions” a generation or two in the future. One such might be failure by IPY 2007–08 explicitly to attract elders (except Indigenous elders, e.g., Fig. 3.10-8) such as post-career scholars, in symmetry with its solicitous approach to early-career polar scientists. Especially if future polar scholars outlive their age of retirement by a decade more than we do today, architects of the next IPY might want to treat them as stakeholders and advisors.

Future IPY planners might decide to address another exclusion: there is almost no attention paid to management and curation in perpetuity of physical, chemical (e.g., ice and lake sediment cores) and biological specimens collected in the course of IPY 2007–08. There is no IPY “voucher specimen” or repository policy analogous to the curation or management of optimally accessible data collected in pursuit of IPY investigations. Had the topic been addressed, it could have been shown as a row at the bottom of Table E-1 (p. 630) entitled “sample and specimen repository policy.” This omission might be a subtle holdover from IPY 2, which “steered away from the IPY 1 natural